PISA 2015 Results

POLICIES AND PRACTICES FOR SUCCESSFUL SCHOOLS

VOLUME II

Programme for International Student Assessment

OECD

PISA

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POLICIES AND PRACTICES
FOR SUCCESSFUL SCHOOLS

OECD
BETTER POLICIES FOR BETTER LIVES

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Foreword

Equipping citizens with the knowledge and skills necessary to achieve their full potential, contribute to an increasingly interconnected world, and ultimately convert better skills into better lives is a central preoccupation of policy makers around the world. Results from the OECD's Survey of Adult Skills show that highly skilled adults are not only twice as likely to be employed and almost three times more likely to earn an above-median salary than poorly skilled adults, they are also more likely to volunteer, to report that they are in good to excellent health, to see themselves as actors rather than as objects of political processes, and to trust others. Fairness, integrity and inclusiveness in public policy thus all hinge on the skills of citizens.

In working to achieve these goals, more and more countries are looking beyond their own borders for evidence of the most successful and efficient education policies and practices. Over the past decade, the OECD Programme for International Student Assessment, PISA, has become the world's premier yardstick for evaluating the quality, equity and efficiency of school systems. But the evidence base that PISA has produced goes well beyond statistical benchmarking. By identifying the characteristics of high-performing education systems, PISA allows governments and educators to identify effective policies that they can then adapt to their local contexts.

The latest PISA assessment in 2015 focused on science, a discipline that plays an increasing role in our economic and social lives. From taking a painkiller to determining what is a "balanced" meal, from drinking pasteurised milk to deciding whether or not to buy a hybrid car, science is pervasive. And science is not just test tubes and the periodic table; it is the basis of nearly every tool we use – from a simple can opener to the most advanced space explorer. More important, science is not only the domain of scientists. In the context of massive information flows and rapid change, everyone now needs to be able to "think like a scientist": to be able to weigh evidence and come to a conclusion; to understand that scientific "truth" may change over time, as new discoveries are made, and as humans develop a greater understanding of natural forces and of technology's capacities and limitations.

The last time science was the focus of PISA was in 2006. Since then, science and technology have advanced tremendously. The smartphone was invented and became ubiquitous. Social media, cloud-based services, robotics and machine learning have transformed our economic and social life. New possibilities of gene sequencing and genome editing, synthetic biology, bio-printing or regenerative medicine and brain interfaces are changing life itself. Against this backdrop, and the fact that expenditure per primary and secondary student rose by almost 20% across OECD countries over this period, it is disappointing that, for the majority of countries with comparable data, science performance in PISA remained virtually unchanged since 2006. In fact, only a dozen countries showed measurable improvement in the science performance of their 15-year-olds, including high-performing education systems, such as Singapore and Macao (China), and low-performing ones, such as Peru and Colombia.

It is also worrying to see how many young people fail to reach even the most essential learning outcomes. In September 2015, world leaders gathered in New York to set ambitious goals for the future of the global community. Goal 4 of the Sustainable Development Goals seeks to ensure "inclusive and equitable quality education and promote

lifelong learning opportunities for all". This includes that "all learners acquire the knowledge and skills needed to promote sustainable development" (Target 4.7). Only in Canada, Estonia, Finland, Hong Kong (China), Japan, Macao (China) and Singapore do at least nine out of ten 15-year-old students master the baseline level of proficiency in science, reading and mathematics. These countries show that there are countries on nearly every continent that could achieve the goal of universal basic skills by 2030. At the same time, the small group of countries that has moved close to securing at least basic skills for all shows how much remains to be done in most countries – including some of the wealthiest OECD countries – to attain the Sustainable Development Goals.

The data also show that the world is no longer divided between rich and well-educated nations and poor and badly educated ones: the 10% most disadvantaged students in Viet Nam compare favourably to the average student in the OECD area. Clearly, all countries and economies have excellent students, but few have enabled all students to excel. Achieving greater equity in education is not only a social justice imperative, it is also a way to use resources more effectively, increase the supply of skills that fuel economic growth, and promote social cohesion.

PISA also finds varying levels of engagement with science and expectations of science-related careers across students who are similarly capable and interested in science. In a majority of countries and economies, students from advantaged backgrounds are more likely to expect a career in science – even among students who perform similarly in science and who reported similar enjoyment of learning science.

Similarly, while it is encouraging that boys and girls now show similar levels of science performance in PISA, large gender differences remain in students' dispositions towards science-related careers, even among students who score similarly in science and who report similar levels of enjoyment in learning science. In Germany, Hungary and Sweden, for instance, top-performing boys are significantly more likely than top-performing girls to expect a career requiring further training in science. These findings have serious implications not only for higher education, where young women are already under-represented in the science, technology, engineering and mathematics fields of study, but also later on, when these young women enter the labour market.

Gender stereotypes about scientists and about work in science-related occupations can discourage some students from engaging further with science. Schools can counter these stereotypes, and help both boys and girls cultivate a wider perspective on science, including through better career information. Employers and educators in perceived "masculine" or "feminine" fields can also help eliminate existing stereotypes by underscoring the close inter-relationships among the numerous fields of science.

The subject of science itself suffers from a stereotyped image. Too often, school science is seen as the first segment of a (leaky) pipeline that will ultimately select those who will work as scientists and engineers. Not only does the "pipeline" metaphor discount the many pathways successful scientists have travelled to reach their career goals, it also conveys a negative image of those who do not end up as scientists and engineers. Because knowledge and understanding of science is useful well beyond the work of scientists and is, as PISA argues, necessary for full participation in a world shaped by science-based technology, school science should be promoted more positively – perhaps as a "springboard" to new sources of interest and enjoyment. Expanding students' awareness about the utility of science beyond teaching and research occupations can help build a more inclusive view of science, from which fewer students feel excluded.

PISA is not only an accurate indicator of students' abilities to participate fully in society after compulsory school, but also a powerful tool that countries and economies can use to fine-tune their education policies. There is no single combination of policies and practices that will work for everyone, everywhere. Every country has room for improvement, even the top performers. That's why the OECD produces this triennial report on the state of education across the globe: to share evidence of the best policies and practices and to offer our timely and targeted support to help countries provide the best education possible for all of their students. With high levels of youth unemployment, rising inequality, a significant gender gap, and an urgent need to boost inclusive growth in many countries, we have no time to lose. The OECD stands ready to support policy makers in this challenging and crucial endeavour.

Angel Gurría
OECD Secretary-General

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Executive summary

Many of the scientific principles and theories that 15-year-olds are familiar with were learned at school. As with any other subject, the way science is taught in school can influence not only whether students do well in science, but also whether they become interested enough in the subject to want to pursue it later on, in further education or in a career. Given the impact of science and technology on our daily lives, the expected growth in science-related employment worldwide, and students' declining interest in science as they progress through school, it is important to examine why some students are better prepared for and more interested in science-related careers than others.

PISA 2015 analyses in detail how effective schools and school systems are in providing opportunities to learn science. It examines the financial, material, human and time resources available to schools and students in those schools, how students are selected into different schools and education programmes within schools, and how schools are governed. Students' engagement with and motivation for learning is also explored. The analyses of PISA data describe how all of these factors are associated with student performance in and attitudes towards learning science.

WHAT THE DATA TELL US

Policies about learning science at school and performance in science

- The approximately 6% of students across OECD countries who reported not attending any regular science lessons score 25 points lower than students who reported attending at least one science lesson, after accounting for the socio-economic profile of students and schools. In 34 school systems, particularly in Austria, Belgium, Croatia, France, Germany, the Slovak Republic and Chinese Taipei, the students who reported not attending regular science lessons are more likely to attend socio-economically disadvantaged schools than advantaged schools.

- Across OECD countries, socio-economically advantaged schools are considerably more likely than disadvantaged schools to offer science competitions and a science club as school activities.

- How much time students spend learning and how science is taught are even more strongly associated with science performance and the expectations of pursuing a science-related career than how well-equipped and -staffed the science department is, which extracurricular science activities are offered at school and science teachers' qualifications.

- According to students' reports, and on average across OECD countries, teachers in advantaged schools explain or demonstrate a scientific idea (teacher-directed instruction) more frequently than do teachers in disadvantaged schools. Students who reported that their science teachers frequently use these methods and adapt their teaching to meet students' needs score higher in science, show stronger beliefs about the value of scientific enquiry, and are more likely to expect to pursue a science-related career than students who reported that their teachers use these methods less frequently.

The learning environment

- In most school systems, students in socio-economically disadvantaged schools are more likely to have skipped a day of school than students in advantaged schools. Between 2012 and 2015, the percentage of students who had skipped a whole day of school at least once in the two weeks prior to the PISA test increased by around 5 percentage points across OECD countries.
- Across OECD countries, school principals cited student truancy and staff resisting change as the problems that hinder student learning the most; they also reported that learning in their schools is least hindered by students' use of alcohol or illegal drugs, or students intimidating or bullying other students.
- Students in school systems that select students into different education programmes or types of schools at a later age reported receiving greater support from their teachers.

School governance, assessment and accountability

- Students in private schools score higher in science than students in public schools; but after accounting for the socio-economic profile of students and schools, students in public schools score higher than students in private schools on average across OECD countries and in 22 education systems.
- Standardised tests are used extensively across PISA-participating countries and economies. In about five out of six school systems, more than one in two students are assessed at least once a year with mandatory standardised tests, and in about three out of four countries, more than one in two students are assessed at least once a year with non-mandatory standardised tests.
- When choosing a school for their child, parents are more likely to consider important or very important that there is a safe school environment, that the school has a good reputation and that the school has an active and pleasant climate – even more so than their child's academic achievement at the school.

Selecting and grouping students

- Thirty countries and economies used grade repetition less frequently in 2015 than in 2009; in only five countries did the incidence of grade repetition increase during the period. The use of grade repetition decreased by at least 10 percentage points in Costa Rica, France, Indonesia, Latvia, Macao (China), Malta, Mexico and Tunisia.
- Across OECD countries, socio-economically disadvantaged students, students with an immigrant background and boys are more likely to have repeated a grade, even after accounting for their academic performance, and their self-reported motivation and behaviour.
- The later students are first selected into different schools or education programmes and the less prevalent the incidence of grade repetition, the more equitable the school system or the weaker the association between students' socio-economic status and their performance in science.

Resources invested in education

- Students in larger schools score higher in science and are more likely than students in smaller schools to expect to work in a science-related occupation in the future. But students in smaller schools reported a better disciplinary climate in their science lessons and they are less likely than students in larger schools to skip days of school and arrive late for school, after accounting for schools' and students' socio-economic status.
- On average across OECD countries, students in smaller classes reported more frequently than students in larger classes that their teachers adapt their instruction to their needs, knowledge and level of understanding.
- Students score five points higher in science for every additional hour spent per week in regular science lessons, after accounting for socio-economic status.
- School systems where students spend more time learning after school, by doing homework, receiving additional instruction or in private study, tend to perform less well in science.

Reader's guide

Data underlying the figures

The data referred to in this volume are presented in Annex B and, in greater detail, including some additional tables, on the PISA website (www.pisa.oecd.org).

Five symbols are used to denote missing data:

a The category does not apply in the country concerned. Data are therefore missing.

c There are too few observations or no observation to provide reliable estimates (i.e. there are fewer than 30 students or fewer than 5 schools with valid data).

m Data are not available. These data were not submitted by the country or were collected but subsequently removed from the publication for technical reasons.

w Data have been withdrawn or have not been collected at the request of the country concerned.

x Data included in another category or column of the table (e.g. x(2) means that data are included in Column 2 of the table).

Country coverage

This publication features data on 72 countries and economies, including all 35 OECD countries and 37 partner countries and economies (see Map of PISA countries and economies in "What is PISA").

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Two notes were added to the statistical data related to Cyprus:

> **Note by Turkey:** The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".
>
> **Note by all the European Union Member States of the OECD and the European Union:** The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

B-S-J-G (China) refers to the four PISA-participating China provinces: Beijing, Shanghai, Jiangsu and Guangdong.

FYROM refers to the Former Yugoslav Republic of Macedonia.

For the countries below, when results are based on students' or school principals' responses:

> **Argentina:** Only data for the adjudicated region of Ciudad Autónoma de Buenos Aires (CABA) are reported in figures and in the text (see Annex A4).
>
> **Kazakhstan:** Results for Kazakhstan are reported in a selection of figures (see Annex A4).
>
> **Malaysia:** Results for Malaysia are reported in a selection of figures (see Annex A4).

International averages

The OECD average corresponds to the arithmetic mean of the respective country estimates. It was calculated for most indicators presented in this report.

The OECD total takes the OECD countries as a single entity, to which each country contributes in proportion to the number of 15-year-olds enrolled in its schools. It can be used to assess how a country compares with the OECD area as a whole.

The EU total takes the European Union Member States as a single entity, to which each member contributes in proportion to the number of 15-year-olds enrolled in its schools.

In this publication, the OECD average is generally used when the focus is on comparing performance across education systems. In the case of some countries, data may not be available for specific indicators, or specific categories may not apply. Readers should, therefore, keep in mind that the terms "OECD average" and "OECD total" refer to the OECD countries included in the respective comparisons. In cases where data are not available or do not apply for all sub-categories of a given population or indicator, the "OECD average" may be consistent within each column of a table but not necessarily across all columns of a table.

Rounding figures

Because of rounding, some figures in tables may not add up exactly to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation.

All standard errors in this publication have been rounded to one or two decimal places. Where the value 0.0 or 0.00 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05 or 0.005, respectively.

Reporting student data

The report uses "15-year-olds" as shorthand for the PISA target population. PISA covers students who are aged between 15 years 3 months and 16 years 2 months at the time of assessment and who are enrolled in school and have completed at least 6 years of formal schooling, regardless of the type of institution in which they are enrolled, and whether they are in full-time or part-time education, whether they attend academic or vocational programmes, and whether they attend public or private schools or foreign schools within the country.

Reporting school data

The principals of the schools in which students were assessed provided information on their schools' characteristics by completing a school questionnaire. Where responses from school principals are presented in this publication, they are weighted so that they are proportionate to the number of 15-year-olds enrolled in the school.

Focusing on statistically significant differences

This volume discusses only statistically significant differences or changes. These are denoted in darker colours in figures and in bold font in tables. See Annex A3 for further information.

Changes in the PISA methodology

Several changes were made to the PISA methodology in 2015:

- **Change in assessment mode** from paper-based to computer. Over the past 20 years, digital technologies have fundamentally transformed the ways in which we read and manage information. To better reflect how students and societies access, use and communicate information, starting with the 2015 round, the assessment was delivered mainly on computers, although countries had the option to use a paper-based version. In order to ensure comparability of results between paper-based tasks that were used in previous PISA assessments and the computer-delivered tasks used in 2015, the 2015 assessment was anchored to previous assessments through a set of items that showed, across countries, the same characteristics in paper- and computer-delivered form. The statistical models used to facilitate the mode change are based on an approach that examines measurement invariance for each item in both modes. In effect, this both accounts for and corrects the potential effect of mode differences by assigning the same parameters only for item-response variables that are comparable on paper and computer. It is conceivable, however, that country differences in familiarity with computers, or in student motivation to take the test on computer or on paper could influence

differences in country performance. Box I.5.1 in Volume I examines the country-level correlation between students' exposure to computers and changes in mean mathematics performance between 2012 and 2015. The results show that countries where students have greater familiarity with ICT tools are roughly as likely to show positive and negative performance trends, as are countries where students have less familiarity with ICT. For more information, see Annex A5.

- **Change in the framework and set of PISA science items.** New science items were developed for PISA 2015 to reflect advances in science and other changes that countries had prioritised for the PISA 2015 assessment. Among other goals, the revision of the science framework included the aim to more fully use the capabilities of the new technology-based delivery mode. To verify that the new science assessment allowed for the establishment of reliable trends with previous PISA assessments, an evaluation of dimensionality was conducted. When new and existing science items were treated as related to distinct latent dimensions, the median correlation (across countries/language groups) between these dimensions was 0.92, a very high value (similar to the correlation observed among subscales from the same domain). Model-fit statistics confirmed that a unidimensional model fits the new science assessment, supporting the conclusion that new and existing science items form a coherent unidimensional scale with good reliability. For more information, see Annex A5.

- **Changes in scaling procedures** include:
  - Change from a one-parameter model to a hybrid model that applies both a one- and two-parameter model, as appropriate. The one-parameter (Rasch) model is retained for all items where the model is statistically appropriate; a more general 2-parameter model is used instead if the fit of the one-parameter model could not be established. This approach improves the fit of the model to the observed student responses and reduces model and measurement errors.
  - Change in treatment of non-reached items to ensure that the treatment is consistent between the estimation of item parameters and the estimation of the population model to generate proficiency estimates in the form of plausible values. This avoids introducing systematic errors when generating performance estimates.
  - Change from cycle-specific scaling to multiple-cycle scaling in order to combine data, and retain and aggregate information about trend items used in previous cycles. This change results in consistent item parameters across cycles, which strengthen and support the inferences made about proficiencies on each scale.
  - Change from including only a subsample for item calibration to including the total sample with weights, in order to fully use the available data and reduce the error in item-parameter estimates by increasing the sample size. This reduces the variability of item-parameter estimation due to the random selection of small calibration samples.
  - Change from assigning internationally fixed item parameters and dropping a few dodgy items per country, to assigning a few nationally unique item parameters for those items that show significant deviation from the international parameters. This retains a maximum set of internationally equivalent items without dropping data and, as a result, reduces overall measurement errors.

The overall impact of these changes on trend comparisons is quantified by the link errors. As in previous cycles, a major part of the linking error is due to re-estimated item parameters. While the magnitude of link errors is comparable to those estimated in previous rounds, the changes in scaling procedures will result in reduced link errors in future assessment rounds. For more information on the calculation of this quantity and how to use it in analyses, see Annex A5 and the *PISA 2015 Technical Report* (OECD, forthcoming).

- **Changes in population coverage and response rates.** Even though PISA has consistently used the same standardised methods to collect comparable and representative samples, and population coverage and response rates were carefully reviewed during the adjudication process, slight changes in population coverage and response rates can affect point estimates of proficiency. The uncertainty around the point estimates due to sampling is quantified in sampling errors, which are the major part of standard errors reported for country mean estimates. For more information, see Annexes A2 and A4.

- **Change in test design** from 13 booklets in the paper-based design to 396 booklet instances. Despite the significant increase in the number of booklet types and instances from previous cycles, it is important to bear in mind that all items belonging to the same domain were delivered in consecutive clusters. No student had more than one hour of test questions related to one domain only. This is an improvement over the existing design, which was made possible by computer delivery. It strengthens the overall measurement of each domain and each respondent's proficiency.
- **Changes in test administration.** As in PISA 2000 (but different from other cycles up to 2012), students in 2015 had to take their break before starting to work on test clusters 3 and 4, and could not work for more than one hour on clusters 1 and 2. This reduces cluster position effects. Another change in test administration is that students who took the test on computers had to solve test questions in a fixed, sequential order, and could not go back to previous questions and revise their answers after reaching the end of the test booklets. This change prepares the ground for introducing adaptive testing in future rounds of PISA.

In sum, changes to the assessment design, the mode of delivery, the framework and the set of science items were carefully examined in order to ensure that the 2015 results can be presented as trend measures at the international level. The data show no consistent association between students' familiarity with ICT and with performance shifts between 2012 and 2015 across countries. Changes in scaling procedures are part of the link error, as they were in the past, where the link error quantified the changes introduced by re-estimating item parameters on a subset of countries and students who participated in each cycle. Changes due to sampling variability are quantified in the sampling error. The remaining changes (changes in test design and administration) are not fully reflected in estimates of the uncertainty of trend comparisons. These changes are a common feature of past PISA rounds as well, and are most likely of secondary importance when analysing trends.

The factors below are examples of potential effects that are relevant for the changes seen from one PISA round to the next. While these can be quantified and related to, for example, census data if available, these are outside of the control of the assessment programme:

- **Change in coverage of PISA target population.** PISA's target population is 15-year-old students enrolled in grade 7 or above. Some education systems saw a rapid expansion of 15-year-olds' access to school because of a reduction in dropout rates or in grade repetition. This is explained in detail, and countries' performance adjusted for this change is presented in Chapters 2, 4 and 5 in Volume I.
- **Change in demographic characteristics.** In some countries, there might be changes in the composition of the population of 15-year-old students. For example, there might be more students with an immigrant background. Chapters 2, 4 and 5 in Volume I present performance (country mean and distribution) adjusted for changes in the composition of the student population, including students' immigrant background, gender and age.
- **Change in student competency.** The average proficiency of 15-year-old students in 2015 might be higher or lower than that in 2012 or earlier rounds.

Abbreviations used in this report

ESCS	PISA index of economic, social and cultural status	PPP	Purchasing power parity
GDP	Gross domestic product	S.D.	Standard deviation
ISCED	International Standard Classification of Education	S.E.	Standard error
ISCO	International Standard Classification of Occupations	STEM	Science, Technology, Engineering and Mathematics
% dif.	Percentage-point difference	Score dif.	Score-point difference
ICT	Information and Communications Technology		

Further documentation

For further information on the PISA assessment instruments and the methods used in PISA, see the *PISA 2015 Technical Report* (OECD, forthcoming).

This report uses the OECD StatLinks service. Below each table and chart is a URL leading to a corresponding Excel^{TM} workbook containing the underlying data. These URLs are stable and will remain unchanged over time. In addition, readers of the e-books will be able to click directly on these links and the workbook will open in a separate window, if their Internet browser is open and running.

What is PISA?

"What is important for citizens to know and be able to do?" In response to that question and to the need for internationally comparable evidence on student performance, the Organisation for Economic Co-operation and Development (OECD) launched the triennial survey of 15-year-old students around the world known as the Programme for International Students Assessment, or PISA. PISA assesses the extent to which 15-year-old students, near the end of their compulsory education, have acquired key knowledge and skills that are essential for full participation in modern societies. The assessment focuses on the core school subjects of science, reading and mathematics. Students' proficiency in an innovative domain is also assessed (in 2015, this domain is collaborative problem solving). The assessment does not just ascertain whether students can reproduce knowledge; it also examines how well students can extrapolate from what they have learned and can apply that knowledge in unfamiliar settings, both in and outside of school. This approach reflects the fact that modern economies reward individuals not for what they know, but for what they can do with what they know.

PISA is an ongoing programme that offers insights for education policy and practice, and that helps monitor trends in students' acquisition of knowledge and skills across countries and in different demographic subgroups within each country. PISA results reveal what is possible in education by showing what students in the highest-performing and most rapidly improving education systems can do. The findings allow policy makers around the world to gauge the knowledge and skills of students in their own countries in comparison with those in other countries, set policy targets against measurable goals achieved by other education systems, and learn from policies and practices applied elsewhere. While PISA cannot identify cause-and-effect relationships between policies/practices and student outcomes, it can show educators, policy makers and the interested public how education systems are similar and different – and what that means for students.

WHAT IS UNIQUE ABOUT PISA?

PISA is different from other international assessments in its:

- **policy orientation**, which links data on student learning outcomes with data on students' backgrounds and attitudes towards learning, and on key factors that shape their learning, in and outside of school, in order to highlight differences in performance and identify the characteristics of students, schools and education systems that perform well;
- **innovative concept of "literacy"**, which refers to students' capacity to apply knowledge and skills in key subjects, and to analyse, reason and communicate effectively as they identify, interpret and solve problems in a variety of situations;
- **relevance to lifelong learning**, as PISA asks students to report on their motivation to learn, their beliefs about themselves, and their learning strategies;
- **regularity**, which enables countries to monitor their progress in meeting key learning objectives; and
- **breadth of coverage**, which, in PISA 2015, encompasses the 35 OECD countries and 37 partner countries and economies.

Box A. **PISA's contributions to the Sustainable Development Goals**

The Sustainable Development Goals (SDGs) were adopted by the United Nations in September 2015. Goal 4 of the SDGs seeks to ensure "inclusive and equitable quality education and promote lifelong learning opportunities for all". More specific targets and indicators spell out what countries need to deliver by 2030. Goal 4 differs from the Millennium Development Goals (MDGs) on education, which were in place between 2000 and 2015, in the following two ways:

- Goal 4 is truly global. The SDGs establish a universal agenda; they do not differentiate between rich and poor countries. Every single country is challenged to achieve the SDGs.
- Goal 4 puts the quality of education and learning outcomes front and centre. Access, participation and enrolment, which were the main focus of the MDG agenda, are still important, and the world is still far from providing equitable access to high-quality education for all. But participation in education is not an end in itself; what matters for people and economies are the skills acquired through education. It is the competence and character qualities that are developed through schooling, rather than the qualifications and credentials gained, that make people successful and resilient in their professional and personal lives. They are also key in determining individual well-being and the prosperity of societies.

In sum, Goal 4 requires education systems to monitor the actual learning outcomes of their young people. PISA, which already provides measurement tools to this end, is committed to improving, expanding and enriching its assessment tools. For example, PISA 2015 assesses the performance in science, reading and mathematics of 15-year-old students in more than 70 high- and middle-income countries. PISA offers a comparable and robust measure of progress so that all countries, regardless of their starting point, can clearly see where they are on the path towards the internationally agreed targets of quality and equity in education.

Through participation in PISA, countries can also build their capacity to develop relevant data. While most countries that have participated in PISA already have adequate systems in place, that isn't true for many low-income countries. To this end, the OECD PISA for Development initiative not only aims to expand the coverage of the international assessment to include more middle- and low-income countries, but it also offers these countries assistance in building their national assessment and data-collection systems. PISA is also expanding its assessment domains to include other skills relevant to Goal 4. In 2015, for example, PISA assesses 15-year-old students' ability to solve problem collaboratively.

Other OECD data, such as those derived from the Survey of Adult Skills (a product of the OECD Programme for the International Assessment of Adult Competencies [PIAAC]) and the OECD Teaching and Learning International Survey (TALIS), provide a solid evidence base for monitoring education systems. OECD analyses promote peer learning as countries can compare their experiences in implementing policies. Together, OECD indicators, statistics and analyses can be seen as a model of how progress towards the SDG education goal can be measured and reported.

Source: OECD (2016), *Education at a Glance 2016: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2016-en.

WHICH COUNTRIES AND ECONOMIES PARTICIPATE IN PISA?

PISA is now used as an assessment tool in many regions around the world. It was implemented in 43 countries and economies in the first assessment (32 in 2000 and 11 in 2002), 41 in the second assessment (2003), 57 in the third assessment (2006), 75 in the fourth assessment (65 in 2009 and 10 in 2010), and 65 in the fifth assessment. So far, 72 countries and economies have participated in PISA 2015.

In addition to all OECD countries, the survey has been or is being conducted in:

- **East, South and Southeast Asia**: Beijing, Shanghai, Jiangsu and Guangdong (China), Hong Kong (China), Indonesia, Macao (China), Malaysia, Singapore, Chinese Taipei, Thailand and Viet Nam.
- **Central, Mediterranean and Eastern Europe, and Central Asia**: Albania, Bulgaria, Croatia, Georgia, Kazakhstan, Kosovo, Lebanon, Lithuania, the Former Yugoslav Republic of Macedonia, Malta, Moldova, Montenegro, Romania and the Russian Federation.

- **The Middle East**: Jordan, Qatar and the United Arab Emirates.
- **Central and South America**: Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Peru, Trinidad and Tobago, Uruguay.
- **Africa**: Algeria and Tunisia.

Map of PISA countries and economies

■ **OECD countries**

Australia
Austria
Belgium
Canada
Chile
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea
Latvia
Luxembourg
Mexico
The Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Republic
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States

■ **Partner countries and economies in PISA 2015**

Albania
Algeria
Argentina
Brazil
B-S-J-G (China)*
Bulgaria
Colombia
Costa Rica
Croatia
Cyprus[1]
Dominican Republic
Former Yugoslav Republic of Macedonia
Georgia
Hong Kong (China)
Indonesia
Jordan
Kazakhstan
Kosovo
Lebanon
Lithuania
Macao (China)
Malaysia
Malta
Moldova
Montenegro
Peru
Qatar
Romania
Russian Federation
Singapore
Chinese Taipei
Thailand
Trinidad and Tobago
Tunisia
United Arab Emirates
Uruguay
Viet Nam

■ **Partner countries and economies in previous cycles**

Azerbaijan
Himachal Pradesh-India
Kyrgyzstan
Liechtenstein
Mauritius
Miranda-Venezuela
Panama
Serbia
Tamil Nadu-India

* B-S-J-G (China) refers to the four PISA participating China provinces: Beijing, Shanghai, Jiangsu, Guangdong.

1. Note by Turkey: The information in this document with reference to « Cyprus » relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

WHAT DOES THE TEST MEASURE?

In each round of PISA, one of the core domains is tested in detail, taking up nearly half of the total testing time. The major domain in 2015 was science, as it was in 2006. Reading was the major domain in 2000 and 2009, and mathematics was the major domain in 2003 and 2012. With this alternating schedule of major domains, a thorough analysis of achievement in each of the three core areas is presented every nine years; an analysis of trends is offered every three years.

The *PISA 2015 Assessment and Analytical Framework* (OECD, 2016a) presents definitions and more detailed descriptions of the domains assessed in PISA 2015:

- **Science literacy** is defined as the ability to engage with science-related issues, and with the ideas of science, as a reflective citizen. A scientifically literate person is willing to engage in reasoned discourse about science and technology, which requires the competencies to explain phenomena scientifically, evaluate and design scientific enquiry, and interpret data and evidence scientifically.
- **Reading literacy** is defined as students' ability to understand, use, reflect on and engage with written texts in order to achieve one's goals, develop one's knowledge and potential, and participate in society.
- **Mathematical literacy** is defined as students' capacity to formulate, employ and interpret mathematics in a variety of contexts. It includes reasoning mathematically and using mathematical concepts, procedures, facts and tools to describe, explain and predict phenomena. It assists individuals in recognising the role that mathematics plays in the world and to make the well-founded judgements and decisions needed by constructive, engaged and reflective citizens.

Box B. Key features of PISA 2015

The content

- The PISA 2015 survey focused on science, with reading, mathematics and collaborative problem solving as minor areas of assessment. PISA 2015 also included an assessment of young people's financial literacy, which was optional for countries and economies.

The students

- Approximately 540 000 students completed the assessment in 2015, representing about 29 million 15-year-olds in the schools of the 72 participating countries and economies.

The assessment

- Computer-based tests were used, with assessments lasting a total of two hours for each student.
- Test items were a mixture of multiple-choice questions and questions requiring students to construct their own responses. The items were organised in groups based on a passage setting out a real-life situation. About 810 minutes of test items for science, reading, mathematics and collaborative problem solving were covered, with different students taking different combinations of test items.
- Students also answered a background questionnaire, which took 35 minutes to complete. The questionnaire sought information about the students themselves, their homes, and their school and learning experiences. School principals completed a questionnaire that covered the school system and the learning environment. For additional information, some countries/economies decided to distribute a questionnaire to teachers. It was the first time that this optional teacher questionnaire was offered to PISA-participating countries/economies. In some countries/economies, optional questionnaires were distributed to parents, who were asked to provide information on their perceptions of and involvement in their child's school, their support for learning in the home, and their child's career expectations, particularly in science. Countries could choose two other optional questionnaires for students: one asked students about their familiarity with and use of information and communication technologies (ICT); and the second sought information about students' education to date, including any interruptions in their schooling, and whether and how they are preparing for a future career.

HOW IS THE ASSESSMENT CONDUCTED?

For the first time, PISA 2015 delivered the assessment of all subjects via computer. Paper-based assessments were provided for countries that chose not to test their students by computer, but the paper-based assessment was limited to questions that could measure trends in science, reading and mathematics performance.[1] New questions were developed for the computer-based assessment only. A field trial was used to study the effect of the change in how the assessment was delivered. Data were collected and analysed to establish equivalence between the computer- and paper-based assessments.

The 2015 computer-based assessment was designed as a two-hour test. Each test form allocated to students comprised four 30-minute clusters of test material. This test design included six clusters from each of the domains of science, reading and mathematics to measure trends. For the major subject of science, an additional six clusters of items were developed to reflect the new features of the 2015 framework. In addition, three clusters of collaborative problem-solving items were developed for the countries that decided to participate in that assessment.[2] There were 66 different test forms. Students spent one hour on the science assessment (one cluster each of trends and new science items) plus one hour on one ore two other subjects – reading, mathematics or collaborative problem solving. For the countries/economies that chose not to participate in the collaborative problem-solving assessment, 36 test forms were prepared.

Countries that chose paper-based delivery for the main survey measured student performance with 30 pencil-and-paper forms containing trend items from two of the three core PISA domains.

Each test form was completed by a sufficient number of students, allowing for estimations of proficiency on all items by students in each country/economy and in relevant subgroups within a country/economy (such as boys and girls, and students from different social and economic backgrounds).

The assessment of financial literacy was offered as an option in PISA 2015 based on the same framework as the one developed for PISA 2012.[3] The financial literacy assessment lasted one hour and comprised two clusters distributed to a subsample of students in combination with the science, mathematics and reading assessments.

To gather contextual information, PISA 2015 asked students and the principal of their school to respond to questionnaires. The student questionnaire took about 35 minutes to complete; the questionnaire for principals took about 45 minutes to complete. The responses to the questionnaires were analysed with the assessment results to provide both a broader and more nuanced picture of student, school and system performance. The *PISA 2015 Assessment and Analytical Framework* (OECD, 2016a) presents the questionnaire framework in detail. The questionnaires from all assessments since PISA's inception are available on the PISA website: www.pisa.oecd.org.

The questionnaires seek information about:

- Students and their family backgrounds, including their economic, social and cultural capital.
- Aspects of students' lives, such as their attitudes towards learning, their habits and life in and outside of school, and their family environment.
- Aspects of schools, such as the quality of the schools' human and material resources, public and private management and funding, decision-making processes, staffing practices, and the school's curricular emphasis and extracurricular activities offered.
- Context of instruction, including institutional structures and types, class size, classroom and school climate, and science activities in class.
- Aspects of learning, including students' interest, motivation and engagement.

Four additional questionnaires were offered as options:

- **A computer familiarity questionnaire**, focusing on the availability and use of information and communications technology (ICT) and on students' ability to carry out computer tasks and their attitudes towards computer use.
- **An educational career questionnaire**, which collects additional information on interruptions in schooling, on preparation for students' future career, and on support with science learning.
- **A parent questionnaire**, focusing on parents' perceptions of and involvement in their child's school, their support for learning at home, school choice, their child's career expectations, and their background (immigrant/non-immigrant).
- **A teacher questionnaire**, which is new to PISA, will help establish the context for students' test results. In PISA 2015, science teachers were asked to describe their teaching practices through a parallel questionnaire that also focuses on teacher-directed teaching and learning activities in science lessons, and a selected set of enquiry-based activities. The teacher questionnaire asked about the content of the school's science curriculum and how it is communicated to parents too.

The contextual information collected through the student, school and optional questionnaires are complimented by system-level data. Indicators describing the general structure of the education systems, such as expenditure on education, stratification, assessments and examinations, appraisals of teachers and school leaders, instruction time, teachers' salaries, actual teaching time and teacher training are routinely developed and applied by the OECD (e.g. in the annual OECD publication, *Education at a Glance*). These data are extracted from *Education at a Glance 2016* (OECD, 2016b), *Education at a Glance 2015* (OECD, 2015) and *Education at a Glance 2014* (OECD, 2014) for the countries that participate in the annual OECD data collection that is administered through the OECD Indicators of Education Systems (INES) Network. For other countries and economies, a special system-level data collection was conducted in collaboration with PISA Governing Board members and National Project Managers.

WHO ARE THE PISA STUDENTS?

Differences between countries in the nature and extent of pre-primary education and care, in the age at entry into formal schooling, in the structure of the education system, and in the prevalence of grade repetition mean that school grade levels are often not good indicators of where students are in their cognitive development. To better compare student performance internationally, PISA targets students of a specific age. PISA students are aged between 15 years 3 months and 16 years 2 months at the time of the assessment, and have completed at least 6 years of formal schooling. They can be enrolled in any type of institution, participate in full-time or part-time education, in academic or vocational programmes, and attend public or private schools or foreign schools within the country. (For an operational definition of this target population, see Annex A2.) Using this age across countries and over time allows PISA to compare consistently the knowledge and skills of individuals born in the same year who are still in school at age 15, despite the diversity of their education histories in and outside of school.

The population of PISA-participating students is defined by strict technical standards, as are the students who are excluded from participating (see Annex A2). The overall exclusion rate within a country was required to be below 5% to ensure that, under reasonable assumptions, any distortions in national mean scores would remain within plus or minus 5 score points, i.e. typically within the order of magnitude of 2 standard errors of sampling. Exclusion could take place either through the schools that participated or the students who participated within schools (see Annex A2, Tables A2.1 and A2.2).

There are several reasons why a school or a student could be excluded from PISA. Schools might be excluded because they are situated in remote regions and are inaccessible, because they are very small, or because of organisational or operational factors that precluded participation. Students might be excluded because of intellectual disability or limited proficiency in the language of the assessment.

In 30 out of the 72 countries and economies that participated in PISA 2015, the percentage of school-level exclusions amounted to less than 1%; it was 4.1% or less in all countries and economies. When the exclusion of students who met the internationally established exclusion criteria is also taken into account, the exclusion rates increase slightly. However, the overall exclusion rate remains below 2% in 29 participating countries and economies, below 5% in 60 participating countries, and below 7% in all countries except the United Kingdom, Luxembourg (both 8.2%) and Canada (7.5%). In 13 out of the 35 OECD countries, the percentage of school-level exclusions amounted to less than 1% and was less than 3% in 30 OECD countries. When student exclusions within schools are also taken into account, there were 7 OECD countries below 2% and 25 OECD countries below 5%. For more detailed information about school and student exclusion from PISA 2015, see Annex A2.

WHAT KINDS OF RESULTS DOES PISA PROVIDE?

Combined with the information gathered through the tests and the various questionnaires, the PISA assessment provides three main types of outcomes:

- Basic indicators that provide a baseline profile of the knowledge and skills of students.
- Indicators derived from the questionnaires that show how such skills relate to various demographic, social, economic and education variables.
- Indicators on trends that show changes in outcomes and distributions, and in relationships between student-level, school-level, and system-level background variables and outcomes.

WHERE CAN YOU FIND THE RESULTS?

This is the second of five volumes that present the results from PISA 2015. It begins by examining how the school resources devoted to science and how science is taught in schools are related to student performance in science, students' beliefs about the value of scientific enquiry, and students' expectations in pursuing a career in science. Chapter 3 describes the learning environment in different types of schools and examines how it is related to student performance. It covers student truancy, the disciplinary climate, student and teacher behaviour that can influence the climate for learning, and collaboration between teachers and parents. Chapter 4 examines the governance of school systems, assessment practices and accountability procedures and how they are related to student performance. Chapter 5 discusses the ways in which students are selected and grouped into different grade levels, schools, programmes and classes within schools, based mainly on their performance, and how these practices are associated with science performance. Chapter 6 examines the relationship between the financial, material, human and time resources invested in education and both student performance and equity in education. Chapter 7 discusses what the PISA results imply for policy, and highlights the policy-reform experiences of some countries that have improved during their participation in PISA.

The other four volumes cover the following issues:

- *Volume I: Excellence and Equity in Education* provides a detailed examination of student performance in science and describes how performance has changed over previous PISA assessments. It also explores students' engagement with and attitudes towards science, including their expectations of working in a science-related career later on. An overview of student performance in reading and mathematics in 2015 is also provided, along with a description of how performance in those subjects has evolved over previous PISA assessments. The volume defines and discusses equity in education, focusing particularly on how socio-economic status and an immigrant background are related to students' performance in PISA and to their attitudes towards science.
- *Volume III: Students' Well-Being* describes how well adolescent students are learning and living. This volume analyses a broad set of indicators that, collectively, paint a picture of 15-year-old students' home and school environments, the way students communicate with family and friends, how and how often they use the Internet, their physical activities and eating habits, their aspirations for future education, their motivation for school work, and their overall satisfaction with life.
- *Volume IV: Students' Financial Literacy* examines 15-year-old students' understanding about money matters in the 15 countries and economies that participated in this optional assessment. The volume explores how the financial literacy of 15-year-old students is associated with their competencies in science, reading and mathematics, with their socio-economic status, and with their previous experiences with money. The volume also offers an overview of financial education in schools in the participating countries and economies, and provides case studies.
- *Volume V: Collaborative Problem Solving* examines students' ability to work with two or more people to try to solve a problem. The volume provides the rationale for assessing this particular skill and describes performance within and across countries. In addition, the volume highlights the relative strengths and weaknesses of each school system and examines how they are related to individual student characteristics, such as gender, immigrant background and socio-economic status. The volume also explores the role of education in building young people's skills in solving problems collaboratively.

Volume II is published at the same time as Volume I; Volumes III, IV and V will be published in 2017.

The frameworks for assessing science, reading and mathematics in 2015 are described in the *PISA 2015 Assessment and Analytical Framework: Science, Reading, Mathematic and Financial Literacy* (OECD, 2016a). They are also summarised in this volume.

Technical annexes at the end of this volume describe how questionnaire indices were constructed, and discuss sampling issues, quality-assurance procedures and the process followed for developing the assessment instruments. Many of the issues covered in the technical annexes are elaborated in greater detail in the *PISA 2015 Technical Report* (OECD, forthcoming).

All data tables referred to in the analyses are included at the end of the respective volume in Annex B1, and a set of additional data tables is available on line (www.pisa.oecd.org). A Reader's Guide is also provided in each volume to aid in interpreting the tables and figures that accompany the report. Data from regions within the participating countries are included in Annex B2.

Notes

1. The paper-based form was used in 15 countries/economies including Albania, Algeria, Argentina, Georgia, Indonesia, Jordan, Kazakhstan, Kosovo, Lebanon, Macedonia, Malta, Moldova, Romania, Trinidad and Tobago, and Viet Nam, as well as in Puerto Rico, an unincorporated territory of the United States.

2. The collaborative problem solving assessment was not conducted in the countries/economies that delivered the PISA 2015 assessment on paper, nor was it conducted in the Dominican Republic, Ireland, Poland, Qatar or Switzerland.

3. The financial literacy assessment was conducted in Australia, Belgium (Flemish Community only), B-S-J-G (China), Brazil, Canada, Chile, Italy, Lithuania, the Netherlands, Peru, Poland, the Russian Federation, the Slovak Republic, Spain and the United States.

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1

Overview: Policies and practices for successful schools

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Most 15-year-olds learn about scientific principles and theories at school. As with any other subject, the way science is taught in school can influence not just whether students do well in science, but whether students become interested enough in the subject to want to pursue it later on, in further education or in a career.

Australia, Canada, Ireland, Portugal, Singapore, Slovenia and the United Kingdom are high performers in science. Their 15-year-old students hold strong beliefs about the value of scientific enquiry, and larger-than-average proportions of students in these countries expect to work in a science-related occupation later on.

What are the policies, or combinations of policies, that are common to these school systems? All of these countries score near or above the OECD average on most of the indices concerning resources devoted to education and teaching practices, including quality and quantity of teaching staff, learning time, approaches to teaching science and extracurricular activities (Figure II.2.3). PISA results also show the different combinations of resources and practices that are associated with these countries' success.

Some 6% of 15-year-old students across OECD countries reported that they are not required to attend a science class.

If time is a necessary condition for learning, students who do not attend science lessons are probably those who enjoy the fewest opportunities to acquire competencies in science. PISA 2015 asked students how many regular science lessons they were required to attend per week. On average across OECD countries, 94% of students reported that they attend at least one science course per week. But that means that at least one million 15-year-old students are not required to attend any science lesson (Table II.2.3).

Why does this matter? Across OECD countries, students who are not required to attend science lessons score 25 points lower in science than students who are required to attend at least one science lesson per week, after accounting for the socio-economic profile of students and schools (Figure II.2.4). Even if their poor performance in science is one of the reasons why these students do not take science courses in the first place, these findings indicate the extent to which student performance in science may suffer when students do not attend science classes. The requirement to attend at least one science course is more common in socio-economically advantaged schools than in disadvantaged schools (Figure II.1.1).

On average across OECD countries, students in schools that offer science competitions score 36 score points higher in science and are 55% more likely to expect to work in a science-related occupation than students in schools that do not offer such activities; those in schools offering a science club score 21 score points higher and are 30% more likely to expect to pursue a career in science.

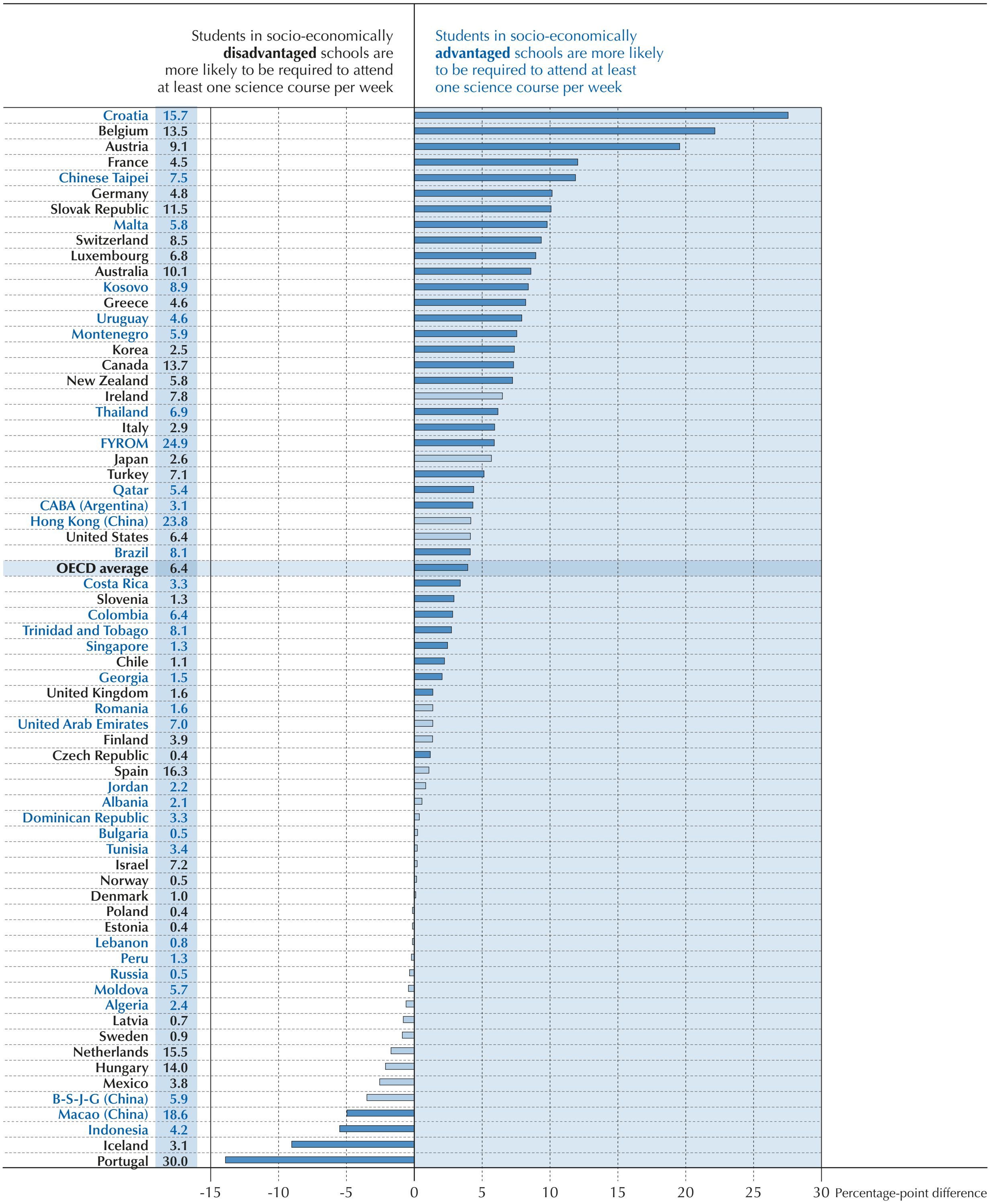
Students in schools whose principals reported a well-equipped and well-staffed science department generally perform better in science – by about three score points for every positive statement concerning the school's science department, on average across OECD countries – after accounting for the socio-economic profile of students and schools (Table II.2.6). In 24 education systems, students in schools whose principal reported that the science department enjoys more resources were more likely to report that they expect to work in a science-related occupation in the future.

Laboratories and experiments are not the only ways through which schools can engage students in learning science. Extracurricular activities, such as science clubs and competitions, can help students understand scientific concepts, raise interest in science and even nurture future scientists. PISA 2015 asked principals if their school offers a science club or science competitions at the school. Across OECD countries, 39% of students are enrolled in schools that offer a science club and 66% attend schools that offer science competitions (Figure II.2.9).

In 42 of 70 PISA-participating countries and economies, students in advantaged schools are more likely to be offered science competitions than students in disadvantaged schools (Table II.2.13). The largest differences are observed mainly in education systems with early tracking, including Austria, Germany, the Netherlands and Switzerland. Disadvantaged students may thus have fewer opportunities to acquire scientific competencies; and this is reflected in their performance.

Figure II.1.1 ▪ **Differences in the requirement to attend regular science lessons, by schools' socio-economic profile**

Results based on students' reports



Notes: Statistically significant differences are marked in a darker tone (see Annex A3).

The percentage of students who are not required to attend any science course is shown next to the country/economy name.

Countries and economies are ranked in descending order of the percentage-point difference between students in socio-economically advantaged and disadvantaged schools who are required to attend at least one science course per week.

Source: OECD, PISA 2015 Database, Table II.2.3.

StatLink http://dx.doi.org/10.1787/888933435485

PISA results show that, in most education systems, the percentage of qualified science teachers is not related to students' science scores. But the way science is taught is related to students' performance in science, their expectations of working in a science-related occupation, and their beliefs about the value of scientific enquiry.

Across OECD countries, 84% of science teachers are fully certified and 74% have a university degree with a major in science (Table II.2.8). The percentage of science teachers with a university degree and a major in science ranges from more than 95% of teachers in Bulgaria, Costa Rica and Montenegro, to less than 25% in Italy, Peru and Uruguay.

But it is the way science is taught, rather than the qualifications of the teacher, that appears to have a stronger association with student performance, students' beliefs about science and their expectations of pursuing a science-related career. Even if there is no single "best" way of teaching, students need teachers who are challenging and innovative in the way they combine different instructional practices, and who can reach all types of learners by adapting the lessons to students' needs and knowledge.

PISA results show that when teachers frequently explain and demonstrate scientific ideas, and discuss students' questions (known, collectively, as teacher-directed instruction), students score higher in science (except in Indonesia, Korea and Peru), they have stronger beliefs in the value of scientific enquiry (what are known as epistemic beliefs) and are more likely to expect to work in a science-related occupation later on. Adapting instruction to students' needs, such as by providing individual help to struggling students or changing the structure of a lesson on a topic that most students find difficult to understand, is also related to higher scores in science and stronger epistemic beliefs.

Perhaps surprisingly, in no education system do students who reported that they are frequently exposed to enquiry-based instruction (when they are encouraged to experiment and engage in hands-on activities) score higher in science. After accounting for students' and schools' socio-economic profile, in 56 countries and economies, greater exposure to enquiry-based instruction is associated with lower scores in science. However, across OECD countries, more frequent enquiry-based teaching is positively related to students holding stronger epistemic beliefs and being more likely to expect to work in a science-related occupation when they are 30 (Tables II.2.16, II.2.22, II.2.26).

High performance in science is most strongly related to the time students devote to learning science and how their teachers teach science.

PISA results show that the quality of the material and human resources of a science department, and the kinds of science activities offered to students have a weaker impact on student performance than how much time students devote to learning science and the methods their teachers use to teach the subject. Students perform better in science than in the other subjects that PISA assesses (reading and mathematics) when they spend more time learning science than learning the other two subjects (both in regular lessons and after school), and particularly when their teachers frequently explain and demonstrate scientific ideas, support students in their learning and expose them to more enquiry-based instruction. These two factors – time invested and teaching methods used – are also more strongly related to students' expectations to pursue a science-related career than the quality of the material and human resources available to a school's science department.

Pervasive truancy in a school seems to affect even students who may not be truants themselves.

The environment at school influences students' engagement and performance, and teachers' desire to continue working in the school. Student truancy has a discernible effect on the learning environment and, ultimately, on student performance and engagement.

On average across OECD countries, 26% of students said they had skipped classes at least once and 20% reported that they had skipped a whole day of school at least once in the two weeks prior to the PISA test. In PISA-participating countries and economies, skipping a whole day of school is more common in disadvantaged schools than in advantages schools (Figure II.3.3). This is observed in 44 countries and economies, compared to only 4 education systems where students in advantaged schools are more likely to have skipped a day of school.

Missing opportunities to learn because of truancy matters: in all countries and economies except Turkey and the United Arab Emirates, students who had skipped a whole day of school are more likely to score lower in science, and a large part of that relationship remains even after accounting for socio-economic status. On average across OECD countries, students who had skipped a whole day of school at least once in the two weeks prior to the PISA assessment score 45 points lower in the science assessment than students who had not skipped a day of school (33 points lower after accounting for the socio-economic profile of students and schools) (Table II.3.4).

The percentage of students who reported that they had skipped a day of school in the two weeks prior to the PISA test increased between 2012 and 2015 by at least 25 percentage points in Brazil, Colombia, Finland, Montenegro, Peru, the Slovak Republic and Uruguay, and decreased the most in Australia, Canada, Spain, Turkey and the United Arab Emirates (Figure II.1.2).

And student truancy has broader ramifications. In all countries and economies, there are some schools with higher concentrations of students who have skipped a school day than found in other schools. In 40 PISA-participating education systems, students score lower in science when more of their peers had skipped a day of school in the two weeks prior to the PISA test, after accounting for the socio-economic status; nowhere do students perform better in those circumstances (Figure II.3.5). And on average across OECD countries, students reported a better disciplinary climate in school when more of their peers attend school regularly (Figure II.3.6).

According to students' reports, teachers in disadvantaged schools support students in their learning more frequently than teachers in advantaged schools.

Disadvantaged students are in greater need of teacher support. Across OECD countries, support from teachers is not associated with student performance in science before accounting for the socio-economic status of students and schools; but after accounting for socio-economic status, the association becomes positive, on average across OECD countries and in 27 countries and economies (Figure II.3.12). These results indicate that teachers not only respond to struggling students, but that their support may improve student performance.

Similarly, based on responses to the parents' and principals' questionnaires, parents participate more where they are needed more – such as in schools where student problems, such as poor discipline, truancy or disengagement, cannot be solved without them – and school principals school leaders may (need to) show more active leadership when the learning environment deteriorates and student problems arise.

Responsibilities for school governance are shared, to different degrees, among teachers, principals, school boards, local/regional education authorities and national authorities.

On average across OECD countries, 39% of the responsibility for school resources lies with principals, 3% with teachers, 12% with school boards, 23% with local or regional authorities, and the remaining 23% with national authorities (Figure II.4.3). For the curriculum, 22% of the responsibility lies with principals, 44% with teachers, 8% with school boards, and the remaining 27% shared between local, regional and national authorities (Figure II.4.4). And responsibility for student assessment policies lies mainly with school principals (32%) and teachers (36%), with a minor role played by the other actors (Figure II.4.5).

Between 2009 and 2015, principals in Lithuania gained considerable responsibility for most tasks, particularly for teachers' salaries and the school budget. These responsibilities appear to have been transferred mainly from national education authorities. In Finland, school principals exercised greater autonomy over selecting and firing teachers in 2015 than in 2009, but had less responsibility for the curriculum and for assessment and disciplinary policies. By contrast, school principals in Qatar indicated that national education authorities assumed considerably more responsibility for all tasks between 2009 and 2015. In Turkey, national education authorities gained responsibility for all tasks except those related to school resources and textbooks; and in Slovenia, national education authorities gained greater responsibility for selecting and firing teachers, for the curriculum, and for disciplinary and admissions policies.

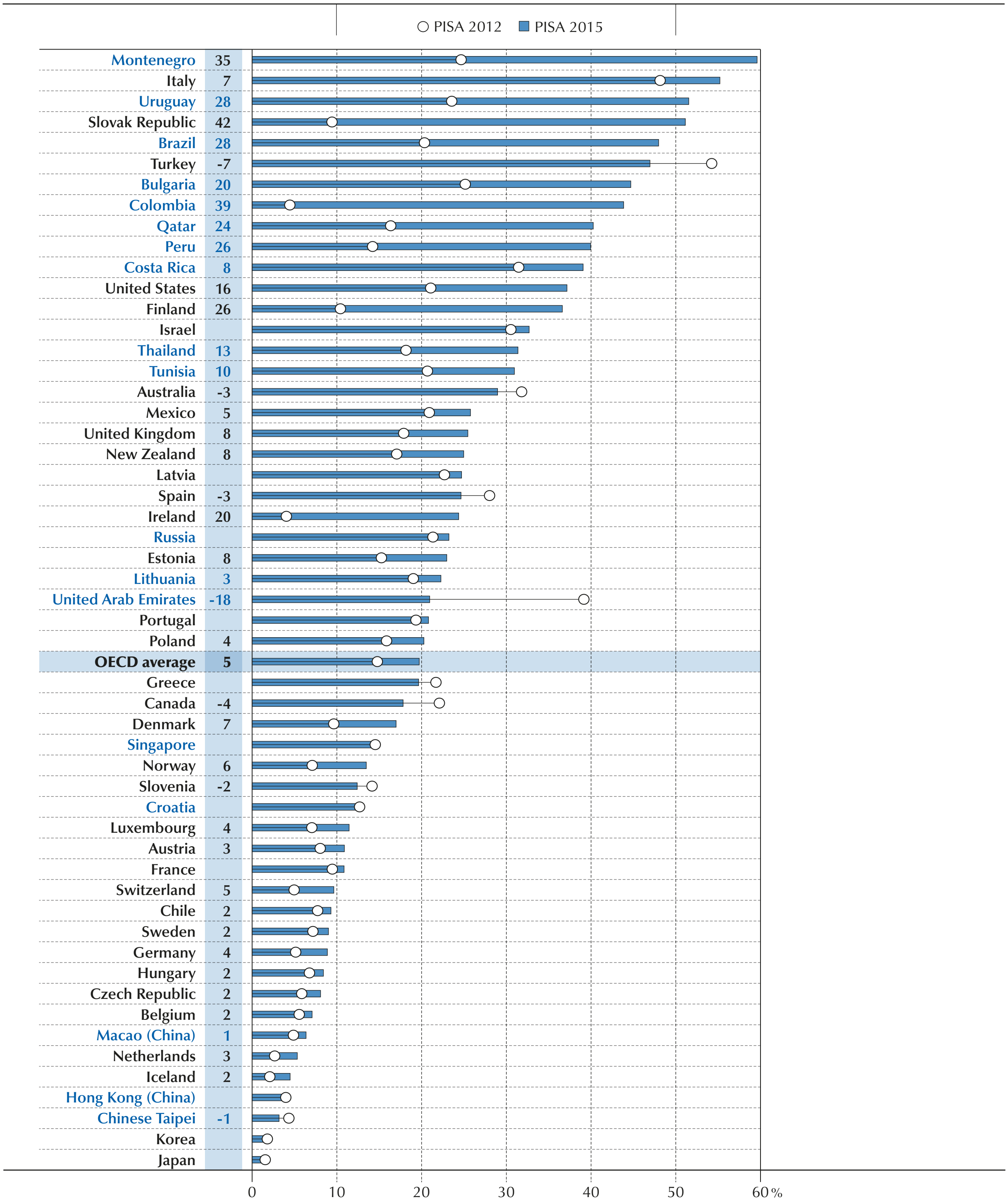
In education systems where school principals hold greater responsibility for school governance, students score higher in science; and this relationship is stronger across school systems where the percentage of students whose achievement data are tracked over time and posted publicly is higher than the OECD average.

According to school principals, schools in the Czech Republic, Lithuania, Macao (China), the Netherlands and the United Kingdom enjoy the greatest autonomy while those in Greece, Jordan, Tunisia and Turkey are granted the least autonomy. On average across OECD countries and in 32 education systems, socio-economically advantaged schools enjoy greater autonomy than disadvantaged schools; and, on average across OECD countries and in 15 other education systems, urban schools are granted more autonomy than rural schools. Not surprisingly, in almost all education systems, private schools exercise greater autonomy than public schools.

In 29 education systems and on average across OECD countries, students in schools whose principal reported that more responsibility for school management lies with schools score higher in science (Figure II.4.7). But after accounting for the socio-economic profile of students and schools, there is no association between school autonomy and student performance in science, on average across OECD countries.

Figure II.1.2 ▪ **Change between 2012 and 2015 in student truancy**

Percentage of students who reported having skipped a day of school at least once in the two weeks prior to the PISA test



Notes: Only countries/economies that participated in both 2012 and 2015 PISA assessments are shown.

Only percentage-point differences between PISA 2012 and PISA 2015 that are statistically significant are shown next to the country/economy name (see Annex A3).

Countries and economies are ranked in descending order of the percentage of students who had skipped a whole day of school at least once in the two weeks prior to the PISA test, in 2015.

Source: OECD, PISA 2015 Database, Tables II.3.1, II.3.2 and II.3.3.

StatLink http://dx.doi.org/10.1787/888933435655

At the level of the school system, science scores and equity in science performance are unrelated to the percentage of students who are enrolled in public schools (Figure II.4.15), and there is no association between equity in science performance and attendance at either government-dependent or government-independent private schools.

About 84% of 15-year-old students attend public schools, on average across OECD countries, about 12% attend government-dependent private schools, and slightly more than 4% attend government-independent private schools (Table II.4.7). Across OECD countries, of the 12% of students who are enrolled in private government-dependent schools, around 38% of them attend schools run by a church or other religious organisation, 54% attend schools run by another non-profit organisation, and 8% attend schools run by a for-profit organisation. Across the education systems that participated in PISA 2015, socio-economically disadvantaged schools and rural schools are more likely to be public (Figure II.4.14). In fact, only in Montenegro and Chinese Taipei are advantaged schools more likely than disadvantaged schools to be public, and only in Slovenia are urban schools more likely to be public than rural schools.

On average across OECD countries and in 32 education systems, students enrolled in public schools score lower in science than students in private schools do (Figure II.4.14). But as has been noted in previous PISA reports, this is no longer the case after accounting for socio-economic status. In 22 education systems and across OECD countries, students in public schools score higher than students in private schools, after students' and schools' socio-economic profile is taken into account. This is because students in public schools are considerably more disadvantaged than students in private schools. In Italy, Japan, Singapore, Chinese Taipei, Thailand, Tunisia, Turkey and Viet Nam, students in public schools score more than 40 points higher in science than students in private schools, after accounting for the socio-economic status of students and schools (Table II.4.10).

Student assessments and teacher appraisals are more widely used than commonly believed.

Standardised tests are used extensively across PISA-participating countries and economies. In about five out of six school systems, more than one in two students are assessed at least once a year with mandatory standardised tests (Figure II.4.21), and in about three out of four countries, more than one in two students are assessed at least once a year with non-mandatory standardised tests (Table II.4.21).

On average across OECD countries, 81% of students attend schools whose principals reported that tests or assessments of student achievement and principal or senior staff observations of lessons were used to monitor the practice of teachers (Figure II.4.31). But the practice of monitoring teachers is far from universal. Based on principals' reports, all schools in Macao (China) use teacher peer reviews, but in Finland, Iceland and Spain, fewer than one in three students attends such schools. In 49 education systems, at least nine out of ten students attend schools whose principal or senior staff observe lessons, but in Greece, Italy and Spain, fewer than one in three students attends such schools.

Grade repetition is more prevalent in school systems where students score lower on the PISA science assessment and where students' socio-economic status is most strongly associated with science performance; but fewer students in 2015 than in 2009 reported that they had repeated a grade.

Not all 15-year-olds are enrolled in the same grade in school. Students might have been kept back to repeat course content that they had not fully mastered; or they might have been invited to skip a grade when their teachers felt they were capable of taking on more challenging schoolwork. Japan and Norway have established policies whereby students in compulsory schooling are promoted automatically to the next grade at the end of each school year, a practice known as "social promotion". In these two countries, grade repetition rates have traditionally been negligible. The incidence of grade repetition is also minimal in Iceland and Chinese Taipei (Table II.5.9). But in 13 countries and economies, at least 30% of students had repeated a grade at least once in primary or secondary education. For example, in Algeria, 69% of 15-year-old students had repeated a grade at least once, and in Colombia, 43% of students had done so. In Brazil, 36% of students had repeated a grade; in Uruguay 35% of students had done so; in Belgium, the Dominican Republic, Macao (China) and Tunisia, 34% of students had repeated a grade; in Trinidad and Tobago, 33% of students had done so; and in Costa Rica, Luxembourg, Portugal and Spain, 31% of students had repeated a grade.

Results from PISA show that grade repetition is about the same in primary and in secondary education, regardless of whether the country's/economy's repetition rate is high or low. On average across OECD countries, 7% of 15-year old students had repeated a grade in primary school, 6% had repeated a grade in lower secondary school and 2% had repeated a grade in upper secondary school at least once. At any of the three levels, those students who had repeated a grade were usually retained for one grade only; multiple repetition (i.e. more than once) affected less than 1% of students (Table II.5.9).

Many people would agree that performance, behaviour and motivation are legitimate reasons for deciding which students repeat a grade; and the data clearly show these associations. What is more troubling is that, even after accounting for students' academic performance, behaviour and motivation, in many education systems, a student with certain characteristics is more likely to have repeated a grade than other students. For instance, across OECD countries, boys are more likely than girls, socio-economically disadvantaged students are more likely than advantaged students, and students with an immigrant background are more likely than students with no immigrant background to have repeated a grade. In some countries, like Austria, Colombia, Korea, New Zealand and Thailand, advantaged and disadvantaged students are equally likely to have repeated a grade, after accounting for their academic performance, behaviour and motivation (Figure II.5.7). However, in others, including Bulgaria, Canada, the Czech Republic, Poland, Portugal, the Russian Federation (hereafter "Russia"), the Slovak Republic, Spain and Uruguay, disadvantaged students are more likely to have repeated a grade than advantaged students.

One promising finding is that, across OECD countries, the percentage of students who reported that they had repeated a grade at least once decreased by almost 3 percentage points between 2009 and 2015 (Figure II.1.3). The percentage of students who had repeated a grade in either primary, lower secondary or upper secondary school dropped significantly and by a margin of 10 percentage points or more in Costa Rica, France, Indonesia, Latvia, Macao (China), Malta, Mexico and Tunisia. By contrast, in Austria, Colombia, Qatar, Romania and Trinidad and Tobago, the percentage of students who reported that they had repeated a grade was higher in 2015 than it was in 2009.

Selecting students into different programmes or schools, especially when students are young, is strongly associated with less academic inclusion across schools and less equity in science performance.

On average across OECD countries, school systems begin selecting students for different programmes at the age of 14. Some OECD countries, including Austria and Germany, start selecting students as early as age 10; but the most common age at selection is 16. Among partner countries and economies with available data, the most common practice, observed in 19 countries, is to start selection into different programmes at the age of 15. A few countries select students earlier: Argentina, Croatia and Romania begin selecting students for different programmes at age 14, Bulgaria begins at age 13, and Singapore starts as early as age 12. The Dominican Republic, Jordan, Lithuania, Malta, Peru, Qatar and Russia delay selection into different study programmes until students are 16 years old (Table II.5.27).

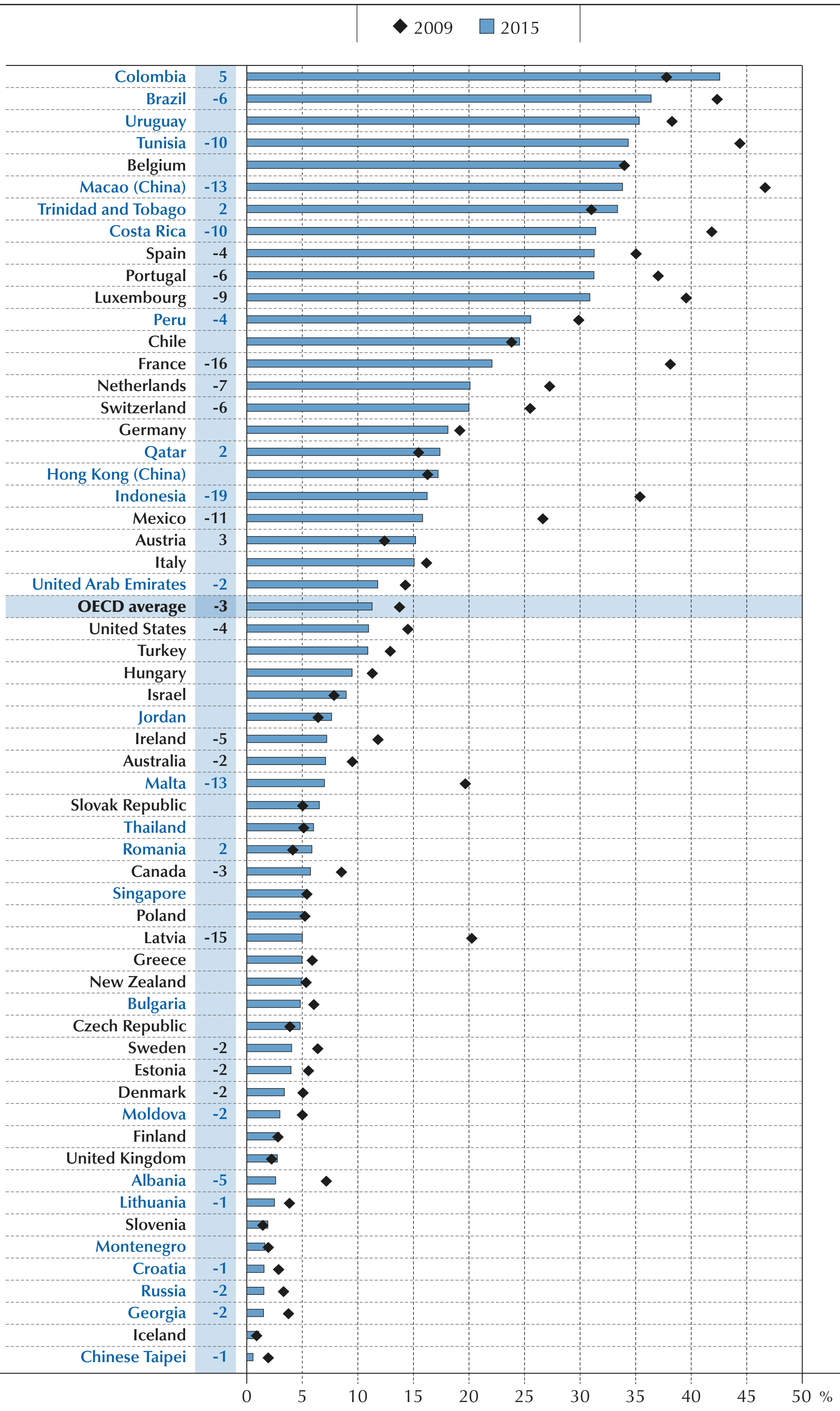
In 2015, 82% of 15-year-old students, on average across OECD countries, were enrolled in a programme with a general curriculum, 14% were enrolled in a programme with a pre-vocational or vocational curriculum, and 4% were in modular programmes that combine any or all of these curricula. In 27 countries, including OECD countries Chile, Denmark, Estonia, Finland, Iceland, Ireland, Israel, Latvia, New Zealand, Norway, Poland, Spain, Sweden, the United Kingdom and the United States, more than 99% of 15-year-old students were enrolled in a general programme. Enrolment in vocational or pre-vocational programmes is largest in Austria, Croatia, the Former Yugoslav Republic of Macedonia, (hereafter "FYROM"), Montenegro and Slovenia, where more than one in two students follow this curricular orientation. The largest proportions of students enrolled in modular programmes are found in Canada, with all students enrolled in such programmes, and the Slovak Republic, with one in four students enrolled in such programmes (Table II.5.14).

In countries and economies with large enrolments in pre-vocational or vocational programmes, these enrolments vary markedly according to schools' socio-economic profiles. On average across OECD countries, the proportion of 15-year-old students enrolled in a vocational track is 21 percentage points larger among students in disadvantaged schools than among students in advantaged schools. The relationship between schools' socio-economic profile and enrolment in pre-vocational or vocational programmes is strongest in Austria, Croatia, Italy, the Netherlands and Slovenia (Figure II.5.9). In these countries/economies, the difference in enrolment in these programmes between students in advantaged and disadvantaged schools is 60 percentage points or larger.

On average across OECD countries, students in general programmes score 22 points higher on the PISA 2015 science assessment than those enrolled in pre-vocational or vocational programmes, on average across OECD countries after accounting for students' and schools' socio-economic profile (Figure II.5.10). However, among countries and economies where enrolment rates in vocational programmes are higher than 10%, these performance differences can amount to as much as 91 score points, as in the Netherlands, approximately 60 score points, as in Greece, or between 40 and 60 score points, as in Belgium, Croatia, France, Portugal and Turkey. In Brazil, Colombia, Costa Rica, the Dominican Republic, Japan, Luxembourg, Mexico and Switzerland, students in pre-vocational or vocational programmes score higher in science than students in general or academic programmes.

Figure II.1.3 ▪ **Change between 2009 and 2015 in grade repetition rates**

Percentage of students who had repeated a grade in primary, lower secondary or upper secondary school



Notes: Statistically significant differences are shown next to the country/economy name (see Annex A3).

Only countries and economies with comparable data from PISA 2009 and PISA 2015 are shown.

For Costa Rica, Georgia, Malta and Moldova, the change between PISA 2009 and PISA 2015 represents the change between 2010 and 2015 because these countries implemented the PISA 2009 assessment in 2010 as part of PISA 2009+.

Countries and economies are ranked in descending order of the percentage of students who had repeated a grade in 2015.

Source: OECD, PISA 2015 Database, Tables II.5.9, II.5.10 and II.5.11.

StatLink http://dx.doi.org/10.1787/888933436111

Individual schools' admissions policies are only weakly related to students' performance in science.

Results from PISA 2015 suggest that, on average across OECD countries, the association between different school admissions criteria and student performance in science is modest, after accounting for students' and schools' socio-economic profile. For example, students attending schools that consider prior academic performance as a criterion for admission tend to score five score points higher on the science assessment than students enrolled in schools that never use this criterion, after accounting for socio-economic status. But score-point differences in performance related to this policy can be as large as 20 points or more in Austria, Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), Hungary, Qatar, Tunisia and the United Arab Emirates (Table II.5.21). In Finland, Greece, Norway, Spain and Sweden, students' previous academic performance is rarely used for school admissions; in Croatia, Hong Kong (China), Japan, Macao (China), Singapore and Thailand, it is almost always considered (Table II.5.18). Residence as a criterion for admitting new students to school is particularly important in Greece, Norway, Poland and Switzerland, where at least 70% of students are in schools where residence is always considered.

How resources for education are allocated is just as important as the amount of resources available.

A first glance at PISA results gives the impression that students in high-income countries and economies – and countries/economies that can and do spend more on education – perform better. High-income countries and economies (defined here as those with a per capita GDP above USD 20 000) have more resources to spend on education. These countries and economies cumulatively spend, on average, USD 87 292 on each student from age 6 to 15, while countries that are not considered to be in that group spend, on average, USD 28 071 per student (Tables II.6.58 and II.6.59).

On average, students in high-income countries and economies score 79 points higher in science than students in countries whose per capita GDP is below the USD 20 000 benchmark. Yet the relationship among a country's/economy's income per capita, its level of expenditure on education per student, and its PISA score is far more complex. Among the countries and economies whose cumulative expenditure per student is under USD 50 000, higher expenditure on education is strongly associated with higher PISA science scores. But this is not the case among high-income countries and economies, which include most OECD countries. It seems that for this latter group of countries and economies, factors other than the level of investment in education are better predictors of student performance.

Among these countries and economies, it is common to find some with substantially different levels of spending per student yet similar science scores. For example, Poland and Denmark score 501 and 502 points in science, respectively, but the cumulative expenditure per student in Denmark is more than 50% greater than that in Poland. Similarly, although countries and economies might have similar levels of expenditure on education, they can perform very differently. For example, while Iceland and Finland both spend roughly USD 100 000 per student from the age of 6 to 15, Iceland's science score in PISA 2015 is 473 points and Finland's score is 531 points (Figure II.6.2). Whatever the reason for the lack of a relationship between spending per student and learning outcomes, at least in the countries and economies with larger education budgets, excellence in education requires more than money.

Collaboration among teachers is positively associated with student performance.

Offering higher salaries for teachers can help school systems attract the best candidates to the teaching profession, and signal that teachers are regarded and treated as professionals. But paying teachers well is only part of the equation. The relationship between science performance and teachers' salaries relative to per capita national income is not statistically significant across PISA-participating countries and economies (Figure II.6.7). This finding suggests that other factors, such as the quality of teaching, may be more closely associated with students' performance at the system level. For example, if countries do not have enough resources to invest in education, paying relatively high salaries might attract good teachers, but it also might limit the number of teachers the system can afford, thus contributing to shortages of teaching staff.

Like practitioners in any other profession, teachers need to keep up-to-date with advances in their field. That requires participation in some form of professional development. Across OECD countries, almost all 15-year-old students (96%) are enrolled in schools where teachers in the school co-operate by exchanging ideas or material when teaching specific units or series of lessons. A great majority of students attends schools that invite specialists to conduct in-service training for teachers (80%), that organise in-service workshops that address specific issues facing the school (80%) or that organise in-service workshops for specific groups of teachers (69%) (Figure II.6.11). In general, in-house professional development activities are more frequently offered in advantaged than in disadvantaged schools, in urban than in rural schools, and in private than in public schools (Tables II.6.21, II.6.22, II.6.23 and II.6.24).

On average across OECD countries, only professional collaboration among teachers in the school is positively associated with student performance in science after accounting for the socio-economic profile of students and schools. When school principals reported that teachers co-operate by exchanging ideas or material, the average 15-year-old student in OECD countries scores 9 points higher in science; in Slovenia, the average student scores 36 points higher.

One of the most valuable resources for education is time. On average across OECD countries, and in three out of four education systems, students who spend more time in science lessons score higher in science, even after accounting for the socio-economic profile of students and schools.

PISA 2015 asked students to report the average number of minutes per class period, the total number of class periods per week, and the number of class periods for science, language-of-instruction and mathematics. Across OECD countries, students reported spending 26 hours and 54 minutes per week in lessons, of which 3 hours and 30 minutes per week are spent in science lessons, 3 hours and 36 minutes per week in language-of-instruction classes, and 3 hours and 38 minutes per week in mathematics lessons (Figure II.6.18).

Students in B-S-J-G (China), Chile, Costa Rica, Korea, Chinese Taipei, Thailand and Tunisia spend more than 30 hours per week in regular lessons (all subjects combined), while students in Brazil, Bulgaria, Finland, Lithuania, the Slovak Republic and Uruguay spend less than 25 hours per week. In B-S-J-G (China), Chile, Qatar, Russia, Singapore and the United Arab Emirates, 15-year-old students spend more than five hours in regular science lessons per week, while in Iceland, Ireland, Montenegro and Norway, they spend less than half of that time in science class. In Chile, Peru and Singapore, students spend more than five hours in regular mathematics lessons, whereas in Austria, Bulgaria, Croatia and Montenegro students spend less than half of that time in mathematics class. In Canada, Chile, Denmark and Hong Kong (China), 15-year-olds spend five hours per week in language-of-instruction classes, while students in Austria, Finland and Russia spend less than 2 hours and 30 minutes per week in these classes.

Even within individual school systems, the amount of learning time in regular lessons can vary considerably, especially across schools with different socio-economic profiles (Table II.6.36). Across OECD countries, students in advantaged schools spend 27 hours and 15 minutes per week in regular lessons, while students in disadvantaged schools spend 26 hours and 33 minutes per week. This difference is observed in 31 out of 56 countries for which data are available and exceeds 3 hours per week of extra instruction in advantaged schools in B-S-J-G (China), Chinese Taipei, the United States and Uruguay. Part of the reason for this difference could be that advantaged 15-year-old students are more likely to attend upper secondary schools, where there are more hours of intended learning time than in lower secondary schools.

On average across OECD countries, and in 14 out of 49 countries and economies, students in private schools spend more time in regular science lessons than students in public schools. In Brazil, Croatia and New Zealand, for instance, there is a difference, in favour of private schools, of more than 80 minutes per week (Figure II.6.19 and Table II.6.33).

PISA examined the relationship between the intended time in science, language-of-instruction and mathematics classes with student performance in the corresponding PISA assessment – science, reading and mathematics. On average across OECD countries, and in three out of four education systems, students who spend more time in science lessons score higher in science, even after accounting for the socio-economic profile of students and schools (Figure II.6.19). For every additional hour spent in science lessons, students in OECD countries score five points higher in science – and eight points higher before accounting for the socio-economic profile of students and schools (Table II.6.33).

Students score lower in the PISA assessment when they reported spending more time studying after school.

Across OECD countries, students spend 3.2 hours per week studying science after school, 3.8 hours studying mathematics, 3.1 hours studying the language of instruction, 3.1 hours studying a foreign language, and almost 4 hours studying other subjects (Figure II.6.20). All subjects combined, in B-S-J-G (China), the Dominican Republic, Qatar, Tunisia and the United Arab Emirates, students reported that they study more than 25 hours per week in addition to the required school schedule; in Finland, Germany, Iceland, Japan, the Netherlands, Sweden and Switzerland, they study less than 15 hours per week (Table II.6.41).

Across OECD countries, students in disadvantaged schools spend more time studying after school than students in advantaged schools – 18 hours compared to 17 hours per week (Figure II.6.21). In most education systems, these differences should be interpreted as a compensatory measure, whereby struggling students, who are more likely to come from a disadvantaged background, are offered the possibility to narrow the performance gap between them and their better-performing peers.

Probably greater attention to and support for students in disadvantaged schools is needed in Croatia, Italy, Japan, Korea, Macao (China) and Chinese Taipei: only in these countries and economies do students in advantaged schools spend more time studying after school, probably widening the performance gap between rich and poor students. If these differences are the result of private tutoring and a pervasive shadow education system, it could undermine the principle of quality (and free) education for all.

When it comes to learning time, more is not necessarily better.

By combining the total number of hours that students spend learning or studying in and outside of school, and their scores in science, reading and mathematics, it is possible to get a rough idea of how efficient students are in their learning. Of course, the learning time measured in this way cannot adequately capture the accumulated learning time during the entire academic life of students, but it does say something about how much time students across different countries generally devote to learning and studying.

The ratio between PISA scores and learning time in and outside of school (how many score points are related to each hour spent learning) does not necessarily reflect the efficiency of the education system. Students learn mainly at school and in studying for school, but they also learn by interacting with knowledgeable others, such as family members and peers. For these reasons, the ratios can be interpreted in various ways. They can be an indication of the quality of a school system; they can also be indicative of the differences in learning time across education levels. For example, 15-year-olds in some education systems may be compensating for (or reaping the benefits of) the time spent learning in earlier stages of their education. The ratio between learning time and PISA scores can also indicate that, to succeed academically, students in some education systems need to spend more time in "planned" or "deliberate" learning because they have fewer opportunities to learn informally outside of school. The low ratios between learning time and PISA scores observed in some countries and economies with high PISA scores can also signal decreasing returns to learning time or greater difficulty in attaining higher PISA scores.

According to this analysis, students in Finland, Germany, Japan and Switzerland devote less time to learning in relation to their PISA scores in science, while those in the Dominican Republic, Peru, Qatar, Thailand, Tunisia and the United Arab Emirates spend more time learning relative to their academic performance (Figure II.6.23). In the Dominican Republic, for instance, the ratio between the science score and total learning time – in and outside of school – is 6.6 score points per hour, while in Finland it is 14.7 score points per hour.

Across OECD countries, 15-year-old students in socio-economically advantaged schools had attended about four months more of pre-primary school than students in disadvantaged schools.

Most students in most education systems reported that they had attended pre-primary education. But in B-S-J-G (China), Croatia, Lithuania, Montenegro, Poland and the United States, at least 17% of students – and in Turkey, almost half of students – reported that they had never attended pre-primary school (Table II.6.50).

PISA has consistently shown that students who had attended pre-primary school for more than one year score higher than students who had attended for less time. Indeed, students who had attended between 2 and 3 years of pre-primary school score 35 points higher than students who did not attend and 50 score points higher than students who had attended less than one year, on average (Table II.6.52).

But PISA finds that disadvantaged students are more likely to have spent less time – if any time at all – in pre-primary school. In B-S-J-G (China), Croatia, the Dominican Republic, Lithuania, Poland and Russia, the difference between the two groups of students in time spent in pre-primary school is at least one year. There is no country/economy where students in disadvantaged schools had spent significantly more time in pre-primary education, even if students in disadvantaged and advantaged schools in Belgium, Iceland, Japan, Korea and Macao (China) show similar levels of attendance.

What PISA results imply for policy

Whether students are selected into academic programmes that offer little or no science instruction, or students themselves decide not to take science courses, depriving students of school science may only widen the gap with their better-performing peers. Every 15-year-old student should have the opportunity to learn science in school. But access to learning opportunities is only the beginning.

Students learn more in a positive learning environment, where they and their peers attend school regularly and treat other students with respect and dignity, teachers co-operate with each other and support struggling students, school principals

react swiftly to behaviour and academic problems, parents participate in a range of school activities, and governments provide assistance to schools with serious student-behaviour problems.

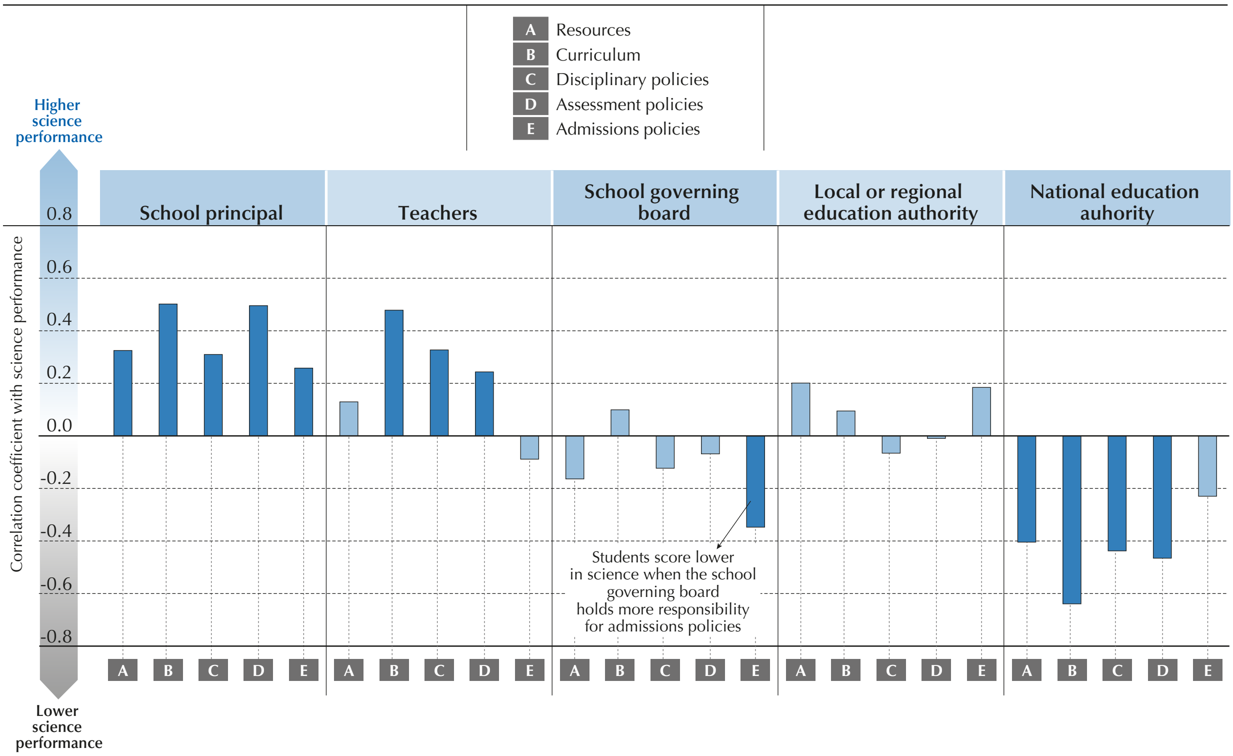
Giving schools greater control over budgetary, staffing and instructional matters has been advocated on the grounds that local actors understand their students' needs better than higher administrative bodies. PISA 2015 offers a nuanced picture of the relationship between greater school autonomy and students' performance, which seems to depend not only on the particular areas of school management delegated to principals and teachers, but also on how these areas are related to certain accountability measures and to the capacity of local actors.

In particular, students score higher in science when principals exercise greater autonomy over resources, curriculum and other school policies (Figure II.1.4), but especially so in countries where achievement data are tracked over time or posted publicly or when principals show higher levels of educational leadership. To some degree, these findings also suggest that when principals lack the preparation and capacity to exercise leadership, transferring authority to schools may inadvertently work against students, since school staff might then be deprived of the resources and expertise available at higher levels of the system. Students also score higher in science in countries where more teachers have autonomy over the curriculum. This finding underscores the importance of tapping into teachers' expertise.

The most successful education systems select the best candidates for the teaching profession, retain qualified teachers and ensure that they are constantly improving by participating in professional development activities. In these systems, education and the teaching profession are greatly valued by society, teachers are adequately compensated, the teaching career is transparent and clearly structured, teachers are given many opportunities – and encouragement – to learn, and they receive feedback on their teaching regularly, such as through mentoring programmes organised by schools.

Figure II.1.4 ■ **Correlations between the responsibilities for school governance[1] and science performance**

Results based on system-level analyses



1. The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.

Notes: Results based on 70 education systems.

Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933435864

PISA results show that more inclusive and fairer school systems are those that provide access to quality early education for all children, offer additional support to struggling students, rather than require them to repeat grades, and delay the age at which students are selected into different programmes or schools. These systems also strive to have excellent schools located in every neighbourhood and ensure that they are accessible to all students, and provide additional support to disadvantaged schools. Students in disadvantaged schools need to learn as much as they can while at school. This means spending more time in regular lessons with better teaching, which is what their counterparts in advantaged schools already enjoy. These schools also need to ensure that the time their students spend studying after school is more productive, by providing greater support in the form of tutoring, mentoring or remedial lessons, for example, and combining this additional learning time with enriching extracurricular activities.

2

How schools and teaching practices shape students' performance in and dispositions towards science

This chapter focuses on the opportunity to learn science at school, the school resources devoted to science, and how science is taught in schools. It discusses how these are related to student performance in science, students' epistemic beliefs, and students' expectations of pursuing a career in science. The opportunity to learn science includes the attendance at science courses and the choice of school science courses. The school resources examined include the quality and availability of science laboratories, the qualifications of the science teaching staff, and the availability of science-related extracurricular activities. The methods for teaching science discussed in the chapter include teacher-directed instruction, feedback, adaptive instruction and enquiry-based instruction.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Many of the scientific principles and theories that 15-year-olds are familiar with were learned at school. As with any other subject, the way science is taught in school can influence not only whether students do well in science, but also whether they become interested enough in the subject to want to pursue it later on, in further education or in a career. Given the expected growth in science-related employment worldwide (Langdon et al., 2011; Royal Academy of Engineering, 2012) and the declining interest in science as students progress through school (Galton, 2009; Vedder-Weiss and Fortus, 2011), it is important to examine why some students are better prepared for and more interested in science-related careers than others. This means analysing in detail the opportunity to learn science at school, the resources available to the science department, such as laboratories, science teachers and science activities, and the way science is taught at school.

What the data tell us

- The approximately 6% of students across OECD countries who reported not attending any regular science lessons score 25 points lower than students who reported attending at least one science lesson, after accounting for the socio-economic profile of students and schools. In 34 school systems, particularly in Austria, Belgium, Croatia, France, Germany, the Slovak Republic and Chinese Taipei, the students who reported not attending regular science lessons are more likely to attend socio-economically disadvantaged schools than advantaged schools.
- On average across OECD countries, students score higher in science, show stronger epistemic beliefs and are more likely to expect to pursue a science-related career when their school principals reported that the science department in the school is well-equipped and staffed.
- Across OECD countries, socio-economically advantaged schools are considerably more likely to offer science competitions and a science club as school activities than disadvantaged schools.
- How much time students spend learning and how science is taught are more strongly associated with science performance and the expectations of working in a science-related career than how well-equipped and -staffed the science department is, which extracurricular science activities are offered at school and science teachers' qualifications.
- According to students' reports, and on average across OECD countries, teachers in advantaged schools explain or demonstrate a scientific idea (teacher-directed instruction) more frequently than do teachers in disadvantaged schools. Students who reported that their science teachers frequently use these methods and adapt their teaching to meet students' needs score higher in science, show stronger epistemic beliefs and are more likely to expect to pursue a science-related career than students who reported that their teachers use these methods less frequently.

This chapter examines the opportunity to learn science, the science-related educational resources and teaching practices at school (Figure II.2.1) and how they shape students' performance in science, their beliefs about the nature and origin of science knowledge (known as epistemic beliefs) and their expectations of working in a science-related career. The chapter concludes with in-depth analyses of how students perform in science compared with reading and mathematics, and students' expectations of working in science-related occupations. These analyses also consider students' learning time, teachers' participation in professional development activities, and teacher support in science classes, all of which are analysed in greater detail in other chapters.

Epistemology is the theory of the nature, organisation, justifications and sources of human knowledge; in other words, the theory of what knowledge is, how it is acquired and how people know that they have acquired it (BonJour, 2002; Hofer and Pintrich, 1997). PISA 2015 asked students to answer questions about their beliefs about science, including the extent to which they are positively disposed towards scientific reasoning, committed to using empirical evidence as the basis of beliefs, and value critical thinking as a means of establishing the validity of ideas (Table II.2.1; see Volume I for more details).[1] PISA 2015 also asked students about the occupation they expected to be working in by the time they are 30 years old. To measure the extent to which students are open to the idea of pursuing a science-related career in the future, their responses were grouped into major categories of such careers (Table II.2.2; see Volume I for more details).[2]

Figure II.2.2 shows the countries that scored above the OECD average in PISA 2015 in each of these three dimensions: students' performance in science, the level of students' support for scientific approaches to enquiry (their epistemic beliefs), and the share of students who expect to pursue a career in science. The countries with values above the OECD average in all three dimensions are indicated in the centre of the diagram.

Figure II.2.1 ▪ **Science at school as covered in PISA 2015**

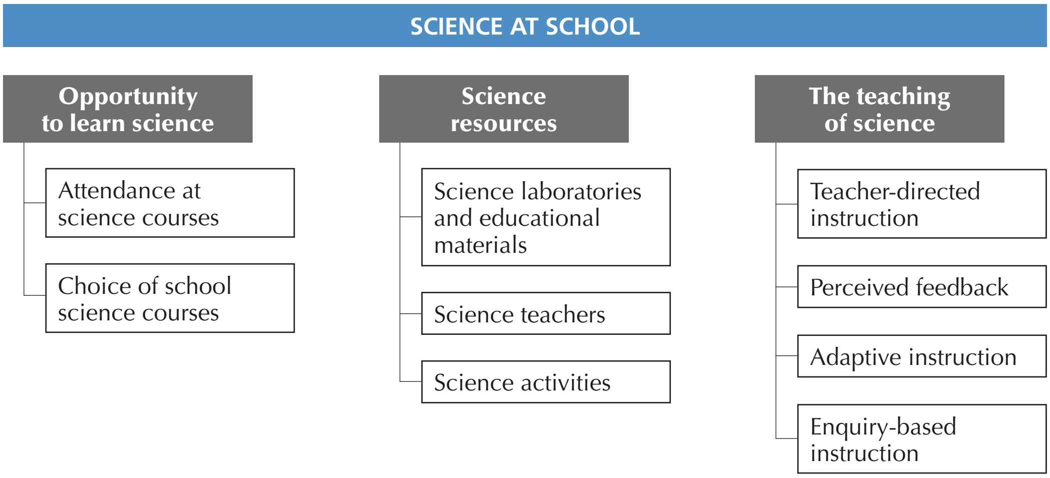
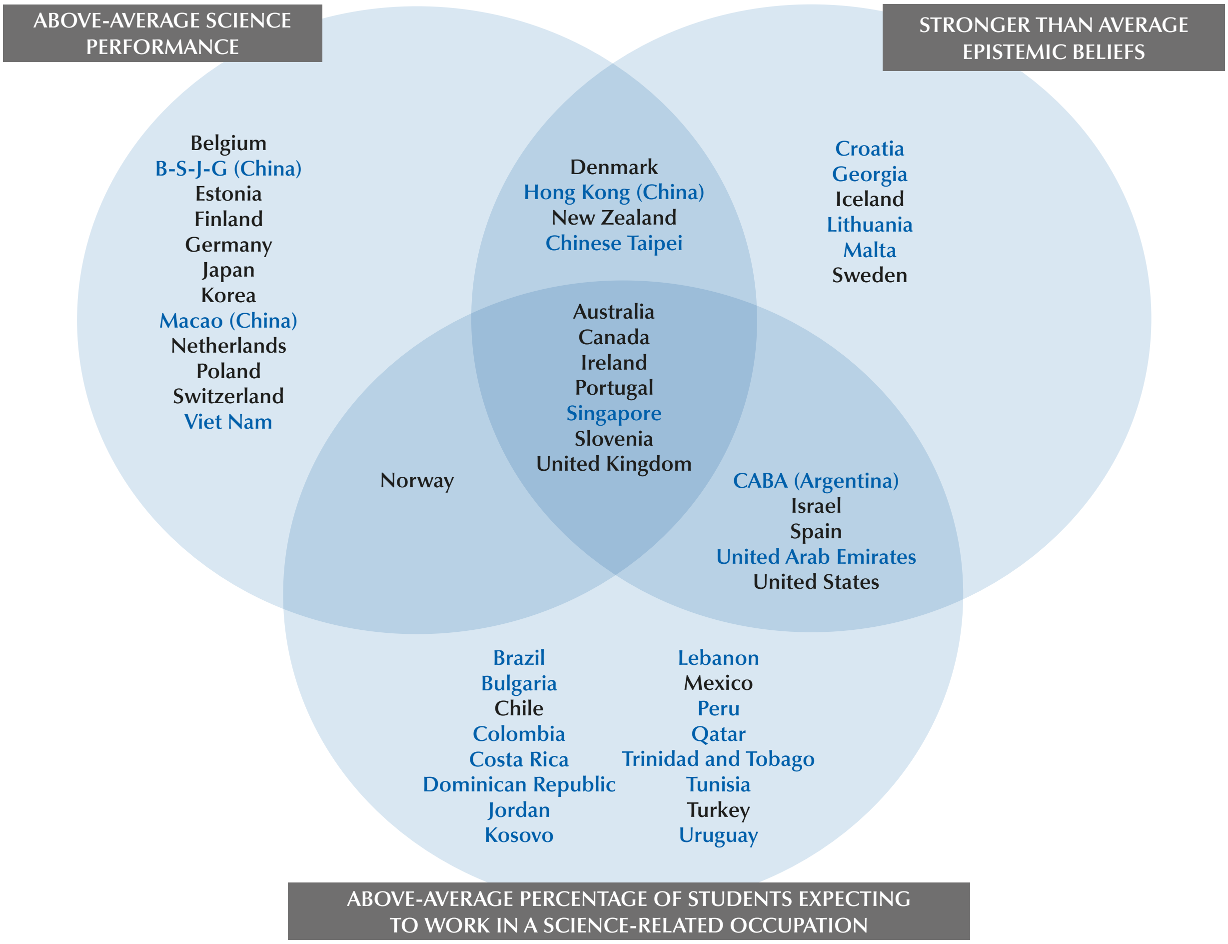


Figure II.2.2 ▪ **High-performing education systems in science-related outcomes**



Note: Average refers to the OECD average for each outcome. Only countries and economies with values above the OECD average are shown.
Source: OECD, PISA 2015 Database, Tables I.2.3, I.2.12a and II.2.2.

The amount and quality of resources (material, human, time) that countries, schools, families and students invest in teaching and learning science play a major role in how well students perform, their level of understanding of how science works, and how interested they may be in working in a science-related career later on. Figure II.2.3 shows how the seven highest-performing countries identified in Figure II.2.2 compare to the OECD average on some key school-resource indicators: the science department and learning time, teaching staff, approaches to science teaching and extracurricular activities. All of these countries score near or above average on most of the resources and practices listed. The figure also underlines the different combinations of resources and practices that are associated with these countries' success.

Figure II.2.3 ▪ **Key information about high-performing education systems in science-related outcomes**

Statistically significantly **above** the OECD average ▓
Not statistically significantly different from the OECD average □
Statistically significantly **below** the OECD average ░

	OECD average	Canada	Australia	Portugal	Singapore	United Kingdom	Ireland	Slovenia
The science department and learning time **Percentage of students in schools whose principal reported that the following statements are true for the school's science department:**								
The school science department is well-equipped compared to other departments	**74%**	93%	94%	90%	95%	86%	94%	76%
Science teachers are among our best-educated staff members	**65%**	73%	69%	61%	75%	69%	85%	49%
Compared to similar schools, we have a well-equipped laboratory	**62%**	88%	88%	78%	88%	78%	84%	80%
Average time per week spent learning in regular science lessons, in hours	**3.5**	4.8	3.5	3.7	5.5	4.7	2.4	3.5
Average time per week spent studying science after school (e.g. homework, extra instruction), in hours	**3.2**	4.4	3.4	3.2	5.6	3.7	2.7	3.0
Teaching staff								
Percentage of science teachers with a university degree and a major in science	**74%**	81%	93%	88%	89%	93%	91%	90%
Percentage of science teachers who attended a programme of professional development	**51%**	74%	83%	37%	81%	80%	51%	48%
Approaches to teaching science **Percentage of students who reported that the following things happen in their science lessons:**								
Teacher explains scientific ideas (every or almost every lesson)	**24%**	39%	33%	39%	31%	32%	22%	27%
Teacher adapts the lesson to my class's needs and knowledge (every or almost every lesson)	**16%**	18%	17%	29%	20%	16%	13%	10%
Teacher explains how a science idea can be applied to a number of different phenomena (in all lessons)	**23%**	33%	27%	29%	19%	21%	25%	16%
Teacher tells me how I am performing in this course (at least in some lessons)	**73%**	85%	77%	75%	86%	85%	76%	66%
Students spend time in the laboratory doing practical experiments (at least in some lessons)	**67%**	87%	86%	80%	88%	81%	90%	82%
Extracurricular activities **Percentage of students in schools offering the following science-related activities:**								
Science club	**39%**	57%	38%	57%	42%	79%	35%	52%
Science competitions	**66%**	76%	91%	89%	89%	72%	65%	87%
Science-related outcomes								
Mean score in science	**493**	528	510	501	556	509	503	513
Index of epistemic beliefs	**0.00**	0.30	0.26	0.28	0.22	0.22	0.21	0.07
Percentage of students expecting to work in science-related occupations at age 30	**24%**	34%	29%	27%	28%	29%	27%	31%

Source: OECD, PISA 2015 Database, Tables I.2.3, I.2.12a, II.2.2, II.2.5, II.2.8, II.2.11, II.2.16, II.2.19, II.2.22, II.2.26, II.6.17, II.6.32 and II.6.37.
StatLink `http://dx.doi.org/10.1787/888933435461`

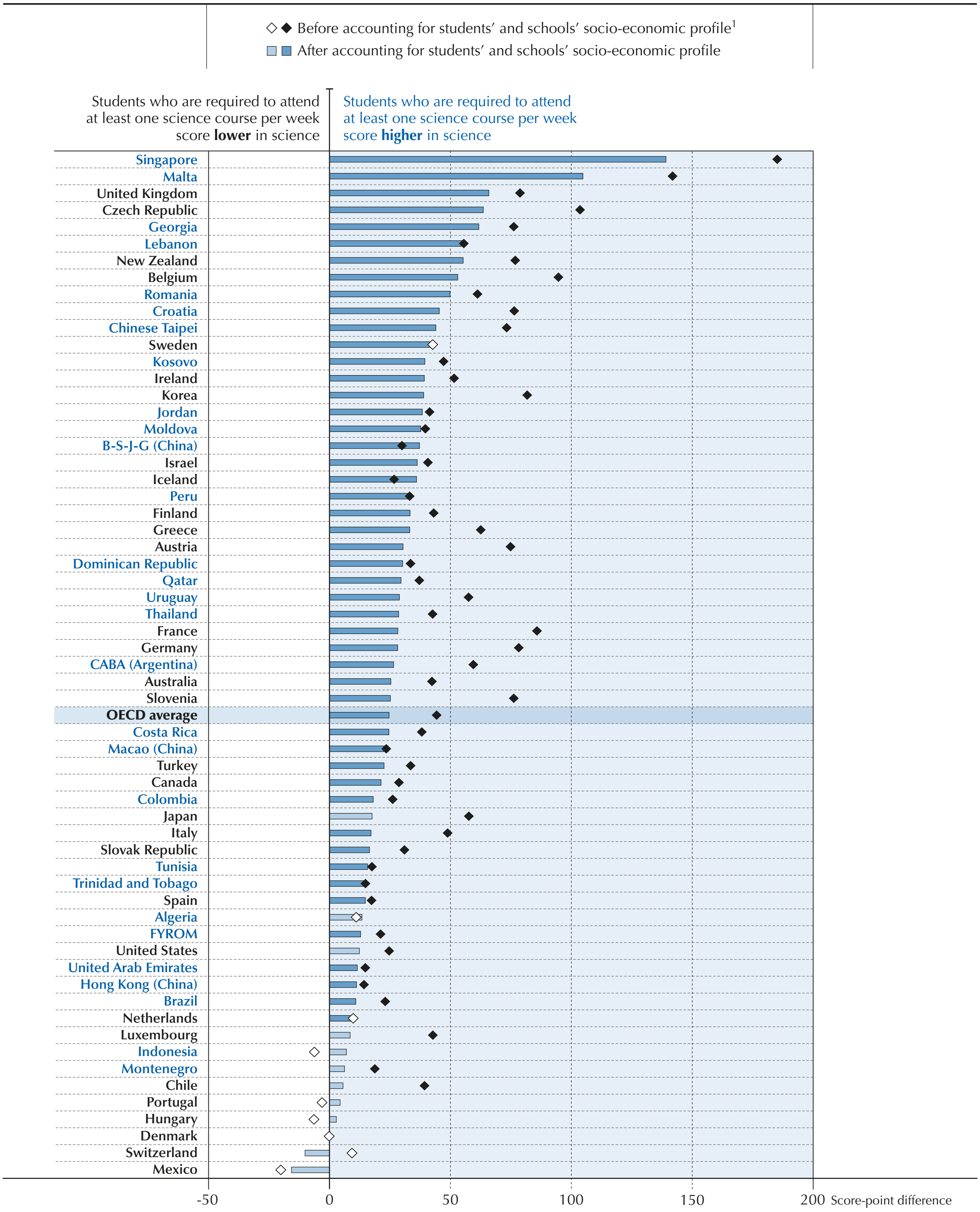
OPPORTUNITY TO LEARN SCIENCE AT SCHOOL

Inequalities in the opportunity to learn, which can be defined as the opportunity to "study a particular topic or learn how to solve a particular type of problem" (Husen, 1967), are mainly reflected in the time education systems, schools and teachers allocate to learning (Carroll, 1963). If time is a necessary condition for learning, students who do not attend science lessons are probably those who enjoy the fewest opportunities to acquire competencies in science.

PISA 2015 asked students how many regular science lessons they were required to attend per week. As expected, most 15-year-old students said they were required to attend at least one science lesson per week. On average across OECD countries, 94% of students reported that they attend at least one science course per week (Table II.2.3). However, there are still 6% of students who said that they are not required to attend any science lesson.

Figure II.2.4 ■ **Attendance at regular science lessons, and science performance**

Results based on students' reports



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

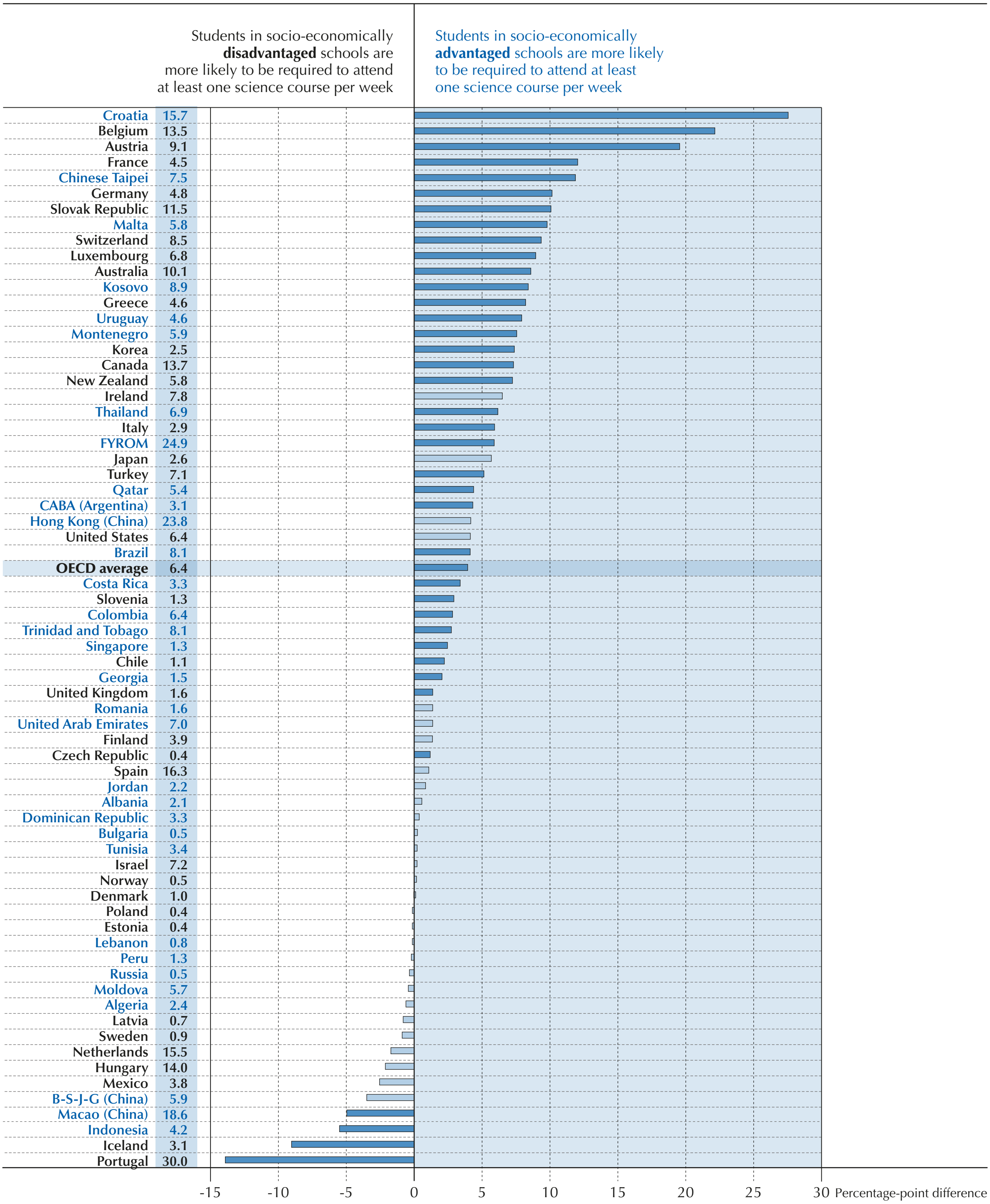
Countries and economies are ranked in descending order of the score-point difference between students who are required to attend a science course and students who are not, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table II.2.3.

StatLink http://dx.doi.org/10.1787/888933435477

Figure II.2.5 ▪ **Differences in the requirement to attend regular science lessons, by schools' socio-economic profile**

Results based on students' reports



Notes: Statistically significant differences are marked in a darker tone (see Annex A3).

The percentage of students who are not required to attend any science course is shown next to the country/economy name.

Countries and economies are ranked in descending order of the percentage-point difference between students in socio-economically advantaged and disadvantaged schools who are required to attend at least one science course per week.

Source: OECD, PISA 2015 Database, Tables II.2.3.

StatLink `http://dx.doi.org/10.1787/888933435485`

Across OECD countries, students who are not required to attend science lessons score 25 points lower in science than students who are required to attend at least one science lesson per week, after accounting for the socio-economic status of students and schools. The largest differences, before accounting for the socio-economic profile of students and schools, are observed in Singapore, Malta and the Czech Republic, where students who reported that they are not required to attend any science lessons score more than 100 points lower in science than students who reported that they do attend science lessons (Figure II.2.4). Even if their poor performance in science is one of the reasons why these students do not take science courses in the first place – in some education systems, for instance, students can take mainly social sciences and humanities courses in secondary education – these findings indicate the extent to which student performance in science may suffer when students do not attend science classes.

More importantly, students who reported not attending school science classes are more likely to be in schools that are socio-economically disadvantaged (Figure II.2.5) (see Box II.2.1 for a definition of advantaged and disadvantaged schools). On average across OECD countries, students in disadvantaged schools are four percentage points less likely than students in advantaged schools to be required to attend at least one science course. In some education systems, mainly those with early tracking and large between-school differences in performance, such as Austria, Belgium, Croatia, Germany, the Slovak Republic and Switzerland (see Chapter 5), the differences are even larger. Being deprived of science courses in school will not help disadvantaged students close the performance gap with their advantaged peers.

Box II.2.1. **How PISA defines socio-economically advantaged and disadvantaged schools**

All schools in each PISA-participating education syastem are divided into four groups with approximately an equal number of students (quarters), based on the PISA index of economic, social and cultural status (ESCS). Schools in the bottom quarter of ESCS are classified as disadvantaged schools, and schools in the top quarter of ESCS are classified as advantaged schools.

Choice of school science courses

Educators debate how much freedom students should be given to choose what they learn. On the one hand, it is important that students "own" their learning and find ways to pursue their interests and talents. On the other hand, school systems need to ensure that all students acquire strong foundation skills, particularly in core subjects, like science, on which they can later build. Opting out of difficult subjects or courses shuts doors to knowledge that could be of interest – and of use – in the future.

Education systems differ in the extent to which students can choose the science courses they attend, and the courses' level of difficulty and duration (Table II.2.4). In most education systems, students' choices are limited; on average across OECD countries, more than six in ten students have no choice regarding their science courses. In a few education systems, however, there is ample choice. For instance, in Australia, Canada, Hong Kong (China),[3] Ireland, New Zealand and Singapore, more than one in four students reported that they can choose freely the science course(s) they take. In Canada and Ireland, one in three students can also choose freely the course's level of difficulty; and in Canada, one in five students can freely decide the number of science courses or class periods they attend.

Many more students across OECD countries reported that they have some say, as opposed to full freedom, about the science courses they attend (25%), the level of difficulty (26%) or duration of those courses (17%). As expected, on average across OECD countries, students in lower secondary education are less likely to be given the freedom to choose their science courses. For example, 66% of lower secondary students cannot choose at all the science courses they attend, whereas 51% of upper secondary students have some degree of choice. There are smaller differences between the two levels of education when it comes to students choosing the duration or the difficulty of the courses.

SCIENCE RESOURCES AT SCHOOL

Compared with teachers of other school subjects, such as literature, mathematics or geography, science teachers often use expensive and sophisticated equipment in their lessons, particularly if students are expected to participate in laboratory work. At the same time, teachers often mention a lack or inadequacy of resources, in addition to large classes, a lack of time, and safety issues, as barriers to incorporating enquiry-based learning in their lessons (Cheung, 2007; Hofstein and

Lunetta, 2004; Lawson, Costenson and Cisneros, 1986). If students are given sufficient time for reflection and connect their experiments with what they have learned earlier, and if teachers find meaningful ways of assessing their students' laboratory work, conducting experiments can motivate students and improve their understanding of the nature of science (Gunstone and Champagne, 1990; Hofstein and Lunetta, 2004; Tobin, 1990; Yung, 2001). Virtual experiments are often mentioned as a cheaper and safer alternative to physical manipulation; but even if some studies have shown that the two are equally effective in promoting conceptual understanding of science (Zacharias and Olympiou, 2011), real experiments may instil greater motivation in students (Corter et al., 2011).

PISA asked school principals to provide information about the resources available to their school's science department. They were asked if the following eight statements about the science department were true: "Compared to other departments, our science department is well equipped"; "If we ever have some extra funding, a big share goes into improvement of our science teaching"; "Science teachers are among the best-educated staff members"; "Compared to similar schools, we have a well-equipped laboratory"; "The material for hands-on activities in science is in good shape"; "We have enough laboratory material that all courses can regularly use it"; "We have extra laboratory staff that helps support science teaching"; and "Our school spends extra money on up-to-date school science equipment". The index of science-specific resources describes the number of the above questions that the school principal reported to be true for his or her school's science department.

Most school principals in OECD countries reported that the science department is well-equipped and -staffed (Table II.2.5). For example, about three in four principals reported that their science department is well-equipped compared to other school departments or that the material for hands-on activities for science is in good shape; two out of three reported that the school had enough laboratory material that all courses could regularly use it; and around two out of three reported that science teachers were among the best-educated staff members. But only 34% of principals reported that extra laboratory staff is available to support science teaching, and only 39% of principals reported that their school uses a large share of extra funding for improving science teaching. Of course, school principals' judgements may be based on very different benchmarks, usually influenced by their local or national context, so their responses should be interpreted with caution.

There are also wide differences between countries – differences that are not always related to spending on education or science performance. For instance, in Japan, only 31% of students attend schools whose principal considered that the material for hands-on activities for science is in good shape, and only 30% attend schools whose principals reported that there is enough laboratory material that all courses could regularly use it. Principals in the Czech Republic, Finland, Greece and the Slovak Republic reported that there is almost no extra laboratory staff to support science teaching. By contrast, principals in Malta, Qatar and the United Arab Emirates reported that the science department is well-equipped and -staffed in almost every respect, and is given priority over other departments when there is extra funding (Table II.2.5).

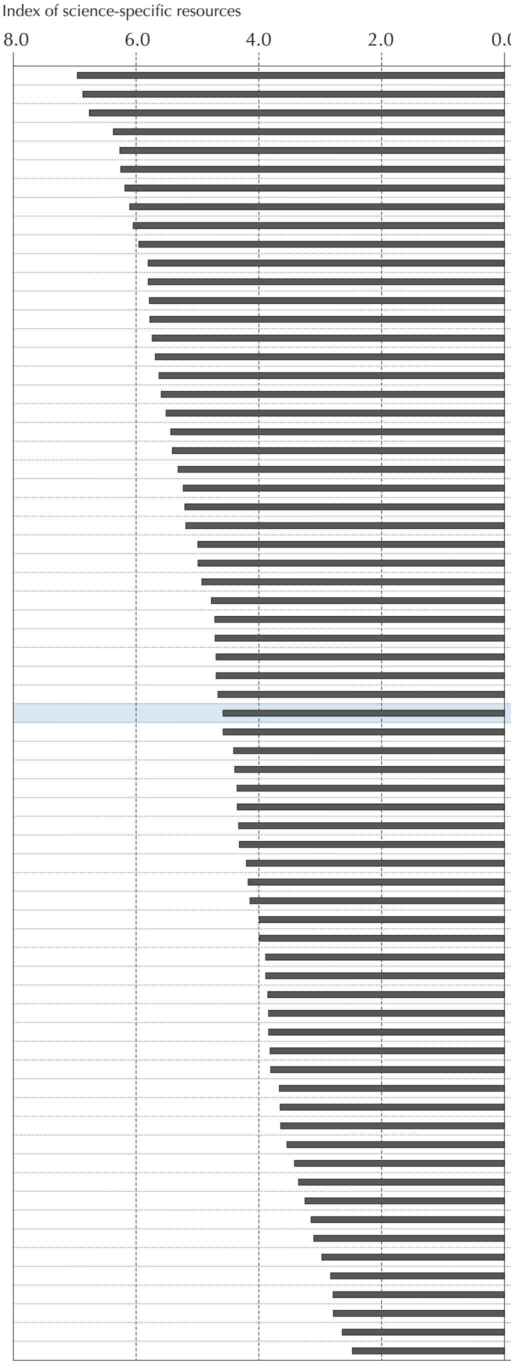
The analysis of the index of science-specific resources in PISA-participating education systems shows consistent differences related to schools' socio-economic profile, school location and school type (Figure II.2.6 and Table II.2.6). For example, on average across OECD countries, principals in socio-economically disadvantaged schools reported that four of the eight positive statements about the resources of the science department are true, whereas principals in advantaged schools reported that five of the eight positive statements are true. Large differences in favour of advantaged schools are observed in Indonesia, Mexico and Chinese Taipei. Only in Montenegro did principals of disadvantaged schools report more frequently than principals of advantaged schools that the science departments in their schools are well-equipped and -staffed.

Principals in urban schools tended to report better resources for the science department than principals in rural schools (Figure II.2.6 and Table II.2.6) (see Box II.2.2 for a definition of urban and rural schools). The largest differences between rural and urban schools (in favour of urban schools) are observed in Chile, Indonesia and Mexico. Overall, private schools are better-equipped and -staffed than public schools (see Box II.2.3 for a definition of public and private schools). The largest differences between the two types of schools (in favour of private schools) in resources available to science departments are observed in the Former Yugoslav Republic of Macedonia (hereafter "FYROM"), Kosovo and Turkey. In Indonesia, Luxembourg, Qatar and Switzerland, science departments in public schools are better-equipped and -staffed than those in private schools.

Figure II.2.6 ▪ **Science-specific resources, school characteristics and science outcomes**

Results based on school principals' reports

■ Positive difference/association
▨ Negative difference/association
□ Difference/association is not significant
▒ Missing values



	School characteristics			Science outcomes[1]		
	Advantaged – disadvantaged	Urban – rural	Private – public	Science score	Epistemic beliefs	Science career
Qatar	□	■	▨	▨	□	□
United Arab Emirates	□	□	□	□	□	□
Malta	■	▒	■	■	□	■
Singapore	■	▒	■	□	■	□
Australia	■	■	■	■	□	□
Luxembourg	■	▒	▨	■	■	■
Macao (China)	■	▒	▒	■	■	□
Hong Kong (China)	□	▒	□	□	□	□
New Zealand	□	□	■	□	□	□
CABA (Argentina)	■	▒	■	□	□	□
United Kingdom	□	□	□	□	□	□
Lebanon	■	□	■	□	□	□
Uruguay	■	□	■	■	□	■
Romania	□	■	▒	□	□	■
Portugal	■	■	□	■	□	■
Ireland	■	■	■	□	□	□
Latvia	■	■	□	□	□	□
Canada	■	□	■	□	□	■
Jordan	■	■	■	□	□	□
United States	■	□	■	□	□	□
Slovenia	■	■	■	■	□	■
Korea	□	▒	□	■	□	□
Israel	□	□	▒	■	□	■
Russia	■	■	▒	■	□	■
B-S-J-G (China)	■	■	□	□	□	□
Algeria	□	■	▒	□	□	■
Belgium	■	▨	▒	■	□	□
France	■	□	□	■	□	■
Netherlands	■	▒	□	■	■	□
Chinese Taipei	■	▒	□	■	■	■
Italy	□	□	□	■	□	■
Trinidad and Tobago	■	▒	■	■	□	□
Viet Nam	■	■	□	■	■	■
Poland	□	□	□	□	□	□
OECD average	■	■	■	■	■	■
Switzerland	■	■	▨	■	■	■
Greece	□	□	■	■	■	□
Moldova	■	□	▒	□	□	□
Germany	■	□	□	□	□	□
Lithuania	■	■	□	□	□	□
Spain	■	■	■	□	□	□
Denmark	□	□	□	■	■	□
Sweden	□	□	□	□	□	□
Bulgaria	■	■	▒	□	□	■
Czech Republic	■	□	□	■	□	■
Chile	■	■	■	■	□	□
Thailand	■	■	□	□	□	□
Norway	■	■	□	□	□	□
Colombia	■	■	■	□	□	□
Slovak Republic	■	□	□	□	□	■
Tunisia	□	□	■	□	□	□
Estonia	□	□	□	□	□	□
Austria	■	□	□	■	□	■
Georgia	■	■	■	□	□	□
Croatia	■	▒	□	■	□	■
Dominican Republic	■	■	■	■	□	□
Finland	■	□	■	□	□	□
Indonesia	■	■	▨	■	□	□
Montenegro	▨	▒	▒	□	□	■
Iceland	■	■	▒	□	□	□
Mexico	■	■	■	■	□	□
Costa Rica	□	□	■	□	□	□
FYROM	■	▨	■	■	■	■
Kosovo	■	■	■	■	□	□
Hungary	■	□	□	■	□	■
Brazil	■	■	■	■	■	□
Peru	■	■	□	□	□	□
Turkey	■	□	■	■	■	■
Japan	■	▒	□	□	□	□
Education systems with a positive difference/association	50	28	27	32	12	24
Education systems with no difference/association	17	25	27	35	56	44
Education systems with a negative difference/association	1	2	4	1	0	0

1. After accounting for the PISA index of economic, social and cultural status of students and schools.

Note: See Annex A7 for instructions on how to interpret this figure.

Countries and economies are ranked in descending order of the index of science-specific resources.

Source: OECD, PISA 2015 Database, Table II.2.6.

StatLink http://dx.doi.org/10.1787/888933435492

Box II.2.2. How PISA defines urban and rural schools

PISA asked school principals which of the following definitions best describes the community in which their school is located:

- A village, hamlet or rural area (fewer than 3 000 people)
- A small town (3 000 to about 15 000 people)
- A town (15 000 to about 100 000 people)
- A city (100 000 to about 1 000 000 people)
- A large city (with over 1 000 000 people)

Rural schools are those where the principal answered "a village, hamlet or rural area", whereas urban schools are those where the principal answered either "a city" or "a large city".

Box II.2.3. How PISA defines public and private schools

Schools are classified as either public or private, according to whether a private entity or a public agency has the ultimate power to make decisions concerning its affairs (Question SC013). Public schools are managed directly or indirectly by a public education authority, government agency, or governing board appointed by government or elected by public franchise. Private schools are managed directly or indirectly by a non-government organisation, such as a church, trade union, business, or other private institution.

On average across OECD countries, students in schools whose principals reported a well-equipped and well-staffed science department generally perform better in science – by about three score points for every positive statement the school principal reported as true – after accounting for the socio-economic profile of students and schools (Table II.2.6). But having a well-equipped and well-staffed science department is less strongly related to students' beliefs about the nature of scientific knowledge and how it is acquired. In only 12 countries and economies do students hold stronger epistemic beliefs when the science department in their school is well-equipped and -staffed (Figure II.2.6). In 24 education systems, students in schools whose principal reported that the science department enjoys more resources were more likely to report that they expect to work in a science-related occupation in the future.

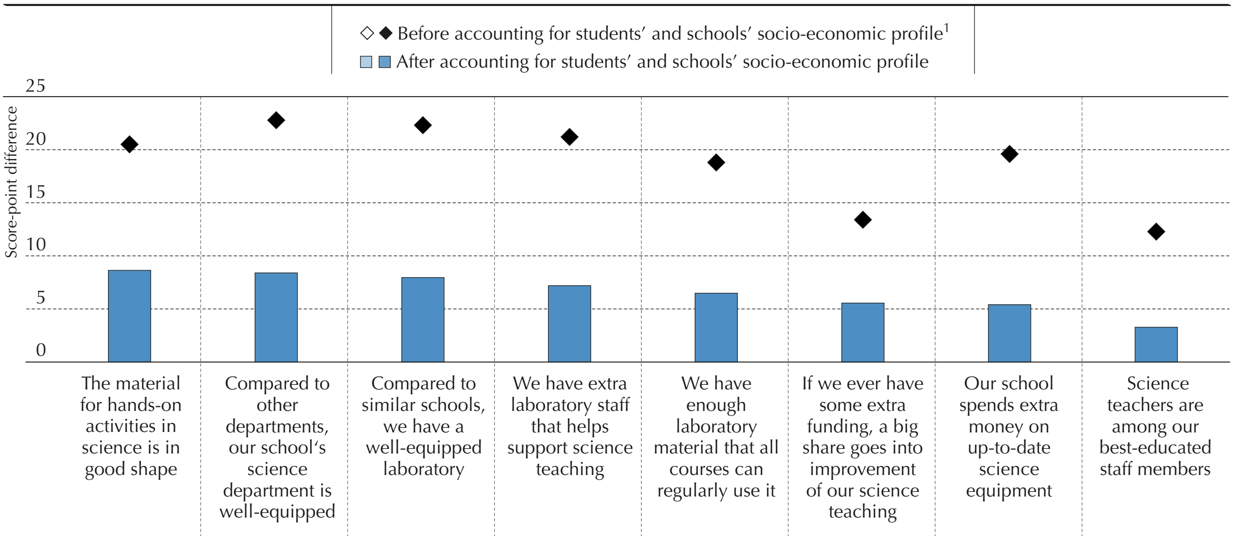
Among the individual questions on resources asked of principals, equipping the science department and laboratories adequately (compared to other school departments and to similar schools), and having materials for hands-on activities that are in good shape are most strongly associated with student performance, after accounting for the socio-economic status of students and schools (Figure II.2.7). On average across OECD countries, students in schools whose principal reported the material for hands-on activities in science is in good shape, score nine points higher on the PISA science assessment. Principals' reports that the school's science teachers are among the best-educated staff members show the weakest association with student performance in science.

Science teaching staff

Since the quality of learning cannot exceed the quality of teaching, science teachers are an essential resource for learning science. The type and quality of the training teachers receive, and the requirements to enter and progress through the teaching profession, can have a significant impact on the quality of teaching. It is difficult to assess the quality of teachers and teaching but, to this end, PISA asked school principals to report on the composition and qualifications of the science teachers in their schools. More specifically, principals were asked how many science teachers had been fully certified – having earned the credentials to teach – by an appropriate authority, and how many science teachers had a university degree with a major in science. In most OECD countries, teachers are required to have earned a university degree and been certified by an education authority; however, many teachers who have earned a university degree do not always need a specific or additional licence to teach, and some fully certified teachers may not have earned a university degree.

Figure II.2.7 ▪ **Science-specific resources at school and science performance**

Results based on school principals' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: All differences are statistically significant (see Annex A3).

Source: OECD, PISA 2015 Database, Table II.2.7.

StatLink http://dx.doi.org/10.1787/888933435507

According to school principals, most of the science teachers in their schools have some form of certification or qualification. Across OECD countries, 84% of science teachers are fully certified and 74% have a university degree with a major in science (Table II.2.8). The percentage of certified science teachers varies from virtually all teachers in some education systems, including those in Bulgaria, Japan, Lithuania, Macao (China) and Romania, to less than 40% in Chile, Colombia, Georgia and Mexico. Similarly, the percentage of science teachers with a university degree and a major in science ranges from more than 95% of teachers in Bulgaria, Costa Rica and Montenegro, to less than 25% in Italy, Peru and Uruguay.

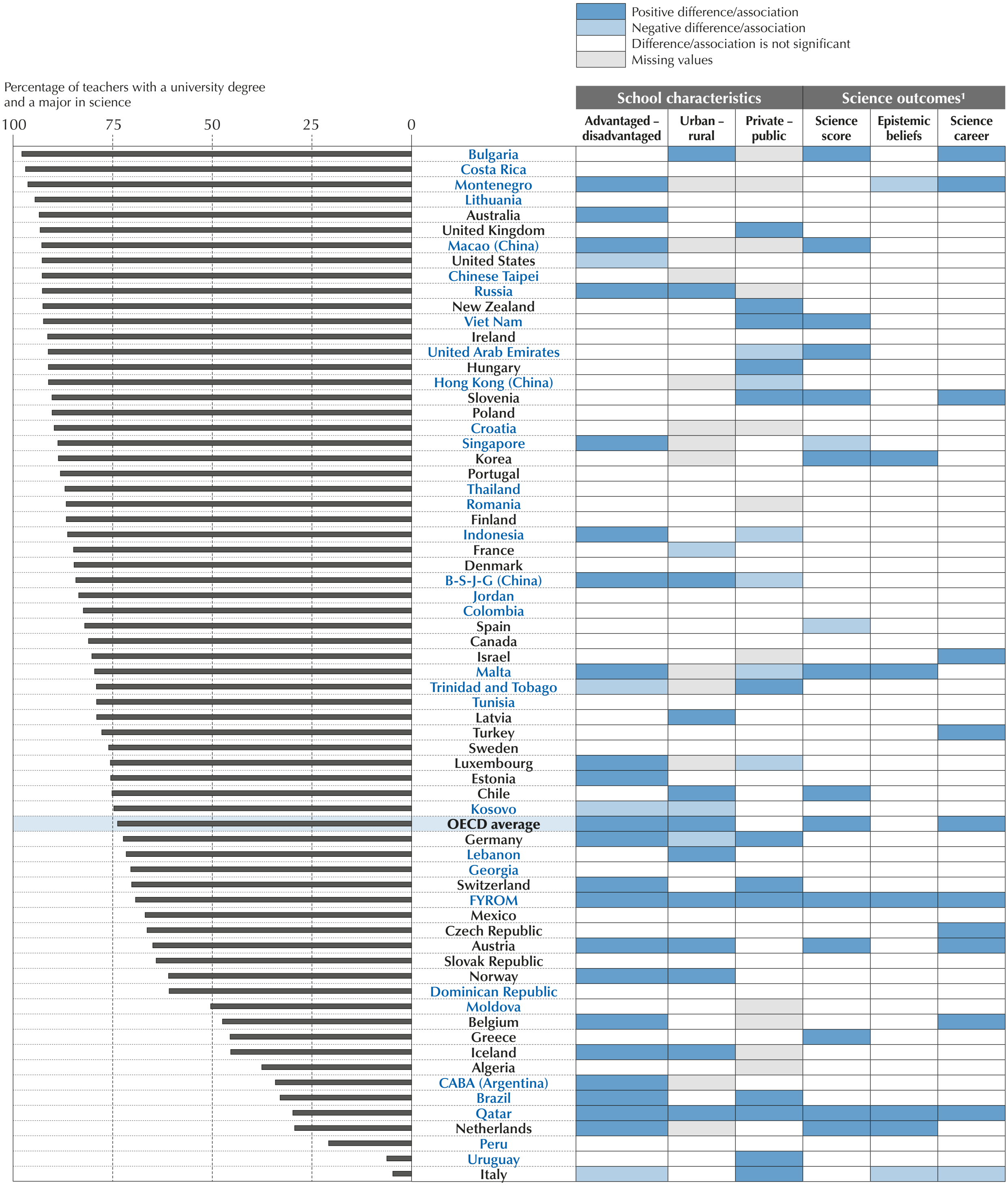
In 20 PISA-participating education systems, advantaged schools have a larger proportion of fully certified science teachers than disadvantaged schools, particularly those in Austria, France and Indonesia (Table II.2.9). In 11 education systems, private schools have a larger proportion of fully certified science teachers than public schools. This difference is particularly striking in the United Arab Emirates and Viet Nam, where there is a 15 percentage-point difference, at least, between private and public schools in the percentage of fully certified science teachers. In 12 countries and economies public schools have a larger proportion of certified science teachers than private schools, particularly so in Costa Rica, FYROM, Indonesia, Italy, and Qatar.

In most education systems, the proportion of fully certified science teachers shows no association with student performance in science (Table II.2.9). Across OECD countries, for every ten percentage-point increase in the number of fully certified science teachers, students' performance in science improves by only 1.2 score points, after accounting for students' and schools' socio-economic profile. The relationship between the proportion of fully certified science teachers and students' epistemic beliefs and their expectation to work in a science-related career appears to be even weaker, given the few countries and economies where there is a relationship. These findings are consistent with some empirical studies showing that teacher certification alone does not automatically raise student achievement (Goldhaber and Brewer, 2000).

Results are similar for the percentage of science teachers with a university degree and a major in science (Figure II.2.8). In most education systems, the proportion of qualified science teachers is similar across all types of schools. However, on average across OECD countries, there are more qualified teachers in advantaged than in disadvantaged schools and in urban than in rural schools. The largest differences between advantaged and disadvantaged schools are observed in Austria, Ciudad Autónoma de Buenos Aires (Argentina) (hereafter "CABA [Argentina]"), the Netherlands and Switzerland, most of which are education systems with early tracking – students are selected into different curricular paths at the age of 10 or 12 (Figure II.5.8) – and considerable between-school differences in performance (Figure II.5.12). How students are selected and grouped across education systems is discussed at length in Chapter 5.

Figure II.2.8 ▪ **Science teachers' qualifications, school characteristics and science outcomes**

Results based on students' self-reports



■ Positive difference/association
▨ Negative difference/association
□ Difference/association is not significant
░ Missing values

	School characteristics			Science outcomes¹		
	Advantaged – disadvantaged	Urban – rural	Private – public	Science score	Epistemic beliefs	Science career
Bulgaria	□	■	░	■	□	■
Costa Rica	□	□	□	□	□	□
Montenegro	■	░	░	□	▨	■
Lithuania	□	□	□	□	□	□
Australia	■	□	□	□	□	□
United Kingdom	□	□	■	□	□	□
Macao (China)	■	░	░	■	□	□
United States	▨	□	□	□	□	□
Chinese Taipei	□	░	□	□	□	□
Russia	■	■	░	□	□	□
New Zealand	□	□	■	□	□	□
Viet Nam	□	□	■	■	□	□
Ireland	□	□	□	□	□	□
United Arab Emirates	□	□	▨	■	□	□
Hungary	□	□	■	□	□	□
Hong Kong (China)	□	░	▨	□	□	□
Slovenia	□	□	■	■	□	■
Poland	□	□	□	□	□	□
Croatia	□	░	░	□	□	□
Singapore	■	░	□	▨	□	□
Korea	□	░	□	■	■	□
Portugal	□	□	□	□	□	□
Thailand	□	□	□	□	□	□
Romania	□	□	░	□	□	□
Finland	□	□	□	□	□	□
Indonesia	■	□	▨	□	□	□
France	□	▨	□	□	□	□
Denmark	□	□	□	□	□	□
B-S-J-G (China)	■	■	▨	□	□	□
Jordan	□	□	□	□	□	□
Colombia	□	□	□	□	□	□
Spain	□	□	□	▨	□	□
Canada	□	□	□	□	□	□
Israel	□	□	░	□	□	■
Malta	■	░	▨	■	■	□
Trinidad and Tobago	▨	░	■	□	□	□
Tunisia	□	□	□	□	□	□
Latvia	□	■	□	□	□	□
Turkey	□	□	□	□	□	■
Sweden	□	□	□	□	□	□
Luxembourg	■	░	▨	□	□	□
Estonia	■	□	□	□	□	□
Chile	□	■	□	■	□	□
Kosovo	▨	▨	□	□	□	□
OECD average	■	■	□	■	□	■
Germany	■	▨	■	□	□	□
Lebanon	□	■	□	□	□	□
Georgia	□	□	□	□	□	□
Switzerland	■	□	■	□	□	□
FYROM	■	■	■	■	■	■
Mexico	□	□	□	□	□	□
Czech Republic	□	□	□	□	□	■
Austria	■	■	□	■	□	■
Slovak Republic	□	□	□	□	□	□
Norway	■	■	□	□	□	□
Dominican Republic	□	□	□	□	□	□
Moldova	□	□	░	□	□	□
Belgium	■	□	░	□	□	■
Greece	□	□	□	■	□	□
Iceland	■	■	░	□	□	□
Algeria	□	□	░	□	□	□
CABA (Argentina)	■	░	□	□	□	□
Brazil	■	□	■	□	□	□
Qatar	■	■	■	■	■	■
Netherlands	■	░	□	■	■	□
Peru	□	□	□	□	□	□
Uruguay	□	□	■	□	□	□
Italy	▨	□	■	□	▨	▨

Education systems with a positive difference/association	21	11	13	13	5	10
Education systems with no difference/association	42	41	37	52	60	56
Education systems with a negative difference/association	4	3	6	2	2	1

1. After accounting for the PISA index of economic, social and cultural status of students and schools.

Countries and economies are ranked in descending order of the percentage of science teachers with a university degree and a major in science.

Source: OECD, PISA 2015 Database, Table II.2.10.

StatLink http://dx.doi.org/10.1787/888933435518

On average across OECD countries and in 13 countries and economies, students score higher in science when there is a larger proportion of science teachers with a university degree and a major in science in their schools (Figure II.2.8 and Table II.2.10). In the Netherlands and Qatar, for example, a ten percentage-point increase in the number of science teachers with a university degree and a major in science is associated with an improvement of almost eight score points in science performance, after accounting for the socio-economic profile of both students and schools. However, in most education systems, the percentage of teachers with a university degree and science scores are not related, which is consistent with previous studies showing that just having highly qualified teachers is usually not enough to improve student performance (Hanushek, Piopiunik and Wiederhold, 2014; Palardy and Rumberger, 2008). Similarly, across OECD countries, having a larger proportion of qualified teachers does not necessarily translate into stronger epistemic beliefs among the students in a school, and is only weakly linked to students' expectation to work in a science-related occupation when they are 30.

Extracurricular science activities

Laboratories and experiments are not the only ways through which schools can engage students in learning science. Schools can organise field trips, visits to museums, laboratories or zoos, or can encourage students to participate in science clubs and competitions. These extracurricular activities can help students understand scientific concepts, raise interest in science and even nurture future scientists (Bellipanni and Lilly, 1999; Huler, 1991). Students who participate in science competitions, for instance, show a genuine interest in learning science (Abernathy and Vineyard, 2001; Czerniak and Lumpe, 1996), and both boys and girls develop the desire to understand scientific phenomena (Höffler, Bonin and Parchmann, 2016). Some experts argue that science clubs can also foster greater interest in science by emphasising the fun aspect of school science, especially among minority groups (Thomas, 1986; Yaakobi, 1981).

Principals were asked if their school offers a science club and science competitions at the school. Across OECD countries, 39% of students are enrolled in schools that offer a science club and 66% attend schools that offer science competitions (Figure II.2.9). Science clubs are most commonly offered in East Asian countries and economies. For example, in Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), Hong Kong (China) and Korea, more than 90% of students attend schools that offer science clubs. Science competitions, by contrast, are most frequently offered in several Eastern European countries, including Estonia, Hungary, Lithuania, Moldova, Poland and the Russian Federation (hereafter "Russia"), where more than 90% of students attend schools that offer these science activities.

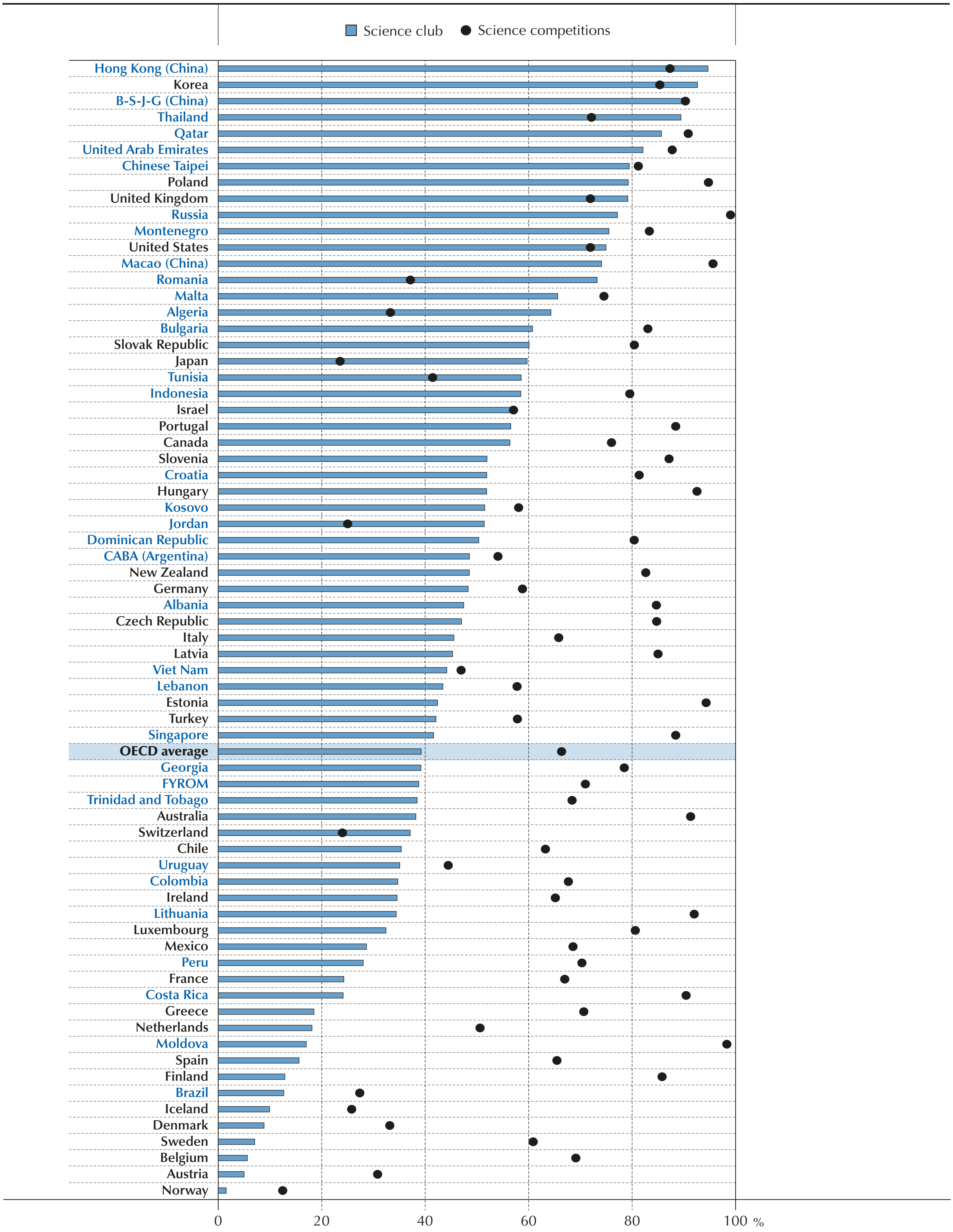
On average across OECD countries, advantaged schools offer science clubs and competitions more often than disadvantaged schools do (Table II.2.12 and Table II.2.13). For example, while 53% of students enrolled in disadvantaged schools are offered science competitions, 78% of students in advantaged schools are offered this activity (Figure II.2.10). In 41 of 69 PISA-participating countries and economies, students attending advantaged schools are offered science competitions more frequently than students attending disadvantaged schools. The largest differences are observed mainly in education systems with early tracking, including Austria, Germany, Luxembourg, the Netherlands and Switzerland.

These large differences suggest than low-performing students in these education systems may have fewer opportunities to acquire scientific competencies, such as by participating in science-related extracurricular activities, than top-performing students. On average across OECD countries, students in schools that offer science competitions score 36 points higher in science (12 points higher after accounting for students' and schools' socio-economic profile) and 21 points higher if the school offers a science club (6 points higher after accounting for students' and schools' socio-economic profile) (Figure II.2.11 and Table II.2.12). The largest differences in performance between students who are offered extracurricular science-related activities and those who are not are observed in the Netherlands and Chinese Taipei. For example, in the Netherlands, students who are offered science competitions score 97 points higher in science than students who are not offered these activities (after accounting for the socio-economic status of students and schools, the former group of students scores 43 points higher). Having access to a science club in Chinese Taipei is associated with scoring 60 score points higher on the PISA science assessment, and 22 score points after accounting for socio-economic status.

Across OECD countries, students who attend schools that offer science-related extracurricular activities hold stronger epistemic beliefs, such as believing that scientific ideas sometimes change or that evidence comes from experiments. In 18 education systems, particularly those in Korea, Montenegro and Thailand, students in schools that offer a science club are more likely to expect to work in science-related occupations, after accounting for the socio-economic status of students and schools (Table II.2.12). In 23 education systems, students in schools that offer science competitions are also more likely to expect to work in a science-related occupation when they are 30 (Table II.2.13).

Figure II.2.9 ▪ **Science-related extracurricular activities offered at school**

Results based on school principals' reports

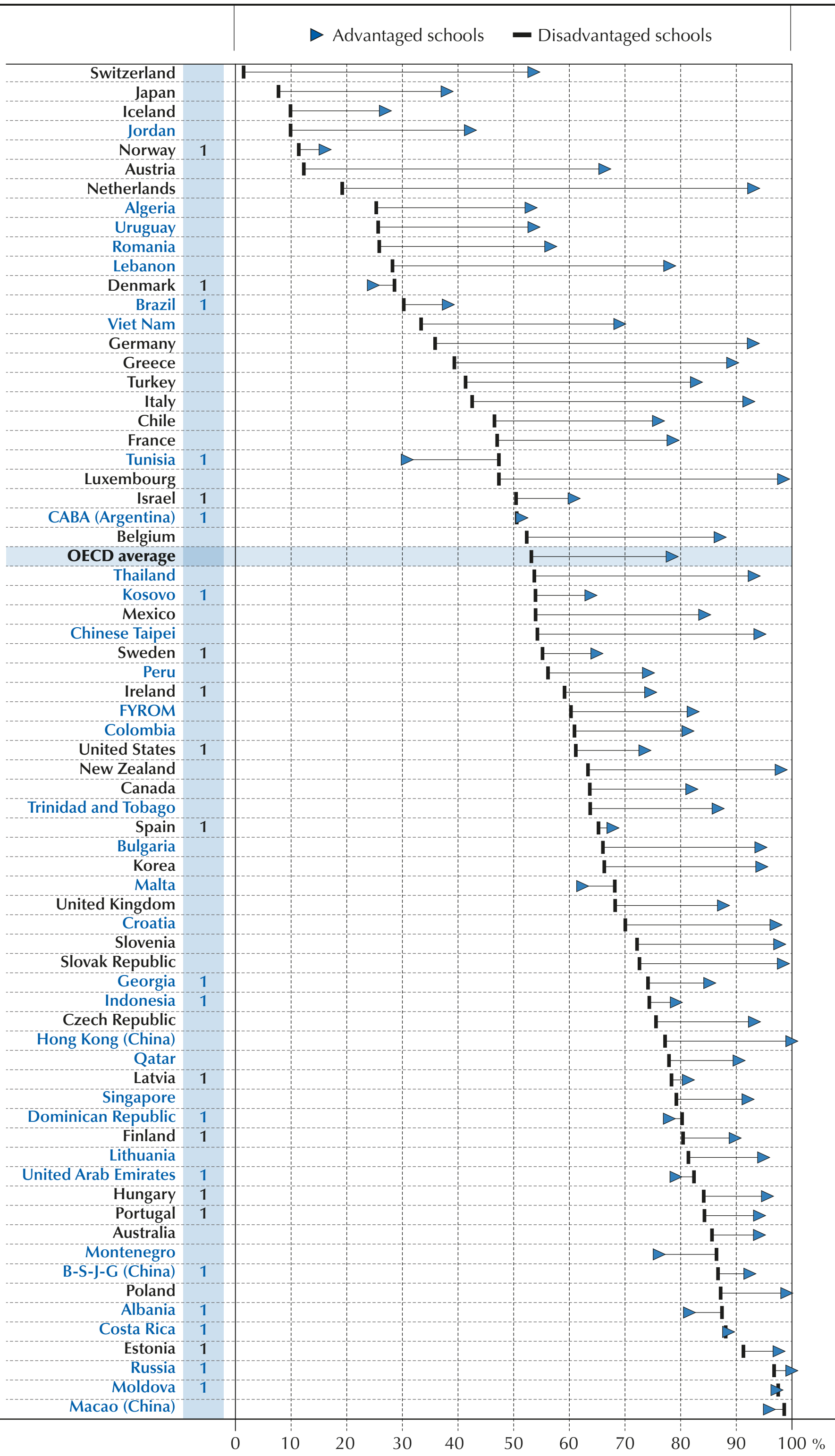


Countries and economies are ranked in descending order of the percentage of schools offering a science club.
Source: OECD, PISA 2015 Database, Table II.2.11.

StatLink `http://dx.doi.org/10.1787/888933435520`

Figure II.2.10 ■ **Science competitions offered at school, by schools' socio-economic profile**

Results based on school principals' reports



1. Differences between advantaged and disadvantaged schools are not statistically significant (see Annex A3).

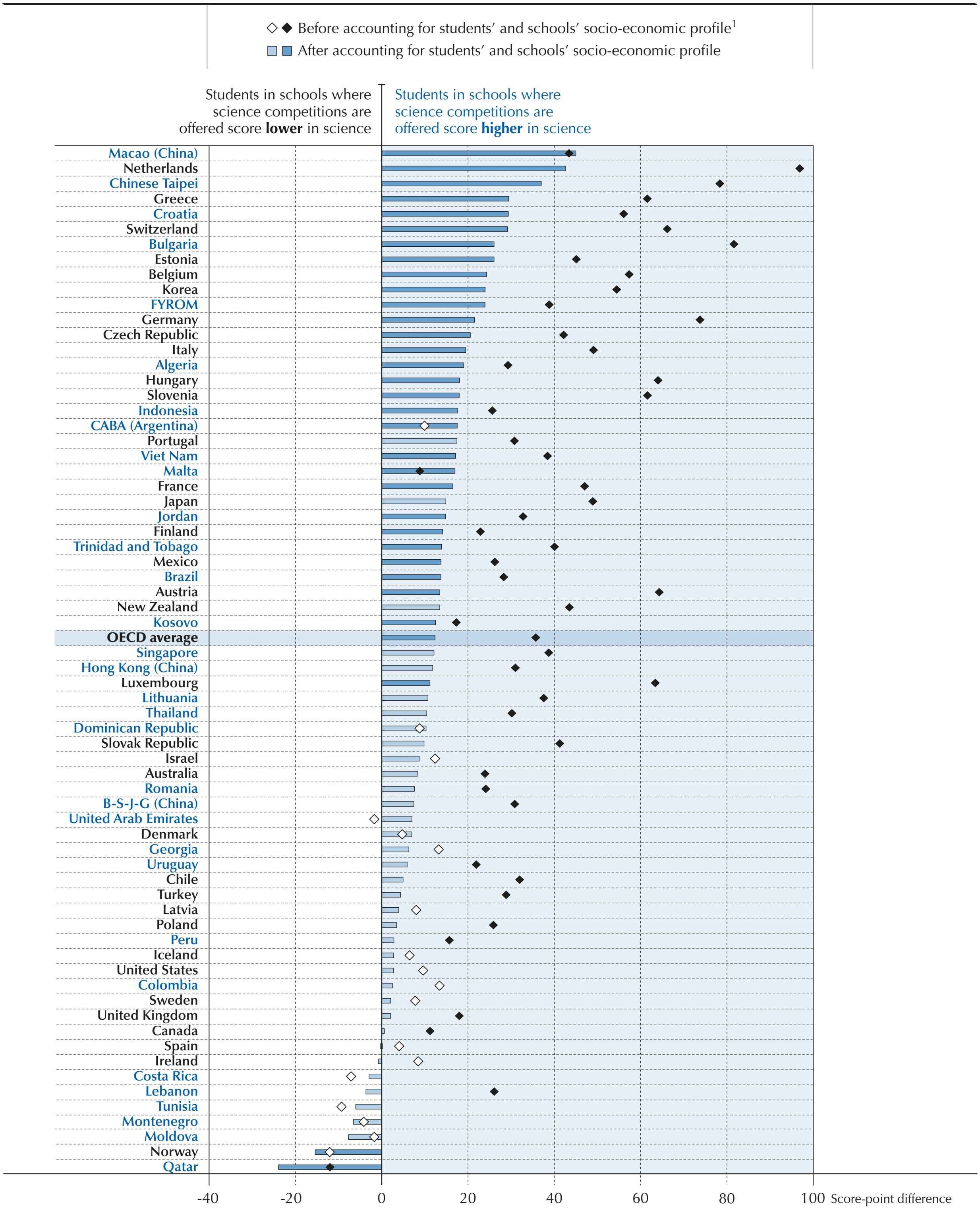
Countries and economies are ranked in ascending order of the percentage of students in disadvantaged schools who are offered science competitions at school.

Source: OECD, PISA 2015 Database, Table II.2.13.

StatLink http://dx.doi.org/10.1787/888933435530

Figure II.2.11 ■ **Science competitions offered at school and science performance**

Results based on school principals' reports



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

Countries and economies are ranked in descending order of the score-point difference when science competitions are offered at school, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table II.2.13.

StatLink http://dx.doi.org/10.1787/888933435544

Surprisingly, students in schools that offer a science club as a school activity are equally likely to participate in a science club as students in schools that do not offer that activity (Table II.2.14). This might be because schools in which students are (not) already attending a science club outside of school may have less (more) incentive to offer a science club themselves.

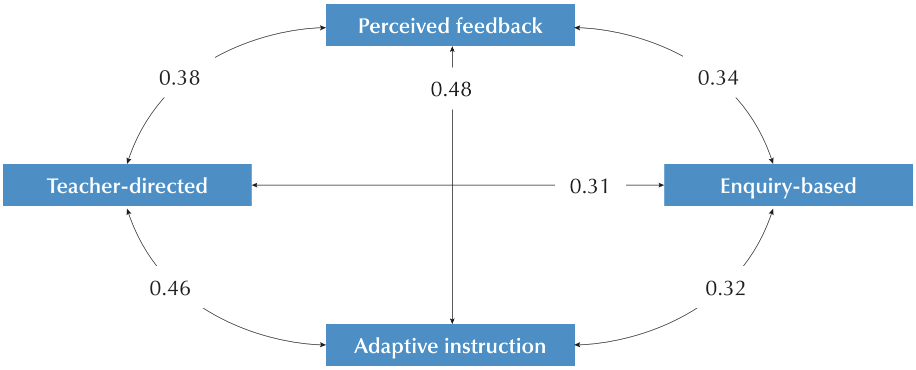
TEACHING SCIENCE

How science is taught at school can make a big difference for students. Education systems, schools and teachers need to decide how much emphasis is given to learning concepts and facts, observing natural phenomena, designing and conducting experiments, and applying scientific ideas and technologies to understand daily life. Science teachers also need to decide which strategies to use in the classroom, and how much time to allocate to each of them; how much time will be devoted to explanations, class discussions, debates, hands-on activities and students' questions; how much feedback they will provide to students; and how flexible their lessons will be. The way science is taught could affect student performance and students' beliefs about and interest in science. Even if there is no single "best" way of teaching, students need teachers who are challenging and innovative in the way they combine different instructional practices, and who can reach all types of learners (OECD, 2016).

PISA 2015 asked students who attend at least one science course how often certain activities happen in their science lessons. While students may not always recall exactly what happens in their science lessons, students' reports are often more reliable than teachers' reports, as teachers will often overstate how much they expose their students to activities that are positively viewed by others (Hodson, 1993). The teaching strategies used by teachers are grouped into four approaches: teacher-directed instruction, perceived feedback, adaptive instruction and enquiry-based instruction. According to students' reports, these teaching approaches are not mutually exclusive, even if some teaching approaches, such as adaptive teaching and providing feedback, are more frequently combined than others (Figure II.2.12).

Figure II.2.12 ▪ **Relationships among instructional practices in science**

Correlations at the student-level based on students' reports, OECD average



Source: OECD, PISA 2015 Database, Table II.2.15.

Teacher-directed science instruction

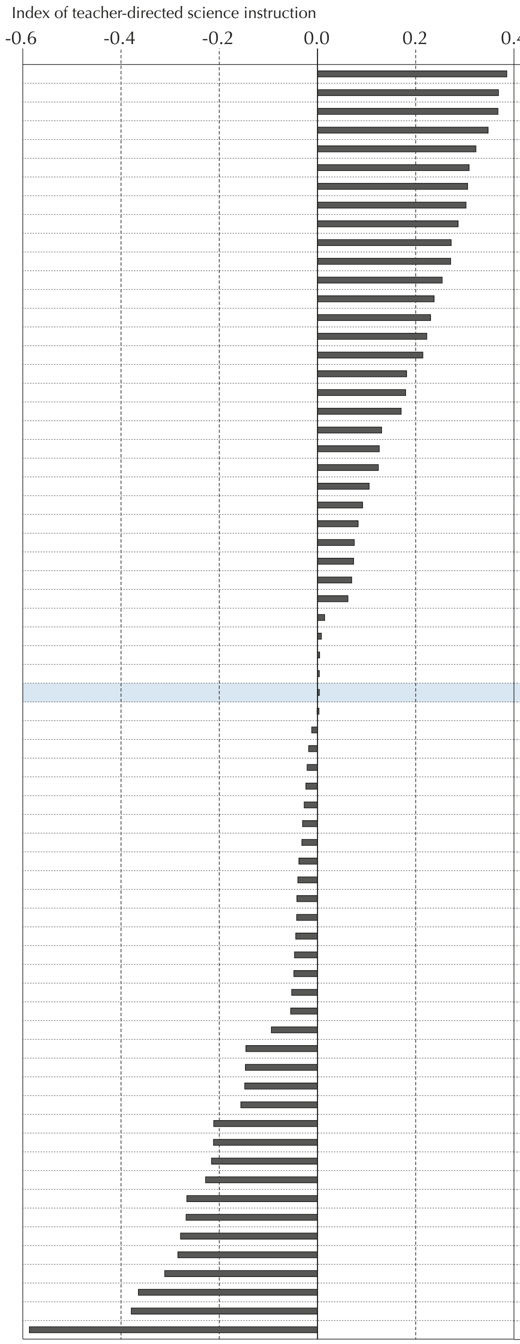
The goal of teacher-directed science instruction is to provide a well-structured, clear and informative lesson on a topic, which usually includes teachers' explanations, classroom debates and students' questions. Even if these strategies render students passive during class, some teacher direction is essential if students are expected to acquire generally accepted science knowledge (Driver, 1995). As with other teaching approaches, much of the effectiveness depends on how well the strategies are used in the classroom.

PISA asked students how frequently ("never or almost never", "some lessons", "many lessons" or "every lesson or almost every lesson") the following events happen in their science lessons: "The teacher explains scientific ideas"; "A whole class discussion takes place with the teacher"; "The teacher discusses our questions"; and "The teacher demonstrates an idea". The index of teacher-directed instruction combines these four questions to measure the extent to which science teachers direct student learning in science lessons. Higher values on this index, and other indices on science instruction, indicate more frequent use of these strategies, according to students' reports.

Figure II.2.13 ▪ **Teacher-directed science instruction, school characteristics and science outcomes**

Results based on students' reports

■ Positive difference/association
▧ Negative difference/association
□ Difference/association is not significant
░ Missing values



	School characteristics			Science outcomes[1]		
	Advantaged – disadvantaged	Urban – rural	Private – public	Science score	Epistemic beliefs	Science career
Thailand	□	□	▧	■	■	□
Canada	□	□	■	■	■	■
Jordan	■	■	■	■	■	■
Portugal	□	□	□	■	■	■
United States	■	□	□	■	■	■
Tunisia	□	□	□	■	■	■
Russia	□	□	░	■	■	□
United Arab Emirates	□	□	□	■	■	■
New Zealand	□	□	■	■	■	■
Australia	■	□	■	■	■	■
Singapore	■	░	■	■	■	■
Lebanon	□	□	■	■	■	■
Poland	□	▧	□	■	■	■
Finland	■	■	■	■	■	■
Greece	■	□	■	■	■	■
Iceland	■	■	░	■	■	■
Qatar	■	□	■	■	■	■
Algeria	□	□	░	■	■	■
Chinese Taipei	■	░	▧	■	■	□
Switzerland	■	□	□	■	■	■
Dominican Republic	■	□	□	■	■	■
Malta	■	░	■	■	■	■
Hong Kong (China)	■	░	□	■	■	■
United Kingdom	□	□	□	■	■	■
Mexico	□	□	□	■	■	□
Israel	□	□	░	■	■	■
Trinidad and Tobago	■	░	□	■	■	■
Moldova	□	■	░	■	■	■
Spain	■	□	■	■	■	■
Lithuania	□	□	□	■	■	□
B-S-J-G (China)	■	■	□	■	■	■
Hungary	■	□	□	■	■	■
Croatia	□	░	□	■	■	■
OECD average	■	□	■	■	■	■
Norway	□	■	□	■	■	□
Austria	■	□	■	■	■	■
Ireland	□	□	□	■	■	■
Peru	□	□	□	□	■	■
Colombia	■	■	■	■	■	□
Macao (China)	□	░	░	■	■	■
Georgia	▧	▧	■	■	■	□
Latvia	□	□	□	■	■	□
Turkey	□	░	□	■	■	■
Chile	■	□	□	■	■	□
Viet Nam	□	□	□	■	■	■
Sweden	■	□	□	■	■	■
CABA (Argentina)	■	░	■	■	■	□
Estonia	□	□	□	■	■	■
FYROM	■	□	□	■	■	■
Luxembourg	■	░	■	■	■	■
France	■	▧	□	■	■	■
Bulgaria	□	□	░	■	■	■
Brazil	■	□	■	■	■	□
Denmark	■	□	■	■	■	□
Italy	■	□	□	■	■	■
Indonesia	■	□	□	▧	■	□
Japan	■	░	□	■	■	■
Costa Rica	■	□	□	■	■	□
Belgium	□	□	░	■	■	■
Germany	■	□	□	■	■	■
Montenegro	▧	░	░	■	■	□
Netherlands	■	░	□	■	■	■
Uruguay	■	■	■	■	■	□
Kosovo	■	■	□	■	■	■
Romania	■	□	░	■	■	■
Czech Republic	■	□	■	■	■	□
Slovak Republic	□	▧	□	■	■	■
Korea	□	░	□	□	■	■

Education systems with a positive difference/association	37	9	20	64	67	49
Education systems with no difference/association	28	40	35	2	0	18
Education systems with a negative difference/association	2	4	2	1	0	0

1. After accounting for the PISA index of economic, social and cultural status of students and schools.

Countries and economies are ranked in descending order of the index of teacher-directed science instruction.

Source: OECD, PISA 2015 Database, Table II.2.17.

StatLink http://dx.doi.org/10.1787/888933435551

Like mathematics teachers (OECD, 2016), science teachers use teacher-directed strategies more frequently than other types of instructional practices (Tables II.2.16, II.2.19, II.2.22 and II.2.26). These strategies may be used more frequently because they are less time-consuming (efficient), they are easier to implement (convenient), and some degree of transmission from knowledgeable others to students is essential, particularly when it comes to scientific knowledge. If a teacher needs to cover a long curriculum, it can be difficult to use other teaching approaches frequently, such as giving individual feedback to students, providing individualised support to struggling students or allowing students to design their own experiments. In fact, among the four teacher-directed strategies, organising "a whole class discussion" is the least frequently used, according to students, probably because it takes up more classroom time.

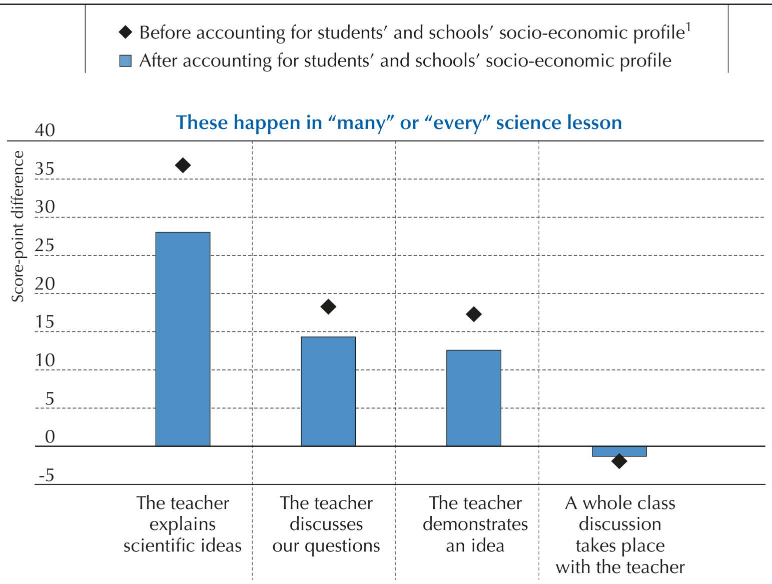
Across OECD countries, teacher-directed instruction is more commonly used in socio-economically advantaged schools than in disadvantaged schools, with the largest differences between the two types of schools observed in B-S-J-G (China), Colombia and Kosovo (Table II.2.17). In 21 countries and economies, these strategies are more frequently used in private schools than in public schools; only in Chinese Taipei and Thailand are they more frequently used in public schools (Figure II.2.13).

In all but three education systems – Indonesia, Korea and Peru – using teacher-directed instruction more frequently is associated with higher science achievement, after accounting for the socio-economic status of students and schools; and students in all countries also hold stronger epistemic beliefs, such as believing that scientific ideas change in light of new evidence, when their teachers used these strategies more frequently (Figure II.2.13). A positive association is also observed between these teaching practices and students' expectations of pursuing science-related careers. In no education system are these instructional practices associated with students being less likely to expect to work in science-related occupations.

On average across OECD countries, and after accounting for the socio-economic status of students and schools, students who reported that their teacher explains scientific ideas "in many lessons" or in "every lesson" score 28 points higher in science; those who reported that their teacher discusses students' questions as frequently score 14 points higher; and students who reported that their teacher demonstrates an idea "in many lessons" or in "every lesson" score 13 points higher in science (Figure II.2.14). However, students score somewhat lower in science when they reported that a whole class discussion occurs "in many lessons" or "every lesson".

Figure II.2.14 ▪ **Teacher-directed teaching practices and science performance**

Results based on students' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: All differences are statistically significant (see Annex A3).

Source: OECD, PISA 2015 Database, Table II.2.18.

StatLink http://dx.doi.org/10.1787/888933435569

Perceived feedback from science teachers

Providing informative and encouraging feedback is essential for improving student outcomes (Hattie and Timperley, 2007; Lipko-Speed, Dunlosky and Rawson, 2014). Feedback in education usually refers to the information that students receive from peers, parents and teachers after they carry out an assignment, usually some type of assessment. The aim of this information is to modify or reinforce student behaviours. Feedback can take several forms, such as praise, surprise, approval or punishment, but it needs to contain some information about a task (Deci, Koestner and Ryan, 1999). However, not all types of feedback are equally effective. The most useful feedback goes in both directions – from teacher to student and back again – and relates feedback to learning goals (Hattie, 2009).

PISA asked students how frequently ("never or almost never", "some lessons", "many lessons" or "every lesson or almost every lesson") the following happens in their science lessons: "The teacher tells me how I am performing in this course"; "The teacher gives me feedback on my strengths in this class"; "The teacher tells me in which areas I can still improve"; "The teacher tells me how I can improve my performance"; and "The teacher advises me on how to reach my learning goals". The index of perceived feedback combines these five questions to measure the extent to which students perceive that their science teachers provide them with regular feedback.

On average across OECD countries, each of the five types of feedback was reported as being used in every lesson or almost every lesson by fewer than 10% of students; about 20% of students reported that they are used in many lessons. For example, 32% of students reported that their teachers never or almost never tell them in which areas they can still improve or advise them on how to reach their learning goals, and as many as 38% reported that their teachers never give them feedback on their strengths (Table II.2.19). These percentages would probably be higher if teachers were asked about how much feedback they provide as teachers usually say they provide more feedback than what students perceive (Carless, 2006).

Students in disadvantaged and rural schools were more likely to report that their teachers provide them with feedback (Figure II.2.15). More perceived feedback is also associated with poorer performance in science, probably because low-performing students need and receive more feedback than better-performing students. Across OECD countries, the more students perceive that their teachers frequently provide feedback, the more likely they are to expect to work in science-related careers and the stronger their epistemic beliefs.

The relationship with science performance is similar for the different types of perceived feedback (Table II.2.21). Across OECD countries and after accounting for socio-economic status, students score between 5 and 17 points lower in science when they reported that their teachers use these strategies "in many lessons" or "every or almost every lesson" than when they reported that they use them in "some lessons" or "never or almost never".

Adaptive instruction in science lessons

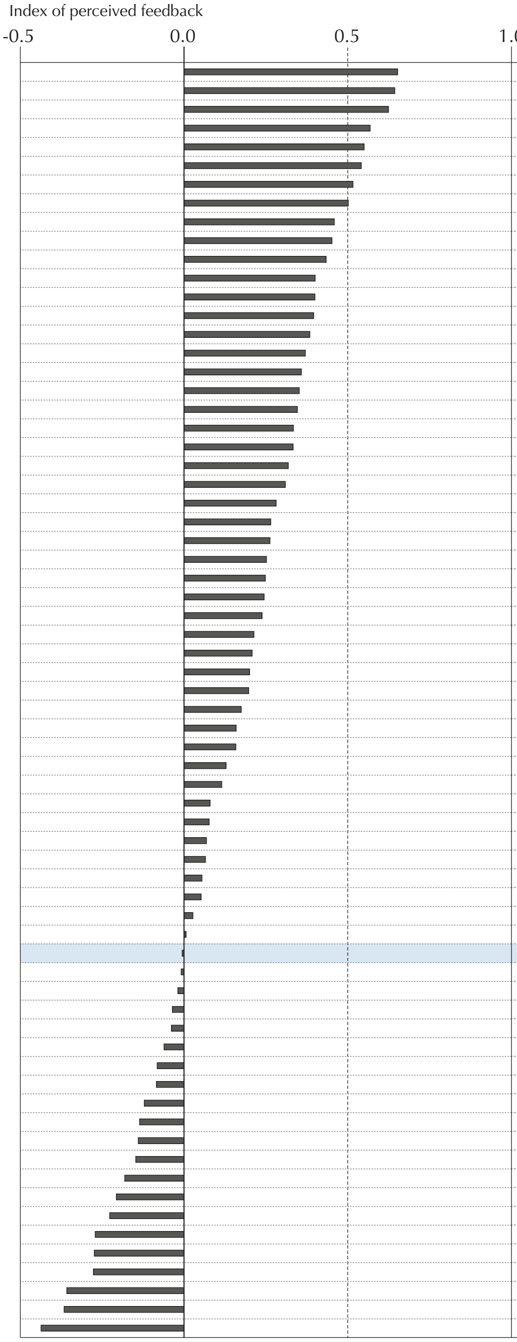
Adaptive instruction refers to teachers' flexibility with their lessons: tailoring the lessons to the students in their classes, including to individual students who are struggling with a topic or a task. Adapting science lessons to students with different knowledge, abilities and needs is crucial if the goal is to teach science to all types of students (Hofstein and Lunetta, 2004).

PISA asked students how frequently ("never or almost never", "some lessons", "many lessons" or "every lesson or almost every lesson") the following happens in their science lessons: "The teacher adapts the lesson to my class's needs and knowledge"; "The teacher provides individual help when a student has difficulties understanding a topic or task"; and "The teacher changes the structure of the lesson on a topic that most students find difficult to understand". The index of adaptive instruction combines these three questions to measure the extent to which students perceive that their science teachers adapt their instruction based on students' needs, knowledge and abilities.

Across OECD countries, about 16% of students reported that their science teachers adapt their instruction in every lesson or almost every lesson, and almost 30% reported their teachers do so in many lessons (Table II.2.22). These percentages vary little across the three questions, even if "[providing] individual help when a student has difficulties" is done somewhat more frequently than "[adapting] the lesson to the student needs and knowledge" and "[changing a lesson when] students find it difficult to understand". Portugal stands out as the country where teachers are more likely to adapt the content and structure of the lesson to the needs, knowledge and abilities of their students. For example, more than one in three students reported that their teacher provides individual help when a student has trouble understanding a topic or task in every lesson or almost every lesson, compared with about one in six students across OECD countries.

Figure II.2.15 ▪ **Perceived feedback, school characteristics and science outcomes**

Results based on students' reports



■ Positive difference/association
▨ Negative difference/association
□ Difference/association is not significant
▒ Missing values

	School characteristics			Science outcomes[1]		
	Advantaged – disadvantaged	Urban – rural	Private – public	Science score	Epistemic beliefs	Science career
Dominican Republic	▨	▨	▨	□	■	■
Georgia	□	▨	■	■	■	□
Lebanon	▨	▨	□	□	■	■
FYROM	□	□	□	□	■	■
Tunisia	▨	□	□	▨	■	□
Moldova	▨	▨	▒	■	■	□
Viet Nam	▨	▨	■	▨	■	■
United Arab Emirates	▨	□	□	□	■	■
Jordan	□	□	■	□	■	■
Qatar	▨	□	□	□	■	■
Russia	▨	▨	▒	□	■	□
Bulgaria	▨	□	▒	▨	■	■
Mexico	▨	▨	□	▨	■	□
Peru	▨	▨	▨	▨	■	■
Colombia	▨	▨	□	▨	■	□
United Kingdom	▨	□	▨	□	■	■
Kosovo	■	□	■	■	■	■
Trinidad and Tobago	▨	▒	□	▨	■	■
Turkey	▨	▒	□	▨	■	□
Indonesia	▨	▨	□	▨	■	▨
Montenegro	▨	▒	▒	□	■	■
United States	▨	□	□	▨	■	□
Singapore	▨	▒	□	▨	■	■
Algeria	▨	▨	▒	▨	■	■
New Zealand	▨	□	□	▨	■	□
Thailand	▨	▨	□	▨	■	▨
Latvia	▨	▨	□	▨	■	□
B-S-J-G (China)	□	□	□	▨	■	□
Chinese Taipei	▨	▒	□	▨	■	■
Romania	▨	▨	▒	□	■	□
Poland	▨	▨	▨	▨	■	□
Canada	▨	▨	▨	▨	■	□
Malta	□	▒	▨	□	■	■
Lithuania	▨	▨	□	▨	□	■
Brazil	□	□	□	▨	■	□
Chile	▨	□	▨	▨	■	■
Hong Kong (China)	▨	▒	□	□	■	□
Spain	▨	▨	□	▨	□	□
Portugal	▨	▨	□	▨	■	□
Costa Rica	▨	□	□	▨	■	□
Italy	▨	▨	■	▨	□	■
Greece	▨	▨	□	▨	□	□
Australia	▨	□	□	▨	■	■
Uruguay	▨	□	□	▨	□	□
Croatia	▨	▒	□	▨	■	□
Hungary	▨	▨	□	▨	■	■
Ireland	▨	□	▨	▨	■	■
OECD average	▨	▨	□	▨	■	■
Norway	▨	□	□	▨	■	□
Sweden	□	□	□	▨	■	■
Slovak Republic	▨	▨	□	▨	■	■
Israel	▨	▨	▒	▨	■	■
Netherlands	▨	▒	□	▨	■	□
Estonia	▨	▨	□	▨	□	■
Czech Republic	▨	▨	■	▨	■	□
Macao (China)	▨	▒	▒	▨	■	□
France	▨	▨	□	▨	■	■
CABA (Argentina)	▨	▒	▨	▨	□	□
Belgium	▨	■	▒	▨	■	□
Luxembourg	▨	▒	■	▨	■	□
Austria	▨	□	□	▨	□	■
Switzerland	▨	□	□	▨	■	□
Denmark	▨	□	□	▨	▨	□
Finland	□	■	□	▨	□	□
Germany	▨	□	▨	▨	■	■
Japan	□	▒	□	▨	■	■
Korea	□	▒	□	▨	■	□
Iceland	▨	▨	▒	▨	□	□
Education systems with a positive difference/association	1	2	7	3	56	31
Education systems with no difference/association	10	23	40	12	10	34
Education systems with a negative difference/association	56	28	10	52	1	2

1. After accounting for the PISA index of economic, social and cultural status of students and schools.

Countries and economies are ranked in descending order of the index of perceived feedback.

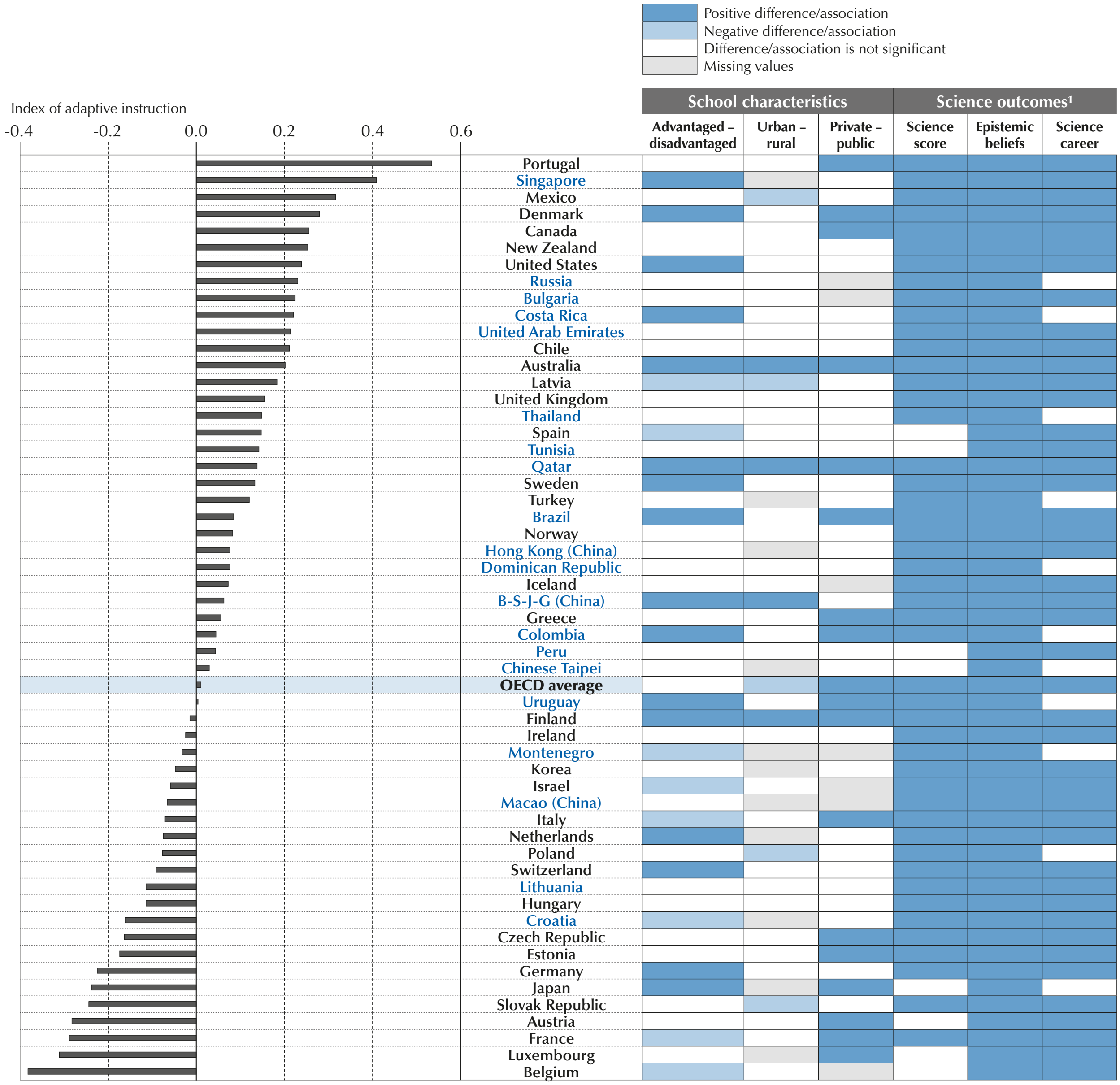
Source: OECD, PISA 2015 Database, Table II.2.20.

StatLink http://dx.doi.org/10.1787/888933435578

Across PISA-participating countries and economies, there is no consistent pattern in how adaptive teaching varies between advantaged and disadvantaged schools or between rural and urban schools (Figure II.2.16). However, in 17 countries and economies, adaptive instruction is more frequently used in private schools than in public schools, particularly in Brazil, Denmark, Greece, Italy, Japan and Portugal. Perhaps in these education systems public school teachers are constrained by the size of their classes and the official curriculum in a way that teachers in private schools are not. It could also be that teachers in private schools have more incentive to adapt their instruction to their students' needs.

Figure II.2.16 ▪ **Adaptive instruction, school characteristics and science outcomes**

Results based on students' reports



■ Positive difference/association
▨ Negative difference/association
□ Difference/association is not significant
░ Missing values

	School characteristics			Science outcomes[1]		
	Advantaged – disadvantaged	Urban – rural	Private – public	Science score	Epistemic beliefs	Science career
Portugal	□	□	■	■	■	■
Singapore	■	░	□	■	■	■
Mexico	□	▨	□	■	■	■
Denmark	■	□	■	■	■	■
Canada	□	□	■	■	■	■
New Zealand	□	□	□	■	■	■
United States	■	□	□	■	■	■
Russia	□	□	░	■	■	□
Bulgaria	□	□	░	■	■	■
Costa Rica	■	□	□	■	■	□
United Arab Emirates	□	□	□	■	■	■
Chile	□	□	□	■	■	■
Australia	■	■	■	■	■	■
Latvia	▨	▨	□	■	■	■
United Kingdom	□	□	□	■	■	■
Thailand	□	□	□	■	■	□
Spain	▨	□	□	□	■	■
Tunisia	□	□	□	□	■	■
Qatar	■	■	■	■	■	■
Sweden	■	□	□	■	■	■
Turkey	□	░	□	■	■	□
Brazil	■	□	■	■	■	■
Norway	□	□	□	■	■	■
Hong Kong (China)	□	░	□	■	■	■
Dominican Republic	□	□	□	■	■	□
Iceland	□	□	░	■	■	■
B-S-J-G (China)	■	■	□	■	■	■
Greece	□	□	■	■	■	■
Colombia	■	□	■	■	■	□
Peru	□	□	□	□	■	■
Chinese Taipei	□	░	□	□	■	□
OECD average	□	▨	■	■	■	■
Uruguay	■	□	■	■	■	□
Finland	■	■	■	■	■	■
Ireland	□	□	□	■	■	■
Montenegro	▨	░	░	■	■	□
Korea	□	░	□	■	■	■
Israel	▨	□	░	■	■	■
Macao (China)	□	░	░	■	■	■
Italy	▨	□	■	■	■	■
Netherlands	■	░	□	■	■	■
Poland	□	▨	□	■	■	□
Switzerland	■	□	□	■	■	■
Lithuania	□	□	□	■	■	■
Hungary	□	□	□	■	■	■
Croatia	▨	░	□	■	■	■
Czech Republic	□	□	■	■	■	■
Estonia	□	□	■	■	■	■
Germany	■	□	□	■	■	■
Japan	■	░	■	□	■	□
Slovak Republic	□	▨	□	■	■	■
Austria	□	□	■	□	■	■
France	▨	□	■	■	■	■
Luxembourg	□	░	■	□	■	■
Belgium	▨	□	░	□	■	■

Education systems with a positive difference/association	16	0	17	46	54	43
Education systems with no difference/association	30	35	30	8	0	11
Education systems with a negative difference/association	8	4	0	0	0	0

1. After accounting for the PISA index of economic, social and cultural status of students and schools.

Countries and economies are ranked in descending order of the index of adaptive instruction.

Source: OECD, PISA 2015 Database, Table II.2.23.

StatLink `http://dx.doi.org/10.1787/888933435580`

Interestingly, in almost every education system that participated in PISA 2015, students who reported that their science teachers use adaptive instruction more frequently score higher on the PISA science assessment; and in every education system, these students also hold stronger epistemic beliefs (Figure II.2.16). The association with student performance is particularly strong in the Nordic countries and in the Netherlands, Qatar, Singapore and the United Arab Emirates, while the association with epistemic beliefs is strongest in the Dominican Republic, Qatar and the United Arab Emirates (Table II.2.23). Students who reported that their teachers adapt their instruction more frequently also hold higher expectations of pursuing science-related careers.

On average across OECD countries, and after accounting for students' and schools' socio-economic profile, students score 20 points higher in science when they reported that their teachers adapt the lesson to the class's needs and knowledge "in many lessons" or "every lesson" than when they reported that this happens "in some lessons" or "never". Students also score 13 points higher, on average, when they reported that their teacher provides individual help when a student has difficulties understanding a topic or task, and 8 points higher, on average, when their teacher changes the structure of the lesson on a topic that most students find difficult to understand (Table II.2.24).

One way education systems may encourage their teachers to tailor their teaching to students' needs is by granting schools greater autonomy. More autonomy could imply greater incentives for schools and teachers to adapt to their students' needs, rather than simply stick to a detailed curriculum. Figure II.2.17 shows that, on average across OECD countries, more school autonomy is associated with more frequent use of adaptive instruction (tailoring teaching to students' needs and helping students who struggle in a specific task). The relationship is moderate (and negative in Ireland), after accounting for socio-economic status; but changing what happens inside the classroom by changing education policies is never easy (Tyack and Cuban, 1995).

Enquiry-based science instruction

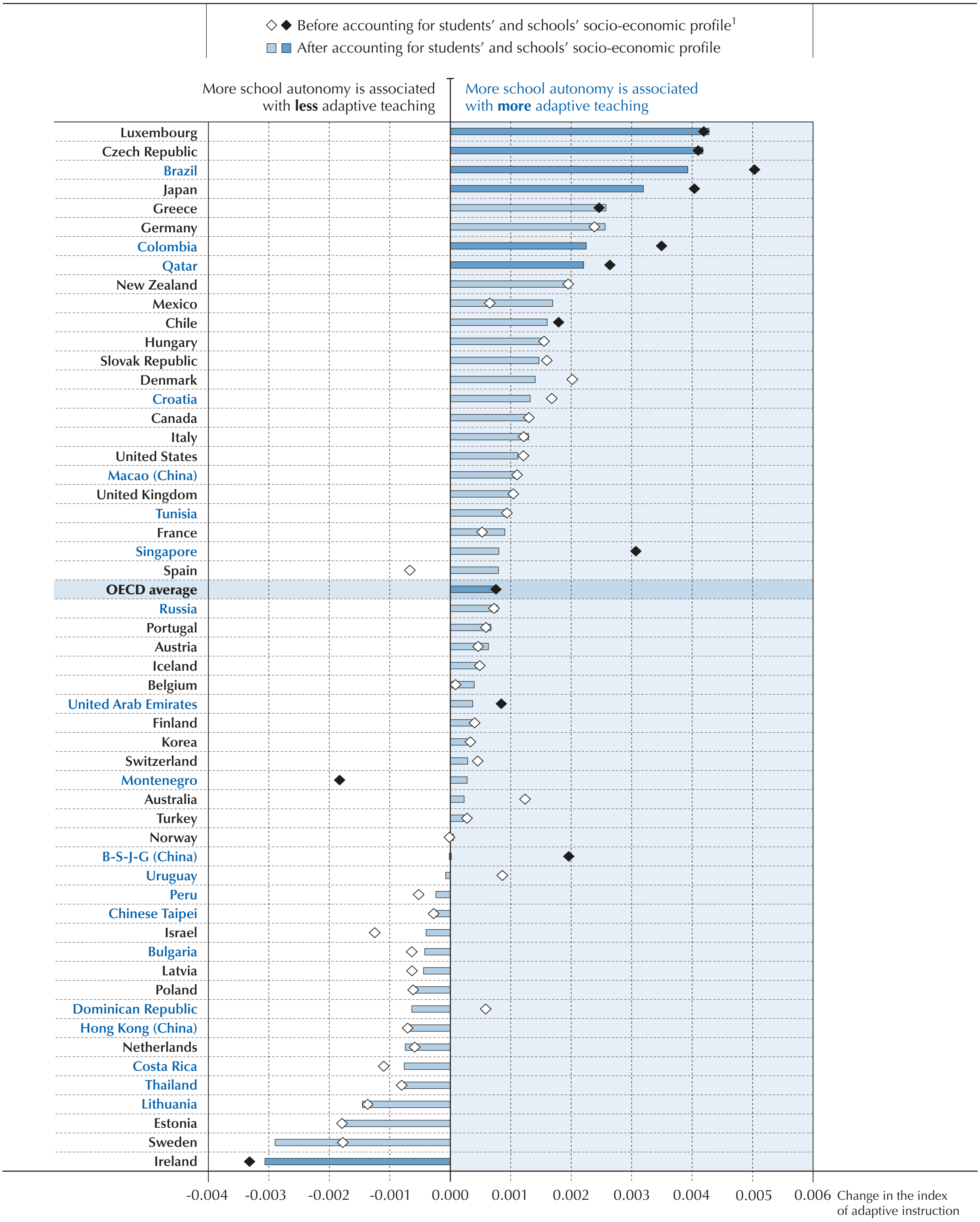
Enquiry-based teaching practices are particularly important in teaching physical and life sciences. Enquiry refers to the ways in which scientists "study the natural world, propose ideas, and explain and justify assertions based upon evidence derived from scientific work" (Hofstein and Lunetta, 2004). In science education, enquiry-based instruction is about engaging students in experimentation and hands-on activities, and also about challenging students and encouraging them to develop a conceptual understanding of scientific ideas. Top-performing students in science are expected to understand, explain and debate scientific ideas; design and carry out experiments and communicate findings; and connect their scientific ideas and investigations to real-life problems (Minner, Levy and Century, 2010). Previous studies show that enquiry-based instruction can improve students' learning, their attitudes towards science, and their transferable skills, such as critical thinking (Blanchard et al., 2010; Furtak et al., 2012; Hattie, 2009; Minner, Levy and Century, 2010). However, some experts caution that laboratory work can only improve learning if it is carefully designed and well-structured, and if students manipulate ideas, not only objects (Hofstein and Lunetta, 2004; Woolnough, 1991).

Many science teachers do not use enquiry-based instructional practices – even some of those who believe they do (Gardiner and Farragher, 1999; Hodson, 1993). Teachers may not propose more enquiry-based learning and laboratory work because of a lack of time and materials, large classes, safety issues, pedagogical limitations, management problems, and teachers' beliefs about students' abilities and the nature of laboratory work (Backus, 2005; Cheung, 2007; Gallet, 1998). Some teachers believe that the typical student is incapable of designing and conducting enquiry activities successfully; others believe that laboratory work is time-consuming and often chaotic (Brown et al., 2006).

PISA asked students how frequently ("never or hardly ever", "in some lessons", "in most lessons" and "all lessons") the following happens in their science lessons: "Students are given opportunities to explain their ideas"; "Students spend time in the laboratory doing practical experiments"; "Students are required to argue about science questions"; "Students are asked to draw conclusions from an experiment they have conducted"; "The teacher explains how a science idea can be applied to a number of different phenomena"; "Students are allowed to design their own experiments"; "There is a class debate about investigations"; "The teacher clearly explains the relevance of science concepts to our lives"; and "Students are asked to do an investigation to test ideas". The index of enquiry-based instruction combines these nine statements to measure the extent to which science teachers encourage students to be deep learners and to enquire about a science problem using scientific methods, including experiments.

Figure II.2.17 ▪ **School autonomy and adaptive instruction in science lessons**

Results based on students' and school principals' reports



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

Countries and economies are ranked in descending order of the change in the index of adaptive teaching when the index of school autonomy increases by one unit, after accounting for students' and schools' socio-economic profile.

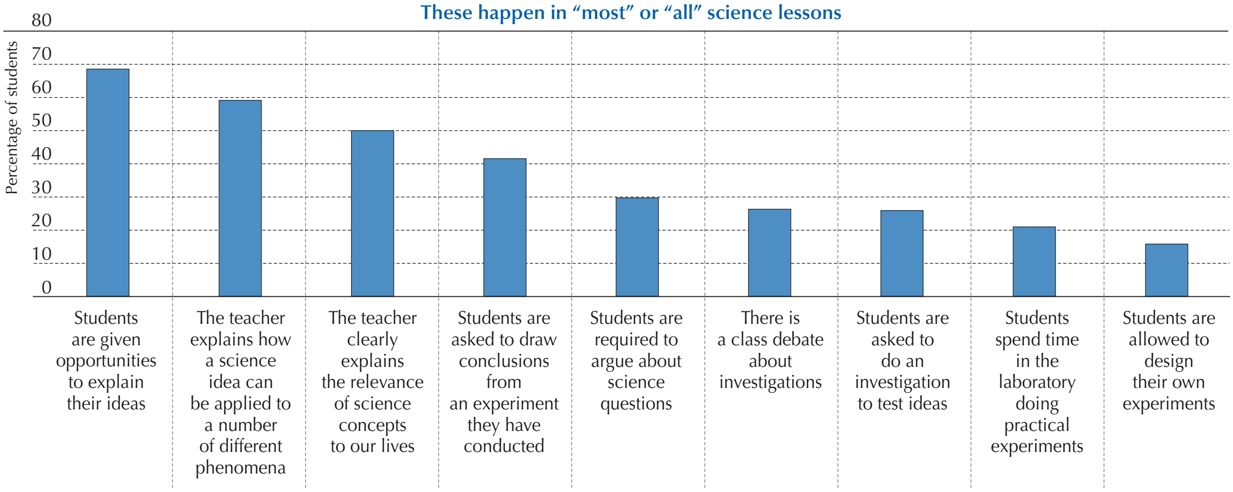
Source: OECD, PISA 2015 Database, Table II.2.25.

StatLink `http://dx.doi.org/10.1787/888933435599`

When students in OECD countries were asked about what happens in all or most lessons, almost seven in ten reported that they are given opportunities to explain their ideas, about six in ten reported that their science teachers explain how a science idea can be applied to different phenomena, and half reported that their teachers explain the relevance of science concepts to their lives (Figure II.2.18). Only one in four students or fewer reported that they are allowed to design their own experiments or spend time in the laboratory doing practical experiments. Among students who attend at least one science course, at least six in ten students in Brazil, Costa Rica, Iceland, Montenegro, Poland and Spain reported that they never or hardly ever spend time in the laboratory doing practical experiments; and in Austria, Belgium, Finland, Italy, Japan, Korea and the Slovak Republic, more than one in two students reported that they are never or hardly ever asked to do an investigation to test ideas (Table II.2.26).

Figure II.2.18 ▪ **Enquiry-based instruction in science lessons**

Results based on students' reports, OECD average



Source: OECD, PISA 2015 Database, Table II.2.26.

StatLink http://dx.doi.org/10.1787/888933435602

In 27 PISA-participating countries and economies, students in socio-economically disadvantaged schools are more frequently exposed to enquiry-based teaching than those in advantaged schools, while the reverse is true in 10 other education systems (Figure II.2.19). There are also more education systems where enquiry-based teaching is more commonly used in rural schools than in urban schools. But there is no clear pattern in the use of enquiry-based instruction when comparing public and private schools.

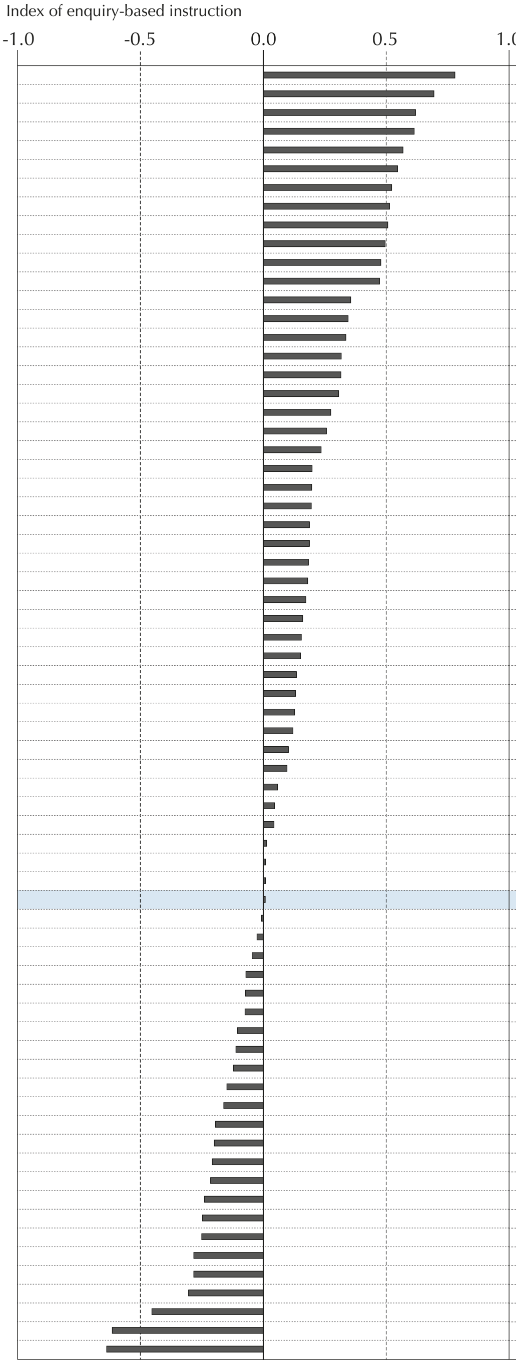
After accounting for students' and schools' socio-economic profile, greater exposure to enquiry-based instruction is negatively associated with science performance in 56 countries and economies. Perhaps surprisingly, in no education system do students who reported that they are frequently exposed to enquiry-based instruction score higher in science. However, across OECD countries, more frequent enquiry-based teaching is positively related to students holding stronger epistemic beliefs and being more likely to expect to work in a science-related occupation when they are 30, even if these relationships are weaker than is the case with teacher-directed and adaptive instruction.

Not all of the questions that were used to create the index of enquiry-based instruction are related to performance in the same way (Figure II.2.20). Students who reported that their teachers explain how a science idea can be applied to a number of different phenomena in most or all science lessons score higher in science than do students who reported that such activity happens in some lessons, hardly ever or never. At the other end of the spectrum, activities related to experiments and laboratory work show the strongest negative relationship with science performance. While this correlational evidence should be interpreted with caution – for instance, teachers may be using hands-on activities to make science more attractive to disengaged students (see Figure II.2.21 for a more sophisticated analysis) – it does suggest that some of the arguments against using hands-on activities in science class should not be completely disregarded. These include that these activities do not promote deep knowledge, that they are an inefficient use of time, or that they only work when there is good laboratory material and teacher preparation.

Figure II.2.19 ▪ Enquiry-based instruction, school characteristics and science outcomes

Results based on students' reports

■ Positive difference/association
▨ Negative difference/association
□ Difference/association is not significant
▒ Missing values



	School characteristics			Science outcomes[1]		
	Advantaged – disadvantaged	Urban – rural	Private – public	Science score	Epistemic beliefs	Science career
Dominican Republic	▨	▨	□	▨	□	□
Peru	▨	▨	▨	▨	■	□
Jordan	□	□	□	▨	□	□
Lebanon	▨	□	□	▨	□	□
Algeria	□	▨	▒	▨	■	□
Tunisia	▨	□	□	▨	■	□
Georgia	▨	▨	■	▨	□	□
Moldova	□	▨	▒	□	■	□
Mexico	▨	▨	□	▨	■	□
Russia	▨	▨	▒	▨	□	■
United Arab Emirates	▨	▨	▨	▨	□	□
Qatar	▨	▨	▨	▨	□	□
Denmark	■	□	■	□	■	□
Kosovo	□	▨	■	▨	□	□
United States	▨	□	▨	▨	□	□
Portugal	□	□	□	▨	■	■
Turkey	▨	▒	□	▨	□	□
Sweden	□	□	□	▨	■	□
Canada	□	□	▨	▨	■	□
Indonesia	□	□	□	▨	■	□
Colombia	□	□	□	▨	□	□
Viet Nam	▨	▨	□	□	■	□
Trinidad and Tobago	□	▒	□	▨	□	■
Slovenia	□	▨	□	▨	□	■
Romania	□	□	▒	▨	□	□
Bulgaria	▨	▨	▒	▨	□	□
FYROM	▨	▨	■	▨	□	■
Australia	□	□	□	▨	■	■
Lithuania	▨	▨	□	▨	□	□
New Zealand	▨	▨	□	▨	■	□
France	■	▨	□	▨	■	■
Switzerland	□	□	□	▨	■	□
Thailand	▨	▨	□	□	■	□
Latvia	▨	▨	□	▨	□	□
Malta	■	▒	■	▨	□	■
Luxembourg	□	▒	□	▨	■	■
Chile	▨	□	□	▨	□	□
Hong Kong (China)	□	▒	□	▨	■	■
Germany	■	□	□	□	■	■
Israel	▨	▨	▒	▨	■	■
Brazil	□	□	□	▨	□	□
Uruguay	▨	▨	□	▨	□	■
Ireland	□	■	□	□	■	■
Singapore	■	▒	■	□	■	■
OECD average	▨	▨	□	▨	■	■
United Kingdom	□	□	□	▨	■	■
Norway	□	□	□	▨	■	□
Czech Republic	□	□	□	▨	□	■
Estonia	□	□	□	▨	□	□
Greece	▨	▨	□	▨	□	□
Poland	▨	▨	▨	▨	□	□
CABA (Argentina)	□	▒	□	□	□	□
Costa Rica	□	□	□	▨	■	□
Montenegro	▨	▒	▒	▨	□	□
Iceland	■	□	▒	▨	□	□
Macao (China)	■	▒	▒	□	■	□
Croatia	▨	▒	■	▨	■	■
Italy	▨	▨	□	▨	□	■
Belgium	▨	□	▒	□	■	■
Hungary	□	□	■	▨	■	■
Slovak Republic	□	▨	□	▨	▨	■
Spain	□	□	□	▨	■	■
Netherlands	□	▒	□	▨	□	■
B-S-J-G (China)	■	■	□	□	■	□
Austria	□	□	□	▨	■	■
Finland	■	■	□	▨	■	□
Chinese Taipei	□	▒	▨	□	■	■
Korea	□	▒	▨	▨	■	□
Japan	■	▒	▨	▨	■	□
Education systems with a positive difference/association	10	3	8	0	36	26
Education systems with no difference/association	31	26	41	12	31	42
Education systems with a negative difference/association	27	25	9	56	1	0

1. After accounting for the PISA index of economic, social and cultural status of students and schools.

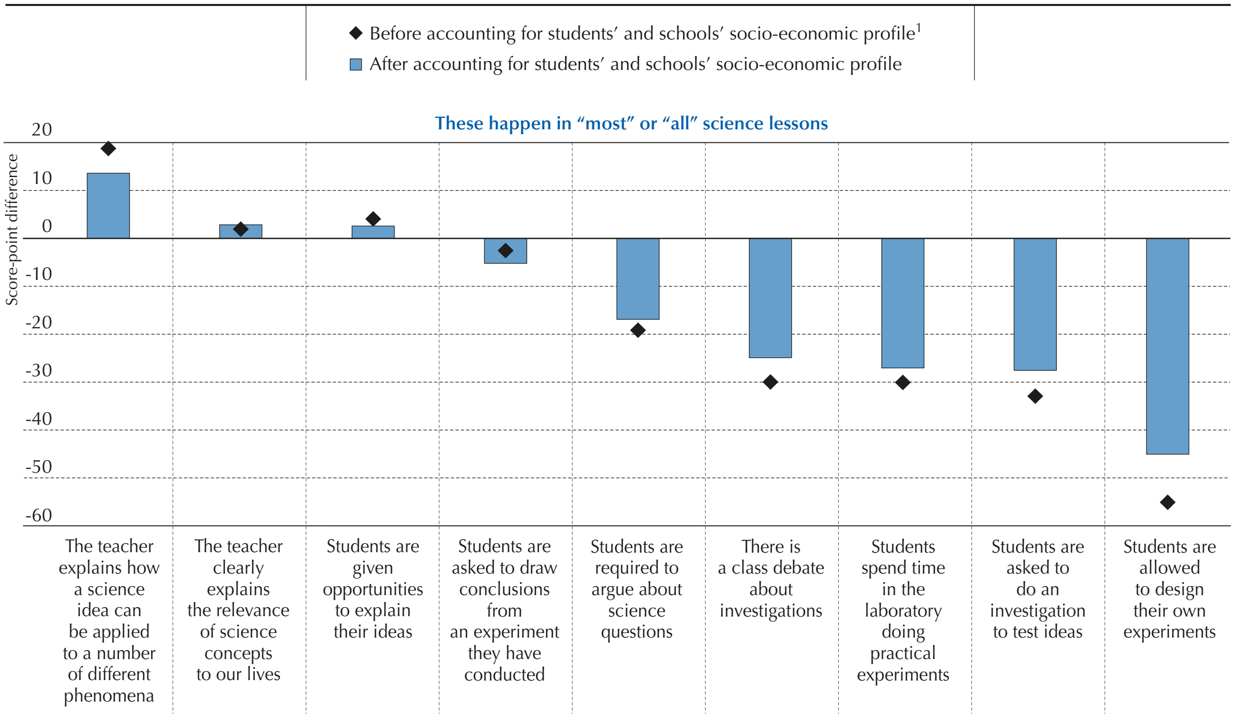
Countries and economies are ranked in descending order of the index of enquiry-based instruction.

Source: OECD, PISA 2015 Database, Table II.2.27.

StatLink http://dx.doi.org/10.1787/888933435615

Figure II.2.20 ▪ **Enquiry-based teaching practices and science performance**

Results based on students' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: All differences are statistically significant (see Annex A3).

Source: OECD, PISA 2015 Database, Table II.2.28.

StatLink `http://dx.doi.org/10.1787/888933435628`

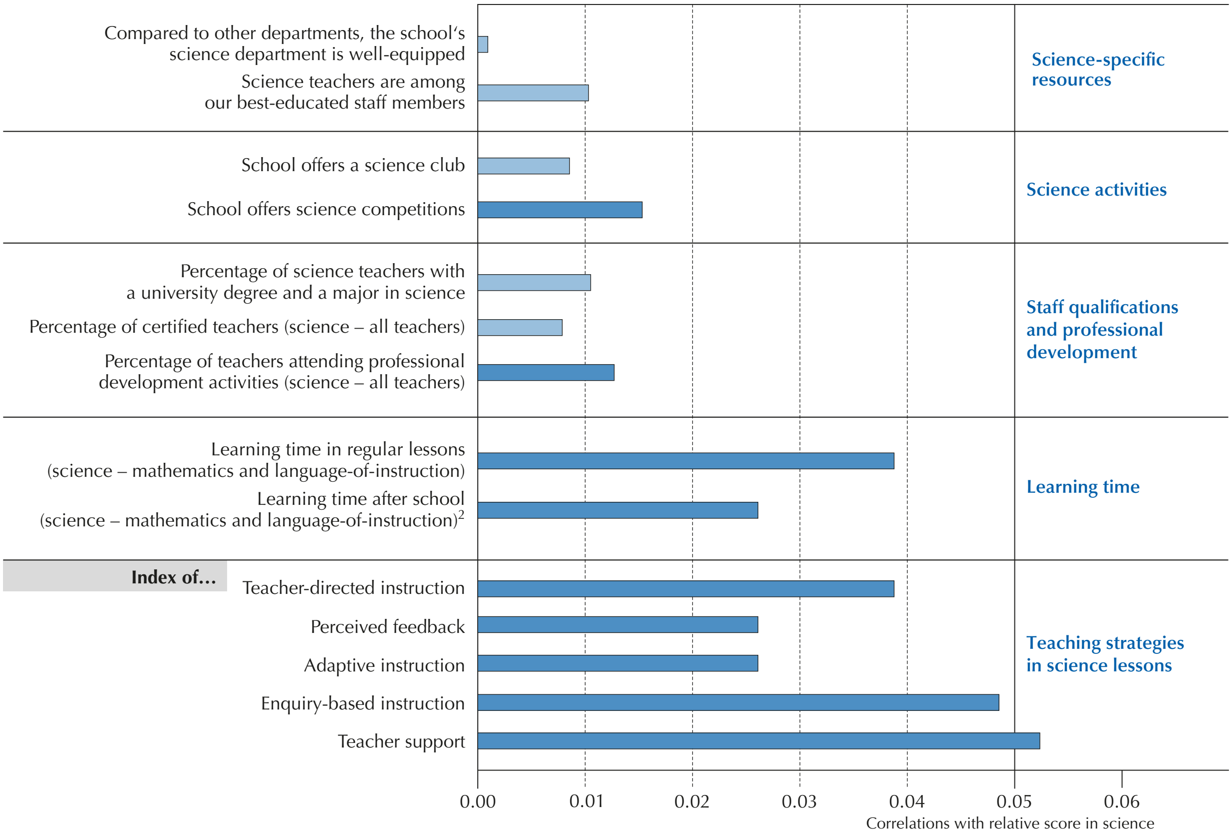
HOW SCIENCE RESOURCES, LEARNING TIME AND TEACHING ARE RELATED TO SCIENCE PERFORMANCE COMPARED TO PERFORMANCE IN OTHER SUBJECTS

Students who perform well in a school subject are more likely to perform well in other school subjects too (see Volume I). For this reason, it is interesting to take an in-depth look at the differences between student performance in science and in other school subjects, such as mathematics and reading, and relate these differences to the resources and teaching devoted to science at school. Some of the analyses in this section provide an even wider perspective as they also compare the material resources and staff in the science department with that in other school departments, and the learning time allocated to science and other subjects. Since the performance of the same students is compared across different subjects, these analyses account for students' characteristics that are important for success in all school subjects and cannot be easily observed, such as their general intelligence or their general perseverance. The explained variable in the analyses presented in Figure II.2.21 is the students' science score minus the average of their scores in reading and mathematics.

The main message that emerges from Figure II.2.21 is that the quality of the material and human resources of a science department, and the kinds of science activities offered to students have a weaker impact on student performance than how much time students devote to learning science and how teachers teach science. Students score higher in science than in reading and mathematics when their school offers science competitions, and when the proportion of science teachers participating in professional development activities is larger than the proportion of all school teachers who have participated in such activities. Students also perform better in science than in mathematics and reading when they spend more time learning science than learning reading and mathematics (both in regular lessons and after school), and when their teachers frequently use any of the five teaching approaches analysed – but especially those categorised as teacher-support or enquiry-based instruction.[4] The correlations are weak, but this is to be expected given that a range of student characteristics, such as their socio-economic status and general intelligence, are accounted for.

Figure II.2.21 ▪ **Explaining the difference in performance between science and other subjects**[1]

Results based on students' and school principals' reports, OECD average



1. "Other subjects" refer to reading and mathematics.
2. Time spent learning in addition to the required school schedule, including homework, additional instruction and private study.

Note: Statistically significant correlations are marked in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database, Table II.2.29.

StatLink `http://dx.doi.org/10.1787/888933435632`

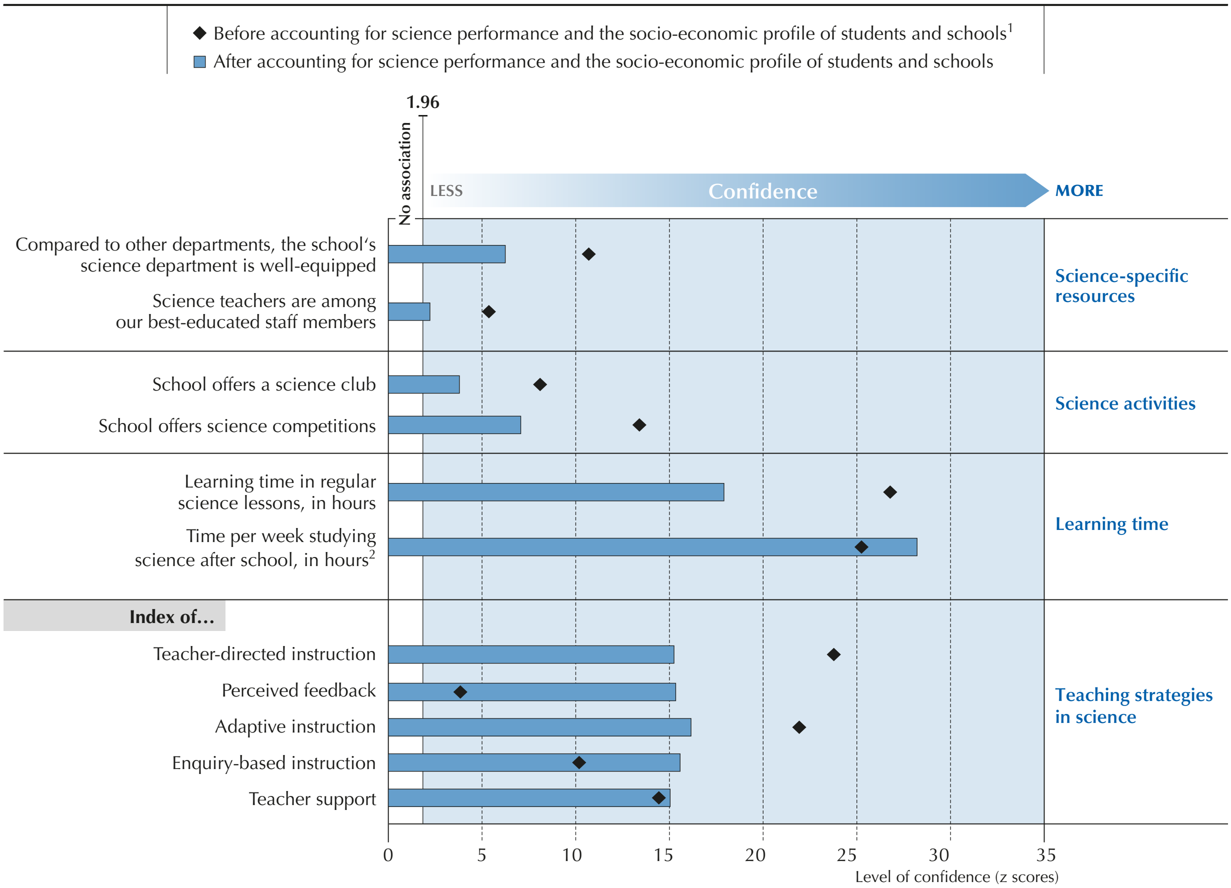
HOW SCIENCE RESOURCES, LEARNING TIME AND TEACHING ARE RELATED TO STUDENTS' EXPECTATIONS OF WORKING IN SCIENCE-RELATED CAREERS

Improving performance in science is not all that matters in science education; encouraging an adequate proportion of students to envision themselves working in science-related occupations in the future is also important in most, if not all, education systems. Figure II.2.22 provides an overview of the factors that are associated with students' expectations of working in science-related occupations when they are 30. As with students' performance in science compared with their performance in other subjects, what is most strongly associated with students' expectations of pursuing a science-related career is how much time they devote to learning science, and how their teachers teach science – even after accounting for students' science performance and the socio-economic profile of students and schools. How well the school's science department is equipped and staffed, relative to other school departments, and what extracurricular activities are offered at school are positively related to students' expectations of a science-related career.

Interestingly, all teaching strategies show a similar positive and strong association with students' expectations of pursuing a science-related career, probably because students become more interested in science when they perceive that teaching, any type of it, happens in their science lessons. The relationship between perceived feedback and expectations of a career in science becomes much stronger after accounting for science performance, presumably because low-performing students tend to be given more feedback from teachers and these students are generally less interested in pursuing science-related careers.

Figure II.2.22 ▪ Explaining students' expectations of a career in science

Results based on students' and school principals' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
2. Time spent learning in addition to the required school schedule, including homework, additional instruction and private study.

Notes: All correlations are statistically significant (see Annex A3).

Z-scores measure the confidence that an association exists between explanatory variables and students' expectations of working in a science-related career. Z-scores above 1.96 mean that the relationship is statistically significant at the 95% confidence level.

Source: OECD, PISA 2015 Database, Table II.2.30.

StatLink http://dx.doi.org/10.1787/888933435641

Notes

1. The index of epistemic beliefs has been standardised to have an average of zero and a standard deviation of one across OECD countries.

2. Students expecting to work in science-related occupations, such as those in the fields of science, engineering, health or information and communication technologies, at the age of 30 were given a value of one; students expecting to work in other occupations, with vague career expectations or with missing or invalid answers were given a value of zero; students who did not reach the questions were excluded from the analysis.

3. Note by Hong Kong: Hong Kong has introduced in 2009 a new secondary curriculum, with Liberal Studies as an interdisciplinary core subject, replacing a system in which students were streamed into more narrow Arts or Science streams. Under the new curriculum, only 3% of students in the modal grade for 15-year-olds are taking all three science subjects (i.e. Physics, Chemistry, Biology), compared to about 37% in the old system; but more students (about 49%) take at least one subject, compared to about 45% in the old system. The learning time for science in senior secondary school is proportional to the number of courses taken.

4. For a description and in-depth analysis of the index of teacher support, please see Chapter 3.

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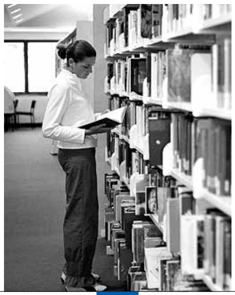


3

The school learning environment

This chapter describes the learning environment in different types of schools and examines how it is related to student performance. It covers student truancy, the disciplinary climate, and student and teacher behaviour that can influence the climate for learning at school. The chapter also discusses how the collaboration between teachers and parents is related to the climate in the classroom, and how school leaders can set the tone for learning at school.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

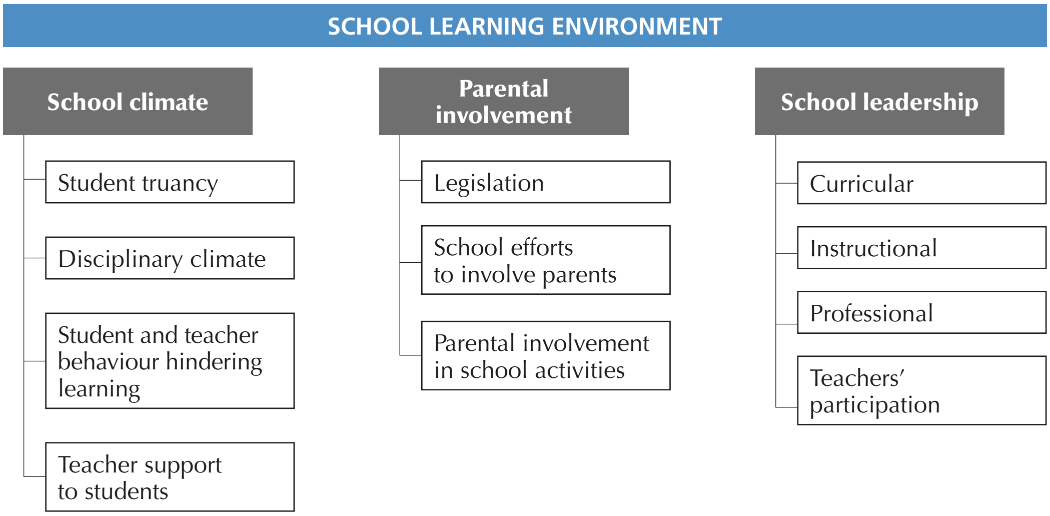
The general consensus is that the learning environment influences student engagement and performance, and teachers' desire to continue working at the school (Engeström, 2009; Thapa et al., 2013). The learning environment encompasses what happens in classrooms, from the layout of the classroom to the disciplinary climate and instructional practices (Fraser, 2015); what happens in schools, from the design of the school building to violence inside the school (Gislason, 2010; Picus et al., 2005; Twemlow et al, 2001); and what happens in the school's broader socio-cultural context (OECD, 2013). Learning environments can be described, for instance, as innovative, dynamic, collaborative, smart or authentic (Engeström, 2009); above all, they are perceived as either positive or negative.

The aspects of the learning environment related to school climate, parental involvement and school leadership examined in this chapter are summarised in Figure II.3.1. Further questions on learning environments, such as those on bullying, student teamwork, parents' social relationships and how the learning environment is related to students' well-being and other social and emotional outcomes, are analysed in Volume III.

What the data tell us

- On average across OECD countries, 20% of students had skipped a day of school in the two weeks prior to the PISA test. In virtually all education systems, students who had skipped a day of school during that period score lower in science.
- In all school systems, students who had skipped a day of school are concentrated in certain schools. In most school systems, students in socio-economically disadvantaged schools are more likely to have skipped a day of school than students in advantaged schools.
- On average across OECD countries, students in advantaged schools enjoy a more positive disciplinary climate than students in disadvantaged schools. Except in Ciudad Autónoma de Buenos Aires (Argentina) and Korea, students score higher in science when they report a more positive disciplinary climate.
- Across OECD countries, school principals reported student truancy and staff resisting change as the problems that hinder student learning the most they also reported that student use of alcohol or illegal drugs and students intimidating or bullying other students hinder student learning the least.
- Students in school systems where they are selected into different education programmes or types of schools at a later age reported receiving greater support from their teachers.
- In two out of three school systems that distributed the parents' questionnaire, parents whose child attends a socio-economically disadvantaged school participate in more school activities than parents whose child attends an advantaged school.

Figure II.3.1 ▪ **The learning environment as covered in PISA 2015**



SCHOOL CLIMATE

Research into what makes schools effective finds that learning requires an orderly, supportive and positive environment both in and outside the classroom (Jennings and Greenberg, 2009). In effective schools, academic activities and student performance are valued by both students and teachers, and students rarely miss learning opportunities (Cooper, 2002; Sammons, 1999; Scheerens and Bosker, 1997; Taylor, Pressley and Pearson, 2002). Students, particularly disadvantaged students, engage in learning activities and have fewer disciplinary problems when they feel that their teachers care about their learning, treat them fairly and give them opportunities to express their opinions (Klem and Connell, 2004).

The school climate, as measured in PISA 2015, encompasses student truancy, disciplinary climate, student and teacher behaviours hindering learning, and teacher support to students.

Student truancy

Every school day, many students are missing learning opportunities because they skip school or arrive late for school. Regular truancy can have adverse consequences for students: truants are more likely to drop out of school, wind up in poorly paid jobs, have unwanted pregnancies, abuse drugs and alcohol and even become delinquent (Baker, Sigmon, and Nugent, 2001; Barber, Stone, and Eccles, 2010; Hallfors et al., 2002; Henry and Huizinga, 2007; Juvonen, Espinoza and Knifsend, 2012; Office for Standards in Education, 2001; Valeski and Stipek, 2001). If pervasive, student truancy can also hurt the entire class. If students who arrive late for school or skip classes fall far behind in their classwork and require extra assistance, the flow of instruction is disrupted, and all students in the class, particularly those who might be working closely with truants, may suffer. Truants might also generate resentment among students who attend class regularly – and sympathy among others who may realise that they too can skip classes (Wilson et al., 2008).

Skipping school

PISA asked students to report the number of times (“never”, “one or two times”, “three or four times” or “five or more times”) they had skipped a whole day of school and the number of times they had skipped some classes during the two weeks prior to the assessment.[1] On average across OECD countries, 26% of students said they had skipped classes at least once and 20% reported that they had skipped a whole day of school at least once (Figure II.3.2 and Table II.3.1). In some education systems, however, students skip school relatively frequently. For instance, in the Dominican Republic, Italy, Montenegro, the Slovak Republic and Uruguay, more than one in two students had skipped a day of school at least once in the two weeks prior to the PISA assessment, and similar numbers had skipped some classes during that period. This means that large proportions of students in these countries regularly miss learning opportunities, with likely adverse consequences for both these students and their classmates.

The percentage of students who had skipped a whole day of school at least once in the two weeks prior to the PISA test increased by around 5 percentage points across OECD countries between 2012 and 2015 (Figure II.3.2). The percentage of students who had skipped school increased by at least 25 percentage points in Brazil, Colombia, Finland, Montenegro, Peru, the Slovak Republic and Uruguay, and decreased the most in Canada, Spain, Turkey and the United Arab Emirates. The percentage of students who had skipped some classes at least once during that period also increased between 2012 and 2015, by around 7 percentage points across OECD countries (Table II.3.3).

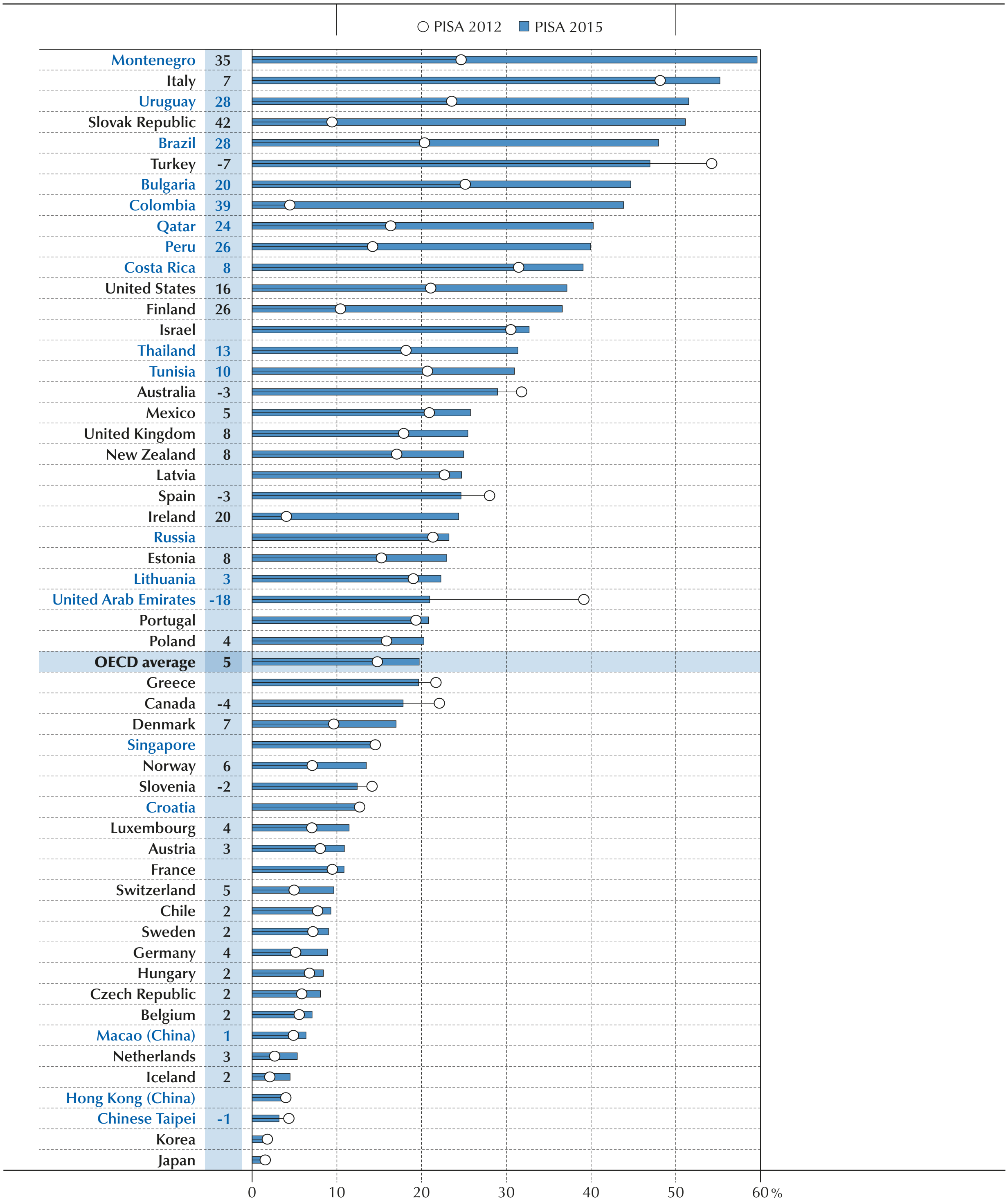
In PISA-participating countries and economies, skipping a whole day of school is more common in disadvantaged schools than in advantaged schools (Figure II.3.3). This is seen in 44 countries and economies, with the largest differences between disadvantaged and advantaged schools observed in Bulgaria, France, Italy, Slovenia, and Uruguay (Table II.3.4). Only in Macao (China), Peru, Turkey and the United Arab Emirates were students in advantaged schools more likely to report that they had skipped a whole day of school. On average across OECD countries, students in rural and urban schools were equally likely to have skipped a day of school, and those in public schools were more likely than students in private schools to have done so.

Skipping a whole day of school is negatively associated with performance in science in all countries and economies except Turkey and the United Arab Emirates, and a large part of that relationship remains even after accounting for socio-economic status. On average across OECD countries, students who had skipped a whole day of school at least once in the two weeks prior to the PISA assessment score 45 points lower in the science assessment than students who had not skipped a day of school (33 points lower after accounting for the socio-economic profile of students and schools) (Table II.3.4).

The findings for skipping some classes are similar to those for skipping a whole day of school, even if the differences between advantaged and disadvantaged schools are generally smaller and the association with science performance weaker (Table II.3.5).

Figure II.3.2 ▪ **Change between 2012 and 2015 in student truancy**

Percentage of students who reported that they had skipped a day of school at least once in the two weeks prior to the PISA test



Notes: Only countries/economies that participated in both the 2012 and 2015 PISA assessments are shown.

Only percentage-point differences between PISA 2012 and PISA 2015 that are statistically significant are shown next to the country/economy name (see Annex A3).

Countries and economies are ranked in descending order of the percentage of students who had skipped a whole day of school at least once in the two weeks prior to the PISA test in 2015.

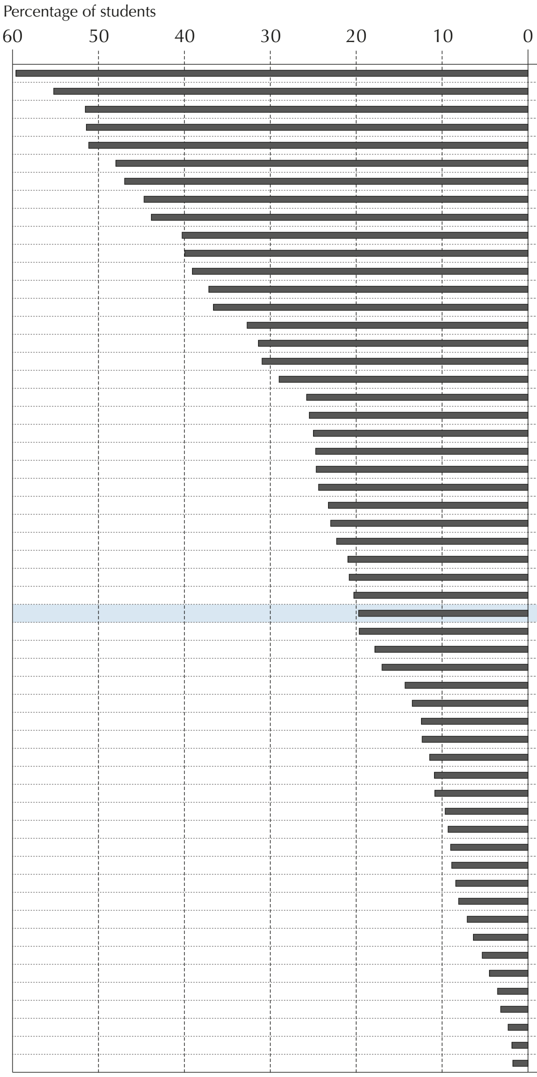
Source: OECD, PISA 2015 Database, Tables II.3.1, II.3.2 and II.3.3.

StatLink http://dx.doi.org/10.1787/888933435655

Figure II.3.3 ■ **Students skipping a whole day of school, school characteristics and science outcomes**

Results based on students' self-reports

■ Positive difference/association
▤ Negative difference/association
□ Difference/association is not significant
░ Missing values



	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
Montenegro	□	░	░	▤	▤
Italy	▤	□	□	▤	▤
Uruguay	▤	□	▤	▤	□
Dominican Republic	▤	□	▤	▤	▤
Slovak Republic	▤	□	□	▤	▤
Brazil	▤	□	▤	▤	▤
Turkey	■	□	□	□	□
Bulgaria	▤	□	░	▤	▤
Colombia	▤	□	□	▤	▤
Qatar	▤	▤	▤	▤	▤
Peru	■	■	■	▤	▤
Costa Rica	▤	□	□	▤	▤
United States	▤	□	▤	▤	▤
Finland	▤	□	□	▤	▤
Israel	□	■	░	▤	▤
Thailand	▤	□	□	▤	▤
Tunisia	▤	▤	□	▤	▤
Australia	▤	□	▤	▤	▤
Mexico	▤	□	□	▤	▤
United Kingdom	▤	□	□	▤	▤
New Zealand	▤	□	▤	▤	▤
Latvia	▤	□	□	▤	▤
Spain	▤	□	▤	▤	▤
Ireland	▤	□	□	▤	▤
Russia	□	■	░	▤	▤
Estonia	▤	■	□	▤	▤
Lithuania	▤	▤	□	▤	▤
United Arab Emirates	■	■	■	□	▤
Portugal	▤	▤	□	▤	▤
Poland	□	■	▤	▤	▤
OECD average	▤	□	▤	▤	▤
Greece	▤	□	▤	▤	▤
Canada	▤	▤	▤	▤	▤
Denmark	▤	□	□	▤	▤
Singapore	□	░	□	▤	▤
Norway	□	□	□	▤	▤
Slovenia	▤	□	▤	▤	▤
Croatia	▤	░	□	▤	▤
Luxembourg	▤	░	□	▤	▤
Austria	▤	□	□	▤	▤
France	▤	□	▤	▤	▤
Switzerland	▤	■	□	▤	▤
Chile	▤	□	▤	▤	▤
Sweden	▤	□	■	▤	▤
Germany	▤	■	□	▤	▤
Hungary	▤	□	▤	▤	▤
Czech Republic	▤	□	□	▤	▤
Belgium	▤	■	░	▤	▤
Macao (China)	■	░	░	▤	▤
Netherlands	▤	░	□	▤	▤
Iceland	□	□	░	▤	▤
Hong Kong (China)	▤	░	□	▤	▤
Chinese Taipei	▤	░	■	▤	▤
B-S-J-G (China)	▤	□	□	▤	▤
Korea	▤	░	□	▤	▤
Japan	▤	░	□	▤	▤
Education systems with a positive difference/association	4	9	4	0	0
Education systems with no difference/association	7	31	29	2	2
Education systems with a negative difference/association	44	5	15	53	53

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the percentage of students who had skipped a whole day of school at least once in the two weeks prior to the PISA test.

Note: See Annex A7 for instructions on how to interpret this figure.

Source: OECD, PISA 2015 Database, Table II.3.4.

StatLink http://dx.doi.org/10.1787/888933435660

Arriving late for school

PISA 2015 asked students to report the number of times ("never", "one or two times", "three or four times" or "five or more times") they had arrived late for school during the two weeks prior to the assessment. On average across OECD countries, 44% of students said that they had arrived late for school at least once (Table II.3.1) during that period. In Hong Kong (China), Japan, Korea and Singapore, fewer than one in four students had arrived late for school; while in Chile, Montenegro, Tunisia and Uruguay, more than three in five had arrived late for school.

The percentage of students who had arrived late for school at least once in the two weeks prior to the PISA test increased between 2012 and 2015 by around 9 percentage points across OECD countries (Table II.3.3) and by at least 20 percentage points in Belgium, the Czech Republic, France, Luxembourg, Montenegro, the Netherlands, Switzerland and Tunisia. Only in Bulgaria, Costa Rica, Finland, Korea, Latvia and Portugal did the percentage of these students decrease.

Across OECD countries, arriving late for school is more frequently observed in socio-economically disadvantaged schools than in advantaged schools (Table II.3.6). In Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), France, Hungary and the Netherlands, for example, the proportion of students who had arrived late for school is more than 20 percentage points larger in disadvantaged schools than in advantaged schools. In 23 education systems, students in disadvantaged schools are more likely than students in advantaged schools to have arrived late for school; only in 11 education systems, including those in Finland, Latvia and Poland, are students in advantaged schools more likely to have arrived late for school.

Arriving late for school seems to be less of a problem in rural than in urban areas (Table II.3.6). In 23 education systems, most notably in Finland, Latvia and Poland, rural students were more likely to report that they had arrived on time for school during the two weeks prior to the PISA test. On average across OECD countries, students in public schools were as likely as students in private schools to report that they had arrived late for school during that period.

Arriving late for school is negatively associated with science performance in all countries and economies except Colombia, Costa Rica, the Dominican Republic and Tunisia. On average across OECD countries, students who had arrived late for school at least once in the two weeks prior to the PISA assessment score 27 points lower on the science assessment than students who had never arrived late, and 23 points lower after accounting for the socio-economic profile of students and schools (Table II.3.6).

How does truancy throughout the school relate to individual student truancy, science performance and disciplinary climate?

There are many studies that explain why students miss learning opportunities and enumerate all the adverse consequences that this behaviour can have on students' future (Baker, Sigmon and Nugent, 2001; Carroll, 2011; Juvonen, Espinoza and Knifsend, 2012; OECD, 2016; Skinner and Pitzer, 2012). There are also many studies that measure peer effects on risky behaviours, such as vandalism, smoking and using illicit drugs, and low academic achievement (Card and Giuliano, 2013; Imberman, Kugler and Sacerdote, 2012; Lundborg, 2006; Schneeweis and Winter-Ebmer, 2005). But there are far fewer studies examining the consequences for individual students when other students in the school play truant. Some studies have shown that when school peers miss learning opportunities, other students in the school are more likely to miss learning opportunities too (Card and Giuliano, 2013; Duarte, Escario and Molina, 2011). Wilson et al. (2008) suggest other ways in which individual truancy may affect the entire school, including resentment among students who attend school regularly, disruption in class and frustration among teachers. This section examines how school truancy is related to the likelihood of truancy and academic achievement among the other students in the school, and to the disciplinary climate in science lessons. Findings should be interpreted with caution: identifying causal effects and isolating peer effects requires other types of data, a specific research design and more fine-grained analyses (Manski, 1993).

How concentrated is truancy across schools?

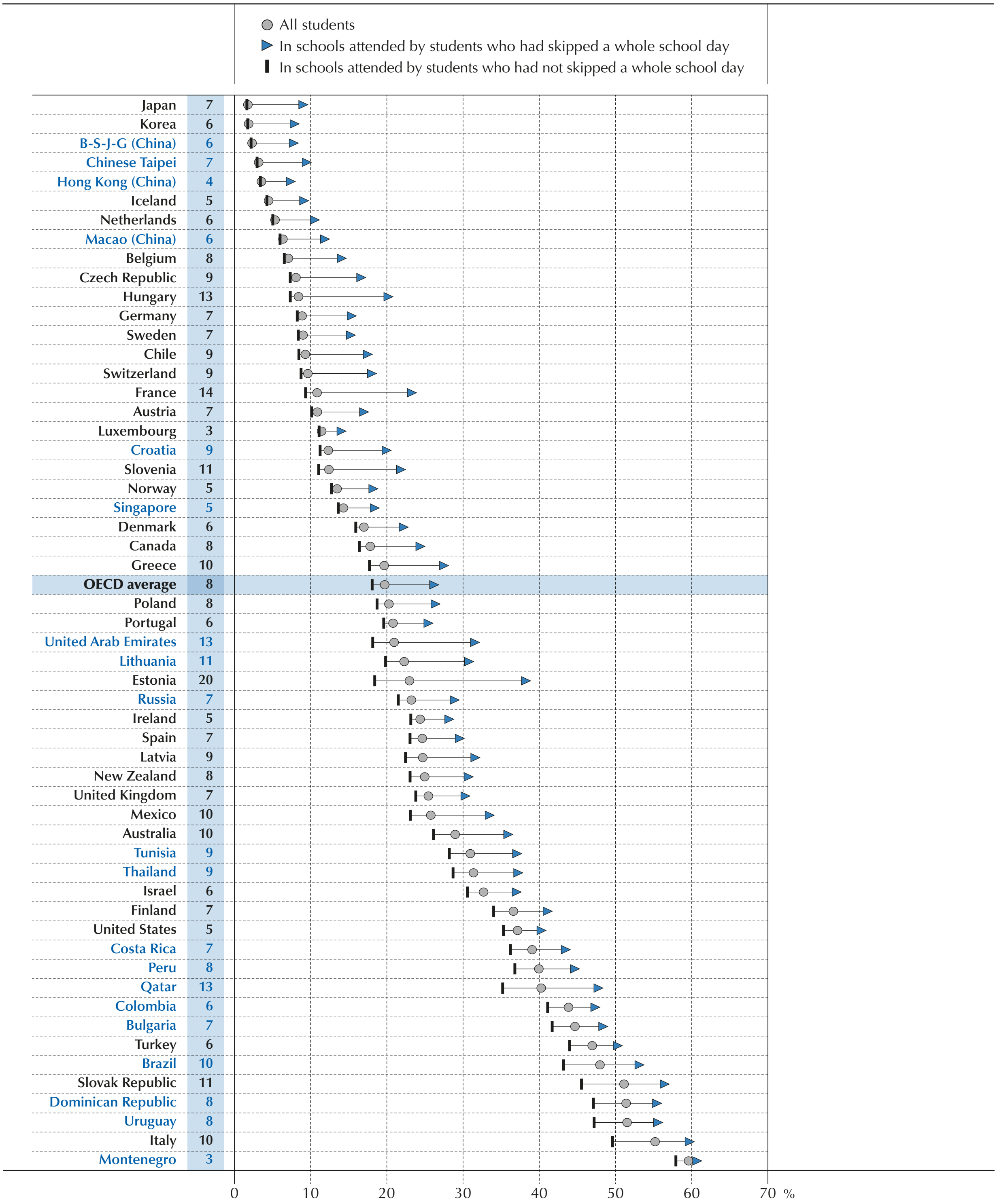
A simple way to answer this question is to examine the variation in truancy rates across schools. In all countries and economies for which data are available, students who had skipped a day of school at least once in the two weeks prior to the PISA test are more likely to be found in some schools than in others (Figure II.3.4). The concentration of students who had skipped a day of school is highest in Estonia, France, Hungary and the United Arab Emirates, and lowest in Hong Kong (China), Iceland, Luxembourg, Montenegro and Singapore. In Estonia, for instance, 23% of students had skipped a day of school in the two weeks prior to the PISA test, on average; but as many as 38% had done so in the typical school of students who have skipped a school day.

When students play truant, how does the academic performance of other students change?

Students who play truant frequently need extra assistance, which may negatively affect the flow of instruction, particularly for those students who work closely with truants, who are often asked to help them catch up (Wilson et al., 2008). For these and other reasons, missing days of school may adversely affect the academic performance not only of the truant himself/herself, but also of other students in the same school.

Figure II.3.4 ■ **Concentration of truancy across schools**

Percentage of students at school who had skipped a whole school day in the two weeks prior to the PISA test



Notes: Statistically significant differences between schools attended by students who did not skip a whole school day and schools attended by students who skipped a whole school day are shown next to the country/economy name (see Annex A3).

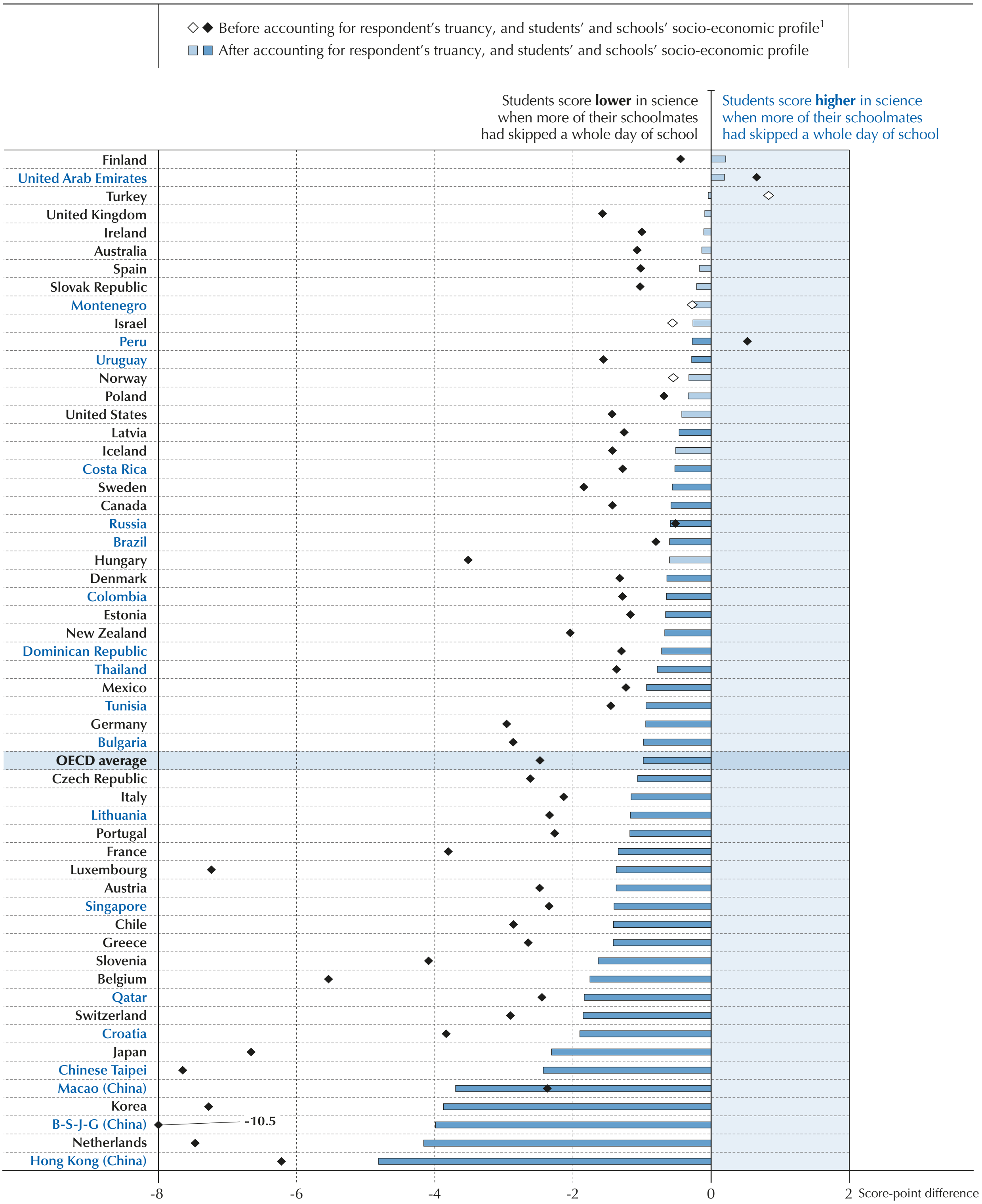
Truancy refers to skipping a whole day of school at least once in the two weeks prior to the PISA test.

Countries and economies are ranked in ascending order of the percentage of all students skipping a whole school day in the two weeks prior to the PISA test.

Source: OECD, PISA 2015 Database, Table II.3.7.

StatLink http://dx.doi.org/10.1787/888933435672

Figure II.3.5 ■ **Schoolmate truancy and science performance**



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Statistically significant differences are marked in a darker tone (see Annex A3).

Truancy refers to skipping a whole school day at least once in the two weeks prior to the PISA test.

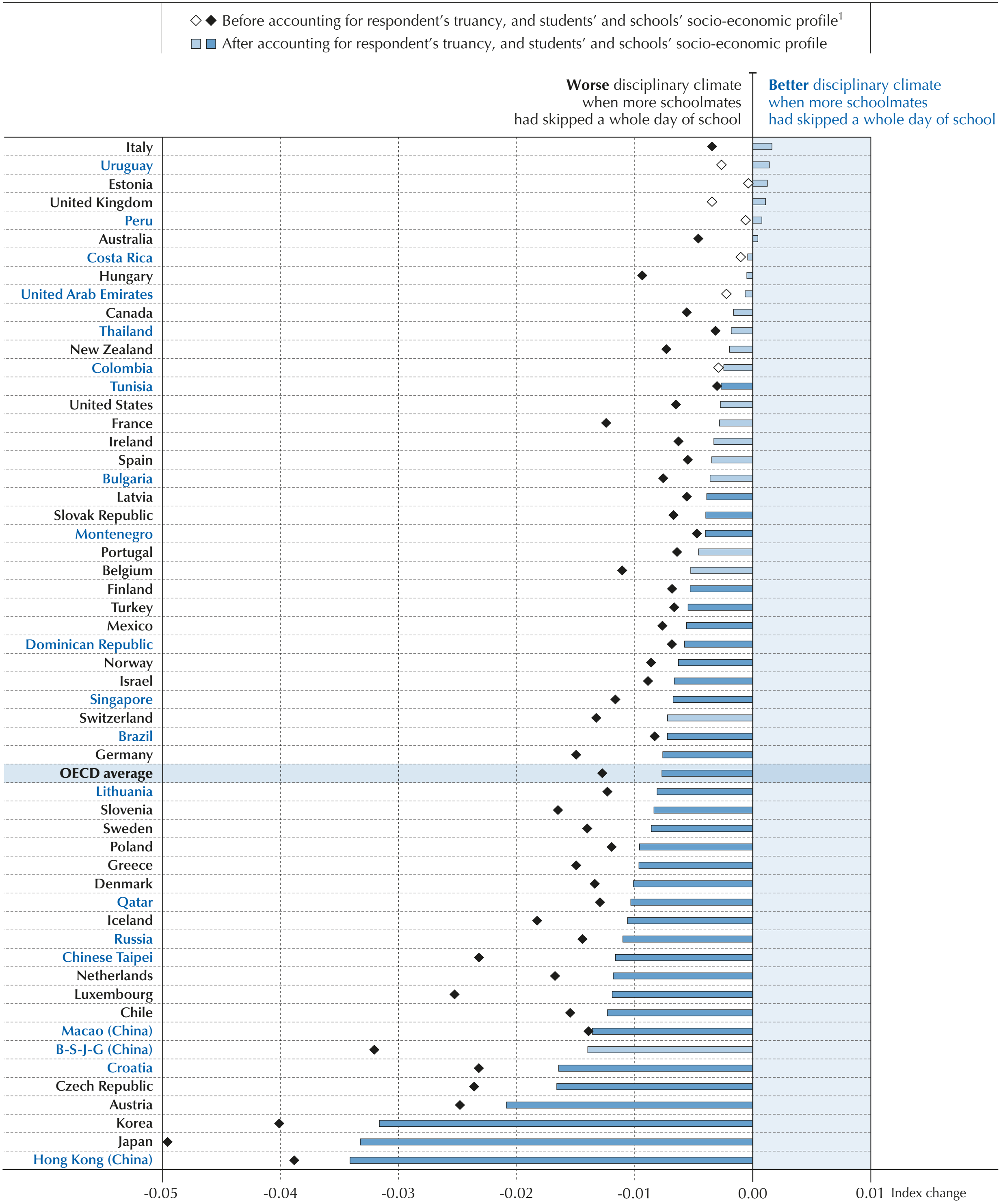
Countries and economies are ranked in descending order of the score-point difference, after accounting for respondent's truancy, and students' and schools' ESCS.

Source: OECD, PISA 2015 Database, Tables II.3.8.

StatLink http://dx.doi.org/10.1787/888933435685

Figure II.3.6 ■ **Schoolmate truancy and disciplinary climate in science lessons**

Results based on students' reports



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Statistically significant differences are marked in a darker tone (see Annex A3).

Truancy refers to skipping a whole school day at least once in the two weeks prior to the PISA test.

Countries and economies are ranked in descending order of the change in the index of disciplinary climate, after accounting for respondent's truancy, and students' and schools' ESCS.

Source: OECD, PISA 2015 Database, Table II.3.9.

StatLink `http://dx.doi.org/10.1787/888933435697`

Figure II.3.5 shows that across OECD countries, students score lower on the PISA science test when more of their peers had skipped a whole day of school at least once in the two weeks prior to the PISA test, even after taking into account whether the student had skipped school himself/herself and the socio-economic status of students and schools. In 40 PISA-participating education systems, students score lower in science when more of their peers had skipped a day of school after accounting for the above factors; in no school system do students perform better in science when more of their peers had skipped a day of school.

When students play truant, how does the disciplinary climate in science class change?

According to interviews conducted by Wilson et al. (2008) in primary and secondary schools, some students argue that the disciplinary climate at school improves when troublemakers play truant ("it helps you, in a way, when they're [the troublemakers] not there"); some teachers also share this view. However, most teachers believe that school truancy increases resentment among students who attend school regularly, demoralises teachers and makes them feel guilty, and could disrupt the organisation of the entire school (Wilson et al., 2008). PISA 2015 findings (Figure II.3.6) show that, on average across OECD countries and in 33 education systems, students reported a better disciplinary climate when more of their peers attend school regularly, after accounting for the respondents' own truant behaviour and the students' and schools' socio-economic profile.

DISCIPLINARY CLIMATE

One of the goals of teachers is to create a classroom environment that is conducive to learning. This requires, first and foremost, keeping noise and disorder at bay and making sure that students can listen to what the teacher (and other students) say and can concentrate on academic tasks. Meaningful and visible learning is more likely to happen in these learning environments (Ma and Willms, 2004). PISA asked students how frequently the following things happen in their science lessons: "Students don't listen to what the teacher says"; "There is noise and disorder"; "The teacher has to wait a long time for students to quiet down"; "Students cannot work well"; and "Students don't start working for a long time after the lesson begins". These statements were combined to create the index of disciplinary climate whose average is zero and standard deviation is one across OECD countries.

Across OECD countries, the most common disciplinary problems in science lessons (among those included in the student questionnaire) are when students do not listen to what the teacher says and when there is noise and disorder in the classroom (Table II.3.10). For example, about one in three students reported that, in every or most sicience lessons, students do not listen to the teacher or that there is noise and disorder; 29% of students also reported that the teacher has to wait a long time for students to quiet down in every or most lessons; and one in four students or fewer reported that, in every or most science lessons, they cannot work well or have to wait for a long time to do so.

According to students' reports, the disciplinary climate in science lessons is better in advantaged than in disadvantaged schools, and in private than in public schools (Figure II.3.7). On average across OECD countries, the disciplinary climate is fairly similar in rural and urban schools. However, compared with the disciplinary climate in rural schools, the disciplinary climate in urban schools is particularly more positive in Australia, Italy, Qatar and Sweden, and more negative in Indonesia, the Russian Federation (hereafter "Russia") and Slovenia (Table II.3.11).

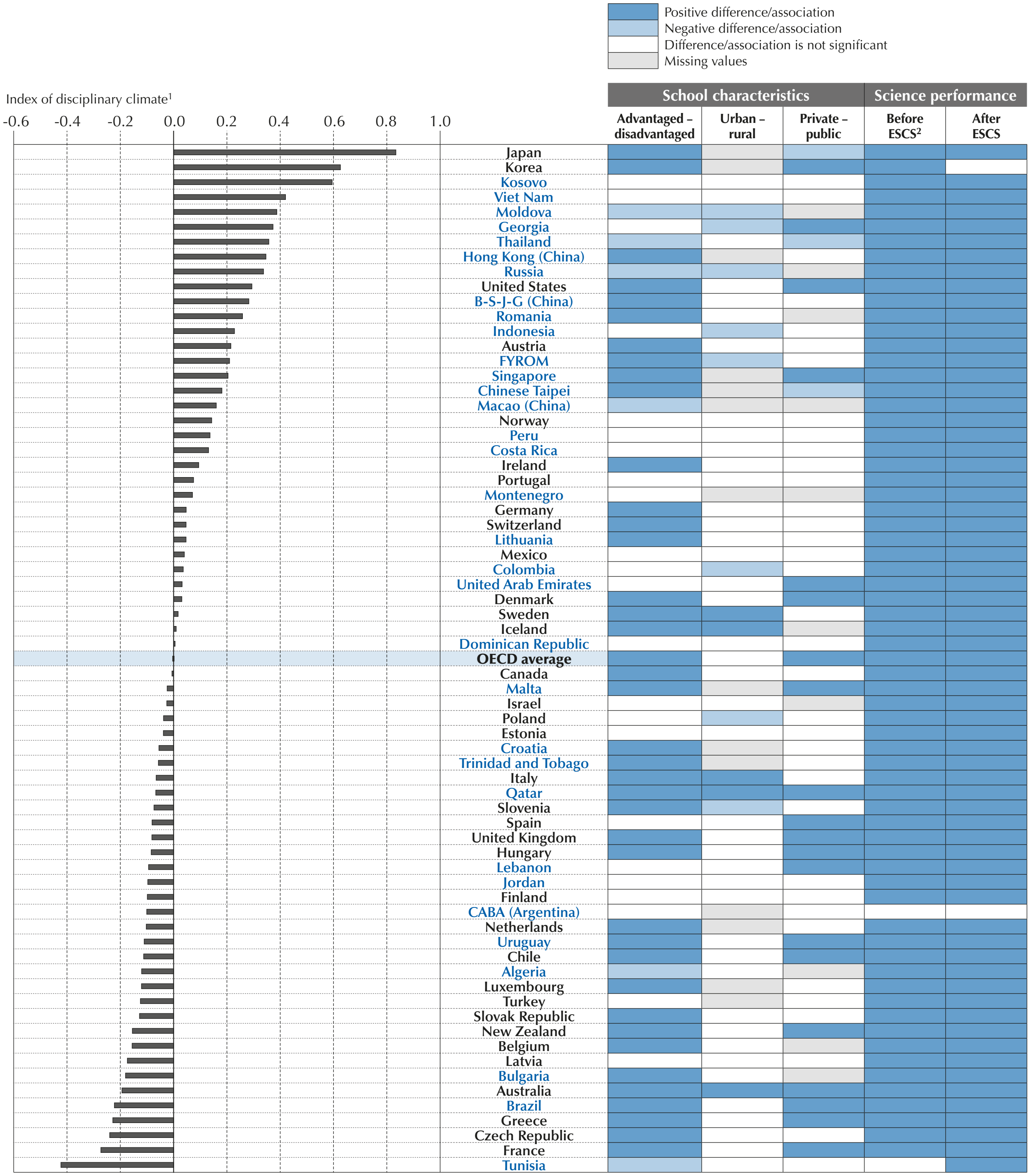
In all countries and economies, except Ciudad Autónoma de Buenos Aires (Argentina) (hereafter "CABA [Argentina]") and Korea, students who reported a better disciplinary climate in their science lessons perform better in science, after accounting for the socio-economic status of students and schools (Figure II.3.7). On average across OECD countries, every unit increase on the index of disciplinary climate in science lessons (equivalent to a standard deviation across OECD countries) is associated with an increase of 11 score points in science after accounting for the socio-economic status of students and schools (Table II.3.11).

Student and teacher behaviour hindering learning

To examine the degree to which student behaviour influences learning, school principals were asked to report the extent ("not at all", "very little", "to some extent" or "a lot") to which they think that student learning in their schools is hindered by such factors as: student truancy; students skipping classes; students lacking respect for teachers; students using alcohol or illegal drugs; and students intimidating or bullying other students. The responses were combined to create an index of student behaviour hindering learning such that, across OECD countries, the mean is zero and the standard deviation is one. Positive values reflect principals' perceptions that students' behaviour hinders learning to a greater extent; negative values indicate that principals believe that students' behaviour hinders learning to a lesser extent, compared to the OECD average. Principals' answers to these questions are likely to reflect both how frequently these phenomena happen in their schools and, when they happen, how much they affect student learning.

Figure II.3.7 ▪ Index of disciplinary climate in science classes, school characteristics and science outcomes

Results based on students' reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS²	After ESCS
Education systems with a positive difference/association	39	5	19	66	66
Education systems with no difference/association	23	41	36	2	2
Education systems with a negative difference/association	6	8	3	0	0

1. Higher values on the index indicate a more positive disciplinary climate in science lessons.
2. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the index of disciplinary climate.

Source: OECD, PISA 2015 Database, Table II.3.11.

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School principals were also asked to report the extent to which they believe that learning in their schools is hindered by such teacher behaviour as: teachers not meeting individual students' needs; teacher absenteeism; school staff resisting change; teachers being too strict with students; and teachers not being well-prepared for classes. The responses were combined to create an index of teacher behaviour hindering learning that has a mean of zero and a standard deviation of one in OECD countries. Positive values reflect principals' perceptions that these teacher-related behaviours hinder learning to a greater extent; negative values indicate that school principals believe that these teacher-related behaviours hinder learning to a lesser extent, compared to the OECD average.

According to school principals, instruction and learning in their schools take place in largely positive environments. On average across OECD countries, a considerable proportion of school principals reported that the student and teacher behaviour described above does not hinder learning at all, while only a small percentage reported that these factors hinder learning a lot (Tables II.3.12 and II.3.17). Across OECD countries, the behaviours (among either students or teachers) school principals mentioned most frequently as hindering learning a lot are students skipping classes or days of school; student use of alcohol or illegal drugs were the least frequently reported (Figure II.3.8).

However, there are large differences among PISA-participating countries and economies (Table II.3.12). According to principals in Algeria, Croatia, Russia and Tunisia, student truancy affects learning a lot; B-S-J-G (China), Jordan, and Trinidad and Tobago are the school systems where students' lack of respect for teachers is more of a problem; and in B-S-J-G (China), Macao (China) and Russia, more than 15% of students attend schools whose principal reported that students' use of alcohol or illegal drugs hinders learning a lot.

On the questions related to teachers, in Algeria, CABA (Argentina), Chile, B-S-J-G (China), Colombia, Italy, and Trinidad and Tobago, more than 10% of students attend a school whose principal reported that staff resisting change hinders learning a lot; and in Algeria, B-S-J-G (China), CABA (Argentina), Chile, Macao (China), Russia, Trinidad and Tobago, Tunisia and Uruguay, more than 10% of students attend a school whose principal reported that teacher absenteeism hinders learning a lot (Table II.3.17).

In 48 of 68 education systems, principals in socio-economically disadvantaged schools were more likely than principals in advantaged schools to report that student behaviour hinders learning (Figure II.3.9). Across PISA-participating countries and economies, principals in public schools also reported more student-related problems than principals in private schools did.

When considering teacher behaviour that hinders student learning, the largest differences are observed between public and private schools. In 33 of 59 education systems, principals in public schools reported more teacher-related problems hindering student learning than principals in private schools did (Table II.3.20). In Brazil, for example, there is a difference of more than 1.5 points (or standard deviations) on the index of teacher behaviour hindering learning between the two types of schools.

Trends in student and teacher behaviour

Across OECD countries, student behaviour seems to have deteriorated between 2012 and 2015, according to school principals (Table II.3.14). For instance, between 2012 and 2015 the percentage of students in schools whose principal reported that learning is not hindered at all by student truancy fell by 3 percentage points, and by more than 15 percentage points in CABA (Argentina), Romania and the United Arab Emirates. In 2015, school principals were also more likely than their counterparts in 2012 to report that students' use of alcohol and illegal drugs hinders student learning. Across OECD countries, the share of students attending schools whose principals reported that learning is not at all hindered by these problems fell by 9 percentage points during the period; in CABA (Argentina), Chile, Norway, Tunisia and Uruguay, this share shrank by at least 20 percentage points.

According to school principals, teacher behaviour also deteriorated between 2012 and 2015 (Table II.3.19). Across OECD countries, principals in 2015 were more likely than their counterparts in 2012 to report that student learning is hindered by teachers not meeting individual students' needs, teacher absenteeism, staff resisting change, teachers being too strict with students, and teachers not being well-prepared for classes. The incidence of teacher absenteeism, potentially the most serious of these problems, increased the most during this period, according to school principals, in CABA (Argentina), Ireland, Israel, Portugal, Switzerland and Turkey.

Figure II.3.8 ▪ **Student and teacher behaviour hindering learning**

Results based on school principals' reports

□ Less than 10% of students
▨ From 10% to 25% of students
■ More than 25% of students

	Percentage of students in schools where the school principal reported that the following phenomena hinder student learning to some extent or a lot:									
	Student truancy	**Students skipping classes**	**Students lacking respect for teachers**	**Student use of alcohol or illegal drugs**	**Students intimidating or bullying other students**	**Teachers not meeting individual students' needs**	**Teacher absenteeism**	**Staff resisting change**	**Teachers being too strict with students**	**Teachers not being well-prepared for classes**
Trinidad and Tobago	59	53	59	26	46	59	68	53	14	43
B-S-J-G (China)	42	44	46	36	38	56	39	56	30	55
Russia	65	71	44	22	24	41	27	36	29	37
Tunisia	82	55	29	17	27	26	64	43	28	20
Croatia	79	74	56	21	16	29	13	47	22	26
Netherlands	28	34	29	23	35	67	41	44	27	41
Brazil	61	56	45	21	17	36	33	44	15	29
Costa Rica	63	66	19	33	23	32	30	37	19	19
Jordan	55	33	40	11	23	31	39	45	27	30
Uruguay	55	42	20	13	14	30	61	52	13	29
Algeria	58	32	34	7	11	30	37	32	29	34
France	46	31	18	25	9	28	22	50	27	20
Macao (China)	21	20	20	19	25	52	35	32	18	25
Colombia	50	27	23	16	16	28	20	44	23	12
CABA (Argentina)	49	37	6	13	7	19	44	53	18	11
Moldova	63	38	33	8	21	14	11	30	16	22
Chile	18	22	21	22	14	28	35	42	23	29
Belgium	29	24	22	9	26	22	36	44	17	22
Kosovo	62	30	27	8	10	24	17	24	32	17
Montenegro	86	56	18	5	7	16	13	17	20	13
Canada	56	51	12	28	13	21	10	38	11	9
Italy	36	38	13	6	5	24	13	61	28	23
Portugal	41	53	31	8	7	24	11	48	10	8
United States	46	31	18	19	14	28	17	33	15	13
Mexico	48	36	11	17	16	20	14	33	25	11
Bulgaria	33	46	29	16	19	17	17	18	14	18
Austria	49	43	21	11	18	17	17	31	11	7
Slovenia	53	68	18	9	3	13	17	24	9	9
Norway	20	23	22	2	12	46	35	36	7	16
Peru	27	25	12	9	12	31	18	36	22	26
Finland	44	32	33	4	23	25	16	27	3	6
Malta	10	11	36	7	34	39	16	29	17	14
Germany	23	19	20	10	20	22	40	34	11	10
Israel	49	42	19	4	1	19	33	16	11	13
Turkey	51	42	23	4	6	35	7	20	2	17
Australia	28	22	19	8	18	38	17	35	7	14
OECD average	**34**	**33**	**20**	**9**	**11**	**23**	**17**	**30**	**13**	**12**
Estonia	37	37	17	3	18	28	10	26	16	6
Sweden	27	47	19	4	13	32	19	21	3	11
New Zealand	41	39	8	7	10	32	6	33	7	9
Slovak Republic	32	69	24	4	4	6	6	12	22	5
Ireland	51	15	12	16	12	18	11	28	10	8
Czech Republic	24	59	29	5	7	9	13	19	10	4
Luxembourg	50	26	23	0	2	14	14	38	4	2
Spain	27	26	26	3	8	17	4	37	15	11
Japan	14	11	18	1	5	23	9	38	26	29
Chinese Taipei	11	12	17	9	12	27	7	36	18	20
Switzerland	27	25	15	15	16	17	9	32	5	6
United Arab Emirates	34	21	15	2	6	18	19	17	20	12
Dominican Republic	18	24	27	5	17	22	3	18	18	11
Latvia	44	36	28	5	7	9	5	13	12	4
Korea	24	20	33	14	8	16	2	13	20	10
Denmark	36	19	19	3	6	13	27	22	6	8
Romania	45	44	14	3	10	5	1	21	10	3
Thailand	27	29	16	9	6	14	4	9	27	10
Poland	27	44	17	3	3	12	10	19	9	5
Iceland	18	18	11	1	7	26	13	32	5	12
Hong Kong (China)	8	4	17	0	4	35	10	38	15	13
Hungary	23	24	22	10	6	20	7	14	13	5
Lebanon	20	12	17	6	12	12	13	21	17	13
FYROM	45	20	16	4	4	15	3	14	14	1
Georgia	31	23	13	6	8	10	10	8	6	16
Greece	26	21	15	5	5	7	7	19	10	6
United Kingdom	10	6	13	1	4	28	24	18	5	11
Albania	23	12	11	2	4	6	8	14	21	7
Viet Nam	32	18	5	2	5	16	2	5	11	13
Singapore	9	5	6	1	9	26	3	20	15	11
Lithuania	26	14	7	2	6	11	2	9	3	4
Qatar	13	20	10	6	9	6	6	6	3	4
Indonesia	25	12	9	1	3	5	5	1	13	5

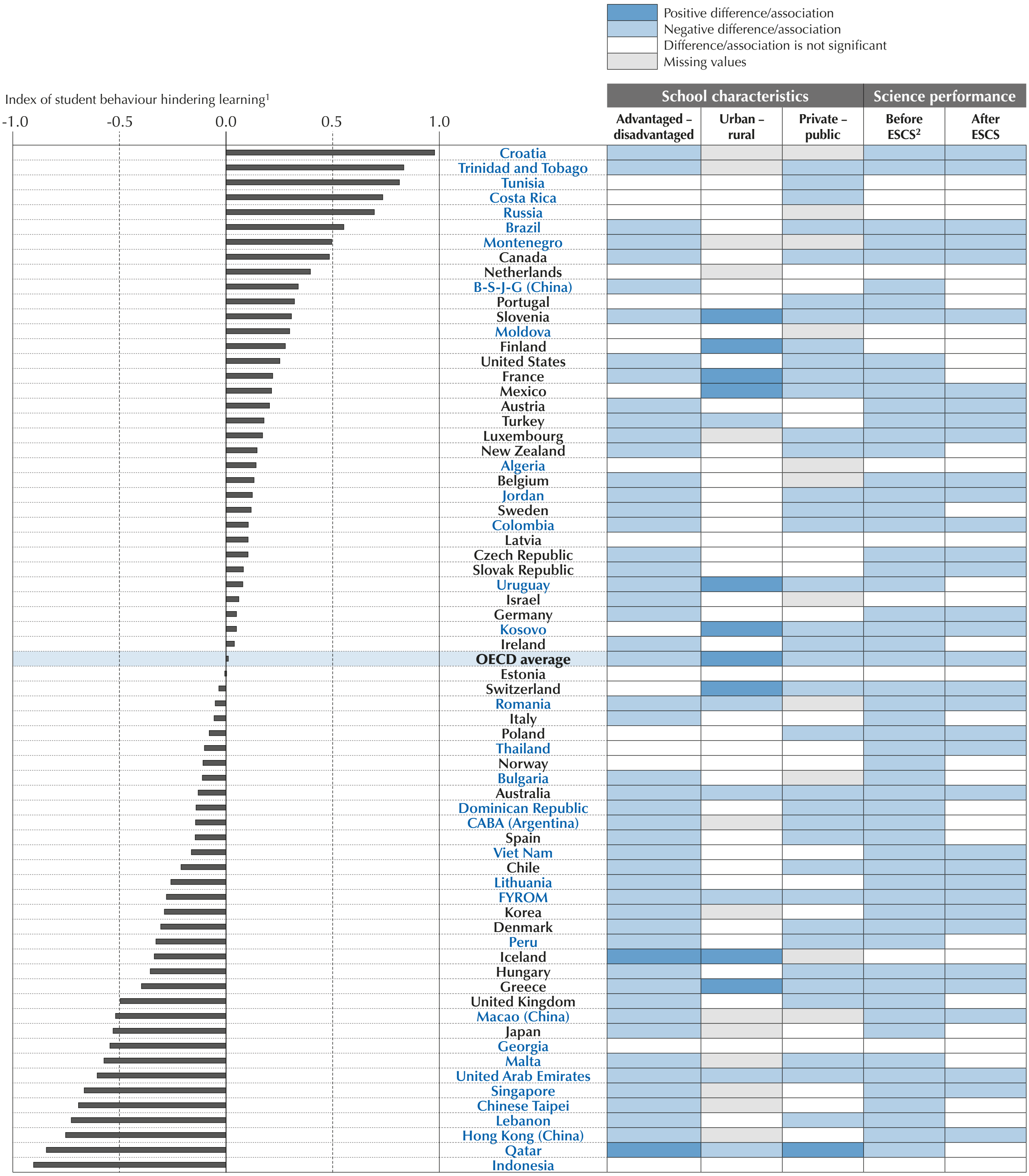
Countries and economies are ranked in descending order of the percentage of students in schools where the principal reported that the phenomena hinder student learning (average of 10 phenomena).

Source: OECD, PISA 2015 Database, Tables II.3.12 and II.3.17.

StatLink `http://dx.doi.org/10.1787/888933435713`

Figure II.3.9 ▪ **Index of student behaviour hindering learning, school characteristics and science performance**

Results based on school principals' reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS2	After ESCS
Education systems with a positive difference/association	2	9	1	0	0
Education systems with no difference/association	18	40	21	13	34
Education systems with a negative difference/association	48	6	35	55	34

1. Higher values on the index indicate that student behaviour hinders learning to a greater extent.

2. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the index of student behaviour hindering learning.

Source: OECD, PISA 2015 Database, Table II.3.15.

StatLink http://dx.doi.org/10.1787/888933435726

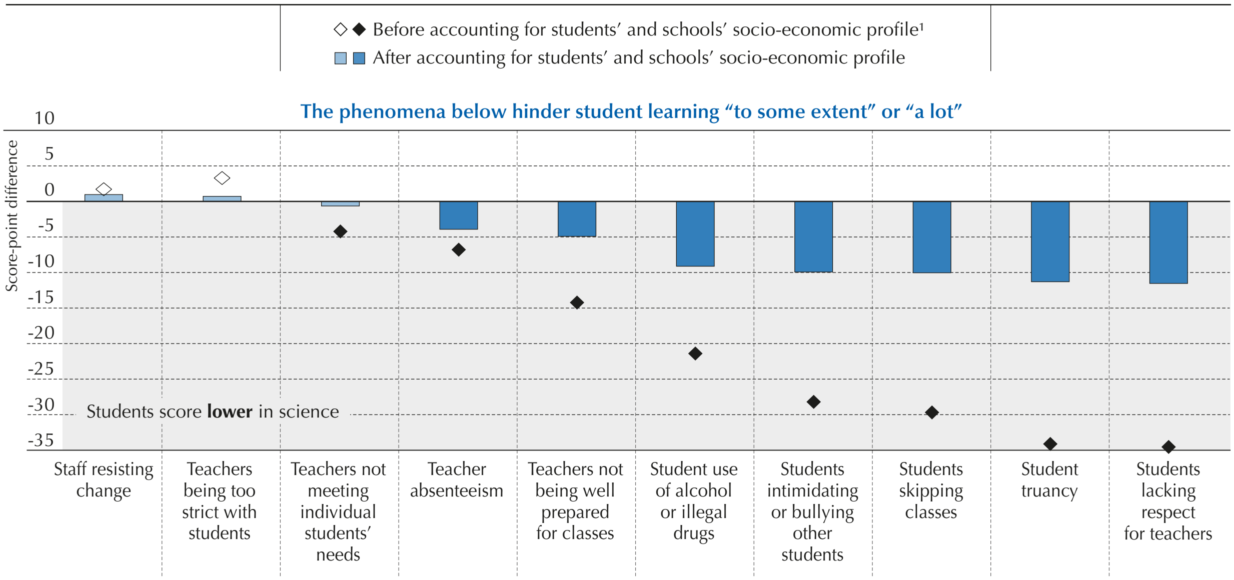
Relationship between student and teacher behaviour hindering learning, and science performance

In 55 of 68 PISA-participating countries and economies, students in schools whose principals reported more student-related problems affecting learning score lower in science (Figure II.3.9). This is true in 34 countries/economies after accounting for students' and schools' socio-economic profile. In Belgium, Luxembourg, and Trinidad and Tobago, students' scores in science drop by more than 40 points for every unit increase on the index of student behaviour hindering learning, before accounting for socio-economic status (Table II.3.15). On average across OECD countries, when school principals reported that teacher behaviour hinders learning, students also score lower in science, before accounting for students' and schools' socio-economic profile. This relationship is observed in 20 of 69 PISA-participating education systems, and in 10 systems after accounting for the socio-economic status of students and schools (Table II.3.20).

Student-related problems reported by the school principal, such as truancy or bullying, are more clearly related to science performance than teacher-related problems, such as teacher absenteeism or staff resisting change (Figure II.3.10). The most negative association with science performance, both before and after accounting for the socio-economic status of students and schools, is students lacking respect for their teachers, followed by student truancy, students skipping classes and students intimidating or bullying other students. By contrast, there is no association with performance when school principals reported that school staff resists change or that teachers are too strict with students.

Figure II.3.10 ▪ **Student and teacher behaviour hindering learning and science performance**

Results based on school principals' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database, Tables II.3.16 and II.3.21.

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Teacher support to students

Students need support from school staff, particularly from their teachers, if they are to make the most of the learning opportunities available to them (Klem and Connell, 2004). Students, including those with at-risk profiles, show more positive attitudes and higher academic motivation if their teachers care about them, provide them with help when they need it, and let them express opinions and decide for themselves (Pitzer and Skinner, 2016; Ricard and Pelletier, 2016).

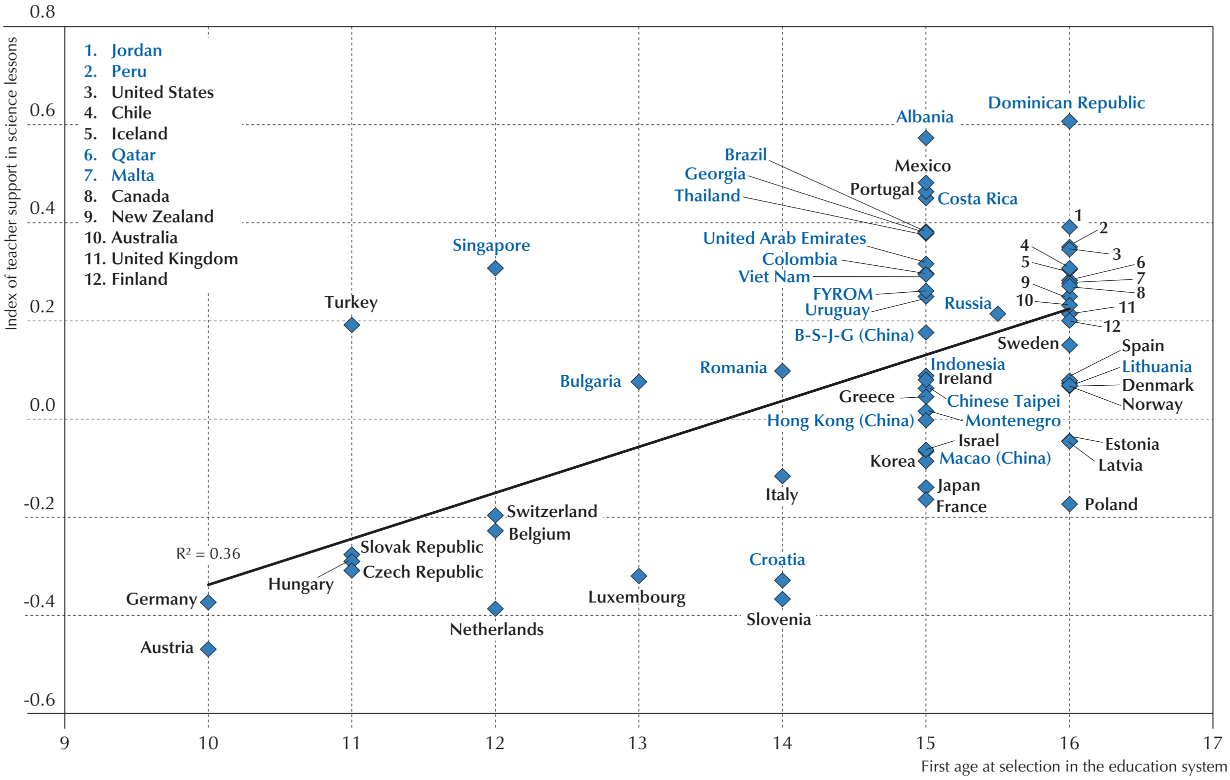
PISA asked students how often ("every lesson", "most lessons", "some lessons" or "never or hardly ever") their science teachers show an interest in every student's learning; give extra help when students need it; help students with their learning; continue teaching until students understand the material; and give students an opportunity to express their opinions. Students' responses were combined to create the index of teacher support in science classes such that, across OECD countries, the mean is zero and the standard deviation is one. Positive values indicate that students perceive that their science teachers support their learning.

In general, students are positive about how much support they get from their science teachers. On average across OECD countries, about two in three students answered "most lessons" or "every lesson" to each of the five questions on teacher support. For example, 38% of students in OECD countries, on average, reported that in every lesson the science teacher continues teaching until the students understand; and 40% reported that their teacher gives extra help when students need it (Table II.3.22). Countries where the largest proportions of students reported that their teachers support them include Albania, Costa Rica, the Dominican Republic, Kosovo, Mexico, Moldova and Portugal; countries with the smallest proportions of students who so reported include many whose education systems track students at a young age, including Austria, Belgium, Croatia, the Czech Republic, Germany, Hungary, Luxembourg, the Netherlands, the Slovak Republic, Slovenia and Switzerland (Table II.3.23).

Even if different response styles means that country comparisons need to be interpreted with caution, these results are not surprising. Selecting students into different types of schools results in more homogeneous classes, where whole-class teaching becomes more straightforward, and teachers need to pay less attention – "show interest", "give extra help" or "work with students" – to individual students. Figure II.3.11 shows how early tracking is related to the index of teacher support in science lessons across school systems: the later students are selected into separate tracks, the greater the support students reported receiving from teachers.

According to students' reports, teachers in disadvantaged schools support students in their learning more frequently than teachers in advantaged schools, as do teachers in rural as opposed to urban schools, and teachers in private as opposed to public schools (Figure II.3.12). The largest differences in favour of disadvantaged schools are observed in Bulgaria, Israel, Montenegro and the Slovak Republic, while the largest differences in favour of advantaged schools are observed in Australia, B-S-J-G (China), Japan and Singapore (Table II.3.23). The largest differences by type of school, in favour of private schools, are observed in Brazil, the Former Yugoslav Republic of Macedonia (hereafter "FYROM"), Georgia, Italy and Luxembourg.

Figure II.3.11 ■ **First age at selection in the education system and index of teacher support in science lessons**

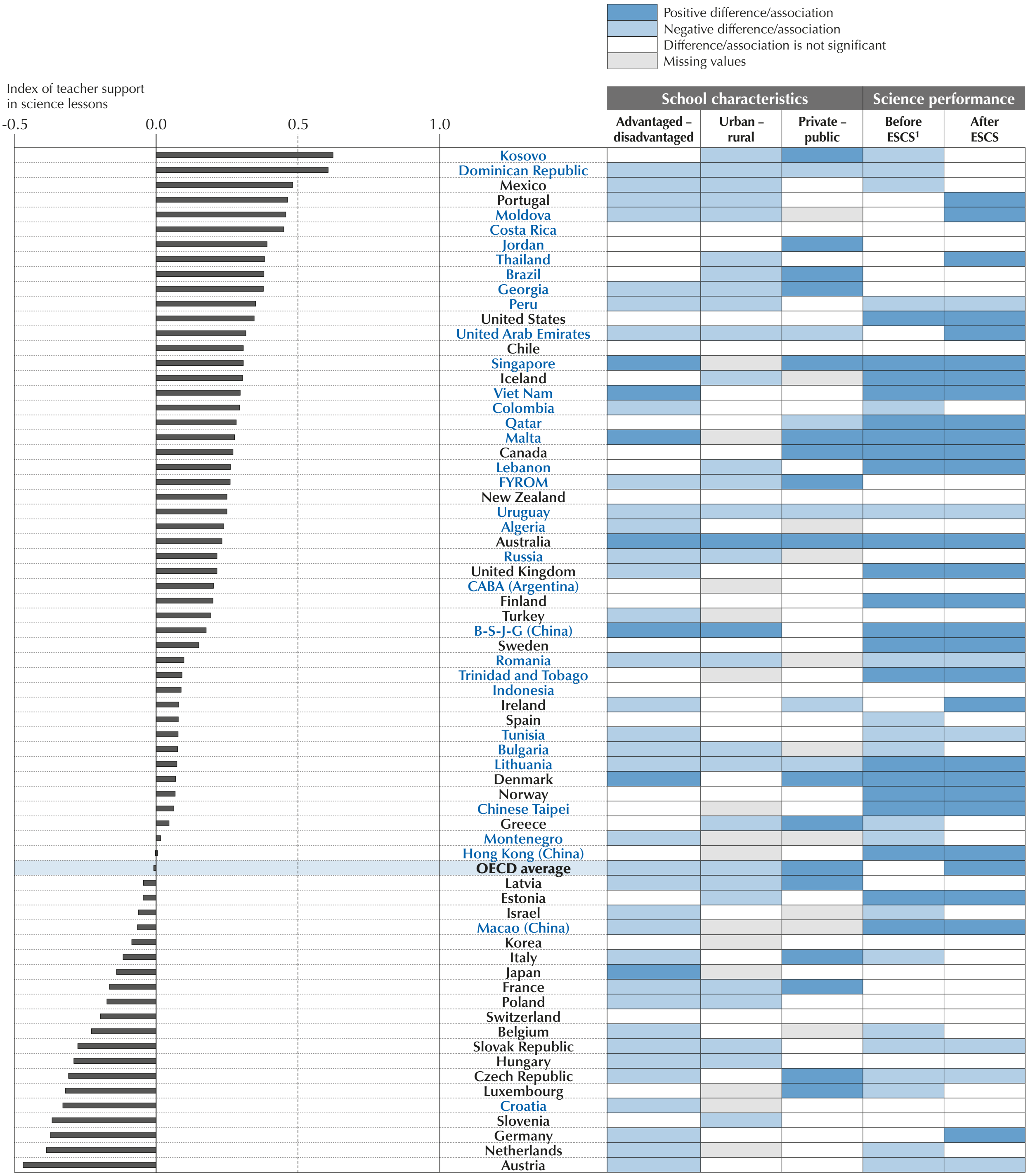


Source: OECD, PISA 2015 Database, Tables II.3.23 and II.4.27.

StatLink http://dx.doi.org/10.1787/888933435743

Figure II.3.12 ▪ Index of teacher support in science lessons, school characteristics and science performance

Results based on students' reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS¹	After ESCS
Education systems with a positive difference/association	7	2	16	21	27
Education systems with no difference/association	27	26	36	27	34
Education systems with a negative difference/association	34	26	6	20	7

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the index of teacher support in science lessons.

Source: OECD, PISA 2015 Database, Table II.3.23.

StatLink http://dx.doi.org/10.1787/888933435756

Across OECD countries, teacher support is not associated with student performance in science before accounting for the socio-economic status of students and schools; but it becomes positive, on average across OECD countries and in 27 countries and economies, after accounting for the socio-economic status of students and schools (Figure II.3.12). Disadvantaged students are in greater need of teacher support, and they also tend to score lower in the PISA assessments, so once the analysis accounts for socio-economic status, the association between teacher support and science performance becomes positive in many education systems.

PARENTAL INVOLVEMENT

Parents are often expected to be partners with teachers and principals (Gunnarsson et al., 2009; Zhao and Akiba, 2009). This partnership can take the form of parents discussing education matters with their child; parents supervising their child's progress through education; parents communicating with the school; and parents actively participating in school activities. While the first two forms of parental involvement entail interactions between parents and their child, the latter two entail interactions between parents and the school (Ho and Willms, 1996). This section focuses only on those practices that require contact between parents and schools.

Getting involved at school allows parents to obtain first-hand information on the school learning environment, learn how to navigate the education system, demonstrate to their child that education is important, and control their child's behaviour by establishing consistent norms (Grolnick and Slowiaczek, 1994; Lareau, 1996; Muller and Kerbow, 1993). Previous studies have found that parental involvement in a child's education has a positive influence on student outcomes (Domina, 2005; Grolnick and Slowiaczek, 1994; Hill and Craft, 2003; Miedel and Reynolds, 2000), even if these effects are largely dependent on the quality of this involvement (Borgonovi and Montt, 2012).

Parental involvement can also contribute to a socially connected school where students, teachers, parents and the school principal share ideas and work together, usually to create a positive learning environment. Previous studies have found that supportive relationships among teachers, students and families can improve performance, particularly among disadvantaged students (Crosnoe, Johnson and Elder, 2004; Hughes and Kwok, 2007).

Legislation on parental involvement

PISA asked school principals to report if there is national, state or district legislation on including parents in school activities. Across OECD countries, 70% of students attend schools whose principal reported that there is such legislation. Perhaps not surprisingly, there are wide differences across education systems (Table II.3.24). Japan, where the question only refers to local/district legislation, is the only education system where almost no 15-year-old student (8%) attends a school whose principal reported that there is legislation on parental involvement. Similarly, in B-S-J-G (China), Macao (China), Singapore and the Slovak Republic, fewer than three in ten students attend schools whose principal answered "yes" to the question. However, in a majority of education systems, most school principals reported that legislation on including parents in school activities was in place at the time their students sat the PISA 2015 test. For example, in 34 countries and economies, more than three out of four students attend schools whose principal reported that such legislation exists. The percentages might even be higher, since some principals might not be aware of existing legislation on including parents in school activities.

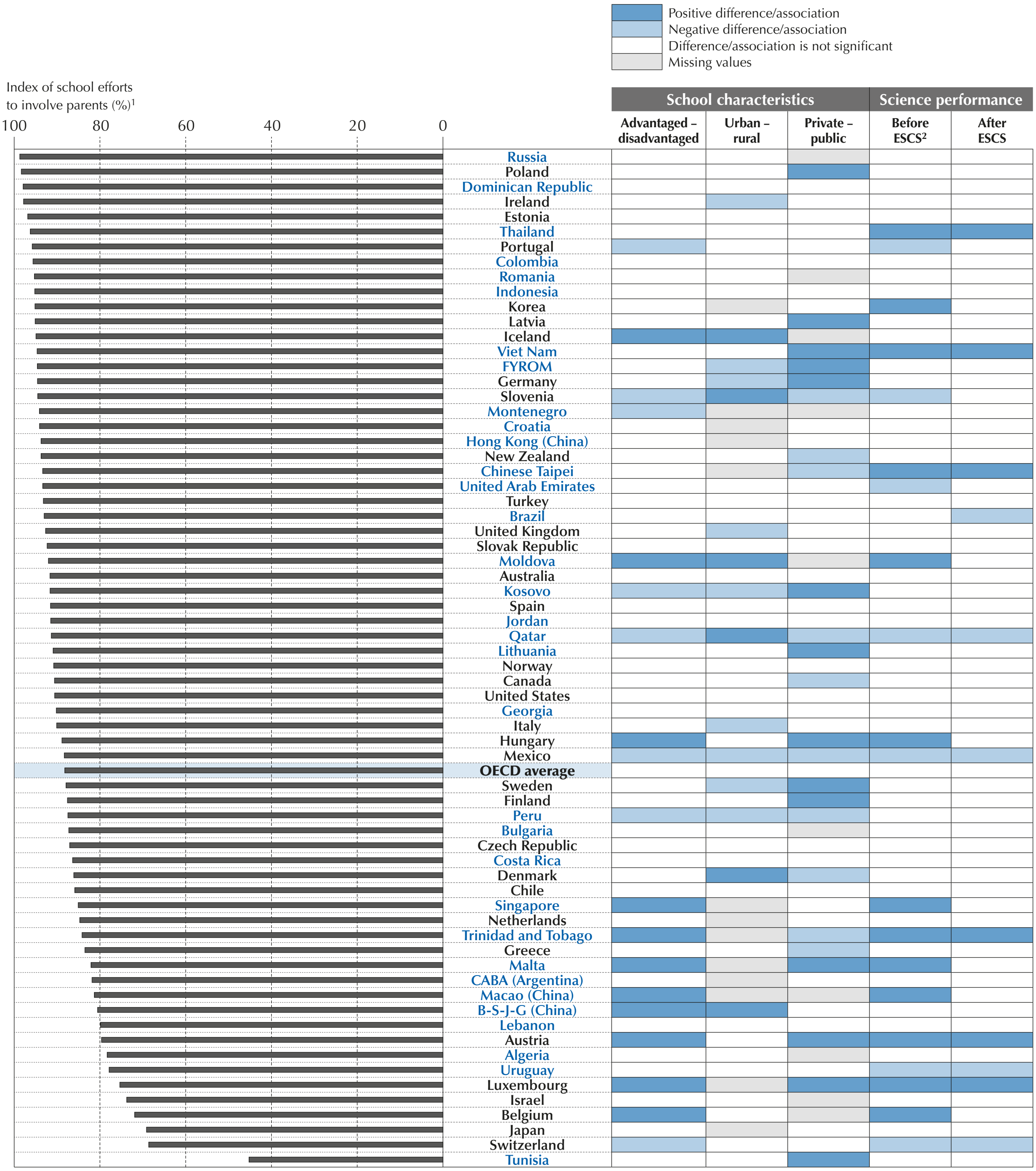
School efforts to involve parents

Some parents may not get involved at their child's school if they do not feel welcome or invited (Hoover-Dempsey and Sandler, 1997). Simply explaining to parents how to get more involved in their child's education can both lead to greater parental involvement and increase the extent to which students can take advantage of learning opportunities (Avvisati et al., 2014). But teachers do not always welcome parents' involvement. Some studies have found that teachers are more comfortable in partnerships where both teachers and parents play active roles in school matters – when teachers' professionalism and parents' empowerment coexist – but less so when teachers fear that their professional status and credibility may be at risk (Addi-Raccah and Ainhoren, 2009).

PISA asked principals if the following statements about parental involvement applied to their schools (principals could answer "yes" or "no"): "Our school provides a welcoming and accepting atmosphere for parents to get involved"; "Our school designs effective forms of school-to-home and home-to-school communications about school programmes and children's progress"; "Our school includes parents in school decisions"; and "Our school provides information and ideas for families about how to help students at home with homework and other curriculum-related activities, decisions and planning". The four questions were combined into an index of school efforts to involve parents. A value of zero on the index means that school principals replied "no" to all four questions, and a value of 100 means that they answered "yes" to all four questions.

Figure II.3.13 ■ School efforts to involve parents, school characteristics and science performance

Results based on school principals' reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS²	After ESCS
Education systems with a positive difference/association	11	6	14	13	6
Education systems with no difference/association	48	39	33	47	56
Education systems with a negative difference/association	8	9	10	7	5

1. The index of school efforts to involve parents is the percentage of statements about parental involvement that apply to the school (see Table II.3.26 for the list of statements).

2. ESCS refers to the PISA index of economic, social and cultural status.

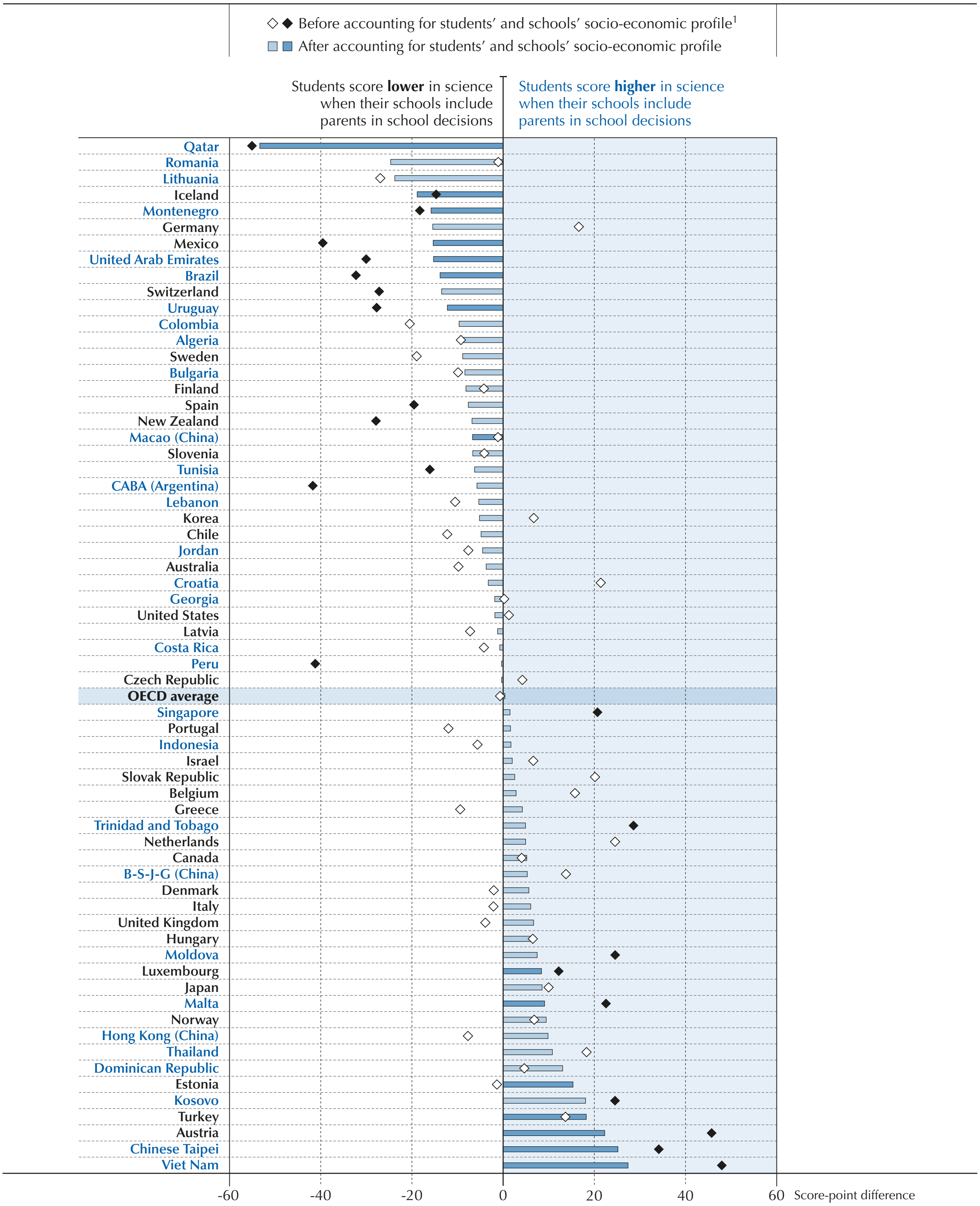
Countries and economies are ranked in descending order of the index of school efforts to involve parents.

Source: OECD, PISA 2015 Database, Table II.3.27.

StatLink http://dx.doi.org/10.1787/888933435768

Figure II.3.14 ■ **Including parents in school decisions and science performance**

Results based on school principals' reports



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

Countries and economies are ranked in ascending order of the score-point difference in science performance when students are in schools that include parents in school decisions, after accounting for students' and schools' ESCS.

Source: OECD, PISA 2015 Database, Table II.3.28.

StatLink http://dx.doi.org/10.1787/888933435775

Given that school principals were only given the choice of answering “yes” or “no” and that principals’ responses might have been coloured by social desirability (providing answers that are viewed as socially preferred), it is not surprising that principals tended to answer affirmatively to the questions about their efforts to involve parents in school matters (Table II.3.26). On average across OECD countries, more than nine in ten students attend schools whose principal reported that the school provides a welcoming and accepting atmosphere for parents to get involved, and that the school designs effective forms of school-to-home and home-to-school communications about school programmes and children’s progress. However, fewer school principals reported that parents are included in school decisions, probably because this question is about giving parents a real say in school matters (parent empowerment). Across OECD countries, three out of four students attend schools whose principal reported that parents are included in school decisions; in several countries and economies, such as CABA (Argentina), Greece, Japan, Macao (China), Singapore, Switzerland, Tunisia and Uruguay, fewer than one in two students attends such schools.

Again because principals’ responses likely reflect, to some extent, social desirability, there are few school systems where there are differences across types of schools (Figure II.3.13). On average across OECD countries, there are no significant differences in schools’ efforts to involve parents between advantaged and disadvantaged schools, nor between rural and urban schools, nor between public and private schools. The association with student performance is also weak, before and after accounting for the socio-economic profile of students and schools.

When considering only the question of whether parents are invited to participate in school decision making, there is virtually no difference in science scores on average across OECD countries, but there is a wide variation across education systems (Figure II.3.14). In Qatar, students in schools whose principal reported that parents are involved in school decisions score 53 points lower, and in Iceland, students score 19 points lower in the PISA science assessment, after accounting for socio-economic status. By contrast, in Austria, Chinese Taipei and Viet Nam, students in schools whose principals so reported score at least 20 points higher in science.

Parental involvement in school activities

PISA asked parents to report if, during the previous academic year, they had participated in the following ten school-related activities (parents could answer “yes”, “no” or “not supported by the school”): “discussed my child’s behaviour with a teacher on my own initiative”; “discussed my child’s behaviour on the initiative of one of his/her teachers”; “discussed my child’s progress with a teacher on my own initiative”; “discussed my child’s progress on the initiative of one of his/her teachers ”; “participated in local school government”; “volunteered in physical or extracurricular activities”; “volunteered to support school activities”; “attended a scheduled meeting or conferences for parents”; “talked about how to support learning at home and homework with my child’s teachers”; and “exchanged ideas on parenting, family support, or the child’s development with my child’s teachers”. The answers were combined to create the index of parental involvement in school-related activities, which is simply the number of questions or activities to which parents answered “yes”, ranging from zero to ten activities. Only 18 countries and economies distributed the parents’ questionnaire.

Parents in Belgium (Flemish community), France, Ireland, Luxembourg and the Scotland (United Kingdom) reported that they had participated in about three of the ten activities, on average (Table II.3.31). By contrast, parents in Chile, the Dominican Republic and Georgia reported that they had participated in at least five school-related activities, on average, during the previous academic year.

On average across the education systems that distributed the parents’ questionnaire, parents of children who attend socio-economically disadvantaged schools reported having participated in more school-related activities than parents of children who attend advantaged schools (Figure II.3.15). Parents of children who attend rural schools are also more likely than parents of children who attend urban schools to have participated in school-related activities. And, only across OECD countries, parents of children enrolled in private schools participated in more school-related activities than those whose children attend public schools.

Interestingly, in all education systems except that in Korea, students whose parents reported greater participation in school activities score lower in science, both before and after accounting for the socio-economic profile of students and schools. When considering the individual questions, across the 18 education systems that distributed the parents’ questionnaire, the strongest negative associations with science performance are observed when parents reported that they had discussed their child’s behaviour or progress with teachers during the previous academic year, after accounting for the school disciplinary climate and socio-economic status. The only positive association with science performance is observed when parents reported that they had attended a scheduled meeting or conference for parents. In these instances, students score 10 points higher in science, after accounting for socio-economic status and the school’s disciplinary climate (Figure II.3.16).

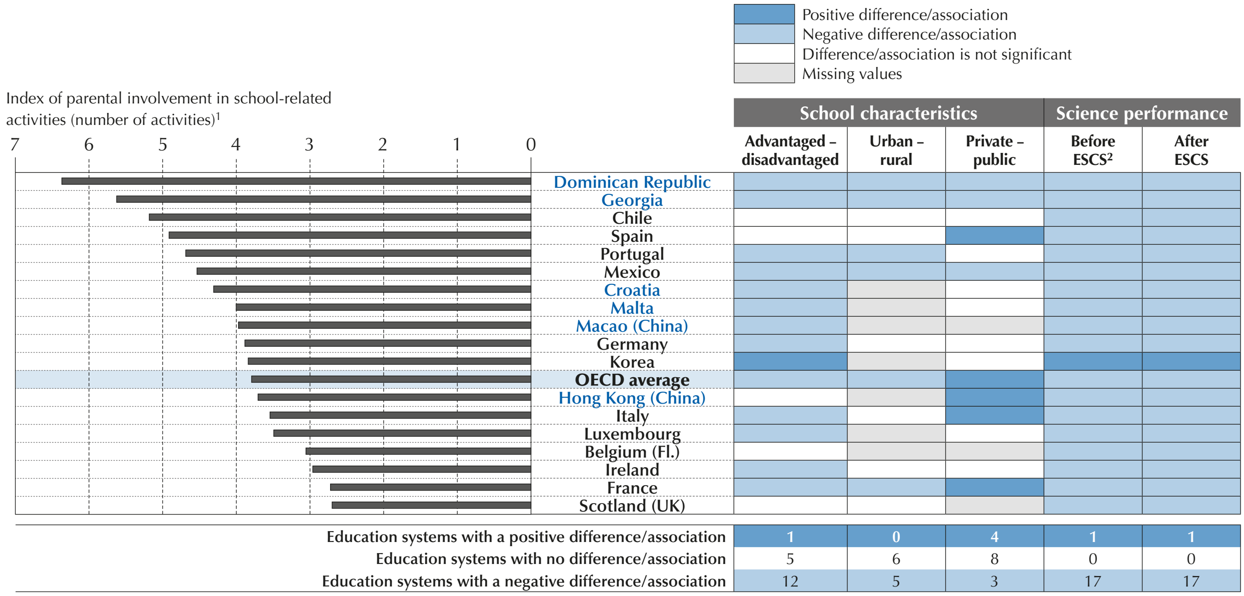


Figure II.3.15 ■ **Index of parental involvement in school-related activities, school characteristics and science performance**

Results based on parents' self-reports

■ Positive difference/association
▒ Negative difference/association
□ Difference/association is not significant
░ Missing values

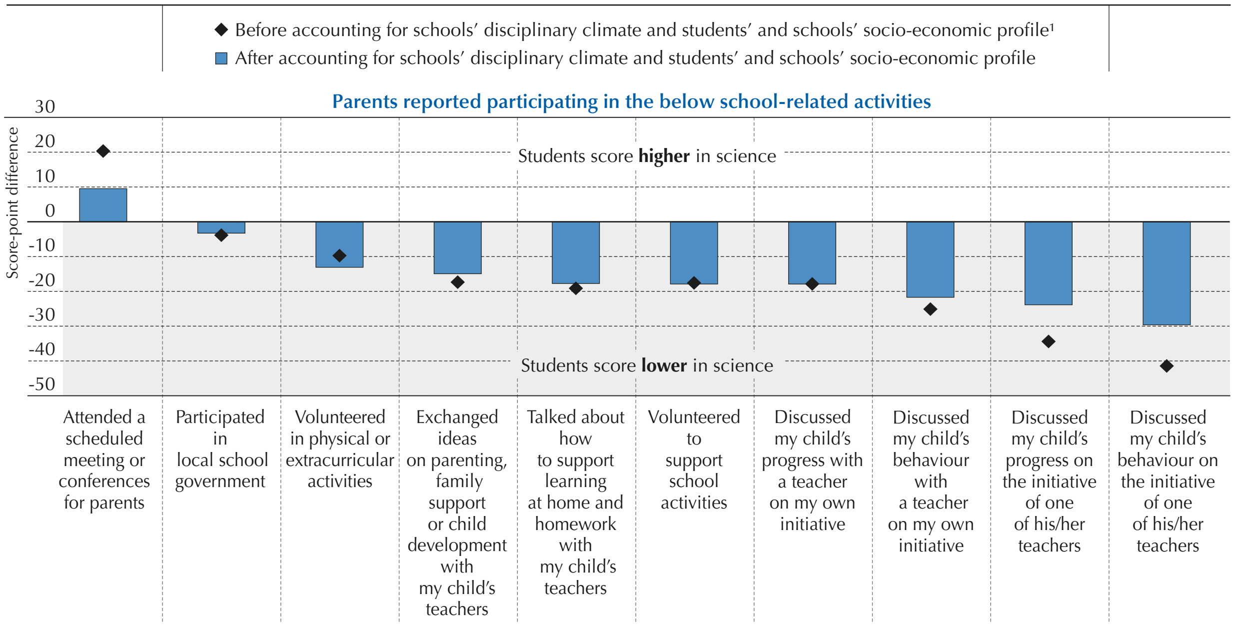
	School characteristics			Science performance	
	Advantaged – disadvantaged	**Urban – rural**	**Private – public**	**Before ESCS[2]**	**After ESCS**
Dominican Republic	▒	▒	▒	▒	▒
Georgia	▒	▒	▒	▒	▒
Chile	□	□	□	▒	▒
Spain	□	□	■	▒	▒
Portugal	▒	▒	□	▒	▒
Mexico	▒	▒	▒	▒	▒
Croatia	▒	░	□	▒	▒
Malta	▒	░	□	▒	▒
Macao (China)	▒	░	░	▒	▒
Germany	▒	□	□	▒	▒
Korea	■	░	□	■	■
OECD average	▒	▒	■	▒	▒
Hong Kong (China)	□	░	■	▒	▒
Italy	▒	□	■	▒	▒
Luxembourg	▒	░	□	▒	▒
Belgium (Fl.)	□	░	░	▒	▒
Ireland	▒	□	□	▒	▒
France	▒	▒	■	▒	▒
Scotland (UK)	□	□	░	▒	▒
Education systems with a positive difference/association	1	0	4	1	1
Education systems with no difference/association	5	6	8	0	0
Education systems with a negative difference/association	12	5	3	17	17

1. The index of parental involvement in school-related activities is the average number of school activities in which parents reported to have participated.
2. ESCS refers to the PISA index of economic, social and cultural status.
Note: Only countries and economies that distributed the parent questionnaire are shown.
Countries and economies are ranked in descending order of the index of parental involvement in school-related activities.
Source: OECD, PISA 2015 Database, Table II.3.31.

StatLink http://dx.doi.org/10.1787/888933435781

Figure II.3.16 ■ **Parental involvement in school-related activities and science performance**

Results based on parents' self-reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: All differences are statistically significant (see Annex A3).
Source: OECD, PISA 2015 Database, Table II.3.32.

StatLink http://dx.doi.org/10.1787/888933435792

Given these results, and also looking at the countries where parents had participated more in school activities, it seems that parents participate more where they are needed more – such as in schools where student problems, such as poor discipline, truancy or disengagement, cannot be solved without involving parents (see Volume III for more in-depth analyses of how parental involvement can influence students' well-being). After all, participating in school activities is challenging and time-consuming for school staff and parents, and only serious problems may warrant such collaboration.

This is not to say that the involvement of parents is of little value; on the contrary, getting parents involved may be the only way to solve serious behavioural problems at school, and constructive involvement of parents may create a positive environment for student learning (Avvisati et al., 2014; Hill and Taylor, 2004; McNeal, 1999; Sui-Chu and Willms, 1996). Some studies also suggest that a low level of parental involvement may reflect parents' trust in teachers (Addi-Raccah and Arviv-Elyashiv, 2008) or a model of school governance based on the understanding that teachers control the instructional process and parents provide support or simply delegate their academic responsibilities (Bauch and Goldring, 1998).

How are legislation on parental involvement, school efforts to involve parents in school activities, and actual parental involvement related?

Across education systems, there are substantial differences in how governments and schools encourage parental involvement in school matters and how actions are related to the actual involvement of parents. Some parental involvement is spontaneous, or "bottom-up", in the sense that it is mostly voluntary; other involvement is induced, or "top-down", for instance, when it follows intervention programmes by schools or education authorities (Desforges and Abouchaar, 2003). But to what extent can governments induce schools to promote parents' involvement in school activities? PISA cannot directly answer this question, but can show how both types of parental involvement are associated across education systems.

Across OECD countries, school principals reported that they make more efforts to engage parents in school matters when they also reported that there is national, state or district legislation on including parents in school activities (Table II.3.25). For instance, across OECD countries, school principals were six times more likely to say that their schools include parents in school decisions when there is legislation on including parents in schools activities than when there is no such legislation.

However, parents were only slightly more likely to agree that their child's school makes an effort to involve them in their child's education, or to participate in more school activities, when the school makes a greater effort to involve them (Table II.3.29). The correlations between school efforts to involve parents and parents' perceptions of these efforts are always in the expected direction – greater school efforts are associated with parents agreeing that the school is making such efforts – but below 0.1 in all the education systems that distributed the parent questionnaire. The correlations between school efforts to involve parents and actual parental involvement are also in the expected direction but still below 0.15 in all education systems.

SCHOOL LEADERSHIP

School leaders not only manage administrative tasks, such as budgeting, staffing and planning the maintenance of school buildings, but also play a key role in education by actively shaping the school culture (Barber, Whelan and Clark, 2010; Hallinger and Heck, 1998; Leithwood and Jantzi, 2006; Pont, Nusche and Moorman, 2008). The most effective schools are led by principals who define, communicate and build consensus around the school's education goals, ensure that the curriculum and instructional practices are aligned with these goals, and foster healthy social relationships within the school community (Branch, Hanushek and Rivkin, 2013; Grissom, Loeb and Master, 2013; Heck, Larsen and Marcoulides, 1990; Murphy, 1990).

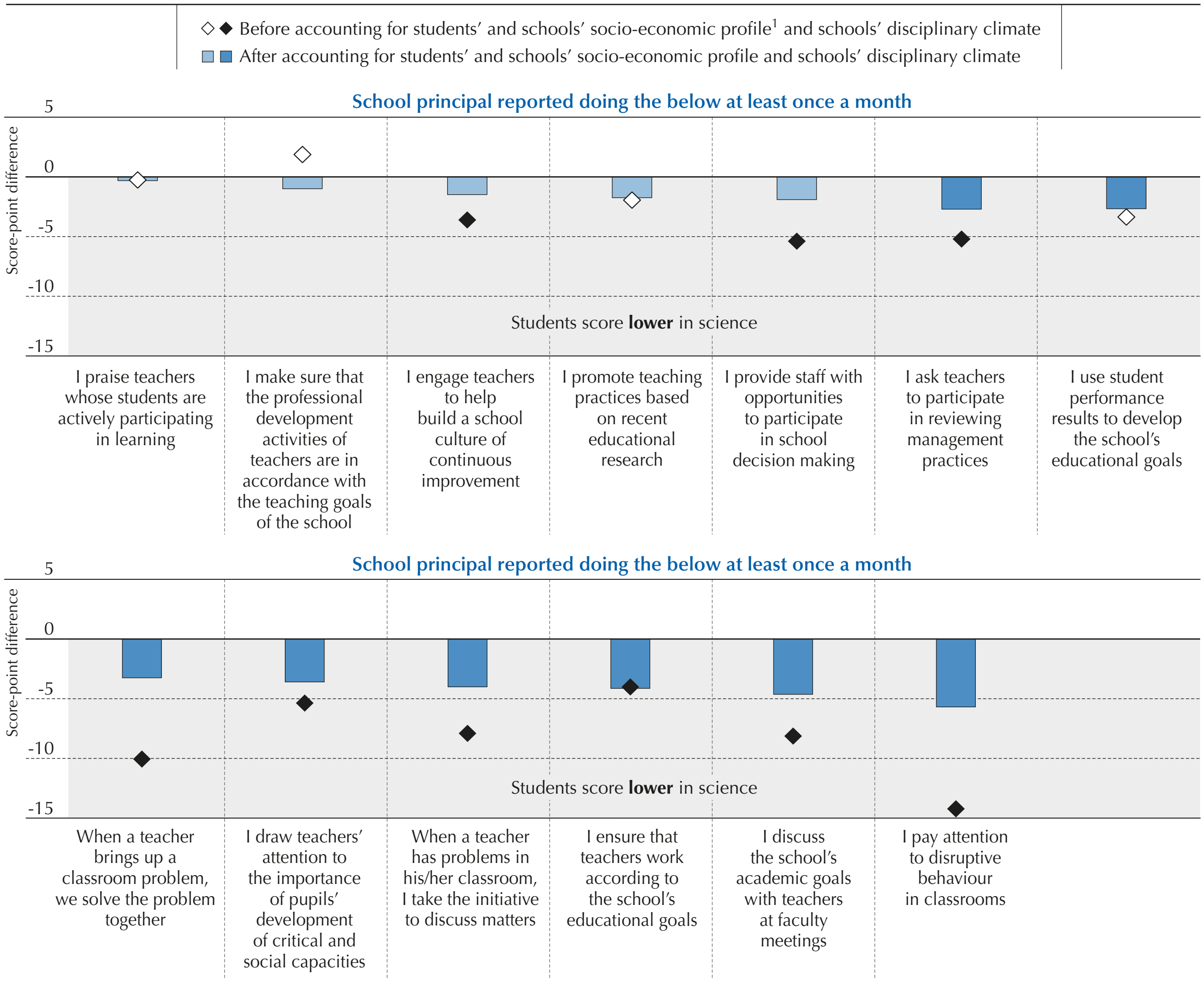
School principals who shape the learning environment often:

- develop the school mission and goals
- set and communicate learning standards
- collaborate with teachers on curriculum, instruction and assessment
- plan professional development
- promote teacher collaboration
- involve teachers in decision making
- foster a positive school climate and control disruptive behaviour
- plan school activities that help students develop social and emotional skills
- create ways to involve parents and the local community in school life.

The PISA school questionnaire focuses mainly on how school leaders create a positive learning environment by building effective teacher-principal relationships. PISA 2015 asked school principals to report how frequently (“did not occur”, “1-2 times during the year”, “3-4 times during the year”, “once a month”, “once a week”, or “more than once a week”) 13 actions and behaviours related to school management occurred in the previous academic year. These actions and behaviours are combined to create the index of educational leadership; they are also divided into four groups to create four sub-indices of educational leadership: curricular, instructional, professional development and teachers’ participation.[2] All indices have been standardised so that the OECD mean is zero and the standard deviation is one. Some of the answers given by school principals may be coloured by social desirability, particularly those referring to leadership styles that are positively viewed by others, so over-reporting should be considered when interpreting the findings.

Figure II.3.17 ■ **Educational leadership and science performance**

OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database, Table II.3.41.

StatLink `http://dx.doi.org/10.1787/888933435807`

Almost all school principals reported doing all of the leadership activities at least once during the previous year (Table II.3.33). Across OECD countries, more than nine out of ten students are enrolled in schools whose principal undertook each of the 13 management activities at least once per year. More than 60% of students attend schools whose principal reported that, at least once a month, he or she “praises teachers whose students are actively participating in learning” (63% of students attend such schools); “takes the initiative to discuss matters” when a “teacher has problems in his/her classroom” (68%); “provides staff with opportunities to participate in school decision making” (72%); “engages

teachers to help build a school culture of continuous improvement" (73%); "solves the problem together" with teachers when they "bring up a classroom problem" (78%); or "pays attention to disruptive behaviour in classrooms" (82%). Of the management activities considered, using student performance to develop the school's educational goals and asking teachers to participate in reviewing management practices are the leadership activities in which school principals engage the least frequently.

Principals in Brazil, the United Kingdom and the United States were the most likely to report being engaged in educational leadership activities while those in Hong Kong (China), Japan and Switzerland were the least likely to report so (Table II.3.36). On average across OECD countries, principals of private and public schools reported similar levels of educational leadership, while principals of disadvantaged and urban schools reported somewhat higher levels of educational leadership than those of advantaged and rural schools, respectively. Similar results are also observed for the four sub-indices of school leadership: curricular leadership, instructional leadership, professional development and teachers' participation (Tables II.3.37 to II.3.40). Curricular and instructional leadership activities appear to be more common in urban schools, and activities related to professional development and teachers' participation are reported more frequently by principals of disadvantaged schools (and for teachers' participation, also rural schools).

On average across OECD countries, all the indices on school leadership are negatively related to science performance, after accounting for socio-economic status, even if this negative association is only observed in a smaller number of education systems (Tables II.3.36 to II.3.40). When comparing individual questions, and after accounting for the schools' disciplinary climate and the socio-economic profile of students and schools, the strongest negative association with science performance is observed when school principals reported that they pay attention to disruptive behaviour in classrooms at least once a month (instead of less than once a month); and the weakest negative association is observed when principals reported that, at least once a month, they praise teachers whose students actively participate in learning (Figure II.3.17). These findings, particularly the differences in the associations with science performance before and after accounting for the schools' disciplinary climate when the questions refer to "problems" or "disruptive behaviour", suggest that school leaders may (need to) show more active leadership when the learning environment deteriorates and student problems arise.

Notes

1. Note that despite referring to student truancy in this chapter, the questions in PISA refer to both authorised and unauthorised absences from school.

2. See Boxes II.2.1, II.2.2 and II.2.3 in Chapter 2 for a description of how PISA defines socio-economically disadvantaged and advantaged schools, public and private schools, and urban and rural schools.

3. The sub-index of curricular leadership includes the following: "I use student performance results to develop the school's educational goals"; "I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school"; "I ensure that teachers work according to the school's educational goals"; and "I discuss the school's academic goals with teachers at faculty meetings". The sub-index of instructional leadership includes the following: "I promote teaching practices based on recent educational research"; "I praise teachers whose students are actively participating in learning"; and "I draw teachers' attention to the importance of pupils' development of critical and social capacities". The sub-index of professional development includes the following: "When a teacher has problems in his/her classroom, I take the initiative to discuss matters"; "I pay attention to disruptive behaviour in classrooms"; and "When a teacher brings up a classroom problem, we solve the problem together". The sub-index of teachers' participation include the following: "I provide staff with opportunities to participate"; "I engage teachers to help build a school culture of continuous improvement"; and "I ask teachers to participate in reviewing management practices".

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4

School governance, assessment and accountability

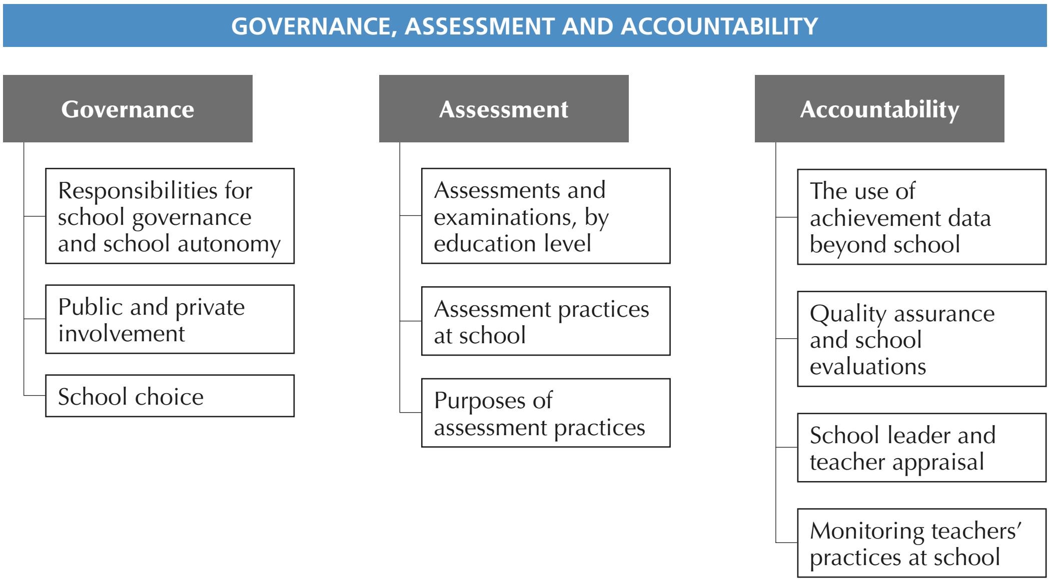
This chapter examines the governance of school systems, assessment practices and accountability procedures and how they are related to student performance across PISA-participating countries and economies. It examines school autonomy; teachers' participation in school governance; public and private involvement in governance; school choice; policies on examinations, assessment practices and purposes; quality assurance; and the use of achievement data.

In most middle- and high-income countries, compulsory education is guaranteed by the state and realised through education authorities, stakeholders and/or independent agencies. Governing these complex education systems requires balancing responsiveness to local diversity with the ability to deliver high-quality and equitable education to all students, regardless of their social background, abilities and interests (see Box II.4.1). To do this, decisions must be taken on the roles of principals, teachers, parents, school governing boards, governments and private organisations in managing schools, on the level of competition among schools, and on how students are assessed, how teachers' practices are monitored, how school leaders are appraised, and how schools are held accountable for the quality of the education they provide (Figure II.4.1).

What the data tell us

- Schools in the Czech Republic, Lithuania, Macao (China), the Netherlands and the United Kingdom enjoy the greatest autonomy while those in Greece, Jordan, Tunisia and Turkey are granted the least autonomy. In education systems where school principals hold greater responsibility for school governance, students score higher in science; and this relationship is stronger in school systems where the percentage of students whose achievement data are tracked over time and posted publicly is higher than the OECD average.
- Across OECD countries, 84% of students attend public schools, 12% attend government-dependent private schools and 4% attend private independent schools. Students in private schools score higher in science than students in public schools; but after accounting for the socio-economic profile of students and schools, students in public schools score higher than students in private schools on average across OECD countries and in 22 education systems.
- Students whose parents consider the distance to school and school expenses when choosing a school for their child score lower in science, even after accounting for the socio-economic profile of students and schools.
- Standardised tests are used extensively across PISA-participating countries and economies. In about five out of six school systems, more than one in two students are assessed at least once a year with mandatory standardised tests, and in about three out of four countries, more than one in two students are assessed at least once a year with non-mandatory standardised tests.
- Almost all schools that participated in PISA 2015 use internal evaluations, written specifications of the school's curriculum and education goals, and systematic recording of data, including test results and graduation rates, for quality assurance and improvement.

Figure II.4.1 ▪ **Governance, assessment and accountability as measured in PISA 2015**



Box II.4.1. Governing complex education systems

Over the last few decades, many OECD countries have decentralised control of their education systems, giving schools and local school authorities greater autonomy to respond more directly to citizens' needs. As evidence about school and student achievement has become more readily available, parents and other stakeholders (such as teachers, students and labour unions) have become more demanding and involved in decision making about education. The increased complexity in governance arrangements, accompanied by a rise in the number of stakeholders and in the availability and use of evaluation and accountability data, calls for a new approach to governance (Burns and Köster, 2016).

Education systems are, in fact, complex systems: they are networks of interdependently linked actors whose actions affect all other actors, and that evolve, adapt, and re-organise themselves. Complex systems do not work in a linear manner but rather exhibit a series of well-defined characteristics: tipping points, feedback loops, path dependence and sensibility to local contexts (Snyder, 2013).

Complexity

Understanding complexity is important for policy making and reform, as complex systems cannot be successfully governed with the simple, linear mechanisms of the traditional policy cycle. Simply devolving power to local authorities will not improve the functioning of the system unless it is also accompanied by attention to the connections and interactivity present. This interactivity means that a single intervention may generate both positive and negative effects in different parts of the system. For example, disclosing information about school performance might have a very different impact on a school that is thriving than on a school that struggles to attract well-performing students. Space must thus be made to facilitate and use the constant feedback required to guide complex systems when designing and implementing reforms. Although it might be tempting to look for easy, one-size-fits-all policy responses for a specific problem, simple solutions to complex problems are doomed to fail. Public governance must remain flexible enough to learn from and adapt to specific circumstances.

Five elements of modern governance for complex systems

Modern education governance must be able to juggle dynamism and complexity at the same time as it steers a clear course towards established goals. And it must do this as efficiently as possible, with limited financial resources. Successful modern education governance:

- ***Focuses on processes, not structures.*** Almost all governance structures can be successful under the right conditions. The number of levels, and the power at each level, is not what makes or breaks a good system. Rather, it is the strength of the alignment across the system, the involvement of actors, and the processes underlying governance and reform.
- ***Is flexible and able to adapt to change and unexpected events.*** Strengthening a system's ability to learn from feedback is a fundamental part of this process, and is also a necessary step to quality assurance and accountability.
- ***Works through building capacity, stakeholder involvement and open dialogue.*** However it is not rudderless: involvement of more stakeholders only works when there is a strategic vision and set of processes to harness their ideas and input.
- ***Requires a whole-of-system approach.*** This requires aligning policies, roles and responsibilities to improve efficiency and reduce potential overlap or conflict (e.g. between accountability and trust, or innovation and risk-avoidance).
- ***Harnesses evidence and research to inform policy and reform.*** A strong knowledge system combines descriptive system data, research findings and expert practitioner knowledge. The key is knowing what to use, when, why and how.

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HOW SCHOOL SYSTEMS ARE GOVERNED

Responsibilities for school governance and school autonomy

Among the many decisions that education authorities and schools have to make, those concerning the way responsibilities for education are distributed and managed have a direct impact on teaching and learning. Since the early 1980s, many school systems, such as those in Australia, Canada, Finland, Hong Kong (China), Israel, Singapore, Spain, Sweden and the United Kingdom, have granted individual schools greater authority to make decisions about curricula and resource allocation (Cheng and Lee, 2016; Fuchs and Woessmann, 2007; Wang, 2013). The underlying premise is that individual schools have highly qualified teachers and strong leaders who are good judges of their students' learning needs, and who can (re)design and implement rigorous curricula, internal evaluations and accountability mechanisms without feeling overloaded (Caldwell and Spinks, 2013; Department for Education, 2010; Hanushek, Link and Woessmann, 2013). Such school-based management involves increasing principals' decision-making responsibility and accountability and, in some cases, the management responsibilities of teachers or department heads. Yet school systems differ in the degree of autonomy granted to schools and in the domains over which autonomy is awarded to schools.

PISA 2015 asked school principals to report whether the teachers, the principal, the school's governing board, the regional or local education authorities, the national education authority,[1] or a combination of them, have considerable responsibility for allocating resources to schools (appointing and dismissing teachers; determining teachers' starting salaries and salary raises; and formulating school budgets and allocating them within the school), for the school curriculum (choosing textbooks; deciding which courses are offered; and determining the content of those courses), and for establishing student assessment, disciplinary and school admissions policies.[2]

Across OECD countries, most students are in schools whose principal reported having considerable responsibility for hiring (70% of students attend such schools) or firing teachers (57% of students attend such schools), but fewer than one in four students attends a school whose principal reported having considerable responsibility for establishing teachers' starting salaries (20%) or salary increases (23%) (Table II.4.1). More than half of students are in schools whose principal reported having considerable responsibility over budgetary issues, including deciding how the budget should be allocated within the school; over disciplinary, assessment and admissions policies; and also over which courses are offered at school. Across education systems, differences in the responsibility for hiring and firing teachers are particularly large. In Greece, Jordan, Tunisia and Turkey, fewer than one in ten students attends schools whose principals reported having considerable responsibility over hiring, while in the Czech Republic, Iceland, Montenegro and Sweden, virtually all students are in schools whose principals reported having such responsibility.

According to school principals in most PISA-participating countries, teachers have limited input about their working conditions (hiring, firing and salaries), school budgetary matters or admissions policies (Table II.4.1). They have more responsibility for disciplinary and assessment policies, choosing textbooks and course content, with around six in ten students or more, across OECD countries, attending schools whose principal reported that teachers have considerable responsibility for these issues. About half of students attend schools whose principal reported that teachers have considerable responsibility over which courses are offered at school. Despite having substantial responsibility over curricula across most PISA-participating education systems, there are some countries in which teachers appear to have little autonomy in choosing textbooks, determining course content or deciding which courses are offered. For example, in Greece and Jordan, fewer than one in ten students attends a school whose principal reported that teachers have considerable responsibility over selecting textbooks, courses on offer or course content.

School boards have less responsibility over school management than other stakeholders, according to school principals (Table II.4.1). Their main responsibilities lie in budgetary issues (on average across OECD countries, about one in three students attends a school whose principal said that school boards have considerable responsibility over formulating the school budget or allocating it within the school) and for disciplinary policies; they also appear to have some say over which courses are offered.

But the nature and composition of school boards vary widely across countries (see Box II.4.2). This is reflected in the role they play in managing schools across different education systems. In Croatia, for example, more than three in four students are in schools whose principals reported that school boards have considerable responsibility over firing and hiring teachers; in the Dominican Republic and the Former Yugoslav Republic of Macedonia (hereafter "FYROM"), more than seven in ten students are in schools where school boards have responsibility for formulating the budget; and in Singapore, at least six in ten students are in schools whose principals reported that school boards play a large role in decision making related to the school budget, discipline, assessment and curriculum.

Box II.4.2. School governing boards around the world

A school governing board, also known as a school leadership board or a school governing committee, is a group of individuals that is responsible for making certain decisions related to either a particular school or a network or group of schools. The board often shares responsibility with a higher-level government agency, such as a national or provincial/state department of education, that sets a framework within which the school governing board has a degree of discretion. However, school governing boards differ widely across countries in their composition and function.

Who sits on school governing boards?

School governing boards can be internal, comprising only school staff, parents and students; external, incorporating members of the community at large; or a combination of the two (OECD, 2010). For example, in Denmark, parents and students elect representatives for the board from among themselves, with parents making up at least half of the members of the board (UVM, 2015). Both academic and administrative staff members also sit on the board, and the local government can include representatives of the local business community or non-profit organisations, or those associated with other schools in the locality.

A similar system exists in South Korea, where parents and teachers elect both their own representatives and a group of community leaders[1] (MOE, 2015). There can be anywhere from 5 to 8 members on the governing board of schools with fewer than 200 students, to between 13 and 15 members on the board of schools with over 1 000 students. The composition of these boards is evenly split among parents, teachers and community members.[2] In Spain, the school board is composed of the school director, the head teacher, a representative from the city council, a group of teachers (elected among themselves), which makes up at least one-third of the board, a group of students and parents (elected among themselves), which makes up another third of the board, and a representative from the administrative staff[3] (BOE, 2013).

In Canada, most school boards[4] are elected by the local community to preside over certain aspects of the school system in the community (CSBA, 2015), while in the United States, most are appointed by the state governor (NASBE, 2016). School boards in these countries are responsible not just for one school, but for an entire network of schools, ranging from primary to upper secondary level. School staff, parents and students are excluded from these boards.

What do school governing boards do?

School governing boards also vary in their responsibilities. School boards in Spain, for example, are informed about school admissions and disciplinary problems at the school, they analyse and evaluate the school's annual programme, participate in the election of the school principal, and propose actions to improve the school facilities and the learning environment (BOE, 2013).

Portuguese school boards have a complex structure with four branches that, together, oversee a wide variety of tasks (Eurydice, 2016):

- The general board elects the school principal, approves the "educational project" and annual/multi-year activity plans, examines the results of the school's self-evaluation, participates in the principal's performance evaluation, and helps establish relationships with other schools.
- The school principal prepares the budget, assigns staff teaching and non-teaching duties, nominates heads of departments, selects and recruits teaching staff, manages school facilities and other educational resources, evaluates performance, and represents the school.
- The pedagogic board develops the "educational project" and annual/multi-year activity plans, organises professional development programmes for staff, adapts the curriculum to the school's needs, chooses textbooks, sets up the framework for hiring teachers and creating class timetables, and participates in teachers' performance evaluations.
- The administrative board manages the budget.

School governing boards in the French Community of Belgium have a smaller set of duties (Communauté française de Belgique, 1997). They discuss the school's education plan and monitor its implementation, proposing adjustments if necessary. They also audit the costs accrued during the year, particularly for cultural and athletic activities, and provide a mechanism for students from poorer families to pay for such activities.

...

Elected school boards in Canada and the United States are responsible for employing a superintendent, hiring teachers, and maintaining and improving facilities (OPSBA, 2014). More generally, they manage much of the financial aspects related to providing education; indeed, they often have the power to impose taxes and general school fees in order to do so. The curriculum, however, is usually designed by the state or province.

This contrasts with the situation in Hungary, where the National Education Act does not mandate school governing boards (Nemzeti Jogszabálytár, 2011). As a consequence, school governing boards have traditionnally played a minor role in Hungary (Szekszárdi, 2006).

Notes

1. Community leaders include experts in law or accounting, civil servants, alumni, local business owners and, more generally, anyone in the community who is committed to improving education.

2. Parents often make up slightly more of the school governing board than either teachers or community leaders.

3. The school secretary also serves as the secretary of the school governing board. He/she may participate in the discussions but does not receive a vote.

4. Education in the three sparsely-populated Canadian territories, for example, is administered directly by the territorial government. Further oversight is provided by a committee at each school, however.

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In general, local, regional and national authorities have greater responsibility over resources, especially over establishing teachers' starting salaries and salary increases, than over disciplinary, assessment or admissions policies, or over the curriculum (Table II.4.1). However, in some education systems, school principals reported that regional or national authorities have considerable responsibility over these issues too. For instance, a majority of principals in Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]") and the federal states of Switzerland and the United States reported that local or regional authorities have considerable responsibility over the curriculum, specifically in determining course content, and deciding which courses are offered and which textbooks will be used. In more centralised education systems, such as those in Croatia, Greece, Luxembourg, Tunisia and Turkey, the national government was cited as holding considerable responsibility over assessment policies and the curriculum.

Changes between 2009 and 2015 in the allocation of responsibilities for school governance

On average across OECD countries, between PISA 2009 and PISA 2015, the allocation of responsibilities for school governance changed (Table II.4.4). Fewer students in 2015 than in 2009 attended schools whose principal reported that they hold considerable responsibility for selecting teachers for hire, formulating the school budget, deciding budget allocations, determining which courses are offered, and establishing assessment, disciplinary and school admissions policies. During the same period, less responsibility for those five tasks was allocated to teachers, according to principals, but teachers exercised greater autonomy over selecting other teachers for hire in 2015 than they did in 2009.

According to principals' reports, school governing boards had fewer responsibilities in 2015 than in 2009, particularly for any tasks related to the school budget. Local or regional education authorities held greater responsibility for the school budget in 2015 than in 2009, but held less responsibility in 2015 than in 2009 for selecting teachers for hire and deciding which courses are offered. National authorities held greater responsibility for three of the tasks in 2015 than in 2009, but held less responsibility for the curriculum in 2015 than in 2009.

In some education systems, how responsibilities are shared between schools and education authorities also changed between 2009 and 2015 (Table II.4.4). For instance, principals in Lithuania gained considerable responsibility for most tasks, particularly for teachers' salaries and the school budget. These responsibilities appear to have been transferred mainly from national education authorities. In Finland, school principals exercised greater autonomy over selecting and firing teachers in 2015 than in 2009, but had less responsibility for the curriculum and for assessment and disciplinary policies. In Hungary, school principals had considerably less autonomy in 2015 than in 2009 over tasks related to resources. According to school principals, these responsibilities appear to have been transferred mostly to local and regional authorities. In Germany and the United States, larger proportions of school principals in 2015 than in 2009 reported that local or regional education authorities held considerable responsibility for school governance. Reports from school principals in Qatar indicate that national education authorities gained considerable responsibility for all tasks between 2009 and 2015. In Turkey, national education authorities gained responsibility for all tasks except those related to school resources and textbooks; and in Slovenia, national education authorities gained greater responsibility for selecting and firing teachers, for the curriculum, and for disciplinary and admissions policies.

Figure II.4.2 presents a summary of "who is responsible for what" in managing schools across OECD countries. On average across OECD countries, establishing teachers' starting salaries and salary increases is mainly the responsibility of national authorities, choosing course content and textbooks is the responsibility of teachers, and assessment and disciplinary policies are established by principals and teachers jointly. All other responsibilities, including hiring and firing teachers, overseeing budgetary issues, setting policy for admissions and deciding which courses are offered at school, are held mainly by school principals.[3]

Figure II.4.2 ▪ **Summary of responsibilities for school governance**

Based on OECD average

Responsibility		Held mainly by[1]	Shared with[2]	Minor role[3]
Resources: teachers	Establishing teachers' starting salaries	National authority	Local/Regional authority	Principal
	Determining teachers' salary increases	National authority	Local/Regional authority	Principal
	Selecting teachers for hire	Principal		Local/regional/national authority
	Firing teachers	Principal	Local/Regional authority	School board and national authority
Resources: budget	Formulating the school budget	Principal	School board and local/regional authority	National authority
	Deciding on budget allocations within the school	Principal	School board	Local/Regional authority
Curriculum	Deciding which courses are offered	Principal	Teachers and school board	Local/Regional authority
	Choosing which textbooks are used	Teachers	Principal	National authority
	Determining course content	Teachers	Principal and national authority	Local/Regional authority
Establishing student assessment policies		Principal and teachers	National authority	School board
Establishing student disciplinary policies		Principal and teachers	School board	
Approving students for admission to the school		Principal		School board and local/regional authority

1. More than 50% of students attend schools whose principal reported that a given actor has considerable responsibility.
2. Between more than 25% and 50% of students attend schools whose principal reported that a given actor has considerable responsibility.
3. Between 15% and 25% of students attend schools whose principal reported that a given actor has considerable responsibility.
Source: OECD, PISA 2015 Database, Table II.4.1.

Another perspective on how responsibilities are distributed

Another way of showing how the five actors – principals, teachers, school boards, local/regional authorities and national authorities – share responsibilities for school management is to assume that the sum of their responsibilities amounts to a fixed number – for convenience, 100. For instance, if a principal reports that only teachers have considerable responsibility for selecting course content, then they are assigned a value of 100. If they reported that both teachers and principals have considerable responsibility, then each receives a value of 50. If, according to the principal, the responsibility is shared among principals, teachers and a school board, then each actor is given a value of 33, and so on.

Analysing the data in this way, on average across OECD countries, 39% of the responsibility for resources would be assumed by principals, 3% by teachers, 12% by school boards, 23% by local or regional authorities, and the remaining 23% by national authorities (Figure II.4.3).[4] For the curriculum, 22% of the responsibility would lie with principals, 44% with teachers, 8% with school boards, and the remaining 27% shared between local, regional and national authorities (Figure II.4.4).[5] Responsibility for student disciplinary policies would mainly lie with school principals (39%), teachers (29%) and school boards (22%), with a minor role played by education authorities (Table II.4.2). Responsibility for student assessment policies would mainly lie with school principals (32%) and teachers (36%) with a minor role played by the other actors (Figure II.4.5). The responsibility for approving students for admission to the school would lie essentially with school principals (61%) and, to some extent, with the government (14% to local or regional and 7% to national educational authorities) (Figure II.4.6).

School autonomy

According to school principals, the degree of autonomy enjoyed by schools varies considerably across education systems (Figure II.4.7).[6] At one end of the spectrum, in the education systems of the Czech Republic, Lithuania, Macao (China), the Netherlands and the United Kingdom, schools enjoy considerable autonomy. At the other end of the spectrum, the autonomy granted to school principals or teachers is limited in Greece, Jordan, Tunisia and Turkey, at least in comparison with other education systems.

On average across OECD countries and in 32 education systems, socio-economically advantaged schools enjoy greater autonomy than disadvantaged schools; and likewise, on average across OECD countries and in 15 education systems, urban schools are granted more autonomy than rural schools.[7] However, in four countries and economies, and particularly in Belgium and France, rural schools enjoy greater autonomy than urban schools (Figure II.4.7). Not surprisingly, in almost all education systems, private schools exercise greater autonomy than public schools. The largest differences between these two types of schools are observed in Turkey, the United Arab Emirates and Uruguay (Table II.4.5).

On average across OECD countries and in 29 education systems, students in schools whose principal reported that more responsibilities lie with either teachers or themselves score higher in science (Figure II.4.7). However, after accounting for the socio-economic profile of students and schools, there is no association, on average across OECD countries, and there is a positive association with science performance in only 12 education systems; but in 9 countries and economies, the association is negative. These results are consistent with a comprehensive review by Jensen, Weidmann and Farmer (2013) who reported that a wide range of studies show that increasing autonomy may improve academic achievement only to some extent, and only in some countries. After all, several studies find that to reap the full benefits of school autonomy, education systems need to have effective accountability systems to discourage opportunistic behaviour by school staff, and highly qualified teachers and strong school leaders to design and implement rigorous internal evaluations and curricula (Hanushek, Link and Woessmann, 2013; OECD, 2011).

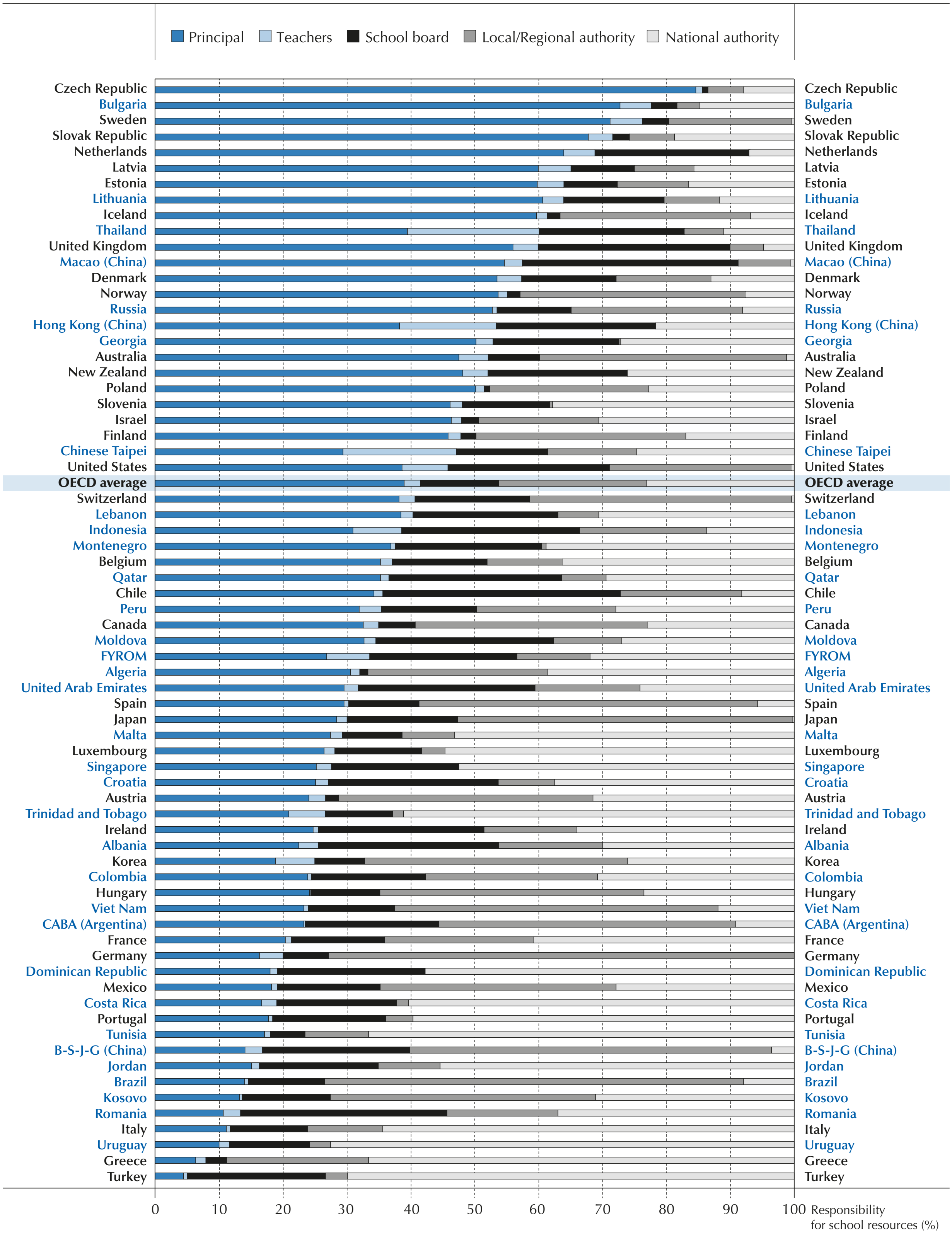
HOW ARE THE RESPONSIBILITIES FOR SCHOOL GOVERNANCE RELATED TO SCIENCE PERFORMANCE AND EQUITY?

School autonomy is the focus of much of the debate concerning school governance; but it is nonetheless worthwhile to examine, at the system level, how the five areas of responsibility – resources, curriculum, assessment, school admissions and disciplinary policies – overseen by principals, teachers, school governing boards, local/regional education authorities and national education authorities, are related to students' science performance and equity in the system.

The results presented in Figure II.4.8 show that students in school systems where principals and, to some extent, teachers have greater autonomy in managing their schools score higher in science. This is particularly true when principals or teachers have greater responsibility for the curriculum, but less so when they have a greater say in admitting students to the school. Students score lower in science in those systems where school governing boards have greater responsibility for school admissions policies, and also when national education authorities hold greater responsibility for four areas, especially for the curriculum. No link is observed between the responsibility held by local/regional education authorities and performance in science.

Figure II.4.3 ■ **Distribution across the education system of responsibility for school resources**

Assuming the responsibilities of the five actors combined amount to 100%



Countries and economies are ranked in descending order of the responsibility held by school principals and teachers.

Source: OECD, PISA 2015 Database, Table II.2.4.

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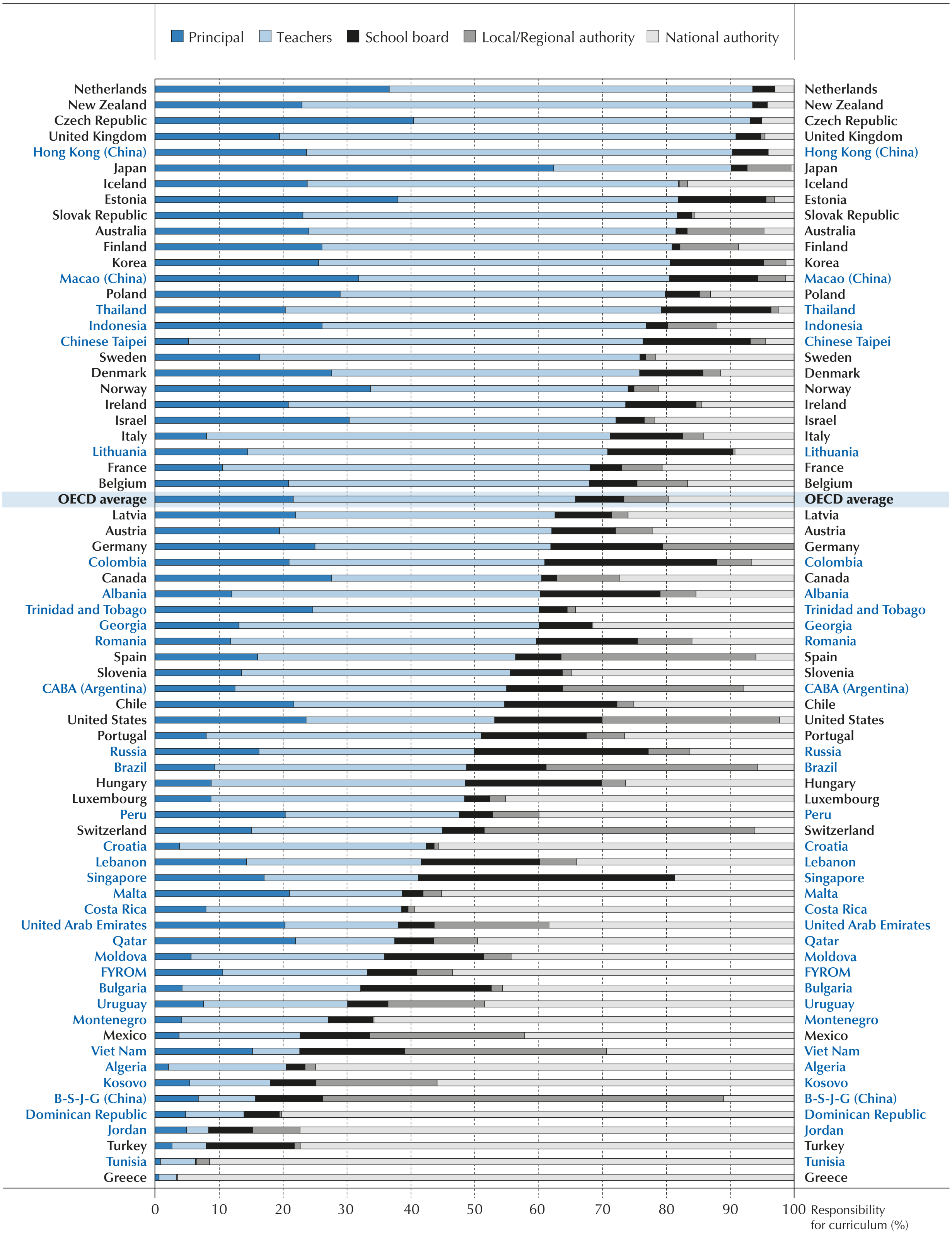
Figure II.4.4 ▪ **Distribution across the education system of responsibility for the curriculum**

Assuming the responsibilities of the five actors combined amount to 100%

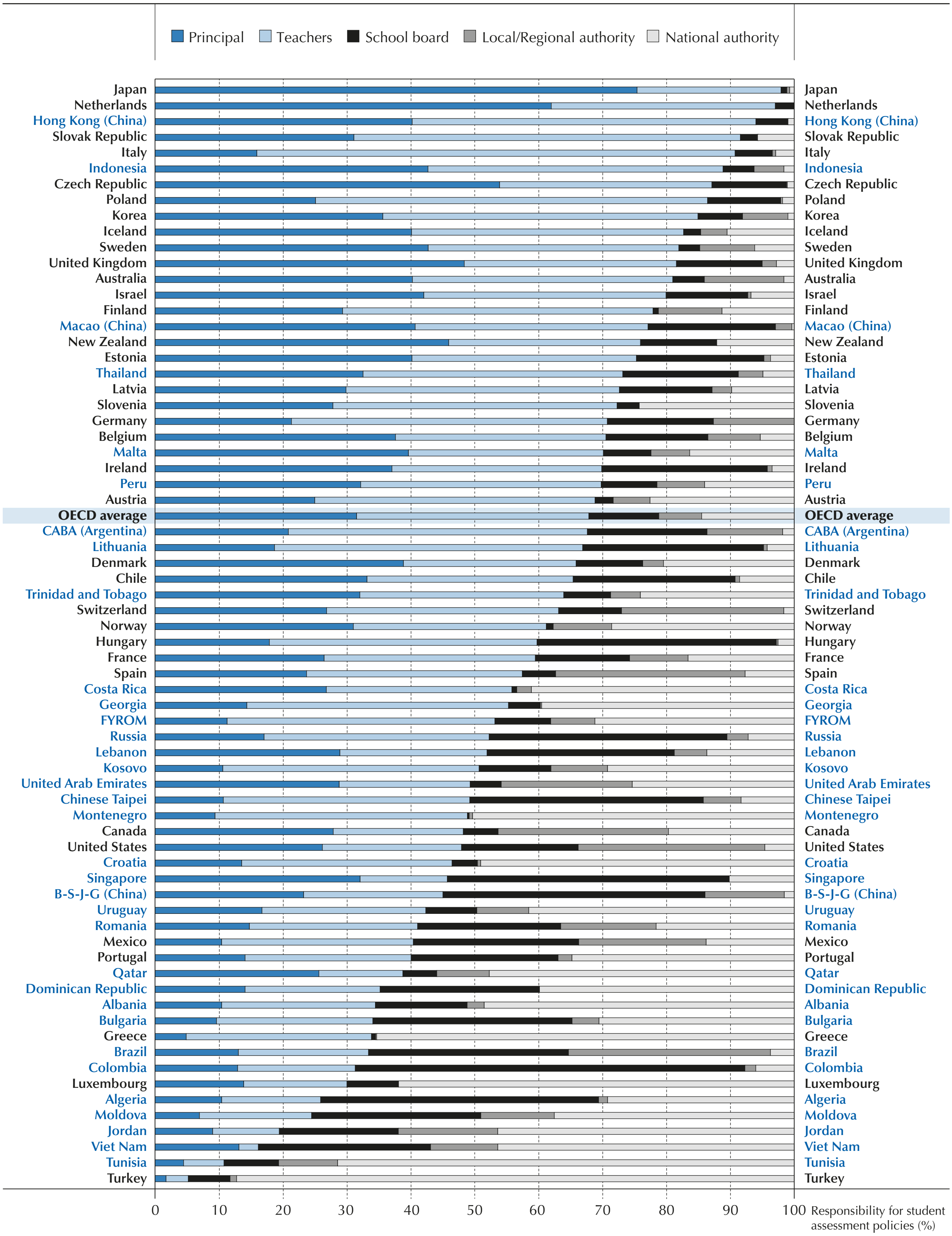


Countries and economies are ranked in descending order of the responsibility held by school principals and teachers.
Source: OECD, PISA 2015 Database, Table II.2.4.

StatLink http://dx.doi.org/10.1787/888933435826

Figure II.4.5 ▪ **Distribution across the education system of responsibility for establishing student assessment policies**

Assuming the responsibilities of the five actors combined amount to 100%



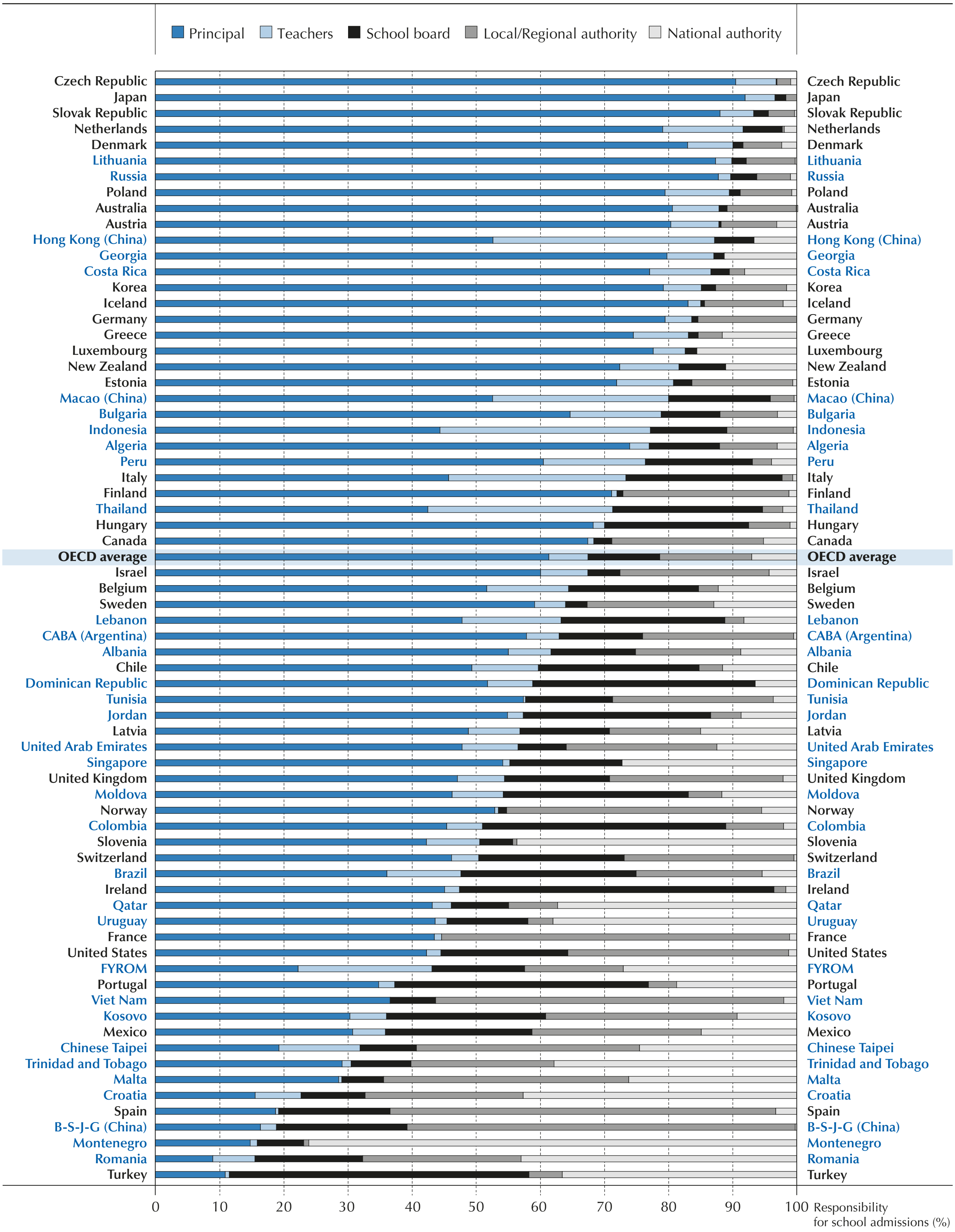
Countries and economies are ranked in descending order of the responsibility held by school principals and teachers.

Source: OECD, PISA 2015 Database, Table II.4.2.

StatLink http://dx.doi.org/10.1787/888933435830

Figure II.4.6 ▪ **Distribution across the education system of responsibility for approving students for admission to the school**

Assuming the responsibilities of the five actors combined amount to 100%

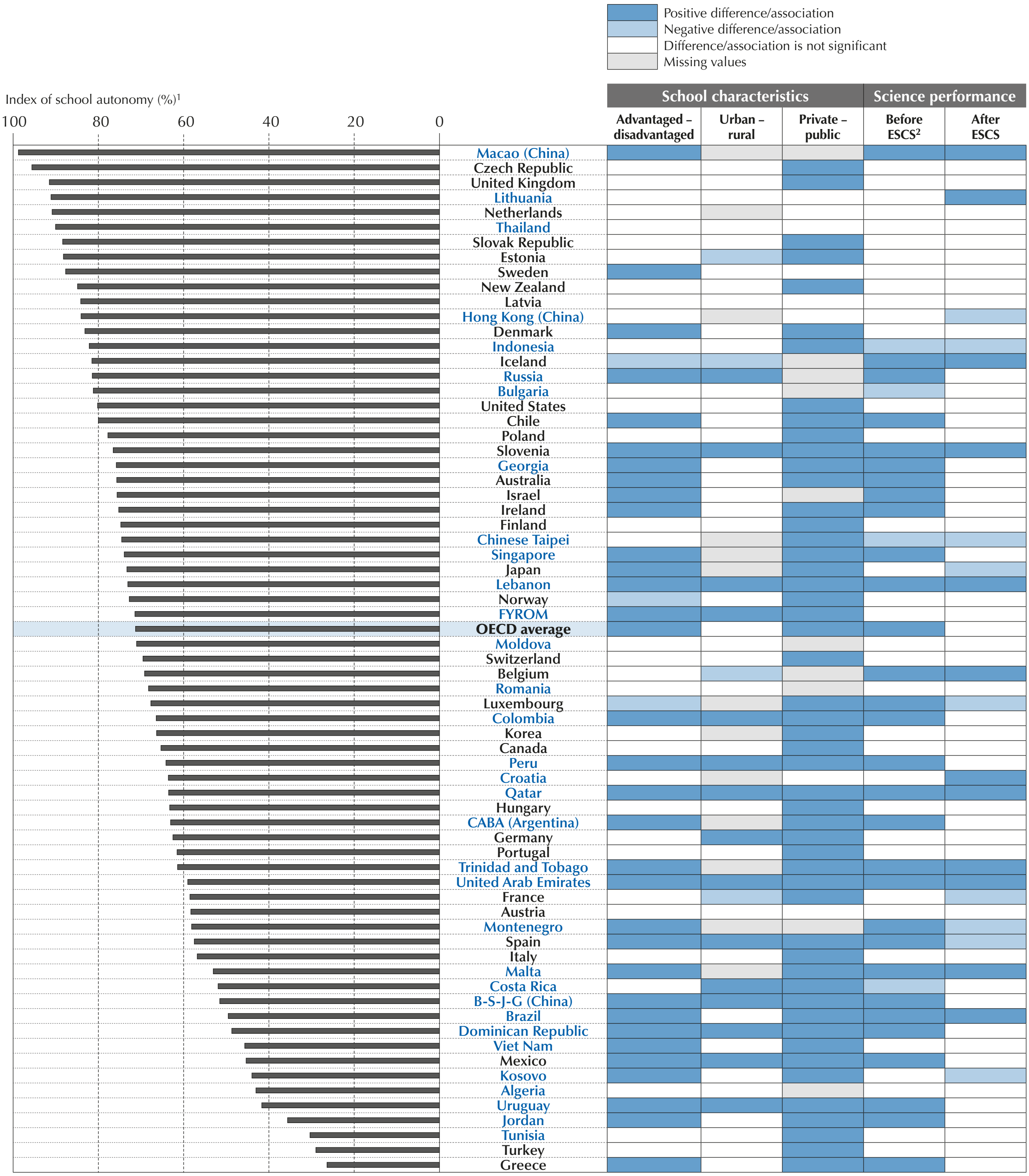


Countries and economies are ranked in descending order of the responsibility held by school principals and teachers.
Source: OECD, PISA 2015 Database, Table II.4.2.

StatLink `http://dx.doi.org/10.1787/888933435844`

Figure II.4.7 ■ **Index of school autonomy, school characteristics and science performance**

Results based on school principals' reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[2]	After ESCS
Education systems with a positive difference/association	32	15	50	29	12
Education systems with a no difference/association	33	36	8	35	47
Education systems with a negative difference/association	3	4	0	4	9

1. The index of school autonomy is calculated as the percentage of tasks for which the principal, the teachers or the school governing board have considerable responsibility.

2. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: See Annex A7 for instructions on how to interpret this figure.

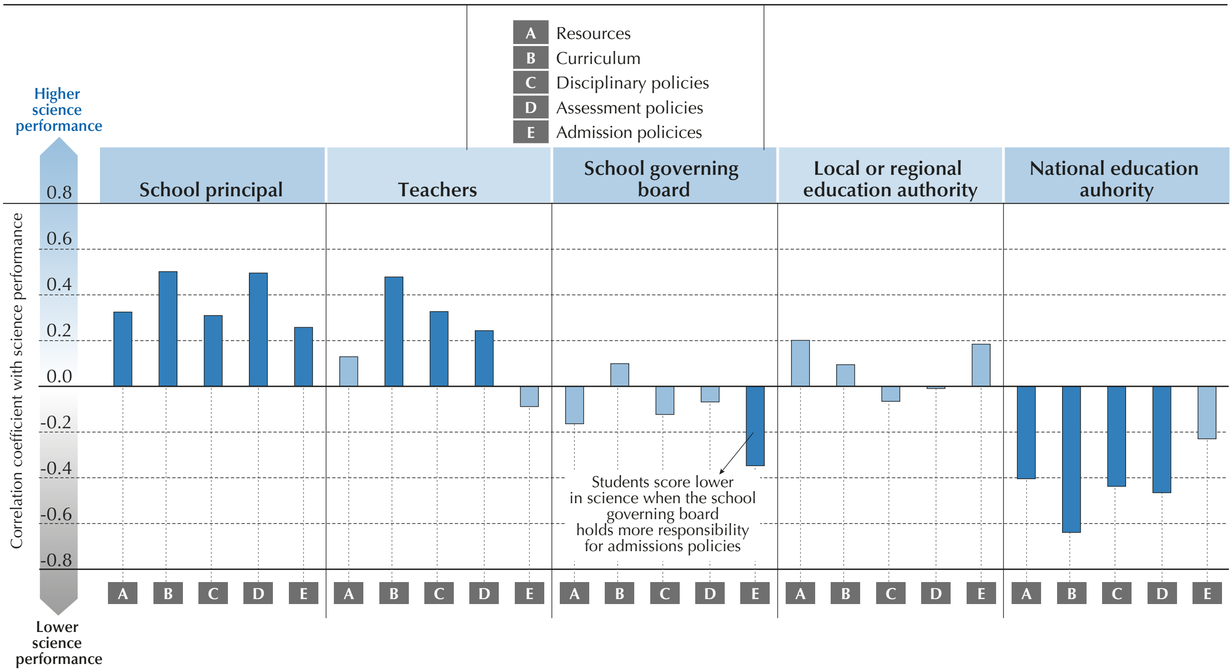
Countries and economies are ranked in descending order of the index of school autonomy.

Source: OECD, PISA 2015 Database, Table II.4.5.

StatLink http://dx.doi.org/10.1787/888933435854

Figure II.4.8 ▪ Correlations between the responsibilities for school governance and science performance

Results based on system-level analyses



Notes: The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.

Results based on 70 education systems.

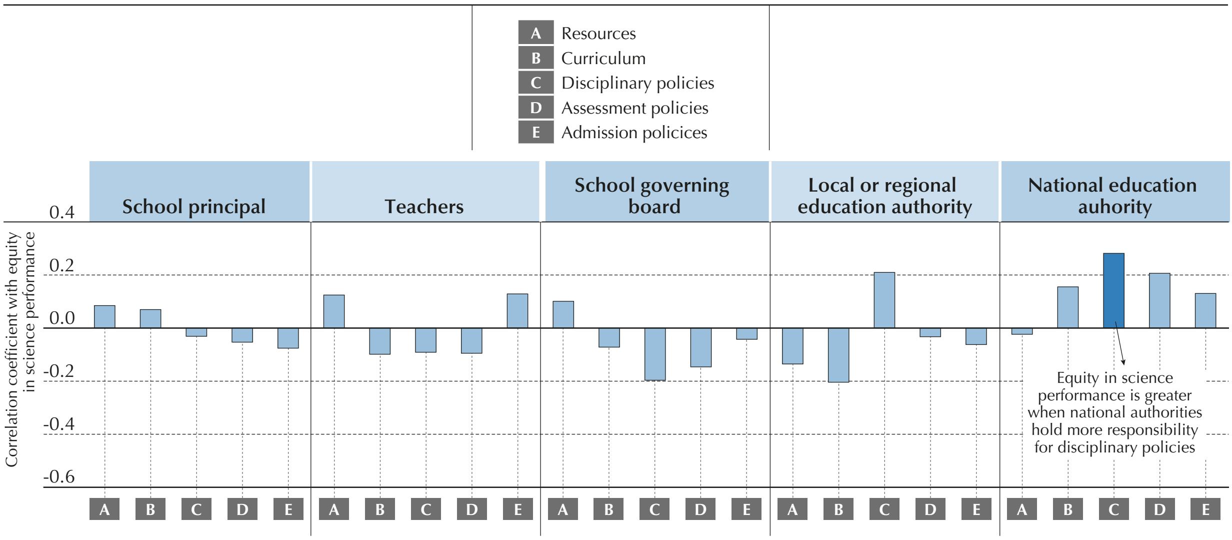
Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933435864

Figure II.4.9 ▪ Correlations between the responsibilities for school governance and equity in science performance

Results based on system-level analyses



Notes: The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.

Results based on 70 education systems.

Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).

The equity in science performance is 100 - the percentage of the variation in science performance explained by students' socio-economic status.

Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933435870

However, more school autonomy may not always be effective (Hanushek, Link and Woessmann, 2013). For instance, Figure II.4.9 shows that more autonomy for schools and teachers is not positively associated with equity in science performance. In fact, results in science are more equitable – meaning there is a weaker association between students' socio-economic status and their performance in science – when education authorities have greater responsibility for disciplinary policies.

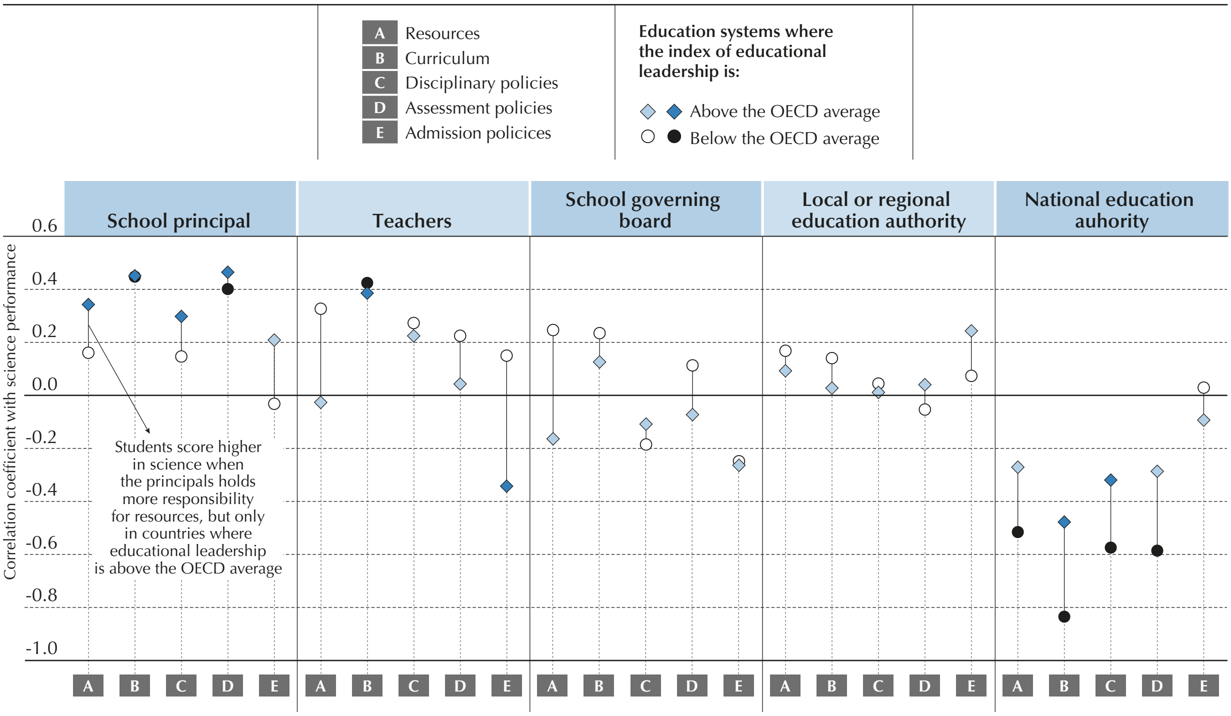
Also, the benefits of school autonomy may be contingent on how prepared schools are to use their responsibility effectively and how accountable they are for their students' outcomes to parents, local communities and education authorities (Hanushek, Link and Woessmann, 2013; OECD, 2013a). Figures II.4.10 to II.4.13 examine how the association between the responsibilities held by school principals, teachers and education authorities, and students' science performance varies depending on how ready school principals are to seize the opportunities available due to greater autonomy (measured by the index of educational leadership) and the degree to which schools are held accountable (measured by the use of mandatory standardised tests and the extent to which achievement data is posted publicly or tracked by education authorities over time).

Educational leadership

Students score higher in science when school principals hold more responsibility for school governance, and somewhat more in those education systems where principals report stronger educational leadership (Figures II.410). For example, students score higher in science when the principal holds more responsibility for school resources (e.g. budget, hiring and firing staff), but only when comparing countries where the index of educational leadership is above the OECD average. Schools are expected to benefit more from greater autonomy when their principals are prepared to assume leadership.

Figure II.4.10 ■ **Correlations between the responsibilities for school governance and science performance, by educational leadership**

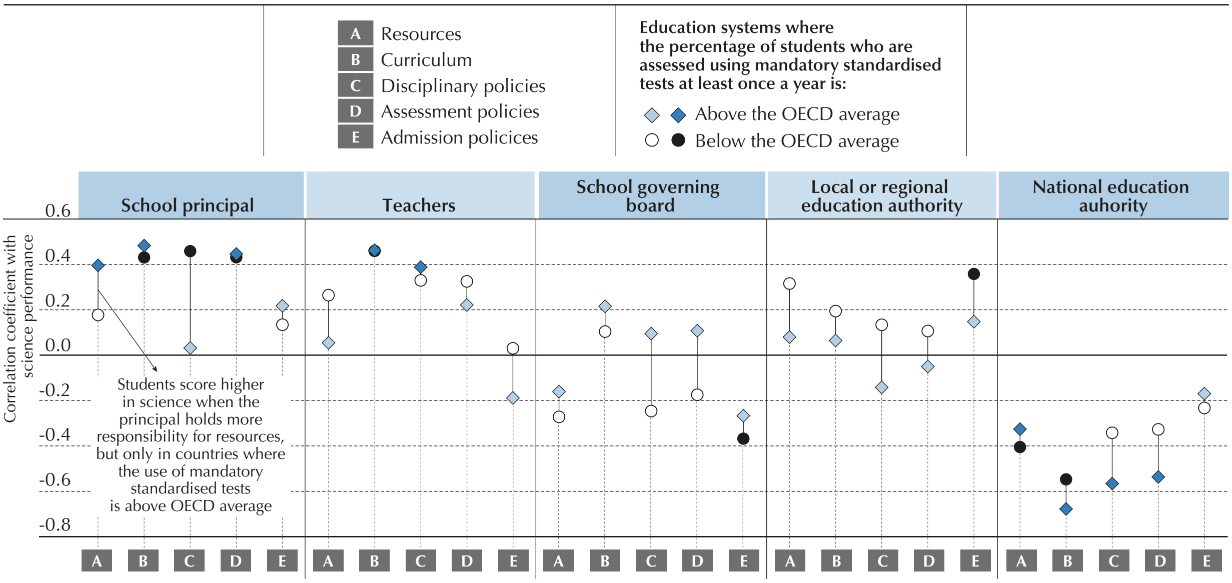
Results based on system-level analyses



Notes: The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.
Results based on 26 education systems where the index of educational leadership is below the OECD average, and 44 education systems where it is above the OECD average.
Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).
Source: OECD, PISA 2015 Database.
StatLink http://dx.doi.org/10.1787/888933435885

Figure II.4.11 ▪ **Correlations between the responsibilities for school governance and science performance, by use of mandatory standardised tests**

Results based on system-level analyses



Students score higher in science when the principal holds more responsibility for resources, but only in countries where the use of mandatory standardised tests is above OECD average

Note: The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.

Results based on 30 education systems where the percentage of students who are assessed using mandatory standardised tests at least once a year is below the OECD average and 35 education systems where it is above the OECD average.

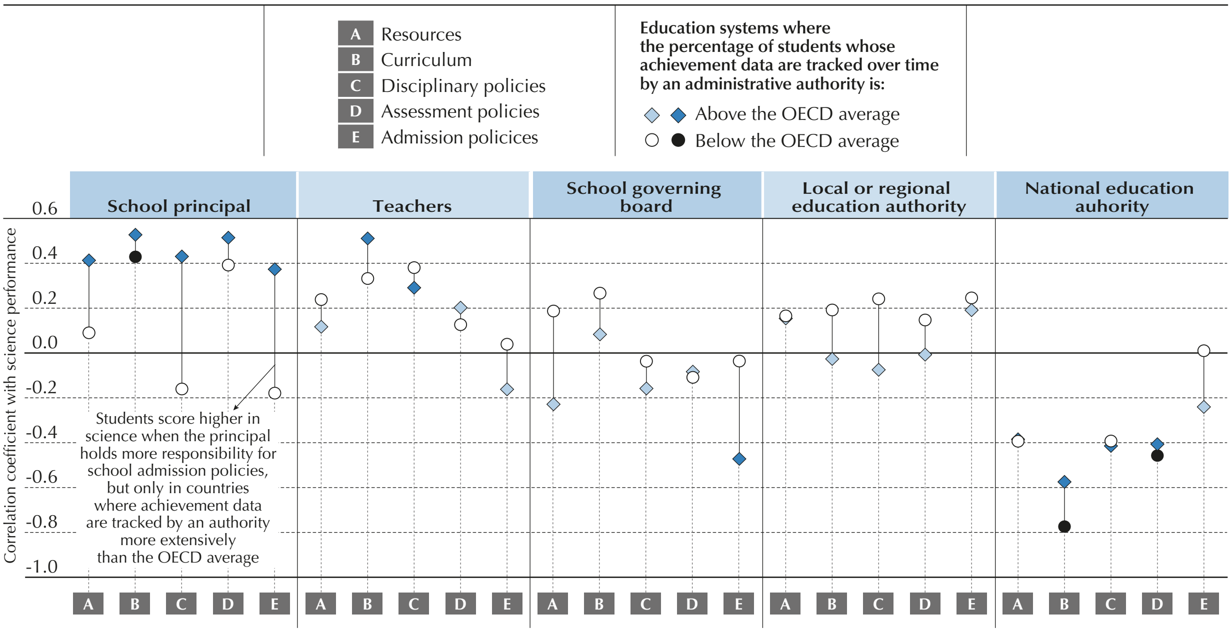
Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933435891

Figure II.4.12 ▪ **Correlations between the responsibilities for school governance and science performance, by tracking achievement data over time**

Results based on system-level analyses



Students score higher in science when the principal holds more responsibility for school admission policies, but only in countries where achievement data are tracked by an authority more extensively than the OECD average

Notes: The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.

Results based on 22 education systems where the percentage of students whose achievement data are tracked over time by an administrative authority is below the OECD average and 48 education systems where it is above the OECD average.

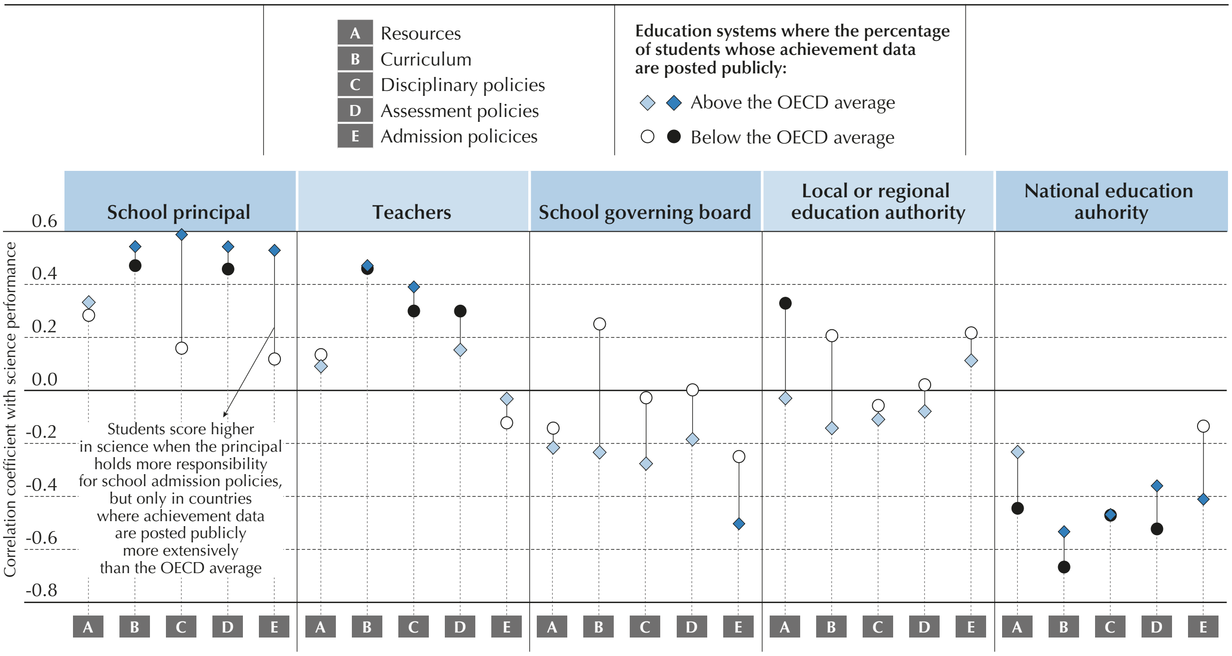
Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).

Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933435908

Figure II.4.13 ■ **Correlations between the responsibilities for school governance and science performance, by posting achievement data publicly**

Results based on system-level analyses



Notes: The responsibilities for school governance are measured by the share distribution of responsibilities for school governance in Table II.4.2.
Results based on 42 education systems where the percentage of students whose achievement data are posted publicly is below the OECD average and 28 education systems where it is above the OECD average.
Statistically significant correlation coefficients are shown in a darker tone (see Annex A3).
Source: OECD, PISA 2015 Database.
StatLink http://dx.doi.org/10.1787/888933435918

School accountability: Mandatory standardised tests and using achievement data beyond the school

The positive association between the autonomy exercised by principals and students' performance in science is stronger across countries where achievement data are more frequently tracked over time by an administrative authority or posted publicly than in countries where this happens less frequently. The differences are particularly striking when considering the responsibility for resources, disciplinary policies and school admissions policies. For instance, across the 22 education systems where achievement data is tracked by an administrative authority less frequently than on average across OECD countries, there is no association between principals' responsibility for resources, disciplinary policies or school admissions policies, and science performance. But among the 48 systems where achievement data is tracked more frequently than the OECD average, the correlation is moderately strong. The positive association between the autonomy enjoyed by principals and students' science performance is also stronger in countries where more students are assessed with mandatory standardised tests, but only when such autonomy pertains to the responsibility for resources (Figures II.4.11 to II.4.13). Granting greater autonomy to schools is expected to entail fewer risks if school outcomes are continuously monitored.

PUBLIC AND PRIVATE INVOLVEMENT

Schooling mainly takes place in public institutions; but some countries, such as Belgium and the Netherlands, have a long-standing tradition of private schooling. Others, like Chile, Sweden, the United Kingdom and the United States, have implemented reforms to allow a greater variety of programmes and providers to enter the education system. Advocates of private schooling argue that private schools are more responsive to parents, more cost-effective, and increase competition, accountability and pedagogical diversity throughout the school system (Chapman and Salokangas, 2012; Jimenez and Paqueo, 1996). Critics point to the detrimental effects of school choice, including social segregation of students and the threat to social cohesion (Elacqua, 2012; Levin, Cornelisz and Hanisch-Cerda, 2013; Renzulli and Evans, 2005; Saporito, 2003).

Evidence of the benefits of private schooling is mixed. Some studies show that the combination of private management and public funding produces the best results for student outcomes (Angrist, Pathak and Walters, 2013; West and Woessmann, 2010); others point to the benefits of private schooling more generally (Filer and Munich, 2003; Lara, Mizala and Repetto, 2009; Sandstrom and Bergstrom, 2005); still others provide a more nuanced picture (Geller, Sjoquist and Walker, 2006; Mancebón and Muñiz, 2008; Smith and Meier, 1995). The impact on student outcomes of offering private schooling ultimately depends on how the greater autonomy is used, the levels of competition and the degree to which learning outcomes drive this competition, and the means in place to monitor and ensure coherence in school standards and to intervene when schools fail (Couch, Shughart and Williams, 1993; Ferraiolo et al., 2004; Waslander, Pater and van der Weide, 2010). Of course, it is difficult to compare school types across countries, as in some countries, public and private schools enjoy a similar degree of autonomy.

In countries where many private schools are managed by religious organisations, the debate concerning private schooling is frequently linked to the debate concerning religious schools. Again, there are benefits and drawbacks associated with religious education. Some studies in the United States have reported achievement and behavioural benefits for minority students in particular (Jeynes, 2002), and improvements in graduation rates and college attendance (Altonji, Elder and Taber, 2002), for students attending religious schools; others observe no academic gains (Hallinan and Kubitschek, 2012) or show how their admissions and transfer policies may result in school segregation (Allen and West, 2009; Férnandez-Llera and Muñiz-Pérez, 2012).

Private schools, as defined in PISA, refer to schools managed directly or indirectly by a non-government organisation, such as a church, trade union, business or other private institution. Depending on whether or not they receive funding from the government, private schools can be considered as government-independent (50% or more of their funding comes from private sources) or government-dependent (at least 50% of their funding comes from the government). In some education systems, government-dependent private schools are completely free for parents, whereas in others, they charge parents an additional fee. Public schools are those managed by a public education authority, government agency, or governing board appointed by a government or elected by public franchise.

On average across OECD countries, about 84% of 15-year-old students attend public schools, about 12% attend government-dependent private schools, and slightly more than 4% attend government-independent private schools (Table II.4.7). In Bulgaria, Iceland, Montenegro and the Russian Federation (hereafter “Russia”), virtually all 15-year-old students attend a public school. In Chile, Hong Kong (China), Ireland, Macao (China) and the Netherlands, more than one in two students attend a government-dependent private school; and in Japan, Lebanon, Peru, Qatar, Chinese Taipei and the United Arab Emirates, at least one in four students are enrolled in government-independent private schools.

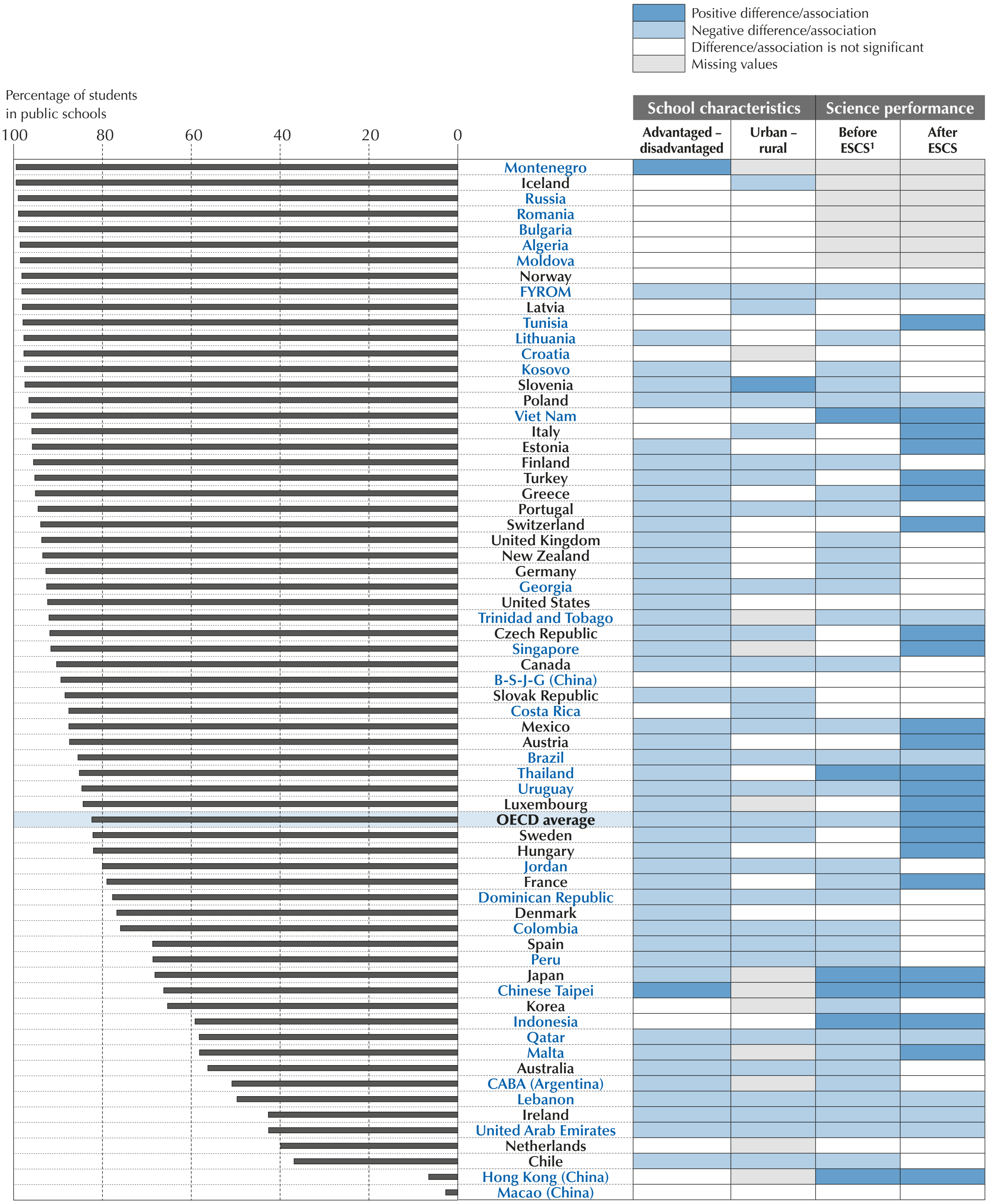
For the first time, in 2015, PISA also asked principals of private schools what kind of organisation (“a church or other religious organisation”, “another not-for-profit organisation” or “a for-profit organisation”) ran their school. Across OECD countries, of the 12% of students who are enrolled in private government-dependent schools, around 38% of them attend schools run by a church or other religious organisation, 54% attend schools run by another non-profit organisation, and 8% attend schools run by a for-profit organisation (Table II.4.7). In the Dominican Republic, Ireland and Malta, all 15-year-old students in private government-dependent schools attend a religious one; in Austria, all students attending private government-dependent schools attend schools run by another non-profit organisation; and in Sweden, over half of students in private government-dependent schools attend one run by a for-profit organisation.

Across OECD countries, about 4% of 15-year-old students are enrolled in private independent schools, of which about a quarter attend a school run by a church or other religious organisation, a bit less than a quarter attend a school run by a for-profit organisation, and about a half attend a school run by another not-for-profit organisation. In Italy and in the United States, around 70% of these students attend a private independent school run by a religious organisation. In Austria and Denmark, all of these students attend a not-for-profit organisation, whereas in Georgia, Turkey and the United Arab Emirates, at least 7 in 10 students attend for-profit private independent schools.

Across the education systems that participated in PISA 2015, socio-economically disadvantaged schools and rural schools are more likely to be public (Figure II.4.14). In fact, only in Montenegro and Chinese Taipei are advantaged schools more likely to be public than disadvantaged schools, and only in Slovenia are urban schools more likely to be public than rural schools. Across OECD countries, 86% of 15-year-old students in lower secondary education and 81% of students in upper secondary education are enrolled in public schools (Table II.4.10). However, in Australia, Canada, Germany and Sweden, 15-year-old students in upper secondary education are more frequently enrolled in public schools than are students in lower secondary education.

Figure II.4.14 ▪ Attendance at public school, school characteristics and science performance

Results based on school principals' reports



	Advantaged – disadvantaged	Urban – rural	Before ESCS¹	After ESCS
Education systems with a positive difference/association	2	1	6	22
Education systems with a no difference/association	18	24	20	28
Education systems with a negative difference/association	46	28	32	8

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the percentage of students attending public schools.

Source: OECD, PISA 2015 Database, Table II.4.10.

StatLink http://dx.doi.org/10.1787/888933435921

Student performance and enrolment in public and private schools

On average across OECD countries and in 32 education systems, students enrolled in public schools score lower in science than students in private schools (Figure II.4.14). However, after accounting for socio-economic status, in 22 education systems, students in public schools score higher than students in private schools, in 8 systems they score lower than students in private schools, and on average across OECD countries, students in public schools score higher than students in private schools. This remarkable difference in results before and after accounting for socio-economic status has been consistently observed in previous rounds of PISA (OECD, 2013a, 2010b). It reflects the larger proportions of disadvantaged students enrolled in public schools than in private schools. In Italy, Japan, Singapore, Chinese Taipei, Thailand, Tunisia, Turkey and Viet Nam, students in public schools score more than 40 points higher in science than students in private schools, after accounting for the socio-economic status of students and schools; the opposite is observed in Qatar and the United Arab Emirates (Table II.4.10).

Enrolling in a particular type of school can have implications that go beyond the benefits or drawbacks for an individual student. For instance, if enough middle-class families leave the public school system, and the concentration of disadvantaged students in particular schools grows as a result, public schools may enter a vicious circle of fewer students, less funding and deteriorating quality; and education systems could become less socially cohesive (Renzulli and Evans, 2005; Schneider, Elacqua and Buckley, 2006; Sonstelie, 1979). It is thus important to examine how enrolment in public and private schools is associated with student performance at the country level.

At the system level, science scores and equity in science performance are virtually unrelated to the percentage of students enrolled in public schools (Figure II.4.15). Average science scores at the country level are moderately and positively associated with the percentage of students enrolled in government-dependent private schools, but not when only OECD countries are compared. However, there is no association between equity in science performance and attendance at any type of school. A recent OECD report on low-performing students (OECD, 2016) observed that the positive association between the percentage of students enrolled in government-dependent private schools and student achievement is mainly explained by the greater levels of autonomy enjoyed by these schools.

Figure II.4.15 ▪ **Attendance at different types of schools, science performance and equity**

Correlations at the system-level

OECD countries (Based on 34 OECD countries)	**Percentage of students attending**		
	Public schools	**Private government-dependent schools**	**Private independent schools**
Science performance	-0.04	0.01	0.11
Equity in science performance[1]	0.26	-0.29	0.11

Countries and economies (Based on 69 countries and economies)	**Percentage of students attending**		
	Public schools	**Private government-dependent schools**	**Private independent schools**
Science performance	-0.13	**0.30**	-0.23
Equity in science performance	0.00	-0.01	0.04

1. The equity in science performance is 100 - the percentage of the variation in science performance explained by students' socio-economic status.
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Information on public schools' attendance comes from Table II.4.6.
Source: OECD, PISA 2015 Database, Tables II.4.6 and II.4.7.

StatLink http://dx.doi.org/10.1787/888933435935

SCHOOL CHOICE

Students in some school systems are assigned to their neighbourhood school. However, in recent decades, reforms in many countries have tended to give greater choice to parents and students, to enable them to choose the schools that meet the child's education needs or preferences (Heyneman, 2009). Assuming that students and parents have adequate information and choose schools based on quality considerations, the competition for schools creates incentives for institutions to organise programmes and instruction in ways that better meet diverse student requirements and interests, thus reducing the cost of failure and mismatches (Card, Dooley and Payne 2010; Woessmann et al., 2007).

In some school systems, this competition has financial implications for schools, to the extent that schools not only compete for enrolment, but also for funding. Direct public funding of independently managed institutions, based on student enrolment or student credit-hours, is one model for this. Giving money to students and their families (through, for example, scholarships or vouchers) to spend on public or private educational institutions of their choice is another method.

But some studies have questioned the validity of the underlying assumptions about parental and student choice, such as equal access to information about schools (Berends and Zottola, 2009; Hess and Loveless, 2005; Jensen et al., 2013; Waslander, Pater and van der Weide, 2010). Previous PISA findings, for instance, clearly show that even if most parents would like their child to attend the best school, disadvantaged parents need to think more about money when choosing a school than advantaged parents do (OECD, 2015a). As a result, adopting school-choice practices can lead to greater socio-economic segregation among schools, which, in turn, can result in differences in teacher quality and student achievement across schools, harming disadvantaged students the most (Behrman et al., 2016; Ladd, 2002; Valenzuela, Bellei and Rios, 2014).

In PISA 2015, students in 18 countries and economies took home a questionnaire for their parents to complete. Among other things, parents were asked if there are “no other”, “one other” or “two or more” school(s) competing with their child’s school in the same area. Competition varies widely across education systems (Table II.4.13). For instance, in highly urbanised economies like Hong Kong (China) and Korea, but also in Ireland, about four out of five parents reported that at least one other school competes with their child’s school in the same area; in the Dominican Republic, Georgia and Italy, fewer than one in two parents so reported.

The parents of children in socio-economically advantaged and urban schools were more likely to report that at least one other school competes with their child’s school than the parents of children in disadvantaged and rural schools (Table II.4.14). Except for students in Korea and Scotland (United Kingdom), these students are also more likely to score higher in the PISA science assessment, before accounting for the socio-economic profile of students and schools. After accounting for socio-economic status, in 7 of 17 education systems, students score significantly higher in science when their parents reported some competition among schools in the area.

Parents were also asked which criteria they consider important when choosing a school for their child. They were asked to report how much importance they give (“not important”, “somewhat important”, “important” or “very important”) to 11 criteria, mainly related to school quality, financial constraints, the school’s philosophy or mission, and geographic distance between their home and the school. Across the 18 education systems where parents answered this question, parents were more likely to consider important or very important that there is a safe school environment, that the school has a good reputation and that the school has an active and pleasant climate – even more so than the academic achievement of the students in the school (Table II.4.15). The least important criterion for parents is whether the school adheres to a particular religious philosophy, followed by attendance at the school of other family members and financial considerations.

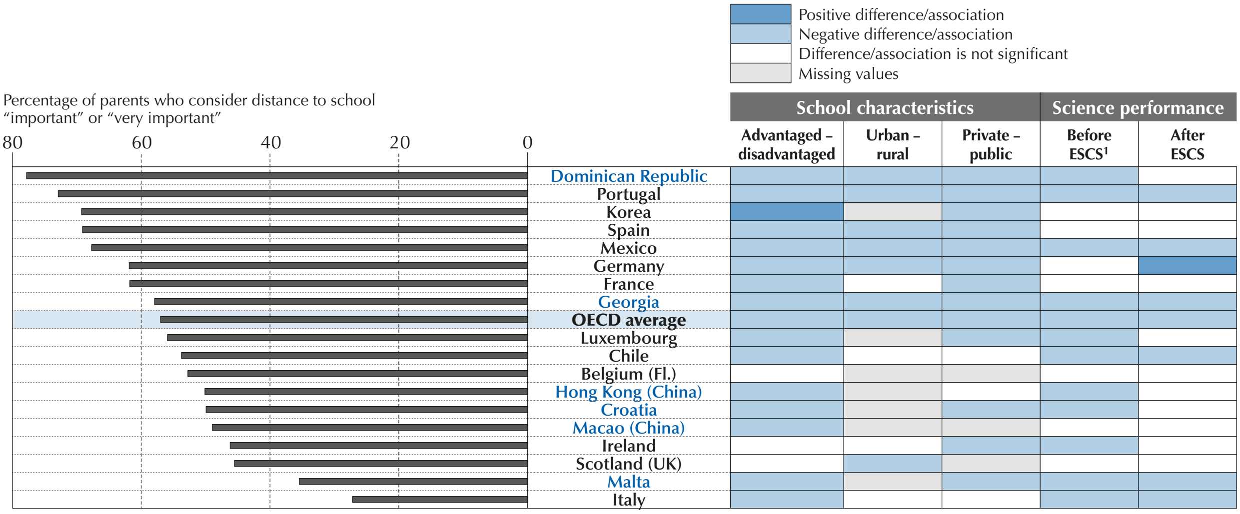
A detailed analysis of this question reveals that the parents of children who attend disadvantaged, rural and public schools were considerably more likely than the parents of children who are enrolled in advantaged, urban and private schools to report that distance to the school is important (Figure II.4.16). This finding is important, as the children of parents who assigned more importance to the distance between home and school score considerably lower in the science assessment, even after accounting for the students’ and schools’ socio-economic profile. In Georgia, for example, students whose parents considered distance to school important or very important when choosing a school for their child score 32 points lower in science – 15 points after accounting for socio-economic status – than students whose parents consider distance to school not important or somewhat important.

This was also observed among students whose parents considered low expenses to be important or very important, who scored 30 points lower than students whose parents considered low expenses to be only somewhat important or not important (11 points after accounting for students’ and schools’ socio-economic profile) across the OECD countries where parents answered this question (Figure II.4.17 and Table II.4.18). The association was particularly strong in Luxembourg, where the gap was 58 points (25 points after accounting for students’ and schools’ socio-economic profile). In most countries and economies, the parents of children attending disadvantaged and public schools are more likely to consider low expenses important than those of children attending advantaged and private schools.

Finally, on average across the OECD countries that distributed the parents’ questionnaire students attending advantaged and private schools are more likely to have parents who ascribe greater importance to quality considerations about the school; there was no difference observed between rural and urban schools in this regard (Figure II.4.18). After accounting for students’ and schools’ socio-economic status, there is no relationship between whether parents considered the school’s reputation to be important or very important, and their child’s performance in science across OECD countries.

Figure II.4.16 ▪ **Distance to school as a reason for choosing school, school characteristics and science performance**

Results based on parents' self-reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS¹	After ESCS
Education systems with a positive difference/association	1	0	0	0	1
Education systems with a no difference/association	3	4	3	7	11
Education systems with a negative difference/association	14	7	12	11	6

1. ESCS refers to the PISA index of economic, social and cultural status.

Note: Only countries and economies with data from the parent questionnaire are shown.

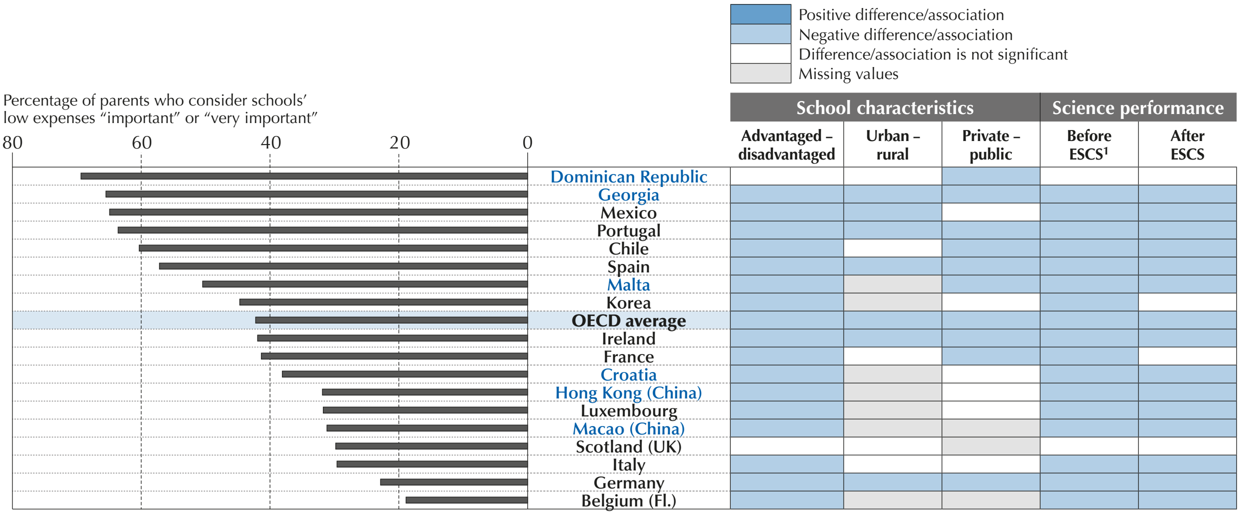
Countries and economies are ranked in descending order of the percentage of students whose parents consider distance to school as "important" or "very important".

Source: OECD, PISA 2015 Database, Table II.4.16.

StatLink http://dx.doi.org/10.1787/888933435944

Figure II.4.17 ▪ **School low expenses as a reason for choosing school, school characteristics and science performance**

Results based on parents' self-reports



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS¹	After ESCS
Education systems with a positive difference/association	0	0	0	0	0
Education systems with a no difference/association	2	5	6	2	4
Education systems with a negative difference/association	16	6	9	16	14

1. ESCS refers to the PISA index of economic, social and cultural status.

Note: Only countries and economies with data from the parent questionnaire are shown.

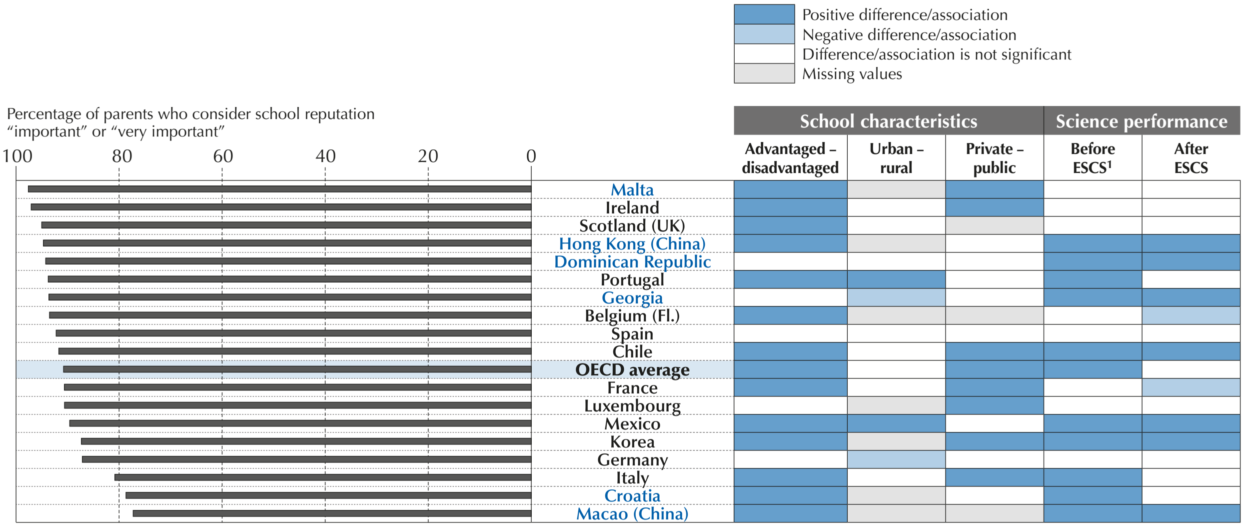
Countries and economies are ranked in descending order of the percentage of students whose parents consider low expenses as "important" or "very important".

Source: OECD, PISA 2015 Database, Table II.4.18.

StatLink http://dx.doi.org/10.1787/888933435957

Figure II.4.18 ▪ **School reputation as a reason for choosing school, school characteristics and science performance**

Results based on parents' self-reports



■ Positive difference/association
▨ Negative difference/association
□ Difference/association is not significant
▒ Missing values

	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
Malta	■	▒	■	□	□
Ireland	■	□	■	□	□
Scotland (UK)	■	□	▒	□	□
Hong Kong (China)	■	▒	□	■	■
Dominican Republic	□	□	□	■	■
Portugal	■	■	□	■	□
Georgia	□	▨	□	■	■
Belgium (Fl.)	■	▒	▒	□	▨
Spain	□	□	□	□	□
Chile	■	□	■	■	■
OECD average	■	□	■	■	□
France	■	□	■	□	▨
Luxembourg	□	▒	■	□	□
Mexico	■	■	□	■	■
Korea	■	▒	■	■	■
Germany	□	▨	□	□	□
Italy	■	□	■	■	□
Croatia	■	▒	□	■	□
Macao (China)	■	▒	▒	■	■

Education systems with a positive difference/association	13	2	7	10	7
Education systems with a no difference/association	5	7	8	8	9
Education systems with a negative difference/association	0	2	0	0	2

1. ESCS refers to the PISA index of economic, social and cultural status.

Note: Only countries and economies with data from the parent questionnaire are shown.

Countries and economies are ranked in descending order of the percentage of students whose parents consider school reputation as "important" or "very important".

Source: OECD, PISA 2015 Database, Table II.4.17.

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ASSESSMENTS AND EVALUATIONS

Tests can serve as powerful incentives for students to put greater effort into learning, particularly if the tests have direct consequences for students (Bishop 2006; Fuchs and Woessmann, 2007). For teachers, standardised assessments provide a way to compare instructional objectives against the results achieved, and to compare the performance of their students to the performance of students elsewhere in the school system, so that teachers can tailor pedagogy accordingly. At the school level, achievement data can be used to determine how resources and additional support are allocated; they may also trigger intervention by higher authorities. Achievement data can also be used to inform the design of education policies, to create more efficient learning environments and to prompt schools, teachers and students themselves to work towards centrally established education outcomes.

But student assessments and examinations have their critics. For example, some argue that standardised tests and examinations may reinforce the advantages of schools that serve students from privileged backgrounds (Ladd and Walsh, 2002; Downey, Von Hippel and Hughes, 2008). In addition, teachers may respond strategically to accountability measures by sorting out or retaining disadvantaged students (Jacob, 2005; Jacob and Levitt, 2003; Booher-Jennings, 2005). Standardised tests and examinations might also have the adverse effect of narrowing education goals to passing or showing proficiency on particular tests, and focusing instruction on those students who are close to average proficiency while giving less attention to those who are far below or above the average (Neal and Schanzenbach, 2010). In order to avoid the negative impact of "teaching to the test", evaluations in most OECD countries are becoming more diverse (Hooge, Burns and Wilkoszewski, 2012).

This section examines the policies on assessments and examinations at the system level, assessment practices at schools across PISA-participating countries and economies, and the relationship between these policies and practices and students' science performance. How assessment practices at school are related to students' social and emotional outcomes is examined in Volume III of *PISA 2015 Results*.

Profiles of assessments and examinations, by education level

Countries and economies implement different policies to evaluate their students' performance. System-wide evaluations can generally be classified as those that do not have direct consequences for students (assessments) and those that do (examinations). Assessments can be used to take stock of students' performance in order to make decisions about future instruction or to summarise performance for information purposes. Although assessments can be used to allocate resources to low-performing schools or tailor instruction to low-performing students, for example, assessment results do not have direct, tangible consequences for students. Results from examinations, by contrast, can be used to determine students' progression to higher levels of education (e.g. the transition from lower to upper secondary school), selection into different curricular programmes (e.g. into vocational or academic programmes), or admission into university programmes. Assessments and examinations provide students with benchmarks and, in the case of examinations, with incentives to work hard in school in order to pass them (OECD, 2013b).

System-level data[8] reveal that all OECD education systems,[9] except that in Switzerland, have a national assessment or examination system in place at either the lower or upper secondary level (Tables II.4.44 to II.4.46). This is also the case among partner countries and economies with available data, except Macao (China) and Uruguay. In Macao (China), although there are no national examinations, schools conduct their own entrance examinations at both the lower and upper secondary levels. In Uruguay, assessments are conducted only at the primary level.[10]

Twenty-seven school systems in OECD countries conduct national assessments at the lower secondary level and 12 do so at the upper secondary level. All 12 systems that conduct national assessments at the upper secondary level, namely Belgium (Flemish and French Communities), Chile, the Czech Republic, Hungary, Italy, Korea, Mexico, New Zealand, Norway, Sweden and the United States, also do so at the lower secondary level. Among partner countries and economies with available data, 14 countries conduct national assessments at the lower secondary level and 10 do so at the upper secondary level. Seven of these 10 countries/economies, namely Argentina, Brazil, FYROM, Kazakhstan, Malta, Qatar and the United Arab Emirates, also conduct assessments at the lower secondary level (Table II.4.44).

Among OECD education systems, national examinations are more prevalent at the upper secondary level (30 education systems) than at the lower secondary level (14). Belgium (Flemish Community), Canada, Iceland, Japan, Mexico, Sweden and Switzerland do not conduct national examinations at either the lower or upper secondary level. Similarly, approximately twice as many partner countries conduct national examinations (17 systems) at the upper secondary level as at the lower secondary level (8 systems). Argentina, Brazil, Macao (China), Peru and Uruguay do not conduct national examinations at either the lower or upper secondary level (Tables II.4.45 and II.4.46).

While a number of PISA-participating countries and economies rely exclusively on the use of national assessments (9 systems) or examinations (12 systems) at the lower and/or upper secondary level, the remaining systems often combine the use of assessments and examinations at these levels. The most typical combinations observed among systems that use both assessments and examinations are displayed by education level in Figure II.4.19. The combination adopted by the greatest number of education systems comprises national assessments at the lower secondary level with examinations at the upper secondary level (32 systems). The next most common scenario is to have both assessments and examinations at the upper secondary level (16 systems). Fourteen education systems use both assessments and examinations at the lower secondary level, and a much smaller number of countries (7) use national assessments at the upper secondary level and examinations at the lower secondary level. Countries may adopt more than one of these arrangements as they are not mutually exclusive. For example, a country may conduct national assessments at both the lower and upper secondary levels in combination with national examinations at either the lower or the upper secondary level or both.

In most OECD countries and all partner countries and economies, the central government is responsible for standardising both upper and lower secondary examinations (Tables II.4.45 and II.4.46). State education authorities are responsible for standardising lower secondary examinations in Belgium (French community), Germany and the United States; they are responsible for standardising upper secondary examinations in Australia, Belgium (French community), Germany, Spain and the United States.

While in most OECD countries the development of examinations is also centralised at the national level, in some countries this responsibility lies with state or regional authorities. This is the case in Belgium (French community), Germany and the United States at the lower and upper secondary levels, and in Spain at the upper secondary level. In Poland, this responsibility is shared between central and regional authorities at both education levels. In England, the central

government works with private companies to develop upper secondary examinations. Among partner countries, with the exception of FYROM, where examinations are developed by a state agency responsible for assessment or certification, all countries and economies centralise the development of examinations at the national level. In Kazakhstan, national examinations are developed through a collaboration between central authorities and agencies responsible for assessment, local authorities, and private companies.

In OECD education systems, the responsibility for marking/grading national examinations is often distributed and/or shared among various levels of education authorities. In almost half of these systems, this task involves the participation of schools, whether the student's own or another school. Among partner countries and economies, the marking/grading of national examinations occurs predominantly at the central level, except for FYROM, where this task is carried out at the state level, and Montenegro, where this happens at the school level for lower secondary examinations.

Figure II.4.19 ▪ **Profiles of assessments and examinations across countries and economies**

		Both assessments and examinations		No assessment or examination	Assessments only (at either lower or upper secondary level)	Examinations only (at either lower or upper secondary level)
		National examinations				
		Lower secondary	Upper secondary			
National assessments	Lower secondary	Belgium (Fr.)	Australia	Macao (China)	Argentina	Dominican Republic
		Bulgaria	Austria	Switzerland	Belgium (Fl.)	England (UK)
		Denmark	Belgium (Fr.)	Uruguay	Brazil	Estonia
		France	Bulgaria		Canada	Greece
		Germany	Chile		Iceland	Ireland
		Italy	Colombia		Japan	Netherlands
		Kazakhstan	Costa Rica		Mexico	Poland
		Latvia	Czech Republic		Peru	Portugal
		Montenegro	Denmark		Sweden	Scotland (UK)
		Norway	Finland			Singapore
		Qatar	FYROM			Chinese Taipei
		Thailand	France			Turkey
		United Arab Emirates	Germany			
		United States	Hong Kong (China)			
			Hungary			
			Israel			
			Italy			
			Kazakhstan			
			Korea			
			Latvia			
			Luxembourg			
			Malta			
			Montenegro			
			New Zealand			
			Norway			
			Qatar			
			Slovak Republic			
			Slovenia			
			Spain			
			Thailand			
			United Arab Emirates			
			United States			
	Upper secondary	Belgium (Fr.)	Belgium (Fr.)			
		Italy	Chile			
		Kazakhstan	Croatia			
		Norway	Czech Republic			
		Qatar	FYROM			
		United Arab Emirates	Georgia			
		United States	Hungary			
			Italy			
			Kazakhstan			
			Korea			
			Malta			
			New Zealand			
			Norway			
			Qatar			
			United Arab Emirates			
			United States			

Source: OECD, PISA 2015 Database, Tables II.4.44, II.4.45, and II.4.46.

In all education systems, national examinations at the lower and upper secondary levels are used for the purpose of student certification, graduation or grade completion or to determine students' entry into a higher grade/education level. In 34 education systems, national examinations at the upper secondary level are also frequently used to determine students' access to selective tertiary education institutions and/or students' selection into a specific programme/faculty/discipline at the tertiary level. Other uses include decisions regarding financial assistance/scholarships for students (16 systems) and decisions regarding student expulsion from school (3 systems). The results of national examinations at the upper secondary level are shared with students and various other audiences (school administrators, classroom teachers, parents and/or the media) in all OECD countries and in most partner countries except Bulgaria and the United Arab Emirates.

Assessment practices at school

PISA 2015 asked school principals how often ("never", "1-2 times a year", "3-5 times a year", "monthly" or "more than once a month") students in the national modal grade for 15-year-olds are assessed using the following methods: mandatory standardised tests, non-mandatory standardised tests, teacher-developed tests, and teachers' judgemental ratings.

On average across OECD countries, about one in four students attends a school whose principal reported that mandatory standardised tests are never used to assess students in the modal grade for 15-year-olds, and six in ten students attend schools where these tests are used once or twice a year (Figure II.4.20). In 11 countries, including Costa Rica, the Dominican Republic, Germany, Montenegro and Uruguay, at least one in two students attend schools where mandatory standardised tests are never used, while in Sweden and the United Kingdom, all school principals reported that such tests are used at least once a year (Figure II.4.21).

Box II.4.3. Are students in the United States taking too many standardised tests?

Despite the common belief that students in the United States are incessantly subjected to standardised testing (Hart et al., 2015), they are not the most frequently exposed to mandatory standardised tests among all students in PISA-participating countries and economies. There are at least 19 education systems where there is a similar or higher percentage of 15-year-old students who attend schools where mandatory standardised tests are used at least once a year; and the percentage of students in the United States who are assessed with these tests more than once a month is similar to the OECD average (Table II.4.19). Nor are students in the United States more frequently exposed to non-mandatory standardised tests. The United States is third, after Albania and Poland, in the percentage of students who attend schools where non-mandatory tests are used at least once a year; but the percentage of students who are assessed with these tests at least once a month is below the OECD average.

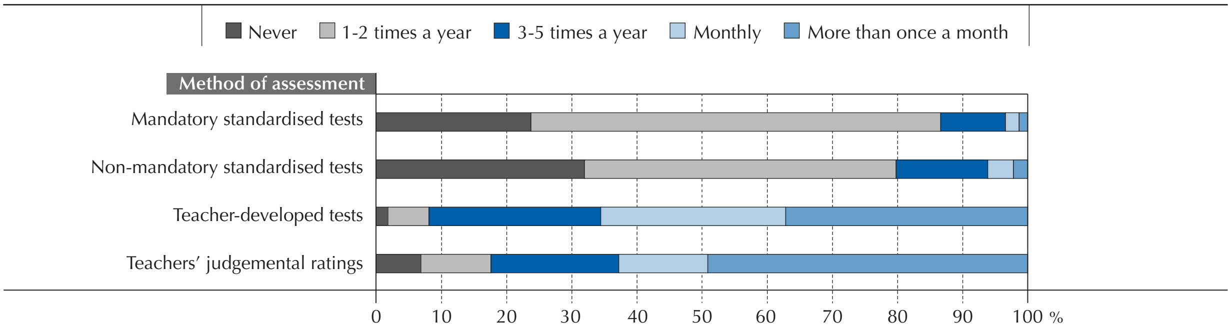
By international standards, the United States uses standardised tests extensively – almost all students in the United States are assessed with mandatory and non-mandatory tests at least once a year – but not intensely – almost no 15-year-old student in the United States is assessed with standardised tests more than 3-5 times per year.

Reference

Hart, R. et al. (2015), *Student Testing in America's Great City Schools: An Inventory and Preliminary Analysis*, Council of the Great City Schools, Washington, D.C.

Figure II.4.20 ▪ **Frequency of assessments at school**

Percentage of students in schools where the following assessment practices are used, OECD average

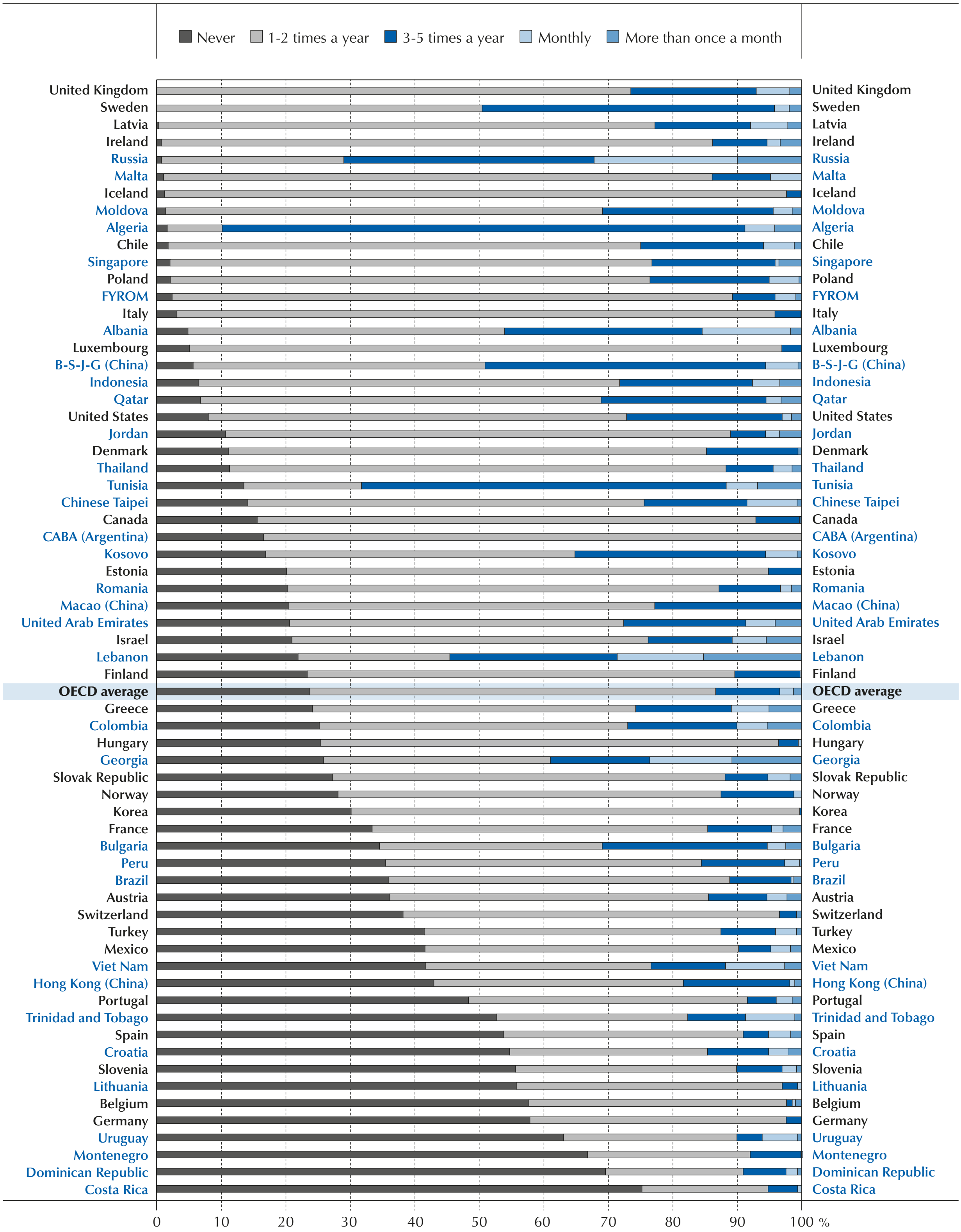


Source: OECD, PISA 2015 Database, Table II.4.19.

StatLink http://dx.doi.org/10.1787/888933435972

Figure II.4.21 ▪ **Frequency of mandatory standardised tests at school**

Percentage of students in schools where mandatory standardised tests are used

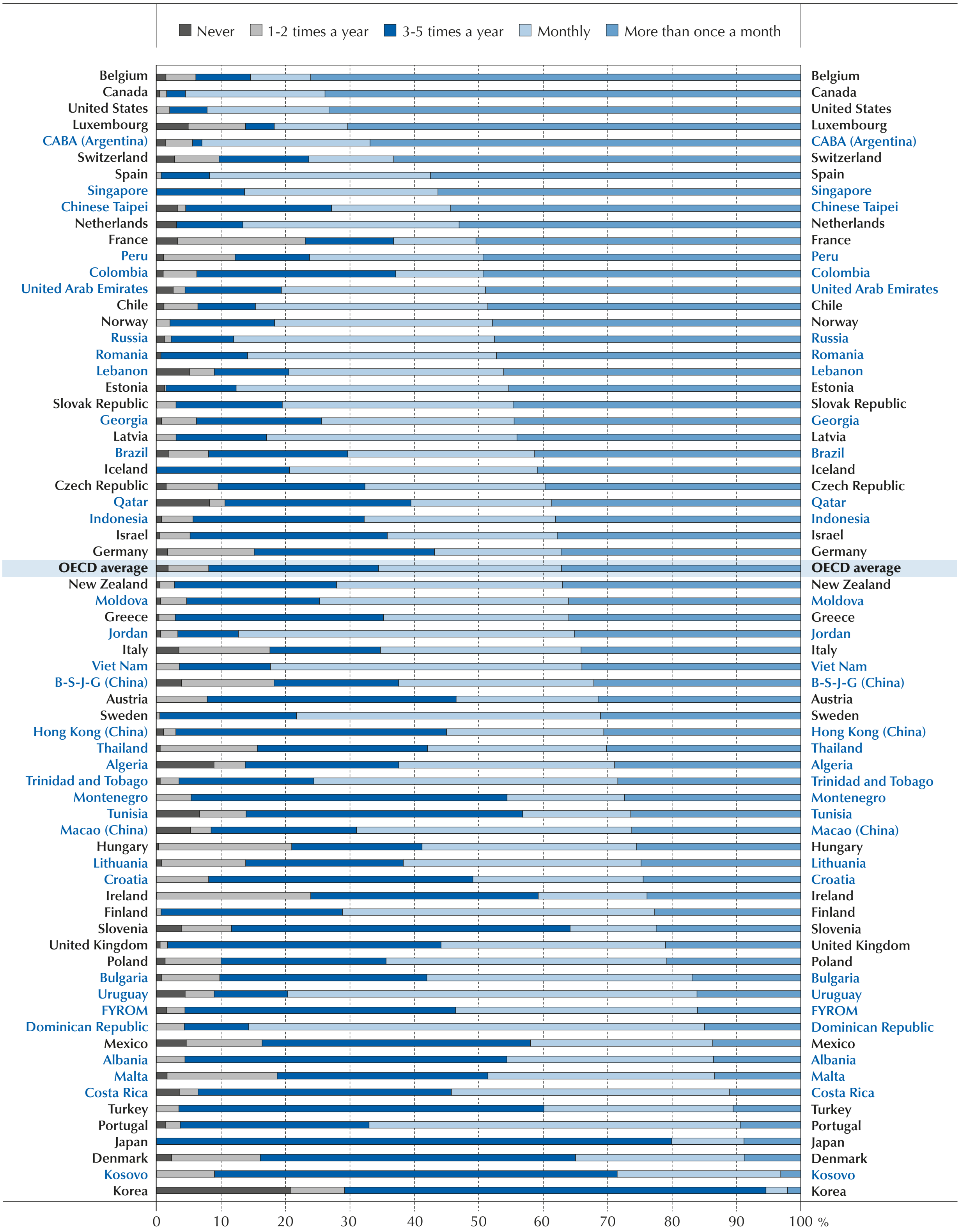


Countries and economies are ranked in ascending order of the percentage of students in schools where mandatory standardised tests are never used.
Source: OECD, PISA 2015 Database, Table II.4.19.

StatLink http://dx.doi.org/10.1787/888933435985

Figure II.4.22 ■ **Frequency of teacher-developed tests at school**

Percentage of students in schools where teacher-developed tests are used



Countries and economies are ranked in descending order of the percentage of students in schools where teacher-developed tests are used more than once a month.

Source: OECD, PISA 2015 Database, Table II.4.19.

StatLink http://dx.doi.org/10.1787/888933435999

Non-mandatory standardised tests are used somewhat less frequently than mandatory tests, whereas teacher-developed tests and judgemental ratings are used considerably more frequently (Figure II.4.20). For example, on average across OECD countries, almost two in three students attend schools whose principal reported that teacher-developed tests are used at least once a month, while for more than six in ten students, teacher's judgemental ratings are used at least once a month (Table II.4.19).

Education systems where at least six out of ten students in the modal grade are assessed more than once a month using teacher-developed tests include: Ciudad Autónoma de Buenos Aires (Argentina) (hereafter "CABA [Argentina]"), Belgium, Canada, Luxembourg, Switzerland and the United States (Figure II.4.22). By contrast, in Denmark, Japan, Korea, Kosovo and Portugal, less than 10% of students are assessed using teacher-developed tests more than once a month. In Korea, 21% of students are in schools where teacher-developed tests are never used to assess students in the modal grade for 15-year-olds.

The analyses of how the use of the four types of assessment varies across types of schools show few large differences (Tables II.4.20 to II.4.23). There are 19 education systems where non-mandatory standardised tests are more frequently used in private than in public schools, according to school principals, while in only 4 countries are they more frequently used in public schools. On average across OECD countries, mandatory standardised tests are slightly more frequently used in disadvantaged and public schools than in advantaged and private schools, while the opposite is true for teacher-developed tests. Students in lower secondary schools are more frequently assessed than students in upper secondary schools. On average across OECD countries, the percentage of students assessed using mandatory standardised tests (at least once a year) is eleven percentage points higher in lower secondary schools than in upper secondary schools, and ten percentage points higher in the case of assessments using teachers' judgemental ratings (at least once a month).

Similarly, there are few education systems where science performance varies according to the method of assessment used (Tables II.4.20 to II.4.23). On average across OECD countries, and only before accounting for the students' and schools' socio-economic profile, students in schools whose principal reported that mandatory standardised tests are used at least once a year score slightly lower in the science assessment (by six score points), while students in schools whose principal reported that teacher-developed tests are used at least once a month score somewhat higher (by five score points). At the system level, only the percentage of students who are assessed using teachers' judgemental ratings (at least once a month) is positively associated with science performance, and only when OECD countries are compared (Figure II.4.23). How extensively the four types of assessments are used across PISA-participating countries is not related to the degree to which students' socio-economic status explains science performance (i.e. equity in science performance).

Figure II.4.23 ▪ **Type of assessments at school, science performance and equity**

Correlations at the system-level

OECD countries (Based on 29 OECD countries)	**Mandatory standardised tests**	**Non-mandatory standardised tests**	**Teacher-developed tests**	**Teachers' judgemental ratings**	**Science performance**	**Equity in science performance**[1]
Mandatory standardised tests at least once a year		**0.45**	0.11	-0.03	0.05	0.32
Non-mandatory standardised tests at least once a year	**0.45**		-0.10	-0.11	-0.04	0.15
Teacher-developed tests at least once a month	0.11	-0.10		**0.49**	0.15	-0.06
Teachers' judgemental ratings at least once a month	-0.03	-0.11	**0.49**		**0.41**	-0.08

Countries and economies (Based on 64 countries and economies)	**Mandatory standardised tests**	**Non-mandatory standardised tests**	**Teacher-developed tests**	**Teachers' judgemental ratings**	**Science performance**	**Equity in science performance**
Mandatory standardised tests at least once a year		**0.49**	0.06	-0.07	0.12	0.20
Non-mandatory standardised tests at least once a year	**0.49**		-0.13	0.00	0.15	0.09
Teacher-developed tests at least once a month	0.06	-0.13		**0.25**	0.14	-0.23
Teachers' judgemental ratings at least once a month	-0.07	0.00	**0.25**		0.12	-0.05

1. The equity in science performance is 100 – the percentage of the variation in science performance explained by students' socio-economic status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933436006

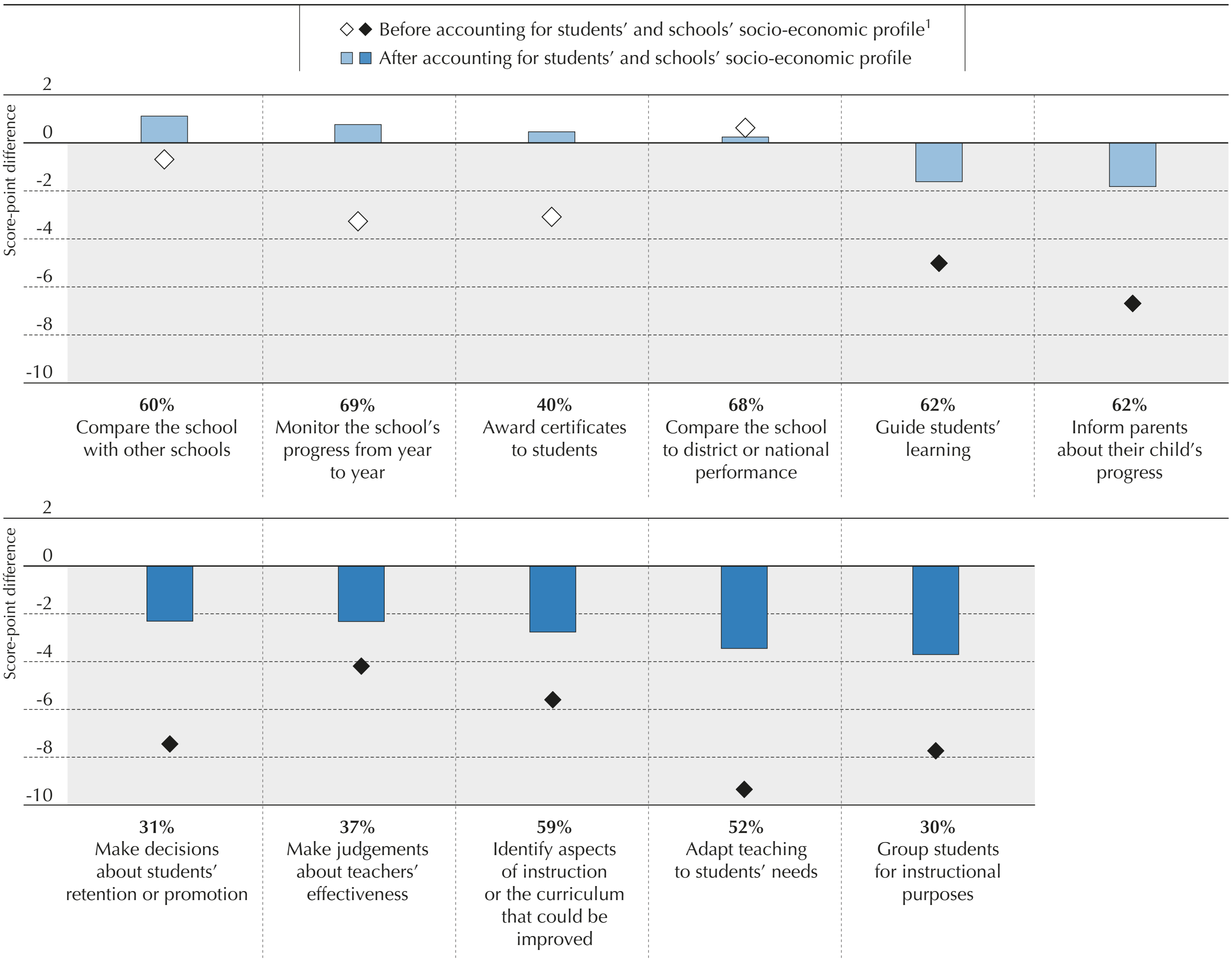
Assessment practices and purposes

Following the question on the methods used to assess 15-year-old students, PISA asked school principals for what purpose(s) standardised and teacher-developed tests are used in their schools. They could choose from 11 suggested purposes, such as guiding students' learning, making decisions about students' promotion, grouping students for instructional purposes or comparing the school with other schools.

On average across OECD countries, standardised tests are used more frequently for monitoring the school's progress from year to year, followed by comparing the school to district or national performance, guiding students' learning, and informing parents about their child's progress (Figure II.4.24). They were least likely to be used for high-stakes purposes, such as making decisions about retaining or promoting students, grouping students for instructional purposes or making judgements about teachers' effectiveness. In Algeria, Lebanon, Moldova, Singapore and Tunisia, more than 75% of students are in schools whose principal reported that standardised tests are used to make decisions about retaining/promoting students, whereas in B-S-J-G (China), the Czech Republic, Iceland and Norway, less than 10% of students are in such schools (Table II.4.24). In Indonesia, Malta, New Zealand, the United Kingdom and Viet Nam, more than 70% of students are in schools whose principal reported that standardised tests are used to group students for instructional purposes, while in CABA (Argentina), Austria, Costa Rica, the Czech Republic, Finland and Luxembourg, less than 10% of students are in such schools.

Figure II.4.24 ▪ **Purposes of standardised tests and science performance**

Results based on school principals' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Notes: Statistically significant differences are marked in a darker tone (see Annex A3).

Labels indicate the percentage of students in schools whose principal reported that standardised assessments are used for that particular purpose.

Purposes of standardised tests are ranked in descending order of the score-point difference, after accounting for students' and schools' socio-economic profile.

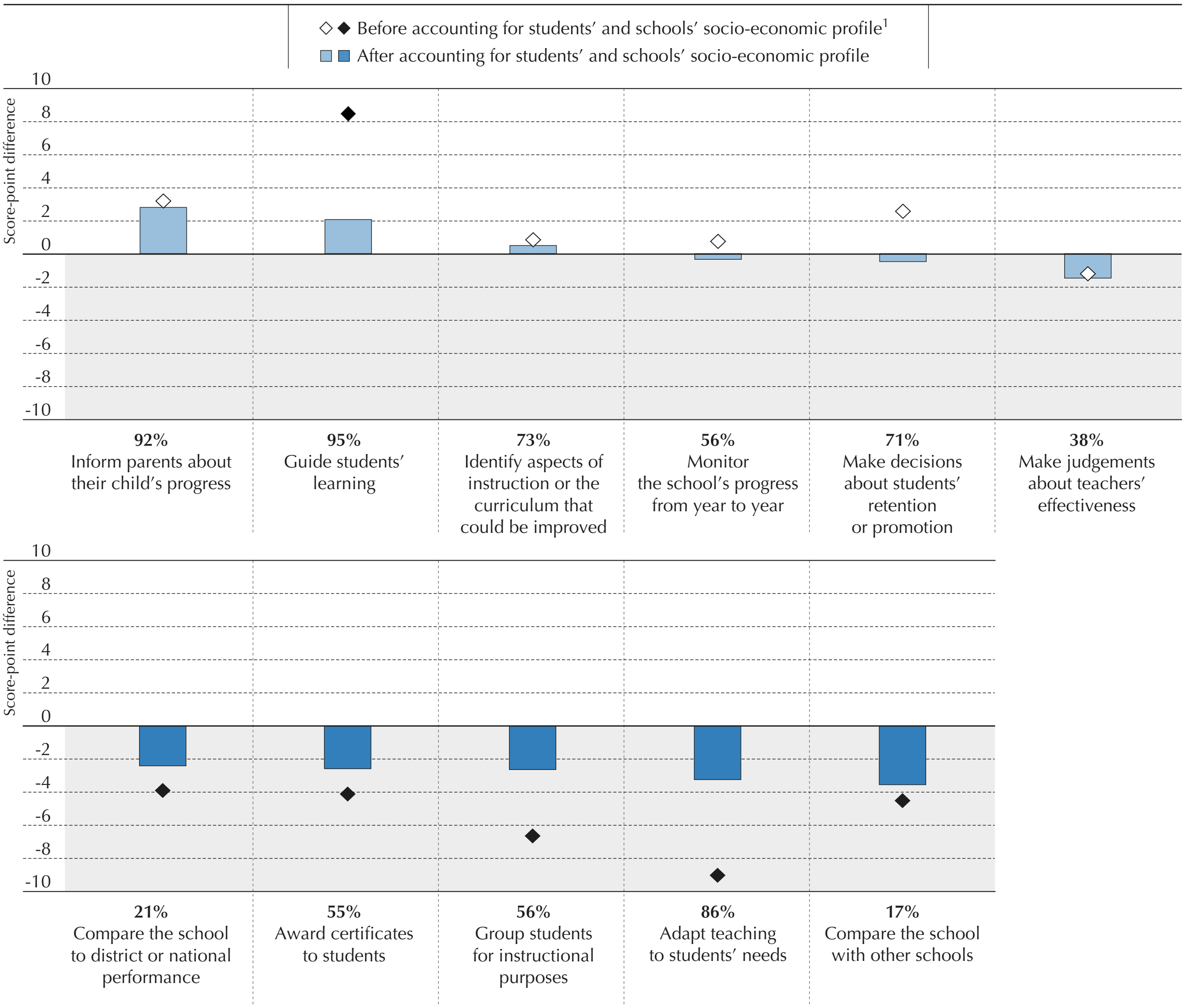
Source: OECD, PISA 2015 Database, Tables II.4.24 and II.4.25.

StatLink http://dx.doi.org/10.1787/888933436018

According to principals' reports, teacher-developed tests are also widely used for guiding students' learning and informing parents about their child's progress. On average across OECD countries, more than nine in ten students attend schools whose principal reported that teacher-developed tests are used for such purposes (Figure II.4.25). But, compared to standardised tests, teacher-developed tests are more frequently used for high-stakes purposes, such as making decisions about retaining or promoting students or grouping students for instruction, and less frequently used for comparing the school with other schools. In B-S-J-G (China), Denmark, Iceland, Norway and Sweden, teacher-developed tests are rarely used for making decisions about retaining/promoting students; in some of these countries, such as Iceland and Norway, this may just reflect the fact that students progress automatically to the next grade in primary and lower secondary education (European Commission, 2011) (Table II.4.24). In Austria, Finland, Slovenia and Sweden, fewer than one in three students attends schools where teacher-developed tests are used to group students for instruction, according to school principals. By contrast, in Israel, Jordan, Singapore, Thailand, the United Arab Emirates, the United Kingdom and Viet Nam, more than seven out of eight students attend schools where teacher-developed tests are used for this purpose.

Figure II.4.25 ▪ **Purposes of teacher-developed tests and science performance**

Results based on school principals' reports, OECD average



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Notes: Statistically significant differences are marked in a darker tone (see Annex A3).

Labels indicate the percentage of students in schools whose principal reported that teacher-developed tests are used for that particular purpose.

Purposes of teacher-developed tests are ranked in descending order of the score-point difference, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Tables II.4.24 and II.4.26.

StatLink http://dx.doi.org/10.1787/888933436023

These tests are also frequently used to adapt teaching to students' needs (86% of students attend schools whose principal so reported) and to identify aspects of the instruction or curriculum that could be improved (73% of students attended schools whose principal so reported).

In summary, across OECD countries, high-stakes decisions and decisions on how to better teach students are based more frequently on teacher-developed tests; standardised tests are more frequently used to compare school achievement against local, regional, national or international standards.

On average across OECD countries, and after accounting for students' and schools' socio-economic profile, students score lower in science when their principals reported that standardised tests are used for grouping students for instructional purposes, adapting teaching to students' needs, identifying aspects of instruction or the curriculum that could be improved, making decisions about retaining or promoting students or making judgements about teachers' effectiveness (Figure II.4.24). Students score similarly in science regardless of whether or not their principals reported that standardised tests are used for comparing the school with other schools, monitoring the school's progress from year to year, awarding certificates to students, comparing the school's performance with district or national performance, guiding students' learning or informing parents about their child's progress.

Students score lower in science, on average across OECD countries, when their principals reported that teacher-developed tests are used for comparing the school with other schools, adapting teaching to students' needs, grouping students for instructional purposes, awarding certificates to students or comparing the school to district or national performance (Figure II.4.25). After accounting for the socio-economic profile of students and schools, there was no difference in student performance when teacher-developed tests were used for any of the other purposes considered. Although the differences in performance associated with the use of standardised and teacher-developed tests are significant in the cases described above, they amount to at most four score points after accounting for socio-economic status (10 score points before accounting for socio-economic status).

ACCOUNTABILITY AND QUALITY ASSURANCE

The shift in public and government concern away from mere control over resources and curriculum towards a focus on outcomes and accountability has, in many countries, led to the establishment of standards of quality for educational institutions. In most OECD countries, evaluation and assessment systems not only focus on students, but also on teachers and school leaders; and the use of performance data to improve teaching and learning has expanded in recent years (OECD, 2013b).

The approaches to accountability typically involve standards, ranging from defining broad education goals to formulating precise performance expectations in well-defined subject areas; external monitoring of results; and rewards or sanctions (Woessmann et al., 2007). The key question is whether the policy of combining school autonomy with accountability is seen as an opportunity or as a burden by school leaders and teachers (Keddie, 2015). This will largely depend on the quality and motivation of school staff, the nature of the accountability systems, and how much schools are supported in their improvement actions (Huber, 2011).

PISA 2015 collected data on the nature of accountability systems, and the ways in which the resulting information is used for school improvement and made available to various stakeholders and the general public.

The use of achievement data beyond school

Achievement data are used for accountability purposes involving some stakeholders in addition to schools, teachers, parents and students. School principals were asked to report on whether achievement data, such as the school's performance on tests or graduation rates, are posted publicly, tracked over time by an administrative authority or provided directly to parents. On average across OECD countries, achievement data are more frequently shared with parents (84% of students attend schools whose principals so reported) than tracked by an administrative authority (71% of students attend such schools) or posted publicly (44% of students attend such schools) (Table II.4.27). However there is considerable variation among countries. For example, in the Netherlands, New Zealand, the United Kingdom, the United States and Viet Nam, at least 75% of students are enrolled in schools that post data publicly, while in Austria, Belgium, Finland and Japan, fewer than 6% of students are enrolled in a school that posts data publicly.

Across PISA-participating countries and economies, posting data publicly is done somewhat more frequently in socio-economically advantaged and urban schools than in disadvantaged and rural schools (Figure II.4.25). In 15 out of 68 education systems, posting data publicly is more common in advantaged than in disadvantaged schools, and in 15 out of 54 education systems it is more common in urban than in rural schools. Posting data publicly is also more common in upper secondary than lower secondary schools, on average across OECD countries and in 15 of 57 education systems (Table II.4.30). There are no differences between advantaged and disadvantaged schools or between urban and rural schools in the degree to which school achievement data are tracked by administrative authorities (Table II.4.31). On average across OECD countries and in 17 out of 60 education systems, however, administrative authorities are more likely to track achievement data coming from public schools than from private schools.

Between 2012 and 2015 there were no changes in the percentage of students in schools where achievement data are posted publicly or tracked over time by an administrative authority across OECD countries (Table II.4.29). However, there are 15 countries and economies where achievement data were posted publicly more extensively in 2015 than in 2012, including France, Hong Kong (China), Ireland and Portugal, and 12 countries where achievement data were posted publicly less extensively, including Korea, Montenegro, the Netherlands and Sweden. In nine countries and economies, including Hong Kong (China), Iceland, Indonesia and Greece, more students in 2015 than in 2012 attended schools whose achievement data were tracked over time by an administrative authority, while in another seven countries, including Luxembourg, Macao (China) and Slovenia, the opposite trend was observed.

On average across OECD countries, providing achievement data directly to parents is equally likely regardless of the socio-economic profile, type or location of the school (Table II.4.32). However, there are considerably more education systems where rural schools are more likely than urban schools to provide achievement data to parents (10 education systems) than there are education systems where urban schools are more like than rural schools to do so (2 education systems, including that in Turkey, where they are over 65 percentage points more likely to do so). Similarly, there are more countries and economies (17) where private schools are more likely than public schools to provide achievement data to parents than education systems where it is more common for public schools to do so (5).

In a great majority of education systems, students perform similarly in science regardless of whether the achievement data from their schools is tracked by an administrative authority or shared directly with parents (Tables II.4.31 and II.4.32). However, posting data publicly is positively associated with students' performance in science, on average across OECD countries, both before and after accounting for the socio-economic profile of students and schools (Figure II.4.26). There are also 13 education systems where students perform better in science, after accounting for socio-economic status, when their schools post data publicly.

Quality-assurance and school-improvement practices

Schools also use measures other than student assessments to monitor the quality of the education they provide. PISA 2015 asked principals to report on whether their schools use various measures related to quality assurance and improvement. All measures combined, students in France, Italy, Luxembourg, Switzerland and Uruguay are least likely to be in schools where arrangements aimed at quality assurance and improvement at school are used, whereas students in Qatar, Singapore, Thailand, the United Arab Emirates and the United Kingdom are most likely to be in such schools (Figure II.4.27).

Almost all principals in PISA-participating countries and economies reported that internal evaluations or self-evaluations are used in their schools. On average across OECD countries, these evaluations are almost equally likely to originate from a school initiative or be mandated by an administrative authority (Table II.4.33). By comparison, external evaluations are more likely to be mandatory and less likely to be used by schools. On average across OECD countries, one in four students attends a school where they are not used.

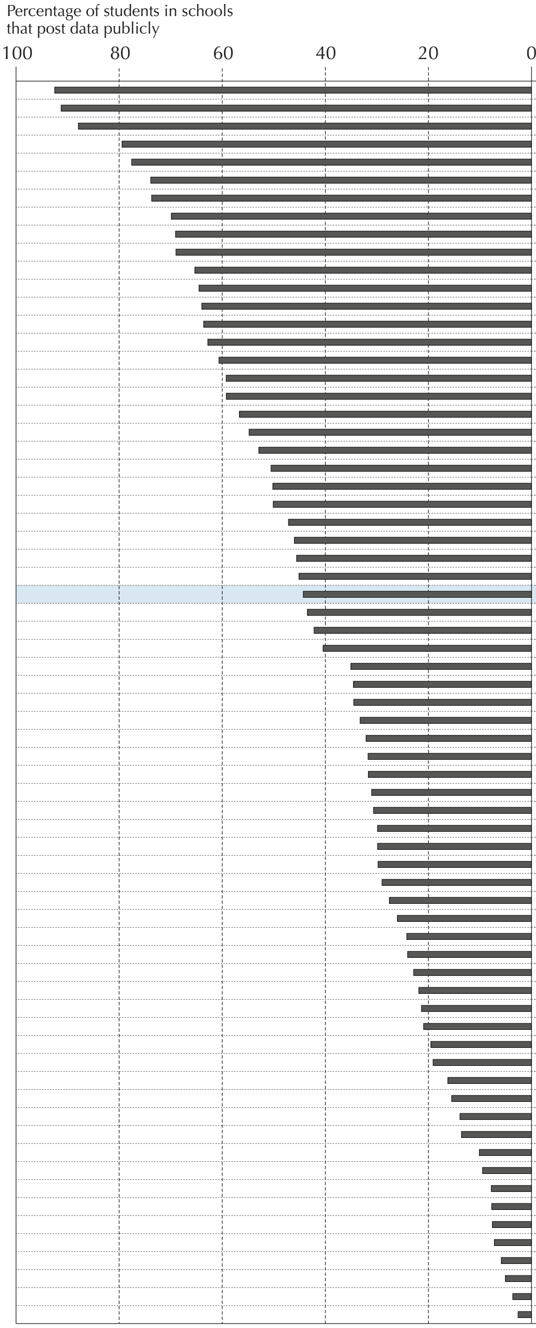
At least nine out of ten students in OECD countries attend schools that systematically record data, such as attendance records (of teachers and students) and professional development, or that systematically record graduation rates and test results, for quality-assurance or school-improvement purposes. Interestingly, using systematic recording of data for quality-assurance or improvement purposes is less frequently observed in high-income countries, such as Austria, France, Greece, Italy, Japan, Luxembourg and Switzerland (Figure II.4.27).

Some studies consider the feedback from students to teachers and principals as essential for improving the school learning environment (Hattie, 2009); yet across OECD countries, one in three students attends a school that never uses this quality-assurance arrangement in written form; and in France, Luxembourg and Italy, fewer than one in three students attends a school that solicits written student feedback for quality-assurance purposes.

Figure II.4.26 ▪ **Posting achievement data publicly, school characteristics and science performance**

Results based on school principals' reports

■	Positive difference/association
▨	Negative difference/association
□	Difference/association is not significant
░	Missing values



	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
United States	□	□	▨	□	□
United Kingdom	□	▨	□	□	□
Viet Nam	□	□	□	□	□
New Zealand	□	□	□	□	□
Netherlands	□	░	□	□	□
Russia	□	□	░	□	□
Slovak Republic	□	□	□	□	□
Australia	■	□	□	□	□
Norway	□	■	▨	□	□
Thailand	□	■	□	■	□
Sweden	□	□	□	□	□
Slovenia	■	■	▨	■	■
Montenegro	▨	░	░	□	□
Portugal	□	□	□	□	□
Kosovo	□	□	▨	■	■
Romania	□	□	░	■	□
France	□	□	□	□	□
Turkey	□	■	□	■	□
Canada	□	□	□	□	□
Bulgaria	□	■	░	□	□
Chile	□	□	□	□	■
Israel	□	□	░	■	■
Korea	□	░	□	□	□
Poland	■	□	□	■	□
Brazil	□	□	▨	□	□
Hong Kong (China)	□	░	▨	■	□
Qatar	□	■	■	■	■
Denmark	□	▨	□	▨	□
OECD average	■	■	▨	■	■
United Arab Emirates	□	■	■	□	□
Colombia	□	□	□	□	□
Italy	□	□	□	□	□
Luxembourg	■	░	▨	■	■
Hungary	■	■	□	■	□
FYROM	■	▨	▨	■	■
Ireland	■	□	■	■	□
Greece	■	□	■	■	■
Lithuania	□	■	□	□	□
Latvia	□	□	□	□	□
Croatia	□	░	□	□	□
Mexico	□	■	□	■	□
Tunisia	□	□	□	□	□
Indonesia	■	■	□	■	□
Iceland	▨	■	░	□	□
Czech Republic	■	□	■	■	■
Moldova	□	■	░	□	□
Chinese Taipei	□	░	■	□	□
Singapore	■	░	□	■	■
Jordan	□	■	□	□	□
Estonia	■	■	□	□	□
Costa Rica	□	□	□	□	□
Spain	□	□	□	□	□
Trinidad and Tobago	■	░	■	■	■
Lebanon	□	□	□	□	□
Dominican Republic	□	□	▨	□	□
CABA (Argentina)	□	░	□	□	□
Algeria	□	□	░	□	□
Uruguay	□	□	□	□	□
Germany	□	□	□	■	■
Peru	□	□	□	□	□
Macao (China)	■	░	░	■	□
Georgia	□	□	□	□	□
Switzerland	□	□	□	□	□
B-S-J-G (China)	□	□	□	□	□
Malta	■	░	■	■	□
Austria	□	□	□	▨	□
Finland	□	□	▨	□	□
Japan	□	░	□	□	□
Belgium	□	□	░	■	■
Education systems with a positive difference/association	15	15	8	23	13
Education systems with a no difference/association	51	36	40	43	55
Education systems with a negative difference/association	2	3	10	2	0

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the percentage of students in schools where achievement data are posted publicly.

Source: OECD, PISA 2015 Database, Table II.4.30.

StatLink http://dx.doi.org/10.1787/888933436037

Figure II.4.27 ▪ Quality assurance and improvement actions at school

Results based on school principals' reports

☐ Less than half of students
▨ From 50% to 75% of students
■ More than 75% of students

	Percentage of students in schools where the following arrangements aimed at quality assurance and improvement at school are used									
	Internal evaluation/ Self-evaluation	External evaluation	Written specification of the school's curricular profile and educational goals	Written specification of student performance standards	Systematic recording of data (e.g. teacher/ student attendance)	Systematic recording of student test results and graduation rates	Seeking written feedback from students	Teacher mentoring	Regular consultation with experts over a period of at least six months	Implementation of a standardised policy for science subjects
Qatar	99	97	96	100	100	100	94	100	93	97
Thailand	100	100	100	100	99	100	88	99	90	94
United Arab Emirates	100	100	98	99	100	100	90	97	84	95
Singapore	99	99	98	95	99	100	95	100	66	97
United Kingdom	100	97	97	98	100	100	91	98	84	84
Russia	100	99	100	100	98	100	81	100	76	94
Indonesia	98	92	98	90	99	99	93	99	90	88
Albania	100	97	99	95	99	100	92	96	72	95
New Zealand	99	97	96	93	98	99	96	97	78	77
Romania	100	98	99	97	99	100	93	94	66	85
Korea	100	86	99	100	98	95	92	95	73	84
Moldova	100	96	97	94	100	99	81	96	65	93
Jordan	98	80	96	97	99	99	89	98	80	79
Montenegro	91	99	98	91	100	96	71	100	78	84
Australia	99	81	97	92	99	99	81	98	78	82
United States	98	85	99	96	97	99	73	96	67	86
Dominican Republic	97	82	91	92	98	93	96	80	73	84
Chinese Taipei	95	93	97	93	98	99	76	90	73	71
Viet Nam	100	73	98	93	98	99	91	98	50	81
Estonia	100	91	96	68	96	95	92	98	51	86
Kosovo	91	83	88	85	93	96	79	95	73	88
B-S-J-G (China)	98	79	97	75	98	92	89	95	52	94
FYROM	99	99	84	80	91	93	83	95	73	70
Slovak Republic	97	62	97	92	100	98	75	99	63	83
Croatia	99	92	97	83	98	90	77	95	56	69
Latvia	100	96	93	83	100	100	86	80	39	77
Israel	95	88	99	79	99	97	56	97	60	83
Hong Kong (China)	100	94	97	81	99	98	83	83	48	67
Macao (China)	98	78	94	84	100	100	74	91	54	75
Colombia	100	90	92	94	97	95	88	78	53	59
Bulgaria	97	96	85	84	98	98	71	72	72	71
Ireland	100	95	88	68	94	98	50	83	76	81
Brazil	96	87	99	87	91	85	77	93	60	55
Lebanon	94	54	96	88	98	98	65	82	72	86
Algeria	99	50	93	86	96	99	81	97	46	80
Czech Republic	97	61	100	89	96	96	73	96	28	87
Poland	100	92	62	84	98	99	87	95	48	57
Turkey	94	79	91	84	96	100	85	66	49	75
Malta	99	90	94	67	98	96	53	90	66	60
Portugal	100	97	95	83	87	98	72	84	36	51
Georgia	98	72	95	87	95	98	79	52	49	76
Mexico	86	74	93	89	95	96	77	62	58	66
Peru	92	69	96	94	96	88	65	98	43	54
Slovenia	98	47	96	96	100	97	81	82	32	65
Canada	86	64	93	83	86	96	56	88	69	72
Trinidad and Tobago	83	74	91	83	97	98	45	84	56	76
OECD average	93	75	89	79	91	93	69	78	48	63
Hungary	90	75	100	98	100	100	65	82	19	49
Netherlands	92	86	80	65	89	97	82	89	58	37
Norway	98	64	85	90	85	96	65	92	78	19
Costa Rica	90	63	90	81	97	95	70	71	49	63
Tunisia	87	69	62	81	95	99	48	93	49	83
Sweden	98	68	85	98	93	83	77	79	32	35
CABA (Argentina)	90	61	92	74	85	76	64	86	55	61
Chile	94	77	82	74	92	95	73	57	42	57
Belgium	85	86	95	61	89	91	51	82	47	55
Japan	98	76	96	68	81	90	85	83	15	45
Denmark	84	70	86	82	89	94	57	66	38	61
Iceland	100	93	84	90	98	97	50	22	39	52
Lithuania	100	80	97	70	99	89	75	59	22	33
Austria	89	41	80	68	83	83	90	75	62	55
Germany	88	72	92	76	87	94	61	40	33	66
Spain	88	74	85	83	90	97	77	41	27	39
Greece	81	21	72	49	81	85	43	88	87	85
Finland	95	57	80	73	89	84	74	66	10	62
Uruguay	90	47	84	67	98	96	58	70	22	33
Luxembourg	75	96	75	41	78	73	24	81	43	59
Switzerland	85	69	75	48	71	64	66	76	27	44
France	78	57	83	55	79	90	23	72	16	55
Italy	95	39	91	68	80	90	32	30	13	44

Countries and economies are ranked in descending order of the percentage of students in schools using the arrangements aimed at quality assurance and improvement (average 10 arrangements).

Source: OECD, PISA 2015 Database, Table II.4.33.

StatLink http://dx.doi.org/10.1787/888933436045

Teacher mentoring might help young teachers integrate smoothly into a new learning environment. Across OECD countries, four out of five students are in schools whose principals reported using teaching mentoring; but in Germany, Iceland, Italy and Spain, at least one in two students attend schools where teaching mentoring is not used, at least as a quality-assurance or improvement arrangement.

Students perform similarly in science regardless of whether their schools use or do not use most of the quality-assurance and improvements arrangements cited above (Table II.4.34). Out of the ten suggested arrangements, students in OECD countries whose principals reported using written specifications of the school's curricular profile and education goals; using systematic recording of student test results and graduation rates; seeking written feedback from students; or implementing a standardised policy for science subjects perform somewhat better in science than students whose principals reported not doing so. But after accounting for the socio-economic profile of students and schools, only when schools implement a standardised policy for science subjects do students score higher in science – by about three points, on average across OECD countries. Students also score lower in science, both before and after accounting for the socio-economic status of students and schools, when their schools consult experts over a period of at least six months for school-improvement purposes. Of course, schools with weaker academic performance may be more likely to consult external experts to improve student learning. The score-point differences are, in any case, small: after accounting for students' and schools' socio-economic profile, there is never more than 5 points' difference in performance between schools that do and schools that do not use each of the ten arrangements, and never more than 11 points' difference before accounting for the socio-economic profile of students and schools.

Consequences of internal and external evaluations

School principals who reported that their school uses internal evaluations for quality-assurance or improvement purposes were then asked about the consequences of these evaluations, including whether the school implemented measures in the areas of education staff, curriculum, quality of teaching, parental engagement or equity and, if they did not, whether it was because the results of the internal evaluation were successful or for other reasons.

Across OECD countries, schools that conduct internal evaluations are more likely to implement measures in the areas of student achievement, quality of teaching and learning, and teacher professional development (Figure II.4.28). In the Dominican Republic, Indonesia, Korea, Peru, Thailand and Viet Nam, several areas are affected by the measures implemented following an internal evaluation, while in Denmark, Finland, Slovenia and Switzerland, few areas are affected. However, these four countries are among the top five PISA-participating education systems where, according to principals, no changes were made because results were deemed satisfactory. For example, in Finland, almost three in four students attend a school where no measures regarding the education staff were implemented following an internal evaluation because the results were satisfactory, and more than six in ten students attend a school where no measures regarding the equity in school and curriculum implementation were implemented due to satisfactory results (Table II.4.35).

School principals who reported that external evaluations are used in their schools were also asked if a series of statements related to these evaluations apply to their school: "The results of external evaluations led to changes in school policies"; "Data were used to plan specific actions for school development"; "Data were used to plan specific actions for the improvement of teaching"; "Measures were promptly implemented"; or "The impetus triggered by the external evaluation disappeared very quickly at [our] school".

Across OECD countries, principals were most likely to agree that data are used to plan specific actions for school development and the improvement of teaching. They were least likely to report that the impetus triggered by the external evaluation disappeared very quickly at their school. In Greece, Luxembourg and Tunisia, principals were least likely to report that actions followed external evaluations (Figure II.4.29). In Luxembourg, for instance, only one in ten students (64% of students across OECD countries) attends a school whose principal reported that measures were promptly implemented following an external evaluation.

Given that schools are more likely to implement measures if they detect problems following their internal and external evaluations, it should hardly be surprising that students score lower in science if their school implements measures for improvement. Before accounting for the socio-economic status of students and schools, students score between 4 and 13 points lower in science, on average across OECD countries, depending on the area targeted for action following an internal evaluation (Tables II.4.36). After accounting for the socio-economic profile of students and schools, students score about four points lower when the measures following an internal evaluation address issues related to parents' engagement with school, student achievement and equity in school.

Figure II.4.28 ▪ Actions following internal evaluations

Results based on school principals' reports

░ Less than half of students
▒ From 50% to 75% of students
▓ More than 75% of students

	Percentage of students in schools where the following were affected after an internal evaluation							
	Education staff	Implementation of the curriculum	Quality of teaching and learning	Parental engagement in school	Teacher professional development	Student achievement	Students' cross-curricular competencies	Equity in school
Indonesia	95	95	97	82	95	99	77	78
Viet Nam	93	90	98	67	97	95	90	84
Thailand	87	89	92	84	85	95	92	86
Korea	84	88	85	82	91	92	76	71
Dominican Republic	76	78	84	88	75	91	84	75
Peru	68	78	90	85	81	92	76	79
Singapore	84	89	94	73	92	92	74	43
Macao (China)	77	88	93	51	97	90	84	58
B-S-J-G (China)	87	78	90	64	88	86	65	69
United Arab Emirates	64	78	90	81	89	84	73	62
Chile	61	76	89	65	72	92	82	73
FYROM	60	68	88	83	87	82	66	62
Israel	85	80	81	31	86	84	77	71
Russia	65	63	81	70	77	87	86	60
Mexico	66	64	77	72	73	91	76	70
Montenegro	67	59	85	73	79	91	70	62
Georgia	54	78	84	82	80	88	55	66
Qatar	67	61	73	70	81	87	77	65
Colombia	53	75	84	71	62	87	78	68
Trinidad and Tobago	61	83	90	76	76	84	53	52
Hong Kong (China)	62	84	94	44	79	90	70	41
Brazil	52	56	85	85	60	86	67	72
Moldova	56	66	86	65	76	85	70	53
Chinese Taipei	59	75	79	56	81	77	70	59
United Kingdom	57	76	86	68	86	87	53	41
Iceland	65	71	77	52	69	79	72	57
Kosovo	42	66	72	73	80	75	65	70
Lithuania	49	60	90	81	63	85	65	44
Latvia	55	55	81	69	74	84	65	46
Algeria	54	71	52	51	77	76	64	83
Estonia	63	71	74	69	62	67	65	56
Jordan	49	69	64	71	70	79	58	67
Netherlands	73	60	83	55	82	85	53	33
Portugal	65	39	78	69	58	85	64	54
Costa Rica	40	62	77	63	62	76	59	65
New Zealand	42	71	77	60	84	86	37	44
United States	46	70	73	59	77	83	51	39
Lebanon	55	64	60	54	77	67	62	55
Japan	69	63	75	42	66	74	62	41
CABA (Argentina)	43	78	76	65	47	70	60	52
Slovak Republic	46	59	66	60	75	75	54	47
Romania	38	42	67	75	72	82	60	41
Sweden	77	49	73	28	65	78	44	62
Australia	39	72	83	51	78	80	39	30
Croatia	42	51	75	55	66	80	56	44
Turkey	54	52	68	66	47	80	45	57
Spain	41	50	78	53	65	75	57	33
Uruguay	32	36	70	61	57	72	61	60
OECD average	48	54	68	49	64	70	51	40
Germany	38	57	77	58	62	61	61	26
Norway	46	61	82	35	66	77	38	23
Canada	25	48	60	45	70	76	44	45
Italy	27	53	60	27	71	74	51	47
Belgium	56	56	58	40	55	54	54	29
Albania	39	44	52	57	58	68	38	43
Poland	38	37	66	62	50	65	48	26
Tunisia	42	55	43	36	65	51	35	65
Ireland	34	61	72	37	58	66	41	23
France	21	24	37	52	49	77	64	50
Malta	11	48	73	47	54	62	38	37
Bulgaria	31	36	51	35	63	62	54	37
Austria	39	57	71	26	57	57	34	26
Greece	26	36	43	50	44	51	50	49
Luxembourg	19	39	50	31	54	64	55	33
Hungary	49	36	59	35	48	54	35	28
Czech Republic	42	45	54	27	61	54	27	18
Slovenia	32	34	57	37	47	44	35	19
Denmark	49	21	49	27	61	42	20	3
Finland	19	29	40	48	40	28	38	26
Switzerland	29	31	50	19	43	27	31	21

Countries and economies are ranked in descending order of the percentage of students in schools implementing measures following an internal evaluation (average 8 areas/processes).
Source: OECD, PISA 2015 Database, Table II.4.35.
StatLink http://dx.doi.org/10.1787/888933436058

Figure II.4.29 ▪ Consequences following external evaluations

Results based on school principals' reports

░ Less than half of students
▒ From 50% to 75% of students
▓ More than 75% of students

	Percentage of students in schools whose principal reported that the following statements apply to the most recent external evaluation in the school				
	Apply				Do not apply
	The results of external evaluations led to changes in school policies	Data were used to plan specific actions for school development	Data were used to plan specific actions for the improvement of teaching	Measures were promptly implemented	The impetus triggered by the external evaluation "disappeared" very quickly at our school
Singapore	92	99	96	92	87
Indonesia	89	99	100	96	77
Chinese Taipei	95	95	94	93	83
Ireland	83	96	94	93	89
Thailand	89	98	98	92	76
United Arab Emirates	85	98	98	94	75
Hong Kong (China)	89	99	100	84	76
United Kingdom	77	95	93	96	84
Montenegro	74	100	100	94	76
Colombia	79	98	98	79	85
Brazil	84	95	97	80	80
FYROM	79	97	95	88	76
Dominican Republic	83	92	92	90	78
Peru	87	93	95	88	71
Viet Nam	86	94	94	80	74
B-S-J-G (China)	54	95	96	90	90
Macao (China)	71	91	93	87	82
Qatar	70	96	92	91	73
Portugal	83	94	95	66	84
Australia	73	90	86	84	87
Slovak Republic	67	85	89	86	89
Lithuania	56	95	92	83	90
Mexico	68	94	94	78	81
New Zealand	63	94	89	86	82
Chile	70	96	97	69	77
Russia	41	96	96	79	96
United States	57	94	90	83	80
Jordan	82	91	95	79	56
Moldova	62	82	91	84	83
Netherlands	74	85	91	63	86
Trinidad and Tobago	71	89	87	69	79
Norway	82	93	85	47	88
Israel	68	88	89	71	78
Spain	47	92	96	77	81
Bulgaria	46	87	82	86	91
Turkey	65	78	81	81	85
Romania	53	88	84	86	77
Iceland	56	85	85	72	90
Sweden	66	85	85	64	84
Korea	54	83	87	78	80
Germany	47	94	86	66	82
Canada	51	86	80	66	85
Latvia	26	94	89	67	89
Austria	32	88	87	70	87
Costa Rica	62	79	77	68	76
OECD average	54	82	80	64	83
Albania	51	85	84	61	76
Lebanon	57	86	80	76	58
Malta	39	91	71	66	85
Poland	43	94	79	42	92
Estonia	29	83	75	76	81
Kosovo	48	70	84	68	69
Algeria	33	80	86	70	69
Slovenia	35	83	80	55	84
Czech Republic	53	76	82	44	78
Belgium	58	68	69	61	73
Japan	23	79	68	63	93
Croatia	53	57	71	62	77
Georgia	31	75	77	63	74
Switzerland	43	70	67	67	71
Italy	55	61	60	51	84
Finland	43	76	64	44	82
Denmark	37	78	75	25	90
France	65	57	51	51	77
Hungary	32	53	58	51	91
CABA (Argentina)	40	62	61	38	74
Uruguay	36	56	63	31	69
Tunisia	39	37	35	47	85
Greece	30	54	48	40	66
Luxembourg	31	44	42	10	63

Countries and economies are ranked in descending order of the percentage of students in schools where the statements apply / do not apply (average 5 statements).
Source: OECD, PISA 2015 Database, Table II.4.37.

StatLink `http://dx.doi.org/10.1787/888933436066`

Similarly, students score lower in science in schools whose principals agreed with the statements related to external evaluations, particularly those that imply that measures are taken following an external evaluation (Table II.4.38). For example, when principals agreed that data are used to plan specific actions for improving teaching, students score four points lower in science, after accounting for the socio-economic profile of students and schools.

SCHOOL LEADER AND TEACHER APPRAISAL

Improving the quality and equity of schooling depends to a large extent on the motivation and performance of school leaders and teachers. Evaluating the quality of an education system therefore entails not only assessing students' learning, but also the performance of the system's teachers and school leaders.

School leader appraisal

School leaders are largely responsible for managing the school budget, personnel and school policies. School leadership, however, has been increasingly recognised for the important role it can play in improving the learning environment in schools, in communicating a vision and a culture of continuous learning, and in supporting the work of teachers – all of which can have a positive impact on students' performance (OECD, 2015b). Principals are the most common school leaders in many schools as they hold the highest leadership position in the organisation. But other staff members, such as deputy school directors or department heads, might also assume important leadership roles in their schools for their experience or recognised ability to influence other staff and lead the organisation towards its goals (OECD, 2015b). This section describes some characteristics of school leader appraisals in various countries and economies, such as whether they are regulated by legislation or other policy frameworks, how extensively they are used, who evaluates them, and whether such appraisals are used for the purposes of professional development or for career advancement.

System-level data show that in nearly half of the countries and economies with available data, the appraisal of school leaders is included in legislation or policy frameworks at the primary (34 out of 57 education systems), lower secondary (33 out of 57 education systems) and upper secondary levels (31 out of 56 education systems) (Table II.4.58). These proportions are smaller than those related to teacher appraisal, but they are still considerable, and illustrate the importance governments give to evaluating their school managers.

In Australia, Denmark, FYROM and Latvia, even though there is no legislation on this matter, the practice of appraising school leaders is widespread. In Israel and the Netherlands, legislation applies only to some levels of education, but appraisals are also carried out at the other levels as well. In all of these countries and economies, such policies and practices are implemented countrywide, with a few exceptions: in Canada and the United States, they are implemented at the provincial/territorial or state level, respectively; in England and in FYROM, the legislation or similar practices applies to some schools only. One in every three countries and economies reported not having either legislation or similar practices related to school leader appraisals. The vast majority of countries and economies with available data reported that at least 90% of their school leaders undergo appraisals (16 out of 19 education systems). In Spain, 70% of their school leaders are appraised (across all education levels) while in Colombia 20% are (at the lower and upper secondary levels). The discussion that follows focuses on the appraisal of school leaders at the lower secondary level.

The appraisal of school leaders is mandatory in half of the countries and economies with available data (27 out of 54 education systems) (Table II.4.60). In most cases, the appraisals occur at least once a year, but appraisals every three to four years are not uncommon. In Croatia and Poland, such appraisals occur on a voluntary basis. Responsibility for evaluating school leaders lies most frequently at the central level of government (in 13 out of 30 education systems), but in most cases, central education authorities carry out such appraisals in conjunction with other education authorities/actors. In particular, local education authorities (9 education systems) and school boards and committees (8 education systems) are frequent partners in evaluating school leaders. Since the definition of school leaders includes, but is not limited to, school principals/directors, it is not surprising that in nine systems, the principals are in charge of appraising other leaders in their schools (e.g. deputy school directors, department heads or head teachers). Education systems often rely on intermediate agencies (eight education systems) and external evaluators (seven education systems) for conducting the appraisal of school leaders, but always in conjunction with education authorities and local actors.

In 16 out of 25 education systems, the results of the appraisals are reported to inform the professional development of school leaders; in 17 out of 26 education systems, results have an impact on school leaders' career progression (Table II.4.66). Only in Colombia, Macao (China), Mexico, Singapore and the Slovak Republic are the results of evaluations systematically used to develop a professional development plan or reported to result in such plans for some school leaders. In twelve systems, the results of the appraisal can influence decisions about the promotion of school leaders, while in nine systems, they can have an impact on the speed at which school leaders progress through their careers.

In Belgium (Fr.), Croatia, Israel and New Zealand, appraisal results are used to inform professional development plans, but have no influence on the career advancement of school leaders. In Malta, although appraisals are included in legislation or in policy frameworks, the results of the appraisals do not have any influence on the professional development or career advancement of school leaders.

The consequences for school leaders who fail to obtain positive appraisal results range from having a promotion deferred (13 education systems), salary increases withheld (9 education systems) or a permanent contract denied (8 education systems) to more severe sanctions, such as being transferred to another school (10 education systems), dismissed (9 education systems) or suspended (7 education systems). Most frequently, however, having a negative appraisal leads to further appraisal (17 education systems) or to compulsory training (8 education systems).

Teacher appraisal

"Teacher appraisal is the evaluation of individual teachers to make a judgement about their competencies and performance and to provide feedback to support the improvement of their practices" (OECD, 2013b). As teachers are a key factor in student achievement, raising the quality and equity of schooling depends to a large extent on making sure that teachers are highly skilled, well resourced, and motivated to perform at their best (OECD, 2013b, 2015b). Recently, education systems have been moving away from the notion of appraisals as a form of controlling the work of teachers towards using appraisals to improve the quality of teaching, help design more effective professional development plans, and assist with decisions regarding teachers' promotions, salary increases and tenure. Educators in some countries are engaged in intense debates regarding the best way to assess teacher effectiveness and the difficulties and potential risks involved in linking teachers' performance to their students' test scores. Still, if well designed, teacher appraisals can help improve schools by providing greater opportunities for feedback to teachers, which can help them engage in their own career advancement (OECD, 2015b).

System-level data reveal that in most countries and economies with available data (47 out of 58 education systems), teacher appraisal is legislated or required by policy at the primary, lower and upper secondary levels (Table II.4.47). Legislation is implemented at the provincial/territorial level in Canada and is a state-level decision in the United States; in England (United Kingdom), legislation applies to public schools, but teacher appraisal is widely practised in private institutions as well. In all other countries where related legislation or policy frameworks exist, teacher appraisal is implemented countrywide. In Argentina, Bulgaria, Denmark, Estonia, Hong Kong (China), Norway and Chinese Taipei, there is no legislated teacher appraisal, but similar practices are common. Only Germany, Iceland, Luxembourg and Scotland (United Kingdom) reported not having legislated teacher appraisal or similar practices.

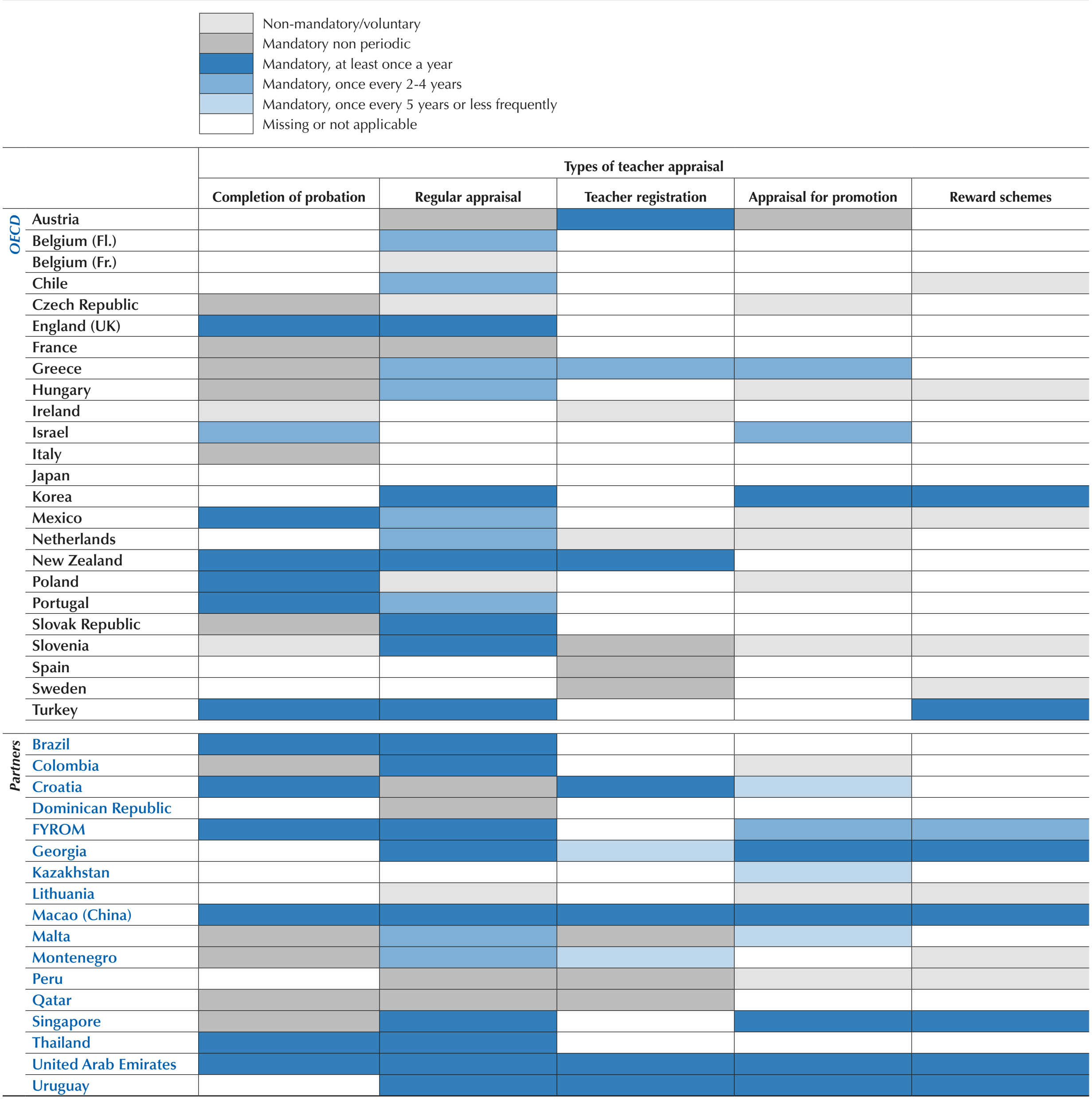
Data on the percentage of teachers appraised at the lower and upper secondary levels were available for 29 countries. In four of these education systems, less than 30% of teachers are appraised; in seven, between 31% and 75% of teachers are appraised; and in 18, more than 75% of teachers are appraised (in 13 of these countries, all teachers are appraised).

The appraisal of teachers may be related to various stages of their career and serve different purposes. Countries were asked to report on five types of appraisal (Tables II.4.48 to II.4.50), described below. The discussion concerning mandatory requirements and frequency of appraisals focuses on lower and upper secondary levels:

- ***Regular appraisal:*** This typically involves an internal school process, regulated by general labour-law provisions requiring the teachers' employers to regularly appraise the performance and results of their employees. It is the most widely used form of appraisal, practiced at the primary, secondary and upper secondary levels in 39 of 55 education systems with available data (it is mandatory in 34 systems). Appraisals are conducted annually or more frequently in half of the education systems where it is mandatory; in nine countries, they are carried out every two to four years. They are voluntary in Belgium (French community), the Czech Republic, Lithuania and Poland.
- ***Teachers on probation:*** This is specific to new teachers and involves a teacher's entry into the profession. This is the next most common form of appraisal, reported to be used in 31 out of 55 education systems. It is mandatory in 27 education systems and conducted with varying frequency: they are performed periodically in 16 of these systems and at more ad hoc frequency in the other 11 systems. This type of appraisal is voluntary in Ireland and Slovenia.
- ***Appraisal for promotion:*** This is often voluntary and takes place in relation to decisions on employment status (most countries integrate this activity with regular appraisal). It is used in 23 of 52 education systems. Compared to the aforementioned forms of appraisal, appraising teachers to inform decisions about promotion is mandatory in fewer countries (13). It is conducted at least once a year in six of these countries, once every three years or less frequently in another six, and it is mandatory, though not regularly conducted, in Austria. Appraisal for promotion is voluntary in Colombia, the Czech Republic, Hungary, Lithuania, Mexico, the Netherlands, Peru, Poland and Slovenia.

- ***Teacher registration:*** This is the process designed to determine and officially confirm a teacher as competent for teaching. It is used in 21 of 54 education systems (it is mandatory in 17 systems). In six countries, it must be carried out at least once a year; it is conducted periodically, but less often, in three countries (the corresponding data are not available for the remaining countries/economies where it is mandatory). Teacher registration is voluntary in Ireland and in the Netherlands.
- ***Appraisal for rewards:*** It involves teacher appraisal explicitly designed to identify a select number of high-performing teachers to reward and acknowledge (OECD, 2015b). This is the least-used form of appraisal (in 18 of 53 education systems). It is mandatory in only eight countries, namely FYROM, Georgia, Korea, Macao (China), Singapore, Turkey, the United Arab Emirates and Uruguay, and it occurs annually in most cases. Appraisals for reward schemes are voluntary in Chile, Hungary, Lithuania, Mexico, Montenegro, Peru, Slovenia and Sweden.

Figure II.4.30 ▪ **Obligation to undertake teacher appraisal and frequency, lower secondary (2015)**



░ Non-mandatory/voluntary
▒ Mandatory non periodic
█ Mandatory, at least once a year
▓ Mandatory, once every 2-4 years
▤ Mandatory, once every 5 years or less frequently
□ Missing or not applicable

		Types of teacher appraisal				
		Completion of probation	**Regular appraisal**	**Teacher registration**	**Appraisal for promotion**	**Reward schemes**
OECD	Austria		▒	█	▒	
	Belgium (Fl.)		▓			
	Belgium (Fr.)		░			
	Chile		▓			░
	Czech Republic	▒	░		░	
	England (UK)	█	█			
	France	▒	▒			
	Greece	▒	▓	▓	▓	
	Hungary	▒	▓		░	░
	Ireland	░		░		
	Israel	▓			▓	
	Italy	▒				
	Japan					
	Korea		█		█	█
	Mexico	█	▓		░	░
	Netherlands		▓	░	░	
	New Zealand	█	█	█		
	Poland	█	░		░	
	Portugal	█	▓			
	Slovak Republic	▒	█			
	Slovenia	░	█	▒	░	░
	Spain			▒		
	Sweden			▒		░
	Turkey	█	█			█
Partners	Brazil	█	█			
	Colombia	▒	█		░	
	Croatia	█	▒	█	▤	
	Dominican Republic		▒			
	FYROM	█	█		▓	▓
	Georgia		█	▤	█	█
	Kazakhstan				▤	
	Lithuania		░		░	░
	Macao (China)	█	█	█	█	█
	Malta	▒	▓	▒	▤	
	Montenegro	▒	▓	▤		░
	Peru		▒	▒	░	░
	Qatar	▒	▒	▒		
	Singapore	▒	█		█	█
	Thailand	█	█			
	United Arab Emirates	█	█	█	█	█
	Uruguay		█	█	█	█

Note: Only countries and economies with available data are shown.
Source: OECD, PISA 2015 Database, Table II.4.49.

In practice, countries often adopt a combination of several forms of appraisal. Three out of five education systems reported using at least three types of appraisal. In FYROM, Macao (China), the Netherlands, Slovenia, the United Arab Emirates and the United States, all types of teacher appraisal are included in legislation or in policy frameworks (Table II.4.47).

Who is responsible for appraising teachers?

The responsibility for carrying out teacher appraisals varies across countries, depending on the type of appraisal in question. Across all types, the school principal/director is the most common evaluator, except for appraisals concerning reward schemes, where education authorities (central, regional or local) play this role slightly more often (13 countries compared to 7 countries where the principal is the primary evaluator). Regular appraisals are mostly the responsibility of principals (28 out of 39 education systems), central authorities (17 countries), and school organising bodies (15 countries), but other local players (school leaders, supervisors and peer evaluators) are often cited.

The most common evaluators for completion of probation appraisals are the principal (21 out of 31 education systems) and the teacher's supervisor (15 countries), followed by central authorities (9 countries). Evaluating teachers for promotion and for reward schemes tends to be the responsibility of the principal, central authorities and school organising bodies. Appraisals for teacher registration are most commonly carried out by central authorities (11 of 22 countries) and principals (12 countries). Across all types of appraisal, others also play a role, including school boards or committees, teacher professional organisations or other evaluators external to the school (peer evaluators from another school, accredited external evaluators or an intermediate agency). Evaluating teachers, regardless of the type of appraisal, was rarely reported to be the exclusive responsibility of a single actor. Most often, a number of players participate in the appraisal process.

Impact of teacher appraisals

Participating countries and economies also reported on whether the five types of appraisal have an impact on teachers' professional development and whether they affect teachers' career advancement and pay levels. Across the types of appraisal, at least half of the countries with available data reported that the results of teacher appraisals affect teachers' career advancement, particularly the appraisal for promotion and the completion of probation (8 in 10 education systems), followed by reward schemes, teacher registration, and regular appraisal (6 in 10 education systems) (Table II.4.55). As expected, the types of appraisal more often reported to affect pay levels are those related to reward schemes and promotions (approximately 8 in 10 education systems), but in at least half of the countries with available data, regular appraisals also have an impact on teachers' pay levels. These are also the types of appraisal more frequently cited as used to inform teachers' professional development along with appraisal for promotion.

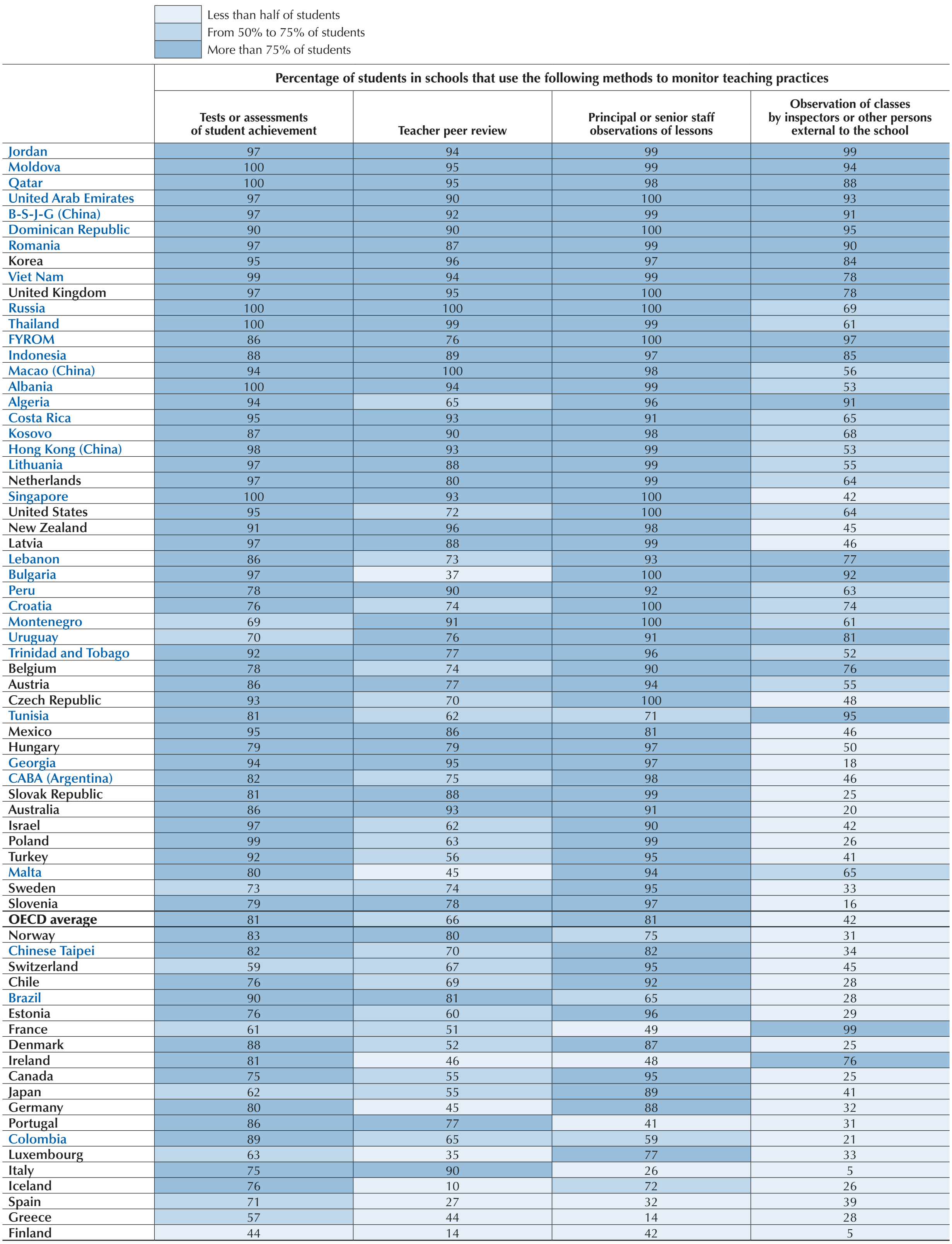
Appraisals for teacher registration, while affecting career advancement in 6 in 10 countries, is less frequently reported to affect teachers' pay levels (1 in 4 countries) and to inform teachers' professional development (2 in 5 countries), which is otherwise a common use of results for every other type of appraisal (6 in 10 countries). Of all forms of appraisal, the results of appraisals for promotion are the most cited (at least 7 in 10 countries) as being used for professional development and as having an impact on the teachers' career advancement and pay levels.

Teachers who fail to obtain a satisfactory review in their appraisals can be faced with various negative consequences that may affect the approval or renewal of their contract, the speed at which they progress through their career, which schools they are allowed to teach in, and their salary, among others areas of their professional life. Specifically, underperformance in regular appraisals most frequently leads to further appraisals (in 23 education systems) and compulsory training (in 15 education systems), but in 14 countries, it can prevent teachers from being promoted or slow their career progression, and in 13 countries, it can lead to dismissal.

Teachers who fail their probation assessment may not be granted a permanent contract (17 education systems), be dismissed (18), be recommended for further appraisal (17) or compulsory training (9) or be denied the status of registered or certified teacher (9 education systems). Underperformance in appraisals for promotion and rewards schemes most often results in a deferral of promotion or the withdrawal of salary increments (in at least three in five countries) and in further appraisal; only rarely do such negative reviews lead to more drastic measures, such as the loss of a contract or of registered status, dismissal, suspension or school transfer. Teachers who are not successful in their appraisal for registration can be denied the status of registered/certified teacher (14 education systems) or may not have their permanent contract renewed (9 countries); in 7 countries, they are recommended for further appraisal.

Figure II.4.31 ▪ **Monitoring teaching practices**

Results based on school principals' reports



░ Less than half of students
▒ From 50% to 75% of students
▓ More than 75% of students

	Percentage of students in schools that use the following methods to monitor teaching practices			
	Tests or assessments of student achievement	Teacher peer review	Principal or senior staff observations of lessons	Observation of classes by inspectors or other persons external to the school
Jordan	97	94	99	99
Moldova	100	95	99	94
Qatar	100	95	98	88
United Arab Emirates	97	90	100	93
B-S-J-G (China)	97	92	99	91
Dominican Republic	90	90	100	95
Romania	97	87	99	90
Korea	95	96	97	84
Viet Nam	99	94	99	78
United Kingdom	97	95	100	78
Russia	100	100	100	69
Thailand	100	99	99	61
FYROM	86	76	100	97
Indonesia	88	89	97	85
Macao (China)	94	100	98	56
Albania	100	94	99	53
Algeria	94	65	96	91
Costa Rica	95	93	91	65
Kosovo	87	90	98	68
Hong Kong (China)	98	93	99	53
Lithuania	97	88	99	55
Netherlands	97	80	99	64
Singapore	100	93	100	42
United States	95	72	100	64
New Zealand	91	96	98	45
Latvia	97	88	99	46
Lebanon	86	73	93	77
Bulgaria	97	37	100	92
Peru	78	90	92	63
Croatia	76	74	100	74
Montenegro	69	91	100	61
Uruguay	70	76	91	81
Trinidad and Tobago	92	77	96	52
Belgium	78	74	90	76
Austria	86	77	94	55
Czech Republic	93	70	100	48
Tunisia	81	62	71	95
Mexico	95	86	81	46
Hungary	79	79	97	50
Georgia	94	95	97	18
CABA (Argentina)	82	75	98	46
Slovak Republic	81	88	99	25
Australia	86	93	91	20
Israel	97	62	90	42
Poland	99	63	99	26
Turkey	92	56	95	41
Malta	80	45	94	65
Sweden	73	74	95	33
Slovenia	79	78	97	16
OECD average	81	66	81	42
Norway	83	80	75	31
Chinese Taipei	82	70	82	34
Switzerland	59	67	95	45
Chile	76	69	92	28
Brazil	90	81	65	28
Estonia	76	60	96	29
France	61	51	49	99
Denmark	88	52	87	25
Ireland	81	46	48	76
Canada	75	55	95	25
Japan	62	55	89	41
Germany	80	45	88	32
Portugal	86	77	41	31
Colombia	89	65	59	21
Luxembourg	63	35	77	33
Italy	75	90	26	5
Iceland	76	10	72	26
Spain	71	27	32	39
Greece	57	44	14	28
Finland	44	14	42	5

Countries and economies are ranked in descending order of the percentage of students in schools that use the methods to monitor teaching practices (average 4 methods).

Source: OECD, PISA 2015 Database, Table II.4.39.

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TEACHER EVALUATIONS AT SCHOOL

In addition to the data provided by education authorities, PISA 2015 also asked school principals to report on whether the following methods were used to monitor the practice of science teachers in their schools during the previous academic year: tests or assessments of student achievement; teacher peer review of lessons plans, assessment instruments, and lessons; principal or senior staff observations of lessons; and observation of classes by inspectors or other persons external to the school. On average across OECD countries, 81% of students attend schools whose principals reported that tests or assessments of student achievement and principal or senior staff observations of lessons were used to monitor the practice of teachers; 66% attend schools that used teacher peer reviews of lesson plans, assessment instruments or lessons; and 42% attend schools where classes were observed by inspectors or other persons external to the school (Figure II.4.31).

In general, there are wide differences in the extent to which schools use different methods of monitoring teacher practices (Figure II.4.31). In Finland, for instance, only 44% of students attend schools whose principal reported that tests or assessments of student achievement were used to monitor teacher practices during the previous year (81% of students across OECD countries). Based on principals' reports, almost all schools in Macao (China), Russia and Thailand used teacher peer reviews, but in Finland, Iceland and Spain, fewer than one in three students attends such schools. In 49 education systems, at least nine out of ten students attend schools whose principal or senior staff observed lessons, but in Greece, Italy and Spain, fewer than one in three students attends such schools. In Finland and Italy, inspectors or other persons external to the school almost never observed classes, according to school principals.

There are small differences in how extensively the four methods of monitoring teacher practices are used by type of school, school location and schools' socio-economic profile (Tables II.4.40 to II.4.43). Across OECD countries, advantaged and urban schools monitor teaching practices through student assessments more often than disadvantaged and rural schools do, while teacher peer review is more commonly used in private, urban and advantaged schools.

In most countries and economies, students score similarly in science regardless of whether or not their schools use the four types of monitoring teacher practices (Tables II.4.40 to II.4.43). Across the four monitoring methods and all education systems, there are only four cases where using a particular method is associated with an increase of more than 20 score points in science performance, after accounting for the socio-economic profile of students and schools. In Jordan and the United Kingdom, students score at least 25 points higher when their school principals reported that teacher peer reviews were used in their schools during the previous year. In Kosovo, students score 37 points higher when the principal or senior staff observed lessons; and in Bulgaria, students score 25 points higher when the principal reported that inspectors or other persons external to the school observed classes.

Notes

1. Other actors in education governance include parents (see chapter 3), local communities, NGOs, trade unions, researchers, the media and international organisations, among others (Burns and Köster, 2016).

2. Some caution is advised when interpreting the school principals' reports on the responsibilities for school governance. Decision-making arrangements vary widely across countries, so the questions posed to school principals were general; thus, responses may depend on how school principals interpreted the questions. For example, what is meant by "considerable responsibility" may not be interpreted in the same way by different school principals; the nature of school governing boards varies considerably across countries (see Box II.4.2); and, when school principals were asked who has considerable responsibility for formulating the school budget, some school principals might have related this question to the regular budget of the school, while others may have related the question to supplementary budgets, i.e. contributions from parents or the community.

3. If more than 50% of students attend schools whose principal reported that a given actor had considerable responsibility over an education policy, the actor is considered as mainly responsible for that policy.

4. The six tasks categorised as responsibilities for resources (selecting teachers for hire, firing teachers, establishing teachers' starting salaries, determining teachers' salary increases, formulating the school budget and deciding on budget allocations within the school) are given equal weight.

5. The three tasks categorised as responsibilities for curriculum (choosing textbooks, deciding which courses are offered and determining course content) are given equal weight.

6. The index of school autonomy is the percentage of tasks for which "principals", "teachers" and/or "school governing board" have considerable responsibility. The calculation is based on all 12 tasks included in the school questionnaire. A value of "0" indicates that principals, teachers or school governing boards hold no responsibilities for school governance; a value of "50" indicates they have considerable responsibility for half of the tasks; and a value of "100" indicates they have considerable responsibility for all tasks. Higher values indicate more autonomy for school principals and/or teachers.

7. See Boxes II.2.1, II.2.2 and II.2.3 in Chapter 2 for a description of how PISA defines socio-economically disadvantaged and advantaged schools, public and private schools, and urban and rural schools.

8. System-level data that are not derived from the PISA 2015 student or school questionnaire are extracted from the OECD's annual publication, *Education at a Glance*, for those countries and economies that participate in that periodic data collection. For other countries and economies, a special system-level data collection was conducted in collaboration with PISA Governing Board members and National Project Managers.

9. Educational authorities in the Flemish and French Communities of Belgium, and in England and Scotland (in the United Kingdom) are considered as separate educational systems. Hence, in this section, there are 37 OECD education systems at the system level, as opposed to 35 OECD countries and education systems.

10. Information is not available for the following partner countries: Albania, Algeria, B-S-J-G (China), Indonesia, Jordan, Kosovo, Lebanon, Lithuania, Malaysia, Moldova, Romania, Russia, Trinidad and Tobago and Viet Nam.

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5

Selecting and grouping students

This chapter discusses the ways in which students are selected and grouped into different grade levels, schools, programmes and classes within schools, based mainly on their performance – policies and practices known as vertical and horizontal stratification. The chapter offers an analysis of how different forms of stratification are used in combination and how they are associated with science performance in PISA 2015. It also examines how stratification policies and practices have changed since 2006.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

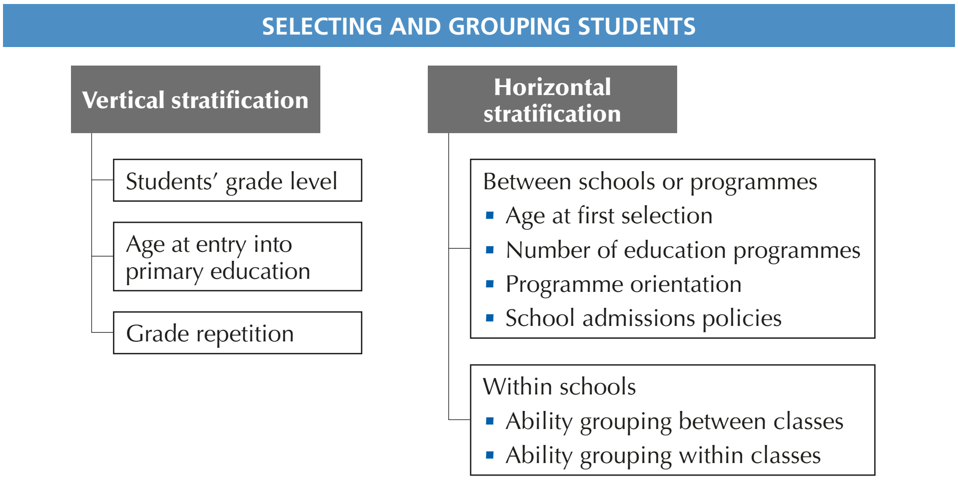
Stratification in education refers to the various ways in which schools and education systems organise instruction for students of varying ability, behaviour, interests and pace of learning (Dupriez et al., 2008). In comprehensive systems, all students follow a similar path through education, regardless of their abilities, behaviour and interests. In vertically stratified systems, students of similar age are enrolled in different grade levels, mainly as a result of grade repetition. In horizontally stratified systems, students of different abilities, behaviour or interests are separated into different schools, classes or groups (Figure II.5.1). The more stratified an education system is, the more varied the pathways through which students progress through school, and the more likely it is that disadvantaged students are placed in the least academically-oriented or demanding learning environments (Van de Werfhorst and Mijs, 2010). The effect of stratification on student outcomes is the subject of ongoing debate.

What the data tell us

- Grade repetition is more prevalent in school systems where students score lower in the PISA science assessment. However, in some countries and economies, such as Algeria, Belgium, Colombia, Luxembourg, Macao (China), Portugal and Spain, the incidence of grade repetition is considerably greater than would be expected given their mean scores in science.
- Thirty countries and economies used grade repetition less frequently in 2015 than in 2009; in only 5 countries did the incidence of grade repetition increase during the period. The use of grade repetition decreased by at least 10 percentage points in Costa Rica, France, Indonesia, Latvia, Macao (China), Malta, Mexico and Tunisia.
- Across OECD countries, socio-economically disadvantaged students, students with an immigrant background and boys are more likely to have repeated a grade, even after accounting for their academic performance, and their self-reported motivation and behaviour.
- On average across OECD countries, students in pre-vocational or vocational programmes score 22 points lower in science than students in general/academic and modular programmes, after accounting for the socio-economic profile of students and schools. However, in Brazil, Colombia, Costa Rica, the Dominican Republic, Japan, Luxembourg, Mexico and Switzerland, students in these programmes score higher than students in general and modular programmes.
- The later students are first selected into different schools or educational programmes and the less prevalent the incidence of grade repetition, the more equitable the school system or the weaker the association between students' socio-economic status and their performance in science.

This chapter examines how education systems handle diversity in students' abilities, behaviour and interests, and the policies and practices that are most conducive to high performance and equity in education. An in-depth analysis also examines the factors that are associated with grade repetition.

Figure II.5.1 ▪ **School system stratification as covered in PISA 2015**



VERTICAL STRATIFICATION: HOW STUDENTS PROGRESS THROUGH THE SCHOOL SYSTEM

Vertical stratification is the extent to which students of a similar age are enrolled in different grade levels. In PISA, the distribution of 15-year-old students across grade levels is the main measure of vertical stratification. Greece, Iceland, Japan, Norway, Sweden and the United Kingdom have the least diversity in grade levels, as the probability that two 15-year-old students selected at random are enrolled in different grades is below 10% (Table II.5.3).[1] By contrast, in other countries, there is substantial heterogeneity in the grades in which 15-year-olds are enrolled. For example, in Algeria, Brazil, Colombia, Costa Rica, the Dominican Republic, Indonesia, Peru and the United Arab Emirates, there is at least a 60% probability that two 15-year-old students selected at random will be enrolled in different grades.

The grade level in which students were enrolled at the time they sat the PISA test largely depends on three factors:[2] their age, the age at which they started primary education and, above all, whether or not they have repeated a grade. On average across OECD countries, 28% of the variation in students' grade level is explained by whether or not they have repeated a grade in primary or secondary education, 13% by students' age[3] (some students are enrolled in higher/lower grades just because they were born earlier/later), and 4% by the age at which they entered primary education (Figure II.5.2). The countries and economies where the age at entry into primary education is most strongly associated with students' grade level are Croatia, Georgia, Indonesia, Moldova and the Russian Federation (hereafter "Russia"). In some countries, notably Belgium, France, Poland, Portugal, Spain, Tunisia and Uruguay, students' grade level is mainly explained by grade repetition, whereas in Chinese Taipei, students' age explains 66% of the variation in the grade level in which students were enrolled at the time they sat the PISA test (Table II.5.8). This section examines the grade in which students are enrolled, the age at which they started primary school, and grade repetition in primary and secondary education.

Students' grade level

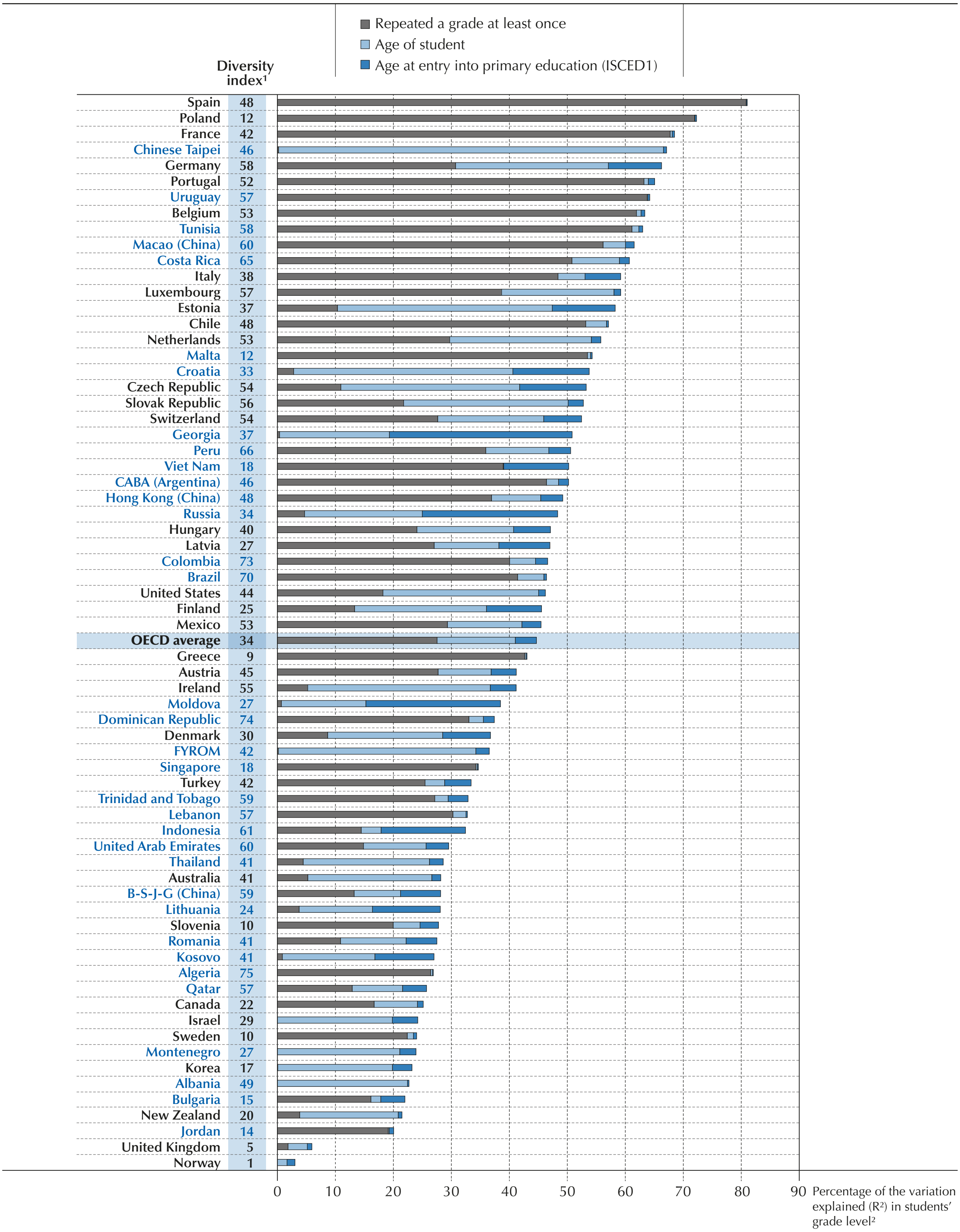
Both within and between countries, students in the same age cohort can be enrolled in different grades. These grades may, in turn, correspond to either lower or upper secondary education, depending on how the education system in each country/economy is structured. This is important for PISA, given that participation in the assessment is based on students' age, and the grade in which the student is enrolled is associated with students' performance.

Despite the varying degrees of vertical stratification across countries, PISA's age-based sampling design yields remarkable consistency in the grade in which students were enrolled when they sat the PISA test (Figure II.5.3 and Table II.5.3). In 45 countries and economies, the modal grade of enrolment is grade 10, whereas in 22 other countries the modal grade is grade 9. The only exceptions to this are Malta, New Zealand and the United Kingdom, where the modal grade is grade 11. On average across OECD countries, in PISA 2015, 76% of students are enrolled in the modal grade in their respective country or economy, 17% are enrolled below that modal grade and 7% of students are enrolled above that modal grade. In Greece, Iceland, Japan, Norway and United Kingdom, at least 95% of students are enrolled in the modal grade (Figure II.5.3). These are countries and economies where grade repetition rates tend to be low and where most students enter primary school at the same age. Consequently, a large share of students in these countries and economies progresses through schooling at the same pace.

The incidence of enrolment in grades above or below the modal grade varies, depending on student and school characteristics.[4] Across OECD countries, the proportion of students enrolled below the modal grade is larger in disadvantaged schools than in advantaged schools, in rural than in urban schools and, to a lesser extent, in public than in private schools. In Belgium, France, Indonesia, Tunisia and Uruguay, the proportion of 15-year-olds enrolled below the modal grade is at least 50 percentage points larger in disadvantaged schools than in advantaged schools (Tables II.5.6). The reverse pattern is observed when considering enrolment above the modal grade. In Algeria and Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), the proportion of students in grades above the modal grade is 50 percentage points larger in advantaged schools than in disadvantaged schools (Table II.5.7).

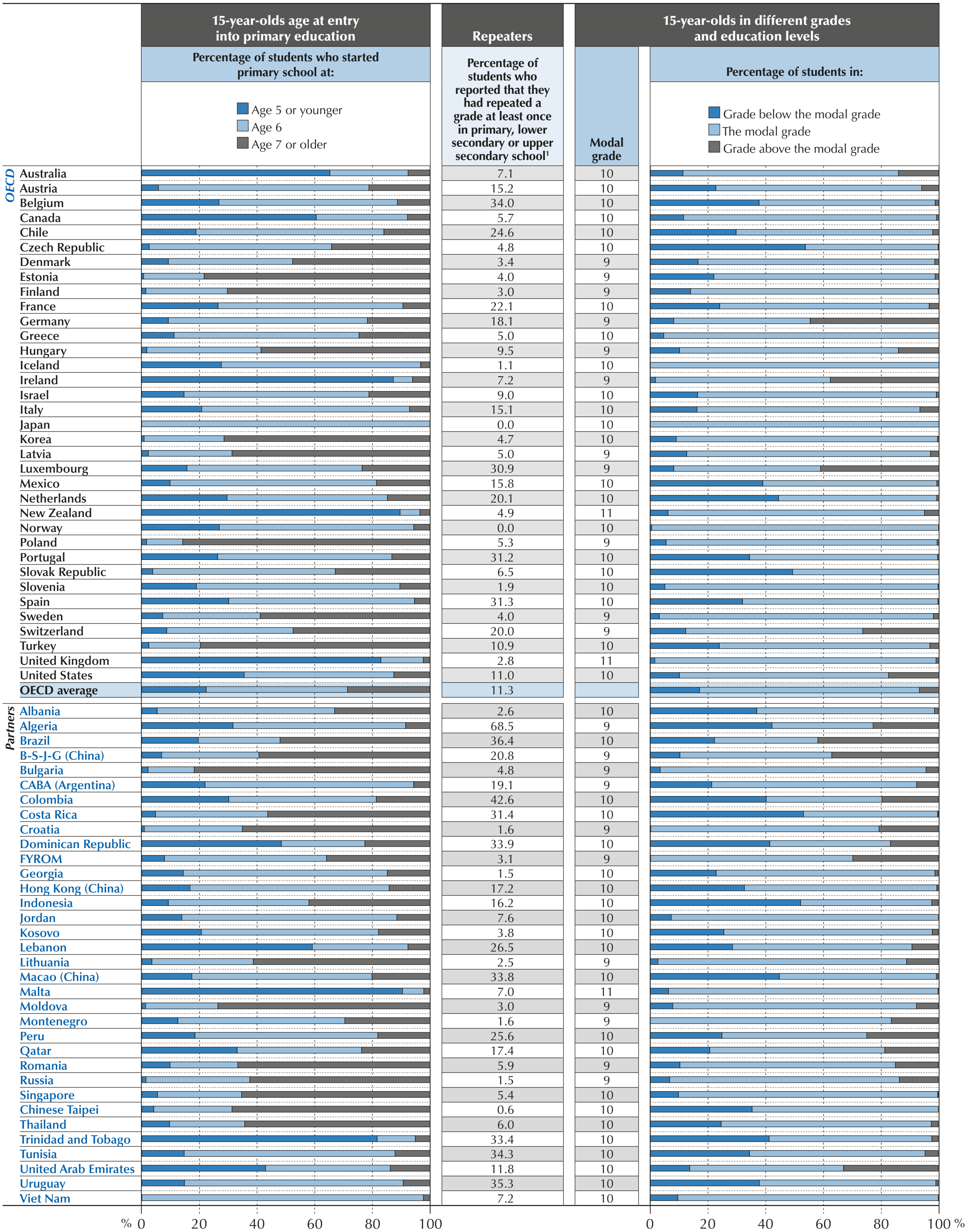
Placement in grades above or below the modal grade is most often related to student performance. Students might be either retained or invited to skip a grade in the course of their schooling; or they might be better suited to the content and pace of the curriculum that they have been exposed to if they had started school at a different age than most of their peers. Not surprisingly then, enrolment in a grade above or below the modal grade is significantly associated with performance in science at age 15. Among students enrolled below the modal grade, this association is negative and significant in most countries and economies. After accounting for students' and schools' socio-economic profile, and on average across OECD countries, 15-year-old students below the modal grade score 48 points lower in science than students enrolled in the modal grade. In Poland, Portugal, Spain and Sweden, this difference amounts to 80 score points or more (Table II.5.6). By contrast, students enrolled above the modal grade tend to outperform students in the modal grade by an average of 32 points across OECD countries, after accounting for socio-economic status (Table II.5.7).

Figure II.5.2 ■ **Factors associated with students' grade level**



1. Probability (in percentage) that two students selected at random are enrolled in different grade levels (100 – Herfindahl index).
2. Joint effects are not shown.
Countries and economies are ranked in descending order of the total variance in grade levels explained by the three factors.
Source: OECD, PISA 2015 Database, Tables II.5.3 and II.5.8.
StatLink http://dx.doi.org/10.1787/888933436085

Figure II.5.3 ■ Grade level, age of entry into primary education and grade repetition



1. The questions on grade repetition were not administered in Japan and Norway. A value of zero has been set in agreement with countries since there is a policy of automatic grade progression.

Source: OECD, PISA 2015 Database, Tables II.5.1, II.5.3 and II.5.9.

StatLink `http://dx.doi.org/10.1787/888933436097`

Students' age at entry into the school system

One of the determinants of the variation in students' grade levels is the variation in their age at entry into the school system. Children are expected to start compulsory school at a certain age, typically between the ages of five and seven. In practice, however, not all students do. There is no consensus on what is the best age for children to start their formal education. Some argue that staying at home or in early childhood education and care for a longer period might allow children to learn through play and to develop more fully before they enter school; others say that the early years are crucial for acquiring the foundations for later stages of education.

PISA 2015 asked students about their age at entry into primary education (ISCED 1).[5] This question yields important information to assess the degree of age-related heterogeneity in student populations in the early stages of schooling. Students were also asked to report whether they had participated in pre-primary education (ISCED 0)[6] and how old they were when they started doing so. Results about the variation across countries in pre-primary education participation rates are discussed in Chapter 6.

In education systems with a compulsory starting age, most students will be within one year of each other when they enter school. In countries where parents have more freedom to choose the age at which their children enter school, children may be two or more years above or below the modal age at entry. Thus, the proportion of students who started schooling outside this modal two-year window gives an approximate indication of the diversity of students' ages at entry into the school system.

Considerable differences across countries are observed in students' age at entry into primary education (ISCED 1), according to students' self-reports. On average across OECD countries, 49% of the students participating in PISA 2015 started primary school at age 6, while another 25% started at age 7, and 22% started before they were 6. In 36 PISA-participating countries/economies, a majority of students started primary school when they were 6 years old; in 18 countries/economies, at least half of the students started primary education when they were 7 years old. In Ireland, Malta, New Zealand, Trinidad and Tobago and the United Kingdom, more than eight in ten students had started primary school at age 5 or earlier, while in Bulgaria, Estonia, Poland and Turkey, more than three out of four students had started primary education when they were 7 or older (Table II.5.1).

Variations in the age at entry into primary school are associated with some characteristics of the schools attended by the 15-year-olds who participated in PISA. On average across OECD countries, 15-year-old students in socio-economically advantaged schools were slightly younger than their counterparts in disadvantaged schools when they entered primary school (Table II.5.2).

At the same time, starting primary school at a younger age is positively associated with performance in science at age 15. On average across OECD countries, and after accounting for both students' and schools 'socio-economic profile, for each year that entry into primary education is delayed, students' science scores decline by six score points. In Austria, Korea and Viet Nam the decline is of at least 15 score points. By contrast, in Jordan, Singapore, Sweden and the United Kingdom, each year of entry later into primary school is associated with an increase of at least five score points in science (Table II.5.2).

Grade repetition

The second factor with a major influence on the distribution of 15-year-olds across different grades is grade repetition over the course of compulsory schooling. Grade repetition is the practice of requiring students who have been in a grade level for a full school year to remain in the same grade for an additional school year (Jimerson, 2001; Jackson, 1975). Grade repetition is usually a non-reversible decision, in that repeaters will thereafter be a grade below other students of the same age for the rest of their progress through school. School leaders and teachers, sometimes in consultation with parents, are responsible for decisions on who will be promoted or retained, sometimes within guidelines or regulations coming from national or other levels of government (European Commission, 2011). Grade repetition can be a costly policy, as it generally requires greater expenditure on education and delays students' entry into the labour market (OECD, 2013).

In theory, repeating a grade gives students whose teachers believe are not yet ready for more advanced coursework time to "catch up" with their peers. If the curriculum is cumulative and further learning depends on a solid understanding of what had been previously learned, then promoting students regardless of their mastery of the content might put low-performing students in an increasingly difficult position at higher grades. If the practice is widespread, it might compromise performance in the school or school system as a whole.

But reviews of research encompassing different disciplines and time periods have mainly found negative effects of grade repetition on academic achievement (Jimerson, 2001). Students who have repeated a grade often also show more negative attitudes and behaviours towards school (Finn, 1989; Gottfredson, 1994; Ikeda and García, 2014) and are more likely to drop out of school (Jacob and Lefgren, 2004; Manacorda, 2012). In addition, any positive short-term effects of grade repetition appear to decline over time (Allen et al., 2009).

PISA uses a self-reported measure of grade repetition based on students' responses to questions in the student questionnaire that ask at which education level (primary or secondary) and how often (never, once, or more than once) they had repeated a grade.

The incidence of grade repetition varies considerably across countries, reflecting the wide range of policies, cultural traditions and societal beliefs about the benefits of grade repetition (European Commission, 2011; Goos et al, 2012). For example, Japan and Norway have established policies whereby students in compulsory schooling are promoted automatically to the next grade at the end of each school year, a practice known as "social promotion". In these two countries, grade repetition rates have traditionally been negligible. The incidence of grade repetition is also minimal in Iceland and Chinese Taipei (Table II.5.9). However, in 13 countries and economies, at least 30% of students had repeated a grade at least once in primary or secondary education by the age of 15. For example, in Algeria, 69% of 15-year-old students had repeated a grade at least once, and in Colombia, 43% of students had done so. In Brazil, 36% of students had repeated a grade; in Uruguay 35% of students had done so; in Belgium, the Dominican Republic, Macao (China) and Tunisia, 34% of students had repeated a grade; in Trinidad and Tobago, 33% of students had done so; and in Costa Rica, Luxembourg, Portugal and Spain, 31% of students had repeated a grade.

Box II.5.1. **Interpreting school results and grade repetition**

PISA assesses students who were between 15 years and 3 (complete) months and 16 years and 2 (complete) months at the beginning of the assessment period, and who were enrolled in an educational institution in grade 7 or higher. This age-based sampling has obvious advantages over grade-based sampling for international comparisons since age is strictly comparable across school systems. However, an age-based sampling means that students are tested regardless of the grade level or type of institution in which they are enrolled. In PISA, students are not sampled to be representative of their schools. Interpreting differences between schools correctly therefore requires specific knowledge about how school systems are structured.

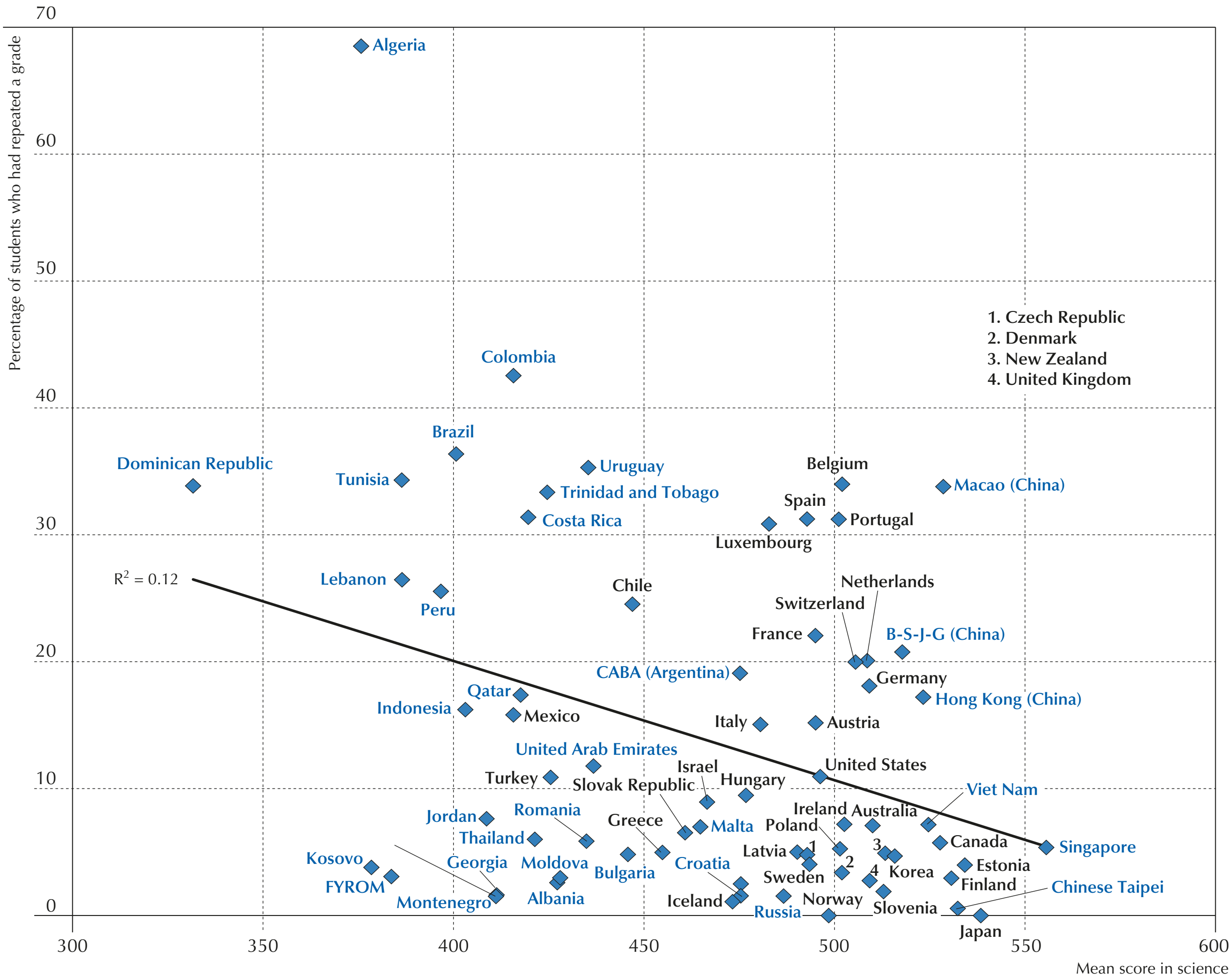
For example, in France, as in some other countries, one of the complexities in interpreting school-level results is that a majority of 15-year-old students enrolled in lower secondary education had repeated a grade. PISA 2015 data show that, in France, approximately 24% of 15-year-old students are enrolled in lower secondary education (ISCED 2), 92% of whom had repeated a grade at least once; 76% of 15-year-old students are enrolled in upper secondary education (ISCED 3), only 1% of whom had repeated a grade at least once (Tables II.5.3 and II.5.12). When interpreting school-level results, it is important to bear in mind that differences in results between lower and upper secondary schools mainly reflect differences in student characteristics between those who had repeated a grade and those who had not, or differences in the characteristics of the schools attended by those two groups of students.

Portugal, Tunisia and Uruguay are in similar situations. In these countries, approximately 90% or more of students enrolled in lower secondary education reported that they had repeated a grade at least once, while 3% of less of students in upper secondary education reported so (Table II.5.12). In a few school systems, all or almost all 15-year-old students are enrolled in the same level of education, even if grade repetition is prevalent. For example, in Spain, while 31% of 15-year-olds reported that they had repeated a grade at least once, both those who had repeated a grade and those who had not are enrolled in lower secondary education. There are other school systems, such as those in the Czech Republic, Ireland and the Slovak Republic, where grade repetition is not the main reason why students are enrolled in different levels of education (Tables II.5.3, II.5.9 and II.5.12).

In countries where grade repetition was less prevalent in 2015 than before, there are fewer complications and challenges, compared with previous cycles of PISA, in interpreting differences in school-level results for some analyses, but the fundamental issue persists. For example, in France, the incidence of grade repetition decreased by 16 percentage points between 2009 and 2015. Consequently, the percentage of 15-year-old students enrolled in lower secondary education fell from 37% to 24% over the past six years (Tables II.5.3 and PISA 2009 Volume IV).

Grade repetition is more prevalent in school systems where students score lower in the PISA science assessment (Figure II.5.4). However, in some countries and economies, such as Algeria, Belgium, Colombia, Luxembourg, Macao (China), Portugal and Spain, the incidence of grade repetition is considerably greater than would be expected given their mean scores in science. Conversely, in other education systems, like those in the Former Yugoslav Republic of Macedonia (hereafter "FYROM"), Georgia, Kosovo, Moldova and Montenegro (and of course in countries with automatic progression, such as Japan and Norway), fewer students had repeated a grade than would be expected given these countries' mean scores in science.

Figure II.5.4 ▪ **Science performance and grade repetition**



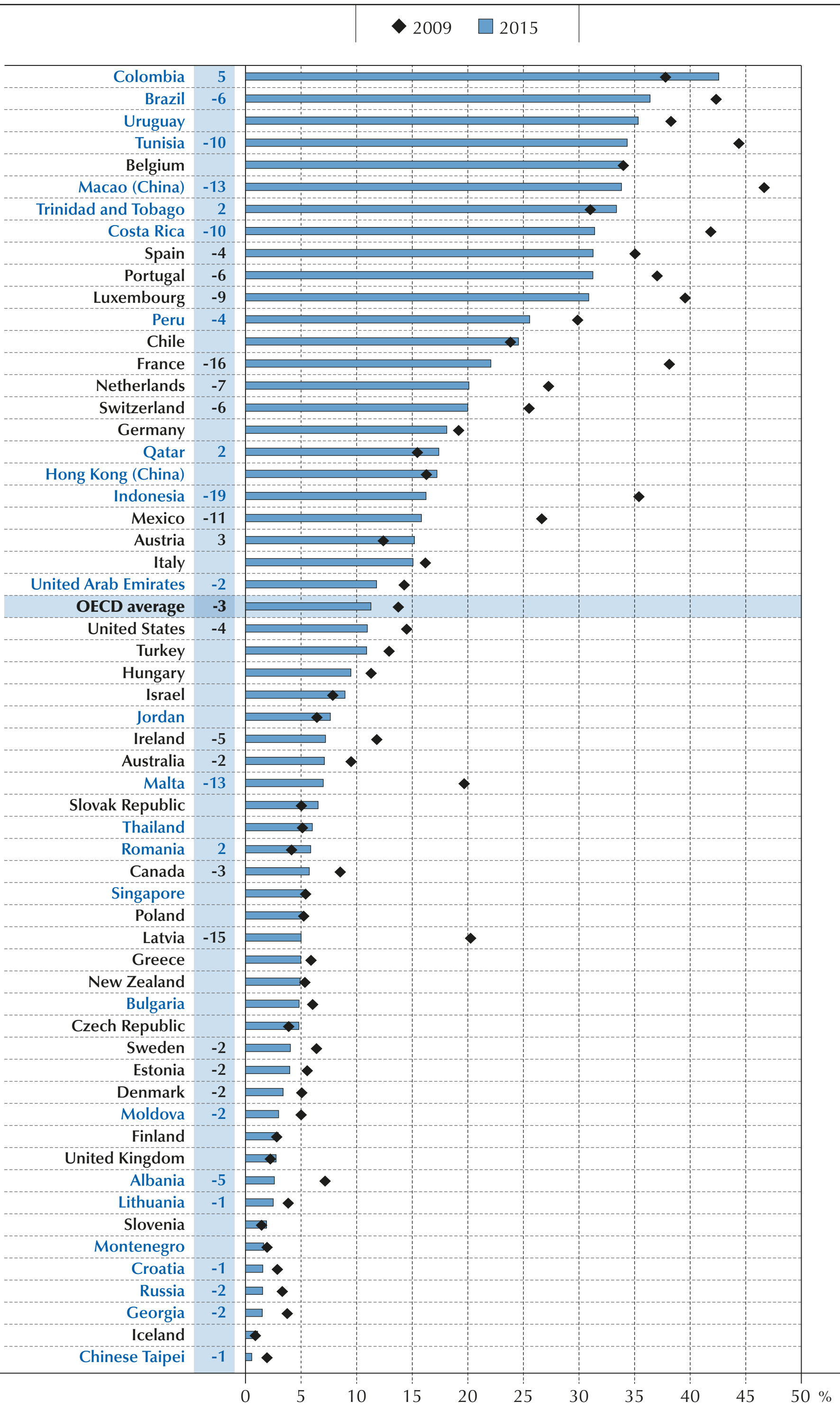
Source: OECD, PISA 2015 Database, Tables I.2.3 and II.5.12.
StatLink http://dx.doi.org/10.1787/888933436103

At what point, over the course of students' school careers, are grade repetition rates greater? Results from PISA show that the prevalence of grade repetition is about the same in primary and secondary education, regardless of whether the country's/economy's repetition rate is high or low.[7] On average across OECD countries, 7% of students in PISA 2015 had repeated a grade in primary education, whereas 6% had repeated a grade in lower secondary school and 2% had repeated a grade in upper secondary school at least once. At any of the three levels, those who had repeated a grade were usually retained for one grade only; multiple repetitions (i.e. more than once) affected less than 1% of students (Table II.5.9).

The incidence of grade repetition in primary education is highest in Algeria, Brazil, Colombia, the Dominican Republic and Trinidad and Tobago, where it affects more than one in five students at that level. In Algeria, Brazil, Colombia, Costa Rica, Macao (China), Portugal, Spain, Tunisia and Uruguay, more than one in five students had repeated a grade at least once in lower secondary school.

Figure II.5.5 ▪ **Change between 2009 and 2015 in grade repetition rates**

Percentage of students who had repeated a grade in primary, lower secondary or upper secondary school



Notes: Statistically significant differences are shown next to the country/economy name (see Annex A3).

Only countries and economies with comparable data from PISA 2009 and PISA 2015 are shown.

For Costa Rica, Georgia, Malta and Moldova, the change between the PISA 2009 and PISA 2015 represents change between 2010 and 2015 because these countries implemented the PISA 2009 assessment in 2010 as part of PISA 2009+.

Countries and economies are ranked in descending order of the percentage of students who had repeated a grade, in 2015.

Source: OECD, PISA 2015 Database, Tables II.5.9, II.5.10 and II.5.11.

StatLink `http://dx.doi.org/10.1787/888933436111`

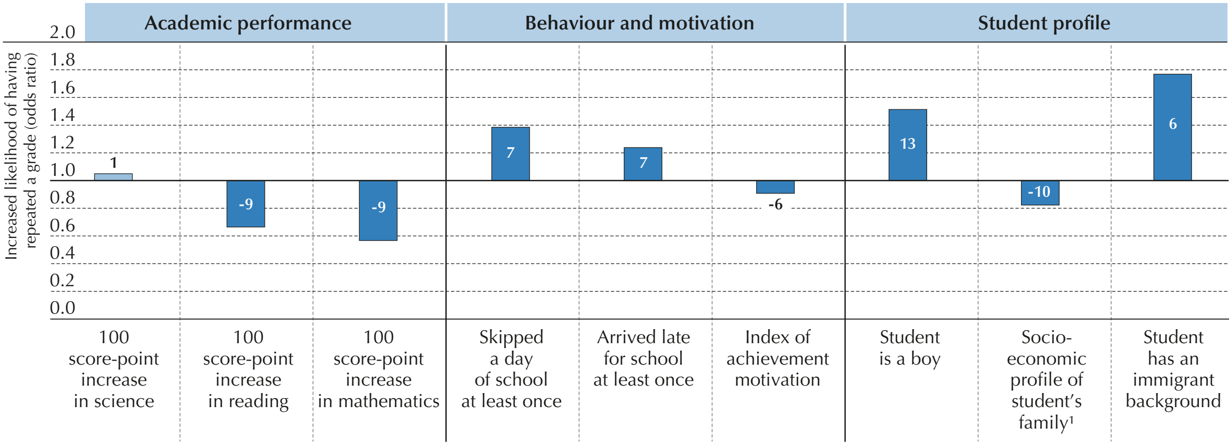
Across OECD countries, the percentage of students who reported that they had repeated a grade at least once decreased by almost 3 percentage points between 2009 and 2015 (Figure II.5.5). A reduction in the incidence of grade repetition was observed across all education levels. The percentage of students who had repeated a grade in either primary, lower secondary or upper secondary school dropped significantly and by a margin of 10 percentage points or more in Costa Rica, France, Indonesia, Latvia, Macao (China), Malta, Mexico and Tunisia. By contrast, in Ausrtia, Colombia, Qatar, Romania and Trinidad and Tobago, the percentage of students who reported that they had repeated a grade was higher in 2015 than it was in 2009.

Which students are more likely to have repeated a grade?

Grade repetition is most often and explicitly decided on the basis of academic performance; but previous studies suggest that students' behaviour and other factors can also influence the decision to retain students at a grade (Willson and Hughes, 2009; OECD, 2015a). Figure II.5.6 shows that, across OECD countries, students with poorer academic performance are more likely to have repeated a grade. For instance, an increase of 100 score points on the PISA mathematics assessment is associated with a 43% decrease in the likelihood of having repeated a grade; and an increase of 100 score points in reading is associated with a 34% decrease in the likelihood of repeating a grade.[8]

Figure II.5.6 ▪ **Factors associated with grade repetition**

Student-level analysis, OECD average



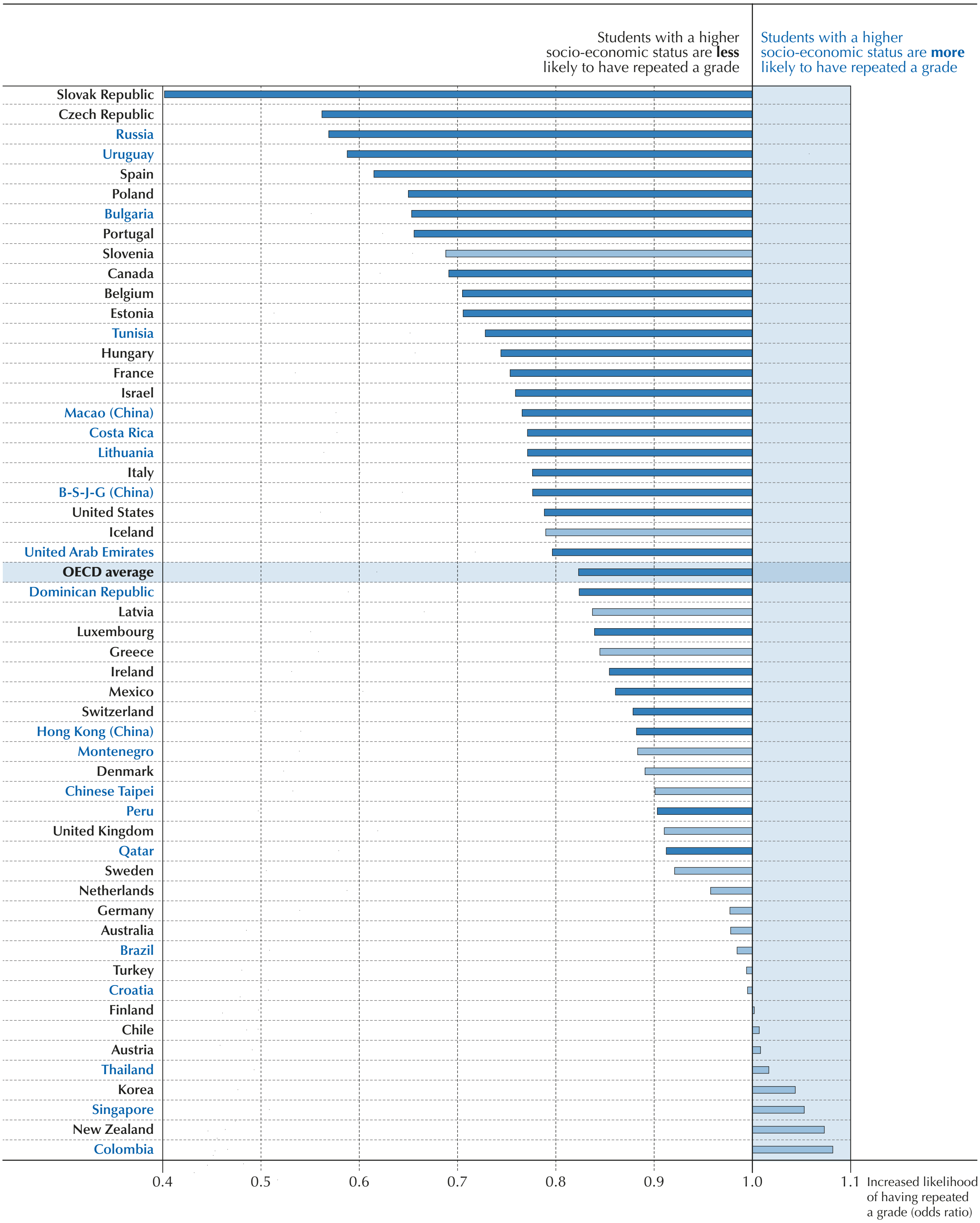
1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Notes: Statistically significant coefficients are marked in darker tone (see Annex A3).
All nine explanatory variables are included jointly in a logit regression model explaining grade repetition.
The level of confidence that a relationship exists measured in z-scores is shown inside the bars.
Source: OECD, PISA 2015 Database, Table II.5.13.
StatLink http://dx.doi.org/10.1787/888933436121

In addition to student performance, the behaviour and motivation of students are also related to grade repetition. Students who reported that they had skipped a day of school or arrived late for school at least once in the two weeks prior to the PISA test are 38% and 24% more likely, respectively, to have repeated a grade than students who reported that they had not done so. Students who agreed with statements such as "I want top grades in most or all of my courses", "I see myself as an ambitious person" or "I want to be one of the best students in my class" – all components of the index of achievement motivation – are less likely to have repeated a grade than students who did not agree with such statements (Figure II.5.6).

Many people would agree that performance, behaviour and motivation are legitimate reasons for deciding which students repeat a grade. However, what is more troubling is that, even after accounting for students' academic performance, and self-reported behaviour and attitudes, in many education systems, a student with certain characteristics is more likely to have repeated a grade than other students. For instance, across OECD countries, boys are more likely than girls, socio-economically disadvantaged students are more likely than advantaged students, and students with an immigrant background are more likely than students with no immigrant background to have repeated a grade. In some countries, like Austria, Colombia, Korea, New Zealand, Singapore or Thailand, advantaged and disadvantaged students are equally likely to have repeated a grade, after accounting for their academic performance, behaviour and motivation (Figure II.5.7). However, in others, such as Bulgaria, Canada, the Czech Republic, Poland, Portugal, Russia, the Slovak Republic, Spain or Uruguay, disadvantaged students are more likely to have repeated a grade than advantaged students.

Figure II.5.7 ▪ **Students' socio-economic profile[1] and grade repetition**

Increased likelihood of having repeated a grade associated with socio-economic status



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Notes: The logit regression model accounts for students' performance, truancy, motivation, gender and immigrant background.

Statistically significant coefficients are marked in a darker tone (see Annex A3).

Countries and economies are ranked in ascending order of the likelihood of having repeated a grade at least once in primary or secondary school.

Source: OECD, PISA 2015 Database, Table II.5.13.

StatLink `http://dx.doi.org/10.1787/888933436132`

HORIZONTAL STRATIFICATION: HOW EDUCATION SYSTEMS ORGANISE SCHOOL PROGRAMMES

Students with different abilities and interests are found in every grade and school. School systems address this diversity in different ways. They can offer a single, comprehensive programme in which students of different abilities and aspirations are exposed to similar content, pedagogy and peers, delaying any type of sorting and giving more time for "late bloomers". They can also group students of similar abilities, interests and motivation into the same schools or classes so that what is learned (content and difficulty) and how it is taught (pedagogy and instruction) can be tailored to better meet students' skills and interests. This type of stratification, referred to as "horizontal" stratification in this report, is the product of decisions made at the system level, such as offering the choice of general/academic and vocational programmes; of decisions made at the school level, such as admitting students based on their academic records, interests or social background, or grouping students by ability between classes (Dupriez et al., 2008); and of decisions made by parents, such as choosing a place to live and a school for their children.

Despite some potential advantages of this type of stratification, such as creating more homogeneous classes or preparing less academically-oriented students for the labour market, there is some concern that tracking replicates socio-economic disparities (Oakes, 2005) and increases inequalities in education (Hanushek and Woessmann, 2006; Maaz et al., 2008). Sorting students into different schools also seems to be particularly negative for disadvantaged and low-performing students (Epple et al., 2002; Pekkarinen et al., 2009), unless there is a greater emphasis on vocational skills in these schools (Heisig and Solga, 2015).

Differentiation among education programmes: Age at selection, and the number and types of study programmes

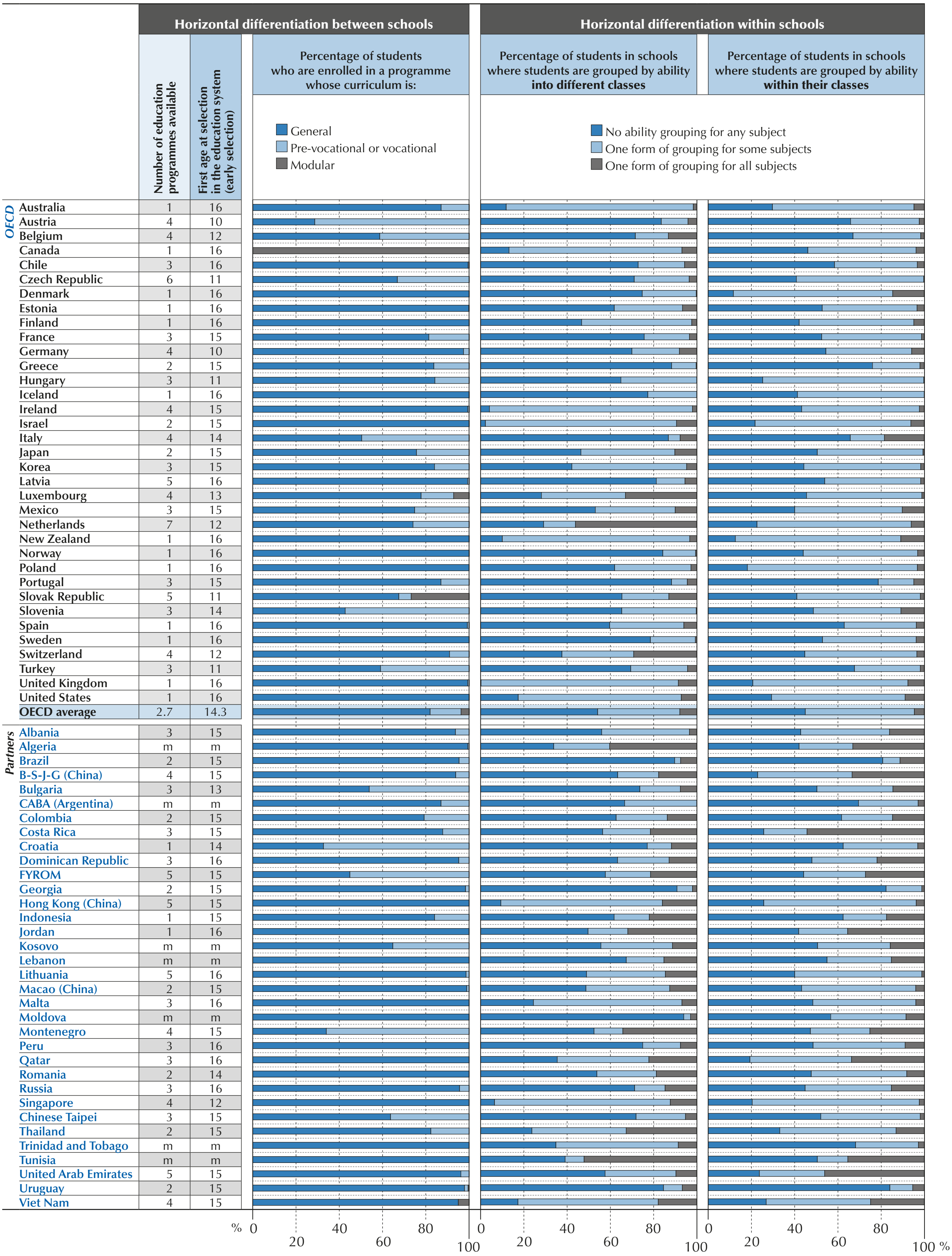
In comprehensive school systems, all 15-year-old students follow the same programme; in differentiated school systems, students are streamed into different programmes. Some of these programmes may be primarily academic, others primarily vocational, and others still may be combinations of academic and vocational elements (Kerckhoff, 2000; LeTendre et al., 2003). Differentiated systems must determine the age at which students will be sorted into these different programmes. Evidence from PISA 2012 shows that in countries and economies that sort students into different education programmes at an early age, the impact of students' socio-economic status on their performance is stronger than in systems that select and group students later (OECD, 2013).

On average across OECD countries, school systems begin selecting students for different programmes at the age of 14 (Figure II.5.8).[9] Some OECD countries, including Austria and Germany, start selecting students as early as age 10; but the most common age at selection is 16, the practice followed in Australia, Canada, Chile, Denmark, Estonia, Finland, Iceland, Latvia, New Zealand, Norway, Poland, Spain, Sweden, the United Kingdom and the United States. Among the 31 partner countries and economies with available data, the most common practice, observed in 18 education systems, is to start selection into different programmes at the age of 15. A few countries select students earlier: Argentina, Croatia and Romania begin selecting students for different programmes at age 14, Bulgaria begins at age 13, and Singapore starts as early as age 12. The Dominican Republic, Jordan, Lithuania, Malta, Peru and Qatar delay selection into different study programmes until students are 16 years old (Table II.5.27).

The number of school types or distinct education programmes available to 15-year-old students also varies across countries (Figure II.5.8). Among OECD countries, it ranges from a single school type or programme in Australia, Canada, Denmark, Estonia, Finland, Iceland, New Zealand, Norway, Poland, Spain, Sweden, the United Kingdom and the United States, to five or more programmes in the Czech Republic, Latvia, the Netherlands and the Slovak Republic. Among partner countries and economies with available data, Croatia, Indonesia and Jordan offer a single programme. Most frequently, students attend two or three programmes (in 17 out of 31 countries and economies), but B-S-J-G (China), Montenegro, Singapore and Viet Nam offer four programmes; FYROM, Hong Kong (China), Lithuania, Malaysia and the United Arab Emirates offer five programmes; and students in Kazakhstan can choose from eight distinct education programmes or school types at the age of 15.

PISA 2015 asked students to report on the kind of programme in which they are enrolled. Students' responses were then classified into three categories of programme orientation: general, pre-vocational or vocational, or modular. In 2015, across OECD countries, an average of 82% of 15-year-old students were enrolled in a programme with a general curriculum, 14% were enrolled in a programme with a pre-vocational or vocational curriculum, and 4% were in modular programmes that combine characteristics of the other two programmes (Figure II.5.8). In 27 countries, including OECD countries Chile, Denmark, Estonia, Finland, Iceland, Ireland, Israel, Latvia, New Zealand, Norway, Poland, Spain, Sweden, the United Kingdom, and the United States, more than 99% of 15-year-old students were enrolled in a general programme.

Figure II.5.8 ■ **Education programmes and ability grouping**



		Number of education programmes available	First age at selection in the education system (early selection)
OECD	Australia	1	16
	Austria	4	10
	Belgium	4	12
	Canada	1	16
	Chile	3	16
	Czech Republic	6	11
	Denmark	1	16
	Estonia	1	16
	Finland	1	16
	France	3	15
	Germany	4	10
	Greece	2	15
	Hungary	3	11
	Iceland	1	16
	Ireland	4	15
	Israel	2	15
	Italy	4	14
	Japan	2	15
	Korea	3	15
	Latvia	5	16
	Luxembourg	4	13
	Mexico	3	15
	Netherlands	7	12
	New Zealand	1	16
	Norway	1	16
	Poland	1	16
	Portugal	3	15
	Slovak Republic	5	11
	Slovenia	3	14
	Spain	1	16
	Sweden	1	16
	Switzerland	4	12
	Turkey	3	11
	United Kingdom	1	16
	United States	1	16
	OECD average	2.7	14.3
Partners	Albania	3	15
	Algeria	m	m
	Brazil	2	15
	B-S-J-G (China)	4	15
	Bulgaria	3	13
	CABA (Argentina)	m	m
	Colombia	2	15
	Costa Rica	3	15
	Croatia	1	14
	Dominican Republic	3	16
	FYROM	5	15
	Georgia	2	15
	Hong Kong (China)	5	15
	Indonesia	1	15
	Jordan	1	16
	Kosovo	m	m
	Lebanon	m	m
	Lithuania	5	16
	Macao (China)	2	15
	Malta	3	16
	Moldova	m	m
	Montenegro	4	15
	Peru	3	16
	Qatar	3	16
	Romania	2	14
	Russia	3	16
	Singapore	4	12
	Chinese Taipei	3	15
	Thailand	2	15
	Trinidad and Tobago	m	m
	Tunisia	m	m
	United Arab Emirates	5	15
	Uruguay	2	15
	Viet Nam	4	15

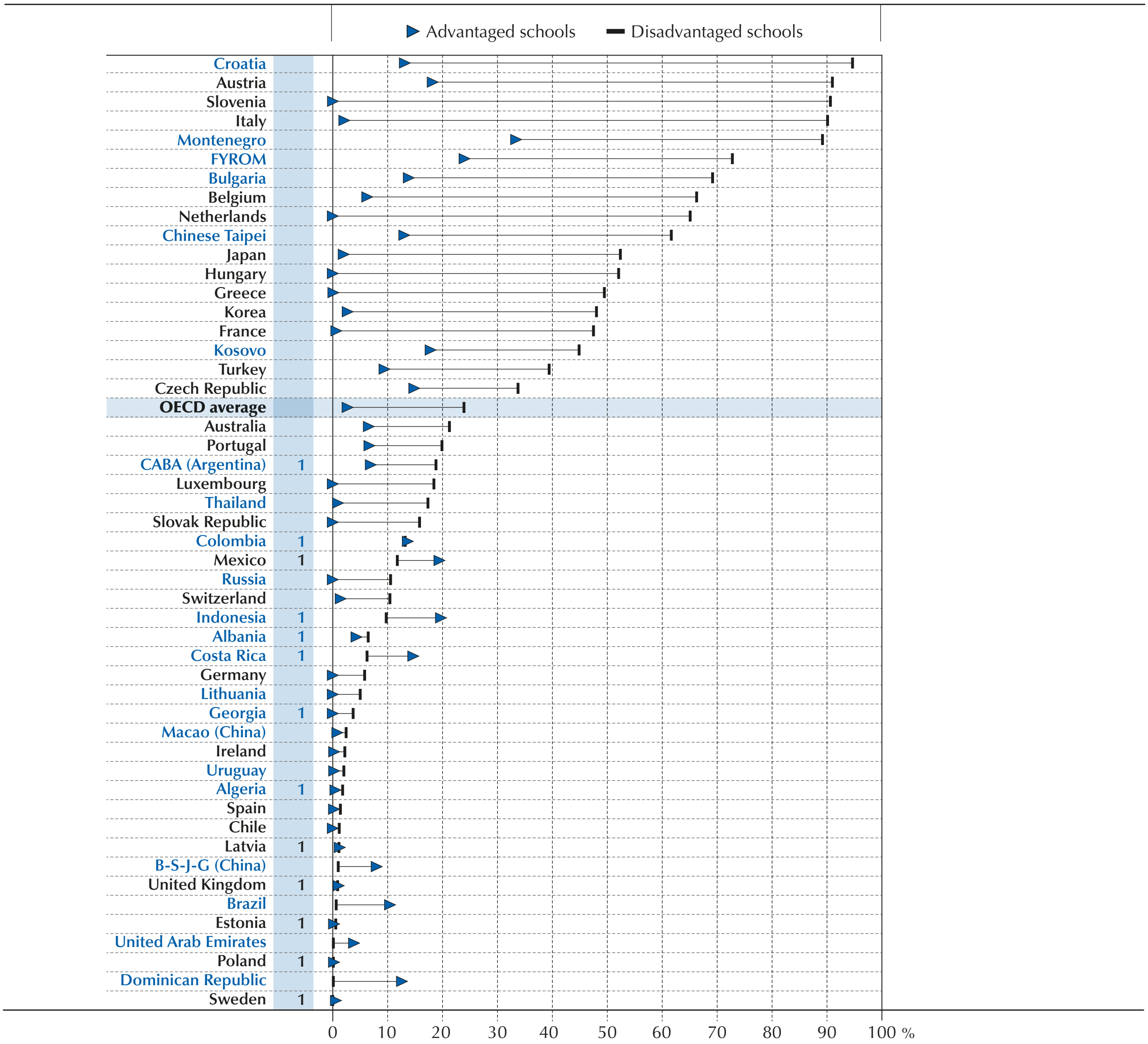
Source: OECD, PISA 2015 Database, Tables II.5.14, II.5.22, II.5.27.

StatLink http://dx.doi.org/10.1787/888933436141

Enrolment in vocational or pre-vocational programmes is largest in Austria, Croatia, FYROM, Montenegro and Slovenia, where more than one in two students follow this curricular orientation at the age of 15. The largest proportions of students enrolled in modular programmes are found in Canada, with all students enrolled in such programmes, and the Slovak Republic with one in four students enrolled in such programmes.

On average across OECD countries, the percentage of students enrolled in vocational or pre-vocational programmes decreased by 1 percentage point between 2009 and 2015. This modest change masks much more substantial trends in some countries. For example, in Romania, the Slovak Republic, and Trinidad and Tobago, the percentage of students enrolled in these programmes dropped by more than 10 percentage points over the period. In the Slovak Republic, the reduction of 35 percentage points in the share of students enrolled in vocational or pre-vocational programmes is mostly explained by a much larger enrolment in modular programmes. Students in Bulgaria and France were more likely – by eight percentage points or more – to attend programmes with a pre-vocational or vocational curriculum in 2015 than their counterparts were in 2009 (Table II.5.16).

Figure II.5.9 ▪ **Enrolment in pre-vocational or vocational programmes, by schools' socio-economic profile**



1. Differences between advantaged and disadvantaged schools are not statistically significant (see Annex A3).

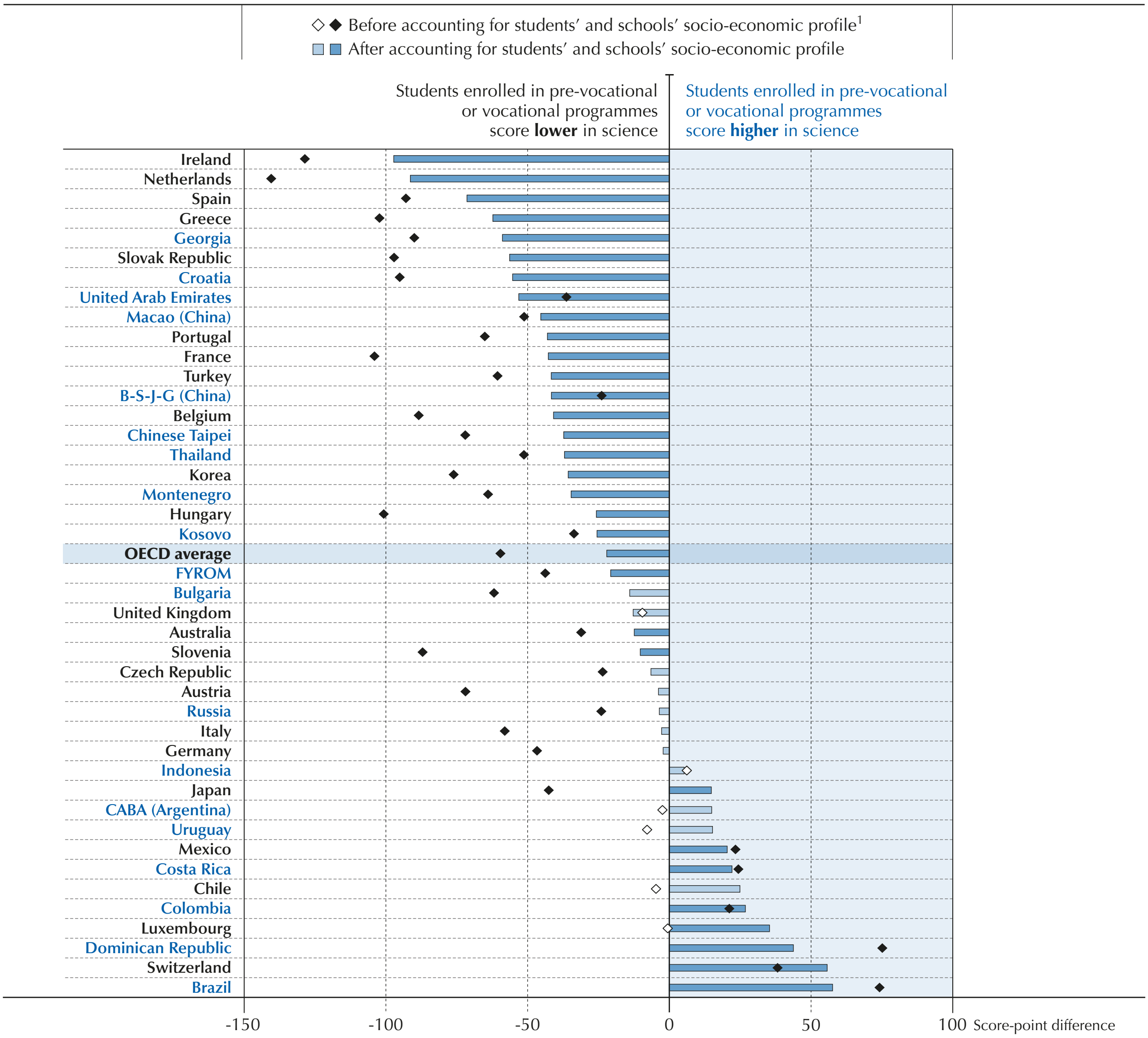
Countries and economies are ranked in descending order of the percentage of students in disadvantaged schools who are enrolled in a pre-vocational or vocational programme.

Source: OECD, PISA 2015 Database, Table II.5.17.

StatLink http://dx.doi.org/10.1787/888933436151

In countries and economies with large enrolments in pre-vocational or vocational programmes, these enrolments vary markedly according to schools' socio-economic profiles. On average across OECD countries, the proportion of 15-year-old students enrolled in a vocational track is 21 percentage points smaller among students in advantaged schools than among students in disadvantaged schools. The difference in enrolment in pre-vocational or vocational programmes related to schools' socio-economic profile is largest in Austria, Croatia, Italy, the Netherlands and Slovenia (Figure II.5.9). In these countries, the difference in enrolment in these programmes between students in advantaged and disadvantaged schools is 60 percentage points or larger. In Austria and Italy, the incidence of enrolment in vocational programmes is also significantly higher, by a margin of 15 percentage points or more, among students attending rural schools than among their peers in urban schools; however, there is no significant difference, on average, across OECD countries. In Austria, Croatia, FYROM and Slovenia, public school students are over 25 percentage points more likely than private school students to enrol in vocational or pre-vocational programmes. Across OECD countries, the difference is a statistically significant 3 percentage points.

Figure II.5.10 ■ **Enrolment in pre-vocational or vocational programmes and science performance**



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Statistically significant differences are marked in a darker tone (see Annex A3).

Countries and economies are ranked in ascending order of the change in science score when students are enrolled in a pre-vocational or vocational programme, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table II.5.17.

StatLink http://dx.doi.org/10.1787/888933436162

When considering the performance of students enrolled in general, modular and vocational programmes, students in general or modular programmes score 22 points higher on the PISA 2015 science assessment than students in pre-vocational or vocational programmes, on average across OECD countries after accounting for students' and schools' socio-economic profile (Figure II.5.10). However, among countries and economies where enrolment rates in vocational programmes are higher than 10%, these performance differences can amount to as much as 91 score points, as in the Netherlands, approximately 60 score points, as in Greece, or between 40 and 60 score points, as in Belgium, Croatia, France, Portugal and Turkey. In some school systems, such as Brazil, Colombia, Costa Rica, the Dominican Republic, Japan, Luxembourg, Mexico and Switzerland, students in pre-vocational or vocational programmes score higher in science than students in general or modular programmes.

School admissions policies

Admissions and placement policies establish frameworks for selecting students for academic programmes and for streaming students according to career goals, education needs and academic performance. In countries with large differences in student performance between programmes and schools, admissions and grouping policies have high stakes for parents and students. The most effective schools may be those more successful in attracting motivated students; conversely, a "brain drain" of students can undermine schools that cannot attract or retain high-performing students.

PISA 2015 asked school principals to report on the extent to which different criteria are considered for admitting students to their schools. Six potential and not mutually exclusive criteria for admissions were considered: students' academic performance, based on past records, placement tests or both; recommendations of feeder schools; parental endorsement of the instructional or religious philosophy of the school; students' requirement of or interest in a special programme offered by the school; preference to family members of current or former students; and families' residence in a particular area (Table II.5.18).

According to principals' reports, on average across OECD countries, 41% of students attend schools where residence in a particular area is always considered as part of the criteria for admission. In Canada, Greece, Norway, Poland and Switzerland, more than two in three students are enrolled in such schools, whereas in Belgium, Bulgaria, Chile, FYROM, Macao (China), Mexico, Macao (China), Montenegro and Slovenia, the same proportion of students attends schools where residential location is never used to determine admissions.

Students' prior academic performance is another widely used criterion for admissions in PISA-participating countries and economies. On average across OECD countries, 38% of students attend schools where prior academic performance is always considered as a factor in the admissions process. In Bulgaria, Croatia, Hong Kong (China), Hungary, Japan, Singapore, Thailand and Viet Nam, more than eight in ten students attend schools that consider this criterion; but in Finland, Greece, Norway, Spain and Sweden, at least seven out of ten students attend a school that never bases admission on student performance.

Students' requirement of or interest in a special programme is the third criterion most commonly cited by school principals as always used in admissions decisions. On average across OECD countries, 28% of students are in schools where this consideration is always applied. By contrast, fewer than one in five students, on average across OECD countries, attends a school that always considers the recommendation of feeder schools, parental endorsement of the instructional or religious philosophy of the school, or whether an applicant's family members have attended or are attending the school during the admissions process.

On average across OECD countries, the percentage of students in schools where prior academic performance is always considered for admission remained the same between 2012 and 2015; in Chile, Korea and the Netherlands, this percentage shrank by over 15 percentage points. By contrast, the percentage of students in schools that always select students based on their prior academic achievement increased by 35% in Turkey and by 22% in Romania during the period (Table II.5.20).

According to principals' reports, on average across OECD countries, the percentage of students in schools that always use residence in a particular area as part of their selection criteria remained the same between 2012 and 2015. However, in several countries and economies, the importance of residential criteria for school admissions changed significantly over the period. In Lithuania and Turkey, the percentage of students in schools that always select students on the basis of residence decreased by approximately 15 percentage points over the period, while students in Russia and Switzerland were more likely in 2015 than their counterparts were in 2012 (by 15 percentage points or more) to attend schools that always take into account residential rules for admissions.

On average across OECD countries, the percentage of schools that always consider recommendations of feeder schools did not change over the period. By contrast, schools were more likely in 2015 than in 2012 to always consider whether

the parents endorse the philosophy of the school or whether the student requires or is interested in a special programme. On average, schools were also slightly more likely in 2015 than in 2012 to afford special treatment to family members of current or former students.

Are selective admissions policies related to student performance? Results from PISA 2015 suggest that, on average across OECD countries, the association between different school admissions criteria and student performance in science is modest, after accounting for students' and schools' socio-economic profile. For instance, students attending schools that consider prior academic performance as a criterion for admission tend to score five points higher on the science assessment than students enrolled in schools that never use this criterion. But score-point differences in performance related to this policy can be as large as 20 points or more in Austria, B-S-J-G (China), Hungary, Qatar, Turkey and the United Arab Emirates (Table II.5.21).

Three other admissions policies, namely parental endorsement of the instructional or religious philosophy of the school, preference for family members of current or former students, and residential location, are negatively associated with student performance across OECD countries. The performance differences between students in schools that apply and do not apply these criteria are small, ranging between three and five score points, on average.

However, in some countries and economies, selection based on these criteria is more strongly associated with performance. In France, Japan and Uruguay, for example, students attending schools where affinity with the instructional or religious philosophy of the school is considered score 20 points or more below their peers who attend schools that disregard this consideration. In Japan, Kosovo and Chinese Taipei, students attending schools that always or sometimes give priority in admissions to family members of current or former students score more than 20 points below students in schools that do not consider this criterion. And in Qatar, Singapore, Slovenia, Turkey and the United Arab Emirates, students attending schools that apply a catchment area criterion in their admissions policy score 20 or more points below students who attend schools that do not apply this criterion. Overall, the results suggest that, even after accounting for the socio-economic profile of both students and schools, admissions policies at the school level are associated with student performance, although these associations tend to be weak and are observed in less than half of the countries and economies that participated in PISA 2015.

Other policies and practices that sort students between schools

School transfer policies can also affect the extent of horizontal stratification between schools. Transferring students out of school because of low academic achievement, behavioural problems or special learning needs is one way that schools reduce heterogeneity in the learning environment and facilitate instruction for the remaining students. While PISA 2015 did not collect information about school transfers, prior PISA assessments asked school principals about policies governing student transfers, namely about the likelihood of transferring a student to another school for different reasons, including low or high academic achievement, behavioural problems, or special learning needs. In 2012, on average across OECD countries, 13% of students attended schools whose principals reported that the school would "very likely" transfer students because of low achievement, behavioural problems or special learning needs.

Another policy with a potentially substantial impact on horizontal stratification is allowing families to choose their child's school. School choice and its relation to science performance and school characteristics are examined along with other school governance issues in Chapter 4.

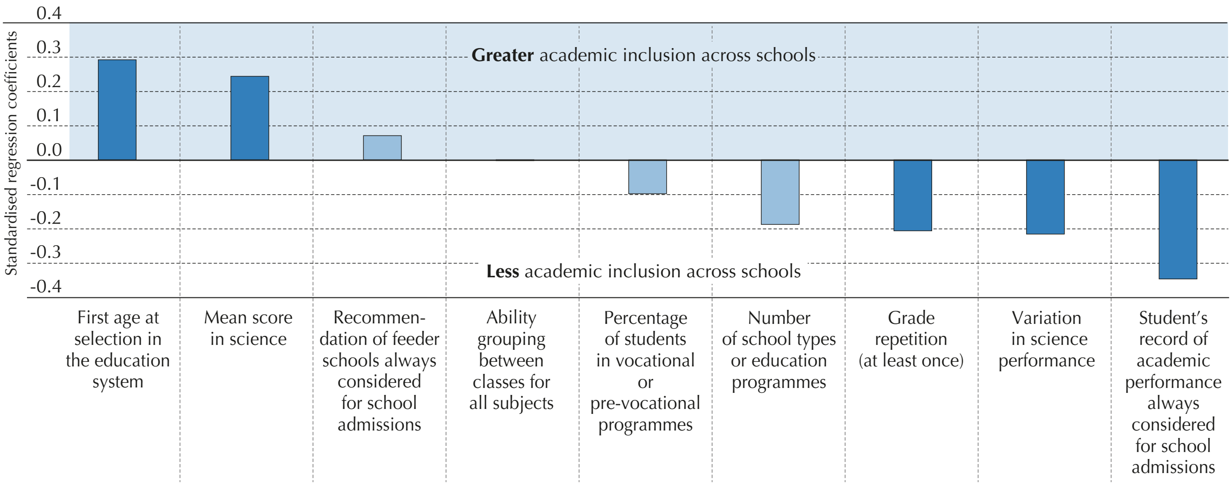
Are stratification policies related to academic inclusion across schools?

One way in which the academic inclusion of an education system can be measured is the extent to which student performance varies between and within schools, in relation to the total variation in student performance. According to the index of academic inclusion, in a perfectly inclusive education system (i.e. a value of "100"), all schools would have the same academic performance, whereas the students within these schools would perform differently. Conversely, a completely exclusive system (i.e. a value of "0") would be one where schools have marked differences in their academic performance, but all the students attending these schools have exactly the same academic performance (see Volume I, Chapter 6 for further details). Many of the horizontal stratification policies described in this section are expected to contribute to the academic inclusion of an education system; but how exactly are these policies associated with academic inclusion?

The system-level analysis in Figure II.5.11 shows that considering students' record of academic performance as a criterion for admission to school, the first age at selection into different academic programmes (i.e. early tracking), and grade repetition are the policies most strongly associated with academic inclusion across schools. The less selective school admissions policies are, the later students are selected into different academic programmes, and the fewer the students who had repeated a grade, the greater the academic inclusion across schools (meaning that student performance varies more within schools than between schools).

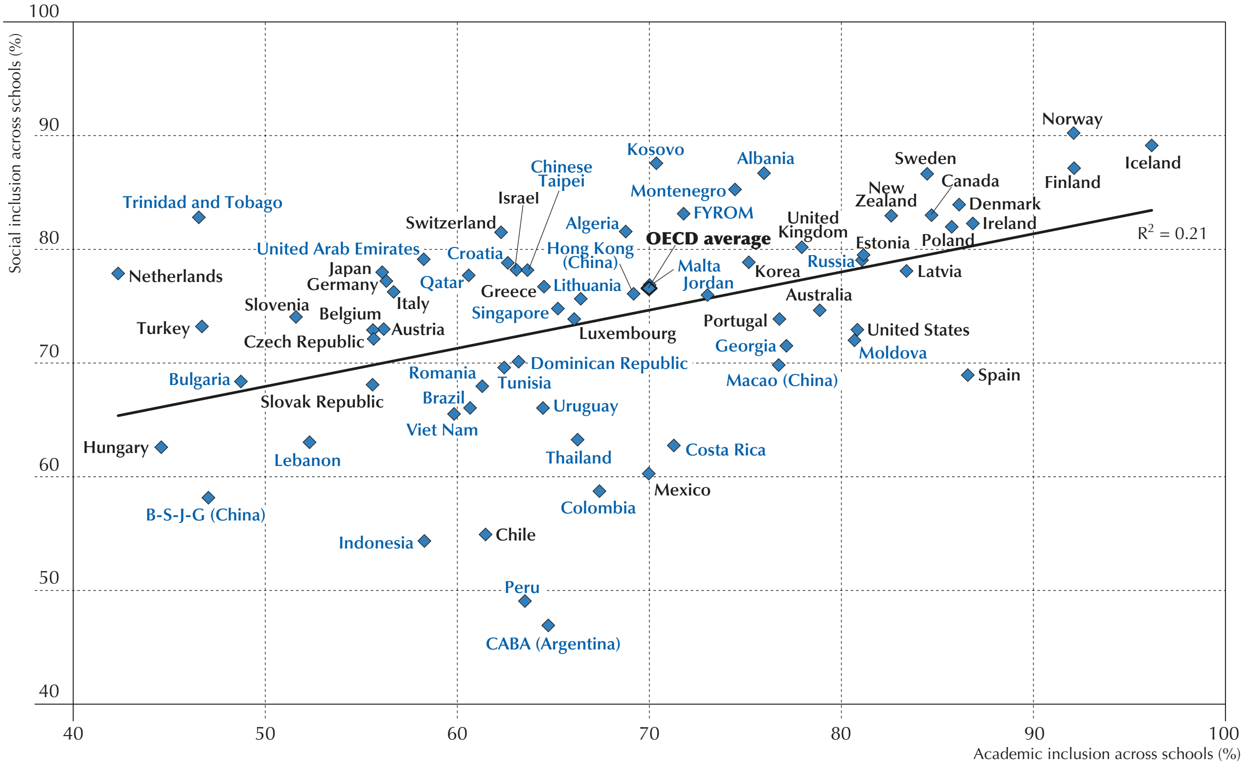
Figure II.5.11 ▪ **Factors associated with academic inclusion in science performance**

System-level analysis



Notes: All variables are included in the same regression model and explain 62% of the variance in the index of academic inclusion (R^2).
Statistically significant coefficients are marked in a darker tone.
Analysis based on 64 countries and economies.
Source: OECD, PISA 2015 Database.
StatLink http://dx.doi.org/10.1787/888933436172

Figure II.5.12 ▪ **Academic and social inclusion across schools**



Notes: The index of academic inclusion is calculated as 100*(1-rho), where rho stands for the intra-class correlation of performance. The intra-class correlation, in turn, is the variation in student performance between schools divided by the total variation in student performance.

The index of social inclusion is calculated as 100*(1-rho), where rho stands for the intra-class correlation of socio-economic status. The intra-class correlation, in turn, is the variation in students' socio-economic status between schools divided by the total variation in students' socio-economic status. The socio-economic status is measured by the PISA index of economic, social and cultural status.

Source: OECD, PISA 2015 Database, Tables I.6.9 and I.6.10.
StatLink http://dx.doi.org/10.1787/888933436189

Interestingly, the percentage of students in pre-vocational or vocational programmes, considering the recommendations of feeder schools as a criterion for school admission, and grouping students by ability between classes (within schools) are not associated with academic inclusion.

Social cohesion may be at a greater risk in education systems where students are both academically and socio-economically segregated across schools (i.e. low academic and social inclusion). Figure II.5.12 shows that school systems that are more socio-economically inclusive (meaning that students' socio-economic status varies more within schools than between schools) also tend to be more academically inclusive. However, some countries and economies, such as the Netherlands, have low academic inclusion (performance varies considerably between schools) and high social inclusion (advantaged and disadvantaged students are relatively evenly distributed across schools), whereas others, like Spain, have high academic inclusion and low socio-economic inclusion (see Box II.5.2 for further information on the Netherlands).

Box II.5.2 **Stratification policies in the Netherlands: Context matters**

The education system in the Netherlands provides an opportunity to consider stratification policies from an equity perspective. The Dutch system makes extensive use of early tracking (horizontal stratification; Figure II.5.8) and school choice (OECD, 2012) and is above the OECD average in grade repetition rates (vertical stratification; Figure II.5.3). Yet the country is a consistently high performer in international assessments and shows satisfactory levels of academic equity. In particular, the Netherlands has policies and practices in place to mediate the effects of early tracking.

As in many other countries, most students in the Netherlands start secondary education at the age of 12. What distinguishes their path through education from that of their counterparts in many other countries is that, after completing primary school, they no longer follow a unified curriculum. Instead, they are selected into one of eight[1] different programmes that will prepare them for vastly different occupations later in life. For those who are educated in comprehensive systems, these choices are typically made much later, at the age of 15 or 16, once students have had more time to develop and explore their academic potential and their career interests (OECD, 2016a).

The eight programmes available to Dutch students are largely organised within four orientations: practical training, which lasts four years; pre-vocational programmes, which also last four years; senior general education, which lasts five years and prepares students for applied studies at the university level; and pre-university secondary education, which lasts six years and prepares students for tertiary education. Nearly half of students enrol in pre-vocational programmes, 28% in general education, 19% in the pre-university track and 2% in practical training. Special secondary education is also available; in 2010, 3% of primary school leavers enrolled in special programmes (OECD, 2016a; Nusche, D. et al., 2014).

Given the high number of education tracks available in the country and the early age at selection into them, one would expect to see considerable discrepancies in academic performance between schools. In fact, the Netherlands' score on the PISA 2015 measure of academic inclusion across schools confirms this: 58% of the variation in students' science performance is attributable to the variation between schools – the highest percentage among all PISA-participating countries and economies (the OECD average is 30%; Figure II.5.12). But these results are not entirely surprising, given students' early selection into tracks based on their performance, the different curricula they follow in distinct tracks and likely peer effects.

However, the country's score on the PISA 2015 index of social inclusion is near the OECD average (Figure II.5.12). Specifically, 22% of the variation in students' socio-economic status lies between schools, compared to the OECD average of 23%. The low academic inclusion in the Netherlands is not associated with greater socio-economic segregation of students across schools. This could be one of the reasons why, despite using grade repetition and placing students in different academic programmes at an early age, only 12.5% of the variation in science performance is attributed to students' socio-economic status (Table I.6.12a), compared to 12.9% on average across OECD countries. It may also explain why the proportion of low performers in science (those who score below proficiency Level 2) among disadvantaged students is smaller in the Netherlands than the OECD average. Specifically, in the Netherlands, 30% of students in the bottom quarter of the PISA index of economic, social and cultural status are low performers in science compared with 34% on average across OECD countries.

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Almost universal pre-primary education. Although compulsory education begins at age 5, enrolment in early childhood education and care at age 4 is nearly universal in the Netherlands. Unlike many other countries, a substantial proportion (nearly one-third) of spending on pre-primary education comes from public funds. Day care centres and pre-kindergartens also offer free supplementary programmes for disadvantaged children between the ages of 2.5 and 6 years for up to four days per week. These programmes, called VVE (*voor en vroeg schoolse educatie*), focus on Dutch language development and are publicly funded.

Compulsory education with autonomy and accountability. Education is compulsory from the age of 5 to 18. Primary school lasts 8 years, typically from the age of 4 to 12. There is no national curriculum; instead, there are national attainment targets and reference levels for literacy and numeracy, which gives schools and teachers considerable freedom in selecting content and teaching methods. At the end of primary school, students are selected into one of the education tracks offering practical training, pre-vocational, general and pre-university secondary education. Students are assigned to various tracks based on their performance on a national examination at the end of primary school and on their primary teachers' recommendation. Responsibility over national education policy, examinations and standards of quality lies with central authorities while matters concerning school management and school policies are largely decided at the local level by school boards and schools. Teachers are evaluated every three or four years, and the results of their appraisal can have an impact on their career advancement.

School choice. Parents have considerable freedom in selecting their child's school, but schools may also establish their selection criteria, especially at the secondary level. School choice is valued and abundant, particularly in densely populated areas, where nearly 90% of primary school children live within one kilometre of their school (OECD, 2016a).

Equitable allocation of funds. Public funds account for most of the spending on educational institutions at all levels. With the exception of some schools funded entirely by private sources, public funds are allocated equitably between public and private schools, provided that certain criteria are met. This may help prevent serious imbalances in school resources and in schools' socio-economic profile. The Netherlands is one of the PISA-participating education systems where principals in socio-economically disadvantaged schools are not more concerned than principals in advantaged schools about the resources at their school (see Tables II.6.2 and II.6.15 in Chapter 6). It is also one of the education systems where principals in public schools are equally concerned about the material and human resources at their school as principals in private schools.

Additional funding mechanisms. Schools receive block grants based on their student population, and special funds are available to schools that serve disadvantaged students as well as those with special needs. At the primary level, schools receive grants from the government based on the educational background of the parents. At the secondary level, schools also receive extra funds for disadvantaged students; those funds, however, are not based on the educational background of the parents, but on school location. Targeted funding is also available to schools for special purposes (e.g. dropout prevention) and weighted formulas are used to ensure social diversity in schools. At the tertiary level, even though students pay a tuition fee, they are entitled to grants and loans based on their family's socio-economic status. Performance-based budgeting is another option for schools to help boost the performance of students, teachers and school leaders at these levels.

Higher-than-OECD-average spending on secondary education. Expenditure per student in general programmes is USD 10 804 compared to the OECD average of USD 9 484. In vocational programmes, annual spending per student is more than twice the OECD average: USD 16 002 (the highest amount among countries with available data) compared to the average of USD 7 380 (OECD, 2015).

Wide range of vocational education programmes. The entry point of vocational training is the pre-vocational secondary education programme that is offered from grades 7 to 10 and prepares students for further vocational training or general education. Pre-vocational programmes consist of four types of schooling, each with a special emphasis: theoretical; combined (mixing theoretical and practical subjects); middle-management (for those interested in further vocational training); and basic vocational (a mixture of general education and practical experience). Upper secondary vocational education (starting at grade 11) is also diversified, but well-structured. Training is available at four different levels: training to become an assistant (level 1) lasts one year or less; basic training (level 2) requires between 2 and 3 years; professional training (level 3) lasts 2 to 4 years; and middle management

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training (level 4) lasts about 4 years. Upper secondary vocational education operates on two parallel structures: apprenticeship and school-based tracks, both of which combine learning and working. The vocational system has strong ties to the labour market: in 2012, more than half of the labour force had a vocational qualification (OECD, 2016a). Relatively few young people in the Netherlands are neither employed nor in education or training (NEET).

General education. Two secondary programmes prepare students for higher education. Students in the general education track typically pursue their university-level education in applied sciences, while those in the pre-university track can gain access to all universities. Even though a considerable proportion of students is selected into vocational tracks, the share of 25-34 year-olds who attain tertiary education is larger in the Netherlands than the OECD average: 44% compared to the average of 41% (OECD, 2016b). But the pre-university track appears to be relatively inaccessible to certain groups of students: in the 2008/09 school year, students from the most advantaged families were four times more likely to be enrolled in that track than those from the most disadvantaged backgrounds (OECD, 2016a).

Track mobility and access to tertiary education. The risk of placing such young students in secondary programmes that do not correspond to their current or potential performance can, in principle, be offset by some built-in mechanisms in the system. First, students are allowed to transfer between programmes, although in reality, practical barriers may discourage such mobility. Second, in the first years of secondary school, teachers can use their discretion and, when needed, delay the selection of students by placing them in "bridge classes". Third, a legal framework of "scaffolding" diplomas allows students, upon graduation from their track level, to automatically proceed to the next level. This enables graduates from every programme to pursue tertiary education, although graduates from vocational programmes will be on a longer route.

Career guidance. Extensive counselling and career guidance is available at critical transition points (from primary to secondary education and from secondary to tertiary education) to help guide students through the various choices of programmes available.

Teaching, a valued profession. Teachers' salaries are higher than the OECD average, but relatively lower when compared to similarly educated professionals in the country (OECD, 2016b). Compared to the OECD average, a larger proportion of teachers in the Netherlands considers teaching to be a valued profession in society. Renewed efforts are underway to attract high-performing students into teaching, improve pre-service training, provide support to teachers at various stages of their career, and strengthen a results-oriented culture (OECD, 2016a).

While early tracking generally exacerbates existing social and economic disparities among students, the Netherlands example shows that it can be mitigated to some extent. As students progress into secondary education, even those placed in the lower tracks are unlikely to be in schools that suffer from a shortage or lack of resources or staff. The rigidity of the tracking system may also be softened by the possibility of transfers. In short, the education system behind early tracking is well-structured, well-resourced, and includes various opportunities along students' path through education to correct some obvious socio-economic imbalances, starting from early childhood all the way up to tertiary education.

Note

1. The eight programmes available to 12-year-old students include: practical training (PRO), pre-vocational education (VMBO; 4 levels), senior general secondary education (HAVO), pre-university education (VWO), and special secondary education (VSO). The seven programmes available to 15-year-old students (Table II.5.27) include all the programmes above except the special secondary education, which varies in duration.

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Horizontal stratification within schools: Ability grouping

Nearly all schools have to decide how to handle diversity in students' learning abilities and interests. Ability grouping refers to the practice of sorting students within the schools they attend based on ability or prior performance, most often with the objective of better meeting students' needs by creating a more homogeneous learning environment. Ability grouping may occur within or between classes in a given school.

Some schools mix students of all levels of performance into the same classrooms and teach them the same curriculum. This approach relies heavily on teachers' capacity to engage students with a wide range of abilities, which can be challenging, but can create greater opportunities for students to learn from each other. Other schools sort their lowest-performing and highest-performing students into different classrooms, and offer them different curricula or the same curriculum, but at different levels of difficulty ("ability grouping"). While grouping by ability creates more homogeneous classes, students in lower-ability groups often do not benefit as much as those in the higher-ability groups from this way of sorting students, partly because underachieving students cannot learn from or be inspired by their higher-performing peers if they are not sitting in the same classroom (Lucas, 1999).

Ability grouping within the same school appears to be becoming popular again (Garelick, 2013). A recent field experiment conducted by Duflo, Dupas and Kremer (2011) in Kenya observed significant academic gains from separating students by achievement, including low-performing students, into different classes. These gains persisted one year after the programme ended. Similar beneficial effects of sorting students by achievement were observed by Borman and Hewes (2002), Collins and Gan (2013) and Zimmer (2003) in the United States. However, correlational evidence at the system level suggests that there is only a weak relationship between ability grouping within schools and the share of low/top performers in an education system (OECD, 2016c).

PISA 2015 asked school principals whether their schools organise instruction differently for students with different abilities. Principals reported separately on whether students were grouped by ability into different classes or within the same classes, and whether this happened for all, some or none of the subjects.

Ability grouping between classes

Across OECD countries, 46% of students attend schools whose principal reported that students are grouped by ability into different classes (Table II.5.22). This comprises 38% of students who are grouped for some subjects, and 8% of students who are grouped for all subjects. However, the incidence of ability grouping between classes varies widely among countries. In Austria, Brazil, Georgia, Greece, Italy, Latvia, Moldova, Norway, Portugal and Uruguay, less than 20% of students are grouped by ability into different classes. By contrast, in Australia, Canada, Hong Kong (China), Ireland, Israel, Malta, New Zealand, Singapore, Thailand, the United Kingdom, the United States and Viet Nam, at least three in four students receive instruction in at least one subject in an ability-grouped class.

Sorting students into different classes for all subjects based on their ability is most common in Algeria, Jordan, Luxembourg, Montenegro, the Netherlands, Thailand and Tunisia, where this practice affects between 30% and 60% of students (Table II.5.22). A substantial proportion of students in these countries is also grouped by ability for some subjects.

Between 2006 and 2012, the percentage of students who are grouped into different classes increased by 1.1% across OECD countries (Table II.5.24). This slightly higher incidence of ability grouping reflects a 4 percentage-point increase in the percentage of students who are grouped for only some subjects and a 3 percentage-point decrease in the percentage of students grouped for all classes. Hong Kong (China) had the largest increase in the incidence of ability grouping between classes (43 percentage points), reflecting a wider use of subject-specific ability grouping. Principals in Brazil, Korea and Romania reported a reduction in ability grouping of more than 20 percentage points. In Brazil, this largely reflects less ability grouping for all subjects, while in Korea the reduction was almost entirely due to reduced subject-specific ability grouping.

Ability grouping within classes

Ability grouping within classes is more common than ability grouping between classes. On average across OECD countries, 55% of students attend classes in at least one subject where there is ability grouping (Table II.5.22). This comprises 50% of students who are instructed in some subjects in classes where ability grouping is used and 5% of students where ability grouping within a class is used for all subjects.

In 24 countries and economies, more than one in two students attend schools that sort students by ability, within classes, for some but not all subjects. This proportion is highest in Denmark, Hong Kong (China), Hungary, Israel, the Netherlands, New Zealand, Poland, Singapore and the United Kingdom, where between 70% and 80% of students attend such schools. Within-class sorting for all school subjects is most common in Algeria, B-S-J-G (China), Costa Rica, Jordan, Qatar, Tunisia and the United Arab Emirates, where between 30% and 55% of students are systematically sorted by ability within their classes. By contrast, in Ciudad Autónoma de Buenos Aires (Argentina) (hereafter "CABA [Argentina]"), Belgium, Brazil, Georgia, Greece, Portugal, Trinidad and Tobago, Turkey and Uruguay, fewer than one in three students attends a school that groups students by ability within their classes (Table II.5.22).

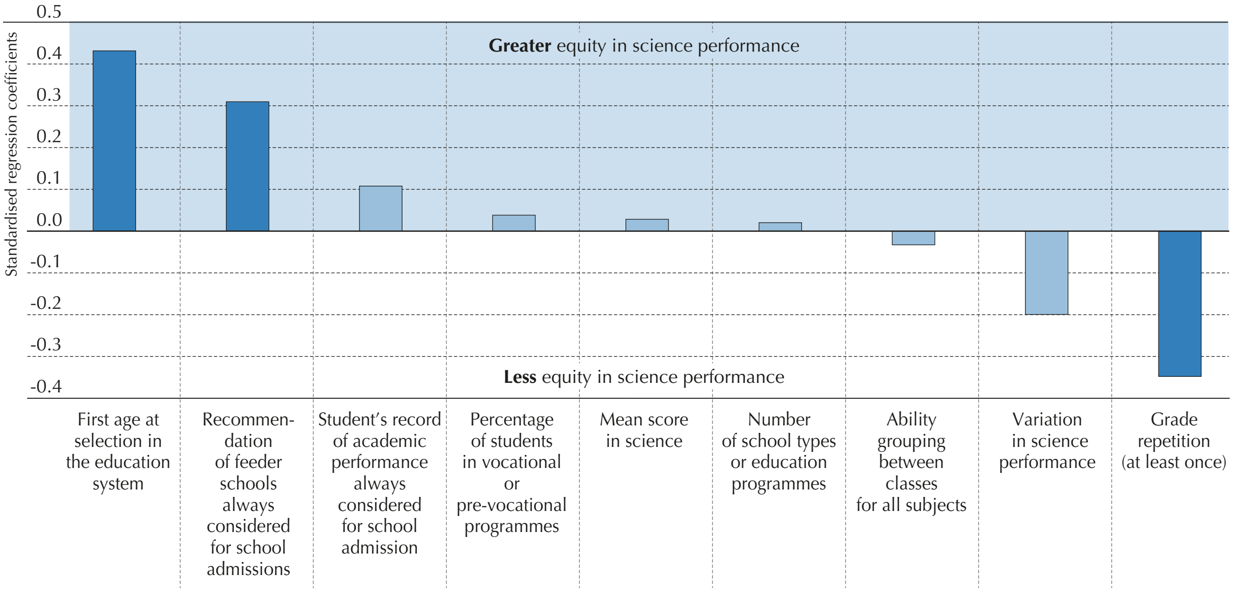
Grouping students by ability for specific subjects became more common between 2006 and 2015. On average across OECD countries, the share of students in schools where students are grouped by ability within classes for some subjects increased by 4 percentage points over the period, while there was no significant change in the percentage of students who are sorted within their classes for all subjects (Table II.5.24). In Hong Kong (China), Luxembourg, Macao (China), Poland and the United States, more than one in two students in 2015 attended classes where there is ability grouping for at least for one subject, while this practice involved fewer than one in two students in 2006. The proportion of students subject to within-class ability grouping increased by more than 25 percentage points in each of these countries during this time. By contrast, ability grouping for some subjects became much less common in Brazil, Indonesia and Jordan, where the percentage of students grouped for at least some subjects shrank by more than 25 percentage points over the period.

HOW POLICIES ON GROUPING AND SELECTING STUDENTS ARE RELATED TO EQUITY IN SCIENCE PERFORMANCE

Policies on stratification, such as grade repetition or placing students into different programmes or schools at an early age, are related to equity in science performance (or the extent to which students' socio-economic status is associated with student performance in science). Comparing 64 education systems with data for all 9 variables analysed, equity in science performance is most strongly associated with the age at first selection into the education system, grade repetition, and whether schools always consider the recommendations of feeder schools for school admissions (Figure II.5.13).

Figure II.5.13 ▪ **Factors associated with equity in science performance**

System-level analysis



Notes: Statistically significant coefficients are marked in a darker tone (see Annex A3).
All variables are included in the same regression model and explain 44% of the variance in equity in science performance (R^2).
Analysis based on 64 countries and economies.
Source: OECD, PISA 2015 Database.
StatLink http://dx.doi.org/10.1787/888933436198

Figure II.5.14 ■ **Use of selected stratification policies in PISA-participating countries**

▨ Countries/economies are **above** the OECD average
□ Countries/economies are not statistically different from the OECD average
▧ Countries/economies are **below** the OECD average

	Grade Repetition	Tracking	School Admission based on Academic Performance	Between Classroom Ability Grouping
	Percentage of students who have repeated a grade at least once in primary, lower secondary or upper secondary school	Age of selection into different programmes	Percentage of students in schools whose principals reported that "students' records of academic performance (including placement tests)" are "always" considered for admittance	Percentage of students in schools where students are grouped by ability into different classes for all subjects
	%		%	%
OECD average	11.3	14.3	38.4	7.8
OECD				
Australia	7.1	16	34.0	1.6
Austria	15.2	10	73.8	4.0
Belgium	34.0	12	28.4	13.1
Canada	5.7	16	30.5	6.8
Chile	24.6	16	17.3	5.6
Czech Republic	4.8	11	53.6	3.5
Denmark	3.4	16	9.0	0.2
Estonia	4.0	16	27.5	6.6
Finland	3.0	16	5.5	2.3
France	22.1	15	33.9	3.4
Germany	18.1	10	47.8	8.0
Greece	5.0	15	6.3	0.3
Hungary	9.5	11	81.3	0.0
Iceland	1.1	16	15.7	0.0
Ireland	7.2	15	22.3	2.0
Israel	9.0	15	52.0	9.3
Italy	15.1	14	49.2	7.6
Japan	0.0	15	92.3	10.1
Korea	4.7	15	44.7	4.7
Latvia	5.0	16	30.5	5.4
Luxembourg	30.9	13	74.9	33.0
Mexico	15.8	15	59.6	10.0
Netherlands	20.1	12	74.5	56.1
New Zealand	4.9	16	37.8	3.2
Norway	0.0	16	5.6	0.5
Poland	5.3	16	16.8	2.7
Portugal	31.2	15	30.9	4.3
Slovak Republic	6.5	11	57.0	12.9
Slovenia	1.9	14	32.6	0.2
Spain	31.3	16	5.3	6.0
Sweden	4.0	16	6.0	0.6
Switzerland	20.0	12	57.9	29.2
Turkey	10.9	11	77.0	4.2
United Kingdom	2.8	16	21.1	8.5
United States	11.0	16	30.7	7.1
Partners				
Albania	2.6	15	59.9	3.4
Algeria	68.5	m	62.2	40.3
Brazil	36.4	15	23.6	7.4
B-S-J-G (China)	20.8	15	40.2	17.6
Bulgaria	4.8	13	83.1	7.6
CABA (Argentina)	19.1	a	32.2	0.0
Colombia	42.6	15	49.9	13.6
Costa Rica	31.4	15	47.8	21.4
Croatia	1.6	14	95.4	11.7
Dominican Republic	33.9	16	31.1	12.8
FYROM	3.1	15	69.1	21.4
Georgia	1.5	15	29.7	1.9
Hong Kong (China)	17.2	15	93.7	15.9
Indonesia	16.2	15	64.6	21.9
Jordan	7.6	16	27.7	31.9
Kosovo	3.8	m	77.8	11.2
Lebanon	26.5	m	77.9	15.1
Lithuania	2.5	16	27.1	14.5
Macao (China)	33.8	15	79.3	12.5
Malta	7.0	16	35.4	6.8
Moldova	3.0	m	47.7	2.9
Montenegro	1.6	15	60.0	34.2
Peru	25.6	16	21.2	7.5
Qatar	17.4	16	50.9	22.1
Romania	5.9	14	53.0	18.7
Russia	1.5	16	18.9	14.6
Singapore	5.4	12	87.4	12.2
Chinese Taipei	0.6	15	43.5	5.2
Thailand	6.0	15	90.0	32.7
Trinidad and Tobago	33.4	m	69.1	8.5
Tunisia	34.3	m	62.1	52.1
United Arab Emirates	11.8	15	67.6	9.6
Uruguay	35.3	15	26.4	6.7
Viet Nam	7.2	15	80.2	17.8

Source: OECD, PISA 2015 Database, Tables II.5.9, II.5.18, II.5.22 and II.5.27.

StatLink http://dx.doi.org/10.1787/888933436200

The later students are selected into different academic programmes/schools and the lower the percentage of students who had repeated a grade, the greater the equity in science performance, even after accounting for the school's mean score in science and the variation in student performance. Also, the higher the percentage of students enrolled in schools where the recommendations of feeder schools are considered for school admissions, the greater the equity in science performance. Other policies on selecting and grouping students, including grouping students between classes by ability, the percentage of students in vocational programmes, or the number of school types or education programmes, are not associated with equity in science performance.

This chapter concludes with a snapshot of selected stratification policies used by PISA-participating countries (Figure II.5.14).

Notes

1. Analysis based on the Herfindahl index. See Annex A3 for further clarification.

2. Other factors, for which PISA does not have detailed information, might be responsible for differences in the grade levels of 15-year-old students. These factors include special education (these students often follow a different timeframe for progression than average students) or different regulations about age at entrance across regions within countries.

3. Although the term "15-year-olds" is used to describe the students who sit the PISA test, in fact the students may be between 15 years and 3 months and 16 years and 2 months old at the time of assessment. The exact cut-off date for registering a child (in primary education) could therefore result in different grade levels for children within this one-year age range.

4. See Boxes II.2.1, II.2.2 and II.2.3 in Chapter 2 for a description of how PISA defines socio-economically disadvantaged and advantaged schools, public and private schools, and urban and rural schools.

5. Level 1 in the 1997 ISCED classification corresponds to primary education or the first stage of basic education. Usually, children begin this level of education between the ages of 5 and 7.

6. Level 0 in the 1997 ISCED classification corresponds to the initial stage of organised instruction, and is typically designed to introduce very young children to a school-like environment. This level of education is aimed at children from age 3 to the typical age at which they start primary education in each country/economy.

7. The results between primary and secondary education are not strictly comparable since students who sat the PISA test generally have a few more school years until they finish secondary education.

8. All the variables mentioned in this section have been included in the same regression model.

9. System-level data that are not derived from the PISA 2015 student or school questionnaire are extracted from the OECD's annual publication, *Education at a Glance*, for those countries and economies that participate in that periodic data collection. For other countries and economies, a special system-level data collection was conducted in collaboration with PISA Governing Board members and National Project Managers.

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6

Resources invested in education

This chapter examines the resources invested in education in PISA-participating countries and economies, how these resources have evolved over time, and how they are allocated across schools. The relationship between educational resources, including financial, material, human and time resources, and student performance is also analysed.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Despite the widely accepted idea that more resources improve student performance, previous research on education has generally shown that, once an adequate level of resources is reached, additional resources may not necessarily contribute to better learning outcomes (Burtless, 1996; Nannyonjo, 2007; Nicoletti and Rabe, 2012; OECD, 2013, 2016a; Suryadarma, 2012; Wei, Clifton and Roberts, 2011). This implies that governments, schools and families should also focus on how educational resources are distributed and used, and which resources actually improve student learning, as well as on how much is spent on education.

Each additional dollar can only be spent once, so countries need to decide whether to invest in salary increases, more instruction time for students, more professional development for teachers, improved educational resources or school infrastructure. Equally important, countries need to decide how to distribute resources across schools, and how to align additional resources with socio-economic circumstances and other needs. Some research, for instance, suggests that increasing the educational resources available to disadvantaged students and schools offers good returns, both for student achievement (Bressoux, Kramarz and Prost, 2009; Lavy, 2012; Henry, Fortner and Thompson, 2010; Schanzenbach, 2007) and in redressing inequalities in education (Henry, Fortner and Thompson, 2010). PISA also shows that in high-performing education systems, resources tend to be allocated more equitably between socio-economically advantaged and disadvantaged schools (OECD, 2016a). PISA shows that countries differ widely in where they choose to invest their spending on education, so it is worth comparing policies and practices in this area.

This chapter analyses in detail how the resources invested in education are distributed across schools, and how they are related to student outcomes (Figure II.6.1). It starts by describing expenditure on education across education systems, how it has changed since previous PISA cycles, and its relationship with student performance. It then describes how this expenditure trickles down to the school system by focusing on the availability and quality of the material resources (educational material, computers and school size); human resources (teachers' salaries, initial training, qualifications and professional development; shortage of human resources; student-teacher ratios and class size); and time resources (actual teaching time, student learning time, homework assistance, extracurricular activities and attendance at pre-primary school). Given the correlational, not causal, nature of the analyses, the chapter only suggests avenues that policy makers may explore to allocate resources more fairly and efficiently.

What the data tell us

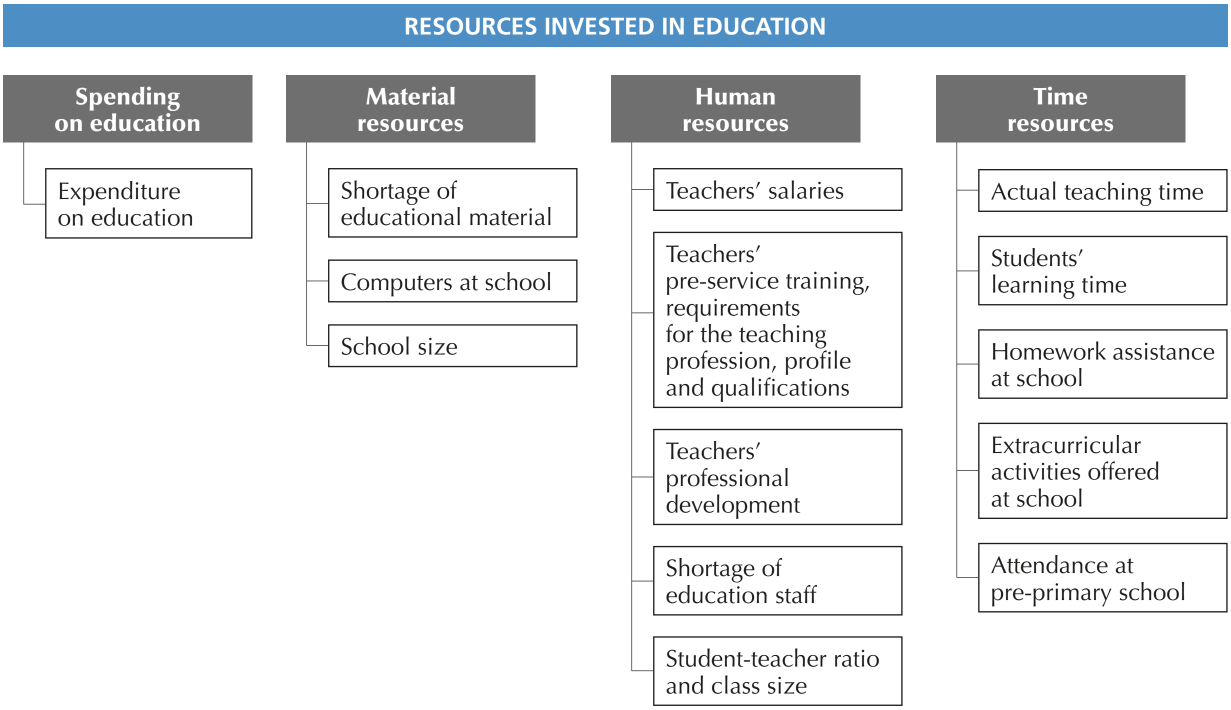
- Almost all school systems where schools principals in socio-economically disadvantaged schools are considerably more concerned than principals in advantaged schools about the material resources at their school score below the OECD average in science.
- Students in larger schools score higher in science and are more likely to expect to work in a science-related career in the future than students in smaller schools. But students in smaller schools reported a better disciplinary climate in their science lessons and they are less likely than students in larger schools to skip days of school and arrive late for school.
- On average across OECD countries, students in smaller classes reported more frequently than students in larger classes that their teachers adapt their instruction to their needs, knowledge and level of understanding.
- Students score five points higher in science for every additional hour spent per week in regular science lessons, after accounting for socio-economic status.
- School systems where students spend more time learning after school, by doing homework, receiving additional instruction or in private study, tend to perform less well in science.

FINANCIAL RESOURCES

Policy makers must constantly balance expenditure on education with expenditure for many other public services, particularly in the face of fiscal constraints. Yet despite the competing demands for resources and the recent economic crisis, expenditure on education has increased over the past few years. Between 2005 and 2013, expenditure per primary, secondary and post-secondary non-tertiary student[1] increased by 6%, on average across OECD countries with data available for both 2005 and 2013 (OECD, 2016b).

Financial resources in education can be allocated to salaries paid to teachers, administrators and support staff; maintenance or construction costs of buildings and infrastructure; and operational costs, such as transportation and meals for students.

Figure II.6.1 ▪ **Resources invested in education as covered in PISA 2015**



In 2013, the average cumulative expenditure by educational institutions per student between the ages of 6 and 15[2] exceeded USD 100 000 (PPP-corrected dollars) in Austria, Belgium, Denmark, Finland, Iceland, Luxembourg, Malta, Norway, Singapore, Sweden, Switzerland, the United Kingdom and the United States.[3] In Luxembourg, cumulative expenditure per student exceeded USD 180 000. By contrast, in Colombia, the Dominican Republic, Georgia, Kazakhstan and Peru, cumulative expenditure per student over this age period totalled less than USD 25 000 (Table II.6.58).

As would be expected, spending on education and per capita GDP are highly correlated (r = 0.91 across OECD countries; the correlation is the same across all participating countries and economies in PISA 2015). School systems with greater total expenditure on education tend to be those with higher per capita GDP.

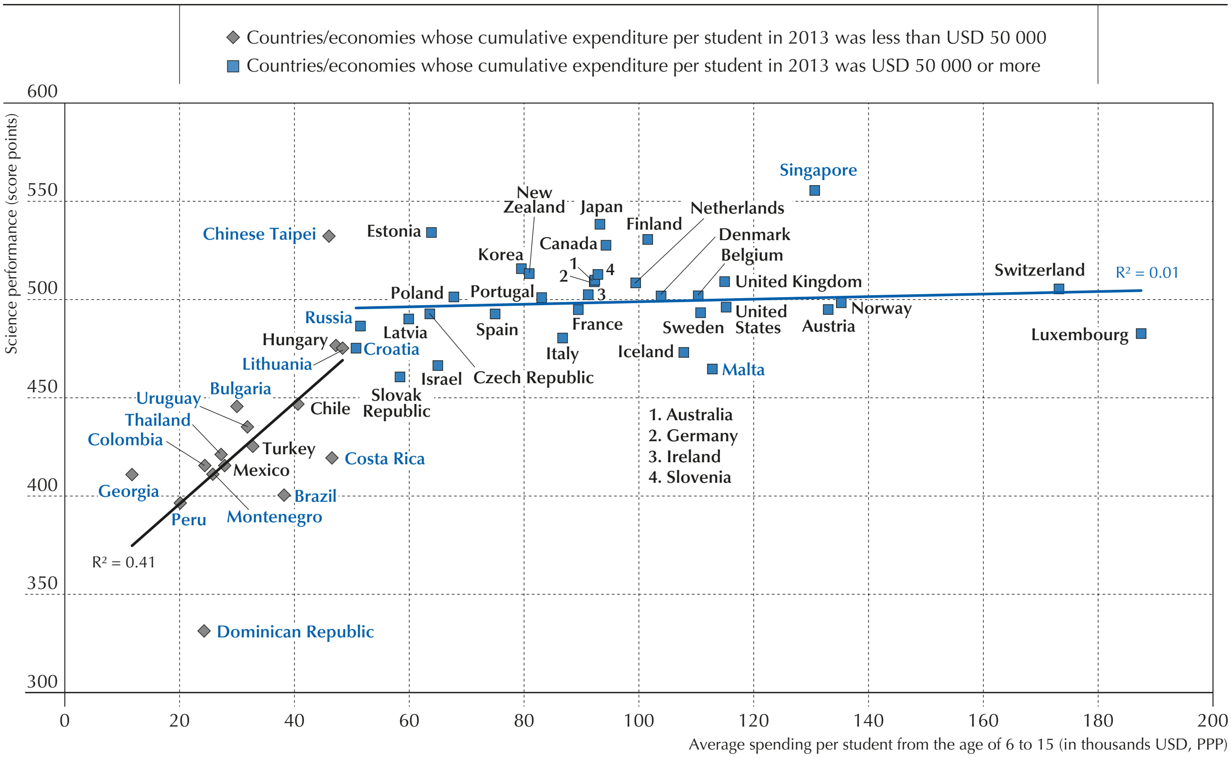
A first glance at PISA results gives the impression that students in high-income countries and economies – and countries/economies that can and do spend more on education – perform better. High-income countries and economies (defined here as those with a per capita GDP above USD 20 000) have more resources to spend on education. These countries and economies cumulatively spend USD 87 261 on each student from age 6 to 15, on average, while countries that are not considered to be in that group spend USD 28 071, on average (Tables II.6.58 and II.6.59). Students in high-income countries and economies score 81 points higher in science, on average, than students in countries whose per capita GDP is below the USD 20 000 benchmark.

Yet the relationship among a country's/economy's income per capita, its level of expenditure on education per student, and its PISA score is far more complex (Baker, Goesling and LeTendre, 2002; OECD, 2012). Among the countries and economies whose cumulative expenditure per student is under USD 50 000 (the level of spending in 18 countries), higher expenditure on education is significantly associated with higher PISA science scores. But this is not the case among countries and economies whose cumulative expenditure is greater than USD 50 000, which include most OECD countries (Figure II.6.2). It seems that for this latter group of countries and economies, factors other than the level of investment in education are better predictors of student performance.

Among the former group of countries and economies, systems whose cumulative expenditure per student is USD 10 000 higher than other systems score an average of 26 points higher in the PISA science assessment. For example, Turkey, with a cumulative expenditure of USD 32 752, has an average PISA science score of 425 points – 22 points lower than that of Chile, whose cumulative expenditure per student is nearly USD 8 000 higher than that of Turkey.

However, among those countries and economies whose cumulative expenditure per student is more than USD 50 000, the relationship between spending per student and performance is no longer observed. Among these countries and economies, it is common to find some with substantially different levels of spending per student yet similar science scores. For example, Poland and Denmark score 501 and 502 points in science, respectively, but the cumulative expenditure per student in Denmark is more than 50% greater than that in Poland. Similarly, although countries and economies might have similar levels of expenditure on education, they can perform very differently. For example, while Iceland and Finland both spend roughly USD 100 000 per student from the age of 6 to 15, Iceland's science score in PISA 2015 is 473 points and Finland's score is 531 points (Figure II.6.2).

Figure II.6.2 ▪ **Spending per student from the age of 6 to 15 and science performance**



Notes: Only countries and economies with available data are shown.
A significant relationship ($p < 0.10$) is shown by the black line.
A non-significant relationship ($p > 0.10$) is shown by the blue line.
Source: OECD, PISA 2015 Database, Tables I.2.3 and II.6.58.
StatLink http://dx.doi.org/10.1787/888933436215

Whatever the reason for the lack of a relationship between spending per student and learning outcomes, at least in the countries and economies with larger education budgets, excellence in education requires more than money. How resources are allocated is just as important as the amount of resources available to be allocated.

MATERIAL RESOURCES

While poor physical infrastructure and an inadequate supply of educational resources could have adverse effects on learning (Schneider, 2002; Uline and Tschannen-Moran, 2008), there is little evidence that these material resources – such as the quality of buildings, heating, lighting or IT equipment – has a strong impact on student outcomes (Cervini, 2009; Hanushek, 2003; OECD, 2015; Wei, Clifton and Roberts, 2011). What matters for student achievement and other education outcomes is not necessarily the amount of resources – at least once a minimum level has been reached – but the quality of those resources, how effectively they are used, and how equitably they are distributed across schools (Gamoran, Secada and Marrett, 2000; OECD, 2016a).

PISA 2015 asked school principals to report the extent to which their school's capacity to provide instruction was hindered ("not at all", "very little", "to some extent" or "a lot") by a shortage or inadequacy of physical infrastructure, such as school buildings, heating and cooling systems and instructional space; and educational material, such as textbooks, laboratory equipment, instructional materials and computers. The responses were combined to create an index of shortage of educational material. The average on the index is zero and the standard deviation is one across OECD countries. Positive values reflect principals' perceptions that the shortage of educational material hinders the capacity to provide instruction to a greater extent than the OECD average; negative values indicate that school principals believe the shortage hinders the capacity to provide instruction to a lesser extent.

On average across OECD countries, about one in three students attends a school whose principal reported that the lack or inadequacy of physical infrastructure does not hinder the capacity to provide instruction at all (Table II.6.1). A similar proportion attends a school whose principal reported that a shortage of educational material does not hinder instruction at all. In some countries and economies, physical infrastructure is a great concern for school principals. For example, in Albania, Colombia, Costa Rica, Croatia, Indonesia, Italy, Jordan, Trinidad and Tobago, and Tunisia, more than one in four students attend a school whose principal reported that a lack of physical infrastructure hinders the capacity to provide instruction a lot; in five of these countries, a similar proportion attends a school whose principal reported that inadequate or poor-quality physical infrastructure hinders the capacity to provide instruction a lot.

In other education systems, school principals are more concerned about the quality of the educational material at school. For instance, in Colombia, Costa Rica, Indonesia, Jordan, Kosovo, Peru and Tunisia, more than one in four students attend schools whose principal reported that a lack of educational material hinders the capacity to provide instruction a lot; in three of these seven countries, the same proportion attends schools whose principal reported that the inadequacy of educational material hinders the capacity to provide instruction a lot. These results should be interpreted with caution, however, since the benchmarks of what constitutes "lack" or "inadequacy" are likely to differ across and within countries.

In 29 PISA-participating education systems, the capacity to provide instruction in socio-economically disadvantaged schools is hindered by a lack or inadequacy of educational material and physical infrastructure to a greater extent than in advantaged schools, according to school principals, while the opposite is reported only in the Former Yugoslav Republic of Macedonia (hereafter "FYROM"), Iceland and Latvia (Figure II.6.3).[4] On average across OECD countries, student learning in rural schools is also hindered to a greater extent than in urban schools by a lack or inadequacy of the material resources. In as many as 35 out of 57 education systems, the capacity of public schools to provide instruction is more likely to be hindered by a shortage of educational material than private schools. Only in Malta and Singapore do public schools enjoy more and better educational materials than private schools, according to principals' reports.

Not surprisingly, in about half of the education systems that participated in PISA 2015, students score lower in schools whose principals reported that the capacity to provide construction is hindered to a greater extent by a shortage of infrastructure and educational material (Figure II.6.3). However, after accounting for the socio-economic profile of students and schools, a shortage of educational material is negatively associated with performance in only 13 education systems.

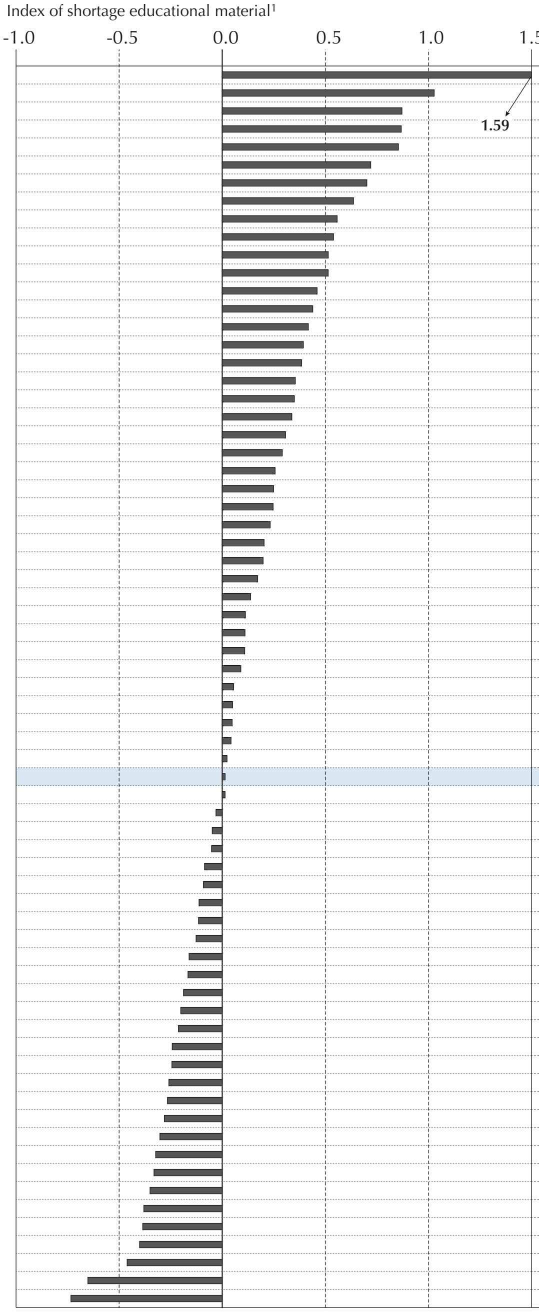
Equity in resource allocation

How equitably resources are allocated across schools determines whether or not all students are given equal opportunities to learn (Roemer, 1998). In this context, an equitable resource allocation would mean that the schools attended by socio-economically disadvantaged students are at least as well-equipped as the schools attended by advantaged students, to compensate for inequalities in the home environment. This is measured by the index of equity in resource allocation (material), which assesses the extent to which the socio-economic profile of a school is positively or negatively associated with the principal's concern about the lack or inadequacy of educational material at school.[5] Positive values indicate that principals of disadvantaged schools reported less concern about the material resources at their schools than principals of advantaged schools.

Based on school principals' reports, only in Iceland, Latvia and Montenegro are principals of advantaged schools more likely to believe that learning is hindered by a lack of resources (Table II.6.3). Conversely, and as would be expected, in 26 countries and economies advantaged schools are better equipped than disadvantaged schools. In Brazil, Ciudad Autónoma de Buenos Aires (Argentina) (hereafter "CABA [Argentina]"), Lebanon, Macao (China), Mexico and Peru at least 15% of the difference in principals' concern about the lack or inadequacy of educational material is explained by the schools' socio-economic profile.

Figure II.6.3 ▪ Index of shortage of educational material, school characteristics and science performance

🟦 Education systems with a positive difference/association
▨ Education systems with a negative difference/association
□ Difference/association not significant
░ Missing values



	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[2]	After ESCS
Tunisia	□	□	▨	□	□
Costa Rica	□	□	□	🟦	□
Croatia	□	░	░	□	□
Indonesia	▨	▨	□	▨	▨
Trinidad and Tobago	▨	░	▨	□	□
Japan	▨	░	▨	▨	□
Jordan	▨	▨	▨	▨	□
Colombia	▨	▨	▨	▨	▨
Italy	□	□	▨	□	□
Kosovo	□	□	▨	▨	▨
Peru	▨	▨	▨	▨	□
Hungary	□	🟦	▨	□	□
Mexico	▨	▨	▨	▨	▨
Israel	□	□	░	□	□
Korea	□	░	□	□	□
Greece	□	□	▨	□	□
Viet Nam	□	□	□	□	□
Georgia	▨	▨	▨	▨	□
Montenegro	▨	░	░	□	▨
Thailand	▨	▨	▨	▨	□
Russia	□	□	░	▨	□
Lithuania	□	□	□	□	□
B-S-J-G (China)	▨	▨	□	▨	□
Uruguay	▨	□	▨	▨	□
Ireland	□	▨	□	▨	□
Spain	▨	□	▨	▨	□
Algeria	□	▨	░	□	□
Macao (China)	▨	░	░	□	🟦
Moldova	□	□	░	□	□
Turkey	▨	□	▨	▨	▨
Belgium	□	□	░	▨	□
Dominican Republic	▨	▨	▨	▨	□
Portugal	▨	□	▨	▨	□
Finland	□	□	▨	□	□
Germany	□	□	▨	□	□
Slovak Republic	□	□	□	□	□
Estonia	□	□	□	□	□
United Kingdom	□	▨	▨	□	□
Lebanon	▨	▨	▨	▨	□
OECD average	▨	▨	▨	▨	▨
Norway	▨	□	□	▨	□
Romania	□	▨	░	□	□
Brazil	▨	▨	▨	▨	▨
United Arab Emirates	▨	▨	▨	▨	▨
FYROM	🟦	▨	▨	▨	▨
New Zealand	□	□	▨	□	□
Chinese Taipei	□	░	▨	□	🟦
CABA (Argentina)	▨	░	▨	▨	□
Czech Republic	□	□	□	▨	□
Luxembourg	▨	░	▨	▨	🟦
France	□	▨	□	□	□
Latvia	🟦	🟦	□	🟦	🟦
Netherlands	□	░	□	□	□
Denmark	□	🟦	□	□	□
Malta	▨	░	🟦	▨	▨
Hong Kong (China)	□	░	□	□	🟦
Bulgaria	□	□	░	□	🟦
Austria	□	□	□	□	□
Sweden	□	□	▨	□	□
Slovenia	▨	🟦	▨	▨	□
Chile	▨	□	▨	▨	□
United States	□	🟦	□	▨	▨
Poland	□	□	□	□	□
Switzerland	□	□	□	□	□
Australia	▨	□	▨	▨	▨
Iceland	🟦	🟦	░	□	□
Canada	□	□	▨	□	□
Qatar	▨	▨	▨	▨	▨
Singapore	▨	░	🟦	▨	□
Education systems with a positive difference/association	3	6	2	2	6
Education systems with no difference/association	36	30	20	33	49
Education systems with a negative difference/association	29	19	35	33	13

1. Higher values on the index indicate a greater shortage of educational material.
2. ESCS refers to the PISA index of economic, social and cultural status.

Note: See Annex A7 for instructions on how to interpret this figure.

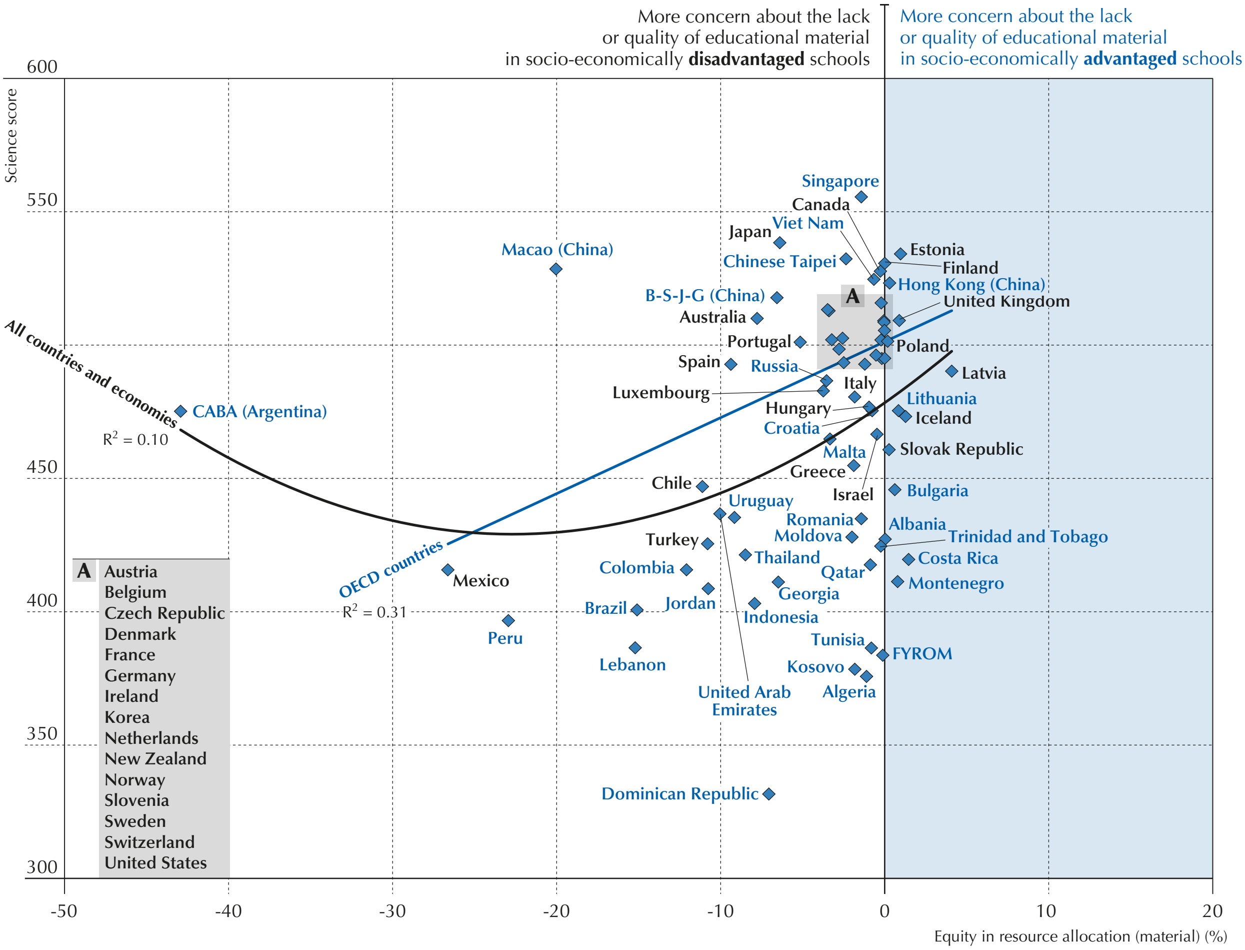
Countries and economies are ranked in descending order of the index of shortage of educational material.

Source: OECD, PISA 2015 Database, Table II.6.2.

StatLink http://dx.doi.org/10.1787/888933436227

In countries and economies where more resources are allocated to disadvantaged schools than advantaged schools, overall student performance in science is somewhat higher (Figure II.6.4). With the exception of CABA (Argentina) and Macao (China), all school systems where schools principals in disadvantaged schools are considerably more concerned about the material resources at their school than principals in advantaged schools – values below -10% in equity in resource allocation – score below 450 score points in science. Across OECD countries, 31% of the variation in science performance is explained by the degree of equity in the allocation of educational resources between advantaged and disadvantaged schools. Evidence from a previous PISA report suggests that low-performing students appear to benefit the most when more resources are allocated to disadvantaged schools than advantaged schools, but not at the expense of the highest-performing students in the education system (OECD, 2016a).

Figure II.6.4 ▪ **Equity in resource allocation and science performance**



Note: Equity in resource allocation is the percentage of variance of the principal's concern about the educational material at the school explained by the school's socio-economic profile. A negative sign indicates that principals of socio-economically disadvantaged schools are more concerned about the educational material at the school than principals of advantaged schools.

Source: OECD, PISA 2015 Database, Tables I.2.3 and II.6.3.

StatLink http://dx.doi.org/10.1787/888933436236

Computers at school

Introducing computers into the classroom can be justified on several grounds, including preparing students to become full participants in today's digital public space, equipping them with the digital skills needed for the labour market, and allowing teachers to explore new teaching tools (OECD, 2015). It is therefore hardly surprising that governments have invested substantial resources on computers, Internet connections, software, and information and communications technology (ICT) more generally. But this investment has not always produced obvious gains in student learning. As the PISA report, *Students, Computers and Learning: Making the Connection* (OECD, 2015) concludes: in general, schools and education systems have not been effective in leveraging the potential of technology.

PISA 2015 asked school principals to report the number of computers available to students in the school for educational purposes, and how many of these are connected to the Internet. Across OECD countries, there is 0.77 computer per student in school, 96% of which are connected to the Internet (Table II.6.4). There are large differences in the computer-student ratio across education systems. In Australia, Austria, Canada, the Czech Republic, Iceland, Macao (China), New Zealand, the United Kingdom and the United States, there is at least one computer available per student, and at least 95% of the computers are connected to the Internet. By contrast, in Albania, Algeria, Indonesia, Kosovo and Tunisia, there is less than one computer per every five students, and less than 70% of the computers are connected to the Internet.

On average across OECD countries, there are more computers per student available for educational purposes in socio-economically disadvantaged schools than in advantaged schools, and more in rural than in urban schools (Table II.6.5). Education systems may be compensating for the fact that disadvantaged students and students living in rural areas often have limited access to computers and the Internet at home (OECD, 2015). However, the percentage of computers connected to the Internet in socio-economically disadvantaged schools is lower than in advantaged schools, and is also lower in rural than in urban schools (Table II.6.6). There are considerably more education systems (26) where school computers in private schools are more frequently connected to the Internet than those in public schools, than there are education systems (3) where computers in public schools are more frequently connected to the Internet.

Across OECD countries, the more computers available for educational purposes per student, the lower students score in science, but only before accounting for the socio-economic profile of students and schools (Table II.6.5). There is a similar number of PISA-participating countries and economies where the relationship is positive (7) as education systems where it is negative (11), after accounting for the socio-economic profile of students and schools.

School size

Smaller schools may allow for greater interactions among school staff, parents and students, and also among students of different ages. Smaller learning communities may also foster a greater sense of belonging. However, through economies of scale, larger schools may be in a better position to offer more optional courses and a broader range of activities. Also, the greater diversity of students often found in larger schools means that students may find it easier to meet other students with similar interests and preferences. But evidence on the effects of school size on student outcomes is mixed (see Box II.6.1).

Box II.6.1. **School size, efficiency and effectiveness**

The relationship between school size, educational effectiveness and economic efficiency has been a subject of long-standing debate among policy makers and researchers. Populations of school-age children have shrunk in many OECD countries, while in others, enrolments in urban schools have swelled alongside internal migration to cities. Both situations have raised concerns about the quality and cost of small schools, particularly in rural areas. Rather than identifying an "optimal size", empirical studies indicate that the effect of school size varies across student groups and levels of education.

Student achievement

The relationship between school size and student achievement remains empirically contested, with studies finding both positive and negative relationships and varying effects, depending on students' socio-economic status and grade level (Slate and Jones, 2005). In general, secondary school students tend to benefit more from larger schools than primary school pupils, and low-income and minority students appear to perform better in smaller schools (Howley and Howley, 2004). Some studies also find evidence of diminishing returns to scale, suggesting that student performance improves up to a certain school size (which tends to be smaller in primary education than in secondary education) and declines thereafter.

Efficiency

Larger schools benefit from economies of scale, which allow them to reduce their capital, operating and administrative expenses, although schools above a certain size may be confronted with diminishing or even negative returns to expansion (Andrews et al., 2002). Many countries offset the higher cost of maintaining small schools by providing them with additional funding or promoting consolidation programmes to reduce the fiscal burden of a fragmented school network.

…

Educational offerings and teachers' working conditions

Small schools may struggle to provide a broad curriculum, organise students into learning groups, offer single-grade teaching and use ability streaming. Early studies on school size found that larger schools attract more qualified teachers, provide better facilities and offer more diverse extracurricular activities. However, recent studies have also found that students and teachers in smaller schools form closer ties, which can lead to improved attendance and retention rates, fewer disciplinary problems and a stronger sense of belonging. Advantages may also include more interaction with parents and higher rates of participation in extracurricular activities, particularly among disadvantaged students (Leithwood and Jantzi, 2009).

The size of a school also affects the work of teachers. Instructing multiple grade levels at once poses a challenge to staff members who are often not adequately trained for the task and lack appropriate teaching material. Teachers in larger schools also tend to benefit from a lighter administrative burden and more opportunities for professional development and peer learning.

Policy considerations

OECD countries have adopted different policy strategies related to small schools. Canada, Korea and Portugal underwent periods of extensive consolidation over the past decades, and Estonia provides municipalities with incentives to reorganise their school networks to make them more efficient (Santiago et al., 2016). Although school consolidation can increase efficiency and education quality in some contexts, its feasibility depends on a range of factors, including geographic context. In remote and sparsely populated areas, school closures are likely to impose additional transportation costs on parents, schools and school districts, which may outweigh the benefits of economies of scale (Andrews et al., 2002). Any improvements in quality and financial savings from closures need to be considered alongside equity concerns, broader regional development objectives and the social significance of schools for local communities.

Where consolidation is not feasible, creating school clusters or multifunctional centres, such as those piloted in Lithuania (Shewbridge et al., 2016), can enable small schools to pool resources, offer more specialised classes, and create a wider professional community for teachers and principals. The use of information and communications technology can also be a useful tool to overcome some of the disadvantages students and teachers face in small or isolated schools (Hobbs, 2004). In cases where consolidation was not an option, many countries responded to the higher cost of delivering quality education in small and rural schools by providing them with targeted investment and support.

For further reading, see Ares Abalde, M. (2014), "School Size Policies: A Literature Review", *OECD Education Working Papers*, No. 106, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jxt472ddkjl-en.

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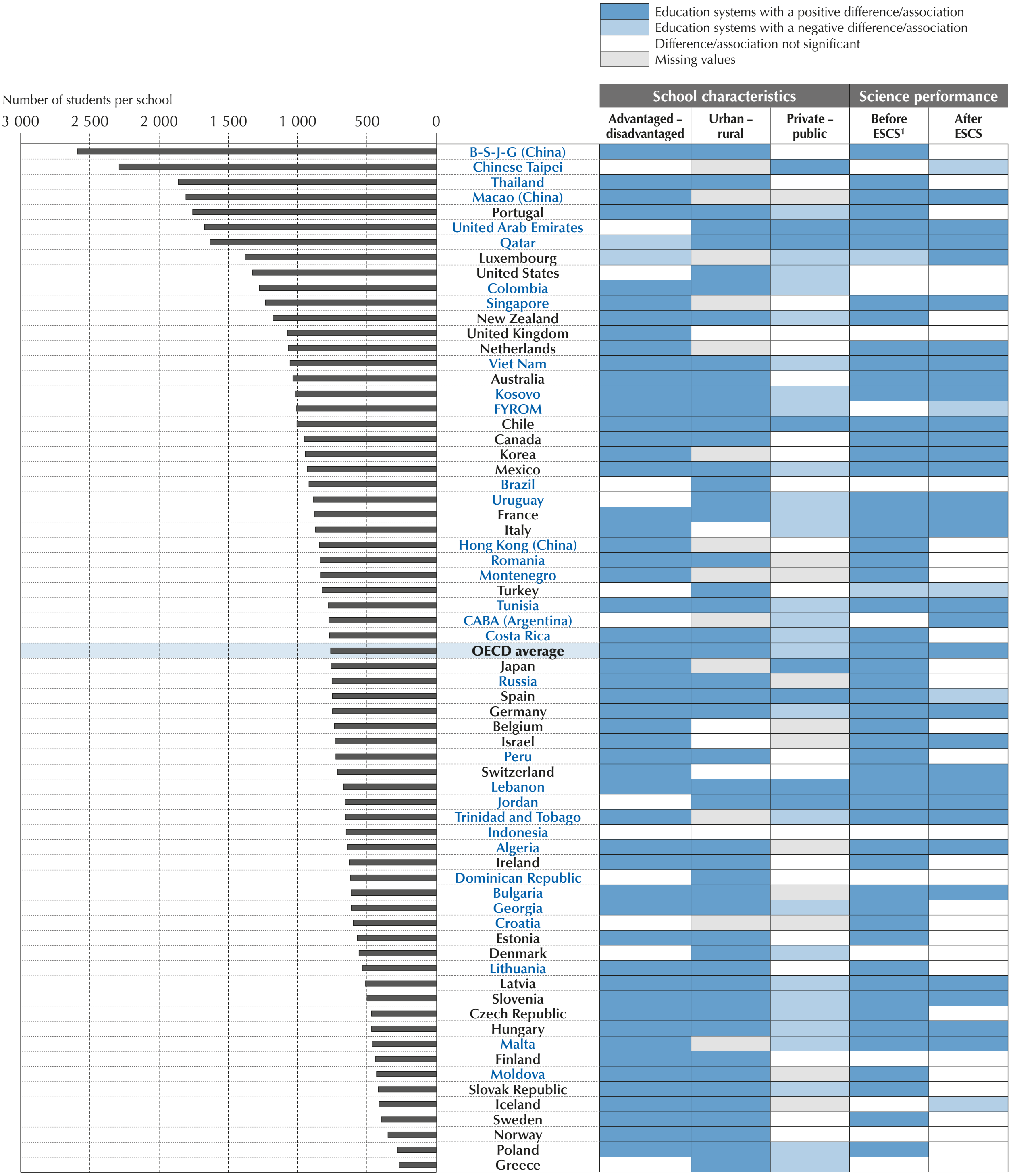
Figure II.6.5 ▪ **Number of students per school, school characteristics and science performance**



■ Education systems with a positive difference/association
▨ Education systems with a negative difference/association
□ Difference/association not significant
▒ Missing values

	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
B-S-J-G (China)	■	■	□	■	□
Chinese Taipei	□	▒	■	□	▨
Thailand	■	■	□	■	□
Macao (China)	■	▒	▒	■	■
Portugal	■	■	▨	■	□
United Arab Emirates	□	■	■	■	■
Qatar	▨	■	■	■	■
Luxembourg	▨	▒	▨	▨	■
United States	□	■	▨	□	□
Colombia	■	■	▨	□	□
Singapore	■	▒	□	■	■
New Zealand	■	■	▨	■	□
United Kingdom	■	□	□	□	□
Netherlands	■	▒	□	■	■
Viet Nam	■	■	▨	■	■
Australia	■	■	□	■	■
Kosovo	■	■	▨	■	■
FYROM	■	■	▨	□	▨
Chile	■	■	■	■	■
Canada	■	■	□	■	■
Korea	■	▒	□	■	■
Mexico	■	■	▨	■	■
Brazil	□	■	□	□	□
Uruguay	□	■	▨	■	■
France	■	■	▨	■	■
Italy	■	□	▨	■	■
Hong Kong (China)	■	▒	□	■	□
Romania	■	■	▒	■	□
Montenegro	■	▒	▒	■	□
Turkey	□	■	□	▨	▨
Tunisia	■	■	▨	■	■
CABA (Argentina)	□	▒	▨	□	■
Costa Rica	■	■	▨	■	□
OECD average	■	■	▨	■	■
Japan	■	▒	■	■	□
Russia	■	■	▒	■	□
Spain	■	■	■	■	▨
Germany	■	■	▨	■	■
Belgium	■	□	▒	■	□
Israel	■	□	▒	■	■
Peru	■	■	□	■	□
Switzerland	■	□	□	■	■
Lebanon	■	■	■	■	■
Jordan	□	■	■	■	■
Trinidad and Tobago	■	▒	▨	■	■
Indonesia	□	□	□	□	□
Algeria	■	■	▒	■	■
Ireland	■	■	□	■	□
Dominican Republic	□	■	□	□	□
Bulgaria	■	■	▒	■	■
Georgia	■	■	▨	■	□
Croatia	□	▒	▒	■	□
Estonia	■	■	□	■	□
Denmark	□	■	▨	□	□
Lithuania	■	■	□	■	□
Latvia	■	■	▨	■	■
Slovenia	■	■	▨	■	■
Czech Republic	■	■	▨	■	□
Hungary	■	■	▨	■	■
Malta	■	▒	▨	■	■
Finland	■	■	□	□	□
Moldova	■	■	▒	■	□
Slovak Republic	■	■	▨	■	□
Iceland	■	■	▒	□	▨
Sweden	■	■	□	■	□
Norway	■	■	□	□	□
Poland	■	■	▨	■	□
Greece	□	■	▨	□	□

Education systems with a positive difference/association	52	48	8	51	30
Education systems with no difference/association	13	6	21	14	32
Education systems with a negative difference/association	2	0	27	2	5

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the average number of students per school.

Source: OECD, PISA 2015 Database, Table II.6.7.

StatLink http://dx.doi.org/10.1787/888933436244

Across OECD countries, the average 15-year-old student attends a school with 762 students (Figure II.6.5). The size of schools ranges from more than 2 000 students in Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter “B-S-J-G [China]”) and Chinese Taipei, to fewer than 400 in Albania, Greece, Norway, Poland and Sweden. In about three out of four education systems, significantly fewer students attend socio-economically disadvantaged schools than advantaged schools. In Thailand, for example, there are 737 students per disadvantaged school compared with 2 956 students per advantaged school, on average. Not surprisingly, the largest differences in school size are observed between rural and urban schools. In almost all education systems, fewer students attend rural schools than urban schools. For example, on average across OECD countries, there is a difference of 501 students between the two types of schools, and in B-S-J-G (China), Thailand and the United Arab Emirates, there is a difference of at least 1 500 students between rural and urban schools. On average across OECD countries and in 27 out of 56 education systems, public schools are larger than private schools. As expected, upper secondary schools are larger than lower secondary schools (Table II.6.7). On average across OECD countries, lower secondary students attend school with 667 other students, while upper secondary students attend school with 920 other students.

In almost all education systems, students in larger schools score higher in science (Figure II.6.5). Even after accounting for the socio-economic profile of students and schools, there are still more education systems (30) where the relationship is positive than education systems (5) where it is negative.

On average across OECD countries, larger schools are better equipped (although the difference disappears once the socio-economic profile of students and schools, the level of education and science performance are accounted for), but smaller schools are better staffed, according to school principals (Table II.6.8). Students in larger schools are more likely to expect to work in a science-related career in the future, even after accounting for socio-economic status, level of education and science performance. Conversely, in smaller schools, students reported a better disciplinary climate in their science lessons, and they are less likely to skip days of school and arrive late for school than students in larger schools, after accounting for socio-economic status, level of education and science performance. Based on these correlational data, there are advantages and disadvantages associated with both small and large schools.

HUMAN RESOURCES

Teachers are an essential resource for learning; but not every teacher attribute is related to student outcomes in the same way. Previous studies have shown, for instance, that teachers’ knowledge of the subject they teach and the quality of their instruction have a measureable impact on student performance – stronger than their level of education, experience, qualifications, work status or salaries (Allison-Jones and Hirt, 2004; Hanushek and Rivkin, 2006; Hanushek, Piopiunik and Wiederhold, 2014; Lockheed and Komenan, 1988; Metzler and Woessmann, 2012; Palardy and Rumberger, 2008). The type and quality of the training teachers receive, and the requirements to enter and progress through the teaching profession, shape the quality of the teaching force. Attracting, developing and retaining effective teachers are priorities for public policy (Mourshed and Barber, 2007).

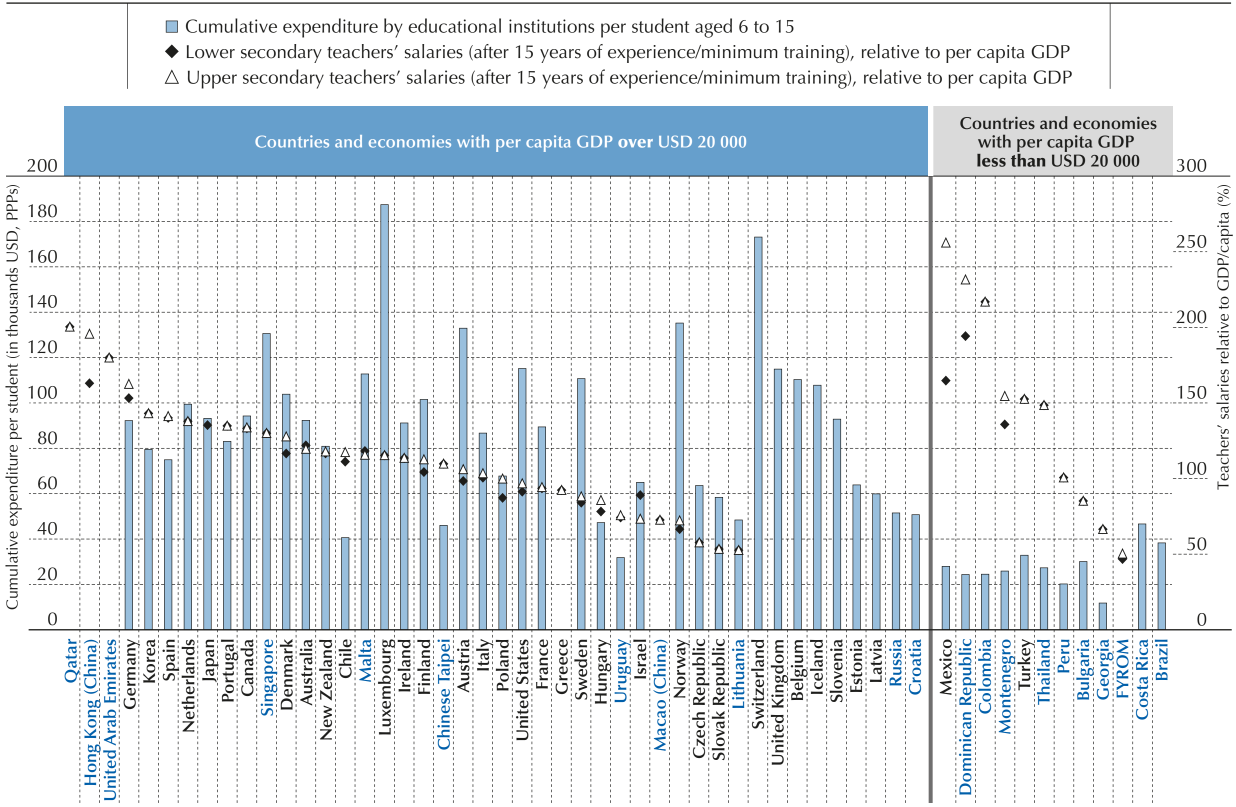
Teachers’ salaries

Teachers’ salaries represent the largest single share of expenditure on education (OECD, 2016b). School systems differ not only in how much they pay teachers, but in the structure of their pay scales. On average, the salaries of teachers[6] with minimum training and 15 years of experience in OECD countries exceed the per capita GDP in their country by 10% for lower secondary teachers and by 16% for upper secondary teachers.

Relative to their country’s national income, lower and upper secondary teachers in Colombia, the Dominican Republic, Germany, Hong Kong (China), Mexico, Qatar, Turkey and the United Arab Emirates earn the most. In these countries/economies, annual earnings of lower secondary teachers with minimum training and 15 years of experience range between 152% and 217% of per capita GDP, while annual earnings of upper secondary teachers with the same qualifications range between 152% and 256% of per capita GDP. By contrast, in the Czech Republic, FYROM, Kazakhstan, Lithuania and the Slovak Republic, annual earnings for lower and upper secondary teachers are less than 60% of per capita GDP (Table II.6.54).

In all school systems, teachers’ salaries rise during the course of a career, although the rate of change differs greatly (the initial salaries of teachers also vary widely between countries). In Korea, Peru, Qatar and Singapore, salaries of teachers with minimum training[7] at the top of the pay scale are at least 2.5 times higher than starting salaries of teachers with similar training, and it takes between 20 and 37 years to reach the top salary. The ratio of teachers’ salaries at the top of the scale to starting salaries is particularly high (at least 2.8 times) in two countries, Korea and Singapore, for both lower and upper secondary teachers. By contrast, in the Czech Republic, Denmark, the Dominican Republic, Georgia, Kazakhstan, Lithuania, Montenegro, Norway and Turkey, the salaries of teachers with minimum training at the top of the scale are 1.3 times higher, at most, than starting salaries of teachers with the same training (Table II.6.54).

Figure II.6.6 ■ **Expenditure on education and teachers' salaries**



Notes: Only countries and economies with available data are shown.

The reference year for the per capita GDP is 2013, except for the following countries: Bulgaria (2012), Canada (2012), Croatia (2015), Macao (China) (2014), Peru (2014) and Uruguay (2014).

Countries and economies are ranked in descending order of upper secondary teachers' salaries.

Source: OECD, PISA 2015 Database, Tables II.6.54, II.6.58 and II.6.59.

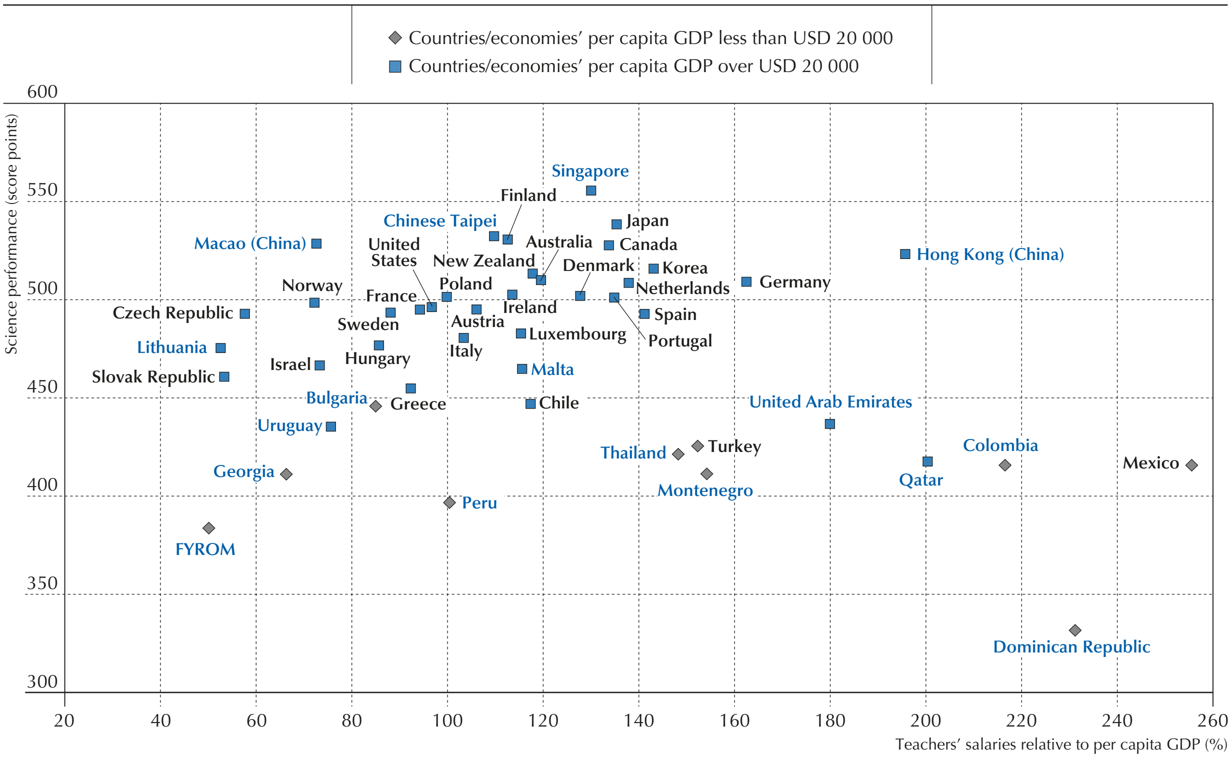
StatLink http://dx.doi.org/10.1787/888933436255

Higher salaries can help school systems attract the best candidates to the teaching profession, and signal that teachers are regarded and treated as professionals. But paying teachers well is only part of the equation. The relationship between science performance and teachers' salaries relative to per capita national income was found not to be statistically significant across PISA participating countries and economies (Figure II.6.7). This finding suggests that other factors, such as the quality of teaching, may be more closely associated with students' performance at the system level. Intervening factors, such as the different criteria used by school systems for identifying and compensating their best teachers and the level of teachers' pay in relation to the system's resources, may also be at play here. For example, if countries do not have enough resources to invest in education, paying relatively high salaries might attract good teachers, but it also might limit the number of teachers the system can afford, thus contributing to shortages of teaching staff.

Pre-service teacher training

System-level data show that competitive examinations are required to enter pre-service teacher training in 20 out of 41 education systems for primary education and in 19 out of 39 systems for secondary education (Table II.6.56). In some countries, even though competitive examinations are not required for pre-service teacher training, a leaving certificate or the results of exams taken by all students at the end of secondary education are used for admission into teacher education programmes. Pre-service teacher training is longest in Germany and Luxembourg, where such training for lower and upper secondary teachers lasts 6 to 7 years.

Figure II.6.7 ▪ **Teachers' salaries and science performance**



Notes: Teachers' salaries refer to the salaries of upper secondary teachers with typical qualifications in the respective countries and economies after 15 years of experience.

Only countries and economies with available data are shown.

The reference year for the per capita GDP is 2013, except for the following countries: Bulgaria (2012), Canada (2012), Croatia (2015), Macao (China) (2014), Peru (2014) and Uruguay (2014).

Source: OECD, PISA 2015 Database, Tables I.2.3, II.6.54 and II.6.59.

StatLink `http://dx.doi.org/10.1787/888933436260`

Figure II.6.8 ▪ **Selected pre-service training requirements for lower secondary teachers in public institutions**

	No examination to enter pre-service training	Competitive examination to enter pre-service training
Relatively short duration of pre-service training programme (less than 4.5 years)	Argentina	Brazil
	Australia	Bulgaria
	Denmark	Georgia
	Dominican Republic	Greece
	England (UK)	Israel
	FYROM	Kazakhstan
	Malta	Korea
	Montenegro	Lithuania
	Norway	Macao (China)
	Singapore	Russia
	Uruguay	Chinese Taipei
		Turkey
Relatively long duration of pre-service training programme (more than 4.5 years)	Estonia	Croatia
	Hungary	Czech Republic
	Ireland	Finland
	Slovak Republic	Hong Kong (China)
	Slovenia	Portugal
	Spain	Peru
	Sweden	

Source: OECD, PISA 2015 Database, Table II.6.56.

Pre-service training for primary school teachers is the shortest (three years) in Austria, Belgium (Flemish and French Communities), Bulgaria, Portugal and Switzerland (Table II.6.56). For lower secondary teachers, pre-service training is shortest (three years) in Belgium (Flemish and French Communities) and Bulgaria. For upper secondary teachers, pre-service training lasts between 4 and 5 years in most education systems. In a few countries/economies, candidates whose bachelor's degree is not specific to education can complete a postgraduate diploma in education in one year. This is the case in Hong Kong (China) and Singapore, for example, for teachers at primary, lower and upper secondary levels.

Countries and economies with available data can be categorised into four groups, according to whether their pre-service training system for teachers in public schools requires a competitive examination and by the duration of the training programme for teaching at the lower secondary level, as shown in Figure II.6.8 (only countries with available data for both categories are presented). Competitive examinations may be required for a variety of reasons in any given country. For example, they may be required only for certain fields of education or when the number of candidates exceeds the capacity of a programme. Alternatively, some countries may provide career counselling to students rather than use examinations.

A teaching practicum is required as part of pre-service training for primary teachers in all 54 countries and economies with available data except Chile, Croatia, France, Georgia, Macao (China) and the United States. In these countries, the requirement for teaching practicum is at the discretion of the teacher-education institutions. In Macao (China), even though these institutions have discretion over the offer of such practicums, they do so in response to teachers' certification requirements in the country. A teaching practicum is also required as part of pre-service training for lower and upper secondary teachers in all 54 countries with available data except Chile, Croatia, the Czech Republic, France, Georgia, Macao (China), Mexico and the United States. In these countries, with the exception of Mexico, decisions regarding such requirements are made by the teacher-education institutions. In the United States, decisions regarding requirements for pre-service training and for entrance into the profession (e.g. competitive examinations, teaching practicums, credentials/licenses) are made at the state level. In Mexico, while a teaching practicum is mandatory at the lower secondary level, it is left to the discretion of the students enrolled in pre-service training programmes at the upper secondary level.

Requirements to enter the teaching profession

System-level data show that a competitive examination is required to enter the teaching profession for both primary and secondary teachers in 15 countries (Table II.6.57). In Luxembourg and Uruguay, a competitive examination to enter the profession is required exclusively for primary school teachers.

A credential or license, in addition to the education diploma, is required to start teaching or to become a fully qualified lower or upper secondary teacher in Australia, Austria, Croatia, England, FYROM, Georgia, Greece, Ireland, Israel, Japan, Malta, Montenegro, Scotland, Slovenia, Sweden, Chinese Taipei and Thailand.

Professional development is compulsory for remaining employed as a lower or upper secondary teacher in the teaching profession in 25 of the 53 countries for which information was available (although in Iceland, it is only a requirement at the lower secondary level). Professional development is a compulsory requirement for promotion or salary increases in 16 of 53 countries (although in Mexico, it is only a requirement at the lower secondary level).

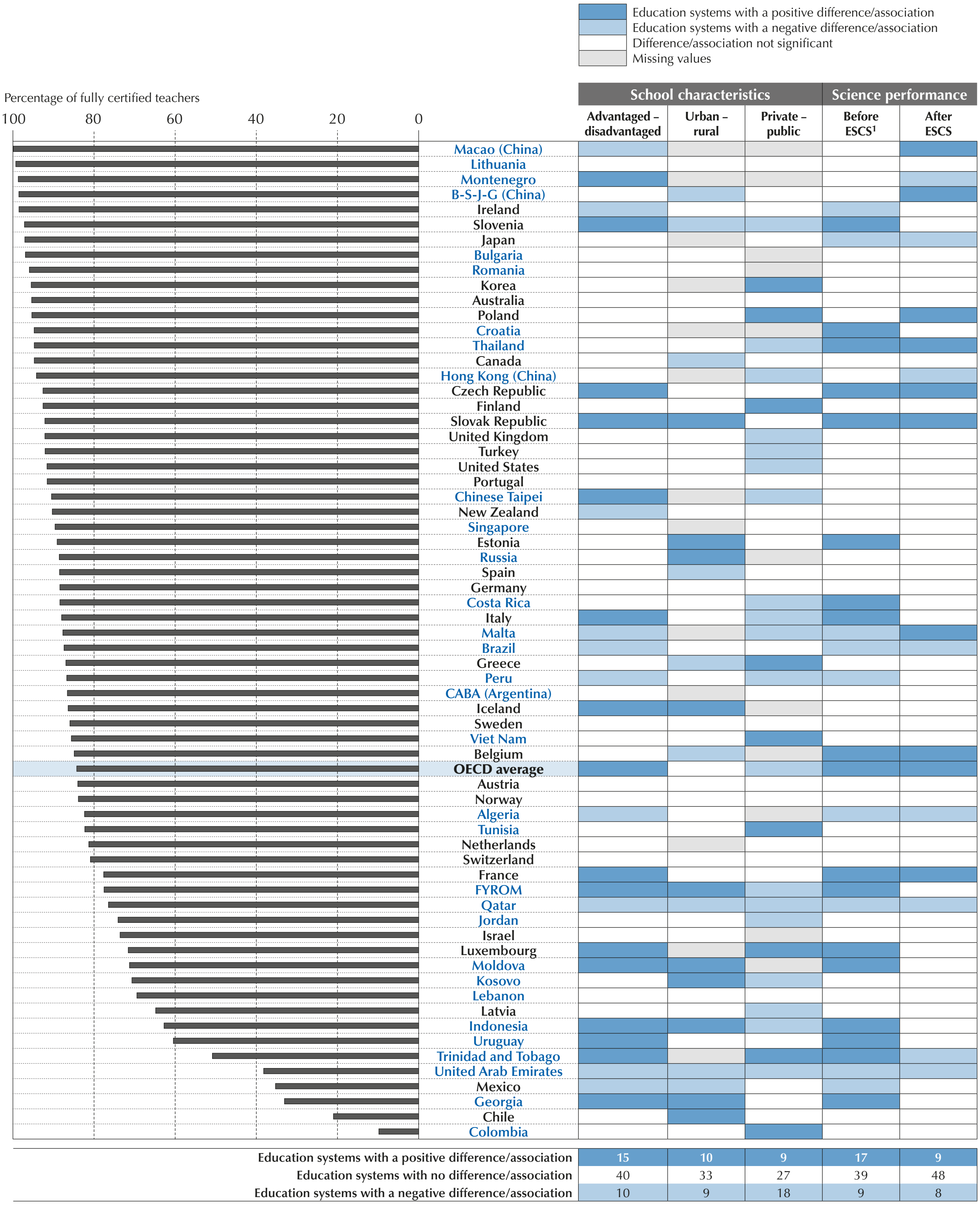
Teacher profile and qualifications

PISA 2015 asked school principals to report on the composition and qualifications of the teachers in their schools; more specifically, they were asked how many teachers work full time or part time and how many are fully certified by an appropriate authority. In most OECD countries, teachers are required to have been certified by an authority; however, many teachers who have earned a university degree do not always need a specific or additional licence to teach.

According to school principals, most of the teachers in their schools are full-time teachers and have some form of certification. Across OECD countries, the average student attends a school where 79% of teachers work full time and 84% have been fully certified (Table II.6.9).

Practices differ across education systems in how much schools rely on part-time teachers. On average across OECD countries, a student attends a school where 21% of teachers work part time. However, students in CABA (Argentina), Mexico, the Netherlands, Switzerland and Uruguay attend schools where more than half of the teachers work part time, while in B-S-J-G (China), Bulgaria, Colombia, Hong Kong (China), Macao (China), Qatar, Trinidad and Tobago, the United Arab Emirates and the United States, less than 4% of teachers work part time (Table II.6.9).

Figure II.6.9 ▪ Percentage of fully certified teachers, school characteristics and science performance



■ Education systems with a positive difference/association
▨ Education systems with a negative difference/association
□ Difference/association not significant
░ Missing values

	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
Macao (China)	▨	░	░	□	■
Lithuania	□	□	□	□	□
Montenegro	■	░	░	□	▨
B-S-J-G (China)	□	▨	□	□	■
Ireland	▨	□	□	▨	□
Slovenia	■	▨	▨	■	□
Japan	□	░	□	▨	▨
Bulgaria	□	□	░	□	□
Romania	□	□	░	□	□
Korea	□	░	■	□	□
Australia	□	□	□	□	□
Poland	□	□	■	□	■
Croatia	□	░	░	■	□
Thailand	□	□	▨	■	■
Canada	□	▨	□	□	□
Hong Kong (China)	□	░	▨	□	▨
Czech Republic	■	□	□	■	■
Finland	□	□	■	□	□
Slovak Republic	■	■	□	■	■
United Kingdom	□	□	▨	□	□
Turkey	□	□	▨	□	□
United States	□	□	▨	□	□
Portugal	□	□	□	□	□
Chinese Taipei	■	░	▨	□	□
New Zealand	▨	□	□	□	□
Singapore	□	░	□	□	□
Estonia	□	■	□	■	□
Russia	□	■	░	□	□
Spain	□	▨	□	□	□
Germany	□	□	□	□	□
Costa Rica	□	□	▨	■	□
Italy	■	□	▨	■	□
Malta	▨	░	▨	▨	■
Brazil	▨	□	□	▨	▨
Greece	□	▨	■	□	□
Peru	▨	□	▨	▨	□
CABA (Argentina)	□	░	□	□	□
Iceland	■	■	░	□	□
Sweden	□	□	□	□	□
Viet Nam	□	□	■	□	□
Belgium	□	▨	░	■	■
OECD average	■	□	▨	■	■
Austria	□	□	□	□	□
Norway	□	□	□	□	□
Algeria	▨	□	░	▨	▨
Tunisia	□	□	■	□	□
Netherlands	□	░	□	□	□
Switzerland	□	□	□	□	□
France	■	□	□	■	■
FYROM	■	■	▨	■	□
Qatar	▨	▨	▨	▨	▨
Jordan	□	□	▨	□	□
Israel	□	□	░	□	□
Luxembourg	■	░	■	■	□
Moldova	■	■	░	■	□
Kosovo	□	■	▨	□	□
Lebanon	□	□	□	□	□
Latvia	□	□	▨	□	□
Indonesia	■	■	▨	■	□
Uruguay	■	□	□	■	□
Trinidad and Tobago	■	░	■	■	▨
United Arab Emirates	▨	▨	▨	▨	▨
Mexico	▨	▨	□	▨	□
Georgia	■	■	□	■	□
Chile	□	■	□	□	□
Colombia	□	□	■	□	□

Education systems with a positive difference/association	15	10	9	17	9
Education systems with no difference/association	40	33	27	39	48
Education systems with a negative difference/association	10	9	18	9	8

1. ESCS refers to the PISA index of economic, social and cultural status.

Note: In Chile the question about the certification of teachers was adapted as "authorised or enabled by the Ministry of Education".

Countries and economies are ranked in descending order of the percentage of fully certified teachers.

Source: OECD, PISA 2015 Database, Table II.6.12.

StatLink http://dx.doi.org/10.1787/888933436272

School systems also differ in whether or not they require teachers to be certified by an appropriate authority. For example, in Chile, Colombia, Georgia, Mexico and the United Arab Emirates, fewer than one in two teachers is fully certified by an appropriate authority, while in 26 out of 67 countries/economies, more than 90% of teachers at an average school are fully certified (Table II.6.9).[8]

In most PISA-participating countries and economies, the percentage of fully certified teachers is similar across advantaged and disadvantaged schools, rural and urban schools, and public and private schools (Table II.6.12 and Figure II.6.9). On average across OECD countries and in 15 countries/economies, particularly France, Georgia, Indonesia, and Trinidad and Tobago, advantaged schools have larger proportions of fully certified teachers than disadvantaged schools, while the reverse is true in 10 education systems, particularly in Algeria and Mexico. In 18 out of 54 countries/economies and on average across OECD countries, public schools have larger proportions of fully certified teachers than private schools. This difference is particularly striking in FYROM and Turkey, where the proportion of fully certified teachers in public schools is more than 50 percentage points larger than that in private schools.

The percentage of full-time teachers is notably higher in disadvantaged schools than in advantaged schools in 22 countries/economies and on average across OECD countries (Table II.6.13). In Luxembourg, Mexico, the Netherlands and Uruguay, the proportion of full-time teachers is at least 15 percentage points larger in disadvantaged schools. In 18 out of 57 countries/economies, full-time teachers are more frequently found in urban schools than in rural schools, while the opposite is observed in 7 countries/economies; there is no significant difference on average across OECD countries. In 32 out of 59 countries/economies and on average across OECD countries, there are more full-time teachers in public schools than in private schools. The most striking case is Tunisia, where virtually all teachers in public schools work full time but only 19% of teachers in the private schools attended by 15-year-old students work full time. In Italy and Poland, the difference in the proportion of full-time teachers between public and private schools is also larger than 30 percentage points.

On average across OECD countries, the proportion of teachers who have been certified to teach is positively, even if modestly, associated with student performance, before and after accounting for the socio-economic profile of students and schools (Figure II.6.9). Across OECD countries, for every ten percentage-point increase in the proportion of fully certified teachers, students score about one point higher in science after accounting for students' and schools' socio-economic profile (Table II.6.12). After accounting for the socio-economic profile of students and schools, there is almost the same number of countries where the proportion of fully certified teachers and science performance are positively associated as where they are negatively associated.

On average across OECD countries, the percentage of teachers working part-time or full-time is not associated with science performance, after accounting for socio-economic status. The proportion of full-time teachers is positively associated with students' science performance only in Bulgaria, Colombia, Japan, Malta, Peru, Chinese Taipei, and Trinidad and Tobago; in Luxembourg, Qatar and Switzerland, the association is negative.

Teachers' professional development

Supporting teachers' participation in professional development activities is one way that schools can strengthen teachers' knowledge base for teaching, one of the three pillars of teacher professionalism, together with teachers' professional autonomy and teachers' participation in peer networks (OECD, 2016c). Just as practitioners in any other profession, teachers need to keep up-to-date with advances in their field. They are often expected to learn about new ways of teaching, discoveries in their field of expertise, new theories about how children learn, curricular changes or innovative tools for the classroom. Professional development for teachers has been shown to be successful in changing the way teachers learn, work and feel about their job, including their self-efficacy and job satisfaction (Desimone et al., 2002; OECD, 2016c), but less so in improving student learning (Hattie, 2009). There is also evidence that the type and quality of professional development activities are critical. Some (Wade, 1985; Timperley, 2008), for instance, report that professional development activities for teachers have a greater impact when teachers are encouraged by their school principal to participate, when the programmes are initiated or funded by education authorities and involve external experts, and when the training is practical rather than theoretical.

PISA asked school principals to report the percentage of all teaching staff and science teaching staff in their school who had attended a programme of professional development in the three months prior to the PISA test.[9] A programme of professional development is defined by PISA as a formal programme of at least one day that is designed to enhance teachers' teaching skills or pedagogical practices. Across OECD countries, the average 15-year-old student attends a school whose principal

reported that half of the teaching staff – of all subjects combined – had attended a programme of professional development in the previous three months (Table II.6.17). The proportion is particularly large in English-speaking countries, such as Australia, New Zealand, Singapore, the United Kingdom and the United States, where at least three out of four teachers had attended such a programme in the three months prior to the PISA assessment. By contrast, in FYROM, Georgia, Norway and Turkey, less than one in four teachers had attended a professional development programme in the previous three months. Across OECD countries, the proportion of science teachers who had attended a professional development programme in the previous three months was almost identical to that of all teachers.

Only in a few education systems are there differences across different types of schools in teachers' and science teachers' participation in professional development activities (Figure II.6.10 and Table II.6.18). In 15 education systems, science teachers in advantaged schools participate more than science teachers in disadvantaged schools; in 4 other school systems, the opposite is true. And there are somewhat more education systems where teachers in urban schools participate more in professional development activities than school systems where teachers in rural schools participate more in these activities. Across OECD countries, there are no significant differences between these categories of schools.

The association between teachers' participation in professional development activities and students' performance in science is weak across most PISA-participating countries and economies, regardless of whether the participation of all teachers or only of science teachers is considered (Figure II.6.10 and Table II.6.18). After accounting for the socio-economic profile of students and schools, in eight education systems, students score higher in science when more of their science teachers had participated in professional development activities; in seven other systems, students score lower in science when their science teachers had participated in such activities.

PISA also asked school principals whether their school offers a series of in-house professional development activities. Across OECD countries, almost all 15-year-old students are enrolled in schools where teachers co-operate by exchanging ideas or material when teaching specific units or series of lessons (96% of students), and a great majority attends schools that invite specialists to conduct in-service training for teachers (80%), organise in-service workshops that address specific issues facing the school (80%) or organise in-service workshops for specific groups of teachers (69%) (Figure II.6.11). According to school principals, professional co-operation among teachers occurs less frequently in Japan and Tunisia, where only around 70% of students attend schools where this occurs compared to at least 89% in every other country/economy. By contrast, activities involving external experts are less common in Algeria, Georgia, Kosovo, Moldova, Tunisia and Viet Nam: less than 50% of students attend schools where these activities are offered.

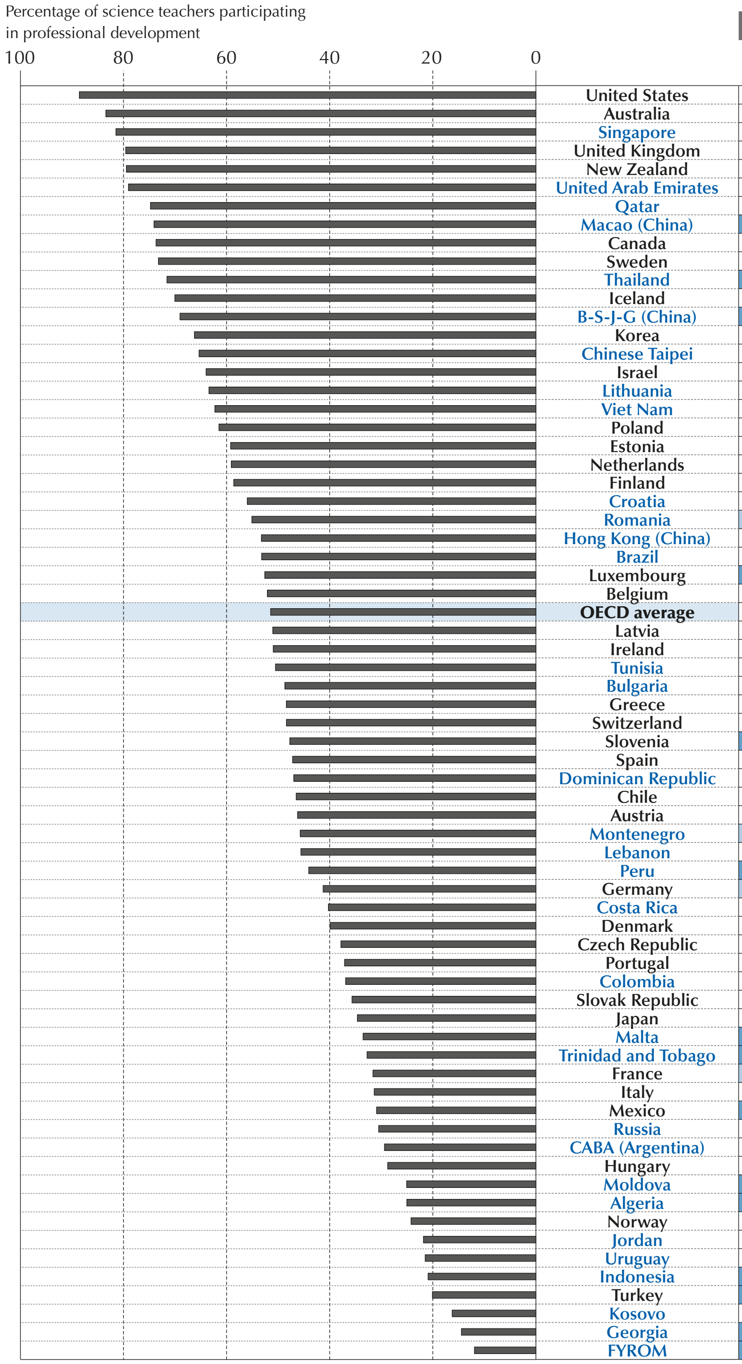
Across OECD countries, inviting specialists to conduct in-service training and organising in-service workshops (whether for specific groups of teachers or for specific issues faced by the school) are more frequently offered in advantaged than in disadvantaged schools, in urban than in rural schools, and in private than in public schools (Tables II.6.22, II.6.23 and II.6.24). There is no significant OECD-wide difference between different types of schools in how often co-operation among teachers takes place, except between private and public schools: co-operation among teachers is somewhat more common in private schools (Table II.6.21). For instance, in 24 out of 60 education systems, private schools engage external specialists more frequently than public schools do, while in 4 systems, the opposite is true. In 19 education systems, teachers in private schools collaborate more frequently by exchanging ideas or material than teachers in public schools do, while only in the Netherlands do public school teachers collaborate more than private school teachers.

On average across OECD countries, three out of the four in-house professional development activities are positively related to student performance in science, before accounting for the socio-economic profile of students and schools; only professional collaboration among teachers in the school is positively associated with student performance in science, after accounting for the socio-economic profile of students and schools. When school principals reported that teachers co-operate by exchanging ideas or material, the average 15-year-old student in OECD countries scores 9 points higher in science; in Slovenia, the average student scores 36 points higher. According to the report, *Supporting Teacher Professionalism* (OECD 2016c), a collaborative culture also shows one of the strongest associations with teachers' self-efficacy and job satisfaction.

On average across OECD countries, the percentage of teachers participating in professional development activities is higher when the school organises these kinds of activities directly, including inviting specialists or organising in-service workshops dealing with specific issues or for specific groups of teachers (Table II.6.25).

Figure II.6.10 ▪ Science teachers' participation in professional development activities, school characteristics and science performance

■ Education systems with a positive difference/association
▨ Education systems with a negative difference/association
□ Difference/association not significant
░ Missing values



	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
United States	□	□	□	□	□
Australia	□	□	□	□	□
Singapore	□	░	□	□	□
United Kingdom	□	□	▨	□	□
New Zealand	□	□	□	□	□
United Arab Emirates	□	▨	□	□	□
Qatar	□	▨	▨	▨	▨
Macao (China)	■	░	░	□	□
Canada	□	□	▨	▨	□
Sweden	□	□	□	□	□
Thailand	■	□	□	■	■
Iceland	□	■	░	□	□
B-S-J-G (China)	■	□	□	■	□
Korea	□	░	□	□	□
Chinese Taipei	□	░	■	□	□
Israel	□	□	░	□	□
Lithuania	□	□	░	■	□
Viet Nam	□	□	□	□	□
Poland	□	□	□	□	□
Estonia	□	□	▨	□	□
Netherlands	□	░	□	□	□
Finland	□	□	□	□	□
Croatia	□	░	░	□	■
Romania	▨	□	░	▨	□
Hong Kong (China)	□	░	□	□	□
Brazil	□	■	□	□	■
Luxembourg	■	░	■	■	■
Belgium	□	□	░	□	□
OECD average	□	□	□	▨	▨
Latvia	□	□	□	□	□
Ireland	□	□	□	□	□
Tunisia	□	□	░	□	□
Bulgaria	□	□	░	▨	▨
Greece	□	□	□	□	■
Switzerland	□	□	□	▨	□
Slovenia	■	■	□	■	▨
Spain	□	□	■	□	□
Dominican Republic	□	□	□	□	□
Chile	□	□	□	□	□
Austria	□	▨	□	□	□
Montenegro	▨	░	░	▨	□
Lebanon	□	□	■	□	□
Peru	■	□	■	■	□
Germany	▨	□	□	▨	□
Costa Rica	□	□	□	□	□
Denmark	□	□	▨	□	□
Czech Republic	□	□	□	▨	□
Portugal	□	■	■	□	□
Colombia	□	■	□	□	□
Slovak Republic	□	□	□	□	□
Japan	□	░	□	□	□
Malta	■	░	■	■	▨
Trinidad and Tobago	■	░	■	□	▨
France	▨	□	□	▨	□
Italy	□	□	■	□	□
Mexico	■	■	□	■	■
Russia	□	□	░	□	□
CABA (Argentina)	□	░	□	□	□
Hungary	□	□	□	□	□
Moldova	■	□	░	□	▨
Algeria	■	■	░	■	■
Norway	□	□	░	□	□
Jordan	□	□	□	□	■
Uruguay	□	□	□	□	▨
Indonesia	■	□	□	□	□
Turkey	■	□	□	□	□
Kosovo	□	■	□	□	□
Georgia	■	■	□	■	□
FYROM	■	▨	■	■	□
Education systems with a positive difference/association	15	9	10	11	8
Education systems with no difference/association	49	42	39	48	53
Education systems with a negative difference/association	4	4	5	9	7

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the percentage of science teachers participating in professional development.

Source: OECD, PISA 2015 Database, Table II.6.19.

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Figure II.6.11 ▪ In-house professional development activities

Results based on school principals' reports

░ Less than half of students
▒ From 50% to 75% of students
▓ More than 75% of students

	Percentage of students in schools where the following types of in-house professional development activities exist			
	The teachers in our school co-operate by exchanging ideas or material when teaching specific units or series of lessons	Our school invites specialists to conduct in-service training for teachers	Our school organises in-service workshops that deal with specific issues that our school faces	Our school organises in-service workshops for specific groups of teachers
United Kingdom	100	94	100	98
New Zealand	100	93	99	98
United States	99	92	98	97
Australia	99	92	98	97
United Arab Emirates	100	91	98	97
Singapore	100	90	98	96
Qatar	100	88	97	97
B-S-J-G (China)	100	90	98	94
Netherlands	94	94	93	95
Macao (China)	100	95	84	93
Canada	100	89	95	88
Iceland	98	89	95	87
Korea	95	90	96	88
Chinese Taipei	94	92	91	91
Ireland	100	93	94	77
Germany	98	92	96	78
Israel	96	88	93	80
Estonia	97	97	92	70
Hong Kong (China)	99	87	89	78
Russia	99	68	98	89
Poland	100	95	97	62
Austria	99	93	84	75
Portugal	98	90	90	71
Switzerland	98	82	85	83
Albania	100	69	88	90
CABA (Argentina)	96	79	92	71
Montenegro	99	77	80	83
Trinidad and Tobago	94	87	91	66
Dominican Republic	95	83	91	68
Malta	100	93	90	51
Romania	99	72	83	78
Jordan	94	75	83	80
Thailand	90	88	88	64
Moldova	99	43	99	90
Luxembourg	96	84	76	72
OECD average	96	80	80	69
Latvia	97	87	74	65
Belgium	97	76	75	72
Japan	71	80	84	85
Lithuania	96	94	83	45
Bulgaria	99	79	79	60
Slovenia	99	78	83	52
Croatia	97	73	77	62
Viet Nam	100	27	92	89
Costa Rica	94	79	82	48
FYROM	95	53	78	75
Chile	89	73	79	57
Sweden	99	66	79	55
Uruguay	94	78	80	43
Denmark	99	77	61	56
Spain	92	70	72	58
Lebanon	95	68	62	63
Finland	100	72	63	51
Georgia	100	49	72	62
Italy	93	71	68	52
Peru	90	70	78	44
Greece	97	59	90	37
Norway	98	51	71	62
France	93	58	64	59
Czech Republic	98	81	57	38
Colombia	89	57	73	54
Slovak Republic	98	74	51	45
Mexico	94	56	68	50
Indonesia	96	74	55	38
Hungary	99	59	40	47
Brazil	97	60	49	32
Kosovo	99	44	52	42
Turkey	94	53	30	45
Algeria	93	14	34	53
Tunisia	72	21	25	38

Countries and economies are ranked in descending order of the percentage of students in schools offering in-house professional development (average of four activities).
Source: OECD, PISA 2015 Database, Table II.6.20.
StatLink http://dx.doi.org/10.1787/888933436298

Shortage of education staff

The lack or quality of the human resources in schools can also be measured by asking principals if the lack or quality of teaching and assisting staff hinders the capacity to provide instruction in the school. Principals' responses were combined to create an index of shortage of education staff. The average on the index is zero and the standard deviation is one across OECD countries. Positive values reflect principals' perceptions that a shortage of education staff hinders the capacity to provide instruction to a greater extent than the OECD average; negative values indicate that school principals believe a shortage hinders the capacity to provide instruction to a lesser extent.

On average across OECD countries, 39% of students attend schools whose principal reported that a lack of teaching staff does not hinder the capacity to provide instruction at all; only 4% of students are in schools whose principal reported that a lack of teaching staff hinders the capacity to provide instruction a lot (Table II.6.14). A similar proportion of principals reported that the capacity to provide instruction is hindered by an inadequate or poor teaching staff. However, in a number of countries, including Germany, Greece, Ireland, Korea, Luxembourg, Spain and Thailand, school principals appear to be more concerned about the lack of teaching staff than about the quality of the staff. Across OECD countries, one in ten students attends a school whose principal reported that the capacity to provide instruction is hindered a lot by the lack of assisting staff. In Colombia, Greece, Hungary, Korea and Spain, principals were considerably more concerned about the lack of assisting staff than about the quality of the assisting staff. Some of these countries have faced severe budgetary constraints in recent years.

In 34 out of 68 education systems, advantaged schools are better staffed than disadvantaged schools, according to school principals, while the opposite was reported only in FYROM (Figure II.6.12 and Table II.6.15). On average across OECD countries, public schools are more hindered by a lack of and a lower quality of education staff than private schools. In 35 countries and economies, student learning is more likely to be hindered by a shortage of or the inadequacy and poor quality of education staff in public schools. Only in France is the capacity to provide instruction in public schools less hindered by an inadequacy or poor quality of education staff than in private schools, according to school principals.

In about half of the education systems that participated in PISA 2015, students score lower in schools whose principal reported that the capacity to provide instruction is hindered to a great extent by a shortage of education staff (Figure II.6.12). After accounting for the socio-economic profile of students and schools, in only eight education systems is a shortage of education staff still negatively associated with science performance, presumably because of the strong association between a lack or inadequacy of teaching staff and schools' socio-economic disadvantage mentioned above.

Equity in resource allocation can also be measured by how concerned principals are about the human resources at their schools. An equitable allocation of human resources would imply that the schools attended by socio-economically disadvantaged students are at least as well-staffed as the schools attended by advantaged students, to compensate for the inequalities in the home environment. This is measured by the index of equity in resource allocation (staff), which measures the extent to which the socio-economic profile of schools is positively or negatively associated with principals' concern about the lack or inadequacy of human resources at school.[10] Positive values indicate that principals in disadvantaged schools reported less concern about the human resources at their schools than principals in advantaged schools. In FYROM, school principals in disadvantaged schools are less concerned than principals in advantaged schools about the human resources at their schools – the only country where this is observed. In Australia, CABA (Argentina), Peru, Spain and 18 other education systems, principals in disadvantaged schools are more concerned (Table II.6.16).

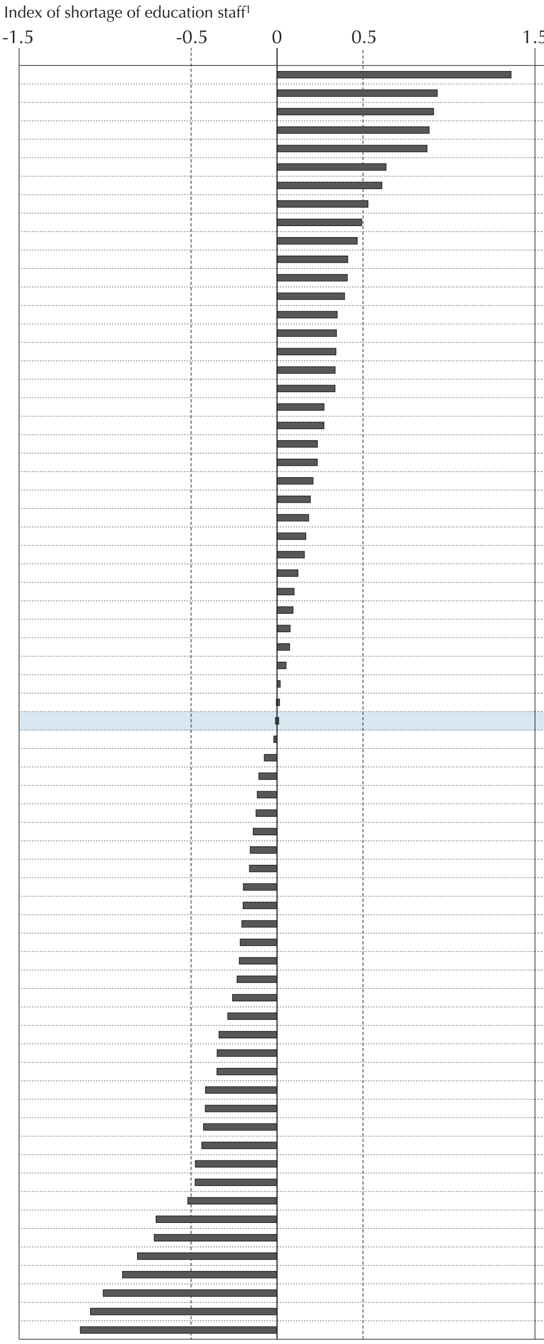
In some education systems, human resources are better distributed between advantaged and disadvantaged schools than material resources, according to school principals. In CABA (Argentina), Lebanon, Macao (China), Mexico and Thailand, for instance, principals of disadvantaged schools are more concerned than principals of advantaged schools about the material than about the human resources in their schools. Conversely, in Australia, B-S-J-G (China), New Zealand and Spain, they are relatively more concerned about the human than about the material resources (Figure II.6.13).

Class size and student-teacher ratio

Class size can affect learning in various ways. Large classes may limit the time and attention teachers can devote to individual students, rather than to the whole class; they may also be more prone to disturbances from noisy and disruptive students. As a result, teachers might have to adopt different pedagogical styles to compensate, and these, in turn, might affect learning.

Figure II.6.12 ▪ Index of shortage of education staff, school characteristics and science performance

■ Education systems with a positive difference/association
▨ Education systems with a negative difference/association
□ Difference/association not significant
░ Missing values



	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[2]	After ESCS
Tunisia	□	□	▨	□	□
Portugal	▨	□	▨	▨	□
Costa Rica	□	□	□	□	□
Jordan	▨	□	□	□	□
B-S-J-G (China)	▨	▨	□	▨	□
Trinidad and Tobago	▨	░	▨	□	□
Greece	□	□	▨	□	□
Turkey	▨	□	▨	▨	□
Japan	□	░	□	□	□
Colombia	▨	□	▨	▨	▨
Germany	□	□	▨	▨	□
Algeria	□	□	░	■	■
Luxembourg	▨	░	▨	▨	■
Italy	□	□	▨	□	□
Sweden	▨	□	□	▨	□
Uruguay	▨	□	▨	▨	□
Israel	□	□	░	□	□
Peru	▨	▨	▨	▨	□
Thailand	□	□	▨	□	□
Spain	▨	□	▨	▨	□
Belgium	□	■	░	▨	□
Macao (China)	▨	░	░	▨	▨
Chinese Taipei	□	░	□	▨	□
Korea	□	░	□	□	□
Austria	□	□	□	□	□
France	□	□	■	□	□
United Arab Emirates	▨	▨	▨	▨	▨
Ireland	□	□	□	□	□
Mexico	▨	□	▨	▨	□
Hungary	▨	□	▨	▨	□
Russia	□	□	░	□	□
Estonia	□	□	□	□	□
Viet Nam	□	□	□	□	□
Netherlands	□	░	□	□	□
Finland	□	□	▨	▨	▨
OECD average	▨	□	▨	▨	▨
Croatia	□	░	░	□	□
Brazil	▨	□	▨	▨	□
Norway	▨	□	□	▨	▨
United Kingdom	▨	□	▨	□	□
Indonesia	▨	▨	□	▨	□
Lebanon	▨	□	▨	▨	□
Kosovo	□	□	▨	▨	□
CABA (Argentina)	▨	░	▨	▨	□
Malta	▨	░	□	▨	□
Canada	▨	▨	▨	▨	□
Hong Kong (China)	□	░	▨	□	□
Latvia	□	□	□	□	□
Dominican Republic	▨	▨	▨	▨	□
Chile	▨	□	▨	▨	□
Iceland	□	■	░	□	□
United States	▨	□	▨	▨	▨
Georgia	□	□	▨	□	□
Australia	▨	□	▨	▨	□
Moldova	□	□	░	□	□
Romania	□	□	░	□	□
New Zealand	▨	□	▨	▨	□
Switzerland	□	□	□	□	□
Czech Republic	▨	□	▨	▨	□
Singapore	□	░	□	□	□
Lithuania	□	□	□	□	□
Slovenia	▨	■	▨	▨	□
Denmark	▨	□	▨	▨	□
Qatar	▨	▨	▨	▨	□
Slovak Republic	▨	▨	□	▨	▨
FYROM	■	▨	▨	▨	▨
Montenegro	▨	░	░	□	□
Poland	□	□	□	□	□
Bulgaria	□	□	░	□	□
Education systems with a positive difference/association	1	3	1	1	2
Education systems with no difference/association	33	43	21	31	58
Education systems with a negative difference/association	34	9	35	36	8

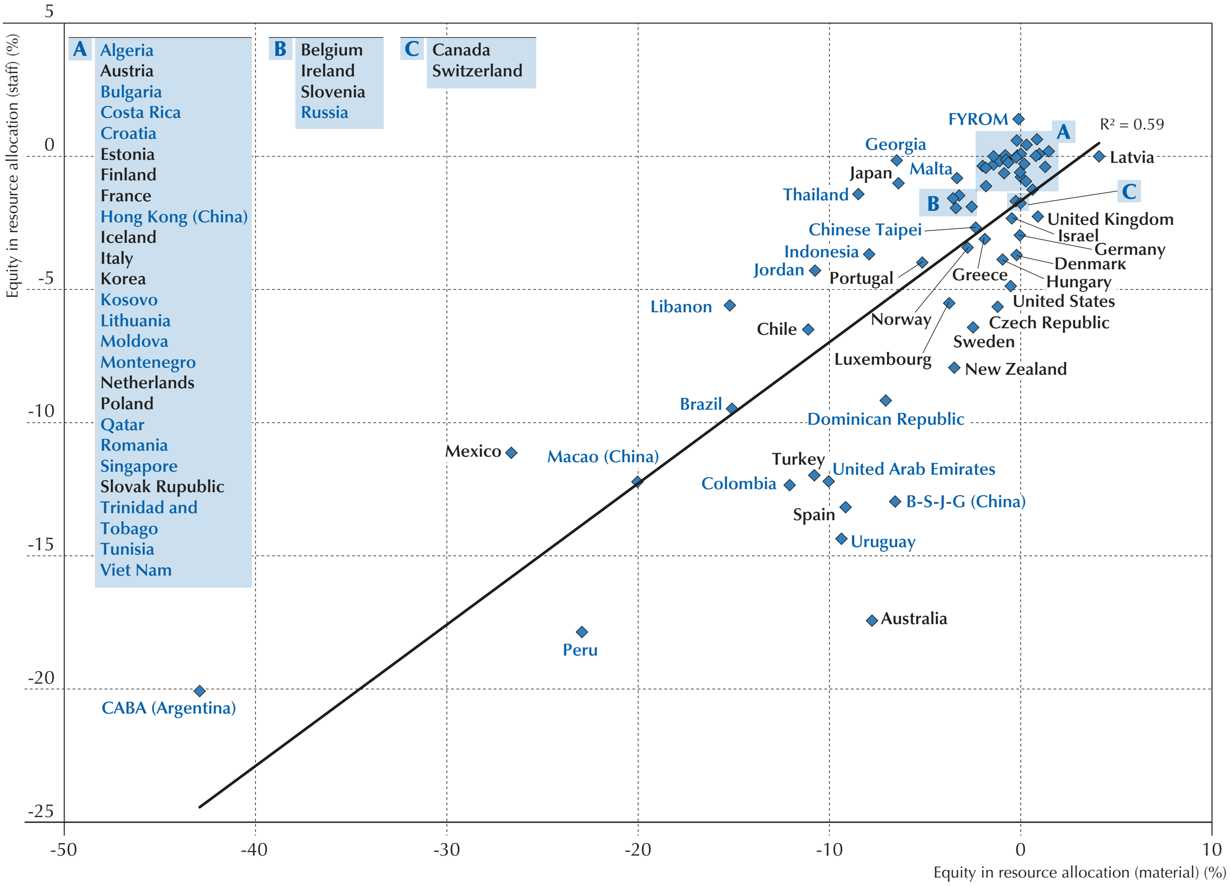
1. Higher values in the index indicate a greater shortage of educational staff.
2. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the index of shortage of education staff.

Source: OECD, PISA 2015 Database, Table II.6.15.

StatLink http://dx.doi.org/10.1787/888933436301

Figure II.6.13 ■ **Equity in allocation of material and human resources**



Source: OECD, PISA 2015 Database, Tables II.6.3 and II.6.16.

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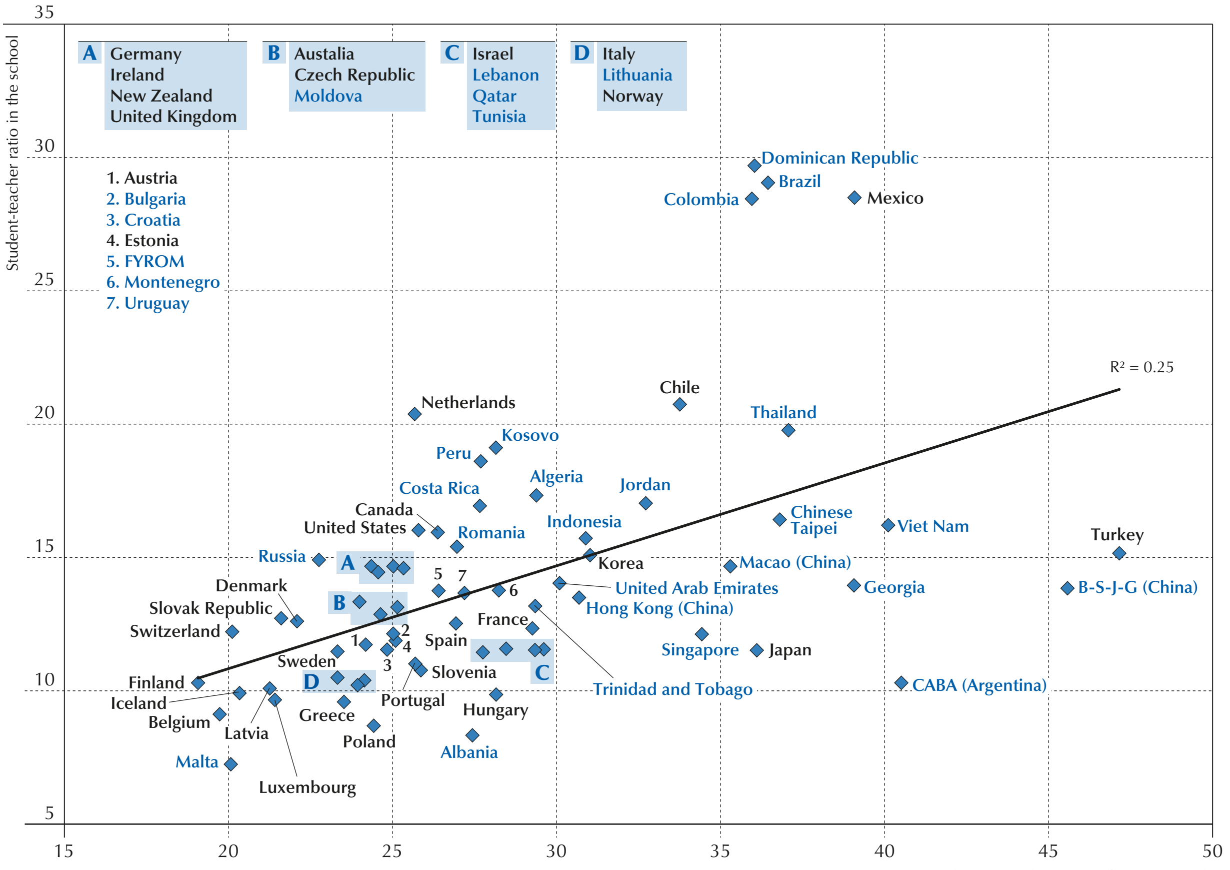
Some studies, particularly those based on the Tennessee STAR experiment, which assigned students randomly to larger or smaller classes, show that smaller classes can improve student outcomes and might be more beneficial for disadvantaged and minority students (Dynarski, Hyman and Schanzenbach, 2013). Chetty et al. (2011) even find long-term effects on college attendance, home ownership and savings. However, other research shows no impact of class size on student performance (Woessmann and West, 2006). For instance, no long-term gains in earnings were observed among students in the Tennessee STAR experiment who attended smaller classes (Chetty et al., 2011); and large classes are found in many Asian countries where average student performance in PISA is high (Figure II.6.16). But given the relatively high cost of reducing class size, the decision to do so or not should ultimately depend on how much it improves student outcomes compared to other, less expensive, policy interventions (Fredriksson, Ockert and Oosterbeek, 2013).

PISA 2015 asked school principals to report the average size of language-of-instruction[11] classes in the national modal grade for 15-year-olds. It also asked the total number of teachers and students in their schools, from which the student-teacher ratio was computed (Table II.6.26).[12] According to schools principals, on average across OECD countries, there are 26 students per language-of-instruction class. In B-S-J-G (China), CABA (Argentina), Turkey and Viet Nam, there are 40 or more students per class, while in Belgium, Finland, Iceland, Malta and Switzerland, there are 20 or fewer students.

Across OECD countries, the average student attends a school where there are 13 students for every teacher (Table II.6.26). Student-teacher ratios range from almost 30 students per teacher in Brazil, Colombia, the Dominican Republic and Mexico, to fewer than 10 students per teacher in Albania, Belgium, Greece, Hungary, Iceland, Luxembourg, Malta and Poland.

The comparison of student-teacher ratios and class size can provide a measure of the spare teacher resource capacity within schools. Across education systems, there is a positive association between class size and student-teacher ratios; but there are several education systems, such as those in B-S-J-G (China), CABA (Argentina), Georgia, Japan and Singapore, that have both large classes and low or average student-teacher ratios. Teachers in these systems may, as a result, have more time to prepare for their classes and for other school responsibilities besides teaching. By contrast, there are also some education systems with small or average classes and high student-teacher ratios, such as those in Germany, Ireland, the Netherlands, New Zealand, the Russian Federation (hereafter "Russia"), the United Kingdom and the United States (Figure II.6.14).

Figure II.6.14 ■ **Relationship between class size and student-teacher ratio**



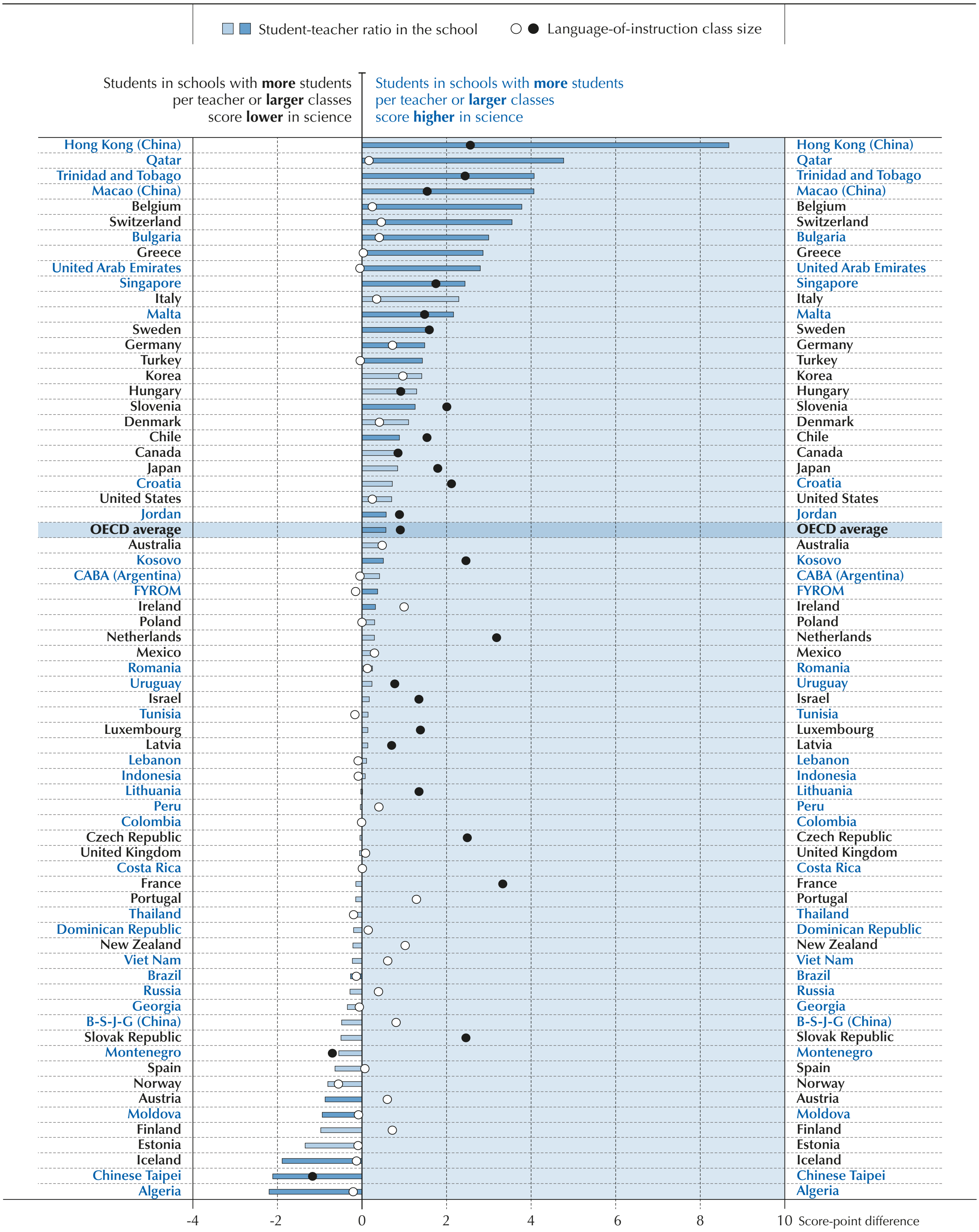
Source: OECD, PISA 2015 Database, Table II.6.26.

StatLink `http://dx.doi.org/10.1787/888933436320`

Between 2006 and 2015, both of the above measures decreased across OECD countries – by about one student, when measuring class size, and by 0.7 student per teacher, when measuring the student-teacher ratio (Table II.6.28). Across PISA-participating education systems, class size increased in Denmark, Ireland, the Netherlands, Portugal and especially in Turkey, where it increased from 34 to 47 students. Class size decreased in 27 education systems, particularly in Greece (where it fell from 35 to 24 students per class), Hong Kong (China), Indonesia, Latvia, Macao (China) and Uruguay. The student-teacher ratio increased in 9 education systems during the period, especially in Colombia and the Netherlands, and decreased in 30 others, particularly in Chile, Hong Kong (China), Macao (China) and Tunisia. In Turkey, class size increased at the same time that the student-teacher ratio decreased, while in Colombia, Greece, Italy, Luxembourg and Qatar, class size decreased and the student-teacher ratio increased.

On average across OECD countries, large classes and higher student-teacher ratios are more frequently observed in socio-economically advantaged schools than in disadvantaged schools, in urban than in rural schools, in public than in private schools, and in upper secondary than in lower secondary schools (Tables II.6.29 and II.6.30). For instance, in Italy there are 8 students per teacher in disadvantaged schools while there are 13 students per teacher in advantaged schools.

Figure II.6.15 ▪ Relationship between class size and student-teacher ratio, and science performance



Notes: Statistically significant values are marked in a darker tone (see Annex A3).

The regression analyses accounts for the socio-economic profile of students and schools.

Countries and economies are ranked in descending order of the change in science score associated with a one-unit increase in the student-teacher ratio.

Source: OECD, PISA 2015 Database, Tables II.6.29 and II.6.30.

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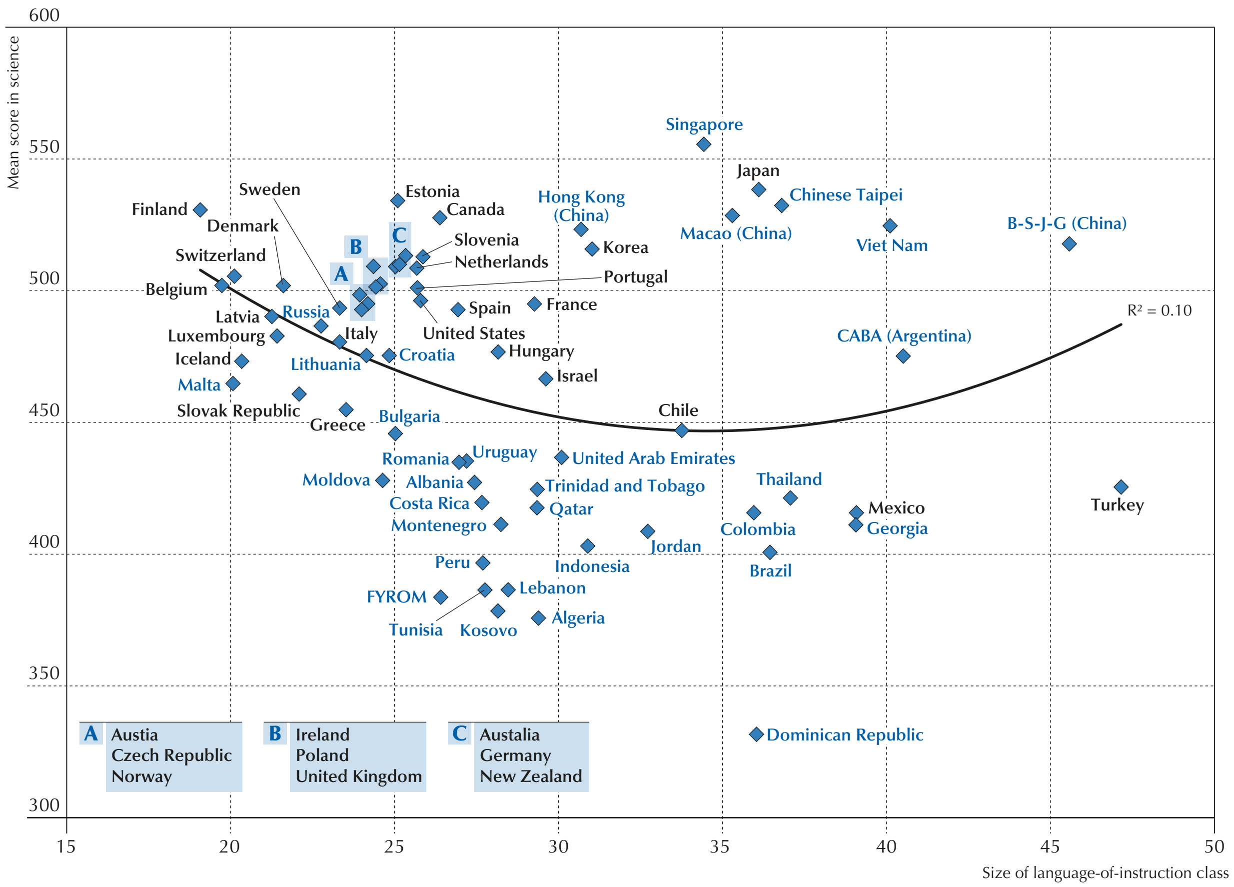
In Chile and FYROM, the difference in the student-teacher ratio between urban and rural schools is approximately ten students per teacher. But in a few countries, classes are larger or student-teacher ratios are higher in disadvantaged schools than in advantaged schools. For instance, in the Dominican Republic, there are 13 more students per teacher in disadvantaged than in advantaged schools. In this country, some students may be facing the double disadvantage of fewer resources both at home and at school.

Students in larger classes and in schools with higher student-teacher ratios score higher in science, on average across OECD countries (Figure II.6.15). The positive association between the student-teacher ratio and science performance is particularly strong in Belgium, Hong Kong (China), Macao (China), Qatar, and Trinidad and Tobago, and that between class size and science scores is particularly strong in France and the Netherlands. After accounting for the socio-economic profile of students and schools, students in Hong Kong (China), for instance, score nine points higher in science for every additional student per teacher in the school. At the system level, there is no linear association between the average size of the language-of-instruction class and average science performance. Students perform moderately lower in countries as the number of students per class increases from 20 to 35, but perform somewhat better after that point, mainly because of the high scores and large classes commonly observed in East Asian countries and economies, such as B-S-J-G (China), Japan, Macao (China), Singapore, Chinese Taipei and Viet Nam (Figure II.6.16).

The relationships between class size/student-teacher ratio and student achievement should be interpreted with caution, given that some education systems may be reducing the size of classes, or the student-teacher ratio, in an effort to tackle low performance. In addition, schools with lower achievement often have difficulty in retaining or attracting good students, which could affect their overall academic performance.

Figure II.6.16 ■ **Relationship between class size and science performance**



Source: OECD, PISA 2015 Database, Tables I.2.3 and II.6.26.

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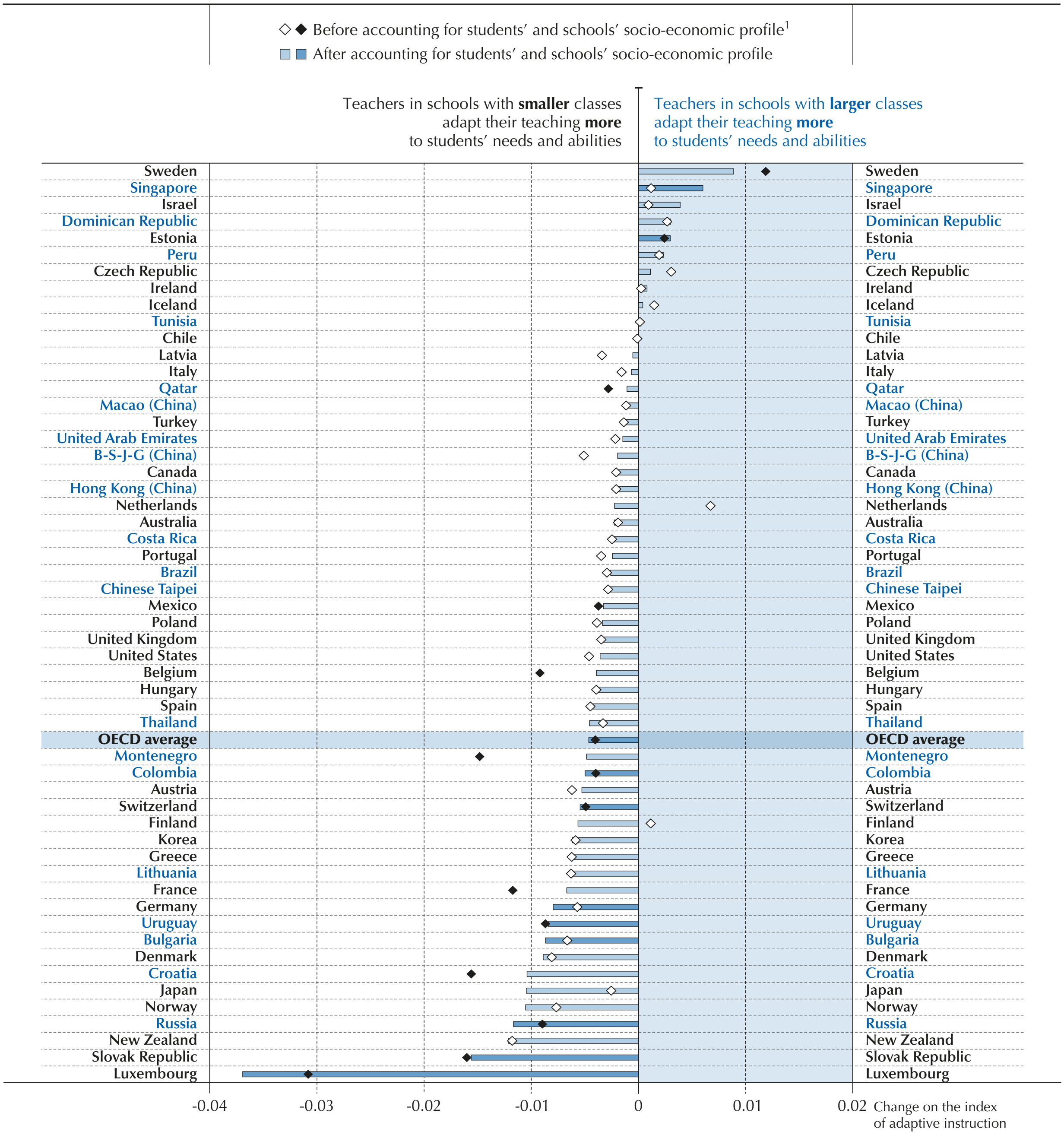
For instance, an often-mentioned benefit of smaller classes is that teachers can dedicate greater attention to individual students, especially to those who need academic support the most. PISA 2015 findings show that, on average across OECD countries, in schools with smaller classes, students were more likely to report that their teachers adapt their lessons to students' needs and knowledge,[13] provide individual help to struggling students, and change the structure of the lesson if students find it difficult to follow (Figure II.6.17). This is particularly the case in Luxembourg, Russia and the Slovak Republic, after accounting for students' and schools' socio-economic profile.

Figure II.6.17 ■ **Class size and the index of adaptive instruction**



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Statistically significant correlation coefficients are marked in a darker tone (see Annex A3).
Countries and economies are ranked in descending order of the regression coefficient, after accounting for students' and schools' socio-economic profile.
Source: OECD, PISA 2015 Database, Table II.6.31.
StatLink http://dx.doi.org/10.1787/888933436356

TIME RESOURCES

Ever since the seminal study by John B. Carroll (1963) on the extent of learning as a function of the time a student receives instruction relative to the time the student needs (in addition to the quality of instruction and students' engagement and ability), educators and policy makers have attempted to understand how students' hours in school should be organised to maximise learning (Bloom, 1968). The literature suggests that increasing learning time can improve academic achievement, for instance by giving teachers and students more opportunities to cover the curriculum, repeat material, provide/receive feedback and engage in hands-on activities (Carroll, 1989; Marzano, 2003; Patall, Cooper and Allen, 2010). Increasing learning time can involve, for instance, making school days or years longer, or shortening lunch breaks. However, more learning time does not necessarily result in better student outcomes (Hattie, 2009), and it can actually lead to fatigue and boredom among students and burnout among teachers (Patall, Cooper and Allen, 2010). The key question is how the allocated instruction time translates into actual lesson time, engagement time and, ultimately, into productive or actual learning time (Gromada and Shewbridge, 2016).

Actual teaching time

Most education systems establish the total number of hours teachers are required to work per week or per year in order to earn a full-time salary. The required working time may include both teaching and non-teaching time, which is reserved for a variety of teachers' tasks, such as preparing lessons, correcting students' homework, grading assignments, or attending staff meetings or professional development sessions. Actual teaching time, which, in many countries, may differ from statutory teaching time, is the average number of hours per year that full-time teachers teach a group or a class of students, including overtime. It thus provides a full picture of teachers' actual teaching load (OECD 2016b, Indicator D4).

The allocation of time to each of these activities varies considerably across countries, as many factors may influence how much time teachers spend teaching, including collective and contractual agreements, teacher absenteeism, teacher shortage or variations in teaching load related to a teacher's progression through his or her career (i.e. reduced teaching load for beginning teachers). System-level data reveal that actual teaching time in PISA-participating countries and economies ranges from less than 500 hours per year in Malta, Qatar, Russia, Chinese Taipei and Uruguay to more than 800 hours in Australia and the Dominican Republic at both the lower and upper secondary levels (Table II.6.55). In the United States, actual teaching time also exceeds 800 hours annually at the lower secondary level.

There are also variations by level of education. Among OECD countries with available data for both levels of secondary education, average teaching time is 662 hours per year at the lower secondary level and 619 hours per year at the upper secondary level. The difference in total teaching time between these two levels of education is much smaller among partner countries, where teachers teach, on average, 595 hours per year at the lower secondary level and 589 hours per year at the upper secondary level.

Student learning time

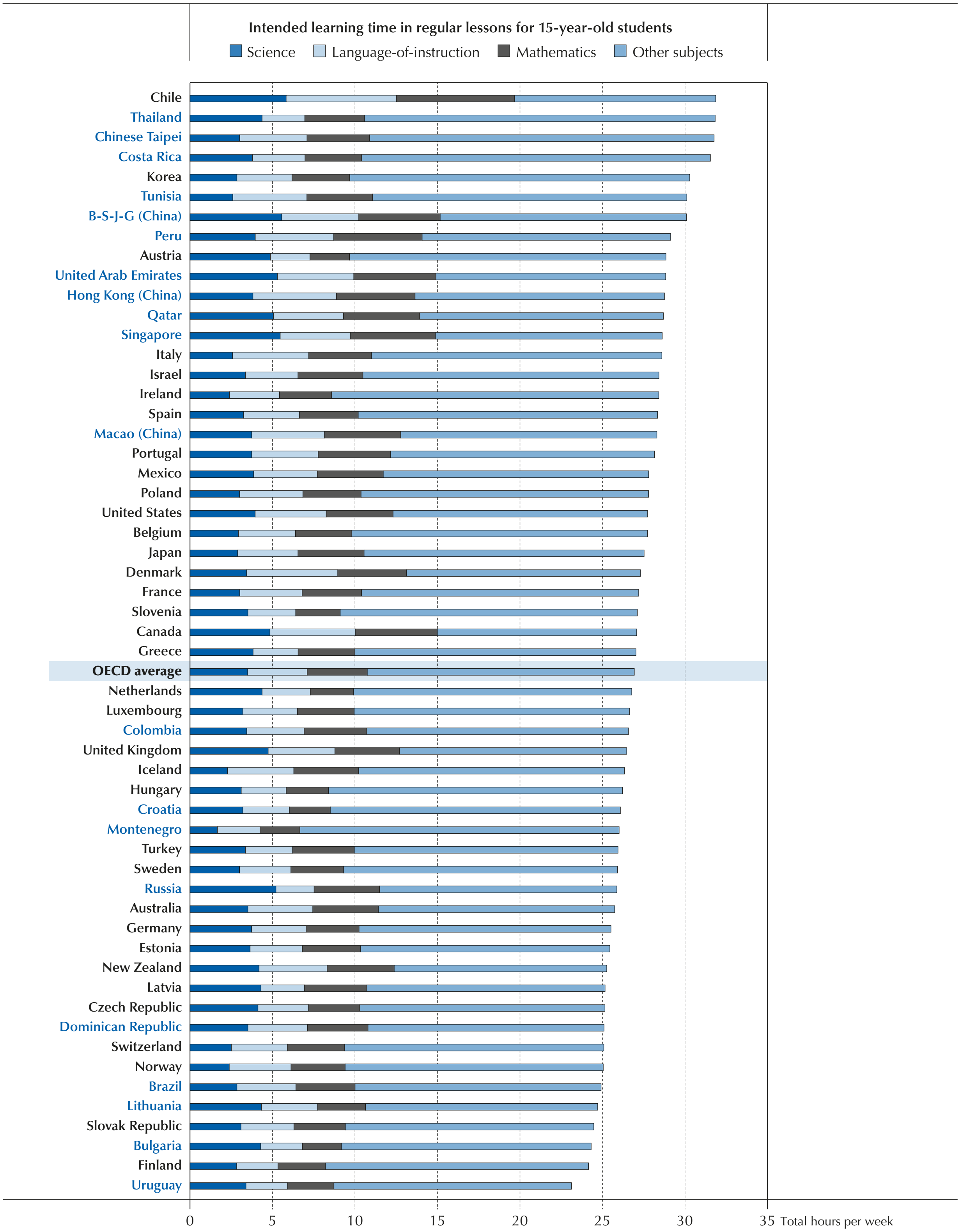
Intended learning time in school

School systems decide the overall amount of time devoted to instruction, and what material students should be taught and at what age. Total intended instruction time is an estimate of the number of hours during which students are taught both compulsory and non-compulsory parts of the curriculum, as per public regulations. On average across OECD countries, students are expected to receive an average of 7 677 hours of instruction in primary and secondary education by the time they are 14 years old. Most of this instruction time is compulsory (OECD, 2016b; Table II.6.53). Total intended instruction time for students up to 14 years ranges from over 9 500 hours in Chile and Denmark to less than 6 000 hours in Bulgaria, Croatia, Estonia, Finland, Georgia, Lithuania, Montenegro and Poland.

Most systems allocate more learning time for older students than younger students. The difference in the average intended instruction time per year for students between 12 and 14 years compared to the average time allocated to students up to the age of 9 varies among countries. It can represent an increase of less than 10% in Canada, Chile, Ireland, Italy, Israel, Macao (China) and Peru, to more than 40% in Bulgaria, Croatia, Georgia, Lithuania, Mexico and Chinese Taipei. By contrast, in Greece, Luxembourg, Malta, Portugal, Singapore and Uruguay, older students are provided with less intended instruction time than younger students. In Greece, Portugal and Uruguay, 12-14 year-old students are given 15% to 26% less instruction time, on average, than students aged 9 or younger (Table II.6.53).

Figure II.6.18 ▪ Time per week spent learning in regular lessons

Results based on students' self-reports



Countries and economies are ranked in descending order of the total intended learning time in regular lessons.
Source: OECD, PISA 2015 Database, Table II.6.32.
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Students' learning time in regular school lessons

PISA 2015 asked students to report the average number of minutes per class period, the total number of class periods per week, and the number of class periods for science, language-of-instruction and mathematics. Across OECD countries, students reported spending 26 hours and 56 minutes per week in lessons, of which 3 hours and 30 minutes per week are spent in science lessons, 3 hours and 36 minutes per week in language-of-instruction classes, and 3 hours and 39 minutes per week in mathematics lessons (Figure II.6.18 and Table II.6.32).

Student learning time in regular lessons varies across school systems. Students in B-S-J-G (China), Chile, Costa Rica, Korea, Chinese Taipei, Thailand and Tunisia spend at least 30 hours per week in regular lessons (all subjects combined), while students in Brazil, Bulgaria, Finland, Lithuania, the Slovak Republic and Uruguay spend less than 25 hours per week. In B-S-J-G (China), Chile, Qatar, Russia, Singapore and the United Arab Emirates, 15-year-old students spend more than five hours in regular science lessons per week, while in Iceland, Ireland, Montenegro and Norway, they spend less than half of that time in science class. In Chile, Peru and Singapore, students spend more than five hours in regular mathematics lessons, whereas in Austria, Bulgaria, Croatia and Montenegro students spend less than half of that time in mathematics class. In Canada, Chile, Denmark and Hong Kong (China), 15-year-olds spend five hours per week in language-of-instruction classes, while students in Austria, Finland and Russia spend less than 2 hours and 30 minutes per week in these classes.

Even within individual school systems, the amount of learning time in regular lessons vaires, especially across schools with different socio-economic profiles (Table II.6.36). Across OECD countries, students in advantaged schools spend 27 hours and 15 minutes in regular lessons per week, while students in disadvantaged schools spend 26 hours and 33 minutes per week. This difference is observed in 31 out of 56 countries for which data are available and exceeds 3 hours per week of extra instruction in advantaged schools in B-S-J-G (China), Chinese Taipei, the United States and Uruguay. Part of the reason for this difference could be that advantaged 15-year-old students are more likely to attend upper secondary schools, where there are more hours of intended learning time than in lower secondary schools.

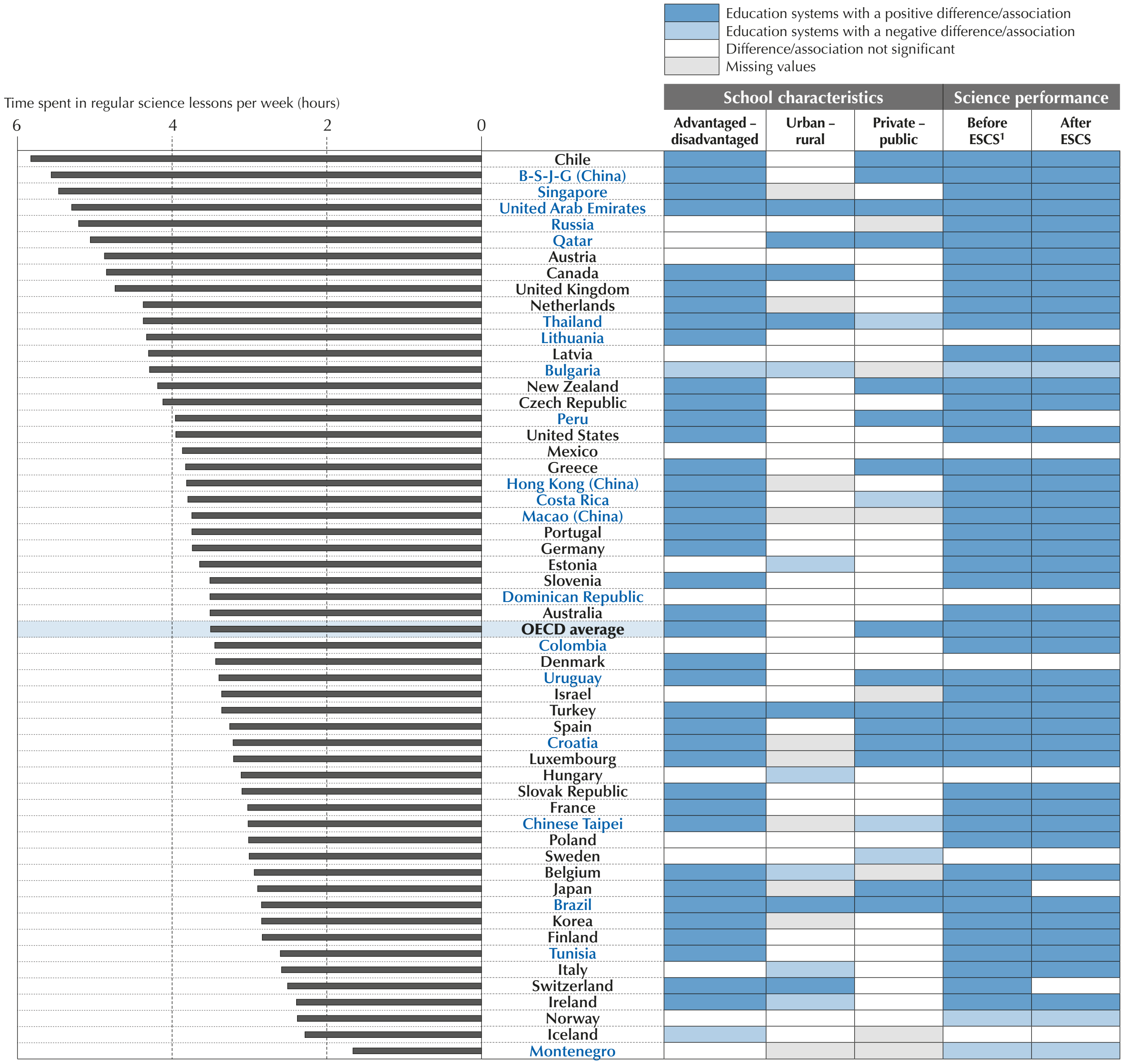
On average across OECD countries, and in a majority of education systems, students in socio-economically advantaged schools spend more time in science lessons than students in disadvantaged schools (Figure II.6.19 and Table II.6.33). The difference is 41 minutes per week on average across OECD countries but exceeds 2 hours per week in Croatia and Germany. Across OECD countries, students in advantaged schools also spend more time in mathematics lessons than students in disadvantaged schools (8 minutes more per week), but no differences are observed for language-of-instruction lessons (Tables II.6.34 and II.6.35).

On average across OECD countries, and in 14 out of 48 countries and economies, students in private schools spend more time in regular science lessons than students in public schools (Figure II.6.19). In Brazil, Croatia and New Zealand, for instance, there is a difference, in favour of private schools, of more than 80 minutes per week (Table II.6.33).

PISA examined the relationship between the intended time in science, language-of-instruction and mathematics classes with student performance in the corresponding PISA assessment – science, reading and mathematics. On average across OECD countries, and in three out of four education systems, students who spend more time in science lessons score higher in science, even after accounting for the socio-economic profile of students and schools (Figure II.6.19). For every additional hour spent in science lessons, students in OECD countries score five points higher in science – and eight points higher before accounting for the socio-economic profile of students and schools (Table II.6.33).

In most education systems, the association between the time spent in mathematics lessons and mathematics performance is positive but considerably weaker than that concerning science lessons and performance, while the association between intended time in language-of-instruction class and reading scores is negative in almost half of the PISA-participating countries and economies (Tables II.6.34 and II.6.35). The positive and stronger association between time spent in science class and performance in science could reflect the fact that 15-year-old students taking more science classes attend more selective education tracks, schools or classes. Another reason might be that science competencies – particularly in the life sciences – are acquired in a more linear fashion than the skills needed for the PISA reading and mathematics assessments. The recent OECD report, *Equations and Inequalities* (OECD, 2016d), proposes and examines a similar argument for mathematics learning. More frequent exposure to mathematics concepts and formulas is related to better performance on routine problems, i.e. when students are asked to use a simple formula, but seems insufficient when students are asked to solve non-routine problems.

Figure II.6.19 ▪ **Intended learning time in science lessons, school characteristics and science performance**



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS¹	After ESCS
Education systems with a positive difference/association	38	7	14	45	42
Education systems with no difference/association	15	32	30	7	10
Education systems with a negative difference/association	2	6	4	3	3

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of time spent in regular science lessons per week.

Source: OECD, PISA 2015 Database, Table II.6.33.

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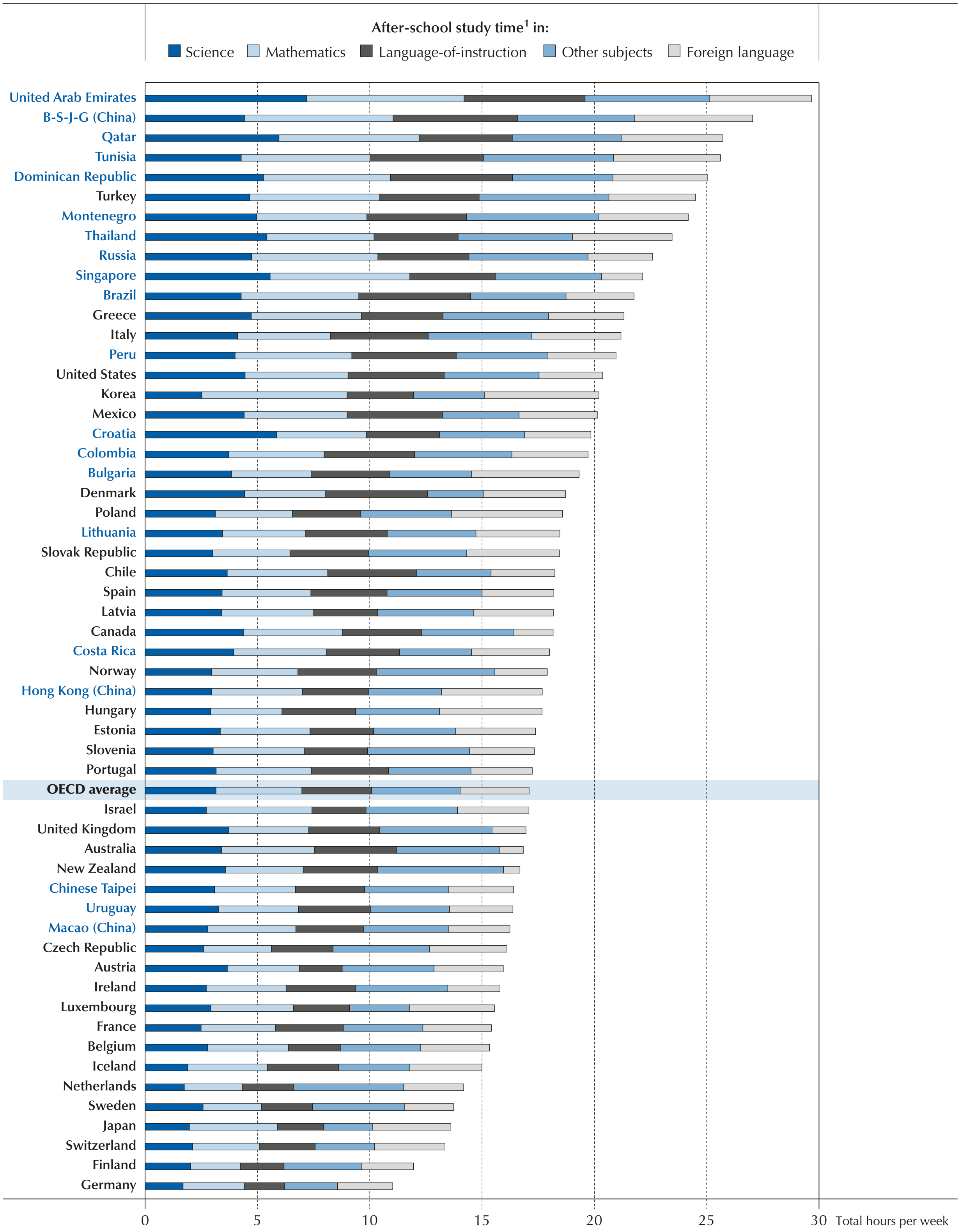
After-school learning time

Students were asked to report the number of hours they typically spend per week, in addition to the required school schedule, learning science, language-of-instruction, mathematics, foreign languages and other subjects, including the time dedicated to homework, additional instruction and private study. Across OECD countries, students spend 3.2 hours per week studying science after school, 3.8 hours studying mathematics, 3.1 hours studying the language of instruction, 3.1 hours studying a foreign language, and almost 4 hours studying other subjects (Figure II.6.20). All subjects combined, in B-S-J-G (China), the Dominican Republic, Qatar, Tunisia and the United Arab Emirates, students reported that they study at least 25 hours per week in addition to the required school schedule; in Finland, Germany, Iceland, Japan, the Netherlands, Sweden and Switzerland, they study less than 15 hours per week.

Figure II.6.20 ■ **After-school study time**

Results based on students' self-reports



1. Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.

Countries and economies are ranked in descending order of the total time spent learning after school.

Source: OECD, PISA 2015 Database, Table II.6.37.

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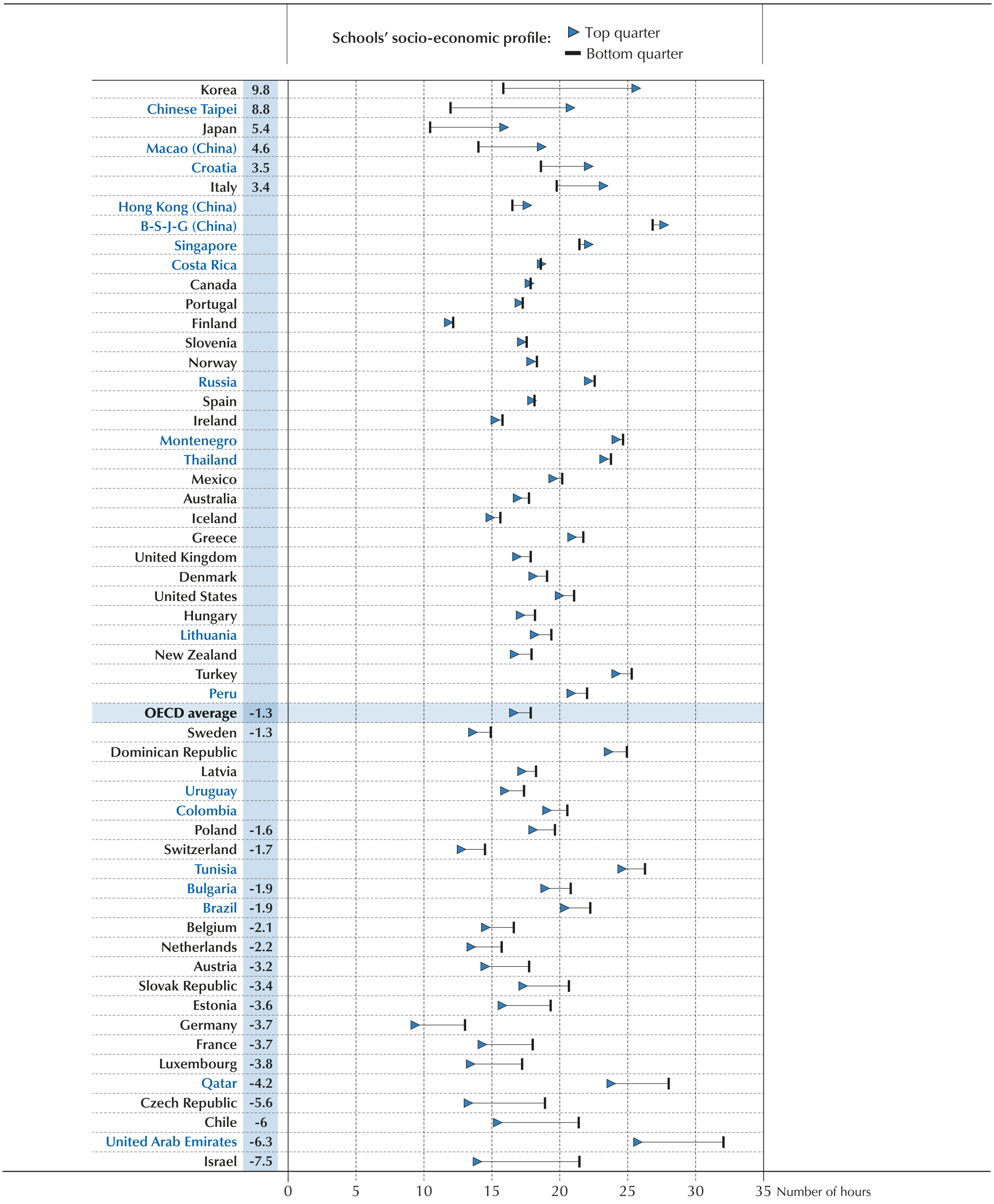
Figure II.6.21 ▪ After-school study time, by schools' socio-economic status

Results based on students' self-reports



Note: Statistically significant differences in the number of hours studying after school between schools in the top quarter of the PISA index of economic, social and cultural status and those in the bottom quarter are indicated next to the country/economy name.

Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.

Countries and economies are ranked in descending order of the difference between schools in the top quarter of socio-economic status and those in the bottom quarter.

Source: OECD, PISA 2015 Database, Table II.6.41.

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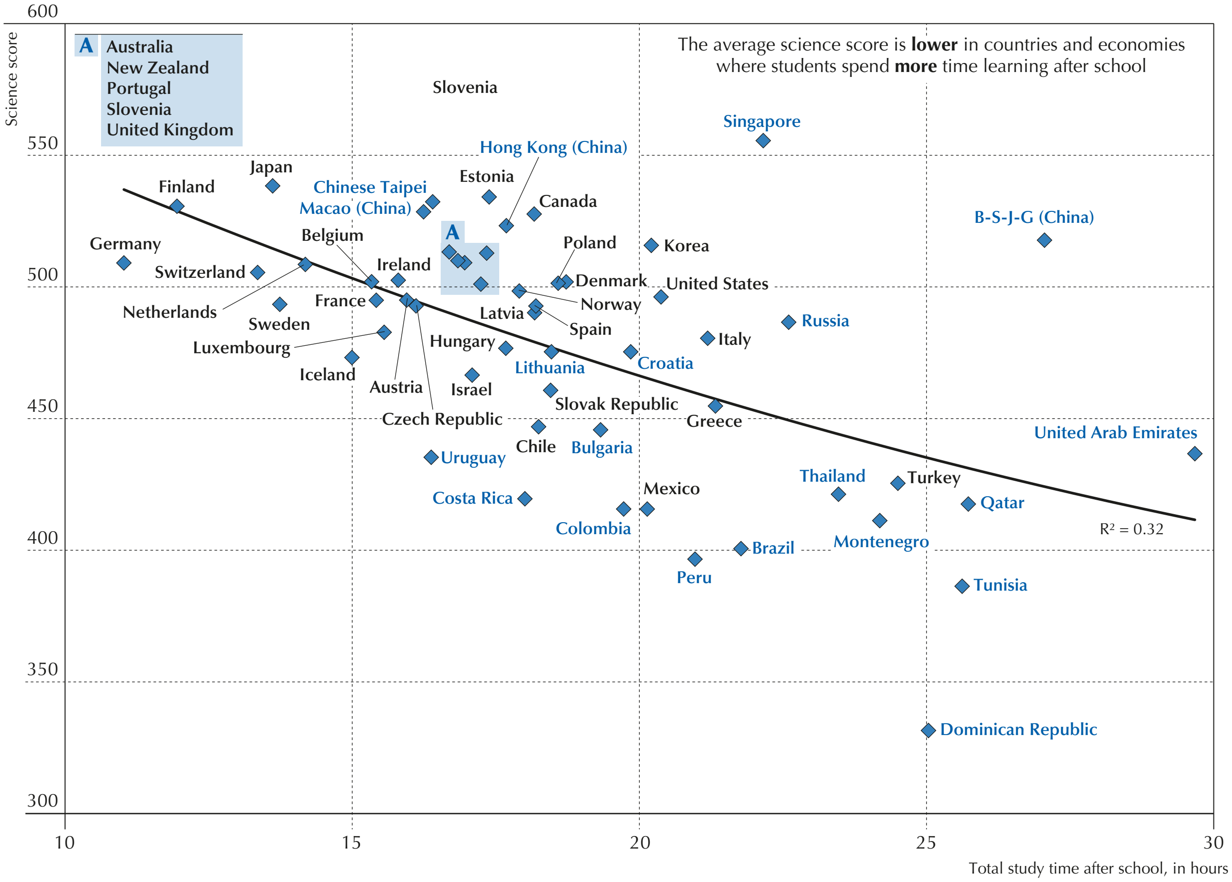
Across OECD countries, students in disadvantaged schools spend more time studying after school (18 hours per week) than students in advantaged schools (17 hours per week) (Figure II.6.21). Evidence from PISA 2012 on the time students spend in different after-school learning activities (OECD, 2013) suggests that, in most education systems, these differences should be interpreted as a compensatory measure, whereby struggling students, who are more likely to come from a disadvantaged background, are offered the possibility to narrow the performance gap between them and their better-performing peers. The important question is: are the schools organising and paying for this extra learning time, or are families shouldering the financial burden?

Probably more worrying is the situation in Croatia, Italy, Japan, Korea, Macao (China) and Chinese Taipei, where students in advantaged schools spend more time studying after school, probably widening the performance gap between advantaged and disadvantaged students. If these differences are the result of private tutoring and a pervasive shadow education system, as other studies suggest for East Asian school systems (Bray and Lykins, 2012), it could undermine the principle of quality (and free) education for all.

On average across OECD countries, students who reported spending more time studying after school score lower in the PISA assessment (Tables II.6.38, II.6.39, II.6.40 and II.6.41). After accounting for the socio-economic profile of students and schools, for every additional hour students spend studying science and the language-of-instruction after school, they score about two and three points lower, respectively, in the corresponding PISA assessment. In mathematics, they score five points lower for every additional hour spent studying mathematics beyond their regular lessons.

Figure II.6.22 ▪ **Relationship between after-school study time and science performance**



Note: Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.
Source: OECD, PISA 2015 Database, Tables I.2.3 and II.6.41.
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Comparing learning time in and after school, it could be argued that learning time at school is more effective than studying after school. Another plausible interpretation is that students who are struggling at school are more likely to participate in after-school learning activities or put in more effort on their own at home in order to catch up with their better-performing peers. Similarly, at the country level, the more time students spend studying after school, the lower their achievement in science (Figure II.6.22).

By combining the total number of hours that students spend learning or studying in and outside of school, and their scores in science, reading and mathematics, it is possible to get a rough idea of students' efficiency in learning. Of course, the learning time measured in this way cannot adequately capture the accumulated learning time during a student's entire academic life, but it does say something about how much time students devote deliberately to learning and studying across different countries.

The ratio between PISA scores and learning time in and outside of school (how many score points for each hour spent learning) does not necessarily reflect the efficiency of the education system. Students learn mainly at school and in studying for school, but they also learn by interacting with knowledgeable others, such as family members and peers. For these reasons, the ratios can be interpreted in various ways. They can be an indication of the quality of a school system; they can also be indicative of the differences in learning time across education levels. For example, 15-year-olds in some education systems may be compensating for (or reaping the benefits of) the time spent learning in earlier stages of their education. The ratio between learning time and PISA scores can also indicate that, to succeed academically, students in some education systems need to spend more time in "planned" or "deliberate" learning because they have fewer opportunities to learn informally outside of school. The low ratios between PISA scores and learning time observed in some countries and economies with high PISA scores can also signal decreasing returns to learning time, or the increasing difficulty of attaining higher PISA scores.

According to this analysis, students in Finland, Germany, Japan and Switzerland devote less time to learning in relation to their PISA scores in science, compared with students in other countries, while those in the Dominican Republic, Peru, Qatar, Thailand, Tunisia and the United Arab Emirates spend more time learning relative to their academic performance (Figure II.6.23). In the Dominican Republic, for instance, the ratio between the science score and total learning time – in and outside of school – is 6.6 score points per hour, while in Finland it is 14.7 score points per hour.

Assistance with homework at school

Doing homework can help students identify and apply material they have learned, provide additional stimulation for high-performing students, and guarantee that struggling students are learning the basics (OECD, 2014). Previous PISA reports have shown that spending more hours doing homework – up to seven hours per week – is associated with higher academic achievement (OECD, 2016a). However, these benefits can only materialise if students have enough time, a quiet place to study and access to knowledgeable others who can motivate and guide them, should the need arise. Homework-assistance programmes organised by schools can create the right conditions for students to complete their school assignments and gain self-confidence, particularly for those students who would otherwise not be take part in after-school programmes (Beck, 1999; Cosden et al., 2001).

For the first time, PISA 2015 asked school principals if the school provides a room where students can do their homework and staff who can help them with homework. Across OECD countries, about three out of four students are enrolled in schools that provide a room where students can do their homework, and three out of five students attend schools where staff is available to help students with their homework (Table II.6.42). In Japan, Luxembourg, Chinese Taipei and the United Kingdom, at least 95% of 15-year-old students have access to a room to do their homework at school, while in Jordan, Kosovo and Lebanon, less than 30% of students do. In Denmark, Luxembourg, Sweden, the United Kingdom and the United States, more than 90% of students attend schools where staff is available to help with homework; but in Brazil, Colombia, Croatia and Montenegro, less than 20% of students attend such schools.

Across OECD countries, socio-economically advantaged schools are more likely to offer a room for homework than disadvantaged schools, and private schools are more likely than public schools to do so (Table II.6.43). However, disadvantaged schools are more likely than advantaged schools to provide staff that can help students with homework, and rural schools are more likely than urban schools to do so (Table II.6.44). In most education systems, students score similarly whether or not their schools offer study help in the form of either study rooms or staff, at least after accounting for the socio-economic profile of students and schools.

Figure II.6.23 ■ **Ratio between learning time and PISA scores**

Results based on students' self-reports, OECD average

	Learning time (15-year-old students)				Ratio between learning time and PISA scores		
	Intended learning time at school (hours)	Study time after school (hours)[1]	Total learning time (hours)	Total learning time as a percentage of available time[2]	Score points in science per hour of total learning time	Score points in reading per hour of total learning time	Score points in mathematics per hour of total learning time
Finland	24.2	11.9	36.1	45.1	14.7	14.6	14.2
Germany	25.5	11.0	36.5	45.7	13.9	13.9	13.8
Switzerland	25.1	13.4	38.4	48.0	13.2	12.8	13.6
Japan	27.5	13.6	41.1	51.4	13.1	12.5	12.9
Estonia	25.4	17.4	42.8	53.5	12.5	12.1	12.1
Sweden	25.9	13.7	39.6	49.6	12.4	12.6	12.5
Netherlands	26.8	14.2	41.0	51.2	12.4	12.3	12.5
New Zealand	25.3	16.7	41.9	52.4	12.2	12.1	11.8
Australia	25.7	16.8	42.6	53.2	12.0	11.8	11.6
Czech Republic	25.1	16.1	41.3	51.6	11.9	11.8	11.9
Macao (China)	28.3	16.2	44.5	55.7	11.9	11.4	12.2
United Kingdom	26.5	17.0	43.4	54.3	11.7	11.5	11.3
Canada	27.1	18.2	45.2	56.5	11.7	11.6	11.4
Belgium	27.7	15.3	43.1	53.8	11.7	11.6	11.8
France	27.2	15.4	42.6	53.3	11.6	11.7	11.6
Norway	25.0	17.9	43.0	53.7	11.6	11.9	11.7
Slovenia	27.1	17.3	44.5	55.6	11.5	11.4	11.5
Iceland	26.3	15.0	41.3	51.7	11.5	11.7	11.8
Luxembourg	26.6	15.6	42.2	52.7	11.4	11.4	11.5
Ireland	28.4	15.8	44.2	55.3	11.4	11.8	11.4
Latvia	25.2	18.2	43.3	54.2	11.3	11.3	11.1
Hong Kong (China)	28.8	17.7	46.4	58.0	11.3	11.3	11.8
OECD average	26.9	17.1	44.0	55.0	11.2	11.2	11.1
Chinese Taipei	31.8	16.4	48.2	60.2	11.1	10.3	11.3
Austria	28.8	15.9	44.8	56.0	11.1	10.8	11.1
Portugal	28.2	17.2	45.4	56.7	11.0	11.0	10.8
Uruguay	23.1	16.4	39.5	49.4	11.0	11.1	10.6
Lithuania	24.7	18.5	43.2	54.0	11.0	10.9	11.1
Singapore	28.6	22.2	50.8	63.5	10.9	10.5	11.1
Denmark	27.3	18.7	46.0	57.5	10.9	10.9	11.1
Hungary	26.2	17.7	43.9	54.9	10.9	10.7	10.9
Poland	27.8	18.6	46.4	58.0	10.8	10.9	10.9
Slovak Republic	24.5	18.5	42.9	53.7	10.7	10.5	11.1
Spain	28.3	18.2	46.5	58.2	10.6	10.6	10.4
Croatia	26.1	19.8	45.9	57.4	10.3	10.6	10.1
United States	27.7	20.4	48.1	60.1	10.3	10.3	9.8
Israel	28.4	17.1	45.5	56.9	10.3	10.5	10.3
Bulgaria	24.3	19.3	43.6	54.5	10.2	9.9	10.1
Korea	30.3	20.2	50.5	63.1	10.2	10.2	10.4
Russia	25.9	22.6	48.5	60.6	10.0	10.2	10.2
Italy	28.6	21.2	49.8	62.2	9.7	9.7	9.8
Greece	27.0	21.3	48.4	60.4	9.4	9.7	9.4
B-S-J-G (China)	30.1	27.0	57.1	71.4	9.1	8.6	9.3
Colombia	26.6	19.7	46.3	57.9	9.0	9.2	8.4
Chile	31.9	18.2	50.1	62.6	8.9	9.2	8.4
Mexico	27.8	20.1	47.9	59.9	8.7	8.8	8.5
Brazil	24.9	21.8	46.7	58.4	8.6	8.7	8.1
Costa Rica	31.5	18.0	49.5	61.9	8.5	8.6	8.1
Turkey	25.9	24.5	50.4	63.0	8.4	8.5	8.3
Montenegro	26.0	24.2	50.2	62.7	8.2	8.5	8.3
Peru	29.1	21.0	50.1	62.6	7.9	7.9	7.7
Qatar	28.7	25.7	54.4	68.0	7.7	7.4	7.4
Thailand	31.8	23.5	55.3	69.1	7.6	7.4	7.5
United Arab Emirates	28.8	29.7	58.5	73.1	7.5	7.4	7.3
Tunisia	30.1	25.6	55.7	69.7	6.9	6.5	6.6
Dominican Republic	25.1	25.0	50.1	62.7	6.6	7.1	6.5

1. Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.
2. Excluding sleeping time (8 hours) and weekends.

Countries and economies are ranked in descending order of the score points in science per hour of total learning time.

Source: OECD, PISA 2015 Database, Tables I.2.3, I.4.3, I.5.3, II.6.32 and II.6.41.

StatLink http://dx.doi.org/10.1787/888933436411

Across OECD countries, students who attend schools that provide a room for homework do not spend more time studying after school (Table II.6.45). However, they spend considerably more time studying after school – roughly 13 minutes more per week, after accounting for the socio-economic profile of students and schools – if school staff members are available to help them with homework. The association is particularly strong in Austria and Canada, where students in schools where staff members are available to help them with homework spend at least two hours more studying after school than students in schools where no such staff member is available.

Extracurricular activities

Students'school life does not always end when the final school bell rings. Extracurricular activities, such as sports activities and teams, debate clubs, academic clubs, bands, orchestras or choirs, can improve students' cognitive and non-cognitive skills. Skills such as persistence, independence, following instructions, working well within groups, dealing with authority figures and fitting in with peers are needed for students to succeed in school – and beyond (Carneiro and Heckman, 2005; Covay and Carbonaro, 2010; Farb and Matjasko, 2012; Farkas, 2003; Howie et al., 2010). Some research finds that, since extracurricular activities are more frequently offered in advantaged schools, they can play a role in perpetuating socio-economic inequalities in education (Covay and Carbonaro, 2010; Lareau, 2003).

School principals were asked to report whether their school offers various extracurricular activities to students in the modal grade for 15-year-olds. Across OECD countries, 90% of students attend schools that support a sports team or sporting activities; 73% attend schools that offer volunteering or service activities; 66% attend schools that offer science competitions; 63% attend schools that offer an art club or art activities; 61% attend schools that support a band, orchestra or choir; 58% attend schools that produce a school play or musical; 54% attend schools that support a school yearbook, newspaper or magazine; 39% attend schools that support a science club; 39% attend schools that support a club with a focus on computers and information and communications technologies; and 31% attend schools that support a chess club (Figure II.6.24).

Some of the principals' responses to these questions were combined to create an index of creative extracurricular activities at school, which is the sum of principals' responses to questions about whether their school offers: a band, orchestra or choir; a school play or school musical; and an art club or art activities. The index ranges from 0 to 3, with each response weighed equally. Countries and economies where these activities are more frequently offered include Canada, Hong Kong (China), Macao (China), the United Kingdom and the United States, where nearly all of these activities are offered, on average. By contrast, in Austria, Belgium, Denmark and Spain, schools offer, on average, only around one of these activities, and in Norway less than one (Figure II.6.25).

In 53 out of 68 education systems, these creative activities are more frequently offered in advantaged schools than in disadvantaged schools (Figure II.6.25). On average across OECD countries and in many education systems, these activities are more frequently offered in urban than in rural schools, and in private than in public schools. In as many as 54 out of 68 education systems, students score higher in science when their schools offer more creative extracurricular activities. Even after accounting for the socio-economic profile of students and schools, there are still 19 education systems where students perform better in science if these activities are offered at school, and only one country – Tunisia – where they score lower in science.

ATTENDANCE AT PRE-PRIMARY SCHOOL

Whether and for how long students are enrolled in pre-primary education is another important aspect of time resources invested in education. Many of the inequalities observed in school systems are already present when students first enter formal schooling and persist as students progress through education (Berlinski, Galiani and Gertler, 2009; Entwisle, Alexander and Olson, 1997; Mistry et al., 2010). Because research shows that inequalities tend to grow when students are not attending school, such as during long school breaks (Downey, Von Hippel and Broh, 2004), earlier entry into the school system may reduce inequalities in education – as long as participation in pre-primary schooling is universal and the learning opportunities across pre-primary schools are of high quality and relatively homogeneous. Earlier entry into pre-primary school prepares students for entry into – and success in – formal schooling (Chetty et al., 2011).

Across OECD countries, the average time spent in pre-primary education is three years, but around 5% of 15-year-old students reported that they had not attended pre-primary school at all (Tables II.6.50 and II.6.51). Even if a majority of students in all education systems reported that they had attended pre-primary education, in B-S-J-G (China), Croatia, Lithuania, Montenegro, Poland and the United States, more than 17% of students – and in Turkey, almost half of students – reported that they had never attended pre-primary school.

Across OECD countries, students in socio-economically advantaged schools had attended about four months more of pre-primary school than students in disadvantaged schools; in B-S-J-G (China), Croatia, the Dominican Republic, Lithuania, Poland and Russia, the difference is at least one year. There is no country/economy where students in disadvantaged schools had spent significantly more time in pre-primary education, even if students in disadvantaged and advantaged schools in Belgium, the Czech Republic, Germany, Hong Kong (China), Iceland, Italy, Japan, Korea, Macao (China), New Zealand, Switzerland and Chinese Taipei show similar levels of attendance. Across OECD countries, students in urban schools had spent two months more in pre-primary school than students in rural schools, and students in private schools had also spent two months more in pre-primary education than students in public schools.

Figure II.6.24 ▪ **Extracurricular activities offered at school**

Results based on school principals' reports

░ Less than half of students
▒ From 50% to 75% of students
▓ More than 75% of students

	Percentage of students in schools where the following extracurricular activities are offered									
	Band, orchestra or choir	**School play or school musical**	**School yearbook, newspaper or magazine**	**Volunteering or service activities**	**Science club**	**Science competitions**	**Chess club**	**Club with a focus on computers and ICT**	**Art club/ activities**	**Sporting team/ activities**
Hong Kong (China)	94	81	91	100	95	87	75	95	98	100
Korea	86	55	85	100	93	86	95	84	97	99
Macao (China)	94	95	95	100	74	96	42	79	97	100
Chinese Taipei	92	60	97	99	80	81	71	76	95	99
United States	93	84	95	98	75	72	48	67	92	98
United Kingdom	96	88	78	91	79	72	56	69	94	100
Thailand	82	79	86	89	90	72	38	94	89	99
New Zealand	96	82	88	99	49	83	76	64	77	100
B-S-J-G (China)	66	54	79	93	91	90	68	72	95	100
Singapore	99	70	95	100	42	89	25	89	92	100
Canada	88	88	88	97	57	76	52	63	91	100
Poland	65	81	61	99	79	95	24	72	88	100
Qatar	30	74	87	94	86	91	26	74	80	99
Malta	73	81	56	92	66	75	35	61	91	98
Australia	92	74	69	85	38	91	62	44	71	98
United Arab Emirates	34	68	75	90	82	88	40	74	74	95
Montenegro	43	79	88	81	76	83	28	62	78	95
Slovenia	69	70	86	86	52	87	29	49	71	98
Russia	68	41	67	92	77	99	33	38	71	98
Slovak Republic	35	47	73	86	60	81	27	84	71	99
Luxembourg	85	77	53	93	32	81	51	21	67	100
Romania	43	69	93	25	73	37	43	84	94	94
Latvia	78	74	55	80	45	85	16	39	86	96
Lithuania	89	56	69	74	34	92	18	36	85	98
Germany	78	62	55	94	48	59	26	58	75	93
Japan	91	51	48	91	60	24	33	53	97	100
Estonia	81	50	57	76	42	94	21	46	75	96
FYROM	71	70	60	84	39	71	23	54	62	100
Indonesia	64	37	68	76	59	80	29	42	80	96
Albania	56	64	37	88	48	85	36	35	78	98
Hungary	50	45	49	82	52	93	21	57	57	98
Croatia	43	57	62	98	52	82	14	36	56	99
Portugal	26	57	69	89	57	89	33	23	58	97
Bulgaria	39	42	57	89	61	83	26	47	59	94
Georgia	32	58	69	82	39	79	35	14	81	98
Turkey	39	50	42	75	42	58	75	51	55	97
Moldova	31	44	42	88	17	98	40	34	90	99
Chile	73	58	30	60	35	63	30	47	87	97
OECD average	61	58	54	73	39	66	31	39	63	90
Ireland	81	43	45	66	35	65	38	37	63	100
Kosovo	63	50	50	77	52	58	21	36	59	97
CABA (Argentina)	62	53	26	74	49	54	15	66	79	86
Israel	54	48	55	98	58	57	7	42	55	85
Dominican Republic	49	54	20	79	50	81	46	17	75	86
Trinidad and Tobago	64	45	30	81	39	69	39	18	74	97
Colombia	40	43	41	92	35	68	20	32	68	95
Czech Republic	42	25	54	63	47	85	21	46	54	89
Viet Nam	18	89	45	82	44	47	15	18	67	99
Jordan	23	54	47	86	52	25	32	36	57	95
Costa Rica	79	59	12	31	24	91	24	23	70	93
Lebanon	23	49	50	78	44	58	14	35	58	89
Italy	21	68	49	66	46	66	8	33	44	92
Mexico	42	50	33	56	29	69	39	24	63	86
France	45	70	39	37	24	67	20	19	72	97
Netherlands	52	60	49	94	18	51	11	7	63	82
Tunisia	27	44	39	65	59	42	20	47	56	82
Algeria	32	57	45	65	64	33	7	35	44	90
Iceland	48	75	70	31	10	26	47	39	58	69
Peru	49	55	22	44	28	70	27	25	62	85
Greece	50	60	26	62	19	71	7	19	46	85
Finland	81	40	41	36	13	86	8	13	37	85
Switzerland	71	57	31	36	37	24	9	22	63	90
Spain	29	46	48	62	16	66	19	22	36	80
Belgium	28	53	37	72	6	69	18	10	36	86
Austria	47	34	42	87	5	31	16	21	28	76
Uruguay	70	43	12	27	35	45	13	27	27	88
Brazil	31	51	26	49	13	27	33	16	43	87
Sweden	62	47	22	41	7	61	11	8	29	76
Denmark	43	40	28	18	9	33	16	12	29	71
Norway	24	33	26	52	2	12	11	11	8	35

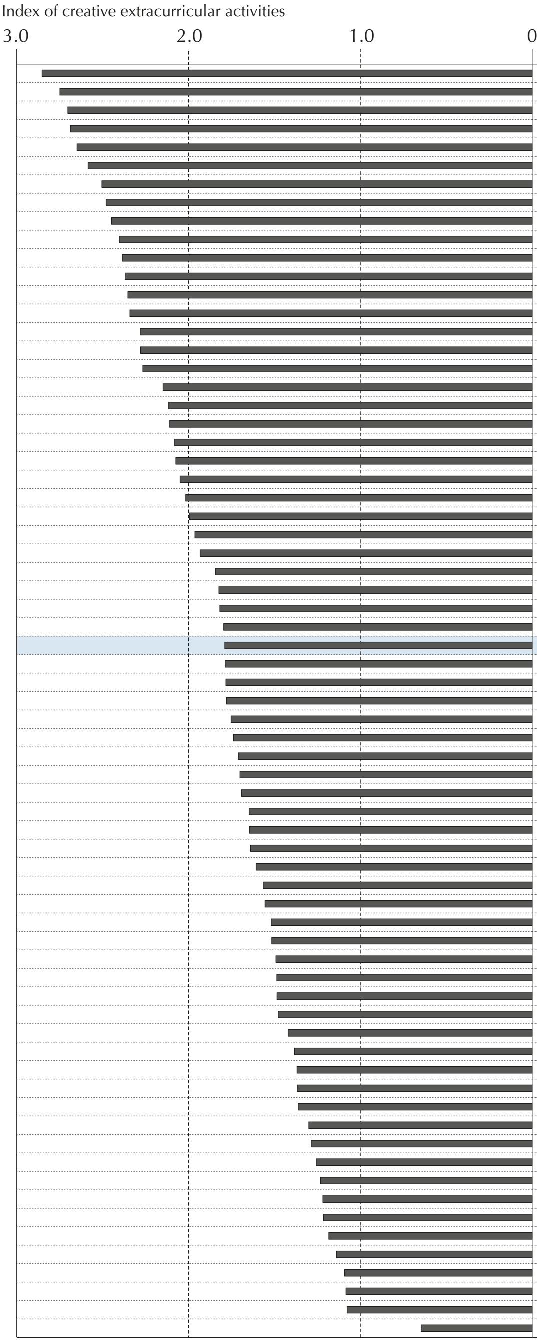
Countries and economies are ranked in descending order of the percentage of students in schools offering extracurricular activities (average 12 activities).

Source: OECD, PISA 2015 Database, Table II.6.46.

StatLink `http://dx.doi.org/10.1787/888933436425`

Figure II.6.25 ▪ Index of creative extracurricular activities, school characteristics and science performance

■	Education systems with a positive difference/association
▨	Education systems with a negative difference/association
□	Difference/association not significant
░	Missing values



	School characteristics			Science performance	
	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS[1]	After ESCS
Macao (China)	■	░	░	■	■
United Kingdom	□	□	□	□	□
Hong Kong (China)	■	░	□	■	□
United States	■	□	□	■	□
Canada	■	■	□	□	□
Singapore	■	░	□	■	■
New Zealand	■	■	□	■	□
Thailand	■	■	□	■	■
Chinese Taipei	■	░	□	■	□
Malta	▨	░	■	■	■
Japan	■	░	□	■	□
Korea	□	░	□	■	□
Latvia	■	■	□	■	□
Australia	■	■	■	■	□
Lithuania	■	■	□	■	□
Poland	■	□	□	■	□
Luxembourg	■	░	■	■	□
B-S-J-G (China)	■	■	□	■	□
Chile	□	■	□	■	■
Germany	■	□	□	■	□
Slovenia	■	▨	■	■	□
Costa Rica	□	□	□	□	□
Romania	■	■	░	■	■
Estonia	□	□	□	□	□
Montenegro	■	░	░	■	■
FYROM	■	■	▨	■	■
CABA (Argentina)	□	░	□	■	□
Switzerland	■	□	□	■	□
Qatar	■	■	■	■	■
France	□	□	□	□	□
Ireland	□	□	□	□	□
OECD average	■	■	■	■	■
Russia	■	□	░	■	□
Iceland	■	▨	░	□	□
Trinidad and Tobago	■	░	■	■	□
Dominican Republic	■	■	□	■	■
Indonesia	■	■	□	■	□
United Arab Emirates	■	■	■	■	■
Netherlands	■	░	□	■	□
Viet Nam	■	■	□	■	□
Georgia	■	■	□	□	□
Kosovo	■	▨	□	■	■
Peru	■	■	□	■	□
Moldova	■	■	░	■	□
Finland	□	□	■	□	□
Israel	■	□	░	■	■
Mexico	■	■	■	■	■
Croatia	■	░	■	■	■
Greece	■	■	■	■	□
Hungary	■	□	■	■	□
Colombia	■	■	■	■	□
Slovak Republic	■	□	■	□	□
Turkey	■	■	■	■	□
Bulgaria	■	■	░	■	■
Portugal	□	■	□	□	□
Uruguay	■	■	□	■	□
Sweden	■	□	□	■	□
Italy	■	■	□	■	□
Jordan	■	■	■	■	■
Algeria	□	□	░	■	□
Brazil	□	□	□	□	□
Lebanon	■	□	■	■	□
Tunisia	□	■	□	□	▨
Czech Republic	■	□	□	■	■
Belgium	■	□	░	■	□
Denmark	■	□	■	■	□
Spain	■	■	■	■	□
Austria	■	□	■	■	■
Norway	□	□	□	□	□
Education systems with a positive difference/association	53	29	20	54	19
Education systems with no difference/association	14	23	37	14	48
Education systems with a negative difference/association	1	3	1	0	1

1. ESCS refers to the PISA index of economic, social and cultural status.

Countries and economies are ranked in descending order of the index of creative extracurricular activities.

Source: OECD, PISA 2015 Database, Table II.6.49.

StatLink http://dx.doi.org/10.1787/888933436439

Students score four points higher in science for every additional year they had spent in pre-primary education, but the association disappears once the socio-economic status of students and schools is accounted for. One reason why the association is weak, even before accounting for the socio-economic profile of students and schools, is that the relation is curvilinear: students who had spent too little time (less than one year) in pre-primary education score lower in science than students who had not attended or who had spent more than one year (Table II.6.52).

Notes

1. This only covers expenditure on educational institutions.

2. These resources are allocated throughout a student's educational, and countries spend different amounts per student. Caution is required in interpreting this indicator, as school systems are organised in many different ways across countries. For example, some school systems include special education in school budgets while others do not. Some school systems sponsor extensive recreational, athletic and extracurricular activities that are not related to academic instruction. In addition, some countries require schools to pay the pensions and health insurance of school staff, while others include these costs in the national budget for all citizens.

3. System-level data that are not derived from the PISA 2015 student or school questionnaire are extracted from the OECD's annual publication, *Education at a Glance*, for those countries and economies that participate in that periodic data collection. For other countries and economies, a special system-level data collection was conducted in collaboration with PISA Governing Board members and National Project Managers.

4. See Boxes II.2.1, II.2.2 and II.2.3 in Chapter 2 for a description of how PISA defines socio-economically disadvantaged and advantaged schools, public and private schools, and urban and rural schools.

5. The index of equity in resource allocation (material) is the percentage of the variation on the index of shortage of educational material explained by the PISA index of economic, social and cultural status of the school multiplied by a negative or positive sign, depending on the sign of the relationship. A value of zero indicates that there is no difference between socio-economically advantaged and disadvantaged schools in how concerned principals are about the educational material at school, and positive values (higher equity) indicate that principals of socio-economically advantaged schools are more concerned than principals of disadvantaged schools.

6. Annual statutory salaries of teachers refer to the average scheduled gross salary per year of full-time classroom teachers according to official pay scales (OECD, 2016b).

7. Minimum qualifications required to enter the teaching profession may not be the most commonly held qualifications in the teaching force. In several education systems, the "typical" teacher is certified and qualified beyond the minimum requirements and has reached a given position on the salary scale. This is referred to as "typical training" of teachers in Table II.6.54 and it varies depending on the country and the school system (OECD, 2016b, Indicator D3).

8. In Chile the question about the certification of teachers was adapted as "authorised or enabled by the Ministry of Education".

9. The timing of the PISA data collection can have an impact on principals' responses to this question. For example, if most teachers in a country or economy had participated in professional development programmes during summer holidays and the PISA data collection was conducted before the summer break in this country/economy, the reported proportion would be an underestimate of the reality.

10. The index of equity in resource allocation (staff) is the percentage of the variation on the index of shortage of educational staff explained by the school PISA index of economic, social and cultural status of the school multiplied by a negative or positive sign, depending on the sign of the relationship. A value of zero indicates that there is no difference between socio-economically advantaged and disadvantaged schools in how concerned principals are about the educational staff at school, and positive values (higher equity) indicate that principals' in socio-economically advantaged schools are more concerned than principals in disadvantaged schools.

11. Language-of-instruction refers to the language in which students from the school took the PISA test.

12. The student-teacher ratio is not necessarily the same as class size. For example, schools with large special education programmes and more teaching assistants tend to have more teachers, but the schools' high student-teacher ratio has no impact on the size of regular classes. In addition, the amount of preparation time per day allotted to teachers may vary across schools and across school systems. More teachers are needed where more preparation time is given and class size remains constant.

13. See Chapter 2 for details on the index of adaptive teaching.

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7

What PISA 2015 results imply for policy

By reporting on the achievements of many education systems against a common set of benchmarks, PISA aims to encourage policy makers and practitioners to learn from the policies and practices of their peers around the world. This chapter examines how some of these policies and practices are associated with student outcomes, particularly those related to performance in and attitudes towards science.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

PISA conducts extensive, rigorous and internationally comparable assessments to measure the knowledge and skills of 15-year-old students. The PISA survey also gathers a wide range of data about students, parents, teachers, schools and education systems. The purpose of the assessments is to establish insights that help students learn better, teachers to teach better and school systems to become more effective. Because PISA reports on the achievements of many countries and economies against a common set of benchmarks, it stimulates discussion among key stakeholders in education in participating countries and economies about the strengths and weaknesses of their education systems; and it encourages policy makers and practitioners to learn about which education policies work best from the experiences of their peers around the world.

This volume describes the basic characteristics of schools and education systems, and examines the ways these characteristics are associated with education outcomes. These characteristics include, among others, the working conditions of teachers, the degree to which decisions are shared between different levels of government and school faculty, the frequency and nature of student assessments, how educational resources are allocated across schools, and how conducive the school climate is to learning. Education outcomes considered in PISA 2015 include students' academic performance, their belief in the value of scientific enquiry, their expectations of a career in science, and equity in science performance.

Everyone needs to be able to "think like a scientist" to a greater or lesser extent – to weigh evidence before coming to a conclusion, and understand that scientific "truth" can change over time, as new discoveries are made and as human understanding deepens. This volume describes the patterns of association between key school and system characteristics and students' proficiency in science, which varies considerably across education systems and schools.

While the causal nature of such relationships cannot be established from PISA results alone, an extensive network of correlations can be drawn between certain education outcomes and a large range of school- and system-level factors that could conceivably affect them. One such correlation that has been confirmed over successive PISA assessments is that greater spending on education is not always related to better results. Across those partner countries and economies that spend less per student compared to most OECD countries, greater expenditure is associated with higher PISA science scores (Figure II.6.2). But across those countries and economies that invest more than a threshold amount on education, and that includes most OECD countries, cumulative expenditure per student is no longer associated with student performance. This should prompt countries not only to think about the amount of resources invested in education, but also to carefully consider how these resources should be translated into quality education for all.

ACCOUNTING FOR VARIATIONS IN STUDENT PERFORMANCE

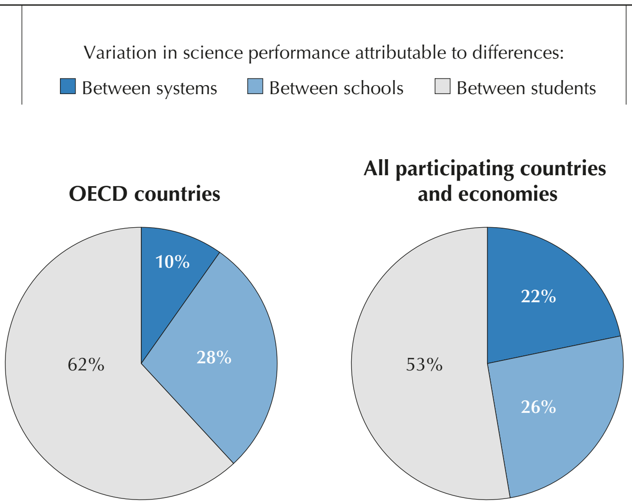
One of the main foci of this volume is to understand the differences in student outcomes between schools and education systems (Volume I examines student-level factors and Volume III explores social and emotional outcomes). Among OECD countries, 10% of the variation in science performance observed among students is attributable to differences in performance among school systems, 28% is attributable to differences in performance among schools within a country, and 62% is attributable to differences in performance among students within schools (Figure II.7.1). Across all the countries and economies that participated in PISA 2015, 22% of the variation in science performance is observed between school systems, 26% between schools, and the remaining between students.

GIVE EVERY 15-YEAR-OLD THE OPPORTUNITY TO LEARN SCIENCE IN SCHOOL

It may seem obvious to say that students need to learn science, but across OECD countries 6% of students reported that they are not required to attend any science lessons at school (Table II.2.3). Not surprisingly, these students score 44 points lower in science than students who attend at least one science course per week, and in 21 countries and economies, the difference is at least 50 points. Their poor performance may be one of the reasons why these students do not take science courses in the first place, but cutting them off entirely from school science may only widen the gap with their better-performing peers.

In many education systems where students are selected into different types of education programmes at an early age, such as Austria, Belgium, Hungary, the Netherlands and Switzerland, many 15-year-olds do not have access to science courses, or science competitions, at school. However, many 15-year-old students in other education systems also have no opportunity to learn science, in many cases because they are given some choice about the courses they attend. Even if all students do not have to learn the same science material, the opportunity to choose science courses need not become an opportunity not to learn science.

Figure II.7.1 ▪ **Variation in science performance between systems, schools and students**



Source: OECD, PISA 2015 Database.
StatLink http://dx.doi.org/10.1787/888933436449

All the correlational evidence in this volume suggests that learning science at school may be more effective than learning science outside or after school. Students who spend more time learning science at school score higher in science (Table II.6.33), while this is not necessarily the case with students who spend more time learning science after school (Table II.6.38). Students also score higher in science than in mathematics and reading when they spend more time learning science than learning mathematics and the language of instruction at school (Table II.2.29); but this is less true when students spend more time learning science, than learning mathematics and the language of instruction, after school. At the system level, students also score lower in science the more time they spend learning after school (Figure II.6.22).

After-school learning can also be inequitable. This is likely to be the case in education systems, like those in Croatia, Italy, Japan, Korea, Macao (China) and Chinese Taipei, where socio-economically advantaged students tend to spend more time than disadvantaged students learning after school (Table II.6.41). However, after-school study, such as in remedial programmes, can also help to close the performance gap between these two groups of students. To help make after-school learning opportunities more equitable, schools could consider making staff available to help students with homework at school, and providing a room where students can do homework (Table II.6.45).

Ensure that learning time is productive so that students can develop their academic, social and emotional skills in a balanced way

School systems differ widely in how much time students spend learning, particularly after school, and in how this learning time translates into academic performance. For instance, in Japan and Korea, students score similarly in science; however, in Japan, students spend about 41 hours per week learning (28 hours at school and 14 after school), all subjects combined, whereas in Korea they spend 50 hours (30 hours at school and 20 after school) (Figure II.6.23). In Tunisia and in Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), students spend 30 hours per week learning at school, and 27 hours after school, but the average science score in B-S-J-G (China) is 531 points whereas in Tunisia it is 367 points. These differences may be indicative, among other things, of the quality of a school system, the necessity of combining learning time with effective teaching, or of whether students can learn informally after school.

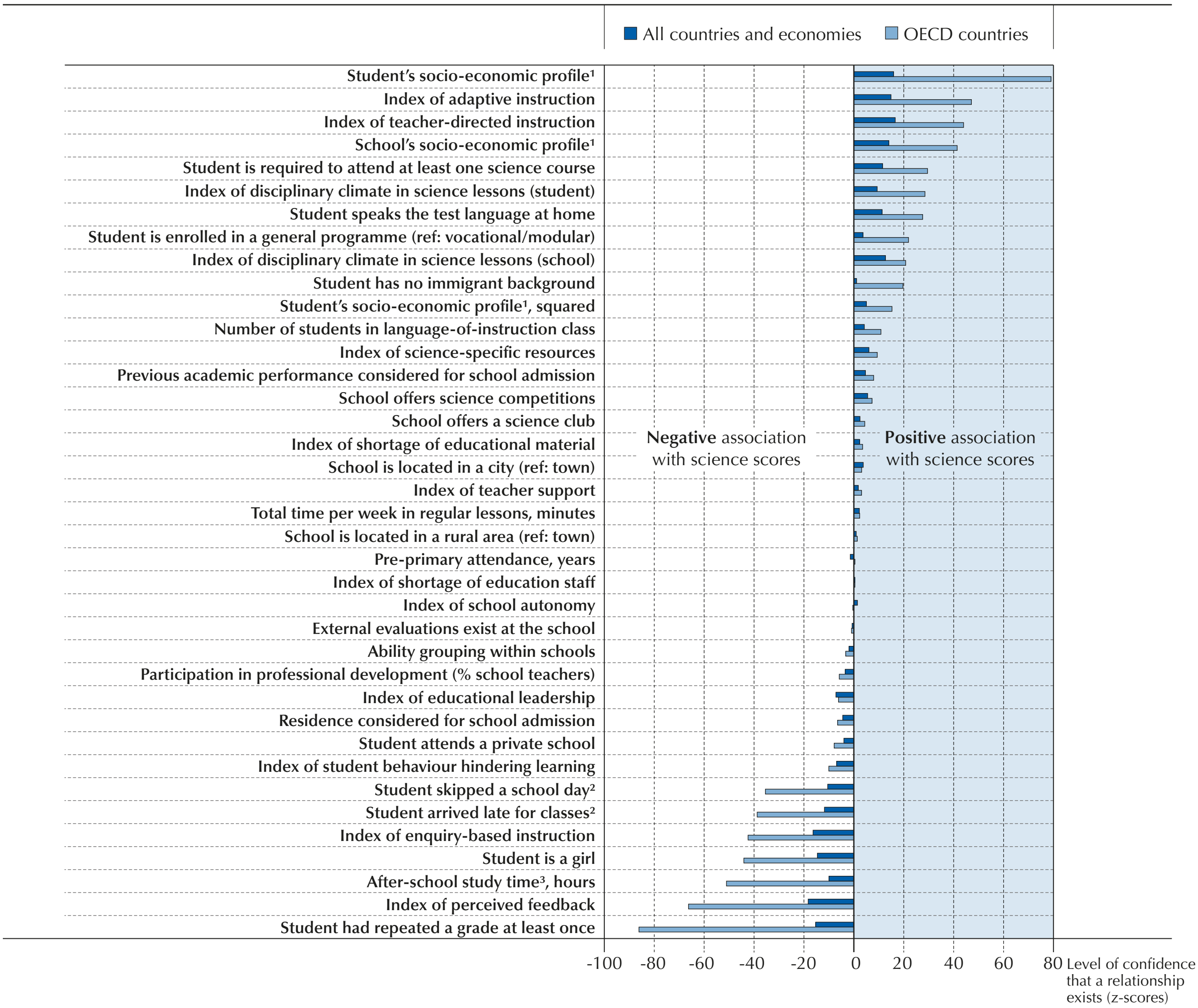
Most parents would like to see their kids in schools where they can learn solid academic knowledge and skills but also have enough time to participate in non-academic activities, such as sports, theatre or music, that develop their social and emotional skills and contribute to their well-being. In this sense, Australia, the Czech Republic, Estonia, Finland, Germany, Japan, Macao (China), the Netherlands, New Zealand, Sweden and Switzerland provide a good balance between learning time and academic performance.

THE MOST AMBITIOUS EDUCATION REFORMS ASPIRE TO CHANGE WHAT HAPPENS INSIDE THE CLASSROOM

What happens inside the classroom is crucial for students' learning and career expectations. How teachers teach science is even more strongly associated with science performance and students' expectations of working in a science-related career than the material and human resources of science departments, including the qualifications of teachers or the kinds of extracurricular science activities offered to students (Figures II.2.21, II.2.22 and II.7.2). For instance, in almost all education systems, students score higher in science when they reported that their science teachers "explain scientific ideas", "discuss their questions" or "demonstrate an idea" more frequently (Table II.2.18). They also score higher in science in almost all school systems when they reported that their science teachers "adapt the lesson to their needs and knowledge" or "provide individual help when a student has difficulties understanding a topic or task" (Table II.2.24).

Figure II.7.2 ▪ **Factors associated with science performance**

Multilevel regression models of education systems, schools and students



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
2. In the two weeks prior the PISA test.
3. Includes homework, additional instruction and private study.

Notes: All variables have been introduced jointly in a three-level regression model.

Statistically significant coefficients have associated z-scores below -1.96 or above 1.96.

The z-scores for «all countries and economies» are generally lower because the uncertainty surrounding the relationships is significantly higher.

See Table II.7.1. for results by education system.

Factors are ranked in descending order of the z-scores for OECD countries.

Source: OECD, PISA 2015 Database.

StatLink http://dx.doi.org/10.1787/888933436455

Interestingly, students are more likely to expect to pursue a career in a science-related occupation when they perceive that their science teachers use a greater diversity of teaching strategies, regardless of which they are (Figure II.2.22).

While changing how teachers teach is challenging, school leaders and governments should try to find ways to make teaching more effective. For instance, in some education systems granting schools more autonomy over the curriculum may give teachers more opportunities to adapt their instruction to students' needs and knowledge (Figure II.2.17). In addition, teachers support their students more in countries and economies that separate their students later into different types of schools or education programmes.

Ensure that science laboratory work is meaningful

Experiments and hands-on activities can be inspiring and can help students develop a conceptual understanding of scientific ideas and transferable skills, such as critical thinking. However, the opportunity costs of these instructional methods can be high. Finding the right balance between different learning opportunities is therefore important. Moreover, in order for experiments and hands-on activities to be truly effective, school principals and teachers need to be prepared. Principals need to ensure that the laboratory material is in good shape and that teachers are supported and trained accordingly. Teachers need to design well-structured laboratory activities that make tangible key scientific concepts and ideas, and help students make the links between the hands-on activities, scientific ideas and real-life problems. Students should also be made aware that when participating in these activities, they are manipulating ideas as well as objects (Hofstein and Lunetta, 2004; Woolnough, 1991).

CREATE A POSITIVE LEARNING ENVIRONMENT FOR ALL

PISA shows that students tend to perform better in schools that provide an environment that is conducive to learning. However, the results suggest that learning environments across OECD countries have deteriorated in recent years: more students in 2015 than in 2012 reported that they had skipped a day of school or classes, or had arrived late for school in the two weeks prior to the PISA test (Table II.3.3); and principals were more likely in 2015 than in 2012 to report that teacher and student behaviours hindered student learning (Tables II.3.14 and II.3.19).

In a positive learning environment, everyone plays their part:

- Students attend school regularly, listen to the teacher, treat other students with respect, and do not disrupt the flow of instruction.
- Teachers co-operate by exchanging ideas or material and support their students by showing an interest in every student, providing extra help or giving students opportunities to express their ideas.
- The school principal ensures that children with different abilities and from different backgrounds are given the same opportunities to learn, reacts swiftly when behavioural and academic problems arise, and ensures that a range of extracurricular activities are offered at school.
- Parents participate in a range of school activities, not only when their child has behavioural or academic problems, and interact with other parents.
- Governments use assessments and information systems, already in place in most countries and economies, and informal mechanisms to identify individual schools that are struggling with student-behaviour problems and may need special assistance.

ENCOURAGE SCHOOLS TO USE MULTIPLE TYPES OF ASSESSMENTS

Student assessments serve different purposes, and some assessments are better suited to achieving some goals than others. For instance, standardised tests seem to be used most commonly for comparing schools, awarding certificates to students or monitoring a school's progress from year to year, whereas teacher-developed tests tend to be used more frequently for informing parents about their child's progress, identifying aspects of the instruction that could be improved or guiding student learning (Figures II.4.24 and II.4.25). It is important to combine multiple types of assessments strategically, including traditional written exams designed by teachers, oral tests, teachers' judgements, collaborative problem solving, long-term projects or standardised tests, so that a wide variety of education goals can be fulfilled and students can develop the skills they need for the future (OECD, 2013a). School leaders and teachers should be prepared to design and grade their own assessments, provide fair and balanced judgements, and be comfortable with conducting and interpreting standardised tests.

The PISA test, itself, offers some guidance for schools and teachers (OECD, 2016):

- Develop balanced assessments. In addition to using multiple types of assessments, schools and teachers should ask questions in different formats (e.g. open-ended or multiple choice), of varying levels of difficulty, that are set in various contexts (e.g. personal, social, global, occupational) and cover the range of skills for a "typical" student.
- Design assessments strategically. For instance, tests can start with easy questions, so that students gain confidence, and leave the most challenging topics for the end.
- Focus on students' abilities and skills. When assessing students, it is always worth asking what type of skills will students need to lead a successful life.
- Be fair. Assess students in ways that are fair and inclusive for everyone, regardless of gender, socio-economic status or ability.
- Innovate. New types of assessments are constantly being developed around the world, with varying degrees of success. Learn about them by talking to colleagues, participating in innovation networks or researching the web. For instance, reading the PISA assessment questions made public might give some ideas to governments, schools and teachers about how to design assessments.

BUILD A SKILLED AND DEDICATED TEACHER WORKFORCE

Most policy interventions that aspire to have an impact on student learning, such as by changing classroom dynamics or creating a positive learning environment, depend on teachers for their success. The most successful education systems select and retain highly qualified candidates for the teaching profession and ensure that they are constantly improving.

Attract and retain qualified teachers, and ensure that they continue to learn throughout their careers

To build a skilled and effective teacher workforce, school systems need to attract talented graduates into the teaching profession and retain teachers who are skilled, dedicated and effective. In the school systems that have been more successful in attracting and retaining qualified teachers, the following typically happens (OECD, 2014):

- Education and the teaching profession are greatly valued by society.
- Teachers are adequately compensated.
- The teaching career is transparent and clearly structured, and the recruitment process for entering the teaching profession is fair and rigorous.
- Teachers are given many opportunities to learn. Offering professional development activities in-house, for instance by organising workshops or inviting specialists to the school, can be a very effective way of engaging teachers (Table II.6.25). Teachers are also encouraged to participate in professional development communities and co-operate with their colleagues. This can create a stimulating learning environment from which students can benefit greatly (Table II.6.21).
- Teachers receive feedback on their teaching regularly, such as through mentoring programmes organised by schools.

BALANCE SCHOOL AUTONOMY WITH ACCOUNTABILITY, AND DEVELOP CAPACITY AT THE LOCAL LEVEL

In the past decades, a number of changes have occurred in how school systems allocate school-management responsibilities to various actors. While some countries have decentralised decision making related to school operations, giving local actors, such as principals and teachers, more responsibility over a range of budgetary, operational and instructional issues, in other countries, education authorities at the local, regional and national levels gained more control over these matters. The latest results show that, compared to 2009, fewer school principals in 2015 hold considerable responsibility for the school budget, the hiring of teachers or the courses offered at school (Table II.4.4). Principals and teachers are also less responsible for school policies related to assessment, disciplinary actions and school admissions.

Giving schools greater control over these matters has been advocated on the grounds that local actors understand their students' needs better than higher administrative bodies, and thus can make better decisions to improve their students' outcomes (Caldwell and Spinks, 2013; Department of Education, 2010). PISA 2015 offers a nuanced picture of the relationship between greater school autonomy and students' performance, which seems to depend not only on the particular areas of school management delegated to principals and teachers, but also on how these areas are related to certain accountability measures and to the capacity of local actors.

In particular, students score higher in science when principals exercise greater autonomy over resources, curriculum and other school policies, but especially so in countries where achievement data are tracked over time or posted publicly more extensively or when principals show higher levels of educational leadership (Figures II.4.8 to II.413). These findings highlight the interplay between school autonomy and accountability already identified in earlier PISA assessments. When principals lack the preparation and capacity to exercise leadership, transferring authority to schools may inadvertently work against students, since school staff might then be deprived of the resources and expertise available at higher levels of the system. Students also score higher in science in countries where more teachers have autonomy over the curriculum. This finding underscores the importance of tapping into teachers' expertise. Teachers can not only help design and implement rigorous curricula, but they can also adapt content to students of varying ability.

STRIVE TO HAVE EXCELLENT SCHOOLS IN EVERY NEIGHBOURHOOD AND MAKE THEM ACCESSIBLE TO ALL STUDENTS

Some countries, such as the Netherlands and the United Kingdom, have a strong tradition of offering an extensive choice of schools to parents. But in many other education systems, the issue of school choice and competition can be controversial. Advocates of market-based models argue that giving more school choice to parents can improve the quality of education overall, so that, in the end, all parents and students benefit from better schools (Card, Dooley and Payne 2010; Woessmann et al., 2007). But this argument is challenged by those who say that advantaged families might move their children to better schools, resulting in less – and perhaps poorer quality – material and human resources being allocated to neighbourhood public schools, especially if school funding is linked to enrolment (Behrman et al., 2016; Ladd, 2002; Valenzuela, Bellei and Rios, 2014).

In a majority of countries/economies, competition among schools is positively associated with science performance at the school level (Table II.4.14), but school competition does not benefit everyone to the same extent. PISA 2015 shows that in most of the 18 education systems that distributed the parents' questionnaire, more schools are available to families whose children attend advantaged and urban schools than to those whose children are enrolled in disadvantaged and rural schools. Increasing school competition is difficult in some situations, such as in rural areas, and healthy competition implies that parents are well-informed about the options available to them and can choose a school without financial constraints. While parents from all backgrounds cite school reputation as an important consideration when choosing a school for their child, disadvantaged parents are much more likely than advantaged parents to report that they consider "low expenses" to be an important factor when choosing a school (Figures II.4.17 and II.4.18). Allowing parents to choose their child's school can open up a world of opportunities if all families can choose on an equal basis; if not, a world of inequalities can be the result instead.

In most school systems, disadvantaged students are more likely to attend public schools than advantaged students. It is therefore not surprising that across OECD countries, students enrolled in private schools perform better in science than students in public schools (Figures II.4.14). But when students and schools have a similar socio-economic profile, the "advantage" of private schools disappears, except in a handful of countries, and students in public schools in about one in three education systems score higher in science. In other words, the performance advantage of private schools tends to reflect either the more privileged home background of students and their families, or the fact that more privileged students tend to be enrolled in schools with a better instructional climate or better educational resources. PISA shows no clear association between the percentage of students enrolled in public and private schools and a school system's average performance in science (Figure II.4.15).

Nurturing academic excellence for all students might then entail having excellent schools easily accessible in every neighbourhood, providing adequate transportation and reducing the financial burden on parents, particularly those in low-income areas. In systems that offer choice, creating or improving websites or other information systems that provide parents with clear information about schools in their area – such as the schools' academic performance, graduation rates and admissions policy – can be one way to help them navigate the full range of choices available to them. Increasing opportunities for face-to-face discussions between the school community and parents of prospective students, such as open-door events, can also help bridge the information gap between advantaged and disadvantaged families if well planned. Providing incentives for schools, including private schools, to increase the social diversity of their student body might help make the schools more welcoming to all families.

ADJUST THE SIZE OF SCHOOLS AND CLASSES IF FINANCIAL RESOURCES ARE LIMITED

Evidence presented in the volume (Tables II.6.7 and II.6.8) shows that the relationship between school size and student outcomes is not clear-cut. Across OECD countries, students in larger schools score higher in science and are more likely to expect to work in a science-related career than students in smaller schools. But students in smaller schools reported a better disciplinary climate in their science lessons, and they are less likely than students in larger schools to skip days of school and arrive late for school, after accounting for socio-economic status. Previous research also shows ambiguous findings, such that the effect of school size varies across student groups and levels of education, and often changes after certain thresholds are crossed (Box II.6.1). Because deciding the optimal size of schools based on student outcomes alone is not straightforward, the decision should be based to a great extent on financial considerations. Running larger schools, which can benefit from economies of scale, is usually more efficient than running small schools. However, above a certain size there may be negative returns to expansion (Box II.6.1), and sometimes, particularly in rural areas, it might be impossible to increase the number of students in schools without forcing students to endure long commutes or enrolling them in boarding schools.

Even if previous research has pointed to some benefits associated with smaller classes, particularly for disadvantaged and minority students (Dynarski, Hyman and Schanzenbach, 2013), PISA data show that large classes have not prevented schools in East Asia from providing good instruction (II.6.16), and that, across OECD countries, students in large classes tend to score higher (Table II.6.30). Given the high costs associated with smaller classes, governments should seriously consider the opportunity costs of reducing class size.

FAVOUR ADDITIONAL SUPPORT TO STRUGGLING STUDENTS RATHER THAN GRADE REPETITION.

What is the best way of helping struggling students? Retaining students in the same grade for an additional year may be a popular idea among policy makers and educators in many countries, but a growing body of research points to the negative consequences of grade repetition. Students who have repeated a grade tend to display more negative behaviours and attitudes towards school, are more likely to drop out and may be stigmatised among their classmates (Ikeda and García, 2014; Rumberger and Lim, 2008; Thompson and Cunnigham, 2000; West, 2012). Previous PISA findings have already revealed that at the system level, higher rates of grade repetition are associated with lower performance in mathematics and lower levels of equity (OECD, 2013b). PISA 2015 results also show that in education systems where grade repetition is used more extensively, overall science performance is lower and equity is compromised (Figure II.5.4 and Figure II.5.13). From the perspective of an education system as a whole, grade repetition is also a costly policy, requiring an additional year of spending per student with no guaranteed results. In some countries that practice grade repetition, such as Belgium and the Netherlands, the additional cost per repeater can be as high as USD 48 900 or more. And the total cost of grade repetition can represent 10% or more of these countries' annual national expenditure on primary and secondary education (OECD, 2013b).

Fortunately, there has been notable progress on this front. Between 2009 and 2015, grade repetition rates in 30 countries dropped – and by at least 10 percentage points in Costa Rica, France, Indonesia, Latvia, Macao (China), Malta, Mexico and Tunisia (Table II.5.11). In fact, France reduced its grade repetition rate by 16 percentage points during this period while maintaining OECD average levels of performance in science in 2015. Further improvement can be achieved in many countries, especially among subgroups of students that seem to be unfairly targeted for grade repetition. Across OECD countries, boys, disadvantaged students and those with an immigrant background are significantly more likely to have repeated a grade at least once in primary or secondary school, even when they perform similarly and have similar motivation and attitudes towards learning as their peers who had not repeated a grade (Table II.5.13). These findings clearly show that grade repetition is a costly policy that is applied in ways that are neither objective nor equitable in many school systems.

It may be difficult for school systems to identify those cases where students are retained unfairly, so setting ambitious goals to reduce the use of such practices throughout the system may help limit abuses. But struggling students still need support. Additional guidance and learning time inside or outside of school, accompanied by the establishment of clear, challenging and achievable goals can help. Curricula are usually designed to be followed by all students. But designing individualised learning plans may allow students who are struggling to learn the material and to progress at their own pace, ultimately meeting the standards set for all students, but over a longer period of time.

DELAY THE AGE AT SELECTION INTO DIFFERENT EDUCATION PROGRAMMES

Countries that offer a variety of education programmes as part of compulsory education, such as general/academic, pre-vocational, vocational or technical programmes, are probably familiar with research evidence showing that sorting students into different tracks may exacerbate social and economic segregation and increase inequality (Hanushek and Woessmann, 2005; Maaz et al., 2008). These concerns are justified, as disadvantaged students tend to be disproportionally represented in vocational programmes (Figure II.5.9).

PISA results show that the age at which students are streamed into various tracks is associated not only with greater performance discrepancies between schools (low academic inclusion), but also with less equity in science performance (Figures II.5.11 and II.5.13). In short, in countries where students are sorted into tracks at an early age (early tracking), the socio-economic status of students has a greater impact on students' scores in science compared with countries where tracking is delayed to a later age.

Why do systems that delay the age of tracking tend to have more equitable outcomes? Is selection into different programmes subject to teachers' biases? Are vocational programmes under-resourced compared to general programmes? Is early selection limiting the learning opportunities and career choices of "late bloomers"? Do students in some tracks lack the kind of social, academic and cultural diversity that makes for a stimulating learning environment? Although PISA data do not allow for an investigation into the underlying causes behind these differences, the findings on system stratification provide some insights into some factors that countries may wish to consider when confronted with the challenge of reducing inequalities among schools and students.

Providing a challenging and rich curriculum in all tracks; delaying the age at selection into different programmes; introducing flexibility into the system so students can transfer between programmes; and offering pathways to higher education to all students are just some of the ways that countries can mitigate undesirable consequences of early tracking.

PROVIDE ACCESS TO QUALITY EARLY EDUCATION FOR ALL CHILDREN

PISA shows that, across OECD countries, students who had attended pre-primary school tend to perform better at the age of 15 than students who had not attended, even after accounting for students' socio-economic status (Table II.6.52). It is not possible to ascertain, though, whether this is an effect of the learning opportunities provided in early childhood education or simply mirrors selection. The data also show that many students had attended pre-school for less than one year, and in almost every school system, these students are more likely to be disadvantaged (Tables II.6.50 and II.6.51). In Croatia, the Dominican Republic, Lithuania, Montenegro, Portugal and Turkey, for instance, at least one in five students had attended pre-primary school for less than a year. Providing access to early education for all children can be accomplished by passing legislation that gives every child the right to participate in pre-primary education, by developing or subsidising a network of free pre-primary education centres to ease the financial burden on disadvantaged families, and by providing information and guidance to parents.

ABOVE ALL, PROVIDE ADDITIONAL SUPPORT TO DISADVANTAGED SCHOOLS

Achieving equity in education means ensuring that students' socio-economic status has little to do with learning outcomes. Learning should not be hindered by whether a child comes from a poor family, has an immigrant background, is raised by a single parent or has limited resources at home, such as no computer or no quiet room for studying. Successful education systems understand this and have found ways to allocate resources so as to level the playing field for students who lack the material and human resources that students in advantaged families enjoy. When more students learn, the whole system benefits. This is an important message revealed by PISA results: in countries and economies where more resources are allocated to disadvantaged schools, overall student performance in science is somewhat higher (Figure II.6.4).

PISA data uncover a number of differences between disadvantaged and advantaged schools, both quantitative and qualitative, that collectively paint a picture of the drastically different learning environments in these distinct types of schools. Disadvantaged schools have fewer qualified science teachers and are less likely to require students to attend science classes (Tables II.2.3 and II.2.6). Their students not only spend less time in regular lessons than students in advantaged schools (Table II.6.36), they are also less exposed to quality teaching. For example, teachers in their schools are less likely to engage in some effective teaching strategies, such as explaining or demonstrating a scientific idea (Table II.2.17). The range of learning opportunities beyond regular classes is also much narrower in disadvantaged schools, as these schools tend to offer fewer extracurricular activities, such as science competitions and clubs, sports, and music

and arts activities (Tables II.2.12, II.2.13 and II.6.49). Disadvantaged schools also tend to be subject to more disciplinary problems and a lack of student engagement, manifested in students arriving late for school or skipping days of school, which compromise students' opportunities to learn and to do well in school (Tables II.3.4, II.3.6 and II.3.11). Some of these differences between disadvantaged and advantaged schools are magnified in countries that practice early tracking.

Compensatory measures are essential and, in many ways, they are already in place in various countries. But further steps need to be taken. For example, it is not enough for disadvantaged schools to have more computers per student; these computers need to be connected to the Internet and, more important, they need to be used in a way that improves learning, not distracts from it. It is not enough for students in these schools to spend more time studying after school; they also need more time in regular lessons with better teaching, which is what their counterparts in advantaged schools already have. And they need more support after class, too, in the form of tutoring, and in enriching extracurricular activities.

PISA findings help countries identify some of these deficiencies, but policy makers are left with the hard work of finding the best ways to address them. Solutions will vary depending on the nature of the gaps. For example, in some education systems, like those in Ciudad Autónoma de Buenos Aires (Argentina), Georgia, Lebanon, Macao (China), Mexico or Thailand, policy makers might try to achieve a better distribution of material resources. In others, such as Australia, B-S-J-G (China), New Zealand, Spain or Uruguay, a better allocation of human resources seems to be a priority.

Even when different schools face similar problems, tailored solutions that capitalise on assets already in place may be needed; and progress towards learning goals should be continuously monitored. Countries should also watch for practices that could undermine the equity of their system. For example, in countries and economies where students in advantaged schools spend more time studying after school, such as Croatia, Italy, Japan, Korea, Macao (China) and Chinese Taipei, the performance disparities between disadvantaged and advantaged schools may well increase. Governments may need to provide additional resources for free-of-charge tutoring in disadvantaged schools so as to prevent the development of a shadow education system – and to ensure equity in education opportunities.

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Annex A

PISA 2015 TECHNICAL BACKGROUND

All tables in Annex A are available on line

Annex A1: Construction of indices, trends and missing observations

Annex A2: The PISA target population, the PISA samples and the definition of schools
http://dx.doi.org/10.1787/888933433129

Annex A3: Technical notes on analyses in this volume

Annex A4: Quality assurance

Annex A5: Changes in the administration and scaling of PISA 2015 and implications for trends analyses

Annex A6: System-level data collection for PISA 2015: Sources, comments and technical notes

Annex A7: Guidelines and caveats about interpreting the results

Note regarding B-S-J-G (China)

B-S-J-G (China) refers to the four PISA participating China provinces : Beijing, Shanghai, Jiangsu, Guangdong.

Note regarding CABA (Argentina)

CABA (Argentina) refers to the Ciudad Autónoma de Buenos Aires, Argentina.

Note regarding FYROM

FYROM refers to the Former Yugoslav Republic of Macedonia.

Notes regarding Cyprus

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

ANNEX A1

CONSTRUCTION OF INDICES, TRENDS AND MISSING OBSERVATIONS

Explanation of the indices

This section explains the indices derived from the student and school context questionnaire for PISA 2015 used in this volume.

Several PISA measures reflect indices that summarise responses from students, their parents, teachers or school representatives (typically principals) to a series of related questions. The questions were selected from a larger pool of questions on the basis of theoretical considerations and previous research. The *PISA 2015 Assessment and Analytical Framework* (OECD, 2016) provides an in-depth description of this conceptual framework. Structural equation modelling was used to confirm the theoretically expected behaviour of most indices and to validate their comparability across countries. For this purpose, a model was estimated separately for each country and collectively for all OECD countries. For a detailed description of other PISA indices and details on the methods, see *PISA 2015 Technical Report* (OECD, forthcoming).

There are two types of indices used in this volume: simple indices and scale indices.

Simple indices are the variables that are constructed through the arithmetic transformation or recoding of one or more items, in exactly the same way across assessments. Here, item responses are used to calculate meaningful variables, such as the recoding of the four-digit ISCO-08 codes into “Highest parents’ socio-economic index (HISEI)” or, teacher-student ratio based on information from the school questionnaire.

Scale indices are the variables constructed through the scaling of multiple items. Unless otherwise indicated, the index was scaled using a two-parameter item response model (a generalised partial credit model was used in the case of items with more than two categories) and values of the index correspond to Warm likelihood estimates (WLE) (Warm, 1985). For details on how each scale index was constructed see the *PISA 2015 Technical Report* (OECD, forthcoming). In general, the scaling was done in three stages:

1. The item parameters were estimated from equally-weighted samples of students from all countries and economies; only cases with a minimum number of three valid responses to items that are part of the index were included.
2. The estimates were computed for all students and all schools by anchoring the item parameters obtained in the preceding step.
3. The warm likelihood estimates were then standardised so that the mean of the index value for the OECD student population was zero and the standard deviation was one (countries being given equal weight in the standardisation process).

Sequential codes were assigned to the different response categories of the questions in the sequence in which the latter appeared in the student, school or parent questionnaires. Where indicated in this section, these codes were inverted for the purpose of constructing indices or scales. Negative values for an index do not necessarily imply that students responded negatively to the underlying questions. A negative value merely indicates that the respondents answered less positively than all respondents did on average across OECD countries. Likewise, a positive value on an index indicates that the respondents answered more favourably, or more positively, than respondents did, on average, in OECD countries. Terms enclosed in brackets < > in the following descriptions were replaced in the national versions of the student, school and parent questionnaires by the appropriate national equivalent. For example, the term <qualification at ISCED level 5A> was translated in the United States into “Bachelor’s degree, post-graduate certificate program, Master’s degree program or first professional degree program”. Similarly the term <classes in the language of assessment> in Luxembourg was translated into “German classes” or “French classes” depending on whether students received the German or French version of the assessment instruments.

In addition to simple and scaled indices described in this annex, there are a number of variables from the questionnaires that were used in this volume and correspond to single items not used to construct indices. These non-recoded variables have prefix of “ST” for the questionnaire items in the student questionnaire and “SC” for the items in the school questionnaire. All the context questionnaires as well as the PISA international database, including all variables, are available through www.oecd.org/pisa.

Student-level simple indices

Student age

The age of a student (AGE) was calculated as the difference between the year and month of the testing and the year and month of a student’s birth. Data on student’s age were obtained from both the questionnaire (ST003) and the student tracking forms. If the month of testing was not known for a particular student, the median month for that country was used in the calculation.

Immigration background

The PISA database contains three country-specific variables relating to the students' country of birth, their mother and father (COBN_S, COBN_M, and COBN_F). The items ST019Q01TA, ST019Q01TB and ST019Q01TC were recoded into the following categories: (1) country of birth is the same as country of assessment and (2) other. The index of immigrant background (IMMIG) was calculated from these variables with the following categories: (0) non-immigrant students (those students who had at least one parent born in the country), (1) first- and second-generation immigrant students (those born in the country of assessment but whose parent(s) were born in another country or those born outside the country of assessment and whose parents were also born in another country). Students with missing responses for either the student or for both parents were assigned missing values for this variable.

Language spoken at home

Students indicated what language they usually speak at home (ST022), and the database includes a derived variable (LANGN) containing a country-specific code for each language. In addition, an internationally comparable variable was derived from this information with the following categories: (1) language at home is the same as the language of assessment for that student and (2) language at home is another language.

Relative grade

The relative grade index (GRADE) indicates whether students are in a country's modal grade (value of 0) or whether they are below or above the modal grade (+x grades, -x grades). The information about the students' grade level was taken from the student questionnaire (ST001) and the modal grade was defined by the country and documented in the Student Tracking Form.

Grade repetition

The grade repetition variable (REPEAT) was computed by recoding variables ST127Q01TA, ST127Q02TA, and ST127Q03TA. REPEAT took the value of "1" if the student had repeated a grade in at least one ISCED level and the value of "0" if "no, never" was chosen at least once, given that none of the repeated grade categories were chosen. The index is assigned a missing value if none of the three categories were ticked in any levels.

Study programme

PISA collects data on study programmes available to 15-year old students in each country. This information is obtained through the student tracking form and the Student Questionnaire. In the final database, all national programmes are included in a separate derived variable (PROGN) where the first six digits represent the National Centre code, and the last two digits are the nationally specific programme code. All study programmes were classified using the International Standard Classification of Education (ISCED) (OECD, 1999). The following indices were derived from the data on study programmes:

- Programme level (ISCEDL) indicates whether students were at the lower or upper secondary level (ISCED 2 or ISCED 3);
- Programme orientation (ISCEDO) indicates whether the programme's curricular content was general, pre-vocational or vocational.

Learning time

Learning time in test language regular lessons (LMINS) was computed by multiplying the number of minutes on average in the test language class by number of test language class periods per week (ST061 and ST059). Comparable indices were computed for mathematics (MMINS) and science (SMINS). Learning time in total (TMINS) was computed using information about the average minutes in a <class period> (ST061) in relation to information about the number of class periods per week attended in total (ST060). For convenience purposes, the information on learning time is presented in hours.

Out-of-school study time

Students were asked in a slider-format question how much time they spent studying in addition to their required school schedule (ST071). The index OUTHOURS was computed by summing the time spent studying for different school subjects.

Early childhood education and care

Questions ST125 and ST126 measure the starting age in ISCED 1 and ISCED 0. A difference score of the two indicates the number of years a student spent in early childhood education and care (DURECEC). This information was combined with the answer "I did not attend ISCED 0" from ST125 to measure the number of years that students attended early childhood education and care.

Science-related career expectations

Students were asked, in PISA 2015, to answer a question (ST114) about "what kind of job [they] expect to have when [they] are about 30 years old". Answers to this open-ended question were coded to four-digit ISCO codes (ILO, 2007), in variable OCOD3. This variable was used to derive the index of science-related career expectations.

Science-related career expectations are defined as those career expectations whose realisation requires further engagement with the study of science beyond compulsory education, typically in formal tertiary education settings. The classification of careers into science-related and non-science-related is based on the four-digit ISCO-08 classification of occupations.

Only professionals (major ISCO group 2) and technicians/associate professionals (major ISCO group 3) were considered to fit the definition of science-related career expectations. In a broad sense, several managerial occupations (major ISCO group 1) are clearly science-related: these include research and development managers, hospital managers, construction managers, and other occupations classified under production and specialised services managers (submajor group 13). However, it was considered that when science-related experience and training is an important requirement of a managerial occupation, these are not entry-level jobs and 15-year-old students with science-related career expectations would not expect to be in such a position by age 30.

Several skilled agriculture, forestry and fishery workers (major ISCO group 6) could also be considered to work in science-related occupations. The United States O*NET OnLine (2016) classification of science, technology, engineering and mathematics (STEM) occupations indeed include these occupations. These, however, do not typically require formal science-related training or study after compulsory education. On these grounds, only major occupation groups that require ISCO skill levels 3 and 4 were included among science-related occupational expectations.

Among professionals and technicians/associate professionals, the boundary between science-related and non-science related occupations is sometimes blurred, and different classifications draw different lines.

The classification used in this report includes four groups of jobs:[1]

1. *Science and engineering professionals*: All science and engineering professionals (submajor group 21), except product and garment designers (2163), graphic and multimedia designers (2166).
2. *Health professionals*: All health professionals in submajor group 22 (e.g. doctors, nurses, veterinarians), with the exception of traditional and complementary medicine professionals (minor group 223).
3. *ICT professionals*: All information and communication technology professionals (submajor group 25).
4. *Science technicians and associate professionals*, including:
    - physical and engineering science technicians (minor group 311)
    - life science technicians and related associate professionals (minor group 314)
    - air traffic safety electronic technicians (3155)
    - medical and pharmaceutical technicians (minor group 321), except medical and dental prosthetic technicians (3214)
    - telecommunications engineering technicians (3522).

How this classification compares to existing classifications

When three existing classifications of 15-year-olds' science career expectations, all based on the International Standard Classification of Occupations (ISCO), 1988 edition (ISCO-88), are compared to the present classification, based on ISCO-08, a few differences emerge. Some are due to the updated version of occupational codings (as discussed in the next section); the remaining differences are summarised in Table A1.1.

Developing a comparable classification for ISCO-88

The same open-ended question was also included in the PISA 2006 questionnaire (ID in 2006: ST30), but students' answers were coded in the PISA 2006 database according to ISCO-88. It is not possible to ensure a strictly comparable classification. To report changes over time, the correspondence described in Table A1.2 was used to derive a similar classification based on PISA 2006 data.

The main differences between ISCO-88 and ISCO-08, for the purpose of deriving the index of science-related career expectations, are the following:

- Medical equipment operators (ISCO-88: 3133) correspond to medical imaging and therapeutic equipment technicians in ISCO-08; air traffic safety technicians (ISCO-88: 3145) correspond to air traffic safety electronics technicians in ISCO-08; building and fire inspectors (ISCO-88: 3151) mostly correspond to civil engineering technicians in ISCO-08.
- Dieticians and nutritionists (ISC0-88: 3223) are classified among professionals in ISCO-08. For consistency, this ISCO-88 occupation was classified among health professionals.
- Physiotherapists and related associate professionals (ISCO-88: 3226) form two distinct categories in ISCO-08, with physiotherapists classified among professionals. Given that students who expect to work as physiotherapists far outnumber those who expect to work as related associate professionals, this ISCO-88 occupation was classified among health professionals.

- Several health-related occupations classified as "modern health associate professionals" in ISCO-88 are included among health professionals in ISCO-08 (e.g. speech therapist, ophthalmic opticians). While health professionals are, in general, included among science-related careers, health associate professionals are not included among science-related careers. In applying the classification to ISCO-88, the entire code was excluded from science-related careers.
- Telecommunications engineering technicians (ISCO-08: 3522) do not form a separate occupation in ISCO-88, where they can be found among electronics and telecommunications engineering technicians (ISCO-88: 3114).
- Information and communication technology professionals form a distinct submajor group (25) in ISCO-08 but are classified among physical, mathematical and engineering science professionals in ISCO-88.

Table A1.1 ▪ **Differences in the definition of science-related career expectations**

	This classification	OECD (2007)	Sikora and Pokropek (2012)	Kjærnsli and Lie (2011)
Science-related managerial jobs	out	in	in	out
Psychologists	out	in	in	out
Sociologists and social work professionals	out	in	out	out
Photographers and image and sound recording equipment operators, broadcasting and telecommunications equipment operators	out	in	in	out
Statistical, mathematical and related associate professionals	out	out	in	out
Aircraft controllers (e.g. pilots, air traffic controllers)	out	in	in	out
Ship controllers (Ships' desk officers, etc.)	out	out	in	out
Medical assistants, dental assistants, veterinary assistants, nursing and midwifery associate professionals	out	in	in	out
Computer assistants, computer equipment operators and industrial robot controllers	out	out	out	in
Air traffic safety electronic technicians	in	in	in	out
Pharmaceutical technicians and assistants	in	in	in	out
Dieticians and nutritionists	in	in	in	out

Table A1.2 ▪ **ISCO-08 to ISCO-88 correspondence table for science-related career expectations**

Group	ISCO-08	ISCO-88
Science and engineering professionals	21xx (except 2163 and 2166)	21xx (except 213x), 221x
Health professionals	22xx (except 223x)	22xx (except 221x), 3223, 3226
ICT professionals	25xx	213x
Science technicians and associate professionals	311x, 314x, 3155, 321x (except 3214), 3522	311x, 3133, 3145, 3151, 321x, 3228

Student-level scale indices

Epistemic beliefs about science

The index of epistemic beliefs about science (EPIST) was constructed using students' responses to a new question developed for PISA 2015 about students' views on scientific approaches (ST131). Students reported, on a four-point Likert scale with the answering categories "strongly disagree", "disagree", "agree", and "strongly agree", their agreement with the following statements: A good way to know if something is true is to do an experiment; Ideas in <broad science> sometimes change; Good answers are based on evidence from many different experiments; It is good to try experiments more than once to make sure of your findings; Sometimes <broad science> scientists change their minds about what is true in science; The ideas in <broad science> science books sometimes change. Higher levels of the index correspond to greater levels of agreement with these statements.

Sense of belonging

The index of sense of belonging (BELONG) was constructed using students' responses to a trend question about their sense of belonging to school. Students reported, on a four-point Likert scale with the answering categories "strongly agree", "agree", "disagree", and "strongly disagree", their agreement with the following statements (ST034): I feel like an outsider (or left out of things) at school; I make friends easily at school; I feel like I belong at school; I feel awkward and out of place in my school; Other students seem to like me; I feel lonely at school. The answers to three items were reversed-coded so that higher values in the index indicate a greater sense of belonging.

Science learning in school

PISA 2015 focussed on science learning in school by including several questions about the learning environment in science lessons. They asked how often specific activities happened in the school science course. The questions were used to create the following indices: teacher-directed instruction, perceived feedback, adaptive instruction, enquiry-based instruction, teacher support to students and disciplinary climate. Higher values in these indices indicate that the activities happened more frequently in science lessons.

Teacher-directed instruction

The index of teacher-directed instruction (TDTEACH) was constructed from students' reports on how often ("never or almost never"; "some lessons"; "many lessons"; "every lesson or almost every lesson") the following happened in their science lessons (ST103): The teacher explains scientific ideas; A whole class discussion takes place with the teacher; The teacher discusses our questions; The teacher demonstrates an idea.

Perceived feedback

The index of perceived feedback (PERFEED) was constructed from students' reports on how often ("never or almost never"; "some lessons"; "many lessons"; "every lesson or almost every lesson") the following happened in their science lessons (ST104): The teacher tells me how I am performing in this course; The teacher gives me feedback on my strengths in this <school science> subject; The teacher tells me in which areas I can still improve; The teacher tells me how I can improve my performance; The teacher advises me on how to reach my learning goals.

Adaptive instruction

The index of adaptive instruction (ADINST) was constructed from students' reports on how often ("never or almost never"; "some lessons"; "many lessons"; "every lesson or almost every lesson") the following happened in their science lessons (ST107): The teacher adapts the lesson to my class's needs and knowledge; The teacher provides individual help when a student has difficulties understanding a topic or task; The teacher changes the structure of the lesson on a topic that most students find difficult to understand.

Enquiry-based instruction

The index of enquiry-based instruction (IBTEACH) was constructed from students' reports on how often ("in all lessons"; "in most lessons"; "in some lessons"; "never or hardly ever") the following happened in their science lessons (ST098): Students are given opportunities to explain their ideas; Students spend time in the laboratory doing practical experiments; Students are required to argue about science questions; Students are asked to draw conclusions from an experiment they have conducted; The teacher explains how a science idea can be applied to a number of different phenomena; Students are allowed to design their own experiments; There is a class debate about investigations; The teacher clearly explains the relevance of science concepts to our lives; Students are asked to do an investigation to test ideas.

Teacher support to students

The index of teacher support (TEACHSUP) was constructed from students' reports on how often ("every lesson", "most lessons", "some lessons", "never or hardly ever") the following happened in their science lessons (ST100): The teacher shows an interest in every student's learning; The teacher gives extra help when students need it; The teacher helps students with their learning; The teacher continues teaching until students understand the material; The teacher gives students an opportunity to express their opinions.

Disciplinary climate

The index of disciplinary climate (DISCLISCI) was constructed from students' reports on how often ("every lesson", "most lessons", "some lessons", "never or hardly ever") the following happened in their science lessons (ST097): The teacher shows an interest in every student's learning; The teacher gives extra help when students need it; The teacher helps students with their learning; The teacher continues teaching until students understand the material; The teacher gives students an opportunity to express their opinions.

Achievement motivation

The index of achievement motivation (MOTIVAT) was constructed using students' responses to a new question developed for PISA 2015 (ST119). Students reported, on a four-point Likert scale with the answering categories "strongly disagree", "disagree", "agree", and "strongly agree", their agreement with the following statements: I want top grades in most or all of my courses;

I want to be able to select from among the best opportunities available when I graduate; I want to be the best, whatever I do; I see myself as an ambitious person; I want to be one of the best students in my class. Higher values indicate that students have greater achievement motivation.

Scaling of indices related to the PISA index of economic social and cultural status

The PISA index of economic, social and cultural status (ESCS) was derived, as in previous cycles, from three variables related to family background: highest parental education (PARED), highest parental occupation (HISEI), and home possessions (HOMEPOS) including books in the home. PARED and HISEI are simple indices, described above. HOMEPOS is a proxy measure for family wealth.

Household possessions

In PISA 2015, students reported the availability of 16 household items at home (ST011) including three country-specific household items that were seen as appropriate measures of family wealth within the country's context. In addition, students reported the amount of possessions and books at home (ST012, ST013).

HOMEPOS is a summary index of all household and possession items (ST011, ST012 and ST013). The home possessions scale for PISA 2015 was computed differently than in the previous cycles, to align the IRT model to the one used for all cognitive and non-cognitive scales. Categories for the number of books in the home are unchanged in PISA 2015. The ST011-Items (1=”yes”, 2=”no”) were reverse-coded so that a higher level indicates the presence of the indicator.

Computation of ESCS

For the purpose of computing the PISA index of economic, social and cultural status (ESCS), values for students with missing PARED, HISEI or HOMEPOS were imputed with predicted values plus a random component based on a regression on the other two variables. If there were missing data on more than one of the three variables, ESCS was not computed and a missing value was assigned for ESCS.

The PISA index of economic, social and cultural status was derived from a principal component analysis of standardised variables (each variable has an OECD mean of zero and a standard deviation of one), taking the factor scores for the first principal component as measures of the PISA index of economic, social and cultural status. All countries and economies (both OECD and partner countries/economies) contributed equally to the principal component analysis, while in previous cycles, the principal component analysis was based on OECD countries only. However, for the purpose of reporting the ESCS scale has been transformed with zero being the score of an average OECD student and one being the standard deviation across equally weighted OECD countries.

Principal component analysis was also performed for each participating country or economy separately, to determine to what extent the components of the index operate in similar ways across countries or economy.

School-level simple indices

School type

Schools are classified as either public or private according to whether a private entity or a public agency has the ultimate power for decision making concerning its affairs (SC013). As in previous PISA surveys, the index on school type (SCHLTYPE) has three categories, based on two questions: SC013 which asks if the school is a public or a private school, and SC016 which asks about the sources of funding. This index was calculated in 2015 and in all previous cycles.

School size

The index of school size (SCHSIZE) contains the total enrolment at school. It is based on the enrolment data provided by the school principal, summing the number of girls and boys at a school (SC002).

Class Size

The average class size (CLSIZE) is derived from one of nine possible categories in question SC003, ranging from “15 students or fewer” to “more than 50 students”.

Availability of computers

School principals were asked to report the number of computers available at school (SC004). The index of availability of computers (RATCMP1) is the ratio of computers available to 15-year olds for educational purposes to the total number of students in the modal grade for 15-year olds. The index of computers connected to the Internet was calculated as the percentage of computers available to 15-year olds for educational purposes that are connected to the Internet.

Responsibilities for school governance

The index of school autonomy (SCHAUT) is calculated as the percentage of tasks included in SC010 (yes/no questions) for which the principal, the teachers or the school governing board have considerable responsibility.

The answers to question SC010 were also recoded so that the responsibilities of the five actors – principals, teachers, school boards, local/regional authorities and national authorities – add to a fixed number within each school – for convenience, 100. For instance, if a principal reports that only teachers have considerable responsibility for selecting course content, then they are assigned a value of 100. If they reported that both teachers and principals have considerable responsibility, then each receives a value of 50. If, according to the principal, the responsibility is shared among principals, teachers and a school board, then each actor is given a value of 33, and so on. The values of these derived variables can be interpreted as the percentage of responsibility held by a given actor. The responsibilities related to resources (selecting teachers for hire; firing teachers; establishing teachers' starting salaries; determining teachers' salary increases; formulating the school budget; deciding on budget allocations within the school) and curriculum (choosing which textbooks are used; determining course content; deciding which courses are offered) were grouped.

Quantity of teaching staff at school

Principals were asked to report the total number of teachers at their school (TOTAT) and provide additional information on how many of the staff was full-time and part-time employed teachers qualified at different ISCED levels (SC018).

The proportion of fully certified teachers (PROATCE) was computed by dividing the number of fully certified teachers by the total number of teachers.

The student-teacher ratio (STRATIO) was obtained by dividing the number of enrolled students (SC002) by the total number of teachers (TOTAT).

An additional question (SC019) asked about the number of science teachers at the school, including information about full-time or part-time employment and the respective ISCED level qualification of these science teachers.

The proportion of fully certified science teachers (PROSTCE) was computed by dividing the number of fully certified science teachers by the total number of teachers.

The proportion of science teachers with an ISCED 5A qualification and a major in science (PROSTMAS) was calculated by dividing the number of these teachers by the total number of science teachers.

Extracurricular activities at school

School principals were asked to report what extracurricular activities their schools offered to 15-year old students (SC053). The index of creative extracurricular activities at school (CREACTIV) was computed as the total number of the following activities that occurred at school: band, orchestra or choir; school play or school musical; art club or art activities.

Science-specific resources

A new index of science-specific resources (SCIERES) was constructed using principals' responses to a series of statements about the school science department. It was constructed by summing up the principals' answers to the eight statements in SC059 (yes/no question).

School efforts to involve parents

The index of school efforts to involve parents (SCHEFFPAR) is the percentage of the of the following statements in SC063 that apply to the school: Our school provides a welcoming and accepting atmosphere for parents to get involved; Our school designs effective forms of school-to-home and home-to-school communications about school programmes and children's progress; Our school includes parents in school decisions; Our school provides information and ideas for families about how to help students at home with homework and other curriculum-related activities, decisions, and planning.

School-level scale indices

School resources

PISA 2015 included a question with eight items about school resources, measuring the school principals' perceptions of potential factors hindering the provision of instruction at school ("Is your school's capacity to provide instruction hindered by any of the following issues?"). The four response categories were "not at all", "very little", "to some extent", and "a lot". A similar question was used in previous cycles, but items were reduced and reworded for 2015 focusing on two derived variables. The index on staff shortage (STAFFSHORT) was derived from the four items: a lack of teaching staff; inadequate or poorly qualified teaching staff; a lack of assisting staff; inadequate or poorly qualified assisting staff. The index of shortage of educational material (EDUSHORT) was scaled using the following four items: a lack of educational material (e.g. textbooks, IT equipment, library or laboratory material); inadequate or poor quality educational material (e.g. textbooks, IT equipment, library or laboratory material); a lack of physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems); inadequate or poor quality physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems). Positive values on these indices mean that schools principals view the amount and/or quality of resources in their schools as an obstacle to providing instruction to a greater extent than the OECD average.

Educational leadership

A question on school leadership was developed for PISA 2012 and partially taken up again for PISA 2015. Question SC009 with 13 items asks about school leadership. The results provided data for five scaled indices. Principals were asked to indicate the frequency of the listed activities and behaviours in their school during the last academic year. The six response categories were "did not occur", "1-2 times during the year", "3-4 times during the year", "once a month", "once a week", and "more than once a week". Higher values in these indices indicate that these activities and behaviours occur more frequently.

The overall scale for leadership (LEAD) consists of all 13 items.

The index LEADCOM reflects how school's goals and curricular development are framed and communicated and is based on four items: I use student performance results to develop the school's educational goals; I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school; I ensure that teachers work according to the school's educational goals; I discuss the school's academic goals with teachers at faculty meetings.

The index reflecting instructional leadership (LEADINST) is based on three items: I promote teaching practices based on recent educational research; I praise teachers whose students are actively participating in learning; I draw teachers' attention to the importance of pupils' development of critical and social capacities.

The index on how instructional improvements and professional development are promoted by the principal (LEADPD) is based on three items: When a teacher has problems in his/her classroom, I take the initiative to discuss matters; I pay attention to disruptive behaviour in classrooms; When a teacher brings up a classroom problem, we solve the problem together.

The index of teacher participation in leadership (LEADTCH) is based on three items: I provide staff with opportunities to participate in school decision-making; I engage teachers to help build a school culture of continuous improvement; I ask teachers to participate in reviewing management practices.

School climate

The school questionnaire included a trend question on school climate (SC061) that had been used in previous cycles with a larger set of items. It measured the school principals' perceptions of the school climate, in particular his or her perceptions of teacher and student behaviour that might hinder student learning. The four response categories were "not at all", "very little", "to some extent" and "a lot". For PISA 2015, the items were rearranged to reflect student behaviour (STUBEHA) and teacher behaviour (TEACHBEHA) hindering learning. The index of student behaviour hindering learning is based on five items: student truancy; students skipping classes; students lacking respect for teachers; students using alcohol or illegal drugs; students intimidating or bullying other students. The index of teacher behaviour hindering learning is based on five items: teachers not meeting individual students' needs; teacher absenteeism; staff resisting change; teachers being too strict with students; teachers not being well-prepared for classes.

Simple indices from the parent questionnaire

Index of parental involvement in school-related activities

The index of parental involvement in school-related activities is the number of questions, or activities, in PA008 to which parents answered "yes", ranging from zero to ten activities. Question PA008 includes the following school-related activities: I discussed my child's behaviour with a teacher on my own initiative; I discussed my child's behaviour on the initiative of one of his/her teachers; I discussed my child's progress with a teacher on my own initiative; I discussed my child's progress on the initiative of one of his/her teachers; I participated in local school government; I volunteered in physical or extracurricular activities; I volunteered to support school activities; I attended a scheduled meeting or conferences for parents; I talked about how to support learning at home and homework with my child's teachers; I exchanged ideas on parenting, family support, or my child's development with my child's teachers.

Year of reference for the trends in resources, policies and practices

Resources, policies and practices are compared between PISA 2015 and previous PISA cycles throughout the report. For instance, the trends for student truancy are presented in chapter 3, those for educational responsibilities and school types are included in chapter 4, the trends for grade repetition, programme orientation and ability grouping are shown in chapter 5, and those for class size and student-teacher ratios are included in chapter 6. Whenever possible, the report compares PISA 2015 to PISA 2006 since science was the core subject in both cycles. However, PISA 2015 is compared to more recent cycles when the questions were not included in the PISA 2006 questionnaires, the wording of the questions changed (even slightly), or the number/order of the items within each question changed substantively between cycles.

Proportion of missing observations for variables used in this volume

Unless otherwise indicated, no adjustment is made for non-response to questionnaires in analyses included in this volume. The reported percentages and estimates based on indices refer to the proportion of the sample with valid responses to the corresponding questionnaire items. Table A1.3, available online, reports the proportion of the sample covered by analyses based on student or school questionnaire variables. Where this proportion shows large variation across countries/economies or across time, caution is required when comparing results on these dimensions.

Table available online

Table A1.3. Weighted share of responding students covered by analyses based on questionnaires (http://dx.doi.org/10.1787/888933433112)

Note

1. In the United Kingdom (excluding Scotland), career expectations were coded to the three-digit level only. As a result, the occupations of product and garment designers (ISCO08: 2163) and graphic and multimedia designers (2166) are included among science and engineering professionals, medical and dental prosthetic technicians (3214) are included among science technicians and associate professionals, while telecommunications engineering technicians (3522) are excluded. These careers represent a small percentage of the students classified as having science-related career expectations, such that results are not greatly affected.

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ANNEX A2

THE PISA TARGET POPULATION, THE PISA SAMPLES AND THE DEFINITION OF SCHOOLS

Definition of the PISA target population

PISA 2015 provides an assessment of the cumulative outcomes of education and learning at a point at which most young adults are still enrolled in initial education.

A major challenge for an international survey is to ensure that international comparability of national target populations is guaranteed.

Differences between countries in the nature and extent of pre-primary education and care, the age at entry into formal schooling and the institutional structure of education systems do not allow for a definition of internationally comparable grade levels. Consequently, international comparisons of performance in education typically define their populations with reference to a target age group. Some previous international assessments have defined their target population on the basis of the grade level that provides maximum coverage of a particular age cohort. A disadvantage of this approach is that slight variations in the age distribution of students across grade levels often lead to the selection of different target grades in different countries, or between education systems within countries, raising serious questions about the comparability of results across, and at times within, countries. In addition, because not all students of the desired age are usually represented in grade-based samples, there may be a more serious potential bias in the results if the unrepresented students are typically enrolled in the next higher grade in some countries and the next lower grade in others. This would exclude students with potentially higher levels of performance in the former countries and students with potentially lower levels of performance in the latter.

In order to address this problem, PISA uses an age-based definition for its target population, i.e. a definition that is not tied to the institutional structures of national education systems. PISA assesses students who were aged between 15 years and 3 (complete) months and 16 years and 2 (complete) months at the beginning of the assessment period, plus or minus a 1-month allowable variation, and who were enrolled in an educational institution with grade 7 or higher, regardless of the grade level or type of institution in which they were enrolled, and regardless of whether they were in full-time or part-time education. Educational institutions are generally referred to as schools in this publication, although some educational institutions (in particular, some types of vocational education establishments) may not be termed schools in certain countries. As expected from this definition, the average age of students across OECD countries was 15 years and 9 months. The range in country means was 2 months and 18 days (0.20 years), from the minimum country mean of 15 years and 8 months to the maximum country mean of 15 years and 10 months.

Given this definition of population, PISA makes statements about the knowledge and skills of a group of individuals who were born within a comparable reference period, but who may have undergone different educational experiences both in and outside school. In PISA, these knowledge and skills are referred to as the outcomes of education at an age that is common across countries. Depending on countries' policies on school entry, selection and promotion, these students may be distributed over a narrower or a wider range of grades across different education systems, tracks or streams. It is important to consider these differences when comparing PISA results across countries, as observed differences between students at age 15 may no longer appear later on as/if students' educational experiences converge over time.

If a country's scores in science, reading or mathematics are significantly higher than those in another country, it cannot automatically be inferred that the schools or particular parts of the education system in the first country are more effective than those in the second. However, one can legitimately conclude that the cumulative impact of learning experiences in the first country, starting in early childhood and up to the age of 15, and embracing experiences in school, home and beyond, have resulted in higher outcomes in the literacy domains that PISA measures.

The PISA target population does not include residents attending schools in a foreign country. It does, however, include foreign nationals attending schools in the country of assessment.

To accommodate countries that requested grade-based results for the purpose of national analyses, PISA 2015 provided a sampling option to supplement age-based sampling with grade-based sampling.

Population coverage

All countries and economies attempted to maximise the coverage of 15-year-olds enrolled in education in their national samples, including students enrolled in special-education institutions. As a result, PISA 2015 reached standards of population coverage that are unprecedented in international surveys of this kind.

The sampling standards used in PISA permitted countries to exclude up to a total of 5% of the relevant population either by excluding schools or by excluding students within schools. All but 12 countries – the United Kingdom (8.22%), Luxembourg (8.16%), Canada (7.49%), Norway (6.75%), New Zealand (6.54%), Sweden (5.71%), Estonia (5.52%), Australia (5.31%),

Montenegro (5.17%), Lithuania (5.12%), Latvia (5.07%), and Denmark (5.04%) – achieved this standard, and in 29 countries and economies, the overall exclusion rate was less than 2%. When language exclusions were accounted for (i.e. removed from the overall exclusion rate), Denmark, Latvia, New Zealand and Sweden no longer had an exclusion rate greater than 5%. For details, see www.pisa.oecd.org.

Exclusions within the above limits include:

- At the school level: schools that were geographically inaccessible or where the administration of the PISA assessment was not considered feasible; and schools that provided teaching only for students in the categories defined under "within-school exclusions", such as schools for the blind. The percentage of 15-year-olds enrolled in such schools had to be less than 2.5% of the nationally desired target population (0.5% maximum for the former group and 2% maximum for the latter group). The magnitude, nature and justification of school-level exclusions are documented in the *PISA 2015 Technical Report* (OECD, forthcoming).
- At the student level: students with an intellectual disability; students with a functional disability; students with limited assessment language proficiency; other (a category defined by the national centres and approved by the international centre); and students taught in a language of instruction for the main domain for which no materials were available. Students could not be excluded solely because of low proficiency or common disciplinary problems. The percentage of 15-year-olds excluded within schools had to be less than 2.5% of the nationally desired target population.

Table A2.1 describes the target population of the countries participating in PISA 2015. Further information on the target population and the implementation of PISA sampling standards can be found in the *PISA 2015 Technical Report* (OECD, forthcoming).

- **Column 1** shows the total number of 15-year-olds according to the most recent available information, which in most countries means the year 2014 as the year before the assessment.
- **Column 2** shows the number of 15-year-olds enrolled in schools in grade 7 or above (as defined above), which is referred to as the "eligible population".
- **Column 3** shows the national desired target population. Countries were allowed to exclude up to 0.5% of students a priori from the eligible population, essentially for practical reasons. The following a priori exclusions exceed this limit but were agreed with the PISA Consortium: Belgium excluded 0.21% of its population for a particular type of student educated while working; Canada excluded 1.22% of its population from Territories and Aboriginal reserves; Chile excluded 0.04% of its students who live in Easter Island, Juan Fernandez Archipelago and Antarctica; and the United Arab Emirates excluded 0.04% of its students who had no information available. The adjudicated region of Massachusetts in the United States excluded 13.11% of its students, and North Carolina excluded 5.64% of its students. For these two regions, the desired target populations cover 15-year-old students in grade 7 or above in public schools only. The students excluded from the desired population are private school students.
- **Column 4** shows the number of students enrolled in schools that were excluded from the national desired target population, either from the sampling frame or later in the field during data collection.
- **Column 5** shows the size of the national desired target population after subtracting the students enrolled in excluded schools. This is obtained by subtracting Column 4 from Column 3.
- **Column 6** shows the percentage of students enrolled in excluded schools. This is obtained by dividing Column 4 by Column 3 and multiplying by 100.
- **Column 7** shows the number of students participating in PISA 2015. Note that in some cases this number does not account for 15-year-olds assessed as part of additional national options.
- **Column 8** shows the weighted number of participating students, i.e. the number of students in the nationally defined target population that the PISA sample represents.
- Each country attempted to maximise the coverage of PISA's target population within the sampled schools. In the case of each sampled school, all eligible students, namely those 15 years of age, regardless of grade, were first listed. Sampled students who were to be excluded had still to be included in the sampling documentation, and a list drawn up stating the reason for their exclusion. Column 9 indicates the total number of excluded students, which is further described and classified into specific categories in Table A2.2.
- **Column 10** indicates the weighted number of excluded students, i.e. the overall number of students in the nationally defined target population represented by the number of students excluded from the sample, which is also described and classified by exclusion categories in Table A2.2. Excluded students were excluded based on five categories: students with an intellectual disability (the student has a mental or emotional disability and is cognitively delayed such that he/she cannot perform in the PISA testing situation); students with a functional disability (the student has a moderate to severe permanent physical disability such that he/she cannot perform in the PISA testing situation); students with limited proficiency in the assessment language (the student is unable to read or speak any of the languages of the assessment in the country and would be unable to overcome the language barrier in the testing situation – typically a student who has received less than one year of instruction in the languages of assessment may be excluded); other (a category defined by the national centres and approved by the international centre); and students taught in a language of instruction for the main domain for which no materials were available.

[Part 1/1]

Table A2.1 PISA target populations and samples

		Population and sample information												Coverage indices		
		Total population of 15-year-olds (1)	Total enrolled population of 15-year-olds at grade 7 or above (2)	Total in national desired target population (3)	Total school-level exclusions (4)	Total in national desired target population after all school exclusions and before within-school exclusions (5)	School-level exclusion rate (%) (6)	Number of participating students (7)	Weighted number of participating students (8)	Number of excluded students (9)	Weighted number of excluded students (10)	Within-school exclusion rate (%) (11)	Overall exclusion rate (%) (12)	Coverage Index 1: Coverage of national desired population (13)	Coverage Index 2: Coverage of national enrolled population (14)	Coverage Index 3: Coverage of 15-year-old population (15)
OECD	Australia	282 888	282 547	282 547	6 940	275 607	2.46	14 530	256 329	681	7 736	2.93	5.31	0.947	0.947	0.906
	Austria	88 013	82 683	82 683	790	81 893	0.96	7 007	73 379	84	866	1.17	2.11	0.979	0.979	0.834
	Belgium	123 630	121 954	121 694	1 597	120 097	1.31	9 651	114 902	39	410	0.36	1.66	0.983	0.981	0.929
	Canada	396 966	381 660	376 994	1 590	375 404	0.42	20 058	331 546	1 830	25 340	7.10	7.49	0.925	0.914	0.835
	Chile	255 440	245 947	245 852	2 641	243 211	1.07	7 053	203 782	37	1 393	0.68	1.75	0.983	0.982	0.798
	Czech Republic	90 391	90 076	90 076	1 814	88 262	2.01	6 894	84 519	25	368	0.43	2.44	0.976	0.976	0.935
	Denmark	68 174	67 466	67 466	605	66 861	0.90	7 161	60 655	514	2 644	4.18	5.04	0.950	0.950	0.890
	Estonia	11 676	11 491	11 491	416	11 075	3.62	5 587	10 834	116	218	1.97	5.52	0.945	0.945	0.928
	Finland	58 526	58 955	58 955	472	58 483	0.80	5 882	56 934	124	1 157	1.99	2.78	0.972	0.972	0.973
	France	807 867	778 679	778 679	28 742	749 937	3.69	6 108	734 944	35	3 620	0.49	4.16	0.958	0.958	0.910
	Germany	774 149	774 149	774 149	11 150	762 999	1.44	6 522	743 969	54	5 342	0.71	2.14	0.979	0.979	0.961
	Greece	105 530	105 253	105 253	953	104 300	0.91	5 532	96 157	58	965	0.99	1.89	0.981	0.981	0.911
	Hungary	94 515	90 065	90 065	1 945	88 120	2.16	5 658	84 644	55	1 009	1.18	3.31	0.967	0.967	0.896
	Iceland	4 250	4 195	4 195	17	4 178	0.41	3 374	3 966	131	132	3.23	3.62	0.964	0.964	0.933
	Ireland	61 234	59 811	59 811	72	59 739	0.12	5 741	59 082	197	1 825	3.00	3.11	0.969	0.969	0.965
	Israel	124 852	118 997	118 997	2 310	116 687	1.94	6 598	117 031	115	1 803	1.52	3.43	0.966	0.966	0.937
	Italy	616 761	567 268	567 268	11 190	556 078	1.97	11 583	495 093	246	9 395	1.86	3.80	0.962	0.962	0.803
	Japan	1 201 615	1 175 907	1 175 907	27 323	1 148 584	2.32	6 647	1 138 349	2	318	0.03	2.35	0.976	0.976	0.947
	Korea	620 687	619 950	619 950	3 555	616 395	0.57	5 581	569 106	20	1 806	0.32	0.89	0.991	0.991	0.917
	Latvia	17 255	16 955	16 955	677	16 278	3.99	4 869	15 320	70	174	1.12	5.07	0.949	0.949	0.888
	Luxembourg	6 327	6 053	6 053	162	5 891	2.68	5 299	5 540	331	331	5.64	8.16	0.918	0.918	0.876
	Mexico	2 257 399	1 401 247	1 401 247	5 905	1 395 342	0.42	7 568	1 392 995	30	6 810	0.49	0.91	0.991	0.991	0.617
	Netherlands	201 670	200 976	200 976	6 866	194 110	3.42	5 385	191 817	14	502	0.26	3.67	0.963	0.963	0.951
	New Zealand	60 162	57 448	57 448	681	56 767	1.19	4 520	54 274	333	3 112	5.42	6.54	0.935	0.935	0.902
	Norway	63 642	63 491	63 491	854	62 637	1.35	5 456	58 083	345	3 366	5.48	6.75	0.933	0.933	0.913
	Poland	380 366	361 600	361 600	6 122	355 478	1.69	4 478	345 709	34	2 418	0.69	2.38	0.976	0.976	0.909
	Portugal	110 939	101 107	101 107	424	100 683	0.42	7 325	97 214	105	860	0.88	1.29	0.987	0.987	0.876
	Slovak Republic	55 674	55 203	55 203	1 376	53 827	2.49	6 350	49 654	114	912	1.80	4.25	0.957	0.957	0.892
	Slovenia	18 078	17 689	17 689	290	17 399	1.64	6 406	16 773	114	247	1.45	3.07	0.969	0.969	0.928
	Spain	440 084	414 276	414 276	2 175	412 101	0.53	6 736	399 935	200	10 893	2.65	3.16	0.968	0.968	0.909
	Sweden	97 749	97 210	97 210	1 214	95 996	1.25	5 458	91 491	275	4 324	4.51	5.71	0.943	0.943	0.936
	Switzerland	85 495	83 655	83 655	2 320	81 335	2.77	5 860	82 223	107	1 357	1.62	4.35	0.956	0.956	0.962
	Turkey	1 324 089	1 100 074	1 100 074	5 746	1 094 328	0.52	5 895	925 366	31	5 359	0.58	1.10	0.989	0.989	0.699
	United Kingdom	747 593	746 328	746 328	23 412	722 916	3.14	14 157	627 703	870	34 747	5.25	8.22	0.918	0.918	0.840
	United States	4 220 325	3 992 053	3 992 053	12 001	3 980 052	0.30	5 712	3 524 497	193	109 580	3.02	3.31	0.967	0.967	0.835
Partners	Albania	48 610	45 163	45 163	10	45 153	0.02	5 215	40 896	0	0	0.00	0.02	1.000	1.000	0.841
	Algeria	389 315	354 936	354 936	0	354 936	0.00	5 519	306 647	0	0	0.00	0.00	1.000	1.000	0.788
	Argentina	718 635	578 308	578 308	2 617	575 691	0.45	6 349	394 917	21	1 367	0.34	0.80	0.992	0.992	0.550
	Brazil	3 430 255	2 853 388	2 853 388	64 392	2 788 996	2.26	23 141	2 425 961	119	13 543	0.56	2.80	0.972	0.972	0.707
	B-S-J-G (China)	2 084 958	1 507 518	1 507 518	58 639	1 448 879	3.89	9 841	1 331 794	33	3 609	0.27	4.15	0.959	0.959	0.639
	Bulgaria	66 601	59 397	59 397	1 124	58 273	1.89	5 928	53 685	49	433	0.80	2.68	0.973	0.973	0.806
	Colombia	760 919	674 079	674 079	37	674 042	0.01	11 795	567 848	9	507	0.09	0.09	0.999	0.999	0.746
	Costa Rica	81 773	66 524	66 524	0	66 524	0.00	6 866	51 897	13	98	0.19	0.19	0.998	0.998	0.635
	Croatia	45 031	35 920	35 920	805	35 115	2.24	5 809	40 899	86	589	1.42	3.63	0.964	0.964	0.908
	Cyprus*	9 255	9 255	9 253	109	9 144	1.18	5 571	8 785	228	292	3.22	4.36	0.956	0.956	0.949
	Dominican Republic	193 153	139 555	139 555	2 382	137 173	1.71	4 740	132 300	4	106	0.08	1.79	0.982	0.982	0.685
	FYROM	16 719	16 717	16 717	259	16 458	1.55	5 324	15 847	8	19	0.12	1.67	0.983	0.983	0.948
	Georgia	48 695	43 197	43 197	1 675	41 522	3.88	5 316	38 334	35	230	0.60	4.45	0.955	0.955	0.787
	Hong Kong (China)	65 100	61 630	61 630	708	60 922	1.15	5 359	57 662	36	374	0.65	1.79	0.982	0.982	0.886
	Indonesia	4 534 216	3 182 816	3 182 816	4 046	3 178 770	0.13	6 513	3 092 773	0	0	0.00	0.13	0.999	0.999	0.682
	Jordan	126 399	121 729	121 729	71	121 658	0.06	7 267	108 669	70	1 006	0.92	0.97	0.990	0.990	0.860
	Kazakhstan	211 407	209 555	209 555	7 475	202 080	3.57	7 841	192 909	0	0	0.00	3.57	0.964	0.964	0.912
	Kosovo	31 546	28 229	28 229	1 156	27 073	4.10	4 826	22 333	50	174	0.77	4.84	0.952	0.952	0.708
	Lebanon	64 044	62 281	62 281	1 300	60 981	2.09	4 546	42 331	0	0	0.00	2.09	0.979	0.979	0.661
	Lithuania	33 163	32 097	32 097	573	31 524	1.79	6 525	29 915	227	1 050	3.39	5.12	0.949	0.949	0.902
	Macao (China)	5 100	4 417	4 417	3	4 414	0.07	4 476	4 507	0	0	0.00	0.07	0.999	0.999	0.884
	Malaysia	540 000	448 838	448 838	2 418	446 420	0.54	8 861	412 524	41	2 344	0.56	1.10	0.989	0.989	0.764
	Malta	4 397	4 406	4 406	63	4 343	1.43	3 634	4 296	41	41	0.95	2.36	0.976	0.976	0.977
	Moldova	31 576	30 601	30 601	182	30 419	0.59	5 325	29 341	21	118	0.40	0.99	0.990	0.990	0.929
	Montenegro	7 524	7 506	7 506	40	7 466	0.53	5 665	6 777	300	332	4.66	5.17	0.948	0.948	0.901
	Peru	580 371	478 229	478 229	6 355	471 874	1.33	6 971	431 738	13	745	0.17	1.50	0.985	0.985	0.744
	Qatar	13 871	13 850	13 850	380	13 470	2.74	12 083	12 951	193	193	1.47	4.17	0.958	0.958	0.934
	Romania	176 334	176 334	176 334	1 823	174 511	1.03	4 876	164 216	3	120	0.07	1.11	0.989	0.989	0.931
	Russia	1 176 473	1 172 943	1 172 943	24 217	1 148 726	2.06	6 036	1 120 932	13	2 469	0.22	2.28	0.977	0.977	0.953
	Singapore	48 218	47 050	47 050	445	46 605	0.95	6 115	46 224	25	179	0.39	1.33	0.987	0.987	0.959
	Chinese Taipei	295 056	287 783	287 783	1 179	286 604	0.41	7 708	251 424	22	647	0.26	0.67	0.993	0.993	0.852
	Thailand	895 513	756 917	756 917	9 646	747 271	1.27	8 249	634 795	22	2 107	0.33	1.60	0.984	0.984	0.709
	Trinidad and Tobago	17 371	17 371	17 371	0	17 371	0.00	4 692	13 197	0	0	0.00	0.00	1.000	1.000	0.760
	Tunisia	122 186	122 186	122 186	679	121 507	0.56	5 375	113 599	3	61	0.05	0.61	0.994	0.994	0.930
	United Arab Emirates	51 687	51 518	51 499	994	50 505	1.93	14 167	46 950	63	152	0.32	2.25	0.978	0.977	0.908
	Uruguay	53 533	43 865	43 865	4	43 861	0.01	6 062	38 287	6	32	0.08	0.09	0.999	0.999	0.715
	Viet Nam	1 803 552	1 032 599	1 032 599	6 557	1 026 042	0.63	5 826	874 859	0	0	0.00	0.63	0.994	0.994	0.485

Notes: For a full explanation of the details in this table please refer to the *PISA 2015 Technical Report* (OECD, forthcoming).
The figure for total national population of 15-year-olds enrolled in Column 2 may occasionally be larger than the total number of 15-year-olds in Column 1 due to differing data sources.
For Mexico, in 2015, the Total population of 15-year-olds enrolled in grade 7 or above is an estimate of the target population size of the sample frame from which the 15-year-olds students were selected for the PISA test. At the time Mexico provided the information to PISA, the official figure for this population was 1 573 952.
* See note at the beginning of this Annex.

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[Part 1/2]

Table A2.2 Exclusions

		Student exclusions (unweighted)					
		Number of excluded students with functional disability (Code 1)	Number of excluded students with intellectual disability (Code 2)	Number of excluded students because of language (Code 3)	Number of excluded students for other reasons (Code 4)	Number of excluded students because of no materials available in the language of instruction (Code 5)	School-level exclusion rate (%)
		(1)	(2)	(3)	(4)	(5)	(6)
OECD	Australia	85	528	68	0	0	681
	Austria	8	15	61	0	0	84
	Belgium	4	18	17	0	0	39
	Canada	156	1 308	366	0	0	1 830
	Chile	6	30	1	0	0	37
	Czech Republic	2	9	14	0	0	25
	Denmark	18	269	156	70	1	514
	Estonia	17	93	6	0	0	116
	Finland	2	90	17	8	7	124
	France	5	21	9	0	0	35
	Germany	4	25	25	0	0	54
	Greece	3	44	11	0	0	58
	Hungary	3	13	9	30	0	55
	Iceland	9	66	47	9	0	131
	Ireland	25	57	55	60	0	197
	Israel	22	68	25	0	0	115
	Italy	78	147	21	0	0	246
	Japan	0	2	0	0	0	2
	Korea	3	17	0	0	0	20
	Latvia	7	47	16	0	0	70
	Luxembourg	4	254	73	0	0	331
	Mexico	4	23	3	0	0	30
	Netherlands	1	13	0	0	0	14
	New Zealand	23	140	167	0	3	333
	Norway	11	253	81	0	0	345
	Poland	11	20	0	3	0	34
	Portugal	4	99	2	0	0	105
	Slovak Republic	7	71	2	34	0	114
	Slovenia	33	36	45	0	0	114
	Spain	9	144	47	0	0	200
	Sweden	154	0	121	0	0	275
	Switzerland	8	42	57	0	0	107
	Turkey	1	23	7	0	0	31
	United Kingdom	77	690	102	0	1	870
	United States	16	120	44	13	0	193
Partners	Albania	0	0	0	0	0	0
	Algeria	0	0	0	0	0	0
	Argentina	10	10	1	0	0	21
	Brazil	20	99	0	0	0	119
	B-S-J-G (China)	6	25	2	0	0	33
	Bulgaria	39	6	4	0	0	49
	Colombia	3	4	2	0	0	9
	Costa Rica	3	1	0	9	0	13
	Croatia	2	75	9	0	0	86
	Cyprus*	12	164	52	0	0	228
	Dominican Republic	1	3	0	0	0	4
	FYROM	7	1	0	0	0	8
	Georgia	3	25	7	0	0	35
	Hong Kong (China)	0	35	1	0	0	36
	Indonesia	0	0	0	0	0	0
	Jordan	43	17	10	0	0	70
	Kazakhstan	0	0	0	0	0	0
	Kosovo	9	13	27	0	0	50
	Lebanon	0	0	0	0	0	0
	Lithuania	12	213	2	0	0	227
	Macao (China)	0	0	0	0	0	0
	Malaysia	10	22	9	0	0	41
	Malta	8	27	6	0	0	41
	Moldova	12	8	1	0	0	21
	Montenegro	14	23	5	0	258	300
	Peru	4	9	0	0	0	13
	Qatar	76	110	7	0	0	193
	Romania	1	1	1	0	0	3
	Russia	3	10	0	0	0	13
	Singapore	3	15	7	0	0	25
	Chinese Taipei	3	19	0	0	0	22
	Thailand	1	19	2	0	0	22
	Trinidad and Tobago	0	0	0	0	0	0
	Tunisia	0	0	3	0	0	3
	United Arab Emirates	16	24	23	0	0	63
	Uruguay	2	4	0	0	0	6
	Viet Nam	0	0	0	0	0	0

Exclusion codes:

Code 1: Functional disability – student has a moderate to severe permanent physical disability.

Code 2: Intellectual disability – student has a mental or emotional disability and has either been tested as cognitively delayed or is considered in the professional opinion of qualified staff to be cognitively delayed.

Code 3: Limited assessment language proficiency – student is not a native speaker of any of the languages of the assessment in the country and has been resident in the country for less than one year.

Code 4: Other reasons defined by the national centres and approved by the international centre.

Code 5: No materials available in the language of instruction.

Note: For a full explanation of the details in this table please refer to the *PISA 2015 Technical Report* (OECD, forthcoming).

* See note at the beginning of this Annex.

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[Part 2/2]

Table A2.2 Exclusions

		Student exclusion (weighted)					
		Weighted number of excluded students with functional disability (Code 1)	Weighted number of excluded students with intellectual disability (Code 2)	Weighted number of excluded students because of language (Code 3)	Weighted number of excluded students for other reasons (Code 4)	Weighted number of excluded students because of no materials available in the language of instruction (Code 5)	Total weighted number of excluded students
		(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	932	6 011	793	0	0	7 736
	Austria	74	117	675	0	0	866
	Belgium	33	192	185	0	0	410
	Canada	1 901	18 018	5 421	0	0	25 340
	Chile	194	1 190	9	0	0	1 393
	Czech Republic	40	140	188	0	0	368
	Denmark	122	1 539	551	421	11	2 644
	Estonia	29	176	13	0	0	218
	Finland	18	858	156	67	58	1 157
	France	562	2 144	914	0	0	3 620
	Germany	423	2 562	2 357	0	0	5 342
	Greece	43	729	193	0	0	965
	Hungary	57	284	114	554	0	1 009
	Iceland	9	67	47	9	0	132
	Ireland	213	526	516	570	0	1 825
	Israel	349	1 070	384	0	0	1 803
	Italy	3 316	5 199	880	0	0	9 395
	Japan	0	318	0	0	0	318
	Korea	291	1 515	0	0	0	1 806
	Latvia	21	115	38	0	0	174
	Luxembourg	4	254	73	0	0	331
	Mexico	842	4 802	1 165	0	0	6 810
	Netherlands	33	469	0	0	0	502
	New Zealand	233	1 287	1 568	0	24	3 112
	Norway	105	2 471	790	0	0	3 366
	Poland	876	1 339	0	203	0	2 418
	Portugal	29	818	13	0	0	860
	Slovak Republic	44	567	12	288	0	912
	Slovenia	84	71	92	0	0	247
	Spain	511	7 662	2 720	0	0	10 893
	Sweden	2 380	0	1 944	0	0	4 324
	Switzerland	91	540	726	0	0	1 357
	Turkey	43	4 094	1 222	0	0	5 359
	United Kingdom	2 724	27 808	4 001	0	214	34 747
	United States	7 873	67 816	26 525	7 366	0	109 580
Partners	Albania	0	0	0	0	0	0
	Algeria	0	0	0	0	0	0
	Argentina	579	770	18	0	0	1 367
	Brazil	1 743	11 800	0	0	0	13 543
	B-S-J-G (China)	438	2 970	201	0	0	3 609
	Bulgaria	347	51	35	0	0	433
	Colombia	181	309	17	0	0	507
	Costa Rica	22	5	0	71	0	98
	Croatia	13	501	75	0	0	589
	Cyprus*	16	212	65	0	0	292
	Dominican Republic	24	82	0	0	0	106
	FYROM	15	4	0	0	0	19
	Georgia	19	170	41	0	0	230
	Hong Kong (China)	0	363	11	0	0	374
	Indonesia	0	0	0	0	0	0
	Jordan	656	227	122	0	0	1 006
	Kazakhstan	0	0	0	0	0	0
	Kosovo	28	37	104	0	0	174
	Lebanon	0	0	0	0	0	0
	Lithuania	40	1 000	10	0	0	1 050
	Macao (China)	0	0	0	0	0	0
	Malaysia	663	1 100	580	0	0	2 344
	Malta	8	27	6	0	0	41
	Moldova	66	51	1	0	0	118
	Montenegro	27	38	6	0	261	332
	Peru	224	520	0	0	0	745
	Qatar	76	110	7	0	0	193
	Romania	31	63	26	0	0	120
	Russia	425	2 044	0	0	0	2 469
	Singapore	22	115	43	0	0	179
	Chinese Taipei	78	568	0	0	0	647
	Thailand	114	1 830	163	0	0	2 107
	Trinidad and Tobago	0	0	0	0	0	0
	Tunisia	0	0	61	0	0	61
	United Arab Emirates	30	75	47	0	0	152
	Uruguay	10	22	0	0	0	32
	Viet Nam	0	0	0	0	0	0

Exclusion codes:

Code 1: Functional disability – student has a moderate to severe permanent physical disability.

Code 2: Intellectual disability – student has a mental or emotional disability and has either been tested as cognitively delayed or is considered in the professional opinion of qualified staff to be cognitively delayed.

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Code 4: Other reasons defined by the national centres and approved by the international centre.

Code 5: No materials available in the language of instruction.

Note: For a full explanation of the details in this table please refer to the *PISA 2015 Technical Report* (OECD, forthcoming).

* See note at the beginning of this Annex.

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- **Column 11** shows the percentage of students excluded within schools. This is calculated as the weighted number of excluded students (Column 10), divided by the weighted number of excluded and participating students (Column 8 plus Column 10), then multiplied by 100.
- **Column 12** shows the overall exclusion rate, which represents the weighted percentage of the national desired target population excluded from PISA either through school-level exclusions or through the exclusion of students within schools. It is calculated as the school-level exclusion rate (Column 6 divided by 100) plus within-school exclusion rate (Column 11 divided by 100) multiplied by 1 minus the school-level exclusion rate (Column 6 divided by 100). This result is then multiplied by 100.
- **Column 13** presents an index of the extent to which the national desired target population is covered by the PISA sample. Australia, Canada, Denmark, Estonia, Latvia, Lithuania, Luxembourg, Montenegro, New Zealand, Norway, Sweden and the United Kingdom were the only countries where the coverage is below 95%.
- **Column 14** presents an index of the extent to which 15-year-olds enrolled in schools are covered by the PISA sample. The index measures the overall proportion of the national enrolled population that is covered by the non-excluded portion of the student sample. The index takes into account both school-level and student-level exclusions. Values close to 100 indicate that the PISA sample represents the entire education system as defined for PISA 2015. The index is the weighted number of participating students (Column 8) divided by the weighted number of participating and excluded students (Column 8 plus Column 10), times the nationally defined target population (Column 5) divided by the eligible population (Column 2) (times 100).
- **Column 15** presents an index of the coverage of the 15-year-old population. This index is the weighted number of participating students (Column 8) divided by the total population of 15-year-old students (Column 1).

This high level of coverage contributes to the comparability of the assessment results. For example, even assuming that the excluded students would have systematically scored worse than those who participated, and that this relationship is moderately strong, an exclusion rate on the order of 5% would likely lead to an overestimation of national mean scores of less than 5 score points (on a scale with an international mean of 500 score points and a standard deviation of 100 score points). This assessment is based on the following calculations: if the correlation between the propensity of exclusions and student performance is 0.3, resulting mean scores would likely be overestimated by 1 score point if the exclusion rate is 1%, by 3 score points if the exclusion rate is 5%, and by 6 score points if the exclusion rate is 10%. If the correlation between the propensity of exclusions and student performance is 0.5, resulting mean scores would be overestimated by 1 score point if the exclusion rate is 1%, by 5 score points if the exclusion rate is 5%, and by 10 score points if the exclusion rate is 10%. For this calculation, a model was used that assumes a bivariate normal distribution for performance and the propensity to participate. For details, see the *PISA 2015 Technical Report* (OECD, forthcoming).

Sampling procedures and response rates

The accuracy of any survey results depends on the quality of the information on which national samples are based as well as on the sampling procedures. Quality standards, procedures, instruments and verification mechanisms were developed for PISA that ensured that national samples yielded comparable data and that the results could be compared with confidence.

Most PISA samples were designed as two-stage stratified samples (where countries applied different sampling designs, these are documented in the *PISA 2015 Technical Report* [OECD, forthcoming]). The first stage consisted of sampling individual schools in which 15-year-old students could be enrolled. Schools were sampled systematically with probabilities proportional to size, the measure of size being a function of the estimated number of eligible (15-year-old) students enrolled. At least 150 schools were selected in each country (where this number existed), although the requirements for national analyses often required a somewhat larger sample. As the schools were sampled, replacement schools were simultaneously identified, in case a sampled school chose not to participate in PISA 2015.

In the case of Iceland, Luxembourg, Macao (China), Malta and Qatar, all schools and all eligible students within schools were included in the sample.

Experts from the PISA Consortium performed the sample selection process for most participating countries and monitored it closely in those countries that selected their own samples. The second stage of the selection process sampled students within sampled schools. Once schools were selected, a list of each sampled school's 15-year-old students was prepared. From this list, 42 students were then selected with equal probability (all 15-year-old students were selected if fewer than 42 were enrolled). The number of students to be sampled per school could deviate from 42, but could not be less than 20.

Data-quality standards in PISA required minimum participation rates for schools as well as for students. These standards were established to minimise the potential for response biases. In the case of countries meeting these standards, it was likely that any bias resulting from non-response would be negligible, i.e. typically smaller than the sampling error.

A minimum response rate of 85% was required for the schools initially selected. Where the initial response rate of schools was between 65% and 85%, however, an acceptable school-response rate could still be achieved through the use of replacement schools.

This procedure brought with it a risk of increased response bias. Participating countries were, therefore, encouraged to persuade as many of the schools in the original sample as possible to participate. Schools with a student participation rate between 25% and 50% were not regarded as participating schools, but data from these schools were included in the database and contributed to the various estimations. Data from schools with a student participation rate of less than 25% were excluded from the database.

PISA 2015 also required a minimum participation rate of 80% of students within participating schools. This minimum participation rate had to be met at the national level, not necessarily by each participating school. Follow-up sessions were required in schools in which too few students had participated in the original assessment sessions. Student participation rates were calculated over all original schools, and also over all schools, whether original sample or replacement schools, and from the participation of students in both the original assessment and any follow-up sessions. A student who participated in the original or follow-up cognitive sessions was regarded as a participant. Those who attended only the questionnaire session were included in the international database and contributed to the statistics presented in this publication if they provided at least a description of their father's or mother's occupation.

Table A2.3 shows the response rates for students and schools, before and after replacement.

- **Column 1** shows the weighted participation rate of schools before replacement. This is obtained by dividing Column 2 by Column 3.
- **Column 2** shows the weighted number of responding schools before school replacement (weighted by student enrolment).
- **Column 3** shows the weighted number of sampled schools before school replacement (including both responding and non-responding schools, weighted by student enrolment).
- **Column 4** shows the unweighted number of responding schools before school replacement.
- **Column 5** shows the unweighted number of responding and non-responding schools before school replacement.
- **Column 6** shows the weighted participation rate of schools after replacement. This is obtained by dividing Column 7 by Column 8.
- **Column 7** shows the weighted number of responding schools after school replacement (weighted by student enrolment).
- **Column 8** shows the weighted number of schools sampled after school replacement (including both responding and non-responding schools, weighted by student enrolment).
- **Column 9** shows the unweighted number of responding schools after school replacement.
- **Column 10** shows the unweighted number of responding and non-responding schools after school replacement.
- **Column 11** shows the weighted student participation rate after replacement. This is obtained by dividing Column 12 by Column 13.
- **Column 12** shows the weighted number of students assessed.
- **Column 13** shows the weighted number of students sampled (including both students who were assessed and students who were absent on the day of the assessment).
- **Column 14** shows the unweighted number of students assessed. Note that any students in schools with student-response rates of less than 50% were not included in these rates (both weighted and unweighted).
- **Column 15** shows the unweighted number of students sampled (including both students that were assessed and students who were absent on the day of the assessment). Note that any students in schools where fewer than half of the eligible students were assessed were not included in these rates (neither weighted nor unweighted).

Definition of schools

In some countries, subunits within schools were sampled instead of schools, and this may affect the estimation of the between-school variance components. In Austria, the Czech Republic, Germany, Hungary, Japan, Romania and Slovenia, schools with more than one study programme were split into the units delivering these programmes. In the Netherlands, for schools with both lower and upper secondary programmes, schools were split into units delivering each programme level. In the Flemish community of Belgium, in the case of multi-campus schools, implantations (campuses) were sampled, whereas in the French community, in the case of multi-campus schools, the larger administrative units were sampled. In Australia, for schools with more than one campus, the individual campuses were listed for sampling. In Argentina and Croatia, schools that had more than one campus had the locations listed for sampling. In Spain, the schools in the Basque region with multi-linguistic models were split into linguistic models for sampling. In Luxembourg, a school on the border with Germany was split according to the country in which the students resided. In addition, the International schools in Luxembourg were split into the students who were instructed in any of the three official languages, and those in the part of the schools that was excluded because no materials were available in the languages of instruction. The United Arab Emirates had schools split by curricula, and sometimes by gender, with other schools remaining whole. Because of reorganisation, some of Sweden's schools were split into parts, with each part having one principal. In Portugal, schools were reorganised into clusters, with teachers and the principal shared by all units in the school cluster.

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Table A2.3 Response rates

		Initial sample – before school replacement					Final sample – after school replacement					Final sample – students within schools after school replacement				
		Weighted school participation rate before replacement (%) (1)	Weighted number of responding schools (weighted also by enrolment) (2)	Weighted number of schools sampled (responding and non-responding) (weighted also by enrolment) (3)	Number of responding and non-responding schools (unweighted) (4)	Total in national desired target population after all school exclusions and before within-school exclusions (5)	Weighted school participation rate after replacement (%) (6)	Weighted number of responding schools (weighted also by enrolment) (7)	Weighted number of schools sampled (responding and non-responding) (weighted also by enrolment) (8)	Number of responding schools (unweighted) (9)	Number of responding and non-responding schools (unweighted) (10)	Weighted student participation rate after replacement (%) (11)	Number of students assessed (weighted) (12)	Number of students sampled (assessed and absent) (weighted) (13)	Number of students assessed (unweighted) (14)	Number of students sampled (assessed and absent) (unweighted) (15)
OECD	Australia	94	260 657	276 072	720	788	95	262 130	276 072	723	788	84	204 763	243 789	14 089	17 477
	Austria	100	81 690	81 730	269	273	100	81 690	81 730	269	273	87	63 660	73 521	7 007	9 868
	Belgium	83	98 786	118 915	244	301	95	113 435	118 936	286	301	91	99 760	110 075	9 635	10 602
	Canada	74	283 853	381 133	703	1 008	79	299 512	381 189	726	1 008	81	210 476	260 487	19 604	24 129
	Chile	92	215 139	232 756	207	232	99	230 749	232 757	226	232	93	189 206	202 774	7 039	7 515
	Czech Republic	98	86 354	87 999	339	344	98	86 354	87 999	339	344	89	73 386	82 672	6 835	7 693
	Denmark	90	57 803	63 897	327	371	92	58 837	63 931	331	371	89	49 732	55 830	7 149	8 184
	Estonia	100	11 142	11 154	206	207	100	11 142	11 154	206	207	93	10 088	10 822	5 587	5 994
	Finland	100	58 653	58 782	167	168	100	58 800	58 800	168	168	93	53 198	56 934	5 882	6 294
	France	91	679 984	749 284	232	255	94	706 838	749 284	241	255	88	611 563	693 336	5 980	6 783
	Germany	96	764 423	794 206	245	256	99	785 813	794 206	253	256	93	685 972	735 487	6 476	6 944
	Greece	92	95 030	103 031	190	212	98	101 653	103 218	209	212	94	89 588	94 986	5 511	5 838
	Hungary	93	83 897	89 808	231	251	99	88 751	89 825	244	251	92	77 212	83 657	5 643	6 101
	Iceland	99	4 114	4 163	122	129	99	4 114	4 163	122	129	86	3 365	3 908	3 365	3 908
	Ireland	99	61 023	61 461	167	169	99	61 023	61 461	167	169	89	51 947	58 630	5 741	6 478
	Israel	91	105 192	115 717	169	190	93	107 570	115 717	173	190	90	98 572	108 940	6 598	7 294
	Italy	74	383 933	516 113	414	532	88	451 098	515 515	464	532	88	377 011	430 041	11 477	12 841
	Japan	94	1 087 414	1 151 305	189	200	99	1 139 734	1 151 305	198	200	97	1 096 193	1 127 265	6 647	6 838
	Korea	100	612 937	615 107	168	169	100	612 937	615 107	168	169	99	559 121	567 284	5 581	5 664
	Latvia	86	14 122	16 334	231	269	93	15 103	16 324	248	269	90	12 799	14 155	4 845	5 368
	Luxembourg	100	5 891	5 891	44	44	100	5 891	5 891	44	44	96	5 299	5 540	5 299	5 540
	Mexico	95	1 311 608	1 373 919	269	284	98	1 339 901	1 373 919	275	284	95	1 290 435	1 352 237	7 568	7 938
	Netherlands	63	121 527	191 966	125	201	93	178 929	191 966	184	201	85	152 346	178 985	5 345	6 269
	New Zealand	71	40 623	56 875	145	210	85	48 094	56 913	176	210	80	36 860	45 897	4 453	5 547
	Norway	95	58 824	61 809	229	241	95	58 824	61 809	229	241	91	50 163	55 277	5 456	6 016
	Poland	88	314 288	355 158	151	170	99	352 754	355 158	168	170	88	300 617	343 405	4 466	5 108
	Portugal	86	87 756	102 193	213	254	95	97 516	102 537	238	254	82	75 391	91 916	7 180	8 732
	Slovak Republic	93	50 513	54 499	272	295	99	53 908	54 562	288	295	92	45 357	49 103	6 342	6 900
	Slovenia	98	16 886	17 286	332	349	98	16 896	17 286	333	349	92	15 072	16 424	6 406	7 009
	Spain	99	404 640	409 246	199	201	100	409 246	409 246	201	201	89	356 509	399 935	6 736	7 540
	Sweden	100	93 819	94 097	202	205	100	93 819	94 097	202	205	91	82 582	91 081	5 458	6 013
	Switzerland	93	75 482	81 026	212	232	98	79 481	81 375	225	232	92	74 465	80 544	5 838	6 305
	Turkey	97	1 057 318	1 091 317	175	195	99	1 081 935	1 091 528	187	195	95	874 609	918 816	5 895	6 211
	United Kingdom	84	591 757	707 415	506	598	93	654 992	707 415	547	598	89	517 426	581 252	14 120	16 123
	United States	67	2 601 386	3 902 089	142	213	83	3 244 399	3 893 828	177	213	90	2 629 707	2 929 771	5 712	6 376
Partners	Albania	100	43 809	43 919	229	230	100	43 809	43 919	229	230	94	38 174	40 814	5 213	5 555
	Algeria	96	341 463	355 216	159	166	96	341 463	355 216	159	166	92	274 121	296 434	5 494	5 934
	Argentina	89	508 448	572 941	212	238	97	556 478	572 941	231	238	90	345 508	382 352	6 311	7 016
	Brazil	93	2 509 198	2 692 686	806	889	94	2 533 711	2 693 137	815	889	87	1 996 574	2 286 505	22 791	26 586
	B-S-J-G (China)	88	1 259 845	1 437 201	248	268	100	1 437 652	1 437 652	268	268	97	1 287 710	1 331 794	9 841	10 097
	Bulgaria	100	56 265	56 483	179	180	100	56 600	56 600	180	180	95	50 931	53 685	5 928	6 240
	Colombia	99	664 664	673 817	364	375	100	672 526	673 835	371	375	95	535 682	566 734	11 777	12 611
	Costa Rica	99	66 485	67 073	204	206	99	66 485	67 073	204	206	92	47 494	51 369	6 846	7 411
	Croatia	100	34 575	34 652	160	162	100	34 575	34 652	160	162	91	37 275	40 803	5 809	6 354
	Cyprus*	97	8 830	9 126	122	132	97	8 830	9 126	122	132	94	8 016	8 526	5 561	5 957
	Dominican Republic	99	136 669	138 187	193	195	99	136 669	138 187	193	195	94	122 620	130 700	4 731	5 026
	FYROM	100	16 426	16 472	106	107	100	16 426	16 472	106	107	95	14 999	15 802	5 324	5 617
	Georgia	97	40 552	41 595	256	267	99	41 081	41 566	262	267	94	35 567	37 873	5 316	5 689
	Hong Kong (China)	75	45 603	60 716	115	153	90	54 795	60 715	138	153	93	48 222	51 806	5 359	5 747
	Indonesia	98	3 126 468	3 176 076	232	236	100	3 176 076	3 176 076	236	236	98	3 015 844	3 092 773	6 513	6 694
	Jordan	100	119 024	119 024	250	250	100	119 024	119 024	250	250	97	105 868	108 669	7 267	7 462
	Kazakhstan	100	202 701	202 701	232	232	100	202 701	202 701	232	232	97	187 683	192 921	7 841	8 059
	Kosovo	100	26 924	26 924	224	224	100	26 924	26 924	224	224	99	22 016	22 333	4 826	4 896
	Lebanon	67	40 542	60 882	208	308	87	53 091	60 797	270	308	95	36 052	38 143	4 546	4 788
	Lithuania	99	31 386	31 588	309	311	100	31 543	31 588	310	311	91	27 070	29 889	6 523	7 202
	Macao (China)	100	4 414	4 414	45	45	100	4 414	4 414	45	45	99	4 476	4 507	4 476	4 507
	Malaysia	51	229 340	446 237	147	230	98	437 424	446 100	224	230	97	393 785	407 396	8 843	9 097
	Malta	100	4 341	4 343	59	61	100	4 341	4 343	59	61	85	3 634	4 294	3 634	4 294
	Moldova	100	30 145	30 145	229	229	100	30 145	30 145	229	229	98	28 754	29 341	5 325	5 436
	Montenegro	100	7 301	7 312	64	65	100	7 301	7 312	64	65	94	6 346	6 766	5 665	6 043
	Peru	100	468 406	470 651	280	282	100	469 662	470 651	281	282	99	426 205	430 959	6 971	7 054
	Qatar	99	13 333	13 470	166	168	99	13 333	13 470	166	168	94	12 061	12 819	12 061	12 819
	Romania	99	171 553	172 652	181	182	100	172 495	172 495	182	182	99	162 918	164 216	4 876	4 910
	Russia	99	1 181 937	1 189 441	209	210	99	1 181 937	1 189 441	209	210	97	1 072 914	1 108 068	6 021	6 215
	Singapore	97	45 299	46 620	175	179	98	45 553	46 620	176	179	93	42 241	45 259	6 105	6 555
	Chinese Taipei	100	286 778	286 778	214	214	100	286 778	286 778	214	214	98	246 408	251 424	7 708	7 871
	Thailand	99	739 772	751 010	269	273	100	751 010	751 010	273	273	97	614 996	634 795	8 249	8 491
	Trinidad and Tobago	92	15 904	17 371	141	163	92	15 904	17 371	141	163	79	9 674	12 188	4 587	5 745
	Tunisia	99	121 751	122 767	162	165	99	121 838	122 792	163	165	86	97 337	112 665	5 340	6 175
	United Arab Emirates	99	49 310	50 060	473	477	99	49 310	50 060	473	477	95	43 774	46 263	14 167	15 014
	Uruguay	98	42 986	43 737	217	221	99	43 442	43 737	219	221	86	32 762	38 023	6 059	7 026
	Viet Nam	100	996 757	996 757	188	188	100	996 757	996 757	188	188	100	871 353	874 859	5 826	5 849

* See note at the beginning of this Annex.

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Grade levels

Students assessed in PISA 2015 are at various grade levels. The percentage of students at each grade level is presented by country in Table A2.4a and by gender within each country in Table A2.4b.

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Table A2.4a **Percentage of students at each grade level**

		All students											
		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade and above	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.0	(0.0)	0.1	(0.0)	11.2	(0.3)	74.6	(0.4)	14.0	(0.4)	0.1	(0.0)
	Austria	0.0	(0.0)	2.0	(0.6)	20.8	(0.9)	71.2	(1.0)	5.9	(0.3)	0.0	(0.0)
	Belgium	0.6	(0.1)	6.4	(0.5)	30.7	(0.7)	61.0	(0.9)	1.3	(0.1)	0.0	(0.0)
	Canada	0.1	(0.0)	0.7	(0.1)	10.8	(0.5)	87.6	(0.6)	0.8	(0.1)	0.0	(0.0)
	Chile	1.7	(0.3)	4.1	(0.6)	24.0	(0.7)	68.1	(1.0)	2.1	(0.2)	0.0	(0.0)
	Czech Republic	0.5	(0.1)	3.9	(0.3)	49.4	(1.2)	46.2	(1.2)	0.0	(0.0)	0.0	c
	Denmark	0.2	(0.1)	16.4	(0.6)	81.9	(0.7)	1.4	(0.5)	0.0	c	0.0	c
	Estonia	0.8	(0.2)	21.3	(0.6)	76.6	(0.6)	1.3	(0.3)	0.0	c	0.0	(0.0)
	Finland	0.5	(0.1)	13.6	(0.4)	85.7	(0.4)	0.0	(0.0)	0.2	(0.1)	0.0	c
	France	0.0	(0.0)	1.0	(0.2)	23.1	(0.6)	72.5	(0.7)	3.2	(0.2)	0.1	(0.1)
	Germany	0.5	(0.1)	7.7	(0.4)	47.3	(0.8)	43.1	(0.8)	1.5	(0.5)	0.0	(0.0)
	Greece	0.2	(0.1)	0.7	(0.2)	3.8	(0.8)	95.3	(0.9)	0.0	c	0.0	c
	Hungary	1.7	(0.3)	8.5	(0.5)	75.8	(0.7)	14.0	(0.5)	0.0	c	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Ireland	0.0	(0.0)	1.8	(0.2)	60.6	(0.7)	26.5	(1.1)	11.1	(0.9)	0.0	c
	Israel	0.0	c	0.1	(0.0)	16.4	(0.9)	82.7	(0.9)	0.9	(0.3)	0.0	c
	Italy	0.1	(0.0)	1.0	(0.2)	15.2	(0.6)	77.2	(0.7)	6.6	(0.3)	0.0	c
	Japan	0.0	c	0.0	c	0.0	c	100.0	(0.0)	0.0	c	0.0	c
	Korea	0.0	c	0.0	c	9.1	(0.8)	90.4	(0.8)	0.5	(0.1)	0.0	c
	Latvia	0.9	(0.2)	11.7	(0.5)	84.4	(0.6)	2.9	(0.3)	0.0	(0.0)	0.0	c
	Luxembourg	0.3	(0.1)	7.9	(0.1)	50.9	(0.1)	40.3	(0.1)	0.6	(0.0)	0.0	c
	Mexico	2.3	(0.3)	4.8	(0.4)	31.9	(1.4)	60.3	(1.6)	0.5	(0.1)	0.2	(0.0)
	Netherlands	0.1	(0.0)	2.8	(0.3)	41.6	(0.6)	54.8	(0.6)	0.8	(0.2)	0.0	(0.0)
	New Zealand	0.0	c	0.0	c	0.0	(0.0)	6.2	(0.3)	88.8	(0.5)	5.0	(0.5)
	Norway	0.0	c	0.0	c	0.6	(0.1)	99.3	(0.2)	0.1	(0.1)	0.0	c
	Poland	0.6	(0.1)	4.9	(0.3)	93.8	(0.4)	0.6	(0.2)	0.0	c	0.0	c
	Portugal	3.2	(0.3)	8.4	(0.5)	22.9	(0.9)	65.1	(1.2)	0.4	(0.1)	0.0	c
	Slovak Republic	2.2	(0.4)	4.6	(0.4)	42.6	(1.3)	50.6	(1.2)	0.1	(0.0)	0.0	c
	Slovenia	0.0	c	0.3	(0.1)	4.8	(0.3)	94.6	(0.4)	0.3	(0.1)	0.0	c
	Spain	0.1	(0.0)	8.6	(0.5)	23.4	(0.6)	67.9	(0.9)	0.1	(0.1)	0.0	c
	Sweden	0.1	(0.1)	3.1	(0.4)	94.9	(0.8)	1.8	(0.7)	0.1	(0.1)	0.0	c
	Switzerland	0.5	(0.1)	11.8	(0.7)	61.3	(1.2)	25.9	(1.3)	0.5	(0.1)	0.0	(0.0)
	Turkey	0.6	(0.1)	2.6	(0.4)	20.7	(1.0)	72.9	(1.2)	3.0	(0.3)	0.1	(0.0)
	United Kingdom	0.0	c	0.0	c	0.0	c	1.6	(0.3)	97.4	(0.4)	1.0	(0.3)
	United States	0.0	(0.0)	0.5	(0.3)	9.6	(0.7)	72.4	(0.9)	17.3	(0.6)	0.1	(0.0)
Partners	**Albania**	0.2	(0.1)	1.0	(0.2)	35.8	(2.3)	61.7	(2.3)	1.2	(0.7)	0.0	(0.0)
	Algeria	18.8	(1.0)	23.5	(1.1)	35.1	(1.5)	19.4	(2.1)	3.2	(0.7)	0.0	c
	Brazil	3.5	(0.2)	6.4	(0.4)	12.5	(0.5)	35.9	(0.9)	39.2	(0.8)	2.5	(0.2)
	B-S-J-G (China)	1.1	(0.2)	9.2	(0.7)	52.7	(1.7)	34.6	(2.0)	2.2	(0.5)	0.1	(0.0)
	Bulgaria	0.5	(0.2)	3.0	(0.6)	92.2	(0.8)	4.3	(0.4)	0.0	c	0.0	c
	Colombia	5.3	(0.4)	12.3	(0.6)	22.7	(0.6)	40.2	(0.7)	19.5	(0.6)	0.0	c
	Costa Rica	6.2	(0.7)	14.0	(0.7)	33.0	(1.2)	46.5	(1.6)	0.2	(0.1)	0.1	(0.1)
	Croatia	0.0	c	0.2	(0.2)	79.2	(0.5)	20.6	(0.4)	0.0	c	0.0	c
	Cyprus*	0.0	c	0.3	(0.0)	5.8	(0.1)	93.1	(0.1)	0.7	(0.1)	0.0	c
	Dominican Republic	7.1	(0.8)	13.8	(1.2)	20.6	(0.8)	41.9	(1.1)	14.2	(0.7)	2.4	(0.3)
	FYROM	0.1	(0.1)	0.1	(0.1)	70.2	(0.2)	29.7	(0.2)	0.0	c	0.0	c
	Georgia	0.1	(0.0)	0.8	(0.2)	22.0	(0.8)	76.0	(0.9)	1.1	(0.3)	0.0	c
	Hong Kong (China)	1.1	(0.1)	5.6	(0.4)	26.0	(0.7)	66.7	(0.7)	0.6	(0.5)	0.0	c
	Indonesia	2.1	(0.3)	8.1	(0.7)	42.1	(1.5)	45.5	(1.6)	2.3	(0.4)	0.0	(0.0)
	Jordan	0.2	(0.1)	0.6	(0.1)	6.6	(0.4)	92.6	(0.4)	0.0	c	0.0	c
	Kosovo	0.0	(0.1)	0.6	(0.1)	24.9	(0.8)	72.4	(0.9)	2.1	(0.2)	0.0	c
	Lebanon	3.7	(0.5)	8.3	(0.8)	16.6	(1.1)	62.3	(1.4)	9.0	(0.8)	0.1	(0.1)
	Lithuania	0.1	(0.0)	2.6	(0.2)	86.3	(0.4)	11.0	(0.4)	0.0	(0.0)	0.0	c
	Macao (China)	2.9	(0.1)	12.2	(0.2)	29.7	(0.2)	54.5	(0.1)	0.6	(0.1)	0.0	c
	Malta	0.0	c	0.0	c	0.3	(0.1)	6.1	(0.2)	93.6	(0.1)	0.1	(0.0)
	Moldova	0.2	(0.1)	7.6	(0.5)	84.5	(0.8)	7.5	(0.8)	0.0	(0.0)	0.0	c
	Montenegro	0.0	c	0.0	c	83.7	(0.1)	16.3	(0.1)	0.0	c	0.0	c
	Peru	2.5	(0.3)	6.6	(0.4)	15.9	(0.5)	50.2	(0.8)	24.8	(0.8)	0.0	c
	Qatar	0.9	(0.1)	3.5	(0.1)	16.3	(0.1)	60.7	(0.1)	18.0	(0.1)	0.6	(0.0)
	Romania	1.4	(0.3)	8.9	(0.5)	74.8	(0.9)	14.9	(0.7)	0.0	c	0.0	c
	Russia	0.2	(0.1)	6.6	(0.3)	79.7	(1.5)	13.4	(1.5)	0.1	(0.0)	0.0	c
	Singapore	0.0	(0.0)	1.9	(0.3)	7.9	(0.8)	90.0	(1.0)	0.1	(0.0)	0.1	(0.0)
	Chinese Taipei	0.0	c	0.0	c	35.4	(0.7)	64.6	(0.7)	0.0	c	0.0	c
	Thailand	0.2	(0.1)	0.6	(0.2)	23.8	(1.0)	72.9	(1.0)	2.4	(0.4)	0.0	c
	Trinidad and Tobago	3.3	(0.2)	10.8	(0.3)	27.3	(0.3)	56.5	(0.3)	2.2	(0.2)	0.0	c
	Tunisia	4.3	(0.3)	10.6	(0.8)	19.6	(1.3)	60.9	(1.7)	4.6	(0.4)	0.0	c
	United Arab Emirates	0.6	(0.1)	2.5	(0.3)	10.6	(0.7)	53.4	(0.8)	31.4	(0.8)	1.5	(0.1)
	Uruguay	7.5	(0.6)	9.7	(0.5)	20.7	(0.7)	61.3	(1.2)	0.8	(0.1)	0.0	c
	Viet Nam	0.3	(0.1)	1.7	(0.4)	7.7	(1.8)	90.4	(2.2)	0.0	(0.0)	0.0	c
	Argentina**	1.6	(0.4)	9.7	(0.8)	27.4	(1.2)	58.5	(1.6)	2.8	(0.3)	0.0	c
	Kazakhstan**	0.1	(0.1)	2.7	(0.3)	60.4	(1.7)	36.2	(1.8)	0.6	(0.1)	0.0	c
	Malaysia**	0.0	c	0.0	c	3.2	(0.6)	96.4	(0.7)	0.4	(0.3)	0.0	c

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933433129

[Part 1/1]

Table A2.4b Percentage of students at each grade level

		Boys												Girls											
		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade and above		7th grade		8th grade		9th grade		10th grade		11th grade		12th grade and above	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.0	(0.0)	0.2	(0.1)	13.2	(0.4)	73.5	(0.5)	13.1	(0.5)	0.0	(0.0)	0.0	(0.0)	0.1	(0.0)	9.2	(0.3)	75.7	(0.5)	14.9	(0.6)	0.1	(0.1)
	Austria	0.1	(0.1)	2.0	(0.4)	21.6	(1.2)	71.1	(1.2)	5.2	(0.4)	0.0	(0.0)	0.0	c	2.0	(0.9)	20.0	(1.0)	71.4	(1.3)	6.6	(0.4)	0.0	(0.0)
	Belgium	0.7	(0.1)	6.7	(0.5)	33.6	(1.0)	57.9	(1.1)	1.2	(0.2)	0.0	c	0.6	(0.1)	6.2	(0.5)	27.7	(0.8)	64.2	(1.1)	1.3	(0.1)	0.0	(0.0)
	Canada	0.1	(0.1)	1.0	(0.2)	11.7	(0.6)	86.5	(0.6)	0.7	(0.1)	0.0	(0.0)	0.1	(0.0)	0.4	(0.1)	9.9	(0.6)	88.8	(0.6)	0.8	(0.1)	0.0	(0.0)
	Chile	2.2	(0.5)	4.8	(0.8)	26.4	(0.9)	64.8	(1.3)	1.8	(0.2)	0.1	(0.1)	1.2	(0.4)	3.5	(0.7)	21.5	(0.8)	71.4	(1.1)	2.4	(0.3)	0.0	c
	Czech Republic	0.6	(0.2)	5.5	(0.5)	52.3	(1.5)	41.5	(1.6)	0.0	(0.0)	0.0	c	0.4	(0.2)	2.2	(0.3)	46.2	(1.5)	51.2	(1.6)	0.0	c	0.0	c
	Denmark	0.3	(0.1)	21.9	(0.9)	76.6	(1.0)	1.2	(0.5)	0.0	c	0.0	c	0.1	(0.1)	10.8	(0.5)	87.3	(0.7)	1.7	(0.6)	0.0	c	0.0	c
	Estonia	1.3	(0.3)	23.7	(0.9)	74.2	(0.8)	0.8	(0.3)	0.0	c	0.0	(0.0)	0.2	(0.1)	18.8	(0.8)	79.1	(0.8)	1.9	(0.4)	0.0	c	0.0	c
	Finland	0.4	(0.1)	15.5	(0.6)	83.9	(0.6)	0.0	(0.0)	0.2	(0.1)	0.0	c	0.5	(0.1)	11.5	(0.5)	87.7	(0.5)	0.0	c	0.3	(0.2)	0.0	c
	France	0.0	c	1.0	(0.2)	26.1	(0.9)	69.6	(1.0)	3.1	(0.3)	0.2	(0.1)	0.1	(0.1)	1.0	(0.2)	20.1	(0.6)	75.4	(0.8)	3.3	(0.3)	0.1	(0.0)
	Germany	0.7	(0.2)	9.0	(0.5)	50.1	(1.0)	38.8	(1.0)	1.4	(0.4)	0.0	(0.0)	0.3	(0.1)	6.3	(0.6)	44.3	(0.9)	47.5	(1.0)	1.6	(0.6)	0.0	c
	Greece	0.4	(0.2)	1.1	(0.3)	4.7	(1.0)	93.8	(1.2)	0.0	c	0.0	c	0.1	(0.1)	0.2	(0.1)	2.8	(0.8)	96.9	(0.8)	0.0	c	0.0	c
	Hungary	1.8	(0.4)	10.1	(0.6)	75.6	(0.9)	12.5	(0.6)	0.0	c	0.0	c	1.6	(0.4)	6.9	(0.8)	76.0	(0.9)	15.5	(0.7)	0.0	c	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Ireland	0.0	c	2.2	(0.3)	62.8	(0.9)	24.1	(1.2)	10.9	(1.0)	0.0	c	0.0	(0.0)	1.4	(0.2)	58.2	(0.9)	29.0	(1.4)	11.3	(1.1)	0.0	c
	Israel	0.0	c	0.1	(0.1)	18.0	(1.2)	80.9	(1.3)	1.1	(0.6)	0.0	c	0.0	c	0.1	(0.0)	14.9	(0.8)	84.4	(0.8)	0.7	(0.1)	0.0	c
	Italy	0.2	(0.1)	1.3	(0.3)	18.1	(0.8)	75.0	(0.9)	5.4	(0.4)	0.0	c	0.1	(0.0)	0.7	(0.2)	12.2	(0.8)	79.3	(1.0)	7.7	(0.5)	0.0	c
	Japan	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c
	Korea	0.0	c	0.0	c	10.1	(1.4)	89.4	(1.4)	0.5	(0.1)	0.0	c	0.0	c	0.0	c	8.0	(0.8)	91.5	(0.8)	0.5	(0.1)	0.0	c
	Latvia	1.5	(0.4)	14.7	(0.8)	81.8	(0.9)	1.9	(0.3)	0.0	(0.0)	0.0	c	0.4	(0.2)	8.7	(0.7)	87.0	(0.7)	3.9	(0.4)	0.0	c	0.0	c
	Luxembourg	0.2	(0.1)	9.4	(0.2)	52.4	(0.3)	37.3	(0.2)	0.7	(0.1)	0.0	c	0.3	(0.1)	6.4	(0.2)	49.4	(0.2)	43.3	(0.2)	0.6	(0.1)	0.0	c
	Mexico	3.1	(0.5)	5.9	(0.6)	32.2	(1.5)	58.0	(1.6)	0.6	(0.2)	0.2	(0.0)	1.5	(0.3)	3.7	(0.4)	31.6	(1.7)	62.5	(1.7)	0.4	(0.1)	0.2	(0.1)
	Netherlands	0.0	(0.0)	3.8	(0.4)	45.3	(0.8)	50.2	(0.8)	0.8	(0.3)	0.0	c	0.1	(0.0)	1.9	(0.3)	38.0	(0.7)	59.3	(0.7)	0.7	(0.2)	0.0	(0.0)
	New Zealand	0.0	c	0.0	c	0.0	c	6.9	(0.5)	88.6	(0.8)	4.5	(0.5)	0.0	c	0.0	c	0.0	(0.0)	5.4	(0.4)	89.1	(0.6)	5.5	(0.6)
	Norway	0.0	c	0.0	c	0.8	(0.2)	99.1	(0.2)	0.1	(0.1)	0.0	c	0.0	c	0.0	c	0.3	(0.1)	99.6	(0.1)	0.1	(0.1)	0.0	c
	Poland	0.9	(0.2)	6.8	(0.5)	92.1	(0.6)	0.2	(0.2)	0.0	c	0.0	c	0.4	(0.1)	3.0	(0.3)	95.6	(0.5)	1.1	(0.3)	0.0	c	0.0	c
	Portugal	4.2	(0.4)	10.5	(0.7)	25.4	(1.0)	59.6	(1.4)	0.3	(0.1)	0.0	c	2.1	(0.4)	6.4	(0.5)	20.5	(0.9)	70.5	(1.2)	0.5	(0.1)	0.0	c
	Slovak Republic	2.4	(0.4)	4.8	(0.5)	43.5	(1.6)	49.4	(1.8)	0.0	c	0.0	c	1.9	(0.5)	4.3	(0.6)	41.7	(1.8)	51.9	(1.8)	0.1	(0.1)	0.0	c
	Slovenia	0.0	c	0.5	(0.2)	5.4	(0.7)	93.9	(0.7)	0.2	(0.1)	0.0	c	0.0	c	0.2	(0.1)	4.1	(0.6)	95.3	(0.6)	0.4	(0.2)	0.0	c
	Spain	0.1	(0.1)	10.7	(0.7)	25.4	(0.8)	63.7	(1.1)	0.1	(0.1)	0.0	c	0.0	c	6.5	(0.5)	21.3	(0.8)	72.1	(1.0)	0.1	(0.1)	0.0	c
	Sweden	0.1	(0.1)	3.5	(0.5)	95.0	(0.9)	1.4	(0.7)	0.1	(0.1)	0.0	c	0.2	(0.1)	2.6	(0.4)	94.9	(1.0)	2.3	(0.9)	0.1	(0.1)	0.0	c
	Switzerland	0.7	(0.2)	13.4	(0.8)	60.7	(1.1)	24.7	(1.2)	0.5	(0.1)	0.0	c	0.3	(0.1)	10.1	(0.8)	62.0	(1.7)	27.2	(1.9)	0.5	(0.2)	0.0	(0.0)
	Turkey	0.8	(0.3)	3.1	(0.6)	25.4	(1.2)	68.4	(1.6)	2.2	(0.4)	0.1	(0.1)	0.4	(0.2)	2.1	(0.4)	16.1	(1.1)	77.5	(1.3)	3.8	(0.4)	0.1	(0.0)
	United Kingdom	0.0	c	0.0	c	0.0	c	1.9	(0.5)	97.3	(0.6)	0.9	(0.3)	0.0	c	0.0	c	0.0	c	1.4	(0.2)	97.5	(0.3)	1.1	(0.3)
	United States	0.0	c	0.5	(0.4)	11.6	(0.8)	72.4	(1.0)	15.3	(0.7)	0.2	(0.1)	0.1	(0.1)	0.5	(0.2)	7.6	(0.6)	72.4	(0.9)	19.4	(0.7)	0.1	(0.0)
Partners	**Albania**	0.2	(0.2)	0.9	(0.2)	41.2	(2.7)	56.3	(2.6)	1.3	(0.9)	0.0	(0.0)	0.1	(0.1)	1.1	(0.3)	30.4	(2.1)	67.1	(2.2)	1.2	(0.5)	0.1	(0.0)
	Algeria	24.4	(1.3)	25.7	(1.2)	32.6	(1.5)	14.7	(1.9)	2.6	(0.7)	0.0	c	12.6	(1.1)	21.0	(1.2)	37.9	(2.0)	24.6	(2.5)	3.9	(0.8)	0.0	c
	Brazil	4.6	(0.3)	7.8	(0.6)	13.9	(0.6)	36.5	(1.0)	35.3	(0.9)	1.8	(0.2)	2.4	(0.2)	5.0	(0.4)	11.1	(0.6)	35.3	(0.9)	43.0	(0.9)	3.1	(0.2)
	B-S-J-G (China)	1.2	(0.2)	9.9	(0.7)	55.4	(1.7)	31.6	(1.9)	1.9	(0.5)	0.1	(0.0)	1.1	(0.2)	8.4	(0.8)	49.6	(1.8)	38.1	(2.2)	2.6	(0.5)	0.1	(0.1)
	Bulgaria	0.6	(0.2)	4.1	(0.8)	91.8	(1.0)	3.5	(0.4)	0.0	c	0.0	c	0.4	(0.2)	1.8	(0.4)	92.7	(0.7)	5.2	(0.4)	0.0	c	0.0	c
	Colombia	7.2	(0.6)	14.3	(0.8)	25.2	(0.8)	37.1	(0.9)	16.2	(0.8)	0.0	c	3.6	(0.4)	10.5	(0.7)	20.5	(0.9)	42.9	(1.0)	22.5	(0.8)	0.0	c
	Costa Rica	7.8	(0.8)	16.7	(0.8)	34.3	(1.2)	41.2	(1.5)	0.1	(0.0)	0.0	c	4.7	(0.7)	11.4	(0.7)	31.8	(1.4)	51.6	(1.8)	0.3	(0.1)	0.2	(0.1)
	Croatia	0.0	c	0.2	(0.1)	80.5	(0.5)	19.4	(0.5)	0.0	c	0.0	c	0.0	c	0.3	(0.2)	78.0	(0.7)	21.7	(0.7)	0.0	c	0.0	c
	Cyprus*	0.0	c	0.3	(0.1)	6.6	(0.2)	92.4	(0.2)	0.6	(0.1)	0.0	c	0.0	c	0.3	(0.1)	5.1	(0.2)	93.8	(0.2)	0.8	(0.1)	0.0	c
	Dominican Republic	10.3	(1.1)	16.4	(1.5)	23.3	(1.2)	37.2	(1.4)	11.1	(0.8)	1.7	(0.3)	4.0	(0.6)	11.2	(1.1)	18.1	(0.8)	46.5	(1.1)	17.2	(0.8)	3.0	(0.3)
	FYROM	0.2	(0.2)	0.2	(0.2)	70.9	(0.3)	28.8	(0.2)	0.0	c	0.0	c	0.0	c	0.0	c	69.4	(0.3)	30.6	(0.3)	0.0	c	0.0	c
	Georgia	0.1	(0.0)	0.9	(0.2)	23.0	(1.0)	75.2	(1.0)	0.8	(0.2)	0.0	c	0.1	(0.1)	0.7	(0.2)	20.9	(0.9)	76.8	(1.0)	1.5	(0.4)	0.0	c
	Hong Kong (China)	1.3	(0.2)	6.4	(0.5)	28.5	(0.8)	63.3	(0.9)	0.5	(0.4)	0.0	c	1.0	(0.2)	4.7	(0.4)	23.5	(0.8)	70.2	(0.9)	0.6	(0.6)	0.0	c
	Indonesia	2.5	(0.4)	8.9	(0.9)	44.3	(1.9)	42.1	(2.0)	2.1	(0.4)	0.0	(0.0)	1.7	(0.3)	7.2	(1.0)	39.8	(1.9)	48.9	(2.1)	2.4	(0.4)	0.0	c
	Jordan	0.1	(0.1)	0.5	(0.1)	6.6	(0.7)	92.9	(0.7)	0.0	c	0.0	c	0.2	(0.1)	0.7	(0.1)	6.6	(0.6)	92.4	(0.6)	0.0	c	0.0	c
	Kosovo	0.1	(0.1)	0.5	(0.1)	26.4	(0.9)	71.5	(1.0)	1.6	(0.3)	0.0	c	0.0	c	0.7	(0.2)	23.5	(1.0)	73.3	(1.0)	2.5	(0.3)	0.0	c
	Lebanon	4.0	(0.6)	8.2	(0.9)	17.2	(1.4)	63.5	(1.7)	6.9	(0.7)	0.2	(0.1)	3.4	(0.6)	8.3	(1.0)	16.1	(1.2)	61.2	(1.8)	10.8	(1.2)	0.1	(0.1)
	Lithuania	0.2	(0.1)	3.5	(0.3)	87.4	(0.6)	8.8	(0.5)	0.0	(0.0)	0.0	c	0.0	(0.0)	1.7	(0.2)	85.1	(0.7)	13.1	(0.6)	0.0	(0.0)	0.0	c
	Macao (China)	4.3	(0.2)	16.4	(0.3)	30.8	(0.2)	48.2	(0.2)	0.4	(0.1)	0.0	c	1.6	(0.2)	8.0	(0.2)	28.7	(0.3)	60.8	(0.3)	0.9	(0.2)	0.0	c
	Malta	0.0	c	0.0	c	0.5	(0.1)	6.8	(0.3)	92.7	(0.2)	0.0	c	0.0	c	0.0	c	0.1	(0.0)	5.4	(0.2)	94.4	(0.2)	0.1	(0.1)
	Moldova	0.3	(0.1)	8.2	(0.7)	86.3	(0.9)	5.0	(0.9)	0.1	(0.1)	0.0	c	0.2	(0.1)	7.0	(0.6)	82.8	(1.2)	10.1	(1.2)	0.0	c	0.0	c
	Montenegro	0.0	c	0.0	c	85.2	(0.2)	14.8	(0.2)	0.0	c	0.0	c	0.0	c	0.0	c	82.2	(0.2)	17.8	(0.2)	0.0	c	0.0	c
	Peru	3.0	(0.5)	7.5	(0.5)	17.9	(0.7)	48.7	(0.9)	22.9	(1.0)	0.0	c	1.9	(0.3)	5.6	(0.5)	14.0	(0.6)	51.7	(1.0)	26.8	(0.9)	0.0	c
	Qatar	0.8	(0.1)	3.6	(0.1)	18.0	(0.2)	59.3	(0.2)	17.6	(0.2)	0.6	(0.1)	1.0	(0.1)	3.4	(0.1)	14.5	(0.1)	62.1	(0.2)	18.4	(0.2)	0.6	(0.1)
	Romania	1.7	(0.4)	10.7	(0.8)	74.3	(1.0)	13.3	(0.7)	0.0	c	0.0	c	1.1	(0.4)	7.2	(0.8)	75.3	(1.1)	16.4	(0.8)	0.0	c	0.0	c
	Russia	0.2	(0.1)	7.2	(0.5)	80.1	(1.7)	12.4	(1.7)	0.0	(0.0)	0.0	c	0.1	(0.1)	6.0	(0.4)	79.3	(1.5)	14.4	(1.6)	0.1	(0.1)	0.0	c
	Singapore	0.1	(0.0)	1.8	(0.3)	8.9	(0.9)	89.1	(1.1)	0.1	(0.1)	0.0	(0.0)	0.0	(0.0)	2.0	(0.4)	6.9	(0.8)	90.8	(1.1)	0.2	(0.1)	0.1	(0.0)
	Chinese Taipei	0.0	c	0.0	c	36.5	(1.3)	63.5	(1.3)	0.0	c	0.0	c	0.0	c	0.0	c	34.3	(1.3)	65.7	(1.3)	0.0	c	0.0	c
	Thailand	0.2	(0.1)	0.8	(0.3)	25.4	(1.2)	71.4	(1.2)	2.3	(0.4)	0.0	c	0.3	(0.1)	0.5	(0.2)	22.5	(1.3)	74.1	(1.3)	2.6	(0.4)	0.0	c
	Trinidad and Tobago	3.7	(0.3)	14.2	(0.5)	30.8	(0.5)	48.9	(0.5)	2.4	(0.2)	0.0	c	2.8	(0.2)	7.5	(0.4)	23.8	(0.4)	63.9	(0.5)	2.0	(0.3)	0.0	c
	Tunisia	5.9	(0.5)	13.8	(1.0)	22.0	(1.4)	54.0	(1.9)	4.3	(0.5)	0.0	c	3.0	(0.3)	7.8	(0.7)	17.5	(1.4)	67.0	(1.8)	4.8	(0.5)	0.0	c
	United Arab Emirates	0.7	(0.1)	2.9	(0.4)	11.4	(1.1)	54.0	(1.3)	29.6	(1.0)	1.4	(0.2)	0.4	(0.1)	2.2	(0.5)	9.9	(0.9)	52.8	(0.9)	33.1	(1.1)	1.6	(0.2)
	Uruguay	9.2	(0.8)	11.2	(0.7)	22.5	(0.9)	56.5	(1.5)	0.5	(0.1)	0.0	c	6.0	(0.7)	8.3	(0.6)	19.0	(0.8)	65.6	(1.1)	1.1	(0.2)	0.0	c
	Viet Nam	0.5	(0.2)	2.3	(0.6)	11.1	(2.6)	86.1	(3.2)	0.0	c	0.0	c	0.1	(0.0)	1.1	(0.4)	4.6	(1.2)	94.2	(1.4)	0.0	(0.0)	0.0	c
	Argentina**	2.3	(0.6)	11.5	(0.9)	27.8	(1.3)	56.0	(1.8)	2.4	(0.3)	0.0	c	1.0	(0.3)	8.1	(0.9)	26.9	(1.4)	60.8	(1.7)	3.2	(0.3)	0.0	c
	Kazakhstan**	0.1	(0.1)	3.1	(0.4)	62.8	(2.3)	33.5	(2.4)	0.5	(0.1)	0.0	c	0.1	(0.1)	2.3	(0.3)	57.8	(1.7)	39.0	(1.8)	0.7	(0.1)	0.0	c
	Malaysia**	0.0	c	0.0	c	4.2	(0.8)	95.4	(0.9)	0.4	(0.3)	0.0	c	0.0	c	0.0	c	2.3	(0.5)	97.2	(0.6)	0.4	(0.4)	0.0	c

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933433129

Reference

OECD (forthcoming), *PISA 2015 Technical Report*, PISA, OECD Publishing, Paris.

ANNEX A3

TECHNICAL NOTES ON ANALYSES IN THIS VOLUME

Methods and definitions

Odds ratio

The odds ratio is a measure of the relative likelihood of a particular outcome across two groups. The odds ratio for observing the outcome when an antecedent is present is simply

$$OR = \frac{(p_{11}/p_{12})}{(p_{21}/p_{22})}$$

where p_{11}/p_{12} represents the "odds" of observing the outcome when the antecedent is present, and p_{21}/p_{22} represents the "odds" of observing the outcome when the antecedent is not present.

Logistic regression can be used to estimate the log ratio: the exponentiated logit coefficient for a binary variable is equivalent to the odds ratio. A "generalised" odds ratio, after accounting for other differences across groups, can be estimated by introducing control variables in the logistic regression.

Statistics based on multilevel models

Statistics based on multilevel models include variance components (between- and within-school variance), the index of inclusion derived from these components, and regression coefficients where this has been indicated. Multilevel models are generally specified as two-level regression models (the student and school levels), with normally distributed residuals, and estimated with maximum likelihood estimation. Where the dependent variable is science, reading or mathematics performance, the estimation uses ten plausible values for each student's performance on the mathematics scale. Models were estimated using the Stata ® (version 14.1) "mixed" module. The three-level regression models in Chapter 7 are estimated with HLM® (version 6.06) using only five plausible values of science performance.

In multilevel models, weights are used at both the student and school levels. The purpose of these weights is to account for differences in the probabilities of students being selected in the sample. Since PISA applies a two-stage sampling procedure, these differences are due to factors at both the school and the student levels. For the multilevel models, student final weights (W_FSTUWT) were used. Within-school weights correspond to student final weights, rescaled to amount to the sample size within each school. Between-school weights correspond to the sum of final student weights (W_FSTUWT) within each school. The definition of between-school weights is the same as in PISA 2012 initial reports. For the three-level regression models in Chaper 7, the sum of the weights is the same across education systems so that each education system contributes equally to the results.

The index of inclusion is based on the intraclass correlation and is estimated as:

$$100* \frac{\sigma_w^2}{\sigma_w^2 + \sigma_b^2}$$

where σ_w^2 and σ_b^2 represent the within- and between-variance estimates, respectively.

The results in multilevel models, and the between-school variance estimate in particular, depend on how schools are defined and organised within countries and by the units that were chosen for sampling purposes. For example, in some countries, some of the schools in the PISA sample were defined as administrative units (even if they spanned several geographically separate institutions, as in Italy); in others they were defined as those parts of larger educational institutions that serve 15-year-olds; in still others they were defined as physical school buildings; and in others they were defined from a management perspective (e.g. entities having a principal). The *PISA 2015 Technical Report* (OECD, forthcoming) and Annex A2 provide an overview of how schools are defined. In Slovenia, the primary sampling unit is defined as a group of students who follow the same study programme within a school (an education track within a school). So in this case, the between-school variation is actually the between-track variation. The use of stratification variables in the selection of schools may also affect the estimate of the between-school variation, particularly if stratification variables are associated with between-school differences.

Because of the manner in which students were sampled, the within-school variation includes variation between classes as well as between students.

Multiple imputation

Multiple imputation replaces each missing value with a set of plausible values that represent the uncertainty about the right value to impute. The multiple imputed data sets are then analysed by using standard procedures for complete data and by combining results from these analyses. For the three-level regression models presented in Figure II.7.2 five imputed values were computed for each missing value using the predictive mean matching method in SAS® PROC MI. Five plausible values of science performance were then analysed by the HLM® software using one of the five imputed data sets.

Diversity index of grade levels

The diversity index of grade levels is based on the Herfindahl index and can be interpreted as the probability (in %) that two students selected at random are enrolled in different grades. It is defined as:

$$D = 100 - ((\sum_{g=1}^{G} p_g^2) * 100))$$

where p_g is the proportion of students enrolled in grade level g.

Standard errors and significance tests

The statistics in this report represent estimates of national performance based on samples of students, rather than values that could be calculated if every student in every country had answered every question. Consequently, it is important to measure the degree of uncertainty of the estimates. In PISA, each estimate has an associated degree of uncertainty, which is expressed through a standard error. The use of confidence intervals provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. From an observed sample statistic and assuming a normal distribution, it can be inferred that the corresponding population result would lie within the confidence interval in 95 out of 100 replications of the measurement on different samples drawn from the same population.

In many cases, readers are primarily interested in whether a given value in a particular country is different from a second value in the same or another country, e.g. whether girls in a country perform better than boys in the same country. In the tables and charts used in this report, differences are labelled as statistically significant if the probability of reporting a difference when there is actually no such difference in corresponding population values is lower than 5%. Similarly, the risk of reporting a correlation as significant if there is, in fact, no correlation between two measures, is contained at 5%.

Throughout the report, significance tests were undertaken to assess the statistical significance of the comparisons made.

Differences between subgroup means

Differences between groups of students (e.g. students who have skipped a day of school and students who have not skipped a day of school) or categories of schools (e.g. advantaged and disadvantaged schools) were tested for statistical significance. The definitions of the subgroups can, in general, be found in the tables and the text accompanying the analysis. Socio-economically (dis)advantaged schools, for instance, are defined as schools in the (bottom) top quarter of the distribution of the average PISA index of economic, social and cultural status (ESCS) across schools within each country/economy. All differences marked in bold in the tables presented in Annex B of this report are statistically significant at the 95% level.

Change in the performance per unit of an index

For many tables, the difference in student performance per unit of an index was calculated. Figures in bold indicate that the differences are statistically significantly different from zero at the 95% confidence level.

Odds ratio

Figures in bold in the data tables presented in Annex B of this report indicate that the relative risk/odds ratio is statistically significantly different from 1 at the 95% confidence level. To compute statistical significance around the value of 1 (the null hypothesis), the relative-risk/odds-ratio statistic is assumed to follow a log-normal distribution, rather than a normal distribution, under the null hypothesis.

Multilevel models

The standard errors of multilevel models are not estimated with the usual replication method, which accounts for stratification and sampling rates from finite populations. Instead, standard errors are "model-based": their computation assumes that schools, and students within schools, are sampled at random (with sampling probabilities reflected in school and student weights) from a theoretical, infinite population of schools and students which complies with the model's parametric assumptions.

The standard error for the estimated index of inclusion is calculated by deriving an approximate distribution for it from the (model-based) standard errors for the variance components, using the delta-method.

Multiple imputation

The standard errors take into account the between-imputation variance. The standard errors of the results presented in Figure II.7.2 therefore consist of sampling variance, cognitive test measurement variance and error due to the imputation of missing values.

Reference

Gorard, S. and **C. Taylor** (2002), "What is segregation ? A comparison of measures in terms of 'strong' and 'weak' compositional invariance", *Sociology*, Vol.36/4, pp. 875-895, http://dx.doi.org/ 10.1177/003803850203600405.

ANNEX A4
QUALITY ASSURANCE

Quality assurance procedures were implemented in all parts of PISA 2015, as was done for all previous PISA surveys. The PISA 2015 Technical Standards (www.oecd.org/pisa/) specify the way in which PISA must be implemented in each country, economy and adjudicated region. International contractors monitor the implementation in each of these and adjudicate on their adherence to the standards.

The consistent quality and linguistic equivalence of the PISA 2015 assessment instruments were facilitated by assessing the ease with which the original English version could be translated. Two source versions of the assessment instruments, in English and French were prepared (except for the financial literacy assessment and the operational manuals, which were provided only in English) in order for countries to conduct a double translation design, i.e. two independent translations from the source language(s), and reconciliation by a third person. Detailed instructions for the localisation (adaptation, translation and validation) of the instruments for the field trial and for their review for the main survey, and translation/adaptation guidelines were supplied. An independent team of expert verifiers, appointed and trained by the PISA Consortium, verified each national version against the English and/or French source versions. These translators' mother tongue was the language of instruction in the country concerned, and the translators were knowledgeable about education systems. For further information on PISA translation procedures, see the *PISA 2015 Technical Report* (OECD, forthcoming).

The survey was implemented through standardised procedures. The PISA Consortium provided comprehensive manuals that explained the implementation of the survey, including precise instructions for the work of school co-ordinators and scripts for test administrators to use during the assessment sessions. Proposed adaptations to survey procedures, or proposed modifications to the assessment session script, were submitted to the PISA Consortium for approval prior to verification. The PISA Consortium then verified the national translation and adaptation of these manuals.

To establish the credibility of PISA as valid and unbiased and to encourage uniformity in administering the assessment sessions, test administrators in participating countries were selected using the following criteria: it was required that the test administrator not be the science, reading or mathematics instructor of any students in the sessions he or she would conduct for PISA; and it was considered preferable that the test administrator not be a member of the staff of any school in the PISA sample. Participating countries organised an in-person training session for test administrators.

Participating countries and economies were required to ensure that test administrators worked with the school co-ordinator to prepare the assessment session, including reviewing and updating the Student Tracking Form; completing the Session Attendance Form, which is designed to record students' attendance and instruments allocation; completing the Session Report Form, which is designed to summarise session times, any disturbance to the session, etc.; ensuring that the number of test booklets and questionnaires collected from students tallied with the number sent to the school (paper-based assessment countries) or ensuring that the number of USB sticks used for the assessment were accounted for (computer-based assessment countries); and sending the school questionnaire, student questionnaires, parent and teacher questionnaires (if applicable), and all test materials (both completed and not completed) to the national centre after the testing.

The PISA Consortium responsible for overseeing survey operations implemented all phases of the PISA Quality Monitor (PQM) process: interviewing and hiring PQM candidates in each of the countries, organising their training, selecting the schools to visit, and collecting information from the PQM visits. PQMs are independent contractors located in participating countries who are hired by the international survey operations contractor. They visit a sample of schools to observe test administration and to record the implementation of the documented field-operations procedures in the main survey.

Typically, two or three PQMs were hired for each country, and they visited an average of 15 schools in each country. If there were adjudicated regions in a country, it was usually necessary to hire additional PQMs, as a minimum of five schools were observed in adjudicated regions.

All quality-assurance data collected throughout the PISA 2015 assessment were entered and collated in a central data-adjudication database on the quality of field operations, printing, translation, school and student sampling, and coding.

Comprehensive reports were then generated for the PISA Adjudication Group. This group was formed by the Technical Advisory Group and the Sampling Referee. Its role is to review the adjudication database and reports to recommend adequate treatment to preserve the quality of PISA data. For further information, see the *PISA 2015 Technical Report* (OECD, forthcoming).

The results of adjudication and subsequent further examinations showed that the PISA Technical Standards were met in all countries and economies that participated in PISA 2015 except for those countries listed below:

- In Albania, the PISA assessment was conducted in accordance with the operational standards and guidelines of the OECD. However, because of the ways in which the data were captured, it was not possible to match the data in the test with the data from the student questionnaire. As a result, Albania cannot be included in analyses that relate students' responses from the questionnaires to the test results.
- In Argentina, the PISA assessment was conducted in accordance with the operational standards and guidelines of the OECD. However, there was a significant decline in the proportion of 15-year-olds who were covered by the test, both in absolute and relative numbers. There had been a re-structuring of Argentina's secondary schools, except for those in the adjudicated region of Ciudad Autónoma de Buenos Aires, which is likely to have affected the coverage of eligible schools listed in the sampling frame. As a result, Argentina's results may not be comparable to those of other countries or to results for Argentina from previous years.
- In Kazakhstan, the national coders were found to be lenient in marking. Consequently, the human-coded items did not meet PISA standards and were excluded from the international data. Since human-coded items form an important part of the constructs that are tested by PISA, the exclusion of these items resulted in a significantly smaller coverage of the PISA test. As a result, Kazakhstan's results may not be comparable to those of other countries or to results for Kazakhstan from previous years.
- In Malaysia, the PISA assessment was conducted in accordance with the operational standards and guidelines of the OECD. However, the weighted response rate among the initially sampled Malaysian schools (51%) falls well short of the standard PISA response rate of 85%. Therefore, the results may not be comparable to those of other countries or to results for Malaysia from previous years.

Reference

OECD (forthcoming), *PISA 2015 Technical Report*, OECD Publishing, Paris.

ANNEX A5

CHANGES IN THE ADMINISTRATION AND SCALING OF PISA 2015 AND IMPLICATIONS FOR TRENDS ANALYSES

Available on line only.

It can be found at: www.oecd.org/pisa

ANNEX A6

SYSTEM-LEVEL DATA COLLECTION FOR PISA 2015: SOURCES, COMMENTS AND TECHNICAL NOTES

Available on line only.

It can be found at: www.oecd.org/pisa

ANNEX A7

GUIDELINES AND CAVEATS ABOUT INTERPRETING THE RESULTS

Interpreting the data from students, parents and schools

PISA 2015 asked students and school principals to answer questions about the learning environment and organisation of schools, and the social and economic contexts in which learning takes place. Information based on their responses has been weighted so that it reflects the number of 15-year-old students enrolled in grade 7 or above. These are self-reports rather than external observations and may be influenced by cultural differences in how individuals respond. For example, individual students in the same classroom may perceive and report classroom situations in different ways, or respondents may provide responses that are considered to be more socially desirable or acceptable than others.

In addition to the general limitation of self-reported data, there are other limitations, particularly those concerning the information collected from principals, that should be taken into account when interpreting the data:

- On average across OECD countries, 268 principals were surveyed, but in 10 countries and economies, fewer than 150 principals were surveyed, and in Ciudad Autónoma de Buenos Aires (Argentina), Luxembourg, Macao (China), Malta and Montenegro, fewer than 100 principals were surveyed (Table A7.1). Although principals can provide information about their schools, generalising from a single source of information for each school is not straightforward. Also, principals' perceptions may not be the most appropriate sources of some information related to teachers, such as teachers' morale and commitment.
- Students' attitudes towards learning and their performance in each subject depend on many factors, including all the education that they have acquired in previous years and their experiences outside the school setting. In most cases, 15-year-old students have been in their current school for only two or three years. The learning environment examined by PISA may therefore only partially reflect the learning environment that shaped students' experiences in education earlier in their school careers. To the extent that students' current learning environment differs from that of their earlier school years, the contextual data collected by PISA are an imperfect proxy for students' cumulative learning environments.
- In some countries and economies, the definition of the school in which students are taught is not straightforward because schools vary in the level and purpose of education. For example, in some countries and economies, subunits within schools (e.g. study programmes, shifts and campuses) were sampled instead of schools as administrative units. See Annex A2 for further information.
- The age-based sampling followed in PISA means that, in some education systems, students are not always representative of their schools. Interpreting differences between schools correctly therefore requires specific knowledge about how school systems are structured (see Box II.5.1 for details on the specific case of grade repetition).

Despite these caveats, information from the school questionnaire provides unique insights into the ways in which national and subnational authorities seek to realise their education objectives.

Schooling and school effects

In using results from non-experimental data on school performance, such as the PISA Database, it is important to bear in mind the distinction between school effects and the effects of schooling, particularly when interpreting the modest association between factors such as school resources, policies and institutional characteristics and student performance. School effects are education researchers' shorthand for the effect on academic performance of attending one school or another, usually schools that differ in resources or policies and institutional characteristics. Where schools and school systems do not vary in fundamental ways, the school effect can be modest. Nevertheless, modest school effects should not be confused with a lack of an effect of schooling (the influence on performance of not being schooled compared with being schooled).

Interpreting correlations

A correlation is a simple statistic that measures the degree to which two variables are associated with each other, but does not prove causality between the two.

Interpreting results before and after accounting for socio-economic status

When examining the relationship between education outcomes and resources, policies and practices within school systems, this volume takes into account the socio-economic differences among students and schools. The advantage of doing this lies in comparing similar entities, namely students and schools with similar socio-economic profiles. At the same time, there is a risk that such adjusted comparisons underestimate the strength of the relationship between student performance and resources, policies and practices, since most of the differences in performance are often attributable to both policies and socio-economic status.

Conversely, analyses that do not take socio-economic status into account can overstate the relationship between student performance and resources, policies and practices, as the level of resources and the kinds of policies adopted may also relate to the socio-economic profile of students, schools and countries and economies. At the same time, analyses without adjustments may paint a more realistic picture of the schools that parents choose for their children. They may also provide more information for other stakeholders who are interested in the overall performance of students, schools and systems, including any effects that may be related to the socio-economic profile of schools and systems. For example, parents may be primarily interested in a school's absolute performance standards, even if a school's higher achievement record stems partially from the fact that the school has a larger proportion of advantaged students.

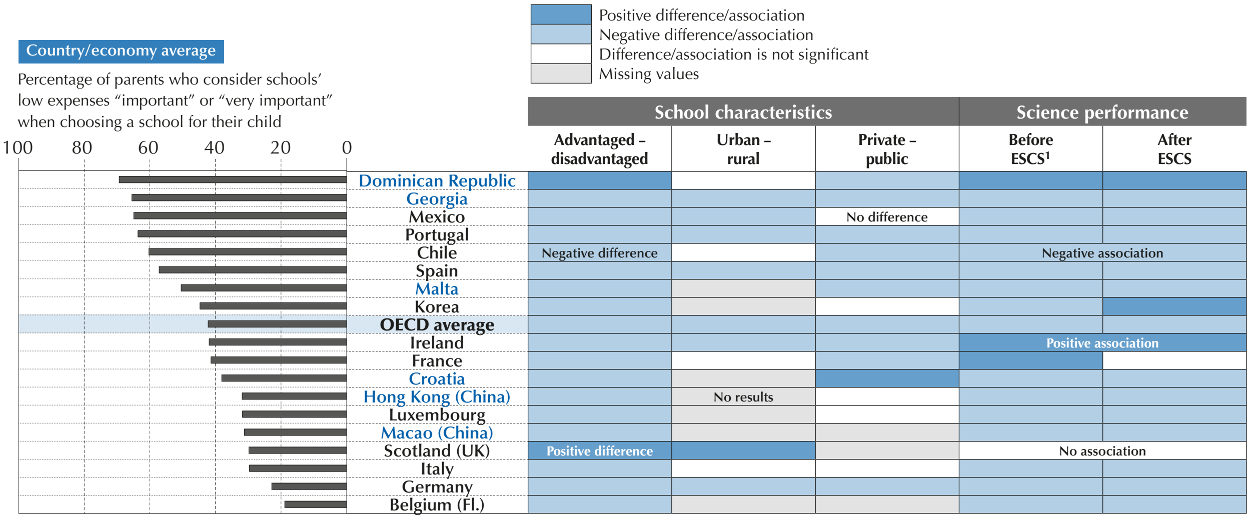
Interpreting the results by school characteristics

When presenting the results by the socio-economic profile of schools, the location of schools, the type of school or the education level, the number of students and schools in each subsample has to meet the PISA reporting requirements of at least 30 students and 5 schools. Even when these reporting requirements are met, the reader should interpret the results cautiously when the number of students or schools is just above the threshold. Table A7.1, available online, shows the unweighted number of students and schools by school characteristics in the PISA sample so that the reader can interpret the results appropriately.

Interpreting the predominant figure in this report

To report results in as condensed a way as possible, this report uses a figure that shows simultaneously, for a particular policy or practice, the country average, the differences across types of schools, and its association with science performance, before and after accounting for the socio-economic profile of students and schools. In Chapter 2, the association of the policy or practice with students' epistemic beliefs and expectation of working in science-related occupation is also presented. Figure A7.1 provides an explanation of the results presented in each column so that readers can interpret the findings correctly.

Figure A7.1 ▪ **Interpreting the predominant figure in this report**



	Advantaged – disadvantaged	Urban – rural	Private – public	Before ESCS¹	After ESCS
Education systems with a positive difference/association	2	1	1	3	3
Education systems with no difference/association	0	4	⑤	1	2
Education systems with a negative difference/association	16	⑥	9	14	⑬
	Differences between students in socio-economically advantaged and disadvantaged schools. Dark blue indicates that the parents whose child attends an advantaged school give more importance to the schools' low expenses than the parents whose child attends a disadvantaged school	Differences between students in urban and rural schools. There are 6 school systems (excludes the OECD average) where the parents whose child attends a rural school give more importance to the schools' low expenses than the parents whose child attends an urban school	Differences between students in private and public schools. There are 5 school systems where there are no differences in the importance given to the schools' low expenses between the parents whose child attends a private school and the parents whose child attends a public school	Association with science performance, before and after accounting for the socio-economic status of students and schools. In 13 school systems (excludes OECD average) students whose parents consider the schools' low expenses "important" or "very important" score lower in science than students whose parents consider schools' low expenses "somewhat important" or "not important", after accounting for the socio-economic status of students and schools	

1. ESCS refers to the PISA index of economic, social and cultural status.
Note: The results in this figure are for illustration purposes only.

Interpreting odds ratios

An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable with two categories (e.g. yes/no) or more than two categories. An odds ratio below one denotes a negative association; an odds ratio above one indicates a positive association; and an odds ratio of one means that there is no association.

Imagine that the association between being a boy and having repeated a grade is being analysed, the following odds ratios would be interpreted as:

- 0.2 > Boys are five times less likely to have repeated a grade than girls.
- 0.5 > Boys are half as likely to have repeated a grade as girls.
- 0.9 > Boys are 10% less likely to have repeated a grade than girls.
- 1 > Boys and girls are equally likely to have repeated a grade.
- 1.1 > Boys are 10% more likely to have repeated a grade than girls.
- 2 > Boys are twice more likely to have repeated a grade than girls.
- 5 > Boys are five times more likely to have repeated a grade than girls.

Table available on line

Table A7.1. Unweighted number of sampled students and schools, by school characteristics

(http://dx.doi.org/10.1787/888933436460)

Annex B

PISA 2015 DATA

All tables in Annex B are available on line

Annex B1: Results for countries and economies
http://dx.doi.org/10.1787/888933436477
http://dx.doi.org/10.1787/888933436489
http://dx.doi.org/10.1787/888933436498
http://dx.doi.org/10.1787/888933436509
http://dx.doi.org/10.1787/888933436513

Annex B2: Results for regions within countries
http://dx.doi.org/10.1787/888933436536

Annex B3: List of tables available on line

Note regarding B-S-J-G (China)

B-S-J-G (China) refers to the four PISA participating China provinces : Beijing, Shanghai, Jiangsu, Guangdong.

Note regarding CABA (Argentina)

CABA (Argentina) refers to the Ciudad Autónoma de Buenos Aires, Argentina.

Note regarding FYROM

FYROM refers to the Former Yugoslav Republic of Macedonia.

Notes regarding Cyprus

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

ANNEX B1

RESULTS FOR COUNTRIES AND ECONOMIES

[Part 1/3]

Table II.2.1 Epistemic beliefs

Results based on students' self-reports

		Percentage of students reporting that…															
		A good way to know if something is true is to do an experiment								Ideas in <broad science> sometimes change							
		Strongly disagree		Disagree		Agree		Strongly agree		Strongly disagree		Disagree		Agree		Strongly agree	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	3.7	(0.2)	7.0	(0.3)	65.2	(0.6)	24.0	(0.6)	3.0	(0.2)	5.5	(0.3)	63.1	(0.5)	28.4	(0.5)
	Austria	11.0	(0.6)	15.8	(0.6)	38.7	(0.7)	34.6	(0.7)	9.6	(0.5)	27.7	(0.6)	46.1	(0.8)	16.5	(0.6)
	Belgium	5.9	(0.3)	6.4	(0.3)	56.8	(0.5)	31.0	(0.5)	4.5	(0.3)	13.4	(0.4)	66.3	(0.6)	15.9	(0.5)
	Canada	4.7	(0.2)	6.1	(0.3)	60.6	(0.5)	28.6	(0.5)	3.5	(0.2)	7.1	(0.3)	58.4	(0.6)	31.0	(0.6)
	Chile	8.6	(0.5)	11.3	(0.5)	55.4	(0.7)	24.7	(0.7)	6.1	(0.4)	16.9	(0.6)	63.0	(0.7)	14.0	(0.6)
	Czech Republic	7.3	(0.5)	10.6	(0.5)	64.4	(0.7)	17.7	(0.6)	4.9	(0.4)	16.4	(0.6)	66.9	(0.7)	11.7	(0.5)
	Denmark	5.4	(0.4)	6.2	(0.3)	55.3	(0.9)	33.0	(0.8)	4.0	(0.3)	11.5	(0.4)	68.9	(0.8)	15.7	(0.6)
	Estonia	4.8	(0.4)	7.4	(0.3)	66.2	(0.6)	21.6	(0.6)	3.4	(0.3)	12.0	(0.4)	69.9	(0.7)	14.7	(0.6)
	Finland	4.9	(0.3)	11.0	(0.5)	63.1	(0.7)	20.9	(0.6)	3.9	(0.3)	11.9	(0.5)	70.5	(0.7)	13.8	(0.5)
	France	5.2	(0.4)	7.3	(0.4)	55.9	(0.7)	31.6	(0.7)	4.3	(0.3)	12.7	(0.5)	65.9	(0.6)	17.1	(0.6)
	Germany	6.9	(0.5)	14.9	(0.7)	46.3	(1.0)	31.9	(1.0)	5.2	(0.4)	24.0	(0.8)	53.4	(0.9)	17.5	(0.7)
	Greece	7.6	(0.6)	12.2	(0.5)	58.4	(0.6)	21.8	(0.7)	6.1	(0.5)	24.2	(0.7)	57.6	(0.7)	12.1	(0.5)
	Hungary	9.5	(0.6)	12.7	(0.5)	60.1	(0.7)	17.7	(0.6)	6.3	(0.4)	22.5	(0.7)	60.3	(0.8)	10.9	(0.5)
	Iceland	6.4	(0.5)	6.3	(0.5)	53.1	(1.0)	34.3	(0.9)	4.8	(0.4)	7.2	(0.5)	61.8	(1.0)	26.1	(0.9)
	Ireland	2.2	(0.2)	4.4	(0.3)	60.2	(0.7)	33.2	(0.7)	1.7	(0.2)	6.4	(0.4)	71.5	(0.7)	20.3	(0.6)
	Israel	8.0	(0.5)	6.1	(0.4)	49.0	(0.7)	36.8	(0.9)	5.3	(0.3)	11.2	(0.5)	58.6	(0.7)	24.9	(0.8)
	Italy	6.3	(0.4)	8.1	(0.4)	61.1	(0.7)	24.6	(0.7)	4.0	(0.4)	15.8	(0.6)	66.9	(0.8)	13.2	(0.5)
	Japan	4.5	(0.3)	15.0	(0.4)	61.2	(0.7)	19.4	(0.6)	4.5	(0.3)	13.1	(0.5)	61.4	(0.7)	21.1	(0.7)
	Korea	3.8	(0.3)	10.1	(0.5)	68.8	(0.7)	17.4	(0.7)	3.0	(0.3)	7.5	(0.5)	68.9	(0.8)	20.6	(0.7)
	Latvia	10.7	(0.5)	8.6	(0.4)	57.7	(0.7)	23.1	(0.6)	6.2	(0.4)	14.7	(0.5)	68.5	(0.8)	10.5	(0.6)
	Luxembourg	8.9	(0.4)	11.3	(0.4)	46.7	(0.7)	33.1	(0.6)	7.3	(0.4)	24.7	(0.7)	53.2	(0.8)	14.9	(0.5)
	Mexico	7.2	(0.3)	9.0	(0.4)	58.2	(0.7)	25.6	(0.7)	5.6	(0.4)	18.6	(0.6)	64.6	(0.7)	11.2	(0.5)
	Netherlands	4.8	(0.4)	9.7	(0.4)	65.9	(0.8)	19.6	(0.7)	3.8	(0.3)	15.4	(0.6)	71.6	(0.7)	9.1	(0.4)
	New Zealand	3.2	(0.3)	7.1	(0.4)	66.4	(0.9)	23.2	(0.8)	2.3	(0.3)	7.1	(0.5)	66.6	(1.0)	24.1	(0.9)
	Norway	5.5	(0.4)	10.4	(0.5)	61.4	(0.7)	22.6	(0.6)	4.3	(0.3)	12.4	(0.5)	67.8	(0.7)	15.5	(0.6)
	Poland	7.7	(0.4)	5.8	(0.3)	50.2	(0.9)	36.2	(0.9)	5.0	(0.4)	17.2	(0.5)	66.4	(0.7)	11.3	(0.5)
	Portugal	2.7	(0.2)	6.8	(0.5)	62.9	(0.7)	27.5	(0.7)	2.3	(0.2)	6.8	(0.4)	62.1	(0.8)	28.8	(0.8)
	Slovak Republic	13.2	(0.6)	11.4	(0.6)	59.1	(0.9)	16.3	(0.5)	7.8	(0.4)	17.7	(0.6)	64.5	(0.8)	10.0	(0.4)
	Slovenia	5.6	(0.3)	5.8	(0.4)	60.8	(0.9)	27.8	(0.8)	4.0	(0.3)	9.4	(0.5)	69.8	(0.8)	16.8	(0.7)
	Spain	6.1	(0.3)	8.4	(0.4)	53.2	(0.6)	32.3	(0.6)	5.0	(0.3)	12.9	(0.5)	63.9	(0.7)	18.2	(0.6)
	Sweden	5.1	(0.4)	9.3	(0.4)	61.4	(0.7)	24.3	(0.7)	4.2	(0.3)	9.9	(0.5)	64.8	(0.9)	21.1	(0.9)
	Switzerland	6.8	(0.5)	12.2	(0.7)	46.3	(0.9)	34.8	(0.9)	6.0	(0.4)	24.4	(0.8)	53.9	(0.8)	15.7	(0.6)
	Turkey	12.7	(0.7)	14.0	(0.5)	45.6	(0.7)	27.7	(0.7)	9.3	(0.5)	18.8	(0.7)	53.5	(0.8)	18.5	(0.7)
	United Kingdom	3.8	(0.2)	6.2	(0.4)	65.6	(0.7)	24.4	(0.6)	2.8	(0.2)	5.6	(0.3)	65.5	(0.7)	26.1	(0.7)
	United States	4.6	(0.4)	5.5	(0.3)	64.6	(0.7)	25.4	(0.7)	3.7	(0.3)	4.8	(0.3)	61.9	(0.9)	29.7	(1.0)
	OECD average	6.4	(0.1)	9.2	(0.1)	57.9	(0.1)	26.5	(0.1)	4.8	(0.1)	13.9	(0.1)	63.4	(0.1)	17.9	(0.1)
Partners	**Albania**	6.1	(0.4)	9.3	(0.5)	67.5	(0.9)	17.1	(0.8)	3.9	(0.3)	17.8	(0.5)	56.8	(0.8)	21.5	(0.8)
	Algeria	11.0	(0.6)	10.5	(0.6)	51.9	(1.0)	26.6	(0.9)	7.6	(0.5)	21.4	(0.7)	56.0	(0.8)	15.0	(0.6)
	Brazil	6.2	(0.4)	8.7	(0.4)	64.5	(0.5)	20.6	(0.5)	3.8	(0.3)	11.8	(0.4)	69.1	(0.5)	15.3	(0.5)
	B-S-J-G (China)	3.1	(0.3)	8.0	(0.4)	68.6	(0.8)	20.4	(0.7)	2.6	(0.2)	14.7	(0.5)	72.9	(0.7)	9.8	(0.5)
	Bulgaria	10.4	(0.6)	8.7	(0.5)	54.7	(0.8)	26.2	(1.0)	6.4	(0.4)	17.0	(0.8)	65.5	(0.8)	11.1	(0.5)
	CABA (Argentina)	7.2	(0.7)	9.0	(0.8)	51.8	(1.1)	31.9	(1.3)	4.9	(0.6)	10.0	(1.0)	61.5	(1.9)	23.6	(1.5)
	Colombia	9.1	(0.5)	10.1	(0.5)	58.5	(0.7)	22.3	(0.5)	5.7	(0.3)	17.0	(0.5)	63.7	(0.7)	13.6	(0.4)
	Costa Rica	8.4	(0.4)	12.4	(0.4)	57.1	(0.7)	22.1	(0.7)	6.6	(0.4)	18.7	(0.5)	62.5	(0.7)	12.2	(0.4)
	Croatia	5.2	(0.4)	5.8	(0.4)	55.5	(0.8)	33.5	(0.8)	3.7	(0.3)	9.7	(0.4)	71.5	(0.7)	15.1	(0.5)
	Cyprus*	10.9	(0.5)	11.0	(0.4)	53.7	(0.7)	24.4	(0.6)	6.8	(0.4)	19.6	(0.5)	57.0	(0.7)	16.6	(0.5)
	Dominican Republic	13.7	(0.8)	8.0	(0.5)	46.9	(1.0)	31.3	(1.1)	9.8	(0.7)	12.9	(0.7)	56.1	(1.1)	21.2	(0.9)
	FYROM	8.3	(0.4)	13.3	(0.5)	57.1	(0.8)	21.3	(0.7)	4.9	(0.4)	16.9	(0.5)	67.7	(0.6)	10.6	(0.5)
	Georgia	6.7	(0.4)	7.1	(0.4)	57.3	(0.8)	29.0	(0.7)	2.9	(0.3)	10.6	(0.5)	66.5	(0.9)	20.0	(0.6)
	Hong Kong (China)	3.3	(0.3)	11.5	(0.4)	68.6	(0.6)	16.6	(0.5)	3.2	(0.3)	8.1	(0.4)	70.6	(0.7)	18.1	(0.6)
	Indonesia	4.2	(0.4)	4.1	(0.3)	60.6	(1.0)	31.1	(0.9)	3.6	(0.2)	34.5	(0.8)	57.1	(0.9)	4.8	(0.3)
	Jordan	15.6	(0.8)	9.5	(0.5)	41.5	(0.8)	33.4	(0.9)	7.5	(0.4)	17.1	(0.7)	58.3	(0.9)	17.0	(0.5)
	Kosovo	8.9	(0.5)	7.0	(0.4)	49.4	(1.0)	34.8	(0.9)	5.3	(0.4)	14.6	(0.6)	62.6	(0.8)	17.5	(0.7)
	Lebanon	13.1	(1.1)	7.5	(0.5)	51.1	(1.1)	28.3	(1.3)	7.7	(0.6)	26.8	(1.2)	53.2	(1.3)	12.3	(0.8)
	Lithuania	10.6	(0.4)	8.4	(0.4)	34.3	(0.7)	46.6	(0.8)	6.5	(0.3)	14.6	(0.5)	55.8	(0.7)	23.1	(0.7)
	Macao (China)	2.9	(0.3)	9.3	(0.4)	68.7	(0.7)	19.1	(0.6)	2.2	(0.3)	9.7	(0.4)	75.3	(0.6)	12.8	(0.5)
	Malta	5.6	(0.3)	9.3	(0.5)	56.8	(0.8)	28.2	(0.8)	3.7	(0.3)	10.8	(0.5)	64.9	(0.7)	20.6	(0.6)
	Moldova	6.8	(0.4)	11.3	(0.4)	66.5	(0.7)	15.5	(0.6)	3.3	(0.3)	14.1	(0.6)	72.5	(0.7)	10.2	(0.5)
	Montenegro	13.1	(0.6)	15.6	(0.5)	55.3	(0.7)	15.9	(0.6)	7.4	(0.3)	18.4	(0.6)	63.4	(0.7)	10.9	(0.4)
	Peru	8.4	(0.4)	10.0	(0.5)	58.9	(0.7)	22.6	(0.6)	5.2	(0.3)	15.4	(0.5)	68.1	(0.7)	11.3	(0.5)
	Qatar	10.1	(0.3)	9.9	(0.3)	54.0	(0.5)	25.9	(0.4)	6.2	(0.2)	15.5	(0.3)	63.2	(0.4)	15.1	(0.4)
	Romania	10.5	(1.1)	13.0	(0.6)	60.5	(1.2)	16.0	(0.8)	6.0	(0.5)	27.9	(1.1)	59.4	(1.3)	6.7	(0.4)
	Russia	7.9	(0.6)	13.3	(0.7)	64.7	(1.0)	14.1	(0.7)	5.4	(0.4)	15.8	(0.6)	68.4	(0.8)	10.4	(0.5)
	Singapore	2.4	(0.2)	6.4	(0.3)	63.8	(0.6)	27.5	(0.5)	2.2	(0.2)	8.4	(0.3)	70.1	(0.7)	19.3	(0.5)
	Chinese Taipei	2.5	(0.2)	10.0	(0.4)	67.9	(0.6)	19.7	(0.6)	2.1	(0.2)	4.1	(0.2)	63.6	(0.8)	30.2	(0.8)
	Thailand	2.9	(0.3)	8.1	(0.4)	72.6	(0.7)	16.4	(0.7)	1.6	(0.2)	10.7	(0.4)	76.4	(0.7)	11.3	(0.6)
	Trinidad and Tobago	8.6	(0.5)	5.2	(0.3)	54.0	(0.9)	32.2	(0.8)	5.5	(0.4)	15.0	(0.6)	67.6	(0.8)	11.9	(0.5)
	Tunisia	10.9	(0.6)	11.3	(0.6)	56.8	(0.8)	21.0	(0.8)	7.7	(0.5)	25.9	(0.9)	54.5	(1.0)	11.9	(0.5)
	United Arab Emirates	8.1	(0.4)	7.8	(0.3)	54.1	(0.6)	30.0	(0.5)	4.8	(0.2)	13.6	(0.4)	63.4	(0.6)	18.2	(0.5)
	Uruguay	11.1	(0.5)	10.3	(0.4)	57.7	(0.8)	20.9	(0.7)	7.3	(0.4)	12.4	(0.6)	61.1	(0.6)	19.2	(0.6)
	Viet Nam	4.7	(0.3)	13.5	(0.6)	64.5	(0.8)	17.3	(0.9)	2.6	(0.2)	15.8	(0.6)	74.0	(0.6)	7.7	(0.5)
	Argentina**	12.3	(0.6)	13.2	(0.5)	53.6	(0.7)	21.0	(0.6)	7.1	(0.5)	16.6	(0.7)	61.9	(0.9)	14.4	(0.6)
	Kazakhstan**	8.9	(0.5)	6.9	(0.4)	52.5	(1.0)	31.7	(1.0)	4.7	(0.3)	16.4	(0.5)	65.8	(0.7)	13.1	(0.6)
	Malaysia**	2.6	(0.3)	5.1	(0.3)	62.5	(0.8)	29.8	(0.9)	1.9	(0.2)	13.2	(0.5)	73.2	(0.6)	11.8	(0.4)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.1 Epistemic beliefs

Results based on students' self-reports

		Percentage of students reporting that…															
		Good answers are based on evidence from many different experiments								It is good to try experiments more than once to make sure of your findings							
		Strongly disagree		Disagree		Agree		Strongly agree		Strongly disagree		Disagree		Agree		Strongly agree	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	2.8	(0.2)	5.2	(0.2)	56.8	(0.5)	35.2	(0.6)	2.7	(0.2)	4.3	(0.2)	50.3	(0.6)	42.7	(0.6)
	Austria	7.8	(0.4)	15.9	(0.6)	40.0	(0.7)	36.3	(0.8)	7.4	(0.4)	15.6	(0.5)	34.0	(0.7)	43.0	(0.8)
	Belgium	4.1	(0.3)	8.3	(0.4)	59.2	(0.6)	28.3	(0.6)	4.6	(0.3)	9.3	(0.3)	52.3	(0.6)	33.9	(0.6)
	Canada	3.4	(0.2)	5.3	(0.2)	53.9	(0.6)	37.4	(0.7)	3.5	(0.2)	5.0	(0.2)	52.3	(0.6)	39.2	(0.6)
	Chile	6.8	(0.4)	11.9	(0.5)	53.7	(0.8)	27.6	(0.7)	6.9	(0.4)	10.0	(0.5)	53.1	(0.8)	29.9	(0.9)
	Czech Republic	4.4	(0.3)	11.4	(0.5)	66.9	(0.8)	17.3	(0.6)	4.6	(0.4)	12.0	(0.5)	61.8	(0.8)	21.6	(0.7)
	Denmark	4.5	(0.4)	6.9	(0.4)	53.4	(0.9)	35.2	(0.9)	4.8	(0.4)	8.0	(0.4)	50.5	(0.8)	36.8	(0.9)
	Estonia	3.2	(0.2)	7.7	(0.4)	62.1	(0.8)	27.0	(0.8)	3.3	(0.2)	7.8	(0.3)	53.4	(0.8)	35.5	(0.9)
	Finland	4.0	(0.3)	8.5	(0.5)	61.3	(0.7)	26.2	(0.7)	4.0	(0.3)	9.0	(0.5)	56.7	(0.6)	30.3	(0.8)
	France	4.2	(0.3)	9.6	(0.4)	58.4	(0.7)	27.7	(0.7)	4.1	(0.3)	11.8	(0.4)	54.4	(0.6)	29.8	(0.6)
	Germany	4.7	(0.4)	16.5	(0.8)	48.7	(1.0)	30.1	(1.0)	5.2	(0.4)	18.3	(0.9)	43.0	(0.8)	33.5	(1.0)
	Greece	4.6	(0.5)	10.8	(0.5)	56.3	(0.7)	28.3	(0.9)	4.4	(0.4)	11.5	(0.7)	52.7	(0.8)	31.5	(0.9)
	Hungary	5.0	(0.3)	14.5	(0.6)	64.5	(0.7)	16.0	(0.5)	5.5	(0.4)	14.5	(0.7)	58.7	(0.8)	21.3	(0.8)
	Iceland	4.6	(0.4)	5.7	(0.4)	49.7	(0.9)	40.0	(1.0)	4.9	(0.4)	5.0	(0.5)	45.8	(1.0)	44.4	(1.0)
	Ireland	1.6	(0.2)	5.1	(0.4)	57.4	(0.7)	35.9	(0.7)	1.7	(0.2)	4.4	(0.3)	49.3	(0.8)	44.6	(0.8)
	Israel	5.1	(0.4)	8.9	(0.5)	50.1	(0.8)	35.8	(0.8)	4.9	(0.4)	9.0	(0.4)	40.6	(0.8)	45.5	(0.9)
	Italy	4.0	(0.4)	12.0	(0.6)	59.1	(0.7)	24.8	(0.7)	3.8	(0.4)	9.3	(0.4)	55.0	(0.8)	31.9	(0.8)
	Japan	4.2	(0.3)	11.3	(0.4)	59.6	(0.7)	24.9	(0.7)	4.6	(0.3)	14.2	(0.4)	50.7	(0.7)	30.5	(0.7)
	Korea	3.2	(0.3)	9.8	(0.5)	68.0	(0.9)	19.0	(0.8)	3.2	(0.3)	9.3	(0.5)	63.3	(0.8)	24.2	(0.9)
	Latvia	7.5	(0.4)	11.9	(0.5)	62.0	(0.9)	18.5	(0.7)	7.2	(0.4)	16.2	(0.6)	54.8	(0.7)	21.8	(0.7)
	Luxembourg	6.1	(0.4)	13.7	(0.6)	46.0	(0.8)	34.1	(0.7)	6.0	(0.4)	15.6	(0.6)	43.0	(0.8)	35.4	(0.7)
	Mexico	5.4	(0.3)	11.1	(0.5)	59.1	(0.8)	24.4	(0.7)	5.3	(0.3)	14.5	(0.5)	57.0	(0.7)	23.2	(0.8)
	Netherlands	3.4	(0.3)	11.2	(0.5)	65.4	(0.8)	20.0	(0.6)	3.5	(0.3)	11.2	(0.4)	56.1	(0.7)	29.3	(0.7)
	New Zealand	2.5	(0.2)	6.0	(0.4)	58.1	(0.9)	33.4	(0.9)	2.3	(0.2)	4.8	(0.3)	48.0	(1.1)	44.8	(1.1)
	Norway	4.1	(0.3)	9.1	(0.4)	57.9	(0.7)	28.9	(0.7)	4.3	(0.3)	10.4	(0.5)	53.4	(0.8)	31.9	(0.8)
	Poland	5.4	(0.4)	9.8	(0.5)	62.1	(0.8)	22.7	(0.8)	5.3	(0.4)	9.8	(0.4)	58.4	(0.9)	26.5	(0.8)
	Portugal	2.0	(0.2)	7.1	(0.4)	63.2	(0.8)	27.7	(0.8)	1.7	(0.2)	4.9	(0.4)	57.1	(0.9)	36.4	(0.9)
	Slovak Republic	7.6	(0.4)	14.0	(0.5)	59.6	(0.7)	18.8	(0.6)	7.5	(0.4)	15.7	(0.5)	56.3	(0.8)	20.5	(0.6)
	Slovenia	3.7	(0.3)	6.8	(0.4)	52.5	(0.8)	36.9	(0.8)	3.8	(0.3)	6.2	(0.4)	51.9	(0.9)	38.1	(0.9)
	Spain	4.7	(0.3)	8.4	(0.4)	51.2	(0.8)	35.7	(0.8)	4.7	(0.3)	7.4	(0.4)	45.7	(0.7)	42.1	(0.9)
	Sweden	4.2	(0.3)	8.5	(0.5)	55.8	(0.9)	31.6	(1.0)	4.2	(0.3)	7.7	(0.5)	49.5	(1.0)	38.7	(1.2)
	Switzerland	4.4	(0.3)	14.2	(0.7)	46.6	(0.8)	34.8	(1.0)	5.1	(0.4)	15.3	(0.7)	43.4	(0.8)	36.1	(1.1)
	Turkey	9.2	(0.5)	14.7	(0.6)	49.9	(0.6)	26.1	(0.9)	8.8	(0.5)	15.3	(0.6)	46.0	(0.8)	30.0	(1.0)
	United Kingdom	2.9	(0.2)	6.0	(0.3)	60.3	(0.6)	30.8	(0.6)	2.7	(0.2)	4.6	(0.3)	48.5	(0.8)	44.1	(0.9)
	United States	3.9	(0.3)	4.9	(0.3)	57.2	(0.9)	34.1	(1.0)	3.8	(0.3)	4.4	(0.4)	52.1	(0.9)	39.7	(1.1)
	OECD average	4.6	(0.1)	9.8	(0.1)	56.7	(0.1)	28.9	(0.1)	4.6	(0.1)	10.1	(0.1)	51.4	(0.1)	34.0	(0.1)
Partners	**Albania**	4.9	(0.4)	20.0	(0.8)	58.1	(0.7)	17.0	(0.7)	3.5	(0.3)	11.2	(0.5)	49.2	(1.0)	36.1	(0.8)
	Algeria	9.2	(0.5)	16.0	(0.6)	49.1	(0.8)	25.8	(0.7)	8.1	(0.4)	13.5	(0.6)	45.1	(0.9)	33.3	(0.8)
	Brazil	3.3	(0.2)	9.1	(0.4)	66.7	(0.6)	20.9	(0.6)	3.3	(0.2)	8.3	(0.4)	63.3	(0.6)	25.2	(0.6)
	B-S-J-G (China)	2.6	(0.2)	5.9	(0.4)	64.9	(0.8)	26.6	(1.0)	4.3	(0.3)	8.9	(0.5)	62.6	(0.7)	24.2	(0.9)
	Bulgaria	6.2	(0.4)	11.4	(0.6)	56.6	(0.9)	25.8	(1.1)	5.7	(0.4)	14.1	(0.7)	55.8	(0.8)	24.5	(0.8)
	CABA (Argentina)	5.1	(0.6)	10.4	(1.0)	51.0	(1.6)	33.5	(2.0)	5.9	(0.7)	7.1	(0.6)	43.6	(1.8)	43.3	(1.9)
	Colombia	6.2	(0.4)	11.5	(0.4)	59.4	(0.7)	23.0	(0.7)	5.5	(0.4)	10.5	(0.4)	57.6	(0.7)	26.4	(0.7)
	Costa Rica	6.2	(0.4)	12.3	(0.5)	56.1	(0.7)	25.3	(0.7)	6.4	(0.4)	10.4	(0.4)	54.5	(0.7)	28.7	(0.8)
	Croatia	3.5	(0.3)	7.2	(0.4)	60.5	(0.6)	28.8	(0.7)	3.5	(0.3)	11.8	(0.5)	55.8	(0.7)	28.9	(0.6)
	Cyprus*	5.7	(0.3)	13.5	(0.5)	54.0	(0.7)	26.9	(0.6)	6.2	(0.3)	13.9	(0.5)	49.8	(0.7)	30.1	(0.7)
	Dominican Republic	9.6	(0.7)	10.0	(0.6)	51.7	(1.1)	28.7	(1.0)	10.1	(0.6)	10.4	(0.6)	48.4	(1.1)	31.1	(1.0)
	FYROM	5.3	(0.4)	13.7	(0.5)	56.3	(0.8)	24.8	(0.7)	5.2	(0.4)	10.9	(0.5)	51.2	(0.8)	32.7	(0.8)
	Georgia	4.1	(0.3)	9.6	(0.5)	55.9	(0.7)	30.3	(0.7)	4.0	(0.4)	10.1	(0.4)	49.0	(0.7)	37.0	(0.8)
	Hong Kong (China)	3.0	(0.3)	6.8	(0.4)	65.4	(0.7)	24.8	(0.6)	3.0	(0.3)	6.9	(0.4)	63.2	(0.8)	27.0	(0.8)
	Indonesia	3.2	(0.3)	12.7	(0.5)	64.8	(0.8)	19.3	(0.7)	2.7	(0.3)	7.5	(0.4)	59.1	(1.0)	30.7	(0.9)
	Jordan	8.2	(0.4)	12.7	(0.6)	51.2	(0.7)	27.9	(0.8)	7.1	(0.4)	12.1	(0.6)	43.3	(0.7)	37.5	(0.8)
	Kosovo	5.2	(0.3)	9.9	(0.5)	50.5	(0.9)	34.4	(0.9)	4.7	(0.4)	8.5	(0.5)	41.9	(0.8)	44.9	(0.8)
	Lebanon	6.8	(0.6)	12.0	(0.8)	50.1	(1.0)	31.2	(1.2)	6.6	(0.6)	12.2	(0.7)	44.4	(1.1)	36.9	(1.0)
	Lithuania	7.0	(0.4)	11.9	(0.5)	41.9	(0.9)	39.1	(1.0)	7.0	(0.3)	13.9	(0.5)	41.3	(0.8)	37.8	(0.7)
	Macao (China)	2.3	(0.2)	6.7	(0.4)	66.8	(0.7)	24.2	(0.7)	2.4	(0.2)	15.2	(0.5)	63.1	(0.8)	19.3	(0.5)
	Malta	4.0	(0.4)	7.3	(0.5)	52.0	(0.8)	36.7	(0.8)	3.6	(0.3)	7.1	(0.4)	41.5	(0.8)	47.8	(0.8)
	Moldova	4.0	(0.3)	9.2	(0.4)	56.1	(0.9)	30.6	(0.9)	3.9	(0.3)	10.9	(0.5)	54.2	(0.8)	30.9	(0.8)
	Montenegro	6.8	(0.3)	16.3	(0.6)	58.9	(0.7)	18.1	(0.6)	7.0	(0.4)	14.4	(0.5)	56.4	(0.6)	22.2	(0.6)
	Peru	6.3	(0.3)	11.9	(0.5)	59.1	(0.7)	22.7	(0.7)	6.1	(0.3)	9.6	(0.4)	55.3	(0.7)	29.1	(0.7)
	Qatar	6.1	(0.2)	11.4	(0.3)	55.2	(0.6)	27.3	(0.5)	6.0	(0.2)	10.9	(0.3)	50.0	(0.6)	33.1	(0.5)
	Romania	6.4	(0.7)	12.0	(0.6)	54.0	(1.2)	27.6	(1.0)	6.3	(0.7)	14.2	(0.6)	52.5	(1.0)	27.0	(0.8)
	Russia	5.3	(0.4)	12.1	(0.5)	65.3	(0.7)	17.2	(0.7)	5.2	(0.5)	12.8	(0.5)	62.3	(0.7)	19.7	(0.7)
	Singapore	2.0	(0.2)	4.1	(0.3)	59.0	(0.7)	34.9	(0.7)	2.1	(0.2)	2.9	(0.2)	52.2	(0.7)	42.9	(0.7)
	Chinese Taipei	2.0	(0.2)	3.7	(0.3)	59.6	(0.7)	34.6	(0.7)	2.1	(0.2)	4.2	(0.2)	61.7	(0.7)	32.0	(0.7)
	Thailand	1.9	(0.2)	9.5	(0.4)	71.1	(0.7)	17.5	(0.7)	1.6	(0.2)	8.9	(0.4)	68.2	(0.7)	21.3	(0.7)
	Trinidad and Tobago	6.0	(0.5)	6.8	(0.4)	53.6	(0.8)	33.6	(0.9)	6.0	(0.4)	5.8	(0.4)	46.8	(0.9)	41.4	(0.9)
	Tunisia	6.5	(0.5)	14.0	(0.6)	58.8	(1.0)	20.8	(0.7)	5.1	(0.4)	12.6	(0.7)	56.4	(1.0)	26.0	(0.7)
	United Arab Emirates	4.6	(0.2)	10.2	(0.3)	55.3	(0.6)	29.9	(0.6)	4.4	(0.3)	8.9	(0.3)	49.2	(0.5)	37.5	(0.6)
	Uruguay	7.5	(0.4)	12.1	(0.5)	56.4	(0.8)	24.0	(0.7)	6.7	(0.4)	11.3	(0.5)	55.3	(0.7)	26.7	(0.7)
	Viet Nam	4.2	(0.4)	7.7	(0.5)	57.8	(1.0)	30.3	(1.0)	4.6	(0.3)	12.2	(0.6)	48.9	(1.1)	34.3	(1.2)
	Argentina**	8.8	(0.5)	15.1	(0.5)	54.8	(0.8)	21.4	(0.8)	8.8	(0.4)	12.5	(0.6)	50.8	(0.7)	27.9	(0.8)
	Kazakhstan**	5.7	(0.4)	7.1	(0.4)	55.6	(0.9)	31.6	(0.9)	5.7	(0.4)	7.8	(0.4)	52.8	(0.9)	33.8	(1.0)
	Malaysia**	1.9	(0.2)	6.5	(0.4)	61.2	(0.9)	30.4	(0.9)	1.9	(0.2)	7.1	(0.5)	58.8	(1.0)	32.2	(1.1)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436477

[Part 3/3]

Table II.2.1 Epistemic beliefs

Results based on students' self-reports

		Percentage of students reporting that…															
		Sometimes <broad science> scientists change their minds about what is true in science								The ideas in <broad science> science books sometimes change							
		Strongly disagree		Disagree		Agree		Strongly agree		Strongly disagree		Disagree		Agree		Strongly agree	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	3.0	(0.2)	9.8	(0.3)	62.8	(0.6)	24.5	(0.5)	3.4	(0.2)	10.9	(0.3)	61.9	(0.6)	23.8	(0.5)
	Austria	8.3	(0.4)	24.5	(0.6)	46.3	(0.7)	20.9	(0.6)	9.0	(0.4)	24.3	(0.6)	43.5	(0.7)	23.2	(0.6)
	Belgium	4.1	(0.3)	14.3	(0.4)	65.2	(0.6)	16.4	(0.5)	5.0	(0.3)	15.5	(0.5)	63.4	(0.6)	16.1	(0.5)
	Canada	3.6	(0.2)	8.4	(0.3)	60.5	(0.5)	27.5	(0.5)	3.7	(0.2)	9.1	(0.4)	58.2	(0.6)	29.0	(0.5)
	Chile	6.2	(0.4)	19.0	(0.6)	58.9	(0.7)	15.9	(0.6)	7.0	(0.5)	22.1	(0.6)	56.2	(0.7)	14.6	(0.6)
	Czech Republic	4.5	(0.3)	14.1	(0.5)	69.8	(0.8)	11.7	(0.4)	5.0	(0.4)	18.2	(0.6)	65.5	(0.7)	11.4	(0.4)
	Denmark	4.3	(0.3)	6.8	(0.4)	54.5	(0.9)	34.4	(0.8)	4.4	(0.3)	14.6	(0.5)	62.3	(0.8)	18.7	(0.7)
	Estonia	3.3	(0.3)	13.8	(0.4)	68.4	(0.6)	14.4	(0.5)	3.5	(0.3)	11.2	(0.5)	69.4	(0.8)	15.9	(0.6)
	Finland	4.3	(0.3)	17.8	(0.6)	65.9	(0.7)	12.0	(0.5)	4.4	(0.3)	14.9	(0.6)	68.8	(0.7)	12.0	(0.5)
	France	4.1	(0.4)	15.1	(0.5)	61.8	(0.6)	18.9	(0.6)	4.5	(0.4)	15.6	(0.5)	58.8	(0.7)	21.1	(0.6)
	Germany	5.8	(0.5)	28.8	(0.9)	48.3	(0.8)	17.0	(0.7)	6.7	(0.4)	27.2	(0.8)	48.1	(0.9)	18.0	(0.8)
	Greece	4.7	(0.4)	20.4	(0.6)	60.5	(0.7)	14.4	(0.5)	5.9	(0.5)	24.6	(0.6)	54.1	(0.7)	15.5	(0.5)
	Hungary	6.9	(0.3)	25.2	(0.7)	58.3	(0.7)	9.5	(0.5)	6.9	(0.4)	22.9	(0.7)	59.8	(0.7)	10.5	(0.4)
	Iceland	4.7	(0.4)	8.7	(0.5)	59.3	(0.9)	27.2	(0.8)	5.0	(0.4)	9.9	(0.6)	58.9	(1.0)	26.2	(0.9)
	Ireland	2.6	(0.2)	15.9	(0.5)	64.5	(0.7)	17.1	(0.6)	2.5	(0.3)	15.7	(0.5)	63.9	(0.7)	17.9	(0.6)
	Israel	5.7	(0.4)	13.7	(0.5)	55.0	(0.6)	25.6	(0.6)	6.3	(0.4)	15.3	(0.6)	53.2	(0.8)	25.2	(0.7)
	Italy	5.0	(0.4)	18.5	(0.5)	62.7	(0.7)	13.8	(0.4)	4.6	(0.4)	19.2	(0.5)	61.4	(0.6)	14.7	(0.5)
	Japan	4.8	(0.3)	18.9	(0.5)	58.3	(0.6)	18.1	(0.6)	5.3	(0.3)	17.8	(0.6)	57.5	(0.7)	19.5	(0.7)
	Korea	3.1	(0.3)	9.0	(0.5)	67.4	(0.8)	20.5	(0.8)	3.3	(0.3)	10.4	(0.5)	68.3	(0.8)	17.9	(0.7)
	Latvia	6.5	(0.4)	14.8	(0.5)	65.7	(0.7)	13.1	(0.5)	6.3	(0.4)	15.9	(0.6)	64.5	(0.9)	13.3	(0.6)
	Luxembourg	7.6	(0.4)	24.6	(0.6)	51.4	(0.7)	16.4	(0.6)	7.3	(0.4)	24.7	(0.7)	49.1	(0.8)	18.9	(0.5)
	Mexico	5.9	(0.3)	19.0	(0.6)	60.6	(0.7)	14.5	(0.5)	5.6	(0.3)	17.1	(0.6)	60.9	(0.7)	16.4	(0.6)
	Netherlands	3.9	(0.4)	18.8	(0.5)	68.3	(0.7)	9.0	(0.4)	4.5	(0.4)	23.8	(0.6)	63.3	(0.7)	8.5	(0.4)
	New Zealand	2.7	(0.3)	10.8	(0.5)	64.1	(0.9)	22.4	(0.8)	2.7	(0.3)	13.5	(0.7)	61.0	(1.0)	22.8	(0.8)
	Norway	4.1	(0.3)	12.1	(0.5)	65.4	(0.7)	18.4	(0.5)	4.7	(0.3)	14.8	(0.5)	65.0	(0.7)	15.5	(0.5)
	Poland	4.7	(0.3)	15.7	(0.5)	66.7	(0.7)	12.9	(0.5)	5.1	(0.4)	11.9	(0.5)	65.4	(0.9)	17.7	(0.7)
	Portugal	1.9	(0.2)	8.8	(0.5)	61.9	(0.7)	27.5	(0.8)	1.9	(0.2)	8.2	(0.5)	60.6	(0.8)	29.3	(0.8)
	Slovak Republic	7.2	(0.4)	17.6	(0.5)	64.6	(0.8)	10.6	(0.4)	7.6	(0.4)	19.9	(0.6)	61.5	(0.8)	11.0	(0.5)
	Slovenia	4.0	(0.3)	14.8	(0.6)	66.3	(0.7)	15.0	(0.6)	4.6	(0.3)	17.1	(0.6)	62.3	(0.9)	16.0	(0.6)
	Spain	4.6	(0.3)	14.4	(0.5)	61.3	(0.7)	19.8	(0.6)	4.7	(0.3)	14.1	(0.5)	58.5	(0.7)	22.6	(0.7)
	Sweden	4.0	(0.3)	10.4	(0.5)	62.3	(0.8)	23.3	(0.8)	4.2	(0.3)	12.0	(0.6)	60.3	(1.0)	23.5	(0.8)
	Switzerland	5.6	(0.4)	23.7	(0.8)	52.7	(0.7)	18.0	(0.7)	5.9	(0.4)	23.4	(0.8)	48.8	(0.9)	21.9	(0.8)
	Turkey	9.2	(0.4)	18.9	(0.6)	51.8	(0.8)	20.2	(0.7)	9.4	(0.5)	19.2	(0.5)	50.3	(0.7)	21.0	(0.7)
	United Kingdom	3.1	(0.2)	9.8	(0.4)	64.6	(0.6)	22.5	(0.7)	3.0	(0.2)	10.2	(0.4)	65.8	(0.7)	21.0	(0.7)
	United States	3.9	(0.3)	10.0	(0.4)	62.0	(0.8)	24.1	(0.8)	4.1	(0.3)	9.1	(0.4)	61.3	(0.9)	25.5	(0.9)
	OECD average	4.8	(0.1)	15.6	(0.1)	61.1	(0.1)	18.5	(0.1)	5.1	(0.1)	16.4	(0.1)	59.8	(0.1)	18.7	(0.1)
Partners	**Albania**	6.9	(0.5)	17.7	(0.8)	46.9	(0.8)	28.5	(0.8)	3.0	(0.3)	8.4	(0.5)	46.7	(0.8)	41.9	(0.8)
	Algeria	12.5	(0.6)	23.6	(0.7)	47.5	(0.8)	16.4	(0.5)	12.2	(0.6)	23.0	(0.6)	47.4	(0.8)	17.5	(0.7)
	Brazil	3.5	(0.3)	14.3	(0.4)	65.1	(0.6)	17.1	(0.5)	3.7	(0.3)	17.4	(0.5)	62.3	(0.6)	16.6	(0.4)
	B-S-J-G (China)	2.8	(0.2)	15.0	(0.5)	70.0	(0.6)	12.3	(0.6)	2.9	(0.2)	14.8	(0.5)	70.6	(0.6)	11.6	(0.6)
	Bulgaria	6.4	(0.4)	16.2	(0.6)	63.1	(0.8)	14.3	(0.6)	6.6	(0.4)	16.8	(0.7)	62.4	(0.9)	14.1	(0.6)
	CABA (Argentina)	6.0	(0.6)	14.3	(0.8)	58.1	(1.4)	21.6	(1.4)	6.4	(0.6)	18.4	(1.0)	53.1	(1.5)	22.1	(1.6)
	Colombia	5.8	(0.3)	19.6	(0.5)	59.7	(0.7)	14.9	(0.4)	6.3	(0.3)	21.8	(0.6)	56.0	(0.7)	15.8	(0.5)
	Costa Rica	6.3	(0.4)	15.7	(0.5)	61.0	(0.7)	17.0	(0.5)	6.7	(0.4)	16.6	(0.5)	58.2	(0.7)	18.5	(0.6)
	Croatia	4.0	(0.3)	12.6	(0.5)	68.2	(0.8)	15.2	(0.6)	4.0	(0.3)	13.3	(0.5)	66.4	(0.7)	16.3	(0.5)
	Cyprus*	6.3	(0.4)	18.2	(0.6)	58.9	(0.8)	16.6	(0.6)	6.8	(0.3)	19.3	(0.5)	54.9	(0.7)	19.1	(0.6)
	Dominican Republic	9.8	(0.7)	16.2	(0.7)	51.9	(1.1)	22.1	(0.9)	10.4	(0.7)	18.6	(0.7)	48.5	(1.0)	22.5	(0.9)
	FYROM	5.2	(0.4)	19.6	(0.6)	61.9	(0.7)	13.4	(0.6)	5.8	(0.3)	17.7	(0.6)	63.3	(0.7)	13.2	(0.5)
	Georgia	3.6	(0.3)	14.3	(0.6)	61.9	(0.8)	20.2	(0.6)	4.1	(0.3)	17.7	(0.6)	60.7	(0.9)	17.5	(0.6)
	Hong Kong (China)	3.1	(0.3)	8.6	(0.5)	69.3	(0.8)	19.0	(0.6)	3.3	(0.3)	10.4	(0.5)	68.8	(0.8)	17.4	(0.6)
	Indonesia	4.0	(0.3)	26.6	(0.6)	60.4	(0.8)	9.0	(0.4)	5.1	(0.3)	36.7	(0.8)	52.1	(0.8)	6.1	(0.4)
	Jordan	9.7	(0.4)	18.5	(0.6)	51.3	(0.8)	20.4	(0.6)	10.0	(0.5)	19.0	(0.6)	51.2	(0.9)	19.8	(0.6)
	Kosovo	7.1	(0.5)	18.6	(0.7)	54.9	(0.8)	19.4	(0.8)	6.8	(0.4)	16.4	(0.7)	55.7	(0.9)	21.1	(0.8)
	Lebanon	9.0	(0.7)	22.8	(1.0)	52.9	(1.2)	15.3	(0.8)	9.4	(0.6)	23.2	(1.1)	50.6	(1.1)	16.7	(0.9)
	Lithuania	7.0	(0.4)	15.5	(0.6)	52.2	(0.7)	25.3	(0.6)	7.6	(0.4)	15.8	(0.6)	47.9	(0.7)	28.8	(0.7)
	Macao (China)	2.3	(0.2)	11.8	(0.6)	71.7	(0.7)	14.3	(0.5)	2.4	(0.3)	12.4	(0.5)	70.7	(0.8)	14.6	(0.5)
	Malta	5.1	(0.4)	19.3	(0.7)	58.4	(0.8)	17.3	(0.7)	5.3	(0.4)	17.4	(0.7)	59.2	(0.8)	18.1	(0.7)
	Moldova	3.7	(0.3)	15.8	(0.5)	67.0	(0.7)	13.5	(0.5)	4.4	(0.3)	21.4	(0.7)	61.8	(0.8)	12.4	(0.4)
	Montenegro	6.9	(0.4)	18.4	(0.7)	61.7	(0.7)	12.9	(0.5)	7.4	(0.4)	17.3	(0.6)	60.9	(0.7)	14.5	(0.5)
	Peru	5.1	(0.3)	18.6	(0.5)	62.5	(0.6)	13.8	(0.4)	5.4	(0.3)	19.5	(0.6)	61.2	(0.7)	13.8	(0.4)
	Qatar	6.3	(0.2)	17.0	(0.3)	60.1	(0.5)	16.6	(0.4)	6.6	(0.2)	17.4	(0.4)	58.7	(0.6)	17.3	(0.4)
	Romania	7.6	(0.6)	25.7	(0.8)	56.9	(1.1)	9.8	(0.5)	9.3	(0.7)	27.9	(0.7)	53.5	(1.0)	9.4	(0.5)
	Russia	4.9	(0.4)	14.6	(0.6)	67.9	(0.8)	12.6	(0.5)	5.3	(0.4)	17.0	(0.6)	65.3	(0.7)	12.5	(0.5)
	Singapore	2.3	(0.2)	10.2	(0.4)	67.9	(0.7)	19.7	(0.6)	2.3	(0.2)	11.1	(0.4)	67.8	(0.6)	18.8	(0.5)
	Chinese Taipei	2.0	(0.2)	4.5	(0.3)	66.8	(0.7)	26.7	(0.8)	2.1	(0.2)	4.3	(0.3)	64.9	(0.7)	28.8	(0.8)
	Thailand	1.6	(0.2)	11.4	(0.5)	74.3	(0.7)	12.7	(0.5)	1.8	(0.2)	10.8	(0.4)	74.0	(0.7)	13.4	(0.6)
	Trinidad and Tobago	6.6	(0.4)	18.6	(0.7)	58.1	(0.8)	16.8	(0.7)	6.1	(0.4)	18.9	(0.6)	57.2	(0.8)	17.8	(0.6)
	Tunisia	7.8	(0.5)	22.8	(0.7)	54.7	(0.8)	14.8	(0.5)	8.2	(0.5)	22.9	(0.8)	52.1	(0.9)	16.8	(0.5)
	United Arab Emirates	5.1	(0.3)	14.5	(0.5)	59.4	(0.6)	21.0	(0.5)	4.9	(0.3)	15.4	(0.4)	57.9	(0.6)	21.8	(0.5)
	Uruguay	7.2	(0.4)	15.5	(0.5)	58.9	(0.7)	18.4	(0.6)	7.0	(0.4)	15.5	(0.5)	57.2	(0.8)	20.3	(0.7)
	Viet Nam	4.5	(0.4)	17.6	(0.7)	65.8	(0.8)	12.2	(0.6)	3.7	(0.3)	18.4	(0.7)	67.4	(0.8)	10.5	(0.5)
	Argentina**	7.9	(0.4)	17.9	(0.6)	57.2	(0.8)	16.9	(0.6)	8.9	(0.4)	22.1	(0.7)	52.0	(0.8)	17.1	(0.4)
	Kazakhstan**	4.8	(0.4)	15.6	(0.5)	61.7	(0.9)	17.9	(0.8)	5.3	(0.4)	20.9	(0.7)	58.0	(0.8)	15.8	(0.7)
	Malaysia**	1.9	(0.2)	12.8	(0.4)	68.6	(0.8)	16.7	(0.7)	2.4	(0.3)	17.5	(0.5)	66.9	(0.8)	13.2	(0.6)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.2.2 Students expecting to work in science-related occupations[1] at age 30

Results based on students' self-reports

		Percentage of students			
		Expecting to work in other occupations at age 30 or with vague career expectations or whose answer is missing or invalid (undecided. does not know...)		Expecting to work in science-related occupations at age 30	
		%	S.E.	%	S.E.
OECD	Australia	70.8	(0.6)	29.2	(0.6)
	Austria	77.7	(1.0)	22.3	(1.0)
	Belgium	75.5	(1.0)	24.5	(1.0)
	Canada	66.1	(0.6)	33.9	(0.6)
	Chile	62.1	(0.8)	37.9	(0.8)
	Czech Republic	83.1	(0.7)	16.9	(0.7)
	Denmark	85.2	(0.6)	14.8	(0.6)
	Estonia	75.3	(0.6)	24.7	(0.6)
	Finland	83.0	(0.6)	17.0	(0.6)
	France	78.8	(0.6)	21.2	(0.6)
	Germany	84.7	(0.5)	15.3	(0.5)
	Greece	74.7	(0.8)	25.3	(0.8)
	Hungary	81.7	(0.9)	18.3	(0.9)
	Iceland	76.2	(0.8)	23.8	(0.8)
	Ireland	72.7	(0.7)	27.3	(0.7)
	Israel	72.2	(0.7)	27.8	(0.7)
	Italy	77.4	(1.0)	22.6	(1.0)
	Japan	82.0	(0.7)	18.0	(0.7)
	Korea	80.7	(0.7)	19.3	(0.7)
	Latvia	78.7	(0.6)	21.3	(0.6)
	Luxembourg	78.9	(0.6)	21.1	(0.6)
	Mexico	59.3	(0.8)	40.7	(0.8)
	Netherlands	83.7	(0.6)	16.3	(0.6)
	New Zealand	75.2	(0.8)	24.8	(0.8)
	Norway	71.4	(0.8)	28.6	(0.8)
	Poland	79.0	(0.8)	21.0	(0.8)
	Portugal	72.5	(0.8)	27.5	(0.8)
	Slovak Republic	81.2	(0.8)	18.8	(0.8)
	Slovenia	69.2	(0.7)	30.8	(0.7)
	Spain	71.4	(0.7)	28.6	(0.7)
	Sweden	79.8	(0.6)	20.2	(0.6)
	Switzerland	80.5	(0.7)	19.5	(0.7)
	Turkey	70.3	(1.3)	29.7	(1.3)
	United Kingdom	70.9	(0.7)	29.1	(0.7)
	United States	62.0	(0.8)	38.0	(0.8)
	OECD average	75.5	(0.1)	24.5	(0.1)
Partners	Albania	75.2	(0.8)	24.8	(0.8)
	Algeria	74.0	(0.8)	26.0	(0.8)
	Brazil	61.2	(0.7)	38.8	(0.7)
	B-S-J-G (China)	83.2	(0.7)	16.8	(0.7)
	Bulgaria	72.5	(1.4)	27.5	(1.4)
	CABA (Argentina)	72.2	(1.5)	27.8	(1.5)
	Colombia	60.3	(0.8)	39.7	(0.8)
	Costa Rica	56.0	(0.9)	44.0	(0.9)
	Croatia	75.8	(1.1)	24.2	(1.1)
	Cyprus*	70.1	(0.7)	29.9	(0.7)
	Dominican Republic	54.3	(1.0)	45.7	(1.0)
	FYROM	75.8	(0.6)	24.2	(0.6)
	Georgia	83.0	(0.6)	17.0	(0.6)
	Hong Kong (China)	76.4	(0.7)	23.6	(0.7)
	Indonesia	84.7	(0.7)	15.3	(0.7)
	Jordan	56.3	(1.2)	43.7	(1.2)
	Kosovo	73.6	(0.7)	26.4	(0.7)
	Lebanon	60.3	(1.0)	39.7	(1.0)
	Lithuania	76.1	(0.7)	23.9	(0.7)
	Macao (China)	79.2	(0.6)	20.8	(0.6)
	Malta	74.6	(0.7)	25.4	(0.7)
	Moldova	78.0	(0.8)	22.0	(0.8)
	Montenegro	78.8	(0.5)	21.2	(0.5)
	Peru	61.3	(0.8)	38.7	(0.8)
	Qatar	62.0	(0.5)	38.0	(0.5)
	Romania	76.8	(1.0)	23.2	(1.0)
	Russia	76.5	(0.6)	23.5	(0.6)
	Singapore	72.0	(0.6)	28.0	(0.6)
	Chinese Taipei	79.1	(0.8)	20.9	(0.8)
	Thailand	80.3	(0.7)	19.7	(0.7)
	Trinidad and Tobago	72.2	(0.6)	27.8	(0.6)
	Tunisia	65.6	(0.9)	34.4	(0.9)
	United Arab Emirates	58.7	(0.5)	41.3	(0.5)
	Uruguay	71.9	(0.7)	28.1	(0.7)
	Viet Nam	80.4	(0.8)	19.6	(0.8)
	Argentina**	76.4	(0.9)	23.6	(0.9)
	Kazakhstan**	71.1	(1.0)	28.9	(1.0)
	Malaysia**	71.0	(0.9)	29.0	(0.9)

1. See Annex A1 for the list of science-related occupations.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.2.3 Requirement to attend at least one science course per week, by student and school characteristics

Results based on students' reports

		Percentage of students required to attend at least one science course per week													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	89.9	(0.4)	30.1	(0.5)	84.7	(1.5)	89.4	(1.3)	92.1	(1.2)	93.3	(0.9)	**8.6**	(1.9)
	Austria	90.9	(0.7)	28.8	(1.0)	79.2	(2.6)	85.9	(2.6)	98.2	(1.0)	98.8	(0.6)	**19.6**	(2.6)
	Belgium	86.5	(0.7)	34.2	(0.7)	76.2	(1.9)	77.0	(2.2)	92.6	(1.5)	98.3	(0.3)	**22.1**	(2.0)
	Canada	86.3	(0.5)	34.4	(0.5)	82.9	(1.2)	87.5	(1.1)	84.5	(1.2)	90.2	(1.2)	**7.3**	(1.7)
	Chile	98.9	(0.2)	10.6	(0.8)	97.7	(0.5)	98.5	(0.4)	99.2	(0.4)	99.9	(0.1)	**2.2**	(0.5)
	Czech Republic	99.6	(0.1)	6.7	(0.9)	98.8	(0.4)	99.6	(0.3)	99.8	(0.1)	99.9	(0.1)	**1.2**	(0.4)
	Denmark	99.0	(0.2)	10.1	(1.0)	99.1	(0.3)	98.9	(0.6)	98.7	(0.5)	99.2	(0.3)	0.1	(0.5)
	Estonia	99.6	(0.1)	6.6	(0.8)	99.6	(0.1)	99.2	(0.3)	99.8	(0.1)	99.6	(0.2)	-0.1	(0.3)
	Finland	96.1	(0.6)	19.3	(1.4)	94.9	(1.8)	97.1	(1.0)	96.3	(0.9)	96.2	(1.2)	1.3	(2.1)
	France	95.5	(0.5)	20.7	(1.1)	87.3	(2.2)	96.4	(0.9)	98.1	(0.8)	99.4	(0.3)	**12.0**	(2.3)
	Germany	95.2	(0.5)	21.3	(1.0)	89.2	(2.3)	92.5	(2.0)	98.4	(0.7)	99.4	(0.2)	**10.2**	(2.3)
	Greece	95.4	(0.4)	20.9	(0.9)	90.6	(1.5)	94.3	(1.0)	97.7	(0.6)	98.8	(0.4)	**8.2**	(1.6)
	Hungary	86.0	(1.4)	34.7	(1.4)	82.0	(2.7)	94.0	(1.8)	88.0	(3.2)	79.9	(4.0)	-2.1	(4.9)
	Iceland	96.9	(0.2)	17.5	(0.6)	99.2	(0.3)	98.9	(0.4)	99.1	(0.4)	90.2	(0.7)	**-9.0**	(0.8)
	Ireland	92.2	(0.9)	26.9	(1.4)	87.7	(3.1)	94.9	(0.9)	91.9	(2.0)	94.1	(1.6)	6.5	(3.4)
	Israel	92.8	(1.2)	25.9	(1.9)	96.0	(1.5)	90.1	(2.3)	88.8	(4.6)	96.2	(1.0)	0.2	(1.8)
	Italy	97.1	(0.3)	16.9	(0.7)	93.4	(0.8)	97.3	(0.4)	98.2	(0.8)	99.3	(0.7)	**5.9**	(1.2)
	Japan	97.4	(1.1)	16.0	(3.2)	94.2	(3.4)	95.8	(2.8)	99.5	(0.2)	99.8	(0.1)	5.7	(3.4)
	Korea	97.5	(0.5)	15.8	(1.5)	91.9	(2.0)	99.0	(0.3)	99.5	(0.2)	99.3	(0.2)	**7.4**	(2.0)
	Latvia	99.3	(0.2)	8.2	(1.4)	99.5	(0.3)	99.6	(0.3)	99.5	(0.2)	98.7	(0.8)	-0.8	(0.9)
	Luxembourg	93.2	(0.2)	25.1	(0.4)	89.7	(0.6)	91.7	(0.7)	92.6	(0.6)	98.7	(0.2)	**9.0**	(0.6)
	Mexico	96.2	(1.0)	19.0	(2.3)	97.9	(0.5)	96.4	(1.8)	95.4	(2.2)	95.4	(2.7)	-2.6	(2.8)
	Netherlands	84.5	(0.9)	36.2	(0.8)	85.8	(2.4)	84.5	(2.1)	83.6	(1.4)	84.1	(1.6)	-1.7	(3.1)
	New Zealand	94.2	(0.7)	23.4	(1.2)	88.8	(2.0)	96.1	(1.0)	95.7	(1.0)	96.0	(0.8)	**7.2**	(2.2)
	Norway	99.5	(0.1)	6.7	(0.7)	99.4	(0.3)	99.7	(0.2)	99.5	(0.3)	99.6	(0.2)	0.2	(0.4)
	Poland	99.6	(0.1)	6.6	(0.8)	99.5	(0.2)	99.7	(0.2)	99.6	(0.2)	99.5	(0.3)	0.0	(0.3)
	Portugal	70.0	(0.9)	45.8	(0.4)	76.9	(2.4)	72.4	(2.6)	67.7	(2.6)	63.0	(2.2)	**-13.9**	(2.9)
	Slovak Republic	88.5	(1.0)	31.9	(1.2)	86.3	(2.5)	80.2	(3.0)	90.8	(2.2)	96.4	(1.4)	**10.1**	(2.9)
	Slovenia	98.7	(0.1)	11.5	(0.6)	97.1	(0.3)	98.2	(0.4)	99.3	(0.2)	100.0	c	**2.9**	(0.3)
	Spain	83.7	(0.6)	36.9	(0.6)	84.4	(1.5)	79.8	(1.8)	85.0	(1.8)	85.5	(1.3)	1.1	(2.0)
	Sweden	99.1	(0.2)	9.6	(0.9)	99.1	(0.3)	99.4	(0.3)	99.7	(0.4)	98.2	(0.6)	-0.9	(0.7)
	Switzerland	91.5	(0.9)	27.8	(1.4)	88.2	(3.0)	91.4	(2.8)	88.8	(1.9)	97.6	(0.7)	**9.4**	(3.1)
	Turkey	92.9	(0.5)	25.7	(0.9)	91.3	(0.9)	90.1	(1.7)	93.7	(1.4)	96.4	(0.7)	**5.1**	(1.1)
	United Kingdom	98.4	(0.1)	12.5	(0.5)	97.9	(0.5)	98.0	(0.5)	98.4	(0.3)	99.3	(0.2)	**1.4**	(0.6)
	United States	93.6	(0.8)	24.6	(1.4)	92.6	(2.3)	91.2	(2.6)	93.7	(2.1)	96.7	(1.1)	4.1	(2.8)
	OECD average	93.6	(0.1)	21.4	(0.2)	91.4	(0.3)	93.0	(0.3)	94.4	(0.3)	95.3	(0.2)	**3.9**	(0.4)
Partners	**Albania**	97.9	(0.2)	14.2	(0.8)	97.6	(0.5)	97.8	(0.5)	98.1	(0.6)	98.2	(0.5)	0.6	(0.7)
	Algeria	97.6	(0.3)	15.3	(0.9)	97.5	(0.7)	98.2	(0.4)	97.7	(0.4)	96.9	(0.9)	-0.6	(1.1)
	Brazil	91.9	(0.4)	27.2	(0.7)	91.8	(0.7)	88.9	(1.1)	90.6	(0.9)	95.9	(0.6)	**4.1**	(0.9)
	B-S-J-G (China)	94.1	(0.9)	23.6	(1.7)	98.3	(0.6)	91.1	(2.9)	92.2	(2.7)	94.8	(1.7)	-3.5	(1.9)
	Bulgaria	99.5	(0.1)	7.0	(0.7)	99.4	(0.3)	99.5	(0.2)	99.4	(0.3)	99.7	(0.2)	0.2	(0.3)
	CABA (Argentina)	96.9	(0.7)	17.4	(1.8)	95.4	(1.1)	93.1	(2.0)	99.2	(1.4)	99.7	(0.5)	**4.3**	(1.2)
	Colombia	93.6	(0.4)	24.5	(0.8)	92.7	(1.3)	92.7	(0.9)	93.2	(1.0)	95.6	(0.7)	**2.8**	(1.4)
	Costa Rica	96.7	(0.3)	17.8	(0.8)	96.0	(0.7)	96.1	(0.7)	95.5	(0.7)	99.4	(0.3)	**3.4**	(0.7)
	Croatia	84.3	(1.0)	36.3	(1.0)	70.4	(3.2)	82.0	(3.1)	86.3	(2.6)	97.9	(1.0)	**27.5**	(3.4)
	Cyprus*	96.1	(0.3)	19.3	(0.6)	96.2	(0.5)	97.8	(0.4)	97.0	(0.5)	93.5	(0.6)	**-2.7**	(0.8)
	Dominican Republic	96.7	(0.4)	18.0	(1.0)	96.7	(0.9)	95.5	(0.9)	97.2	(0.7)	97.1	(0.8)	0.4	(1.2)
	FYROM	75.1	(0.6)	43.2	(0.4)	72.4	(1.3)	68.3	(1.4)	80.1	(1.2)	78.3	(1.2)	**5.9**	(1.8)
	Georgia	98.5	(0.3)	12.0	(1.2)	97.2	(0.8)	98.7	(0.6)	98.9	(0.4)	99.3	(0.3)	**2.1**	(0.9)
	Hong Kong (China)	76.2	(0.8)	42.6	(0.5)	75.8	(1.6)	74.9	(1.7)	73.9	(1.9)	80.0	(1.5)	4.2	(2.2)
	Indonesia	95.8	(0.9)	20.0	(2.0)	99.3	(0.3)	95.6	(2.5)	94.6	(2.3)	93.8	(1.5)	**-5.5**	(1.5)
	Jordan	97.8	(0.3)	14.8	(1.0)	97.3	(1.0)	97.7	(0.7)	97.8	(0.6)	98.2	(0.4)	0.8	(1.0)
	Kosovo	91.1	(0.5)	28.5	(0.7)	85.5	(1.7)	92.9	(1.5)	91.8	(0.8)	93.9	(1.3)	**8.4**	(2.0)
	Lebanon	99.2	(0.2)	9.1	(1.0)	99.6	(0.3)	99.3	(0.4)	98.3	(0.6)	99.4	(0.2)	-0.1	(0.4)
	Lithuania	100.0	c	0.0	c	100.0	c	100.0	c	100.0	c	100.0	c	0.0	c
	Macao (China)	81.4	(0.5)	38.9	(0.4)	81.0	(1.1)	85.8	(1.0)	82.9	(1.0)	76.0	(0.9)	**-5.0**	(1.3)
	Malta	94.2	(0.4)	23.4	(0.7)	87.7	(1.1)	95.1	(0.7)	96.2	(0.6)	97.5	(0.5)	**9.8**	(1.2)
	Moldova	94.3	(0.5)	23.2	(0.9)	94.3	(1.4)	94.4	(1.0)	94.5	(1.0)	93.9	(1.1)	-0.4	(1.7)
	Montenegro	94.1	(0.2)	23.5	(0.4)	90.1	(0.6)	95.0	(0.5)	93.4	(0.5)	97.7	(0.3)	**7.6**	(0.7)
	Peru	98.7	(0.2)	11.5	(0.7)	98.9	(0.3)	98.8	(0.3)	98.3	(0.4)	98.7	(0.3)	-0.2	(0.4)
	Qatar	94.6	(0.2)	22.7	(0.5)	91.9	(0.6)	95.5	(0.4)	94.4	(0.4)	96.3	(0.4)	**4.4**	(0.7)
	Romania	98.4	(0.3)	12.5	(1.0)	97.7	(0.8)	97.6	(0.7)	99.2	(0.5)	99.1	(0.4)	1.4	(0.9)
	Russia	99.5	(0.2)	6.7	(1.2)	99.8	(0.1)	99.3	(0.4)	99.6	(0.2)	99.5	(0.3)	-0.4	(0.3)
	Singapore	98.7	(0.1)	11.3	(0.5)	97.4	(0.3)	98.9	(0.3)	98.7	(0.4)	99.8	(0.1)	**2.5**	(0.4)
	Chinese Taipei	92.5	(1.0)	26.4	(1.5)	85.9	(3.1)	92.5	(3.1)	93.6	(2.6)	97.8	(2.0)	**11.9**	(4.2)
	Thailand	93.1	(0.7)	25.4	(1.3)	93.5	(2.1)	88.5	(3.0)	90.6	(2.7)	99.7	(0.2)	**6.2**	(2.1)
	Trinidad and Tobago	91.9	(0.4)	27.3	(0.6)	90.4	(1.0)	93.4	(0.9)	90.4	(0.9)	93.2	(0.7)	**2.7**	(1.2)
	Tunisia	96.6	(0.4)	18.2	(1.0)	96.3	(1.1)	96.7	(1.1)	96.8	(0.8)	96.5	(0.6)	0.2	(1.2)
	United Arab Emirates	93.0	(0.5)	25.5	(0.8)	94.2	(0.7)	91.1	(1.3)	91.1	(1.0)	95.5	(0.8)	1.4	(1.0)
	Uruguay	95.4	(0.4)	21.1	(0.8)	90.8	(1.3)	93.7	(1.2)	97.5	(0.7)	98.7	(0.3)	**7.9**	(1.4)
	Viet Nam	100.0	c	0.0	c	100.0	c	100.0	c	100.0	c	100.0	c	0.0	c
	Argentina**	94.6	(0.7)	22.6	(1.4)	92.0	(2.0)	93.1	(1.8)	95.4	(1.3)	97.5	(0.7)	**5.5**	(2.2)
	Kazakhstan**	99.7	(0.1)	5.1	(0.9)	99.6	(0.2)	99.8	(0.4)	99.7	(0.4)	99.8	(0.1)	0.2	(0.2)
	Malaysia**	97.8	(0.6)	14.7	(1.9)	98.2	(0.6)	97.5	(0.9)	98.6	(0.4)	96.9	(2.0)	-1.3	(2.1)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.3 Requirement to attend at least one science course per week, by student and school characteristics

Results based on students' reports

		Percentage of students required to attend at least one science course per week																							
		By school location								By type of school						By education level									
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2					
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.				
OECD	**Australia**	94.1	(1.8)	90.1	(1.0)	89.4	(0.5)	**-4.7**	(1.9)	87.4	(0.6)	93.3	(0.6)	**6.0**	(0.9)	95.4	(0.4)	56.9	(1.7)	**-38.5**	(1.8)				
	Austria	89.1	(3.0)	91.8	(1.1)	89.7	(1.9)	0.6	(3.7)	90.0	(0.9)	96.4	(2.2)	**6.4**	(2.5)	97.5	(2.8)	90.7	(0.7)	**-6.7**	(2.9)				
	Belgium	95.3	(2.7)	85.0	(1.0)	89.1	(1.6)	-6.2	(3.4)	w	w	w	w	w	w	94.7	(1.1)	85.9	(0.7)	**-8.9**	(1.3)				
	Canada	81.4	(3.0)	85.6	(1.0)	87.3	(0.8)	5.9	(3.0)	84.8	(0.6)	98.4	(0.8)	**13.6**	(0.9)	92.8	(0.8)	85.6	(0.6)	**-7.2**	(1.1)				
	Chile	97.5	(2.7)	98.4	(0.4)	99.1	(0.2)	1.5	(2.8)	98.3	(0.4)	99.1	(0.2)	0.8	(0.4)	98.3	(1.1)	98.9	(0.2)	0.5	(1.1)				
	Czech Republic	100.0	c	99.4	(0.2)	99.9	(0.1)	-0.1	(0.1)	99.6	(0.1)	99.7	(0.3)	0.1	(0.4)	99.9	(0.1)	99.2	(0.2)	**-0.7**	(0.3)				
	Denmark	99.6	(0.3)	98.9	(0.3)	98.4	(0.8)	-1.2	(0.9)	98.9	(0.2)	99.5	(0.1)	**0.6**	(0.3)	99.1	(0.2)	72.7	(18.4)	-26.5	(18.4)				
	Estonia	99.6	(0.3)	99.7	(0.1)	99.4	(0.2)	-0.2	(0.4)	99.6	(0.1)	99.0	(0.9)	-0.6	(1.0)	99.6	(0.1)	93.3	(3.3)	-6.3	(3.3)				
	Finland	93.8	(2.4)	96.5	(0.6)	96.5	(0.7)	2.7	(2.5)	96.1	(0.6)	97.0	(1.5)	0.9	(1.6)	96.1	(0.6)	m	m	m	m				
	France	98.7	(0.8)	94.8	(0.7)	96.6	(1.1)	-2.1	(1.4)	95.3	(0.7)	97.7	(0.7)	**2.3**	(1.0)	96.0	(0.7)	95.4	(0.6)	-0.6	(0.9)				
	Germany	97.9	(1.3)	94.3	(0.9)	95.9	(0.9)	-2.0	(1.9)	95.0	(0.7)	94.3	(1.2)	-0.7	(1.5)	95.5	(0.5)	86.2	(5.3)	-9.3	(5.3)				
	Greece	94.9	(1.8)	94.5	(0.7)	97.3	(0.5)	2.4	(1.8)	95.2	(0.4)	100.0	c	**4.8**	(0.4)	91.7	(2.9)	95.6	(0.4)	3.9	(2.9)				
	Hungary	92.4	(6.1)	86.6	(2.1)	83.7	(2.3)	-8.7	(6.3)	85.7	(1.6)	83.8	(4.0)	-1.9	(4.2)	99.6	(0.4)	84.5	(1.6)	**-15.1**	(1.6)				
	Iceland	98.7	(0.4)	94.7	(0.4)	99.4	(0.3)	0.6	(0.5)	96.7	(0.2)	m	m	m	m	96.9	(0.2)	m	m	m	m				
	Ireland	96.2	(0.7)	93.2	(0.9)	87.1	(2.8)	**-9.1**	(2.9)	92.7	(1.2)	91.7	(1.3)	-1.0	(1.8)	95.3	(0.9)	86.9	(1.5)	**-8.4**	(1.5)				
	Israel	86.6	(6.1)	95.0	(0.7)	92.3	(2.2)	5.8	(6.8)	m	m	m	m	m	m	97.4	(0.7)	92.2	(1.3)	**-5.2**	(1.5)				
	Italy	98.1	(0.9)	96.8	(0.5)	97.8	(0.4)	-0.3	(1.0)	97.0	(0.3)	97.0	(1.7)	0.0	(1.8)	99.3	(0.7)	97.1	(0.3)	**-2.3**	(0.8)				
	Japan	m	m	97.1	(2.6)	97.5	(1.1)	m	m	97.4	(1.4)	97.4	(1.4)	0.1	(2.0)	m	m	97.4	(1.1)	m	m				
	Korea	m	m	99.0	(0.6)	97.2	(0.6)	m	m	96.5	(0.7)	99.3	(0.3)	**2.9**	(0.8)	99.4	(0.3)	97.3	(0.6)	**-2.1**	(0.7)				
	Latvia	99.7	(0.2)	99.0	(0.5)	99.5	(0.2)	-0.2	(0.3)	99.3	(0.2)	100.0	c	**0.7**	(0.2)	99.6	(0.1)	91.1	(5.1)	-8.6	(5.1)				
	Luxembourg	m	m	92.3	(0.3)	94.6	(0.3)	m	m	93.2	(0.3)	93.6	(0.7)	0.4	(0.8)	98.0	(0.2)	87.3	(0.4)	**-10.7**	(0.5)				
	Mexico	97.6	(0.6)	94.6	(2.3)	96.9	(1.2)	-0.7	(1.3)	95.8	(1.1)	98.9	(0.5)	**3.1**	(1.2)	98.1	(0.4)	95.1	(1.5)	**-3.0**	(1.5)				
	Netherlands	m	m	85.6	(1.0)	87.0	(2.1)	m	m	87.8	(1.7)	84.6	(1.2)	-3.2	(1.9)	89.3	(0.8)	73.6	(1.7)	**-15.8**	(1.8)				
	New Zealand	81.0	(6.5)	94.4	(0.9)	94.7	(1.0)	**13.6**	(6.6)	94.3	(0.8)	92.7	(3.7)	-1.6	(3.8)	99.6	(0.4)	93.9	(0.7)	**-5.7**	(0.8)				
	Norway	99.0	(0.4)	99.7	(0.1)	99.6	(0.2)	0.6	(0.5)	99.6	(0.1)	97.2	(3.5)	-2.4	(3.5)	99.5	(0.1)	m	m	m	m				
	Poland	99.6	(0.2)	99.7	(0.2)	99.3	(0.3)	-0.4	(0.3)	99.6	(0.1)	98.9	(1.0)	-0.7	(1.1)	99.6	(0.1)	m	m	m	m				
	Portugal	89.7	(2.5)	71.3	(1.1)	63.1	(2.1)	**-26.6**	(3.2)	70.8	(0.9)	59.3	(5.6)	**-11.5**	(5.7)	98.4	(0.4)	55.2	(1.2)	**-43.2**	(1.2)				
	Slovak Republic	98.1	(0.6)	85.8	(1.4)	91.5	(3.3)	**-6.6**	(3.2)	89.5	(1.1)	81.5	(4.5)	-8.0	(4.9)	98.6	(0.3)	79.9	(1.8)	**-18.7**	(1.9)				
	Slovenia	98.6	(0.5)	98.7	(0.1)	98.3	(0.3)	-0.3	(0.6)	98.6	(0.1)	100.0	c	**1.4**	(0.1)	99.5	(0.8)	98.6	(0.1)	-0.8	(0.8)				
	Spain	86.6	(4.6)	82.5	(0.8)	85.5	(1.0)	-1.1	(4.6)	82.7	(0.7)	85.9	(1.1)	**3.2**	(1.3)	83.7	(0.6)	m	m	m	m				
	Sweden	98.9	(0.5)	99.4	(0.2)	98.6	(0.4)	-0.4	(0.7)	99.2	(0.2)	98.6	(0.5)	-0.6	(0.5)	99.3	(0.1)	88.1	(8.8)	-11.2	(8.8)				
	Switzerland	95.5	(1.8)	92.1	(1.4)	87.6	(1.8)	**-7.9**	(2.5)	92.5	(1.0)	74.6	(3.7)	**-18.0**	(3.8)	96.0	(0.7)	77.1	(3.1)	**-18.9**	(3.1)				
	Turkey	91.6	(5.1)	93.1	(0.9)	93.0	(0.7)	1.4	(5.1)	92.9	(0.6)	94.2	(2.6)	1.3	(2.7)	98.6	(1.9)	92.7	(0.5)	**-5.9**	(1.9)				
	United Kingdom	97.7	(0.8)	98.7	(0.2)	98.3	(0.4)	0.6	(0.9)	98.5	(0.2)	98.8	(0.5)	0.3	(0.6)	96.6	(1.5)	98.4	(0.1)	1.8	(1.4)				
	United States	92.2	(2.7)	92.7	(1.1)	95.0	(1.2)	2.8	(2.9)	93.2	(0.9)	97.4	(1.7)	**4.2**	(1.8)	91.5	(1.4)	93.8	(0.8)	2.2	(1.3)				
	OECD average	94.8	(0.5)	93.5	(0.2)	93.6	(0.2)	**-1.3**	(0.5)	93.7	(0.1)	93.8	(0.4)	0.2	(0.4)	96.8	(0.2)	88.0	(0.8)	**-9.4**	(0.8)				
Partners	**Albania**	98.0	(0.5)	98.0	(0.3)	97.8	(0.5)	-0.1	(0.6)	98.0	(0.2)	97.8	(0.8)	-0.2	(0.9)	97.8	(0.4)	98.0	(0.3)	0.2	(0.5)				
	Algeria	98.2	(0.5)	97.6	(0.4)	97.0	(0.4)	-1.1	(0.7)	97.6	(0.3)	m	m	m	m	98.0	(0.2)	96.2	(1.1)	-1.8	(1.2)				
	Brazil	94.4	(2.3)	90.7	(0.7)	93.2	(0.6)	-1.2	(2.4)	90.8	(0.5)	98.1	(0.4)	**7.3**	(0.6)	97.9	(0.4)	90.5	(0.5)	**-7.4**	(0.6)				
	B-S-J-G (China)	98.8	(0.6)	96.2	(1.0)	89.8	(2.4)	**-9.0**	(2.5)	93.6	(1.0)	97.8	(1.1)	**4.2**	(1.7)	98.6	(0.3)	86.4	(2.3)	**-12.2**	(2.3)				
	Bulgaria	100.0	c	99.4	(0.2)	99.6	(0.1)	**-0.4**	(0.1)	99.5	(0.1)	m	m	m	m	98.8	(1.0)	99.5	(0.1)	0.8	(1.0)				
	CABA (Argentina)	m	m	m	m	97.1	(0.7)	m	m	94.9	(1.3)	98.9	(0.5)	**4.0**	(1.4)	96.9	(0.7)	96.5	(2.5)	-0.4	(2.6)				
	Colombia	95.8	(1.2)	93.7	(0.8)	93.6	(0.7)	-2.2	(1.3)	93.6	(0.6)	95.5	(0.7)	**1.9**	(0.9)	94.0	(0.7)	93.3	(0.6)	-0.6	(0.9)				
	Costa Rica	95.9	(0.9)	97.0	(0.3)	96.8	(0.7)	0.9	(1.2)	96.9	(0.3)	96.0	(0.8)	-0.9	(0.9)	93.9	(0.5)	99.7	(0.1)	**5.8**	(0.5)				
	Croatia	m	m	81.0	(1.5)	89.5	(1.9)	m	m	84.0	(1.0)	100.0	c	**16.0**	(1.0)	m	m	84.3	(1.0)	m	m				
	Cyprus*	98.3	(0.8)	96.4	(0.3)	95.3	(0.5)	**-2.9**	(0.9)	97.4	(0.2)	89.5	(0.9)	**-7.9**	(0.9)	94.9	(1.1)	96.2	(0.3)	1.3	(1.1)				
	Dominican Republic	96.7	(1.2)	96.4	(0.5)	97.1	(0.8)	0.4	(1.4)	96.8	(0.4)	96.4	(1.0)	-0.4	(1.1)	94.2	(1.0)	97.2	(0.4)	**2.9**	(1.0)				
	FYROM	78.2	(3.2)	75.7	(0.8)	71.1	(1.1)	**-7.1**	(3.5)	73.9	(0.6)	96.6	(1.1)	**22.7**	(1.2)	m	m	75.1	(0.6)	m	m				
	Georgia	98.4	(0.5)	98.3	(0.7)	98.8	(0.3)	0.5	(0.6)	98.4	(0.3)	99.2	(0.5)	0.8	(0.6)	98.4	(0.5)	98.6	(0.3)	0.1	(0.5)				
	Hong Kong (China)	m	m	m	m	76.2	(0.8)	m	m	79.3	(2.3)	76.1	(0.8)	-3.2	(2.5)	97.7	(0.4)	65.8	(1.1)	**-32.0**	(1.3)				
	Indonesia	98.1	(1.0)	94.8	(1.4)	95.1	(1.9)	-3.0	(2.2)	95.7	(1.0)	96.1	(1.6)	0.5	(1.9)	99.1	(0.3)	92.2	(1.8)	**-6.9**	(1.8)				
	Jordan	96.3	(1.7)	97.8	(0.3)	98.2	(0.4)	1.8	(1.8)	97.5	(0.4)	98.7	(0.3)	**1.3**	(0.5)	97.8	(0.3)	m	m	m	m				
	Kosovo	91.1	(1.7)	91.6	(0.5)	89.7	(1.1)	-1.4	(2.2)	91.1	(0.5)	91.9	(3.4)	0.9	(3.4)	93.3	(1.0)	90.3	(0.6)	**-3.0**	(1.1)				
	Lebanon	99.3	(0.5)	99.2	(0.2)	99.0	(0.5)	-0.3	(0.3)	99.0	(0.3)	99.3	(0.2)	0.3	(0.4)	98.8	(0.4)	99.3	(0.2)	0.5	(0.4)				
	Lithuania	100.0	c	100.0	c	100.0	c	0.0	c	100.0	c	100.0	c	0.0	c	100.0	c	m	m	m	m				
	Macao (China)	m	m	m	m	81.4	(0.5)	m	m	m	m	81.4	(0.5)	m	m	86.5	(0.8)	77.3	(0.7)	**-9.3**	(1.0)				
	Malta	93.0	(1.2)	94.5	(0.4)	m	m	m	m	92.0	(0.7)	97.7	(0.4)	**5.7**	(0.8)	m	m	94.2	(0.4)	m	m				
	Moldova	94.9	(0.5)	94.3	(1.0)	92.6	(1.4)	-2.3	(1.5)	94.5	(0.5)	m	m	m	m	94.7	(0.5)	88.7	(3.2)	-6.0	(3.1)				
	Montenegro	m	m	93.9	(0.3)	94.5	(0.4)	m	m	94.1	(0.2)	m	m	m	m	100.0	c	94.0	(0.2)	**-6.0**	(0.2)				
	Peru	98.7	(0.3)	98.5	(0.2)	99.1	(0.3)	0.4	(0.5)	98.8	(0.2)	98.4	(0.4)	-0.4	(0.4)	97.8	(0.4)	98.9	(0.2)	**1.1**	(0.4)				
	Qatar	91.5	(1.2)	94.6	(0.4)	94.8	(0.3)	**3.3**	(1.2)	94.0	(0.3)	95.5	(0.3)	**1.5**	(0.4)	98.4	(0.3)	93.6	(0.3)	**-4.8**	(0.4)				
	Romania	97.8	(1.1)	98.4	(0.3)	98.6	(0.5)	0.7	(1.2)	98.5	(0.3)	m	m	m	m	98.4	(0.3)	m	m	m	m				
	Russia	99.9	(0.1)	99.5	(0.3)	99.5	(0.2)	-0.4	(0.2)	99.6	(0.2)	m	m	m	m	99.6	(0.2)	99.3	(0.3)	-0.3	(0.3)				
	Singapore	m	m	m	m	98.6	(0.1)	m	m	98.7	(0.1)	98.7	(0.4)	0.0	(0.5)	99.3	(0.7)	98.7	(0.1)	-0.6	(0.7)				
	Chinese Taipei	m	m	92.8	(1.4)	92.1	(1.4)	m	m	96.5	(0.9)	84.6	(2.3)	**-11.9**	(2.5)	99.5	(0.1)	88.6	(1.5)	**-11.0**	(1.5)				
	Thailand	90.7	(3.8)	93.8	(0.9)	95.2	(2.3)	4.5	(5.1)	93.5	(0.7)	90.4	(3.4)	-3.1	(3.5)	99.3	(0.3)	91.0	(1.0)	**-8.3**	(1.0)				
	Trinidad and Tobago	94.9	(0.9)	92.0	(0.5)	m	m	m	m	92.7	(0.4)	88.7	(2.5)	-4.0	(2.5)	98.0	(0.3)	87.8	(0.7)	**-10.1**	(0.8)				
	Tunisia	96.4	(1.6)	96.4	(0.5)	96.7	(0.6)	0.2	(1.7)	96.7	(0.4)	96.5	(3.4)	-0.2	(3.4)	95.9	(0.9)	96.9	(0.4)	1.0	(0.9)				
	United Arab Emirates	94.7	(1.3)	95.0	(0.6)	91.7	(0.7)	**-3.1**	(1.3)	93.7	(0.5)	92.1	(0.8)	-1.6	(1.0)	98.5	(0.5)	92.2	(0.5)	**-6.4**	(0.7)				
	Uruguay	95.0	(2.0)	94.5	(0.5)	96.5	(0.7)	1.5	(2.1)	94.6	(0.4)	99.2	(0.3)	**4.6**	(0.5)	90.7	(0.9)	97.8	(0.3)	**7.1**	(0.9)				
	Viet Nam	100.0	c	100.0	c	100.0	c	0.0	c	100.0	c	100.0	c	0.0	c	100.0	c	100.0	c	0.0	c				
	Argentina**	95.8	(2.1)	93.6	(1.0)	95.9	(0.9)	0.1	(2.3)	93.5	(0.9)	98.1	(0.5)	**4.6**	(1.0)	92.8	(1.0)	95.6	(0.6)	**2.8**	(0.9)				
	Kazakhstan**	99.8	(0.1)	99.7	(0.1)	99.7	(0.2)	0.0	(0.2)	99.7	(0.1)	100.0	c	**0.3**	(0.1)	99.7	(0.1)	100.0	(0.0)	**0.3**	(0.1)				
	Malaysia**	98.2	(0.6)	98.6	(0.3)	96.7	(1.4)	-1.5	(1.5)	98.3	(0.3)	89.3	(9.2)	-9.0	(9.2)	96.4	(1.8)	97.8	(0.6)	1.4	(1.9)				

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436477

[Part 3/3]

Table II.2.3 Requirement to attend at least one science course per week, by student and school characteristics

Results based on students' reports

		Percentage of students required to attend at least one science course per week											
		Change in science score when students are required to attend at least one science course per week				Change in the index of epistemic beliefs when students are required to attend at least one science course per week				Increased likelihood of expecting to work in science-related occupations when students are required to attend at least one science course per week			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	**Australia**	**42**	(4.0)	**25**	(3.6)	**0.27**	(0.04)	**0.20**	(0.04)	**2.86**	(0.34)	**2.60**	(0.31)
	Austria	**75**	(5.1)	**30**	(5.7)	**0.51**	(0.06)	**0.23**	(0.06)	**2.24**	(0.36)	**1.86**	(0.32)
	Belgium	**95**	(3.7)	**53**	(3.5)	**0.42**	(0.04)	**0.28**	(0.04)	**4.33**	(1.21)	**3.39**	(1.00)
	Canada	**29**	(3.3)	**21**	(2.8)	**0.16**	(0.03)	**0.12**	(0.03)	**1.60**	(0.10)	**1.50**	(0.10)
	Chile	**39**	(11.0)	6	(10.8)	**0.42**	(0.19)	0.30	(0.19)	1.12	(0.35)	0.95	(0.31)
	Czech Republic	**104**	(17.1)	**64**	(16.9)	c	c	c	c	m	m	m	m
	Denmark	0	(18.1)	0	(17.4)	-0.20	(0.25)	-0.20	(0.24)	2.12	(1.28)	2.11	(1.27)
	Estonia	c	c	c	c	c	c	c	c	c	c	c	c
	Finland	**43**	(7.9)	**33**	(7.9)	**0.25**	(0.08)	**0.18**	(0.08)	**1.49**	(0.27)	1.30	(0.23)
	France	**86**	(6.1)	**28**	(7.7)	**0.18**	(0.07)	-0.03	(0.07)	**4.57**	(1.49)	**2.97**	(0.95)
	Germany	**78**	(6.5)	**28**	(7.0)	**0.40**	(0.09)	0.15	(0.10)	**1.58**	(0.33)	0.99	(0.22)
	Greece	**63**	(6.4)	**33**	(5.7)	**0.27**	(0.08)	0.15	(0.08)	**2.18**	(0.69)	1.77	(0.56)
	Hungary	-6	(9.1)	3	(4.3)	-0.06	(0.04)	-0.03	(0.03)	1.33	(0.21)	**1.53**	(0.23)
	Iceland	**27**	(9.0)	**36**	(8.8)	0.09	(0.13)	0.18	(0.13)	1.24	(0.34)	1.33	(0.35)
	Ireland	**52**	(7.3)	**39**	(5.9)	**0.33**	(0.06)	**0.29**	(0.06)	**2.57**	(0.38)	**2.41**	(0.37)
	Israel	**41**	(12.9)	**36**	(10.4)	**0.30**	(0.09)	**0.28**	(0.08)	**2.64**	(0.38)	**2.58**	(0.37)
	Italy	**49**	(8.8)	**17**	(6.6)	**0.19**	(0.08)	0.06	(0.07)	**1.71**	(0.39)	1.18	(0.28)
	Japan	**58**	(17.9)	18	(12.7)	**0.37**	(0.12)	0.15	(0.10)	**2.24**	(0.69)	1.64	(0.57)
	Korea	**82**	(7.6)	**39**	(8.8)	**0.47**	(0.07)	**0.23**	(0.10)	0.83	(0.20)	0.65	(0.17)
	Latvia	c	c	c	c	c	c	c	c	m	m	m	m
	Luxembourg	**43**	(4.3)	9	(4.4)	**0.26**	(0.07)	0.09	(0.07)	**2.09**	(0.30)	**1.60**	(0.23)
	Mexico	-20	(12.4)	-16	(9.5)	**-0.16**	(0.07)	**-0.14**	(0.07)	1.08	(0.20)	1.09	(0.20)
	Netherlands	10	(5.5)	**10**	(4.3)	**0.09**	(0.04)	**0.09**	(0.04)	**4.63**	(1.03)	**4.77**	(1.07)
	New Zealand	**77**	(8.7)	**55**	(8.0)	**0.41**	(0.07)	**0.32**	(0.07)	**5.78**	(1.52)	**5.17**	(1.35)
	Norway	c	c	c	c	c	c	c	c	c	c	c	c
	Poland	c	c	c	c	c	c	c	c	c	c	c	c
	Portugal	-3	(3.2)	4	(2.9)	**0.20**	(0.03)	**0.24**	(0.03)	**5.43**	(0.52)	**6.15**	(0.61)
	Slovak Republic	**31**	(6.2)	**17**	(5.2)	**0.22**	(0.06)	**0.16**	(0.06)	**1.82**	(0.25)	**1.48**	(0.22)
	Slovenia	**76**	(8.8)	**25**	(8.5)	**0.40**	(0.12)	0.22	(0.12)	1.60	(0.48)	1.42	(0.44)
	Spain	**17**	(2.9)	**15**	(2.8)	**0.25**	(0.03)	**0.23**	(0.03)	**5.71**	(0.61)	**5.68**	(0.63)
	Sweden	43	(24.6)	**44**	(18.5)	0.21	(0.23)	0.24	(0.21)	1.25	(0.81)	1.20	(0.76)
	Switzerland	9	(6.6)	-10	(7.1)	0.10	(0.05)	-0.01	(0.05)	**2.45**	(0.57)	**2.17**	(0.52)
	Turkey	**34**	(4.8)	**23**	(4.4)	**0.21**	(0.06)	**0.17**	(0.06)	**1.86**	(0.29)	**1.69**	(0.26)
	United Kingdom	**79**	(5.4)	**66**	(6.1)	**0.47**	(0.07)	**0.42**	(0.07)	**5.19**	(1.03)	**4.99**	(1.01)
	United States	**25**	(7.8)	12	(6.9)	**0.15**	(0.07)	0.08	(0.07)	**1.37**	(0.16)	**1.30**	(0.15
	OECD average	**44**	(1.8)	**25**	(1.5)	**0.24**	(0.02)	**0.16**	(0.02)	**2.56**	(0.13)	**2.32**	(0.11)
Partners	**Albania**	m	m	m	m	**0.56**	(0.09)	**0.53**	(0.09)	1.75	(0.60)	1.58	(0.54)
	Algeria	11	(11.4)	13	(10.3)	0.07	(0.14)	0.08	(0.13)	**1.93**	(0.54)	**2.05**	(0.61)
	Brazil	**23**	(3.5)	**11**	(3.0)	**0.13**	(0.05)	0.08	(0.05)	**1.25**	(0.10)	1.17	(0.10)
	B-S-J-G (China)	**30**	(7.4)	**37**	(6.8)	0.05	(0.04)	0.07	(0.05)	**1.98**	(0.32)	**2.03**	(0.35)
	Bulgaria	c	c	c	c	c	c	c	c	c	c	c	c
	CABA (Argentina)	**59**	(14.2)	**27**	(10.6)	0.42	(0.22)	0.28	(0.21)	1.23	(0.53)	1.13	(0.47)
	Colombia	**26**	(4.6)	**18**	(3.9)	0.08	(0.05)	0.05	(0.04)	**1.34**	(0.16)	**1.33**	(0.16)
	Costa Rica	**38**	(6.1)	**25**	(5.9)	0.13	(0.07)	0.07	(0.07)	1.19	(0.19)	1.09	(0.18)
	Croatia	**76**	(4.1)	**45**	(4.4)	**0.30**	(0.05)	**0.16**	(0.05)	**5.01**	(1.00)	**3.73**	(0.80)
	Cyprus*	**44**	(6.9)	**54**	(6.9)	**0.29**	(0.08)	**0.33**	(0.08)	**4.41**	(1.34)	**4.60**	(1.41)
	Dominican Republic	**34**	(6.8)	**30**	(5.6)	0.20	(0.13)	0.18	(0.13)	0.89	(0.16)	0.89	(0.16)
	FYROM	**21**	(3.3)	**13**	(3.1)	**0.11**	(0.03)	**0.08**	(0.03)	**2.54**	(0.27)	**2.42**	(0.25)
	Georgia	**76**	(11.2)	**62**	(10.9)	**0.60**	(0.13)	**0.53**	(0.13)	0.73	(0.20)	0.69	(0.19)
	Hong Kong (China)	**14**	(2.9)	**11**	(2.8)	**0.26**	(0.04)	**0.25**	(0.04)	**4.63**	(0.54)	**4.54**	(0.53)
	Indonesia	-6	(6.6)	7	(8.1)	0.02	(0.05)	0.06	(0.06)	**2.50**	(0.83)	**2.82**	(0.87)
	Jordan	**41**	(6.7)	**38**	(6.6)	**0.41**	(0.09)	**0.40**	(0.08)	1.41	(0.31)	1.35	(0.28)
	Kosovo	**47**	(3.6)	**39**	(3.7)	**0.39**	(0.06)	**0.35**	(0.06)	**2.08**	(0.30)	**1.90**	(0.28)
	Lebanon	**56**	(14.5)	**56**	(14.6)	**0.67**	(0.13)	**0.66**	(0.14)	1.16	(0.53)	1.16	(0.55)
	Lithuania	m	m	m	m	m	m	m	m	m	m	m	m
	Macao (China)	**23**	(3.0)	**24**	(2.9)	**0.13**	(0.03)	**0.13**	(0.03)	**2.58**	(0.28)	**2.64**	(0.29)
	Malta	**142**	(7.5)	**105**	(7.6)	**0.62**	(0.09)	**0.51**	(0.09)	**3.50**	(0.85)	**2.62**	(0.67)
	Moldova	**40**	(6.8)	**38**	(5.7)	**0.14**	(0.06)	**0.12**	(0.05)	1.43	(0.27)	1.37	(0.24)
	Montenegro	**19**	(4.1)	6	(4.0)	0.00	(0.07)	-0.02	(0.07)	**2.76**	(0.54)	**2.62**	(0.52)
	Peru	**33**	(7.2)	**34**	(6.0)	0.02	(0.14)	0.02	(0.14)	1.14	(0.34)	1.13	(0.34)
	Qatar	**37**	(4.0)	**30**	(4.0)	**0.23**	(0.04)	**0.19**	(0.04)	**2.15**	(0.20)	**2.09**	(0.20)
	Romania	**61**	(10.4)	**50**	(9.0)	**0.26**	(0.08)	**0.23**	(0.08)	1.92	(0.77)	1.59	(0.65)
	Russia	c	c	c	c	c	c	c	c	c	c	c	c
	Singapore	**185**	(7.0)	**139**	(7.3)	**0.72**	(0.16)	**0.57**	(0.16)	**2.69**	(0.93)	**2.29**	(0.82)
	Chinese Taipei	**73**	(8.2)	**44**	(6.0)	**0.23**	(0.05)	**0.09**	(0.05)	**5.64**	(1.29)	**4.68**	(1.16)
	Thailand	**43**	(6.2)	**29**	(6.1)	**0.18**	(0.04)	**0.12**	(0.04)	**2.26**	(0.59)	**1.91**	(0.49)
	Trinidad and Tobago	**15**	(6.3)	**15**	(5.1)	**0.26**	(0.06)	**0.26**	(0.06)	**4.56**	(0.99)	**4.65**	(1.02)
	Tunisia	**18**	(7.7)	**16**	(7.4)	**0.16**	(0.07)	**0.14**	(0.07)	**1.64**	(0.29)	**1.63**	(0.30)
	United Arab Emirates	**15**	(4.6)	**12**	(4.7)	**0.18**	(0.04)	**0.16**	(0.04)	**3.55**	(0.43)	**3.53**	(0.43)
	Uruguay	**58**	(5.8)	**29**	(5.6)	**0.29**	(0.09)	0.16	(0.09)	**2.62**	(0.61)	**2.11**	(0.49)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	**39**	(7.0)	**23**	(6.0)	**0.21**	(0.08)	0.12	(0.08)	**1.65**	(0.30)	1.40	(0.25)
	Kazakhstan**	**42**	(20.8)	36	(18.5)	**0.59**	(0.21)	**0.55**	(0.20)	4.06	(4.74)	3.93	(4.72)
	Malaysia**	25	(16.4)	28	(20.3)	**0.17**	(0.08)	**0.18**	(0.08)	1.56	(0.59)	1.62	(0.69)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.2.5 Science-specific resources at school

Results based on school principals' reports

		Percentage of students in schools where the principal reported that the following statements are true for the school's science department															
		Compared to other departments, our school's <school science department> is well-equipped		If we ever have some extra funding, a big share goes into improvement of our <school science> teaching		<School science> teachers are among our best-educated staff members		Compared to similar schools, we have a well-equipped laboratory		The material for hands-on activities in <school science> is in good shape		We have enough laboratory material that all courses can regularly use it		We have extra laboratory staff that helps support <school science> teaching		Our school spends extra money on up-to-date <school science> equipment	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	94.0	(0.8)	28.4	(1.9)	69.3	(1.9)	87.7	(1.4)	94.7	(0.9)	91.7	(1.4)	94.8	(1.0)	69.1	(1.8)
	Austria	68.3	(3.2)	31.8	(3.1)	65.2	(3.4)	50.9	(3.3)	73.2	(2.7)	51.0	(3.4)	6.8	(1.5)	38.8	(3.8)
	Belgium	83.0	(2.3)	32.5	(3.0)	63.9	(3.4)	75.7	(2.9)	91.4	(1.7)	76.1	(2.7)	11.8	(2.3)	73.1	(2.7)
	Canada	93.0	(1.4)	34.0	(2.6)	73.3	(2.6)	87.8	(2.0)	93.6	(1.3)	89.8	(1.5)	38.6	(1.9)	51.7	(2.6)
	Chile	61.8	(3.1)	35.7	(4.4)	70.3	(3.7)	62.4	(3.4)	68.7	(3.1)	48.2	(3.6)	17.9	(2.8)	35.4	(4.1)
	Czech Republic	77.5	(2.8)	53.5	(3.0)	75.4	(2.9)	47.0	(3.1)	73.6	(3.2)	48.3	(3.1)	0.0	c	40.0	(3.0)
	Denmark	74.2	(3.0)	19.1	(3.0)	66.0	(3.4)	66.4	(3.6)	85.0	(2.4)	87.5	(2.5)	8.4	(2.0)	28.8	(3.3)
	Estonia	69.3	(2.4)	32.2	(2.6)	82.2	(2.1)	34.7	(2.5)	65.5	(2.7)	42.5	(2.6)	17.2	(2.1)	46.2	(2.8)
	Finland	68.8	(3.9)	20.8	(3.5)	56.7	(3.6)	39.8	(4.0)	75.3	(3.3)	77.5	(3.6)	3.0	(1.5)	24.2	(3.4)
	France	82.3	(2.6)	38.7	(3.6)	m	m	73.9	(3.1)	89.7	(2.3)	81.2	(2.8)	68.1	(2.3)	69.5	(2.8)
	Germany	76.2	(3.2)	53.6	(3.4)	48.1	(4.2)	48.2	(3.6)	84.5	(3.1)	76.5	(3.4)	4.1	(1.3)	52.8	(3.8)
	Greece	80.0	(3.1)	31.5	(3.5)	92.1	(2.2)	75.7	(3.5)	79.9	(3.2)	50.1	(3.8)	2.4	(1.2)	33.8	(3.6)
	Hungary	45.7	(3.6)	18.6	(2.6)	84.1	(2.5)	29.3	(2.9)	44.2	(3.5)	24.0	(2.7)	26.7	(2.9)	10.8	(1.7)
	Iceland	59.7	(0.3)	28.3	(0.2)	52.7	(0.3)	41.7	(0.2)	57.9	(0.3)	60.1	(0.3)	6.6	(0.2)	30.0	(0.2)
	Ireland	94.4	(1.8)	49.8	(3.7)	84.9	(3.0)	83.9	(2.9)	89.2	(2.7)	81.6	(3.3)	21.4	(3.6)	67.0	(3.9)
	Israel	75.0	(2.9)	55.7	(3.8)	60.8	(3.7)	58.3	(4.4)	81.0	(3.2)	60.5	(4.0)	72.7	(3.2)	60.9	(3.9)
	Italy	m	m	75.5	(2.5)	53.2	(3.9)	75.1	(3.2)	81.0	(3.3)	62.9	(3.9)	73.2	(3.2)	59.3	(3.9)
	Japan	47.4	(3.5)	14.1	(2.7)	21.7	(2.9)	31.8	(3.2)	31.4	(3.1)	29.7	(3.4)	63.0	(3.2)	8.5	(2.3)
	Korea	79.5	(3.0)	72.4	(3.8)	76.5	(3.5)	78.5	(3.3)	81.2	(3.0)	64.2	(3.8)	25.8	(3.0)	57.2	(3.8)
	Latvia	90.5	(1.3)	66.2	(2.7)	73.3	(2.7)	60.7	(2.5)	83.8	(1.8)	68.5	(2.3)	62.1	(2.4)	58.6	(2.9)
	Luxembourg	95.7	(0.0)	38.8	(0.1)	66.2	(0.1)	73.3	(0.1)	97.2	(0.0)	94.9	(0.0)	77.6	(0.1)	82.7	(0.1)
	Mexico	38.7	(2.9)	39.3	(3.4)	61.9	(3.3)	40.9	(2.8)	49.8	(2.9)	35.8	(2.7)	34.3	(2.8)	25.6	(3.0)
	Netherlands	77.6	(4.0)	29.8	(4.5)	44.5	(4.7)	70.2	(4.4)	80.0	(3.7)	78.8	(3.6)	60.7	(4.2)	39.1	(4.7)
	New Zealand	92.8	(2.2)	26.4	(3.4)	73.1	(3.2)	81.8	(3.1)	91.4	(2.0)	88.8	(2.7)	93.1	(2.3)	63.6	(3.9)
	Norway	62.0	(3.9)	20.5	(2.9)	61.2	(3.7)	56.2	(3.7)	78.9	(3.0)	74.6	(3.3)	8.7	(2.2)	31.4	(3.8)
	Poland	68.7	(4.1)	51.5	(4.0)	58.7	(4.0)	69.0	(3.9)	89.7	(2.5)	53.3	(4.0)	7.9	(2.3)	69.8	(3.5)
	Portugal	89.6	(2.2)	76.8	(3.5)	60.6	(3.6)	77.9	(2.6)	90.8	(2.1)	76.5	(3.0)	28.3	(2.9)	76.2	(3.3)
	Slovak Republic	64.3	(2.8)	49.4	(2.9)	71.4	(2.9)	36.0	(2.8)	65.0	(2.6)	33.9	(3.1)	3.1	(0.8)	64.0	(2.8)
	Slovenia	76.4	(0.3)	24.0	(0.6)	49.2	(0.6)	80.5	(0.4)	88.4	(0.1)	85.2	(0.3)	77.7	(0.6)	64.6	(0.7)
	Spain	75.5	(3.0)	38.5	(3.6)	73.1	(3.4)	68.7	(3.8)	82.1	(3.0)	50.1	(3.7)	7.0	(1.6)	43.5	(3.4)
	Sweden	68.6	(3.4)	22.8	(2.8)	58.5	(4.0)	60.1	(3.2)	85.6	(2.6)	83.3	(2.7)	10.9	(2.0)	32.6	(3.4)
	Switzerland	83.0	(2.8)	28.7	(2.9)	56.0	(3.8)	64.4	(3.6)	89.9	(2.2)	77.7	(3.1)	22.1	(2.6)	40.5	(2.9)
	Turkey	28.3	(3.1)	33.5	(4.3)	58.3	(3.9)	32.9	(3.5)	37.4	(3.9)	29.6	(3.7)	22.3	(3.5)	24.2	(3.9)
	United Kingdom	85.9	(2.7)	35.3	(3.7)	68.5	(3.3)	78.3	(3.0)	84.9	(2.8)	91.3	(1.8)	90.6	(2.2)	56.7	(3.5)
	United States	88.8	(2.5)	42.3	(4.1)	85.9	(2.5)	81.5	(2.7)	88.5	(2.1)	80.5	(3.0)	23.3	(3.4)	55.7	(4.3)
	OECD average	74.0	(0.5)	38.6	(0.5)	65.2	(0.5)	62.3	(0.5)	77.8	(0.4)	65.9	(0.5)	34.1	(0.4)	48.2	(0.5)
Partners	**Albania**	76.9	(3.1)	58.6	(3.6)	83.2	(2.5)	32.4	(3.5)	40.9	(3.9)	17.6	(2.8)	7.8	(2.0)	16.4	(2.4)
	Algeria	68.4	(4.3)	65.4	(4.5)	81.4	(3.5)	60.0	(4.5)	88.4	(3.1)	78.3	(3.5)	19.8	(4.1)	56.7	(4.2)
	Brazil	39.2	(3.1)	40.7	(2.6)	61.8	(2.6)	39.1	(3.0)	47.7	(2.7)	25.1	(2.3)	10.7	(1.6)	17.1	(1.9)
	B-S-J-G (China)	79.0	(3.2)	87.3	(2.6)	53.3	(4.2)	83.0	(2.7)	53.2	(3.9)	71.6	(3.8)	52.5	(3.9)	39.4	(3.9)
	Bulgaria	61.8	(3.6)	72.1	(3.5)	91.5	(2.1)	33.7	(3.9)	62.1	(4.1)	36.1	(3.8)	4.1	(1.6)	59.5	(3.4)
	CABA (Argentina)	78.8	(4.4)	47.4	(7.8)	73.5	(6.3)	80.3	(5.5)	93.7	(3.5)	69.0	(5.6)	94.0	(2.9)	63.9	(5.4)
	Colombia	51.7	(3.9)	70.0	(3.4)	87.6	(2.6)	40.0	(3.8)	56.6	(3.8)	27.3	(3.0)	7.7	(1.7)	49.2	(3.4)
	Costa Rica	39.6	(3.4)	87.3	(2.6)	78.5	(3.4)	21.8	(3.4)	45.8	(3.7)	15.7	(3.0)	5.9	(1.7)	23.2	(3.4)
	Croatia	55.1	(3.7)	60.4	(3.9)	61.2	(4.0)	53.5	(4.0)	50.3	(4.1)	37.1	(4.1)	6.6	(1.6)	42.8	(3.7)
	Cyprus*	90.9	(0.1)	38.0	(0.2)	92.7	(0.1)	92.5	(0.1)	96.3	(0.1)	84.8	(0.1)	11.9	(0.1)	47.6	(0.1)
	Dominican Republic	39.3	(3.3)	59.0	(3.6)	81.6	(3.1)	39.3	(3.3)	56.9	(3.5)	31.7	(3.6)	20.4	(3.2)	38.5	(3.9)
	FYROM	37.3	(0.2)	64.0	(0.2)	41.4	(0.2)	32.9	(0.2)	63.0	(0.2)	28.5	(0.2)	16.5	(0.1)	33.0	(0.2)
	Georgia	69.4	(3.1)	28.9	(3.2)	74.2	(3.3)	51.8	(3.8)	68.3	(3.1)	35.1	(3.0)	15.4	(2.5)	43.0	(3.4)
	Hong Kong (China)	90.8	(2.7)	33.4	(3.8)	74.1	(4.3)	76.4	(4.2)	96.9	(1.6)	97.7	(1.2)	74.8	(4.0)	68.8	(4.0)
	Indonesia	41.1	(3.6)	41.4	(3.4)	87.3	(2.8)	38.2	(3.8)	58.4	(3.8)	46.1	(3.9)	29.8	(3.2)	19.3	(2.8)
	Jordan	81.1	(2.8)	57.7	(3.1)	64.7	(3.7)	77.1	(3.1)	83.8	(2.9)	70.3	(3.3)	72.0	(2.7)	47.9	(3.9)
	Kosovo	85.4	(1.1)	58.7	(1.3)	75.7	(1.3)	26.8	(1.0)	24.5	(1.1)	12.9	(1.0)	7.7	(0.5)	13.3	(0.8)
	Lebanon	81.1	(2.7)	78.8	(2.9)	94.9	(0.9)	72.2	(2.7)	83.0	(2.5)	67.0	(3.0)	50.1	(3.4)	67.1	(3.4)
	Lithuania	82.9	(2.2)	57.2	(2.8)	74.0	(2.3)	36.0	(2.8)	68.3	(2.6)	32.9	(2.8)	19.7	(2.3)	64.9	(2.7)
	Macao (China)	85.3	(0.1)	54.2	(0.1)	65.2	(0.1)	81.8	(0.1)	93.5	(0.0)	88.5	(0.0)	90.1	(0.1)	63.7	(0.1)
	Malta	98.9	(0.0)	61.8	(0.1)	85.5	(0.1)	89.5	(0.1)	97.9	(0.0)	95.1	(0.1)	81.2	(0.1)	66.3	(0.1)
	Moldova	48.0	(3.7)	91.2	(1.7)	81.2	(2.6)	41.8	(3.6)	72.5	(2.6)	26.0	(3.4)	38.4	(3.6)	48.8	(3.0)
	Montenegro	63.0	(0.3)	61.4	(0.3)	50.6	(0.4)	45.1	(0.3)	57.8	(0.3)	31.5	(0.3)	11.3	(0.1)	23.6	(0.4)
	Peru	36.8	(3.1)	20.9	(2.4)	77.7	(2.6)	32.8	(3.4)	46.2	(2.9)	19.1	(2.8)	25.9	(2.7)	21.2	(2.6)
	Qatar	92.8	(0.0)	81.5	(0.1)	95.6	(0.0)	87.5	(0.1)	94.0	(0.1)	89.0	(0.1)	73.8	(0.1)	82.1	(0.1)
	Romania	91.1	(2.5)	92.2	(2.0)	77.4	(3.3)	86.3	(2.5)	64.1	(4.0)	64.4	(3.8)	49.9	(3.9)	52.5	(4.4)
	Russia	81.1	(2.5)	53.7	(4.0)	92.0	(2.0)	55.5	(3.8)	87.7	(1.8)	65.8	(4.2)	43.1	(3.7)	42.5	(4.2)
	Singapore	95.2	(0.1)	38.7	(0.5)	74.5	(0.2)	88.4	(0.1)	98.7	(0.0)	100.0	c	75.0	(0.2)	69.2	(0.3)
	Chinese Taipei	67.1	(2.8)	56.1	(3.3)	46.5	(3.7)	59.1	(3.5)	82.3	(2.1)	74.8	(2.8)	28.7	(3.0)	59.5	(3.7)
	Thailand	64.1	(3.6)	58.1	(3.5)	61.1	(4.0)	55.2	(3.7)	58.9	(3.4)	44.6	(3.9)	29.4	(3.6)	28.1	(3.5)
	Trinidad and Tobago	71.0	(0.2)	39.1	(0.3)	67.5	(0.3)	60.8	(0.3)	70.2	(0.3)	65.1	(0.2)	53.3	(0.3)	47.5	(0.3)
	Tunisia	48.7	(4.3)	78.7	(3.4)	79.6	(3.3)	51.8	(4.4)	47.4	(4.3)	27.3	(3.6)	29.6	(3.8)	22.7	(3.6)
	United Arab Emirates	94.7	(1.7)	77.6	(2.2)	87.4	(1.7)	90.9	(2.0)	93.4	(1.4)	87.8	(2.0)	78.2	(2.1)	79.7	(2.4)
	Uruguay	80.9	(2.0)	56.3	(3.2)	81.9	(2.3)	80.1	(2.4)	88.0	(1.8)	72.2	(2.8)	61.7	(2.8)	57.4	(2.7)
	Viet Nam	55.8	(4.2)	94.7	(1.5)	72.3	(4.1)	32.8	(3.6)	39.9	(3.9)	44.2	(4.0)	70.5	(4.0)	62.1	(3.6)
	Argentina**	52.3	(4.0)	36.3	(3.2)	67.1	(4.1)	53.1	(3.4)	65.7	(3.4)	39.1	(3.4)	42.6	(3.3)	40.3	(3.7)
	Kazakhstan**	86.1	(2.3)	68.2	(3.2)	97.6	(1.2)	67.2	(2.8)	87.3	(2.4)	66.0	(3.2)	81.2	(2.5)	50.8	(3.5)
	Malaysia**	83.5	(3.3)	89.0	(2.5)	93.5	(1.9)	57.0	(3.9)	84.9	(2.8)	71.2	(3.7)	65.3	(3.8)	59.8	(4.3)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436477

[Part 1/3]

Table II.2.6 Index of science-specific resources, by student and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[1]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	6.26	(0.05)	1.34	(0.05)	6.14	(0.10)	6.01	(0.15)	6.33	(0.11)	6.55	(0.10)	**0.41**	(0.14)
	Austria	3.82	(0.15)	2.33	(0.07)	3.19	(0.41)	3.63	(0.39)	4.17	(0.29)	4.22	(0.29)	**1.03**	(0.48)
	Belgium	4.99	(0.09)	1.65	(0.09)	4.40	(0.22)	5.05	(0.25)	5.30	(0.21)	5.17	(0.20)	**0.77**	(0.29)
	Canada	5.59	(0.09)	1.54	(0.08)	5.34	(0.16)	5.58	(0.15)	5.54	(0.22)	5.89	(0.14)	**0.55**	(0.21)
	Chile	3.99	(0.18)	2.51	(0.09)	3.28	(0.39)	3.19	(0.47)	4.47	(0.52)	4.95	(0.40)	**1.67**	(0.50)
	Czech Republic	4.14	(0.14)	2.13	(0.06)	3.62	(0.24)	4.39	(0.26)	3.40	(0.30)	5.15	(0.28)	**1.53**	(0.37)
	Denmark	4.32	(0.10)	1.51	(0.10)	4.12	(0.15)	4.29	(0.25)	4.67	(0.18)	4.16	(0.24)	0.03	(0.27)
	Estonia	3.84	(0.09)	1.82	(0.06)	3.44	(0.22)	3.97	(0.19)	3.99	(0.21)	3.96	(0.18)	0.52	(0.28)
	Finland	3.65	(0.12)	1.52	(0.07)	3.20	(0.24)	3.52	(0.27)	3.83	(0.27)	4.04	(0.24)	**0.84**	(0.34)
	France	4.93	(0.10)	1.69	(0.08)	3.89	(0.22)	4.72	(0.19)	5.44	(0.24)	5.58	(0.21)	**1.69**	(0.30)
	Germany	4.36	(0.14)	1.85	(0.09)	4.01	(0.34)	4.03	(0.36)	4.53	(0.28)	4.83	(0.27)	**0.81**	(0.38)
	Greece	4.41	(0.14)	1.88	(0.10)	3.88	(0.38)	4.67	(0.31)	4.39	(0.28)	4.72	(0.29)	0.84	(0.45)
	Hungary	2.83	(0.13)	2.15	(0.07)	1.70	(0.16)	2.39	(0.31)	3.12	(0.36)	4.05	(0.40)	**2.35**	(0.41)
	Iceland	3.35	(0.01)	2.00	(0.01)	2.88	(0.04)	3.42	(0.03)	3.30	(0.02)	3.82	(0.02)	**0.94**	(0.05)
	Ireland	5.69	(0.12)	1.60	(0.09)	5.05	(0.27)	5.68	(0.29)	5.75	(0.29)	6.26	(0.24)	**1.21**	(0.35)
	Israel	5.23	(0.17)	2.25	(0.10)	4.81	(0.36)	4.88	(0.48)	5.49	(0.46)	5.73	(0.43)	0.91	(0.56)
	Italy	4.71	(0.13)	1.77	(0.09)	4.20	(0.30)	4.63	(0.29)	5.07	(0.25)	4.89	(0.24)	0.69	(0.36)
	Japan	2.48	(0.13)	1.94	(0.10)	1.86	(0.25)	1.83	(0.25)	2.72	(0.34)	3.49	(0.31)	**1.63**	(0.40)
	Korea	5.32	(0.14)	1.88	(0.10)	4.80	(0.35)	5.41	(0.28)	5.46	(0.35)	5.60	(0.34)	0.80	(0.53)
	Latvia	5.63	(0.09)	1.97	(0.07)	4.97	(0.28)	5.63	(0.23)	6.05	(0.27)	5.83	(0.21)	**0.87**	(0.36)
	Luxembourg	6.25	(0.00)	1.31	(0.00)	5.87	(0.01)	5.66	(0.01)	6.19	(0.01)	7.26	(0.00)	**1.39**	(0.01)
	Mexico	3.25	(0.14)	2.57	(0.08)	1.47	(0.24)	3.24	(0.39)	3.21	(0.40)	5.07	(0.38)	**3.60**	(0.45)
	Netherlands	4.77	(0.19)	2.08	(0.12)	3.46	(0.39)	4.35	(0.39)	5.44	(0.38)	5.83	(0.32)	**2.37**	(0.51)
	New Zealand	6.05	(0.11)	1.50	(0.09)	5.81	(0.19)	5.98	(0.26)	6.01	(0.23)	6.35	(0.21)	0.53	(0.30)
	Norway	3.89	(0.13)	1.75	(0.08)	3.54	(0.24)	4.19	(0.23)	3.24	(0.38)	4.63	(0.34)	**1.09**	(0.43)
	Poland	4.67	(0.15)	1.89	(0.08)	4.26	(0.33)	4.54	(0.33)	5.32	(0.29)	4.55	(0.35)	0.28	(0.47)
	Portugal	5.74	(0.10)	1.49	(0.10)	5.49	(0.19)	5.43	(0.26)	5.91	(0.18)	6.13	(0.25)	**0.64**	(0.32)
	Slovak Republic	3.85	(0.12)	2.23	(0.07)	3.11	(0.26)	3.74	(0.36)	3.80	(0.32)	4.77	(0.27)	**1.66**	(0.39)
	Slovenia	5.41	(0.02)	1.91	(0.01)	4.57	(0.06)	5.51	(0.03)	5.79	(0.03)	5.76	(0.02)	**1.19**	(0.06)
	Spain	4.33	(0.14)	1.90	(0.08)	3.83	(0.30)	4.29	(0.29)	4.46	(0.33)	4.74	(0.25)	**0.91**	(0.36)
	Sweden	4.20	(0.12)	1.62	(0.09)	4.03	(0.23)	4.06	(0.26)	4.20	(0.26)	4.53	(0.24)	0.51	(0.35)
	Switzerland	4.58	(0.12)	1.86	(0.08)	3.73	(0.26)	4.56	(0.26)	4.81	(0.29)	5.25	(0.25)	**1.52**	(0.38)
	Turkey	2.64	(0.19)	2.36	(0.11)	1.89	(0.24)	2.02	(0.53)	2.66	(0.43)	4.00	(0.42)	**2.12**	(0.52)
	United Kingdom	5.80	(0.12)	1.74	(0.12)	5.81	(0.32)	5.49	(0.28)	5.85	(0.22)	6.04	(0.24)	0.23	(0.40)
	United States	5.44	(0.14)	1.83	(0.11)	4.73	(0.40)	5.89	(0.36)	5.26	(0.25)	5.85	(0.22)	**1.12**	(0.44)
	OECD average	4.58	(0.02)	1.87	(0.01)	4.01	(0.05)	4.45	(0.05)	4.72	(0.05)	5.13	(0.05)	**1.12**	(0.06)
Partners	Albania	3.27	(0.13)	1.79	(0.11)	3.10	(0.30)	3.28	(0.49)	3.60	(0.57)	3.10	(0.22)	0.00	(0.38)
	Algeria	4.99	(0.16)	1.75	(0.12)	4.65	(0.29)	5.19	(0.36)	4.63	(0.46)	5.42	(0.31)	0.77	(0.41)
	Brazil	2.79	(0.12)	2.36	(0.06)	1.92	(0.17)	2.33	(0.25)	2.94	(0.29)	3.89	(0.33)	**1.97**	(0.36)
	B-S-J-G (China)	5.19	(0.16)	2.05	(0.10)	4.19	(0.32)	4.44	(0.37)	5.79	(0.47)	6.31	(0.21)	**2.11**	(0.37)
	Bulgaria	4.18	(0.12)	1.89	(0.07)	3.35	(0.29)	3.57	(0.26)	4.74	(0.24)	5.05	(0.29)	**1.71**	(0.40)
	CABA (Argentina)	5.96	(0.26)	2.02	(0.22)	4.59	(0.87)	5.52	(0.72)	6.57	(0.36)	7.12	(0.39)	**2.52**	(0.95)
	Colombia	3.89	(0.15)	1.97	(0.08)	2.83	(0.21)	3.86	(0.31)	4.03	(0.27)	4.73	(0.29)	**1.90**	(0.35)
	Costa Rica	3.15	(0.16)	1.87	(0.09)	3.39	(0.32)	2.52	(0.21)	3.39	(0.37)	3.29	(0.30)	-0.10	(0.43)
	Croatia	3.67	(0.19)	2.45	(0.08)	2.69	(0.47)	4.32	(0.49)	3.68	(0.45)	3.91	(0.38)	**1.22**	(0.57)
	Cyprus*	5.46	(0.00)	1.49	(0.00)	5.12	(0.01)	5.23	(0.01)	5.51	(0.01)	5.98	(0.01)	**0.87**	(0.01)
	Dominican Republic	3.65	(0.17)	2.61	(0.10)	2.36	(0.33)	3.74	(0.47)	3.53	(0.45)	4.93	(0.48)	**2.58**	(0.62)
	FYROM	3.11	(0.01)	2.26	(0.01)	2.80	(0.04)	3.42	(0.02)	3.22	(0.02)	2.98	(0.02)	**0.17**	(0.04)
	Georgia	3.81	(0.14)	2.01	(0.07)	2.91	(0.22)	3.92	(0.30)	3.83	(0.22)	4.54	(0.32)	**1.63**	(0.40)
	Hong Kong (China)	6.10	(0.13)	1.41	(0.10)	5.83	(0.24)	5.97	(0.27)	6.37	(0.29)	6.23	(0.31)	0.41	(0.38)
	Indonesia	3.54	(0.15)	2.28	(0.08)	2.31	(0.30)	2.94	(0.30)	4.06	(0.40)	5.00	(0.32)	**2.69**	(0.44)
	Jordan	5.51	(0.15)	2.12	(0.11)	5.01	(0.34)	5.56	(0.49)	5.00	(0.35)	6.48	(0.28)	**1.48**	(0.42)
	Kosovo	2.98	(0.04)	1.58	(0.03)	2.50	(0.11)	2.88	(0.09)	3.16	(0.09)	3.37	(0.09)	**0.87**	(0.14)
	Lebanon	5.80	(0.12)	2.09	(0.08)	4.96	(0.31)	5.69	(0.32)	5.89	(0.27)	6.67	(0.25)	**1.71**	(0.43)
	Lithuania	4.35	(0.09)	1.72	(0.07)	3.56	(0.23)	4.54	(0.20)	4.73	(0.23)	4.58	(0.17)	**1.02**	(0.28)
	Macao (China)	6.18	(0.00)	1.71	(0.00)	5.70	(0.01)	6.94	(0.00)	6.09	(0.01)	6.00	(0.00)	**0.30**	(0.01)
	Malta	6.76	(0.00)	1.34	(0.00)	6.48	(0.01)	6.71	(0.01)	6.67	(0.01)	7.20	(0.01)	**0.72**	(0.01)
	Moldova	4.39	(0.13)	1.96	(0.09)	3.43	(0.23)	4.52	(0.32)	4.65	(0.30)	4.98	(0.27)	**1.55**	(0.35)
	Montenegro	3.42	(0.02)	2.38	(0.01)	3.76	(0.04)	4.07	(0.06)	2.83	(0.01)	3.03	(0.02)	**-0.73**	(0.05)
	Peru	2.79	(0.13)	2.07	(0.07)	1.75	(0.20)	2.52	(0.28)	3.30	(0.26)	3.57	(0.30)	**1.82**	(0.34)
	Qatar	6.96	(0.00)	1.47	(0.00)	6.66	(0.01)	6.96	(0.01)	7.53	(0.01)	6.67	(0.01)	0.01	(0.01)
	Romania	5.77	(0.13)	1.69	(0.07)	5.45	(0.23)	6.04	(0.25)	5.68	(0.29)	5.94	(0.29)	0.49	(0.38)
	Russia	5.21	(0.12)	1.92	(0.08)	4.53	(0.33)	5.17	(0.43)	5.55	(0.46)	5.57	(0.31)	**1.03**	(0.49)
	Singapore	6.37	(0.01)	1.39	(0.00)	6.04	(0.01)	6.13	(0.04)	6.57	(0.09)	6.73	(0.17)	**0.69**	(0.17)
	Chinese Taipei	4.72	(0.16)	2.45	(0.07)	3.21	(0.34)	4.61	(0.51)	5.15	(0.35)	5.89	(0.28)	**2.68**	(0.47)
	Thailand	3.99	(0.18)	2.35	(0.10)	3.11	(0.32)	2.90	(0.30)	4.39	(0.50)	5.50	(0.38)	**2.39**	(0.52)
	Trinidad and Tobago	4.70	(0.01)	2.08	(0.01)	4.39	(0.03)	5.08	(0.03)	4.36	(0.02)	5.01	(0.01)	**0.62**	(0.03)
	Tunisia	3.84	(0.16)	1.98	(0.08)	3.82	(0.33)	3.26	(0.33)	3.78	(0.38)	4.62	(0.33)	0.80	(0.46)
	United Arab Emirates	6.87	(0.08)	1.43	(0.11)	6.41	(0.26)	7.11	(0.12)	6.99	(0.17)	6.93	(0.11)	0.53	(0.27)
	Uruguay	5.78	(0.10)	1.90	(0.07)	5.31	(0.20)	5.44	(0.23)	5.98	(0.24)	6.42	(0.21)	**1.11**	(0.29)
	Viet Nam	4.70	(0.17)	2.02	(0.09)	3.96	(0.36)	4.20	(0.33)	5.13	(0.41)	5.50	(0.27)	**1.54**	(0.48)
	Argentina**	3.94	(0.16)	2.46	(0.08)	3.28	(0.40)	2.81	(0.41)	4.51	(0.39)	5.17	(0.49)	**1.89**	(0.67)
	Kazakhstan**	6.05	(0.11)	1.80	(0.09)	5.47	(0.34)	6.14	(0.29)	6.36	(0.27)	6.22	(0.27)	0.75	(0.47)
	Malaysia**	6.03	(0.14)	1.71	(0.09)	5.44	(0.34)	5.94	(0.33)	6.69	(0.29)	6.03	(0.25)	0.59	(0.42)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.6 Index of science-specific resources, by student and school characteristics

Results based on school principals' reports

		By school location								By type of school						By education level					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	5.59	(0.37)	6.01	(0.12)	6.40	(0.06)	0.81	(0.38)	6.12	(0.07)	6.48	(0.07)	0.36	(0.10)	6.23	(0.06)	6.43	(0.09)	**0.19**	(0.09)
	Austria	4.33	(0.59)	3.61	(0.20)	4.05	(0.24)	-0.29	(0.63)	3.92	(0.17)	3.27	(0.31)	-0.65	(0.37)	3.06	(0.49)	3.83	(0.16)	0.77	(0.51)
	Belgium	5.55	(0.34)	5.11	(0.11)	4.74	(0.24)	**-0.82**	(0.41)	w	w	w	w	w	w	3.82	(0.29)	5.09	(0.09)	**1.27**	(0.29)
	Canada	5.09	(0.28)	5.70	(0.15)	5.58	(0.11)	0.49	(0.29)	5.54	(0.09)	6.24	(0.31)	**0.70**	(0.32)	5.89	(0.15)	5.55	(0.09)	**-0.33**	(0.14)
	Chile	1.77	(0.57)	3.76	(0.32)	4.18	(0.23)	**2.41**	(0.62)	3.27	(0.32)	4.40	(0.21)	**1.13**	(0.37)	3.49	(0.40)	4.02	(0.19)	0.53	(0.44)
	Czech Republic	3.57	(0.27)	4.34	(0.17)	3.85	(0.29)	0.29	(0.40)	4.21	(0.14)	3.30	(0.45)	-0.91	(0.48)	4.40	(0.13)	3.84	(0.23)	**-0.56**	(0.24)
	Denmark	4.32	(0.25)	4.27	(0.14)	4.50	(0.27)	0.18	(0.36)	4.28	(0.11)	4.42	(0.23)	0.13	(0.25)	4.31	(0.10)	c	c	c	c
	Estonia	3.39	(0.22)	4.13	(0.14)	3.74	(0.13)	0.35	(0.26)	3.82	(0.09)	3.90	(0.54)	0.08	(0.55)	3.85	(0.09)	3.53	(0.43)	-0.32	(0.44)
	Finland	3.52	(0.25)	3.50	(0.13)	4.02	(0.24)	0.50	(0.34)	3.61	(0.12)	4.94	(0.22)	**1.33**	(0.25)	3.65	(0.12)	c	c	c	c
	France	4.17	(0.65)	4.84	(0.12)	5.22	(0.20)	1.05	(0.67)	4.96	(0.12)	4.92	(0.21)	-0.03	(0.25)	4.04	(0.16)	5.19	(0.12)	**1.15**	(0.19)
	Germany	3.96	(0.44)	4.44	(0.17)	4.26	(0.26)	0.30	(0.50)	4.36	(0.15)	4.46	(0.31)	0.10	(0.35)	4.31	(0.14)	5.39	(0.69)	1.08	(0.68)
	Greece	4.85	(0.40)	4.41	(0.19)	4.28	(0.23)	-0.57	(0.46)	4.34	(0.15)	5.86	(0.45)	**1.52**	(0.48)	4.33	(0.43)	4.42	(0.15)	0.09	(0.45)
	Hungary	1.78	(0.57)	2.89	(0.18)	2.82	(0.24)	1.05	(0.65)	2.76	(0.15)	3.25	(0.29)	0.49	(0.33)	1.89	(0.19)	2.94	(0.14)	**1.04**	(0.23)
	Iceland	2.93	(0.03)	3.51	(0.01)	3.37	(0.02)	**0.44**	(0.04)	3.33	(0.01)	c	c	c	c	3.35	(0.01)	m	m	m	m
	Ireland	4.99	(0.36)	5.60	(0.17)	6.30	(0.19)	**1.32**	(0.40)	5.31	(0.21)	5.95	(0.15)	**0.65**	(0.25)	5.69	(0.12)	5.68	(0.13)	-0.02	(0.05)
	Israel	4.55	(0.47)	5.60	(0.24)	5.01	(0.32)	0.46	(0.58)	m	m	m	m	m	m	5.76	(0.26)	5.17	(0.17)	**-0.59**	(0.24)
	Italy	5.70	(0.66)	4.68	(0.16)	4.74	(0.23)	-0.96	(0.70)	4.72	(0.14)	4.69	(0.42)	-0.03	(0.42)	3.13	(0.36)	4.73	(0.13)	**1.60**	(0.38)
	Japan	c	c	1.98	(0.21)	2.67	(0.17)	c	c	2.40	(0.15)	2.65	(0.26)	0.25	(0.29)	m	m	2.48	(0.13)	m	m
	Korea	c	c	4.88	(0.48)	5.37	(0.14)	c	c	5.39	(0.16)	5.18	(0.27)	-0.20	(0.31)	5.66	(0.24)	5.28	(0.16)	-0.38	(0.29)
	Latvia	4.40	(0.26)	6.29	(0.13)	5.45	(0.14)	**1.05**	(0.29)	5.63	(0.09)	5.63	(0.78)	0.00	(0.78)	5.64	(0.09)	5.35	(0.51)	-0.29	(0.50)
	Luxembourg	m	m	5.96	(0.00)	6.62	(0.00)	m	m	6.29	(0.00)	6.03	(0.01)	**-0.27**	(0.01)	6.07	(0.00)	6.50	(0.00)	**0.43**	(0.01)
	Mexico	1.06	(0.27)	3.24	(0.23)	4.05	(0.25)	**2.99**	(0.38)	2.99	(0.14)	5.05	(0.47)	**2.06**	(0.49)	2.08	(0.26)	4.00	(0.20)	**1.91**	(0.36)
	Netherlands	c	c	4.93	(0.20)	4.42	(0.42)	c	c	4.87	(0.33)	4.65	(0.23)	-0.22	(0.40)	4.42	(0.22)	5.68	(0.23)	**1.26**	(0.28)
	New Zealand	5.42	(0.54)	5.81	(0.19)	6.27	(0.16)	0.85	(0.57)	5.98	(0.12)	7.26	(0.23)	**1.28**	(0.25)	6.21	(0.11)	6.04	(0.11)	-0.17	(0.09)
	Norway	3.25	(0.26)	3.94	(0.17)	4.41	(0.29)	**1.16**	(0.35)	3.86	(0.14)	4.67	(0.71)	0.81	(0.72)	3.89	(0.13)	c	c	c	c
	Poland	4.31	(0.25)	4.96	(0.23)	4.81	(0.30)	0.50	(0.39)	4.68	(0.16)	4.40	(0.62)	-0.27	(0.65)	4.67	(0.15)	c	c	c	c
	Portugal	4.66	(0.46)	5.75	(0.12)	5.87	(0.23)	**1.22**	(0.50)	5.71	(0.11)	6.30	(0.48)	0.60	(0.50)	5.26	(0.16)	6.00	(0.11)	**0.74**	(0.16)
	Slovak Republic	3.83	(0.23)	3.81	(0.17)	4.16	(0.46)	0.33	(0.46)	3.88	(0.14)	3.69	(0.41)	-0.19	(0.45)	4.23	(0.15)	3.52	(0.19)	**-0.71**	(0.24)
	Slovenia	4.99	(0.10)	5.52	(0.02)	5.38	(0.04)	**0.39**	(0.11)	5.40	(0.02)	5.69	(0.01)	**0.29**	(0.02)	4.68	(0.36)	5.45	(0.01)	**0.77**	(0.36)
	Spain	3.03	(0.53)	4.37	(0.16)	4.41	(0.25)	**1.38**	(0.60)	4.12	(0.15)	4.79	(0.26)	**0.68**	(0.30)	4.33	(0.14)	c	c	c	c
	Sweden	3.45	(0.52)	4.22	(0.14)	4.38	(0.21)	0.93	(0.56)	4.25	(0.13)	4.01	(0.31)	-0.24	(0.34)	4.20	(0.12)	4.46	(0.64)	0.26	(0.64)
	Switzerland	3.52	(0.35)	4.59	(0.14)	4.87	(0.39)	**1.35**	(0.53)	4.70	(0.13)	2.78	(0.28)	**-1.92**	(0.31)	4.41	(0.13)	5.19	(0.28)	**0.78**	(0.30)
	Turkey	3.51	(0.77)	2.60	(0.29)	2.65	(0.27)	-0.87	(0.82)	2.47	(0.18)	6.17	(0.66)	**3.70**	(0.69)	2.16	(0.76)	2.66	(0.19)	0.50	(0.79)
	United Kingdom	6.25	(0.33)	5.61	(0.17)	6.27	(0.20)	0.02	(0.38)	5.83	(0.13)	5.89	(0.50)	0.06	(0.53)	5.37	(0.43)	5.81	(0.13)	0.43	(0.44)
	United States	5.00	(0.62)	5.61	(0.14)	5.32	(0.29)	0.32	(0.68)	5.35	(0.14)	6.31	(0.40)	**0.96**	(0.42)	5.38	(0.23)	5.44	(0.14)	0.06	(0.18)
	OECD average	4.09	(0.08)	4.58	(0.03)	4.70	(0.04)	**0.60**	(0.09)	4.50	(0.03)	4.91	(0.07)	**0.38**	(0.07)	4.41	(0.04)	4.82	(0.05)	**0.41**	(0.07)
Partners	Albania	2.72	(0.15)	3.11	(0.19)	3.93	(0.36)	**1.21**	(0.39)	2.85	(0.10)	6.37	(0.30)	**3.52**	(0.31)	2.93	(0.16)	3.46	(0.17)	**0.53**	(0.24)
	Algeria	3.72	(0.47)	4.93	(0.20)	5.96	(0.35)	**2.24**	(0.59)	4.99	(0.17)	c	c	c	c	4.93	(0.18)	5.19	(0.34)	0.26	(0.38)
	Brazil	1.91	(0.50)	2.24	(0.16)	3.38	(0.19)	**1.47**	(0.54)	2.48	(0.13)	4.78	(0.36)	**2.31**	(0.39)	1.99	(0.17)	2.97	(0.14)	**0.98**	(0.21)
	B-S-J-G (China)	4.02	(0.53)	4.78	(0.24)	6.09	(0.24)	**2.06**	(0.58)	5.18	(0.17)	5.20	(0.63)	0.03	(0.67)	4.80	(0.17)	5.84	(0.26)	**1.05**	(0.30)
	Bulgaria	2.87	(0.33)	4.26	(0.16)	4.16	(0.23)	**1.29**	(0.40)	4.17	(0.13)	c	c	c	c	2.98	(0.41)	4.22	(0.13)	**1.24**	(0.42)
	CABA (Argentina)	m	m	c	c	5.99	(0.28)	m	m	4.84	(0.47)	7.15	(0.18)	**2.31**	(0.48)	5.88	(0.27)	6.88	(0.50)	1.00	(0.52)
	Colombia	3.24	(0.37)	3.70	(0.27)	4.23	(0.18)	**0.99**	(0.40)	3.58	(0.16)	4.84	(0.31)	**1.26**	(0.35)	3.67	(0.14)	4.03	(0.16)	**0.37**	(0.11)
	Costa Rica	3.25	(0.26)	2.93	(0.20)	4.22	(0.48)	0.97	(0.57)	2.91	(0.15)	4.83	(0.47)	**1.92**	(0.48)	3.07	(0.15)	3.24	(0.18)	0.17	(0.11)
	Croatia	c	c	3.42	(0.21)	4.01	(0.32)	c	c	3.64	(0.19)	4.75	(0.69)	1.11	(0.71)	c	c	3.67	(0.19)	c	c
	Cyprus*	5.87	(0.03)	5.45	(0.00)	5.42	(0.01)	**-0.44**	(0.03)	5.30	(0.00)	6.28	(0.01)	**0.97**	(0.01)	4.90	(0.04)	5.50	(0.00)	**0.59**	(0.04)
	Dominican Republic	2.14	(0.30)	3.95	(0.25)	3.94	(0.48)	**1.80**	(0.57)	3.21	(0.19)	5.23	(0.43)	**2.03**	(0.47)	1.76	(0.24)	4.10	(0.20)	**2.34**	(0.31)
	FYROM	3.62	(0.02)	3.25	(0.01)	2.87	(0.02)	**-0.75**	(0.03)	3.04	(0.01)	7.16	(0.01)	**4.12**	(0.02)	c	c	3.10	(0.01)	c	c
	Georgia	2.69	(0.20)	3.96	(0.29)	4.44	(0.24)	**1.75**	(0.29)	3.66	(0.15)	5.32	(0.39)	**1.66**	(0.42)	3.92	(0.16)	3.77	(0.15)	-0.15	(0.14)
	Hong Kong (China)	m	m	m	m	6.10	(0.13)	m	m	5.96	(0.80)	6.11	(0.13)	0.15	(0.81)	6.16	(0.14)	6.08	(0.14)	-0.08	(0.09)
	Indonesia	2.56	(0.26)	3.77	(0.25)	4.84	(0.28)	**2.28**	(0.39)	3.97	(0.21)	2.91	(0.23)	**-1.06**	(0.31)	2.82	(0.22)	4.18	(0.23)	**1.36**	(0.33)
	Jordan	4.32	(0.42)	5.37	(0.20)	6.15	(0.27)	**1.83**	(0.50)	5.31	(0.19)	6.18	(0.22)	**0.86**	(0.28)	5.51	(0.15)	m	m	m	m
	Kosovo	2.46	(0.10)	3.04	(0.05)	3.13	(0.08)	**0.67**	(0.13)	2.89	(0.04)	6.38	(0.35)	**3.49**	(0.35)	2.75	(0.12)	3.05	(0.03)	**0.31**	(0.12)
	Lebanon	5.20	(0.35)	6.01	(0.17)	5.81	(0.32)	0.61	(0.51)	5.32	(0.21)	6.28	(0.15)	**0.96**	(0.27)	4.86	(0.23)	6.15	(0.15)	**1.29**	(0.27)
	Lithuania	3.53	(0.19)	4.56	(0.16)	4.59	(0.12)	**1.06**	(0.23)	4.36	(0.09)	4.20	(0.32)	-0.16	(0.33)	4.35	(0.09)	c	c	c	c
	Macao (China)	c	c	c	c	6.18	(0.00)	c	c	c	c	6.22	(0.00)	c	c	6.18	(0.01)	6.18	(0.00)	0.01	(0.01)
	Malta	7.21	(0.00)	6.70	(0.00)	m	m	m	m	6.61	(0.00)	6.97	(0.01)	**0.36**	(0.01)	c	c	6.77	(0.00)	c	c
	Moldova	4.03	(0.18)	4.94	(0.19)	4.67	(0.34)	0.63	(0.38)	4.40	(0.14)	c	c	c	c	4.41	(0.14)	4.16	(0.45)	-0.25	(0.46)
	Montenegro	c	c	4.04	(0.02)	2.17	(0.03)	c	c	3.44	(0.02)	c	c	c	c	3.45	(0.65)	3.42	(0.00)	-0.03	(0.65)
	Peru	1.92	(0.23)	2.95	(0.19)	3.64	(0.28)	**1.72**	(0.38)	2.62	(0.15)	3.15	(0.27)	0.53	(0.31)	2.33	(0.12)	2.94	(0.15)	**0.62**	(0.10)
	Qatar	6.19	(0.02)	7.08	(0.00)	6.91	(0.00)	**0.73**	(0.02)	7.33	(0.00)	6.44	(0.01)	**-0.89**	(0.01)	6.80	(0.01)	7.00	(0.00)	**0.19**	(0.01)
	Romania	4.91	(0.22)	5.91	(0.17)	5.81	(0.24)	**0.91**	(0.33)	5.75	(0.13)	c	c	c	c	5.77	(0.13)	m	m	m	m
	Russia	4.27	(0.35)	5.55	(0.20)	5.23	(0.19)	**0.96**	(0.43)	5.20	(0.12)	c	c	c	c	5.22	(0.13)	5.11	(0.23)	-0.11	(0.22)
	Singapore	m	m	m	m	6.43	(0.01)	m	m	6.31	(0.00)	7.06	(0.08)	**0.76**	(0.08)	6.71	(0.23)	6.36	(0.01)	-0.34	(0.22)
	Chinese Taipei	c	c	4.37	(0.24)	4.99	(0.21)	c	c	4.91	(0.17)	4.33	(0.34)	-0.58	(0.37)	5.33	(0.20)	4.38	(0.21)	**-0.95**	(0.27)
	Thailand	3.33	(0.35)	3.81	(0.24)	4.96	(0.37)	**1.63**	(0.48)	3.94	(0.18)	4.19	(0.54)	0.24	(0.57)	3.47	(0.18)	4.17	(0.19)	**0.70**	(0.17)
	Trinidad and Tobago	4.21	(0.04)	4.74	(0.01)	m	m	m	m	4.61	(0.01)	5.66	(0.04)	**1.05**	(0.05)	4.56	(0.02)	4.79	(0.01)	**0.23**	(0.03)
	Tunisia	4.08	(0.77)	3.67	(0.21)	4.17	(0.27)	0.09	(0.82)	3.77	(0.16)	6.87	(0.77)	**3.09**	(0.78)	3.71	(0.22)	3.91	(0.22)	0.21	(0.31)
	United Arab Emirates	6.39	(0.33)	6.73	(0.19)	6.97	(0.09)	0.58	(0.34)	6.74	(0.14)	6.95	(0.10)	0.21	(0.17)	6.53	(0.22)	6.92	(0.08)	**0.39**	(0.20)
	Uruguay	5.73	(0.42)	5.88	(0.14)	5.65	(0.19)	-0.08	(0.45)	5.65	(0.11)	6.52	(0.29)	**0.87**	(0.31)	5.30	(0.16)	6.08	(0.11)	**0.79**	(0.18)
	Viet Nam	4.39	(0.22)	4.21	(0.36)	5.74	(0.30)	**1.35**	(0.37)	4.74	(0.18)	4.04	(0.74)	-0.69	(0.77)	3.81	(0.27)	4.79	(0.19)	**0.98**	(0.31)
	Argentina**	2.71	(0.53)	3.78	(0.21)	4.40	(0.31)	**1.68**	(0.63)	3.78	(0.19)	4.58	(0.34)	**0.80**	(0.39)	4.04	(0.18)	3.88	(0.19)	-0.15	(0.19)
	Kazakhstan**	5.67	(0.23)	6.13	(0.23)	6.28	(0.19)	0.61	(0.31)	6.08	(0.11)	5.35	(0.79)	-0.73	(0.82)	6.01	(0.12)	6.19	(0.14)	0.17	(0.10)
	Malaysia**	5.76	(0.38)	5.93	(0.25)	6.24	(0.20)	0.48	(0.43)	6.08	(0.14)	5.19	(1.06)	-0.88	(1.07)	6.11	(0.24)	6.02	(0.15)	-0.09	(0.25)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.2.6 Index of science-specific resources, by student and school characteristics

Results based on school principals' reports

		Change in science score per unit increase on the index of science-specific resources				Change in the index of epistemic beliefs per unit increase on the index of science-specific resources				Increased likelihood of expecting to work in science-related occupations per unit increase on the index of science-specific resources			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	Australia	**6**	(1.5)	**2**	(1.0)	0.01	(0.01)	0.00	(0.01)	**1.05**	(0.02)	1.03	(0.02)
	Austria	**9**	(1.8)	**5**	(1.1)	**0.04**	(0.01)	0.01	(0.01)	**1.20**	(0.04)	**1.19**	(0.04)
	Belgium	**11**	(2.4)	**5**	(1.5)	0.02	(0.01)	0.01	(0.01)	1.00	(0.05)	0.97	(0.04)
	Canada	2	(1.4)	0	(1.0)	0.00	(0.01)	0.00	(0.01)	**1.05**	(0.02)	**1.04**	(0.02)
	Chile	**8**	(1.3)	**3**	(1.2)	**0.03**	(0.01)	0.01	(0.01)	**1.04**	(0.02)	1.01	(0.02)
	Czech Republic	**9**	(1.7)	**3**	(1.0)	**0.03**	(0.01)	0.01	(0.01)	**1.18**	(0.03)	**1.13**	(0.03)
	Denmark	**5**	(1.8)	**4**	(1.5)	**0.03**	(0.01)	**0.03**	(0.01)	1.00	(0.02)	1.00	(0.02)
	Estonia	**3**	(1.1)	1	(1.0)	0.01	(0.01)	0.00	(0.01)	1.03	(0.02)	1.02	(0.02)
	Finland	3	(1.8)	0	(1.5)	**0.02**	(0.01)	0.01	(0.01)	1.03	(0.03)	1.00	(0.03)
	France	**18**	(2.2)	**5**	(1.6)	**0.06**	(0.01)	0.01	(0.01)	**1.18**	(0.03)	**1.06**	(0.03)
	Germany	**8**	(2.7)	2	(1.7)	0.03	(0.02)	0.00	(0.01)	1.03	(0.03)	0.99	(0.03)
	Greece	**9**	(2.6)	**5**	(1.7)	**0.04**	(0.02)	**0.03**	(0.01)	1.04	(0.02)	1.01	(0.02)
	Hungary	**15**	(2.0)	**3**	(1.4)	**0.05**	(0.01)	0.01	(0.01)	**1.22**	(0.04)	**1.11**	(0.04)
	Iceland	**2**	(0.9)	1	(0.9)	**0.02**	(0.01)	0.01	(0.01)	1.02	(0.02)	1.02	(0.02)
	Ireland	**5**	(1.7)	0	(1.1)	0.01	(0.01)	0.00	(0.01)	1.01	(0.02)	0.99	(0.03)
	Israel	**8**	(2.1)	**5**	(1.5)	**0.03**	(0.01)	0.02	(0.01)	**1.09**	(0.03)	**1.09**	(0.03)
	Italy	**10**	(2.0)	**7**	(1.4)	**0.03**	(0.01)	0.01	(0.01)	**1.22**	(0.05)	**1.20**	(0.04)
	Japan	**11**	(2.0)	2	(1.5)	**0.05**	(0.01)	0.00	(0.01)	**1.10**	(0.03)	1.04	(0.03)
	Korea	**5**	(2.3)	**3**	(1.7)	**0.03**	(0.01)	0.02	(0.01)	**1.07**	(0.04)	1.06	(0.04)
	Latvia	**2**	(1.1)	0	(0.9)	0.01	(0.01)	0.00	(0.01)	1.03	(0.02)	1.00	(0.02)
	Luxembourg	**17**	(0.8)	**3**	(0.9)	**0.09**	(0.01)	**0.03**	(0.01)	**1.18**	(0.03)	**1.05**	(0.03)
	Mexico	**8**	(0.9)	**3**	(0.8)	**0.03**	(0.01)	0.01	(0.01)	**1.04**	(0.01)	1.02	(0.02)
	Netherlands	**18**	(3.0)	**6**	(2.0)	**0.06**	(0.01)	**0.02**	(0.01)	**1.12**	(0.05)	1.04	(0.04)
	New Zealand	**5**	(2.3)	1	(1.6)	0.00	(0.02)	-0.02	(0.01)	1.03	(0.03)	1.00	(0.03)
	Norway	2	(1.2)	0	(1.1)	0.01	(0.01)	0.01	(0.01)	1.00	(0.02)	0.99	(0.02)
	Poland	1	(1.6)	0	(1.2)	0.00	(0.01)	0.00	(0.01)	1.00	(0.03)	0.99	(0.02)
	Portugal	**11**	(2.3)	**6**	(1.5)	**0.04**	(0.01)	0.02	(0.01)	**1.13**	(0.04)	**1.09**	(0.04)
	Slovak Republic	**7**	(1.8)	2	(1.5)	**0.03**	(0.01)	0.01	(0.01)	**1.18**	(0.04)	**1.13**	(0.04)
	Slovenia	**10**	(0.7)	**4**	(0.6)	**0.02**	(0.01)	0.00	(0.01)	**1.17**	(0.02)	**1.16**	(0.02)
	Spain	**3**	(1.3)	0	(1.0)	0.01	(0.01)	0.00	(0.01)	1.01	(0.02)	0.99	(0.01)
	Sweden	3	(2.2)	1	(1.5)	0.02	(0.02)	0.01	(0.01)	1.02	(0.02)	1.02	(0.02)
	Switzerland	**13**	(2.0)	**7**	(1.7)	**0.07**	(0.02)	**0.03**	(0.01)	**1.12**	(0.03)	**1.07**	(0.03)
	Turkey	**10**	(2.1)	**4**	(1.9)	**0.04**	(0.01)	**0.02**	(0.01)	**1.16**	(0.03)	**1.10**	(0.03)
	United Kingdom	2	(2.0)	1	(1.2)	0.02	(0.01)	0.01	(0.01)	1.02	(0.03)	1.01	(0.03)
	United States	2	(2.2)	0	(1.5)	0.01	(0.01)	0.00	(0.01)	1.02	(0.02)	1.01	(0.02)
	OECD average	**8**	(0.3)	**3**	(0.2)	**0.03**	(0.00)	**0.01**	(0.00)	**1.08**	(0.01)	**1.05**	(0.00)
Partners	Albania	m	m	m	m	0.02	(0.01)	0.02	(0.01)	0.98	(0.02)	0.99	(0.02)
	Algeria	1	(2.0)	-1	(1.7)	0.01	(0.01)	0.01	(0.01)	**1.08**	(0.03)	**1.04**	(0.02)
	Brazil	**10**	(1.3)	**5**	(1.0)	**0.04**	(0.01)	**0.02**	(0.01)	**1.04**	(0.01)	1.01	(0.01)
	B-S-J-G (China)	**14**	(3.0)	1	(2.4)	**0.06**	(0.01)	0.01	(0.01)	**1.09**	(0.03)	1.04	(0.03)
	Bulgaria	**15**	(2.9)	3	(1.8)	**0.05**	(0.01)	0.01	(0.01)	**1.17**	(0.04)	**1.09**	(0.04)
	CABA (Argentina)	**10**	(2.5)	-1	(1.5)	0.03	(0.02)	-0.02	(0.02)	0.97	(0.04)	0.93	(0.04)
	Colombia	**8**	(1.9)	2	(1.3)	**0.03**	(0.01)	0.01	(0.01)	0.98	(0.02)	0.98	(0.02)
	Costa Rica	0	(1.7)	0	(0.8)	0.00	(0.01)	0.00	(0.01)	1.00	(0.02)	1.00	(0.02)
	Croatia	**5**	(1.6)	**2**	(1.1)	**0.02**	(0.01)	0.01	(0.01)	**1.13**	(0.03)	**1.11**	(0.03)
	Cyprus*	**8**	(0.9)	**2**	(0.8)	**0.04**	(0.01)	0.01	(0.01)	1.03	(0.02)	1.00	(0.02)
	Dominican Republic	**8**	(1.5)	**3**	(1.1)	**0.03**	(0.01)	0.01	(0.01)	1.03	(0.01)	1.02	(0.01)
	FYROM	**3**	(0.6)	**3**	(0.6)	**0.03**	(0.01)	**0.03**	(0.01)	**1.08**	(0.02)	**1.09**	(0.01)
	Georgia	3	(1.8)	-2	(1.1)	0.01	(0.01)	-0.01	(0.01)	1.04	(0.02)	1.03	(0.02)
	Hong Kong (China)	0	(3.1)	-2	(2.4)	0.00	(0.01)	-0.01	(0.01)	0.98	(0.03)	0.97	(0.03)
	Indonesia	**9**	(1.4)	**4**	(1.0)	**0.02**	(0.01)	0.01	(0.01)	**1.10**	(0.03)	1.04	(0.03)
	Jordan	**5**	(1.7)	2	(1.6)	**0.02**	(0.01)	0.01	(0.01)	**1.07**	(0.03)	1.00	(0.02)
	Kosovo	**7**	(1.0)	**3**	(0.9)	0.01	(0.01)	-0.01	(0.01)	**1.10**	(0.03)	1.05	(0.03)
	Lebanon	**9**	(2.1)	3	(2.0)	0.02	(0.01)	0.01	(0.02)	**1.05**	(0.03)	1.01	(0.03)
	Lithuania	**7**	(2.1)	1	(1.4)	**0.04**	(0.01)	0.01	(0.01)	**1.06**	(0.02)	1.01	(0.02)
	Macao (China)	**4**	(0.6)	**4**	(0.6)	**0.01**	(0.01)	**0.01**	(0.01)	1.02	(0.02)	1.02	(0.02)
	Malta	**15**	(1.2)	**8**	(1.2)	**0.04**	(0.01)	0.02	(0.01)	**1.13**	(0.03)	**1.07**	(0.03)
	Moldova	**3**	(1.5)	0	(1.0)	0.01	(0.01)	0.00	(0.01)	**1.08**	(0.03)	1.04	(0.03)
	Montenegro	**-3**	(0.5)	-1	(0.5)	0.00	(0.01)	0.01	(0.01)	**1.08**	(0.01)	**1.10**	(0.01)
	Peru	**8**	(1.4)	0	(0.8)	**0.04**	(0.01)	0.01	(0.01)	1.03	(0.02)	0.98	(0.02)
	Qatar	-1	(0.6)	**-2**	(0.6)	0.00	(0.01)	-0.01	(0.01)	0.99	(0.01)	0.98	(0.01)
	Romania	**5**	(1.8)	2	(1.4)	0.02	(0.01)	0.01	(0.02)	**1.15**	(0.05)	**1.11**	(0.04)
	Russia	**6**	(1.5)	**4**	(1.1)	**0.02**	(0.01)	0.01	(0.01)	**1.08**	(0.02)	**1.08**	(0.02)
	Singapore	**8**	(1.1)	2	(1.2)	**0.04**	(0.01)	**0.02**	(0.01)	1.03	(0.02)	1.01	(0.02)
	Chinese Taipei	**11**	(1.5)	**3**	(1.0)	**0.05**	(0.01)	**0.02**	(0.01)	**1.14**	(0.03)	**1.09**	(0.03)
	Thailand	**8**	(1.5)	2	(1.3)	**0.03**	(0.01)	0.01	(0.01)	**1.09**	(0.02)	1.01	(0.02)
	Trinidad and Tobago	**5**	(0.6)	**2**	(0.6)	**0.02**	(0.01)	0.01	(0.01)	**1.04**	(0.02)	1.02	(0.02)
	Tunisia	1	(1.5)	-1	(1.4)	0.02	(0.01)	0.01	(0.01)	0.99	(0.02)	0.97	(0.02)
	United Arab Emirates	5	(2.5)	2	(1.8)	0.01	(0.01)	0.00	(0.01)	1.03	(0.02)	1.03	(0.02)
	Uruguay	**8**	(1.8)	**3**	(1.1)	**0.03**	(0.01)	0.01	(0.01)	**1.11**	(0.02)	**1.07**	(0.02)
	Viet Nam	**10**	(1.9)	**5**	(1.7)	**0.06**	(0.01)	**0.04**	(0.01)	**1.09**	(0.03)	**1.07**	(0.03)
	Argentina**	**8**	(1.2)	**4**	(1.1)	**0.04**	(0.01)	**0.02**	(0.01)	**1.06**	(0.02)	1.01	(0.02)
	Kazakhstan**	3	(2.2)	1	(1.7)	**0.03**	(0.01)	0.02	(0.01)	1.01	(0.03)	1.00	(0.03)
	Malaysia**	**4**	(1.5)	2	(1.2)	**0.02**	(0.01)	0.02	(0.01)	**1.06**	(0.02)	1.04	(0.02)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436477

[Part 1/1]

Table II.2.8 Science teaching staff

Results based on school principals' reports

		In schools attended by 15-year-olds, percentage of science teachers			
		Fully certified by the appropriate authority		With a university degree (ISCED level 5A) and a major in science	
		%	S.E.	%	S.E.
OECD	Australia	97.2	(0.5)	93.5	(0.6)
	Austria	80.8	(1.9)	64.9	(2.3)
	Belgium	84.6	(1.8)	47.4	(1.3)
	Canada	96.9	(0.7)	81.1	(1.9)
	Chile	25.6	(2.6)	75.2	(3.0)
	Czech Republic	92.4	(1.0)	66.4	(2.3)
	Denmark	m	m	84.7	(2.5)
	Estonia	89.9	(1.1)	75.5	(2.0)
	Finland	95.2	(1.1)	86.6	(2.4)
	France	82.2	(1.4)	84.8	(2.5)
	Germany	75.1	(2.9)	72.3	(3.6)
	Greece	92.7	(2.3)	45.5	(3.6)
	Hungary	m	m	91.1	(1.7)
	Iceland	89.5	(0.2)	45.4	(0.2)
	Ireland	97.2	(1.0)	91.3	(1.6)
	Israel	81.5	(3.0)	80.2	(2.6)
	Italy	91.9	(1.1)	4.7	(0.7)
	Japan	98.0	(0.7)	m	m
	Korea	95.5	(1.6)	88.6	(2.3)
	Latvia	72.5	(2.1)	79.0	(1.7)
	Luxembourg	71.7	(0.0)	75.6	(0.1)
	Mexico	33.3	(3.2)	66.9	(2.7)
	Netherlands	82.0	(3.0)	29.3	(3.0)
	New Zealand	94.4	(1.0)	92.5	(1.3)
	Norway	m	m	61.0	(2.2)
	Poland	93.0	(1.8)	90.2	(2.5)
	Portugal	95.0	(1.2)	88.1	(2.4)
	Slovak Republic	97.2	(0.8)	64.1	(2.7)
	Slovenia	97.5	(0.2)	90.2	(0.3)
	Spain	95.6	(1.5)	82.0	(2.3)
	Sweden	83.8	(1.9)	76.0	(2.4)
	Switzerland	75.3	(3.0)	70.2	(2.9)
	Turkey	44.8	(4.2)	77.7	(3.4)
	United Kingdom	95.7	(1.1)	93.2	(1.6)
	United States	94.4	(1.3)	92.7	(1.2)
	OECD average	84.1	(0.3)	73.8	(0.4)
Partners	Albania	95.5	(1.2)	71.7	(3.2)
	Algeria	88.6	(2.1)	37.6	(3.2)
	Brazil	88.3	(1.6)	33.0	(2.6)
	B-S-J-G (China)	96.6	(0.9)	84.3	(1.8)
	Bulgaria	98.4	(0.8)	97.8	(0.7)
	CABA (Argentina)	89.6	(4.1)	34.2	(4.4)
	Colombia	7.3	(1.4)	82.4	(2.5)
	Costa Rica	92.3	(1.5)	96.9	(0.8)
	Croatia	94.5	(1.4)	89.7	(2.0)
	Cyprus*	99.6	(0.0)	92.1	(0.1)
	Dominican Republic	m	m	60.8	(3.4)
	FYROM	68.6	(0.1)	69.3	(0.2)
	Georgia	34.0	(1.9)	70.5	(3.0)
	Hong Kong (China)	95.8	(1.4)	91.1	(1.6)
	Indonesia	63.9	(2.5)	86.3	(2.0)
	Jordan	81.2	(2.4)	83.5	(2.6)
	Kosovo	88.1	(1.0)	74.7	(1.1)
	Lebanon	71.1	(3.2)	71.6	(3.0)
	Lithuania	99.4	(0.3)	94.5	(1.2)
	Macao (China)	98.5	(0.0)	92.8	(0.0)
	Malta	84.1	(0.0)	79.5	(0.1)
	Moldova	70.2	(2.3)	50.4	(2.9)
	Montenegro	95.3	(0.1)	96.3	(0.3)
	Peru	90.2	(1.2)	20.8	(2.2)
	Qatar	76.7	(0.1)	29.8	(0.1)
	Romania	98.6	(0.8)	86.7	(2.3)
	Russia	93.7	(2.0)	92.7	(1.8)
	Singapore	93.5	(1.6)	88.8	(0.1)
	Chinese Taipei	92.5	(1.2)	92.7	(1.6)
	Thailand	95.7	(1.0)	87.0	(2.1)
	Trinidad and Tobago	65.4	(0.2)	79.1	(0.2)
	Tunisia	95.2	(1.9)	79.0	(3.7)
	United Arab Emirates	81.0	(1.7)	91.2	(1.7)
	Uruguay	71.7	(1.7)	6.2	(0.9)
	Viet Nam	84.5	(3.2)	92.4	(1.8)
	Argentina**	87.8	(2.2)	32.7	(2.1)
	Kazakhstan**	86.9	(2.2)	68.3	(3.4)
	Malaysia**	96.4	(1.0)	83.4	(2.8)

Note: In Chile the question about the certification of teachers was adapted as "authorised or enabled by the Ministry of Education".
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/3]

Table II.2.10 Qualified science teachers, by student and school characteristics

Results based on school principals' reports

		Percentage of science teachers with a university degree (ISCED level 5A) and a major in science in schools attended by 15-year-olds													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	93.5	(0.6)	15.5	(1.1)	90.7	(1.4)	93.6	(1.4)	93.6	(1.0)	96.0	(1.1)	**5.3**	(1.8)
	Austria	64.9	(2.3)	44.4	(0.9)	36.1	(5.1)	53.4	(7.0)	86.6	(4.4)	82.9	(5.4)	**46.8**	(7.4)
	Belgium	47.4	(1.3)	22.7	(1.1)	36.9	(2.5)	47.6	(3.6)	51.7	(2.9)	52.2	(3.2)	**15.3**	(4.3)
	Canada	81.1	(1.9)	30.8	(1.6)	75.4	(5.3)	80.8	(3.7)	81.8	(3.5)	85.5	(3.6)	10.0	(6.6)
	Chile	75.2	(3.0)	36.2	(2.2)	80.3	(7.1)	71.8	(6.4)	67.4	(7.2)	81.3	(5.0)	1.0	(8.7)
	Czech Republic	66.4	(2.3)	39.8	(0.8)	61.3	(4.9)	67.0	(4.9)	65.7	(5.2)	71.3	(4.8)	9.9	(6.8)
	Denmark	84.7	(2.5)	31.7	(2.6)	84.6	(4.6)	87.7	(4.6)	82.8	(5.0)	84.0	(6.1)	-0.6	(7.5)
	Estonia	75.5	(2.0)	32.5	(1.3)	65.7	(4.9)	78.4	(4.8)	76.8	(3.2)	81.6	(3.5)	**16.0**	(6.1)
	Finland	86.6	(2.4)	29.1	(2.9)	80.6	(6.1)	93.1	(5.0)	84.3	(5.8)	88.6	(3.9)	8.1	(6.9)
	France	84.8	(2.5)	30.3	(2.6)	81.3	(5.0)	79.8	(5.6)	86.2	(5.8)	89.8	(4.5)	8.5	(6.8)
	Germany	72.3	(3.6)	42.1	(1.9)	61.1	(7.1)	69.7	(8.0)	75.5	(6.7)	82.6	(6.1)	**21.5**	(9.4)
	Greece	45.5	(3.6)	40.2	(1.1)	38.6	(6.5)	47.4	(7.0)	53.1	(7.4)	43.3	(5.7)	4.6	(8.4)
	Hungary	91.1	(1.7)	25.4	(2.5)	88.7	(4.3)	88.2	(4.4)	92.1	(3.4)	95.2	(3.1)	6.6	(5.2)
	Iceland	45.4	(0.2)	42.2	(0.1)	30.8	(0.6)	44.9	(1.1)	50.5	(0.9)	53.7	(0.5)	**22.9**	(0.9)
	Ireland	91.3	(1.6)	18.1	(2.5)	95.6	(2.2)	91.2	(4.9)	84.9	(4.9)	93.2	(2.2)	-2.5	(3.2)
	Israel	80.2	(2.6)	32.8	(2.4)	84.7	(5.2)	74.6	(7.7)	76.3	(7.6)	83.9	(5.5)	-0.8	(7.9)
	Italy	4.7	(0.7)	13.7	(1.6)	8.8	(2.5)	7.1	(2.2)	3.1	(0.7)	1.1	(0.4)	**-7.6**	(2.4)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	88.6	(2.3)	28.2	(2.8)	86.5	(5.3)	93.8	(3.8)	86.0	(4.7)	88.2	(4.6)	1.6	(7.1)
	Latvia	79.0	(1.7)	30.4	(1.4)	72.8	(4.9)	78.6	(4.6)	81.1	(3.6)	83.4	(3.3)	10.7	(5.9)
	Luxembourg	75.6	(0.1)	35.6	(0.1)	67.4	(0.2)	68.9	(0.2)	89.1	(0.1)	76.5	(0.1)	**9.1**	(0.3)
	Mexico	66.9	(2.7)	40.5	(1.0)	59.8	(5.6)	69.7	(5.8)	66.5	(7.3)	71.6	(6.6)	11.8	(8.7)
	Netherlands	29.3	(3.0)	28.5	(1.9)	19.5	(6.2)	15.1	(7.9)	30.2	(9.1)	47.9	(4.3)	**28.4**	(7.6)
	New Zealand	92.5	(1.3)	16.1	(2.5)	89.3	(3.7)	92.0	(4.5)	93.2	(2.8)	94.8	(3.3)	5.6	(5.1)
	Norway	61.0	(2.2)	31.4	(1.1)	50.4	(4.3)	59.3	(6.0)	61.3	(5.0)	73.0	(5.0)	**22.7**	(6.6)
	Poland	90.2	(2.5)	28.8	(3.3)	93.6	(5.2)	88.6	(6.5)	89.3	(5.4)	89.3	(5.2)	-4.3	(6.8)
	Portugal	88.1	(2.4)	28.1	(3.0)	89.0	(3.6)	86.4	(4.8)	91.1	(4.7)	86.1	(5.5)	-2.9	(6.7)
	Slovak Republic	64.1	(2.7)	42.6	(0.9)	58.0	(5.3)	64.3	(6.6)	68.4	(6.7)	65.8	(6.3)	7.9	(7.8)
	Slovenia	90.2	(0.3)	23.6	(0.4)	88.6	(1.0)	94.4	(0.5)	88.4	(0.9)	89.9	(0.5)	1.3	(1.1)
	Spain	82.0	(2.3)	34.9	(2.0)	86.0	(6.1)	75.4	(6.6)	80.2	(5.8)	86.4	(3.8)	0.5	(6.9)
	Sweden	76.0	(2.4)	33.3	(1.9)	74.1	(5.1)	78.9	(5.3)	73.0	(7.2)	78.0	(5.1)	3.9	(6.8)
	Switzerland	70.2	(2.9)	37.0	(1.6)	59.3	(7.0)	58.5	(7.0)	72.8	(5.2)	89.6	(4.9)	**30.3**	(8.4)
	Turkey	77.7	(3.4)	39.3	(2.3)	77.6	(5.8)	76.6	(7.4)	82.2	(7.2)	74.5	(7.6)	-3.1	(9.7)
	United Kingdom	93.2	(1.6)	19.7	(2.9)	91.6	(3.1)	87.8	(6.4)	96.4	(1.5)	96.4	(2.4)	4.8	(3.8)
	United States	92.7	(1.2)	19.1	(2.0)	95.0	(2.0)	92.6	(3.2)	96.4	(2.4)	86.9	(2.8)	**-8.1**	(3.3)
	OECD average	73.8	(0.4)	30.7	(0.3)	69.4	(0.8)	72.3	(0.9)	75.2	(0.9)	77.8	(0.8)	**8.4**	(1.1)
Partners	Albania	71.7	(3.2)	41.8	(1.5)	64.7	(8.0)	75.0	(6.9)	72.1	(9.8)	74.3	(6.8)	9.5	(9.9)
	Algeria	37.6	(3.2)	39.1	(1.4)	40.5	(8.2)	33.5	(7.0)	33.4	(6.4)	43.0	(7.4)	2.5	(11.0)
	Brazil	33.0	(2.6)	42.2	(1.2)	21.0	(3.8)	27.0	(4.5)	39.1	(6.0)	44.0	(5.1)	**23.0**	(6.4)
	B-S-J-G (China)	84.3	(1.8)	25.4	(1.8)	70.8	(4.0)	75.7	(5.0)	94.6	(4.9)	96.1	(1.4)	**25.3**	(4.5)
	Bulgaria	97.8	(0.7)	10.8	(2.4)	93.2	(2.8)	99.3	(0.6)	99.9	(0.1)	98.8	(0.9)	5.6	(2.9)
	CABA (Argentina)	34.2	(4.4)	28.2	(2.6)	21.5	(5.0)	26.5	(6.8)	30.7	(7.3)	52.0	(11.5)	**30.5**	(12.3)
	Colombia	82.4	(2.5)	33.9	(2.3)	81.9	(5.9)	81.4	(5.7)	83.5	(5.4)	82.6	(4.9)	0.7	(7.9)
	Costa Rica	96.9	(0.8)	10.3	(2.4)	95.7	(2.5)	96.5	(1.7)	96.0	(1.6)	99.3	(0.7)	3.6	(2.6)
	Croatia	89.7	(2.0)	27.8	(2.8)	82.7	(5.1)	95.4	(4.3)	94.4	(4.1)	86.7	(6.2)	4.0	(8.7)
	Cyprus*	92.1	(0.1)	22.1	(0.1)	84.4	(0.3)	95.6	(0.1)	99.5	(0.1)	89.6	(0.1)	**5.3**	(0.3)
	Dominican Republic	60.8	(3.4)	42.5	(1.2)	45.4	(7.6)	67.9	(6.3)	67.1	(6.9)	63.9	(7.8)	18.5	(10.9)
	FYROM	69.3	(0.2)	43.1	(0.1)	59.5	(0.3)	71.0	(0.3)	69.0	(0.5)	79.7	(0.2)	**20.2**	(0.4)
	Georgia	70.5	(3.0)	41.9	(1.5)	69.5	(5.0)	68.8	(7.0)	68.3	(5.5)	75.4	(7.2)	5.8	(8.3)
	Hong Kong (China)	91.1	(1.6)	18.9	(2.5)	87.0	(5.1)	90.5	(4.8)	95.3	(1.9)	91.9	(3.1)	4.9	(5.7)
	Indonesia	86.3	(2.0)	28.5	(2.2)	75.1	(6.1)	88.1	(3.7)	88.3	(3.4)	92.6	(3.2)	**17.5**	(6.8)
	Jordan	83.5	(2.6)	33.4	(2.4)	76.9	(6.7)	89.5	(5.9)	86.9	(4.5)	80.7	(4.1)	3.8	(8.0)
	Kosovo	74.7	(1.1)	37.4	(0.7)	88.2	(3.1)	70.3	(2.0)	80.0	(2.5)	61.3	(1.9)	**-27.0**	(3.6)
	Lebanon	71.6	(3.0)	36.7	(1.7)	70.2	(6.4)	66.0	(6.2)	72.5	(7.3)	78.9	(7.1)	8.7	(10.1)
	Lithuania	94.5	(1.2)	20.7	(2.3)	91.3	(3.8)	90.2	(3.6)	98.7	(2.3)	97.9	(2.0)	6.6	(4.2)
	Macao (China)	92.8	(0.0)	22.3	(0.1)	84.3	(0.2)	93.5	(0.1)	97.3	(0.0)	96.1	(0.1)	**11.7**	(0.2)
	Malta	79.5	(0.1)	33.1	(0.1)	81.8	(0.1)	96.0	(0.1)	58.2	(0.3)	82.5	(0.1)	**0.6**	(0.2)
	Moldova	50.4	(2.9)	43.1	(0.6)	42.8	(5.8)	51.6	(6.5)	56.2	(6.6)	50.9	(7.6)	8.1	(9.4)
	Montenegro	96.3	(0.3)	12.8	(0.7)	90.5	(1.2)	97.8	(0.1)	98.7	(0.3)	98.4	(0.2)	**7.9**	(1.2)
	Peru	20.8	(2.2)	33.1	(1.8)	22.8	(4.5)	19.7	(4.5)	20.3	(4.8)	20.5	(4.7)	-2.3	(6.4)
	Qatar	29.8	(0.1)	32.5	(0.0)	19.4	(0.2)	30.3	(0.2)	29.9	(0.2)	40.7	(0.1)	**21.3**	(0.2)
	Romania	86.7	(2.3)	29.6	(2.5)	90.6	(4.5)	87.6	(5.4)	85.7	(5.0)	82.8	(6.2)	-7.8	(8.1)
	Russia	92.7	(1.8)	22.7	(3.2)	88.3	(3.2)	92.7	(5.3)	92.5	(4.5)	97.0	(3.1)	**8.7**	(4.1)
	Singapore	88.8	(0.1)	24.9	(0.1)	81.8	(0.2)	89.4	(0.3)	89.3	(0.3)	94.1	(0.2)	**12.2**	(0.3)
	Chinese Taipei	92.7	(1.6)	22.3	(2.7)	90.6	(3.4)	87.8	(5.0)	96.0	(2.6)	96.4	(3.3)	5.7	(4.9)
	Thailand	87.0	(2.1)	28.7	(2.5)	89.7	(5.1)	86.4	(5.5)	81.5	(5.1)	90.3	(3.8)	0.6	(6.5)
	Trinidad and Tobago	79.1	(0.2)	32.0	(0.1)	84.9	(0.4)	77.3	(0.4)	75.7	(0.3)	78.0	(0.1)	**-6.9**	(0.5)
	Tunisia	79.0	(3.7)	38.2	(2.9)	62.4	(9.3)	84.6	(7.2)	83.2	(6.5)	85.1	(8.1)	22.7	(11.9)
	United Arab Emirates	91.2	(1.7)	23.5	(2.8)	91.4	(5.2)	94.0	(4.0)	91.7	(3.3)	87.2	(3.3)	-4.2	(6.2)
	Uruguay	6.2	(0.9)	11.7	(2.2)	5.0	(1.7)	3.4	(1.2)	6.9	(2.5)	9.5	(1.5)	4.5	(2.3)
	Viet Nam	92.4	(1.8)	21.3	(2.7)	90.0	(3.3)	96.9	(1.9)	89.7	(5.6)	93.1	(3.1)	3.0	(4.9)
	Argentina**	32.7	(2.1)	33.5	(1.3)	28.2	(4.7)	29.2	(5.3)	37.2	(6.5)	36.1	(5.1)	7.9	(7.2)
	Kazakhstan**	68.3	(3.4)	44.8	(1.4)	64.6	(6.9)	54.0	(7.1)	71.3	(8.2)	83.0	(5.8)	**18.5**	(8.1)
	Malaysia**	83.4	(2.8)	31.8	(2.7)	73.8	(6.8)	82.7	(5.5)	87.0	(4.1)	90.0	(5.3)	16.2	(9.0)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Qualified science teachers are those with ISCED Level 5A and a major in science.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.10 Qualified science teachers, by student and school characteristics

Results based on school principals' reports

		Percentage of science teachers with a university degree (ISCED level 5A) and a major in science in schools attended by 15-year-olds																	
		By school location								By type of school						By education level			
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	90.4	(2.2)	92.6	(1.5)	93.9	(0.6)	3.4	(2.2)	94.2	(0.7)	92.8	(0.9)	-1.4	(1.1)	94.1	(0.5)	89.5	(1.3)	**-4.6**	(1.2)
	Austria	39.0	(9.7)	70.4	(3.5)	61.7	(4.4)	**22.7**	(10.7)	62.7	(2.4)	74.8	(8.7)	12.0	(9.0)	17.4	(7.1)	65.9	(2.4)	**48.4**	(7.5)
	Belgium	52.4	(5.3)	46.0	(1.7)	51.5	(2.1)	-0.9	(6.0)	w	w	w	w	w	w	36.4	(3.3)	48.4	(1.4)	**12.0**	(3.6)
	Canada	73.3	(7.5)	80.4	(2.8)	82.8	(2.4)	9.5	(8.2)	80.6	(2.0)	85.3	(4.8)	4.7	(5.1)	81.9	(2.7)	81.0	(1.9)	-1.0	(2.8)
	Chile	19.3	(14.9)	81.3	(4.7)	73.7	(4.0)	**54.4**	(15.3)	71.3	(5.5)	77.2	(3.7)	5.9	(6.6)	49.5	(9.2)	76.7	(3.1)	**27.3**	(9.4)
	Czech Republic	68.7	(5.4)	69.7	(3.2)	57.9	(4.6)	-10.8	(7.5)	66.3	(2.6)	68.5	(5.8)	2.2	(6.7)	63.8	(3.7)	69.5	(3.0)	5.7	(4.9)
	Denmark	84.6	(5.7)	87.0	(2.8)	76.4	(6.4)	-8.2	(8.3)	84.1	(2.8)	86.5	(4.5)	2.3	(4.8)	85.0	(2.5)	c	c	c	c
	Estonia	65.1	(5.7)	82.1	(2.3)	74.2	(3.0)	9.1	(6.4)	75.4	(2.0)	75.8	(8.2)	0.4	(8.4)	75.4	(2.0)	82.1	(3.7)	6.7	(4.0)
	Finland	84.7	(4.6)	85.9	(3.2)	89.1	(4.1)	4.4	(6.3)	87.2	(2.3)	84.2	(11.4)	-3.0	(11.6)	86.6	(2.4)	c	c	c	c
	France	96.7	(3.0)	84.4	(2.8)	82.8	(5.8)	**-13.9**	(6.6)	84.9	(2.9)	83.9	(6.1)	-1.0	(6.8)	79.0	(4.1)	86.6	(3.0)	7.6	(4.9)
	Germany	96.1	(2.1)	66.9	(4.7)	78.8	(5.7)	**-17.4**	(5.9)	70.7	(3.8)	96.2	(3.9)	**25.5**	(5.4)	72.6	(3.6)	65.8	(14.0)	-6.8	(13.5)
	Greece	56.9	(10.5)	41.1	(4.9)	52.0	(5.2)	-4.8	(11.8)	44.7	(3.6)	59.9	(13.4)	15.2	(13.8)	58.5	(8.7)	44.9	(3.7)	-13.6	(9.0)
	Hungary	90.8	(5.4)	88.9	(2.6)	93.9	(2.3)	3.1	(5.8)	89.9	(1.9)	96.1	(2.5)	**6.2**	(3.0)	84.4	(4.7)	91.9	(1.9)	7.5	(5.2)
	Iceland	37.5	(0.8)	46.6	(0.3)	48.3	(0.3)	**10.8**	(0.8)	46.6	(0.2)	c	c	c	c	45.4	(0.2)	m	m	m	m
	Ireland	88.5	(3.9)	92.1	(2.0)	91.8	(3.2)	3.3	(5.1)	91.8	(2.4)	91.0	(2.2)	-0.7	(3.3)	91.0	(1.7)	91.8	(1.7)	0.8	(0.6)
	Israel	77.0	(5.5)	84.2	(3.4)	76.5	(4.9)	-0.4	(7.4)	m	m	m	m	m	m	83.5	(4.3)	79.8	(2.8)	-3.7	(4.9)
	Italy	7.1	(6.2)	4.6	(0.8)	4.7	(1.7)	-2.4	(6.5)	3.7	(0.6)	25.2	(9.8)	**21.5**	(10.0)	0.8	(0.6)	4.7	(0.7)	**3.9**	(0.9)
	Japan	c	c	c	c	c	c	c	c	c	c	c	c	c	c	m	m	c	c	m	m
	Korea	c	c	82.0	(8.5)	89.6	(2.3)	c	c	91.9	(2.4)	82.4	(4.9)	-9.6	(5.5)	86.5	(7.2)	88.9	(2.5)	2.4	(7.6)
	Latvia	69.3	(4.9)	81.1	(2.0)	82.7	(2.7)	**13.3**	(5.5)	79.1	(1.7)	72.2	(18.4)	-6.9	(18.3)	79.3	(1.8)	72.8	(5.4)	-6.4	(5.5)
	Luxembourg	m	m	85.4	(0.1)	64.4	(0.1)	m	m	77.1	(0.1)	68.0	(0.2)	**-9.1**	(0.2)	73.4	(0.1)	78.3	(0.1)	**4.9**	(0.2)
	Mexico	59.4	(6.8)	66.3	(4.2)	69.5	(4.1)	10.1	(8.0)	65.7	(2.8)	75.4	(6.9)	9.7	(7.2)	70.5	(4.0)	64.6	(3.6)	-5.9	(5.5)
	Netherlands	c	c	25.3	(3.1)	40.4	(7.1)	c	c	35.5	(6.2)	25.1	(3.0)	-10.4	(6.9)	21.5	(3.2)	47.5	(3.9)	**26.1**	(4.4)
	New Zealand	94.5	(2.8)	88.8	(2.5)	95.4	(1.3)	1.0	(2.9)	92.1	(1.4)	98.3	(1.2)	**6.3**	(1.9)	90.8	(2.0)	92.6	(1.3)	1.8	(1.0)
	Norway	44.0	(5.7)	62.4	(2.9)	73.8	(4.8)	**29.8**	(7.7)	61.6	(2.2)	46.4	(13.9)	-15.2	(14.1)	61.0	(2.2)	c	c	c	c
	Poland	90.1	(4.1)	92.0	(3.6)	87.2	(5.4)	-2.9	(6.8)	90.5	(2.5)	81.6	(19.9)	-8.9	(20.0)	90.1	(2.5)	c	c	c	c
	Portugal	62.9	(13.9)	88.6	(2.6)	90.0	(4.4)	27.1	(14.7)	88.5	(2.4)	81.4	(10.3)	-7.1	(10.5)	89.2	(3.3)	87.5	(2.8)	-1.7	(3.9)
	Slovak Republic	55.6	(4.6)	65.2	(3.4)	69.9	(6.9)	14.3	(8.5)	64.1	(2.9)	63.8	(7.6)	-0.4	(8.1)	61.9	(3.5)	66.2	(4.0)	4.3	(5.3)
	Slovenia	90.5	(2.4)	89.3	(0.4)	92.3	(0.5)	1.8	(2.5)	90.1	(0.3)	96.2	(0.2)	**6.0**	(0.4)	76.7	(5.4)	91.0	(0.1)	**14.4**	(5.4)
	Spain	88.2	(9.1)	82.8	(3.2)	79.9	(4.2)	-8.3	(10.2)	81.2	(3.0)	83.7	(3.5)	2.5	(4.8)	82.0	(2.3)	c	c	c	c
	Sweden	72.4	(10.5)	75.7	(3.0)	77.8	(4.4)	5.4	(11.4)	77.1	(2.6)	70.9	(6.4)	-6.3	(6.9)	76.0	(2.4)	74.4	(18.7)	-1.6	(18.7)
	Switzerland	82.1	(5.2)	67.1	(3.5)	76.5	(6.5)	-5.6	(8.2)	68.7	(3.1)	88.7	(5.8)	**20.0**	(6.4)	68.2	(3.3)	78.5	(5.2)	10.3	(5.9)
	Turkey	54.1	(28.0)	78.6	(5.8)	77.6	(4.3)	23.4	(28.3)	77.7	(3.4)	75.4	(19.6)	-2.4	(19.6)	75.1	(12.8)	77.8	(3.4)	2.8	(13.3)
	United Kingdom	96.2	(2.9)	95.6	(1.2)	85.4	(5.0)	-10.8	(6.4)	92.7	(1.7)	99.9	(0.0)	**7.2**	(1.7)	98.7	(1.5)	93.2	(1.6)	**-5.5**	(2.5)
	United States	93.5	(3.0)	92.6	(1.8)	92.7	(2.6)	-0.9	(4.0)	93.8	(1.1)	79.5	(8.3)	-14.3	(8.4)	92.5	(1.9)	92.7	(1.1)	0.2	(1.5)
	OECD average	70.4	(1.5)	74.2	(0.6)	74.6	(0.7)	**5.1**	(1.7)	73.6	(0.5)	76.2	(1.5)	1.7	(1.6)	70.6	(0.8)	74.5	(1.0)	**4.9**	(1.3)
Partners	Albania	59.4	(7.5)	68.0	(5.2)	87.1	(3.4)	**27.7**	(8.1)	69.5	(3.5)	87.6	(4.6)	**18.1**	(5.7)	70.5	(5.3)	72.4	(3.6)	1.8	(5.9)
	Algeria	34.5	(10.4)	34.3	(3.6)	49.9	(5.5)	15.4	(11.8)	37.1	(3.2)	c	c	c	c	35.6	(3.6)	44.1	(6.6)	8.4	(7.5)
	Brazil	33.9	(9.8)	29.7	(3.8)	36.4	(3.3)	2.5	(10.3)	30.5	(2.7)	52.5	(5.8)	**22.0**	(6.4)	33.6	(3.6)	32.8	(2.8)	-0.8	(3.6)
	B-S-J-G (China)	75.0	(6.4)	81.3	(2.8)	92.0	(2.0)	**17.0**	(6.7)	86.4	(1.8)	67.8	(7.5)	**-18.6**	(8.0)	79.4	(2.2)	92.6	(2.8)	**13.2**	(3.3)
	Bulgaria	82.1	(8.0)	98.2	(1.0)	98.7	(0.8)	**16.6**	(8.1)	97.8	(0.8)	c	c	c	c	89.8	(6.3)	98.1	(0.7)	8.2	(6.3)
	CABA (Argentina)	m	m	c	c	34.7	(4.6)	m	m	31.4	(5.8)	37.1	(6.9)	5.7	(8.9)	32.3	(4.3)	55.6	(9.7)	**23.2**	(9.4)
	Colombia	75.5	(6.6)	86.9	(4.2)	83.2	(3.3)	7.6	(7.3)	84.4	(2.8)	74.7	(5.8)	-9.7	(6.4)	81.9	(2.7)	82.7	(2.7)	0.8	(2.0)
	Costa Rica	98.1	(1.1)	96.4	(1.1)	96.9	(1.4)	-1.3	(1.8)	98.0	(0.6)	89.3	(4.8)	-8.7	(4.9)	96.6	(0.8)	97.2	(0.9)	0.6	(0.4)
	Croatia	c	c	89.7	(2.6)	90.1	(3.1)	c	c	89.6	(2.0)	c	c	c	c	c	c	89.7	(2.0)	c	c
	Cyprus*	96.9	(0.0)	92.5	(0.1)	90.8	(0.1)	**-6.2**	(0.1)	93.1	(0.1)	87.5	(0.1)	**-5.6**	(0.1)	81.5	(0.9)	92.8	(0.1)	**11.3**	(0.9)
	Dominican Republic	60.6	(9.1)	57.7	(4.5)	67.7	(6.3)	7.1	(10.9)	60.8	(3.7)	60.9	(8.2)	0.1	(8.9)	26.8	(5.6)	70.0	(3.8)	**43.3**	(6.7)
	FYROM	34.2	(0.4)	72.3	(0.2)	67.6	(0.2)	**33.4**	(0.5)	69.4	(0.2)	86.9	(0.5)	**17.5**	(0.5)	c	c	69.3	(0.2)	c	c
	Georgia	72.8	(4.2)	66.2	(6.5)	71.1	(5.5)	-1.7	(6.9)	69.3	(3.2)	80.6	(8.0)	11.3	(8.4)	67.5	(4.0)	71.3	(3.0)	3.8	(2.8)
	Hong Kong (China)	m	m	m	m	91.1	(1.6)	m	m	98.4	(1.6)	90.5	(1.7)	**-7.9**	(2.3)	90.8	(1.7)	91.3	(1.6)	0.5	(0.8)
	Indonesia	80.8	(4.7)	88.8	(2.1)	86.9	(3.4)	6.1	(6.0)	90.3	(2.1)	80.2	(3.8)	**-10.0**	(4.3)	85.5	(3.0)	87.2	(2.4)	1.6	(3.9)
	Jordan	89.3	(4.7)	79.6	(4.2)	86.4	(3.2)	-2.9	(5.8)	84.2	(3.0)	82.1	(4.6)	-2.1	(5.3)	83.5	(2.6)	m	m	m	m
	Kosovo	79.1	(4.1)	79.3	(1.2)	60.1	(1.7)	**-19.0**	(4.5)	74.4	(1.0)	87.1	(17.7)	12.7	(17.7)	75.0	(3.4)	74.6	(0.9)	-0.4	(3.5)
	Lebanon	48.7	(7.3)	76.9	(3.8)	73.4	(5.7)	**24.8**	(8.3)	66.7	(4.8)	76.4	(3.8)	9.7	(6.3)	73.4	(3.8)	71.0	(3.5)	-2.4	(4.7)
	Lithuania	90.1	(3.7)	94.5	(1.5)	97.0	(1.7)	6.9	(3.9)	94.4	(1.2)	96.9	(4.6)	2.4	(4.7)	94.5	(1.2)	c	c	c	c
	Macao (China)	c	c	c	c	92.8	(0.0)	c	c	c	c	93.0	(0.0)	c	c	90.2	(0.1)	94.9	(0.1)	**4.8**	(0.1)
	Malta	84.3	(0.1)	78.5	(0.1)	m	m	m	m	82.3	(0.1)	77.1	(0.2)	**-5.2**	(0.2)	c	c	79.5	(0.1)	c	c
	Moldova	46.6	(4.3)	48.3	(5.6)	62.7	(8.3)	16.1	(9.5)	50.5	(2.9)	c	c	c	c	50.4	(2.9)	50.2	(9.5)	-0.2	(9.5)
	Montenegro	c	c	97.5	(0.5)	93.7	(0.2)	c	c	96.3	(0.3)	c	c	c	c	71.3	(10.4)	97.0	(0.0)	**25.7**	(10.4)
	Peru	22.2	(4.0)	20.5	(2.7)	17.3	(4.4)	-5.0	(5.4)	19.7	(2.5)	23.8	(3.7)	4.1	(4.1)	21.8	(2.7)	20.5	(2.3)	-1.4	(2.3)
	Qatar	7.9	(0.1)	21.8	(0.1)	39.4	(0.1)	**31.5**	(0.2)	13.6	(0.1)	52.4	(0.1)	**38.8**	(0.1)	29.3	(0.2)	29.9	(0.1)	**0.6**	(0.2)
	Romania	89.5	(4.2)	88.4	(2.6)	82.2	(5.3)	-7.3	(6.8)	87.2	(2.2)	c	c	c	c	86.7	(2.3)	m	m	m	m
	Russia	82.4	(5.3)	94.5	(2.3)	94.4	(2.6)	**11.9**	(5.8)	93.2	(1.8)	c	c	c	c	93.0	(1.9)	90.5	(3.0)	-2.5	(2.9)
	Singapore	m	m	m	m	89.5	(0.1)	m	m	88.8	(0.1)	88.6	(1.0)	-0.2	(1.0)	86.9	(3.5)	88.8	(0.1)	1.8	(3.5)
	Chinese Taipei	c	c	91.4	(2.2)	93.7	(2.1)	c	c	93.9	(1.8)	91.1	(3.5)	-2.8	(4.1)	94.7	(1.6)	91.6	(2.4)	-3.2	(3.1)
	Thailand	87.3	(4.4)	85.2	(2.8)	89.6	(4.0)	2.3	(5.7)	89.2	(2.0)	74.8	(8.4)	-14.4	(8.7)	85.5	(2.7)	87.5	(2.2)	2.0	(2.6)
	Trinidad and Tobago	81.8	(0.3)	79.3	(0.2)	m	m	m	m	78.1	(0.2)	80.3	(0.5)	**2.3**	(0.5)	80.8	(0.3)	77.9	(0.2)	**-2.9**	(0.4)
	Tunisia	80.2	(16.6)	77.1	(4.3)	85.1	(6.2)	4.9	(17.9)	78.7	(3.8)	85.1	(13.4)	6.3	(13.9)	74.3	(5.3)	81.7	(4.7)	7.4	(6.8)
	United Arab Emirates	97.0	(2.1)	86.4	(4.3)	92.5	(1.9)	-4.5	(2.8)	94.7	(1.4)	88.4	(2.8)	**-6.3**	(3.2)	90.6	(2.9)	91.3	(1.7)	0.6	(2.5)
	Uruguay	2.9	(1.7)	6.3	(1.4)	6.5	(1.0)	3.7	(2.0)	5.4	(1.0)	10.7	(1.7)	**5.4**	(2.0)	5.4	(1.1)	6.7	(0.9)	1.3	(1.0)
	Viet Nam	91.8	(2.5)	95.0	(1.9)	89.4	(5.0)	-2.4	(5.6)	92.0	(1.9)	100.0	(0.0)	**8.0**	(1.9)	73.5	(5.0)	94.3	(1.9)	**20.8**	(5.4)
	Argentina**	50.6	(8.1)	26.8	(3.1)	38.4	(3.7)	-12.1	(9.1)	31.7	(2.5)	37.2	(4.8)	5.5	(5.5)	29.7	(2.4)	34.5	(2.4)	**4.8**	(2.3)
	Kazakhstan**	58.2	(6.2)	70.1	(5.2)	74.9	(5.3)	**16.7**	(8.3)	66.9	(3.4)	100.0	(0.0)	**33.1**	(3.4)	68.3	(3.8)	63.0	(4.9)	-5.3	(3.5)
	Malaysia**	80.5	(6.8)	83.2	(4.0)	84.4	(4.4)	3.9	(8.0)	84.6	(2.7)	63.2	(20.6)	-21.3	(20.9)	75.4	(8.1)	83.6	(2.8)	8.3	(7.5)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Qualified science teachers are those with ISCED Level 5A and a major in science.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.2.10 Qualified science teachers, by student and school characteristics

Results based on school principals' reports

		Percentage of science teachers with a university degree (ISCED level 5A) and a major in science in schools attended by 15-year-olds											
		Change in science score per percentage-point increase in the number of qualified science teachers				Change in the index of epistemic beliefs per percentage-point increase in the number of qualified science teachers				Increased likelihood of expecting to work in science-related occupations per percentage-point increase in the number of qualified science teachers			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	**Australia**	**0.4**	(0.1)	0.1	(0.1)	**0.002**	(0.00)	0.001	(0.00)	1.001	0.001	0.999	(0.00)
	Austria	**0.7**	(0.1)	**0.3**	(0.1)	**0.004**	(0.00)	0.001	(0.00)	**1.006**	0.002	**1.004**	(0.00)
	Belgium	**0.7**	(0.2)	0.1	(0.1)	**0.002**	(0.00)	0.000	(0.00)	**1.017**	0.004	**1.009**	(0.00)
	Canada	**0.2**	(0.1)	0.1	(0.0)	0.001	(0.00)	0.000	(0.00)	**1.002**	0.001	1.001	(0.00)
	Chile	0.2	(0.1)	**0.2**	(0.1)	0.001	(0.00)	0.001	(0.00)	1.002	0.001	1.002	(0.00)
	Czech Republic	**0.2**	(0.1)	0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	**1.003**	0.001	**1.003**	(0.00)
	Denmark	-0.1	(0.1)	-0.1	(0.1)	-0.001	(0.00)	0.000	(0.00)	0.999	0.002	0.999	(0.00)
	Estonia	**0.2**	(0.1)	0.1	(0.1)	**0.001**	(0.00)	0.001	(0.00)	1.000	0.001	0.999	(0.00)
	Finland	0.2	(0.1)	0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	1.000	0.001	0.999	(0.00)
	France	**0.5**	(0.2)	0.2	(0.1)	0.001	(0.00)	0.000	(0.00)	1.001	0.002	0.998	(0.00)
	Germany	**0.4**	(0.1)	0.1	(0.1)	**0.002**	(0.00)	0.001	(0.00)	1.001	0.002	0.999	(0.00)
	Greece	**0.3**	(0.1)	**0.1**	(0.1)	0.001	(0.00)	0.001	(0.00)	1.002	0.001	1.001	(0.00)
	Hungary	0.3	(0.2)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	1.004	0.004	1.002	(0.00)
	Iceland	0.0	(0.0)	0.0	(0.0)	0.000	(0.00)	0.000	(0.00)	0.999	0.001	0.999	(0.00)
	Ireland	-0.3	(0.1)	-0.2	(0.1)	**-0.001**	(0.00)	-0.001	(0.00)	0.998	0.003	0.999	(0.00)
	Israel	0.1	(0.1)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	**1.011**	0.002	**1.011**	(0.00)
	Italy	**-0.9**	(0.2)	-0.3	(0.2)	**-0.007**	(0.00)	**-0.005**	(0.00)	**0.972**	0.007	**0.981**	(0.01)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	0.2	(0.2)	**0.2**	(0.1)	0.001	(0.00)	**0.002**	(0.00)	1.002	0.002	1.002	(0.00)
	Latvia	0.1	(0.1)	0.0	(0.1)	0.001	(0.00)	0.001	(0.00)	1.002	0.001	1.001	(0.00)
	Luxembourg	**0.2**	(0.0)	0.0	(0.0)	0.001	(0.00)	0.000	(0.00)	**1.003**	0.001	1.001	(0.00)
	Mexico	0.1	(0.1)	0.0	(0.0)	0.000	(0.00)	0.000	(0.00)	1.001	0.001	1.001	(0.00)
	Netherlands	**1.6**	(0.3)	**0.8**	(0.2)	**0.005**	(0.00)	**0.002**	(0.00)	**1.008**	0.003	1.004	(0.00)
	New Zealand	**0.4**	(0.2)	0.1	(0.2)	0.001	(0.00)	0.000	(0.00)	**1.005**	0.003	1.004	(0.00)
	Norway	0.0	(0.1)	-0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	1.001	0.001	1.000	(0.00)
	Poland	0.0	(0.1)	0.1	(0.1)	-0.002	(0.00)	-0.001	(0.00)	1.001	0.002	1.002	(0.00)
	Portugal	0.0	(0.2)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	1.000	0.001	1.000	(0.00)
	Slovak Republic	0.2	(0.1)	0.1	(0.1)	0.001	(0.00)	0.000	(0.00)	1.002	0.002	1.001	(0.00)
	Slovenia	**0.2**	(0.1)	**0.1**	(0.1)	0.000	(0.00)	-0.001	(0.00)	**1.006**	0.001	**1.006**	(0.00)
	Spain	-0.1	(0.1)	**-0.1**	(0.0)	-0.001	(0.00)	-0.001	(0.00)	1.001	0.001	1.001	(0.00)
	Sweden	0.1	(0.1)	0.1	(0.1)	0.000	(0.00)	0.001	(0.00)	1.002	0.001	1.002	(0.00)
	Switzerland	**0.5**	(0.1)	0.1	(0.1)	**0.003**	(0.00)	0.001	(0.00)	**1.004**	0.002	1.001	(0.00)
	Turkey	0.1	(0.1)	0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	**1.003**	0.002	**1.003**	(0.00)
	United Kingdom	**0.4**	(0.2)	0.1	(0.1)	0.001	(0.00)	0.000	(0.00)	**1.007**	0.003	1.006	(0.00)
	United States	-0.2	(0.1)	0.1	(0.1)	-0.001	(0.00)	0.000	(0.00)	0.998	0.002	0.999	(0.00)
	OECD average	**0.2**	(0.0)	**0.1**	(0.0)	**0.001**	(0.00)	0.000	(0.00)	**1.002**	0.000	**1.001**	(0.00)
Partners	**Albania**	m	m	m	m	0.000	(0.00)	0.000	(0.00)	1.001	0.001	1.000	(0.00)
	Algeria	0.1	(0.1)	0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	1.002	0.001	1.001	(0.00)
	Brazil	**0.2**	(0.1)	0.0	(0.1)	0.000	(0.00)	0.000	(0.00)	1.001	0.001	1.000	(0.00)
	B-S-J-G (China)	**1.0**	(0.3)	0.1	(0.2)	**0.003**	(0.00)	0.000	(0.00)	**1.004**	0.002	1.000	(0.00)
	Bulgaria	**1.8**	(0.4)	**0.6**	(0.2)	0.003	(0.00)	-0.001	(0.00)	**1.038**	0.010	**1.030**	(0.01)
	CABA (Argentina)	**0.7**	(0.3)	0.1	(0.1)	**0.004**	(0.00)	0.001	(0.00)	1.001	0.002	0.999	(0.00)
	Colombia	0.0	(0.1)	0.0	(0.1)	0.000	(0.00)	0.000	(0.00)	1.000	0.001	1.000	(0.00)
	Costa Rica	**0.3**	(0.1)	-0.1	(0.1)	0.002	(0.00)	0.000	(0.00)	1.002	0.002	1.000	(0.00)
	Croatia	-0.1	(0.2)	0.0	(0.1)	0.000	(0.00)	0.000	(0.00)	0.999	0.003	1.000	(0.00)
	Cyprus*	-0.1	(0.1)	**-0.1**	(0.1)	-0.001	(0.00)	**-0.001**	(0.00)	1.002	0.001	1.001	(0.00)
	Dominican Republic	**0.2**	(0.1)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	1.001	0.001	1.001	(0.00)
	FYROM	**0.2**	(0.0)	**0.2**	(0.0)	**0.001**	(0.00)	**0.001**	(0.00)	**1.006**	0.001	**1.005**	(0.00)
	Georgia	0.1	(0.1)	0.1	(0.1)	0.001	(0.00)	0.000	(0.00)	1.001	0.001	1.001	(0.00)
	Hong Kong (China)	**0.4**	(0.2)	0.2	(0.1)	0.001	(0.00)	0.001	(0.00)	1.003	0.002	1.002	(0.00)
	Indonesia	**0.3**	(0.1)	0.1	(0.1)	**0.001**	(0.00)	0.000	(0.00)	1.001	0.003	0.998	(0.00)
	Jordan	-0.1	(0.1)	-0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	1.000	0.001	1.001	(0.00)
	Kosovo	**-0.2**	(0.0)	0.0	(0.0)	0.000	(0.00)	0.000	(0.00)	0.998	0.001	1.000	(0.00)
	Lebanon	0.2	(0.1)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	1.001	0.002	1.000	(0.00)
	Lithuania	**0.2**	(0.1)	-0.1	(0.1)	0.001	(0.00)	0.000	(0.00)	1.003	0.002	1.000	(0.00)
	Macao (China)	**0.4**	(0.0)	**0.4**	(0.0)	0.001	(0.00)	0.001	(0.00)	1.000	0.002	0.999	(0.00)
	Malta	0.0	(0.1)	**0.2**	(0.1)	0.001	(0.00)	**0.002**	(0.00)	0.998	0.001	0.999	(0.00)
	Moldova	0.0	(0.1)	0.0	(0.1)	0.000	(0.00)	-0.001	(0.00)	1.000	0.001	1.000	(0.00)
	Montenegro	**0.3**	(0.1)	-0.1	(0.1)	-0.002	(0.00)	**-0.002**	(0.00)	**1.022**	0.009	**1.018**	(0.01)
	Peru	0.0	(0.1)	0.0	(0.1)	-0.001	(0.00)	-0.001	(0.00)	0.999	0.001	0.999	(0.00)
	Qatar	**1.0**	(0.0)	**0.8**	(0.0)	**0.005**	(0.00)	**0.004**	(0.00)	**1.007**	0.000	**1.006**	(0.00)
	Romania	-0.1	(0.2)	0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	0.998	0.002	1.000	(0.00)
	Russia	0.1	(0.1)	-0.1	(0.1)	0.001	(0.00)	0.000	(0.00)	1.002	0.003	1.001	(0.00)
	Singapore	**0.3**	(0.0)	**-0.1**	(0.0)	0.001	(0.00)	0.000	(0.00)	1.000	0.001	0.999	(0.00)
	Chinese Taipei	0.3	(0.2)	0.1	(0.1)	0.001	(0.00)	0.000	(0.00)	0.999	0.004	0.997	(0.00)
	Thailand	0.2	(0.1)	0.1	(0.1)	0.000	(0.00)	0.000	(0.00)	1.004	0.002	1.003	(0.00)
	Trinidad and Tobago	**-0.2**	(0.0)	0.0	(0.0)	0.000	(0.00)	0.000	(0.00)	0.999	0.001	1.000	(0.00)
	Tunisia	0.1	(0.1)	0.0	(0.1)	0.000	(0.00)	0.000	(0.00)	1.000	0.001	0.999	(0.00)
	United Arab Emirates	0.1	(0.1)	**0.3**	(0.1)	0.000	(0.00)	0.000	(0.00)	0.998	0.001	0.999	(0.00)
	Uruguay	0.8	(0.5)	0.1	(0.2)	0.002	(0.00)	0.000	(0.00)	**1.011**	0.004	1.006	(0.00)
	Viet Nam	**0.4**	(0.1)	**0.3**	(0.1)	0.000	(0.00)	0.000	(0.00)	1.000	0.003	0.999	(0.00)
	Argentina**	**0.2**	(0.1)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	1.001	0.002	1.000	(0.00)
	Kazakhstan**	0.1	(0.1)	0.0	(0.1)	0.001	(0.00)	0.000	(0.00)	1.001	0.001	1.000	(0.00)
	Malaysia**	0.2	(0.1)	0.1	(0.1)	0.001	(0.00)	0.001	(0.00)	**1.005**	0.001	**1.004**	(0.00)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Qualified science teachers are those with ISCED Level 5A and a major in science.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.2.11 Science-related extracurricular activities

Results based on school principals' reports

		Percentage of students in schools offering the following science-related activities			
		Science club		Science competitions	
		%	S.E.	%	S.E.
OECD	**Australia**	38.3	(2.2)	91.5	(1.2)
	Austria	5.0	(1.3)	30.9	(3.0)
	Belgium	5.7	(1.7)	69.2	(2.9)
	Canada	56.5	(2.9)	76.2	(2.6)
	Chile	35.5	(3.9)	63.4	(3.8)
	Czech Republic	47.1	(3.3)	84.9	(2.0)
	Denmark	8.9	(2.4)	33.2	(3.2)
	Estonia	42.5	(2.9)	94.5	(1.3)
	Finland	12.9	(2.5)	86.0	(2.9)
	France	24.3	(3.1)	67.1	(2.8)
	Germany	48.4	(3.8)	58.9	(2.9)
	Greece	18.5	(2.5)	70.8	(3.3)
	Hungary	52.0	(3.6)	92.7	(1.8)
	Iceland	10.0	(0.1)	25.8	(0.2)
	Ireland	34.6	(3.9)	65.3	(4.5)
	Israel	57.5	(3.9)	57.2	(3.8)
	Italy	45.7	(3.4)	65.9	(3.9)
	Japan	59.8	(3.2)	23.6	(2.9)
	Korea	92.8	(2.0)	85.5	(2.3)
	Latvia	45.4	(3.0)	85.2	(2.2)
	Luxembourg	32.5	(0.1)	80.8	(0.1)
	Mexico	28.7	(2.9)	68.7	(2.8)
	Netherlands	18.2	(3.8)	50.7	(4.3)
	New Zealand	48.6	(4.2)	82.8	(2.8)
	Norway	1.6	(0.9)	12.5	(2.5)
	Poland	79.4	(3.0)	94.9	(1.7)
	Portugal	56.6	(4.4)	88.6	(2.3)
	Slovak Republic	60.2	(3.1)	80.6	(2.2)
	Slovenia	52.1	(0.6)	87.3	(0.2)
	Spain	15.7	(2.7)	65.6	(3.3)
	Sweden	7.1	(1.9)	61.0	(3.4)
	Switzerland	37.2	(3.6)	24.1	(3.4)
	Turkey	42.2	(4.4)	57.9	(4.5)
	United Kingdom	79.3	(3.0)	72.1	(3.5)
	United States	75.1	(3.7)	72.1	(3.4)
	OECD average	39.3	(0.5)	66.5	(0.5)
Partners	**Albania**	47.6	(4.0)	84.8	(2.3)
	Algeria	64.4	(4.1)	33.3	(3.9)
	Brazil	12.7	(2.2)	27.4	(2.8)
	B-S-J-G (China)	90.6	(2.3)	90.5	(2.2)
	Bulgaria	60.9	(3.7)	83.2	(2.0)
	CABA (Argentina)	48.6	(7.4)	54.2	(7.6)
	Colombia	34.8	(3.1)	67.8	(3.6)
	Costa Rica	24.2	(3.1)	90.6	(2.2)
	Croatia	52.0	(3.9)	81.5	(2.6)
	Cyprus*	74.6	(0.1)	87.0	(0.1)
	Dominican Republic	50.5	(4.0)	80.6	(3.0)
	FYROM	38.8	(0.2)	71.1	(0.1)
	Georgia	39.3	(3.4)	78.6	(2.7)
	Hong Kong (China)	94.9	(2.0)	87.5	(3.0)
	Indonesia	58.6	(3.5)	79.7	(2.8)
	Jordan	51.5	(3.3)	25.1	(3.1)
	Kosovo	51.6	(1.3)	58.2	(1.2)
	Lebanon	43.5	(4.0)	57.9	(4.2)
	Lithuania	34.5	(2.6)	92.2	(1.5)
	Macao (China)	74.2	(0.1)	95.8	(0.0)
	Malta	65.8	(0.1)	74.7	(0.1)
	Moldova	17.1	(2.9)	98.5	(0.9)
	Montenegro	75.7	(0.5)	83.5	(0.6)
	Peru	28.1	(2.9)	70.4	(2.7)
	Qatar	85.8	(0.1)	91.0	(0.1)
	Romania	73.4	(3.0)	37.2	(3.7)
	Russia	77.3	(2.8)	99.2	(0.7)
	Singapore	41.7	(1.2)	88.6	(1.4)
	Chinese Taipei	79.6	(2.6)	81.4	(2.4)
	Thailand	89.6	(2.2)	72.3	(3.8)
	Trinidad and Tobago	38.5	(0.2)	68.5	(0.3)
	Tunisia	58.7	(4.4)	41.5	(4.4)
	United Arab Emirates	82.3	(1.8)	87.9	(1.7)
	Uruguay	35.2	(2.9)	44.5	(2.5)
	Viet Nam	44.3	(4.0)	47.0	(3.8)
	Argentina**	42.3	(4.0)	57.8	(3.5)
	Kazakhstan**	77.1	(3.1)	99.3	(0.4)
	Malaysia**	96.7	(1.5)	87.7	(2.5)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/2]

Table II.2.16 Teacher-directed science instruction

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons															
		The teacher explains scientific ideas								A whole class discussion takes place with the teacher							
		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	5.5	(0.2)	25.6	(0.6)	36.1	(0.6)	32.9	(0.6)	15.4	(0.5)	39.0	(0.6)	29.1	(0.5)	16.4	(0.4)
	Austria	17.2	(0.7)	32.3	(0.9)	29.1	(0.8)	21.4	(0.8)	23.3	(0.9)	33.6	(0.9)	25.7	(0.7)	17.5	(0.7)
	Belgium	16.7	(0.5)	41.4	(0.6)	27.2	(0.6)	14.8	(0.4)	23.9	(0.7)	42.2	(0.6)	22.4	(0.5)	11.6	(0.5)
	Canada	6.7	(0.3)	20.8	(0.5)	33.8	(0.4)	38.7	(0.7)	15.4	(0.5)	33.6	(0.4)	30.2	(0.5)	20.7	(0.5)
	Chile	10.3	(0.5)	38.3	(0.7)	31.7	(0.6)	19.7	(0.7)	29.4	(0.7)	43.3	(0.8)	19.0	(0.7)	8.3	(0.4)
	Czech Republic	19.2	(0.6)	47.4	(0.8)	22.2	(0.6)	11.1	(0.5)	21.8	(0.7)	42.5	(0.7)	24.2	(0.7)	11.5	(0.5)
	Denmark	9.6	(0.4)	43.7	(0.9)	31.0	(0.8)	15.6	(0.6)	19.6	(0.8)	43.3	(0.9)	26.3	(0.7)	10.9	(0.5)
	Estonia	11.6	(0.5)	39.1	(0.7)	32.5	(0.7)	16.8	(0.5)	13.1	(0.5)	37.6	(0.8)	33.3	(0.8)	16.0	(0.6)
	Finland	5.7	(0.3)	27.6	(0.7)	37.9	(0.7)	28.7	(0.8)	15.1	(0.6)	38.5	(0.8)	31.7	(0.8)	14.7	(0.6)
	France	13.4	(0.5)	36.8	(0.7)	30.5	(0.6)	19.2	(0.6)	19.0	(0.6)	35.8	(0.7)	27.3	(0.7)	18.0	(0.5)
	Germany	13.0	(0.5)	37.3	(0.7)	32.5	(0.7)	17.1	(0.6)	20.4	(0.7)	39.9	(0.8)	28.4	(0.8)	11.2	(0.5)
	Greece	11.5	(0.5)	28.4	(0.8)	26.9	(0.7)	33.3	(0.8)	17.5	(0.7)	34.2	(0.8)	29.4	(0.7)	18.9	(0.6)
	Hungary	10.6	(0.5)	27.7	(0.7)	30.9	(0.7)	30.7	(0.8)	28.6	(0.8)	38.3	(0.7)	21.9	(0.7)	11.1	(0.5)
	Iceland	9.1	(0.5)	29.4	(0.8)	32.7	(0.8)	28.8	(0.8)	11.5	(0.6)	33.0	(0.8)	33.9	(0.9)	21.7	(0.8)
	Ireland	8.4	(0.5)	36.2	(0.8)	33.1	(0.8)	22.3	(0.7)	25.1	(0.9)	39.8	(0.9)	23.6	(0.7)	11.5	(0.5)
	Israel	9.0	(0.6)	30.7	(0.8)	31.3	(0.7)	29.0	(0.7)	12.3	(0.7)	33.7	(0.8)	31.6	(0.6)	22.4	(0.6)
	Italy	8.3	(0.5)	32.8	(0.8)	33.7	(0.7)	25.3	(0.8)	16.2	(0.6)	40.7	(0.6)	31.3	(0.6)	11.8	(0.5)
	Japan	13.7	(0.5)	38.3	(0.7)	31.0	(0.7)	17.0	(0.6)	53.3	(1.1)	30.1	(0.8)	11.2	(0.5)	5.5	(0.4)
	Korea	26.6	(1.0)	42.7	(0.9)	22.1	(0.7)	8.5	(0.5)	54.5	(1.1)	29.2	(0.8)	10.6	(0.6)	5.6	(0.3)
	Latvia	10.9	(0.6)	39.4	(0.8)	34.1	(0.7)	15.7	(0.6)	14.6	(0.5)	40.7	(0.8)	32.0	(0.8)	12.6	(0.5)
	Luxembourg	14.4	(0.5)	34.7	(0.8)	28.9	(0.7)	22.0	(0.6)	19.8	(0.5)	35.8	(0.6)	27.1	(0.6)	17.3	(0.5)
	Mexico	6.7	(0.3)	25.4	(0.7)	33.0	(0.6)	34.9	(0.8)	23.1	(0.7)	40.5	(0.9)	24.7	(0.7)	11.7	(0.6)
	Netherlands	20.6	(0.8)	41.9	(0.9)	27.7	(0.9)	9.7	(0.6)	36.6	(0.9)	42.3	(0.9)	16.8	(0.7)	4.3	(0.4)
	New Zealand	5.3	(0.4)	25.4	(0.7)	34.5	(0.8)	34.9	(0.9)	18.5	(0.8)	38.3	(0.8)	28.4	(0.7)	14.8	(0.7)
	Norway	6.7	(0.4)	29.4	(0.7)	34.3	(0.6)	29.5	(0.8)	14.8	(0.6)	39.6	(0.7)	29.9	(0.6)	15.6	(0.6)
	Poland	7.6	(0.4)	28.3	(0.8)	34.5	(0.8)	29.6	(0.8)	19.9	(0.7)	37.6	(0.7)	28.5	(0.7)	13.9	(0.6)
	Portugal	8.0	(0.4)	23.3	(0.8)	29.3	(0.8)	39.3	(1.0)	13.7	(0.6)	36.0	(0.8)	31.7	(0.8)	18.6	(0.8)
	Slovak Republic	23.2	(0.8)	41.6	(0.9)	20.9	(0.6)	14.4	(0.6)	22.0	(0.6)	42.5	(0.7)	23.8	(0.6)	11.6	(0.4)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	10.8	(0.5)	32.9	(0.9)	30.7	(0.7)	25.6	(0.8)	34.8	(0.9)	39.2	(0.8)	18.3	(0.8)	7.7	(0.4)
	Sweden	10.7	(0.5)	38.0	(0.9)	32.0	(0.7)	19.3	(0.8)	13.0	(0.5)	37.6	(0.8)	31.1	(0.8)	18.2	(0.8)
	Switzerland	11.0	(0.5)	33.7	(0.7)	32.9	(0.8)	22.4	(0.5)	14.8	(0.7)	33.4	(0.8)	30.3	(0.7)	21.5	(0.8)
	Turkey	13.4	(0.6)	38.5	(1.0)	29.9	(0.8)	18.2	(0.7)	25.7	(0.8)	41.3	(0.9)	21.3	(0.7)	11.6	(0.6)
	United Kingdom	6.0	(0.3)	28.8	(0.8)	33.0	(0.6)	32.2	(0.8)	23.3	(0.8)	41.7	(0.8)	23.1	(0.6)	11.9	(0.5)
	United States	7.1	(0.4)	28.3	(0.8)	30.5	(0.7)	34.1	(0.9)	15.8	(0.7)	37.0	(0.7)	27.4	(0.7)	19.9	(0.8)
	OECD average	11.4	(0.1)	33.7	(0.1)	31.0	(0.1)	23.9	(0.1)	21.9	(0.1)	38.0	(0.1)	26.0	(0.1)	14.0	(0.1)
Partners	**Albania**	9.2	(0.4)	38.9	(0.9)	25.9	(0.8)	26.1	(0.8)	13.3	(0.6)	52.1	(0.9)	26.5	(0.9)	8.1	(0.4)
	Algeria	17.1	(0.9)	34.9	(0.6)	21.1	(0.8)	26.9	(0.8)	19.4	(0.9)	31.1	(0.8)	22.3	(0.6)	27.2	(0.7)
	Brazil	17.0	(0.4)	40.7	(0.6)	24.4	(0.5)	18.0	(0.6)	25.7	(0.6)	40.9	(0.6)	22.5	(0.5)	10.9	(0.4)
	B-S-J-G (China)	8.6	(0.5)	37.9	(1.0)	28.5	(0.7)	25.1	(1.1)	14.4	(0.6)	42.4	(0.8)	26.4	(0.6)	16.8	(0.8)
	Bulgaria	17.4	(0.6)	40.1	(0.7)	26.3	(0.7)	16.2	(0.6)	19.2	(0.6)	36.5	(0.7)	27.1	(0.7)	17.1	(0.6)
	CABA (Argentina)	12.1	(1.1)	34.9	(1.5)	31.8	(1.5)	21.2	(1.6)	25.2	(1.5)	41.6	(1.4)	22.7	(1.3)	10.5	(0.8)
	Colombia	13.3	(0.5)	43.7	(0.7)	25.4	(0.6)	17.6	(0.6)	26.5	(0.7)	43.1	(0.6)	20.8	(0.5)	9.6	(0.4)
	Costa Rica	12.9	(0.5)	35.1	(0.8)	27.2	(0.7)	24.8	(0.8)	42.3	(0.7)	32.9	(0.6)	14.3	(0.5)	10.6	(0.5)
	Croatia	13.1	(0.5)	37.2	(0.7)	28.1	(0.7)	21.6	(0.7)	15.4	(0.6)	39.8	(0.7)	29.2	(0.6)	15.6	(0.6)
	Cyprus*	13.0	(0.5)	29.6	(0.7)	28.5	(0.6)	28.9	(0.6)	13.4	(0.5)	35.1	(0.7)	32.0	(0.7)	19.5	(0.6)
	Dominican Republic	13.1	(0.6)	35.2	(0.9)	31.2	(0.9)	20.5	(0.8)	20.6	(0.9)	36.2	(1.0)	28.0	(0.9)	15.2	(0.8)
	FYROM	16.4	(0.5)	47.3	(0.8)	22.7	(0.7)	13.7	(0.6)	13.5	(0.6)	36.1	(0.8)	27.8	(0.7)	22.6	(0.6)
	Georgia	15.6	(0.6)	45.1	(0.9)	23.4	(0.8)	15.9	(0.7)	12.1	(0.5)	46.5	(0.8)	29.1	(0.7)	12.3	(0.6)
	Hong Kong (China)	4.9	(0.4)	29.0	(0.9)	39.0	(0.7)	27.1	(0.9)	12.5	(0.6)	45.8	(1.1)	29.6	(0.9)	12.1	(0.7)
	Indonesia	10.0	(0.5)	53.6	(0.9)	18.8	(0.8)	17.6	(0.7)	8.3	(0.5)	54.4	(1.0)	20.8	(0.8)	16.5	(0.7)
	Jordan	14.4	(0.7)	26.3	(0.7)	19.3	(0.7)	40.0	(1.0)	13.0	(0.5)	31.5	(0.8)	28.7	(0.7)	26.8	(0.8)
	Kosovo	28.4	(0.8)	33.2	(0.9)	21.6	(0.8)	16.8	(0.6)	27.5	(0.8)	27.0	(0.8)	23.1	(0.7)	22.5	(0.7)
	Lebanon	13.6	(1.0)	28.8	(1.2)	25.0	(0.9)	32.6	(1.3)	10.3	(0.6)	39.0	(1.2)	27.1	(1.0)	23.5	(1.2)
	Lithuania	15.4	(0.6)	38.0	(0.6)	26.9	(0.6)	19.7	(0.6)	15.9	(0.6)	36.5	(0.7)	28.1	(0.7)	19.4	(0.6)
	Macao (China)	5.0	(0.4)	37.1	(0.8)	37.0	(0.7)	20.8	(0.6)	11.9	(0.4)	51.3	(0.9)	27.0	(0.8)	9.9	(0.5)
	Malta	7.7	(0.5)	34.3	(0.7)	31.2	(0.7)	26.7	(0.7)	16.2	(0.6)	38.4	(0.7)	30.5	(0.8)	14.9	(0.6)
	Moldova	6.0	(0.3)	41.6	(1.0)	29.1	(0.7)	23.3	(0.7)	8.0	(0.4)	39.1	(0.9)	32.2	(0.8)	20.7	(0.8)
	Montenegro	22.9	(0.6)	43.9	(0.7)	19.9	(0.6)	13.3	(0.5)	21.9	(0.6)	43.5	(0.7)	23.3	(0.6)	11.2	(0.5)
	Peru	6.3	(0.4)	35.6	(0.9)	37.2	(0.7)	21.0	(0.7)	17.5	(0.7)	40.3	(0.7)	29.2	(0.7)	13.1	(0.5)
	Qatar	11.0	(0.2)	32.9	(0.5)	30.2	(0.5)	25.9	(0.4)	12.3	(0.3)	37.8	(0.5)	30.5	(0.5)	19.4	(0.4)
	Romania	12.7	(0.7)	46.9	(0.9)	24.5	(0.7)	15.9	(0.8)	12.1	(0.7)	40.7	(0.8)	30.5	(0.6)	16.7	(0.8)
	Russia	6.6	(0.4)	17.2	(0.8)	33.0	(0.8)	43.2	(1.1)	11.2	(0.4)	34.9	(1.0)	34.8	(0.8)	19.2	(0.8)
	Singapore	4.3	(0.2)	27.1	(0.6)	37.6	(0.7)	31.0	(0.7)	13.7	(0.5)	43.1	(0.7)	28.8	(0.6)	14.5	(0.5)
	Chinese Taipei	7.5	(0.4)	33.7	(0.7)	32.7	(0.5)	26.0	(0.7)	12.1	(0.5)	40.2	(0.6)	30.1	(0.6)	17.5	(0.6)
	Thailand	3.6	(0.3)	28.9	(0.8)	31.8	(0.6)	35.7	(0.9)	8.9	(0.4)	38.8	(0.8)	29.8	(0.6)	22.5	(0.7)
	Trinidad and Tobago	10.9	(0.5)	40.9	(0.9)	27.1	(0.8)	21.1	(0.6)	15.1	(0.6)	39.7	(0.8)	28.3	(0.7)	17.0	(0.7)
	Tunisia	8.1	(0.6)	34.4	(0.7)	26.5	(0.8)	30.9	(0.8)	9.6	(0.5)	33.8	(0.7)	31.4	(0.7)	25.1	(0.8)
	United Arab Emirates	8.9	(0.4)	28.5	(0.7)	31.8	(0.6)	30.8	(0.5)	13.2	(0.4)	36.3	(0.7)	30.8	(0.5)	19.7	(0.5)
	Uruguay	17.8	(0.6)	45.6	(0.7)	23.8	(0.7)	12.7	(0.5)	34.4	(0.7)	42.6	(0.7)	16.3	(0.5)	6.7	(0.4)
	Viet Nam	5.6	(0.6)	45.7	(0.8)	33.0	(0.9)	15.8	(0.7)	11.2	(0.6)	54.8	(1.0)	23.9	(0.7)	10.1	(0.5)
	Argentina**	15.6	(0.7)	44.1	(0.9)	23.9	(0.7)	16.3	(0.7)	22.2	(0.7)	43.6	(0.8)	22.1	(0.7)	12.1	(0.5)
	Kazakhstan**	5.7	(0.4)	25.9	(0.8)	41.3	(0.8)	27.1	(0.9)	6.1	(0.4)	27.2	(1.0)	42.5	(0.8)	24.1	(0.8)
	Malaysia**	3.9	(0.3)	36.8	(0.8)	36.9	(0.8)	22.4	(0.8)	3.9	(0.3)	25.7	(0.9)	38.9	(0.7)	31.5	(0.9)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/2]

Table II.2.16 Teacher-directed science instruction

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons															
		The teacher discusses our questions								The teacher demonstrates an idea							
		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	7.0	(0.3)	27.9	(0.6)	39.1	(0.6)	26.1	(0.6)	6.6	(0.3)	28.4	(0.6)	39.4	(0.6)	25.6	(0.6)
	Austria	18.5	(0.8)	31.3	(0.7)	30.1	(0.7)	20.1	(0.7)	11.9	(0.6)	26.8	(0.8)	32.9	(0.8)	28.4	(0.9)
	Belgium	12.8	(0.5)	37.7	(0.6)	33.5	(0.6)	15.9	(0.4)	18.5	(0.5)	40.7	(0.6)	28.8	(0.6)	11.9	(0.4)
	Canada	9.0	(0.3)	23.4	(0.5)	37.6	(0.5)	30.1	(0.6)	7.7	(0.3)	22.1	(0.4)	38.8	(0.6)	31.5	(0.6)
	Chile	12.3	(0.5)	35.3	(0.9)	34.6	(0.8)	17.7	(0.7)	8.9	(0.4)	28.3	(0.7)	36.4	(0.7)	26.4	(0.7)
	Czech Republic	16.8	(0.6)	43.7	(0.7)	27.8	(0.7)	11.7	(0.5)	24.5	(0.6)	42.6	(0.7)	22.2	(0.6)	10.6	(0.4)
	Denmark	14.3	(0.6)	42.2	(0.8)	31.8	(0.8)	11.7	(0.5)	11.3	(0.5)	39.0	(0.7)	34.4	(0.8)	15.2	(0.6)
	Estonia	10.7	(0.5)	34.5	(0.7)	37.0	(0.7)	17.8	(0.6)	15.0	(0.7)	41.0	(0.8)	31.0	(0.8)	12.9	(0.6)
	Finland	7.7	(0.4)	27.4	(0.8)	39.8	(0.8)	25.1	(0.8)	6.4	(0.3)	28.8	(0.8)	42.4	(0.7)	22.4	(0.6)
	France	15.0	(0.6)	32.6	(0.8)	32.8	(0.8)	19.6	(0.6)	14.8	(0.6)	35.4	(0.7)	33.0	(0.8)	16.8	(0.5)
	Germany	15.1	(0.6)	36.5	(0.8)	34.4	(0.7)	14.0	(0.5)	24.9	(0.8)	38.2	(0.9)	27.7	(0.8)	9.2	(0.4)
	Greece	11.6	(0.5)	25.1	(0.7)	32.1	(0.7)	31.2	(0.9)	10.4	(0.6)	26.6	(0.8)	34.7	(0.8)	28.3	(0.7)
	Hungary	15.5	(0.6)	32.3	(0.7)	33.8	(0.9)	18.4	(0.7)	11.2	(0.6)	28.4	(0.7)	34.7	(0.8)	25.8	(0.7)
	Iceland	8.5	(0.6)	28.2	(0.8)	35.2	(0.9)	28.1	(0.8)	11.9	(0.6)	33.2	(0.8)	33.5	(0.9)	21.3	(0.7)
	Ireland	10.6	(0.7)	32.9	(0.7)	37.4	(0.8)	19.2	(0.7)	10.7	(0.5)	35.7	(0.9)	37.4	(0.8)	16.2	(0.7)
	Israel	14.2	(0.7)	33.7	(0.8)	31.3	(0.6)	20.8	(0.7)	17.3	(0.6)	34.0	(0.8)	28.7	(0.7)	20.0	(0.6)
	Italy	21.2	(0.6)	40.1	(0.7)	28.8	(0.6)	9.9	(0.4)	17.0	(0.6)	35.9	(0.7)	32.7	(0.7)	14.4	(0.6)
	Japan	14.9	(0.7)	35.9	(0.7)	29.9	(0.6)	19.3	(0.7)	14.3	(0.8)	27.7	(0.7)	34.8	(0.8)	23.2	(0.7)
	Korea	30.5	(0.9)	38.0	(0.7)	22.8	(0.7)	8.8	(0.5)	18.7	(0.7)	33.5	(0.8)	31.1	(0.7)	16.6	(0.7)
	Latvia	10.3	(0.5)	31.0	(0.7)	39.1	(0.8)	19.5	(0.7)	12.7	(0.7)	41.4	(0.8)	32.8	(0.8)	13.1	(0.5)
	Luxembourg	14.5	(0.5)	31.4	(0.8)	33.2	(0.7)	20.9	(0.6)	16.8	(0.5)	36.0	(0.8)	29.8	(0.6)	17.4	(0.6)
	Mexico	17.0	(0.6)	35.2	(0.9)	31.2	(0.7)	16.6	(0.6)	8.1	(0.4)	26.0	(0.7)	35.8	(0.7)	30.1	(0.9)
	Netherlands	8.2	(0.5)	27.7	(0.8)	43.3	(0.7)	20.8	(0.8)	19.9	(0.8)	44.3	(0.8)	28.6	(0.8)	7.2	(0.5)
	New Zealand	6.8	(0.5)	26.6	(0.8)	40.2	(1.0)	26.3	(0.8)	5.9	(0.4)	27.0	(0.7)	39.6	(0.8)	27.5	(0.8)
	Norway	11.7	(0.6)	37.0	(0.7)	34.5	(0.8)	16.7	(0.6)	15.5	(0.7)	42.6	(0.8)	28.9	(0.7)	13.0	(0.5)
	Poland	10.4	(0.5)	28.7	(0.8)	35.4	(0.8)	25.5	(0.7)	6.2	(0.4)	21.7	(0.8)	36.7	(0.7)	35.4	(0.8)
	Portugal	8.8	(0.5)	26.1	(0.6)	35.5	(0.9)	29.6	(1.0)	7.3	(0.5)	23.8	(0.8)	35.2	(0.8)	33.6	(0.9)
	Slovak Republic	18.8	(0.6)	41.6	(0.7)	27.7	(0.6)	12.0	(0.5)	27.9	(0.7)	38.5	(0.6)	20.1	(0.6)	13.4	(0.6)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	9.1	(0.5)	23.0	(0.7)	33.2	(0.7)	34.8	(1.0)	11.8	(0.5)	31.5	(0.8)	34.0	(0.8)	22.6	(0.7)
	Sweden	12.6	(0.5)	36.7	(0.8)	32.5	(0.7)	18.1	(0.8)	14.5	(0.7)	41.1	(0.8)	29.7	(0.8)	14.7	(0.7)
	Switzerland	10.6	(0.5)	27.5	(0.8)	36.6	(0.8)	25.4	(0.9)	12.2	(0.6)	30.5	(0.8)	37.8	(1.0)	19.6	(0.7)
	Turkey	12.4	(0.5)	32.2	(0.9)	34.7	(0.7)	20.7	(0.8)	10.5	(0.5)	32.4	(0.8)	34.8	(0.8)	22.3	(0.7)
	United Kingdom	9.5	(0.4)	32.6	(0.6)	37.3	(0.6)	20.7	(0.6)	8.6	(0.4)	34.8	(0.7)	36.8	(0.7)	19.8	(0.5)
	United States	8.3	(0.4)	26.9	(0.7)	34.2	(0.8)	30.6	(1.0)	7.5	(0.4)	24.4	(0.8)	36.0	(0.8)	32.1	(0.8)
	OECD average	12.8	(0.1)	32.4	(0.1)	34.1	(0.1)	20.7	(0.1)	13.2	(0.1)	33.0	(0.1)	33.3	(0.1)	20.5	(0.1)
Partners	**Albania**	11.5	(0.5)	31.9	(0.8)	31.7	(0.7)	24.8	(0.7)	13.4	(0.5)	43.4	(1.0)	28.6	(0.8)	14.6	(0.6)
	Algeria	16.3	(0.8)	26.7	(0.7)	23.2	(0.6)	33.7	(0.8)	13.6	(0.9)	18.5	(0.5)	21.1	(0.6)	46.9	(1.0)
	Brazil	15.5	(0.4)	39.2	(0.6)	29.3	(0.5)	16.0	(0.5)	12.2	(0.4)	32.9	(0.5)	31.9	(0.5)	22.9	(0.5)
	B-S-J-G (China)	12.2	(0.5)	43.6	(0.8)	26.6	(0.7)	17.6	(0.9)	10.9	(0.5)	39.3	(1.0)	29.9	(0.9)	19.9	(0.9)
	Bulgaria	15.6	(0.6)	32.6	(0.7)	31.2	(0.6)	20.6	(0.5)	17.2	(0.5)	32.1	(0.6)	29.9	(0.6)	20.8	(0.6)
	CABA (Argentina)	14.4	(1.5)	37.3	(1.5)	31.6	(1.4)	16.8	(1.1)	10.2	(1.1)	30.5	(1.7)	33.2	(1.1)	26.1	(1.7)
	Colombia	16.4	(0.7)	28.0	(0.6)	28.4	(0.6)	27.2	(0.7)	8.4	(0.4)	30.6	(0.6)	34.0	(0.7)	27.0	(0.7)
	Costa Rica	27.0	(0.7)	36.9	(0.9)	22.2	(0.7)	14.0	(0.6)	11.3	(0.5)	30.2	(0.7)	30.1	(0.6)	28.4	(0.8)
	Croatia	13.0	(0.6)	38.4	(0.8)	31.7	(0.7)	16.9	(0.7)	8.9	(0.5)	33.9	(0.8)	35.9	(0.7)	21.3	(0.8)
	Cyprus*	10.9	(0.5)	27.0	(0.6)	35.0	(0.7)	27.1	(0.7)	11.8	(0.5)	28.8	(0.7)	34.3	(0.7)	25.2	(0.7)
	Dominican Republic	10.9	(0.6)	26.8	(0.9)	36.9	(0.8)	25.4	(0.9)	9.1	(0.6)	25.5	(0.9)	35.6	(1.0)	29.8	(1.0)
	FYROM	12.0	(0.5)	31.8	(0.8)	31.5	(0.8)	24.7	(0.7)	16.9	(0.6)	38.8	(0.8)	26.8	(0.7)	17.5	(0.6)
	Georgia	7.9	(0.4)	25.5	(0.7)	36.2	(0.7)	30.4	(0.9)	19.4	(0.7)	44.0	(0.8)	23.3	(0.6)	13.3	(0.5)
	Hong Kong (China)	7.3	(0.4)	40.0	(1.1)	38.0	(0.8)	14.6	(0.7)	5.6	(0.5)	36.4	(1.0)	40.8	(0.8)	17.2	(0.7)
	Indonesia	12.0	(0.6)	48.3	(0.9)	21.9	(0.8)	17.8	(0.7)	14.5	(0.7)	51.6	(0.8)	19.0	(0.7)	14.9	(0.7)
	Jordan	12.6	(0.5)	27.0	(0.8)	26.1	(0.8)	34.3	(0.8)	12.3	(0.5)	18.8	(0.7)	18.4	(0.6)	50.4	(0.9)
	Kosovo	30.1	(0.8)	21.1	(0.8)	24.4	(0.9)	24.4	(0.7)	26.3	(0.8)	30.0	(0.9)	24.7	(0.8)	19.0	(0.7)
	Lebanon	10.9	(0.7)	26.5	(0.9)	33.1	(1.1)	29.6	(1.1)	10.5	(0.6)	28.4	(1.0)	29.1	(1.1)	32.0	(1.3)
	Lithuania	13.4	(0.6)	30.5	(0.6)	31.5	(0.7)	24.6	(0.7)	14.7	(0.6)	33.9	(0.6)	30.7	(0.7)	20.8	(0.6)
	Macao (China)	8.4	(0.4)	45.5	(0.8)	33.5	(0.7)	12.6	(0.5)	7.2	(0.5)	44.5	(0.7)	35.0	(0.7)	13.3	(0.6)
	Malta	8.2	(0.5)	27.7	(0.8)	37.9	(0.8)	26.2	(0.7)	11.0	(0.5)	35.5	(0.9)	34.9	(0.9)	18.6	(0.7)
	Moldova	12.5	(0.5)	36.5	(0.9)	30.2	(0.7)	20.8	(0.8)	9.3	(0.5)	41.8	(0.9)	31.4	(0.6)	17.5	(0.6)
	Montenegro	16.6	(0.6)	40.4	(0.9)	27.4	(0.7)	15.5	(0.5)	15.4	(0.6)	38.9	(0.8)	28.3	(0.7)	17.4	(0.6)
	Peru	14.0	(0.5)	39.8	(0.8)	31.0	(0.6)	15.1	(0.6)	10.7	(0.5)	36.9	(0.8)	33.5	(0.7)	18.9	(0.7)
	Qatar	9.9	(0.3)	29.7	(0.5)	35.0	(0.5)	25.4	(0.4)	10.5	(0.3)	30.1	(0.5)	32.3	(0.4)	27.1	(0.4)
	Romania	36.6	(0.9)	39.5	(0.9)	14.2	(0.7)	9.8	(0.5)	14.4	(0.6)	43.6	(0.9)	27.6	(0.9)	14.5	(0.7)
	Russia	11.2	(0.6)	33.0	(0.8)	34.5	(0.7)	21.4	(1.1)	7.5	(0.5)	25.2	(0.8)	36.1	(0.7)	31.2	(1.0)
	Singapore	5.7	(0.3)	26.1	(0.6)	39.5	(0.7)	28.7	(0.6)	6.7	(0.4)	33.1	(0.7)	37.3	(0.7)	22.9	(0.5)
	Chinese Taipei	9.2	(0.3)	35.4	(0.7)	35.1	(0.6)	20.4	(0.7)	6.2	(0.3)	32.7	(0.7)	37.3	(0.6)	23.8	(0.7)
	Thailand	5.7	(0.4)	35.1	(0.8)	33.2	(0.7)	26.1	(0.7)	3.8	(0.3)	31.2	(0.8)	32.1	(0.6)	32.9	(0.9)
	Trinidad and Tobago	10.7	(0.5)	32.0	(0.7)	33.0	(0.8)	24.4	(0.8)	11.3	(0.5)	32.6	(0.7)	31.7	(0.8)	24.4	(0.8)
	Tunisia	8.7	(0.5)	31.5	(0.7)	32.0	(0.8)	27.7	(0.8)	8.5	(0.5)	26.6	(0.7)	30.4	(0.7)	34.6	(0.8)
	United Arab Emirates	8.7	(0.3)	26.3	(0.5)	35.3	(0.5)	29.8	(0.6)	8.5	(0.4)	24.6	(0.5)	33.9	(0.5)	33.1	(0.7)
	Uruguay	14.8	(0.5)	45.3	(0.8)	28.2	(0.7)	11.7	(0.5)	10.0	(0.4)	39.1	(0.8)	34.0	(0.8)	16.8	(0.6)
	Viet Nam	11.0	(0.5)	47.5	(1.0)	29.2	(0.9)	12.3	(0.5)	5.5	(0.4)	36.9	(1.0)	36.4	(0.9)	21.3	(0.8)
	Argentina**	16.9	(0.6)	38.3	(0.8)	27.3	(0.8)	17.5	(0.6)	13.8	(0.7)	32.7	(0.8)	28.6	(0.6)	24.9	(0.6)
	Kazakhstan**	7.0	(0.4)	16.6	(0.7)	37.4	(0.9)	39.0	(1.1)	5.8	(0.3)	12.7	(0.6)	39.5	(0.9)	42.0	(1.1)
	Malaysia**	3.2	(0.3)	22.1	(0.7)	40.2	(0.7)	34.5	(0.8)	3.3	(0.3)	23.1	(0.9)	38.7	(0.8)	34.9	(0.9)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

StatLink http://dx.doi.org/10.1787/888933436477

[Part 1/3]

Table II.2.17 Index of teacher-directed science instruction, by student and school characteristics

Results based on students' reports

		All students				By school socio-economic profile[1]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.27	(0.01)	0.99	(0.01)	0.18	(0.03)	0.19	(0.03)	0.29	(0.03)	0.40	(0.03)	**0.22**	(0.04)
	Austria	-0.01	(0.02)	1.05	(0.01)	-0.15	(0.05)	-0.07	(0.05)	-0.01	(0.06)	0.11	(0.04)	**0.26**	(0.07)
	Belgium	-0.22	(0.01)	0.91	(0.01)	-0.22	(0.03)	-0.28	(0.03)	-0.20	(0.03)	-0.18	(0.03)	0.04	(0.04)
	Canada	0.37	(0.01)	1.06	(0.01)	0.33	(0.03)	0.37	(0.04)	0.36	(0.03)	0.42	(0.03)	0.09	(0.05)
	Chile	-0.04	(0.02)	0.92	(0.01)	-0.13	(0.04)	-0.07	(0.04)	-0.01	(0.04)	0.04	(0.03)	**0.18**	(0.04)
	Czech Republic	-0.36	(0.01)	0.94	(0.01)	-0.48	(0.03)	-0.38	(0.03)	-0.29	(0.04)	-0.33	(0.03)	**0.15**	(0.04)
	Denmark	-0.15	(0.02)	0.89	(0.01)	-0.25	(0.04)	-0.14	(0.05)	-0.15	(0.05)	-0.06	(0.03)	**0.19**	(0.05)
	Estonia	-0.05	(0.02)	0.91	(0.01)	-0.07	(0.04)	-0.03	(0.03)	-0.06	(0.03)	-0.03	(0.04)	0.04	(0.05)
	Finland	0.23	(0.02)	0.94	(0.01)	0.14	(0.03)	0.17	(0.03)	0.28	(0.04)	0.33	(0.04)	**0.19**	(0.06)
	France	-0.05	(0.02)	1.01	(0.01)	-0.16	(0.04)	-0.09	(0.03)	0.00	(0.03)	0.00	(0.03)	**0.15**	(0.05)
	Germany	-0.23	(0.01)	0.92	(0.01)	-0.38	(0.04)	-0.33	(0.05)	-0.17	(0.03)	-0.10	(0.03)	**0.28**	(0.05)
	Greece	0.22	(0.02)	1.07	(0.02)	0.07	(0.06)	0.23	(0.04)	0.26	(0.03)	0.31	(0.04)	**0.25**	(0.07)
	Hungary	0.00	(0.02)	1.02	(0.01)	-0.08	(0.04)	-0.06	(0.05)	0.03	(0.05)	0.11	(0.04)	**0.19**	(0.05)
	Iceland	0.21	(0.02)	1.02	(0.01)	0.09	(0.04)	0.20	(0.03)	0.21	(0.04)	0.36	(0.04)	**0.27**	(0.05)
	Ireland	-0.02	(0.02)	0.93	(0.01)	-0.03	(0.03)	-0.04	(0.06)	-0.02	(0.05)	0.01	(0.04)	0.04	(0.06)
	Israel	0.08	(0.02)	1.05	(0.01)	0.13	(0.05)	0.05	(0.05)	0.02	(0.06)	0.10	(0.04)	-0.04	(0.06)
	Italy	-0.15	(0.01)	0.84	(0.01)	-0.22	(0.03)	-0.20	(0.03)	-0.12	(0.03)	-0.07	(0.03)	**0.15**	(0.04)
	Japan	-0.21	(0.02)	0.90	(0.01)	-0.32	(0.05)	-0.31	(0.04)	-0.15	(0.03)	-0.08	(0.04)	**0.24**	(0.06)
	Korea	-0.59	(0.02)	1.05	(0.01)	-0.65	(0.05)	-0.50	(0.06)	-0.68	(0.05)	-0.53	(0.05)	0.12	(0.07)
	Latvia	-0.03	(0.01)	0.87	(0.01)	-0.03	(0.04)	-0.04	(0.04)	-0.04	(0.03)	-0.03	(0.03)	0.00	(0.05)
	Luxembourg	-0.05	(0.01)	1.06	(0.01)	-0.17	(0.04)	-0.06	(0.03)	-0.06	(0.03)	0.06	(0.03)	**0.23**	(0.05)
	Mexico	0.08	(0.02)	0.95	(0.01)	0.08	(0.05)	0.07	(0.03)	0.06	(0.03)	0.13	(0.04)	0.05	(0.06)
	Netherlands	-0.27	(0.02)	0.79	(0.01)	-0.40	(0.04)	-0.30	(0.03)	-0.26	(0.04)	-0.14	(0.04)	**0.25**	(0.05)
	New Zealand	0.29	(0.02)	0.98	(0.01)	0.28	(0.05)	0.22	(0.05)	0.32	(0.04)	0.32	(0.03)	0.04	(0.05)
	Norway	0.00	(0.02)	0.96	(0.01)	0.00	(0.04)	-0.03	(0.04)	0.00	(0.04)	0.02	(0.03)	0.02	(0.05)
	Poland	0.24	(0.02)	0.99	(0.01)	0.27	(0.03)	0.20	(0.04)	0.23	(0.04)	0.25	(0.04)	-0.02	(0.05)
	Portugal	0.35	(0.02)	1.09	(0.02)	0.35	(0.04)	0.31	(0.04)	0.31	(0.04)	0.43	(0.05)	0.08	(0.06)
	Slovak Republic	-0.38	(0.02)	1.02	(0.01)	-0.39	(0.04)	-0.37	(0.04)	-0.39	(0.04)	-0.37	(0.04)	0.02	(0.06)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	0.06	(0.02)	0.89	(0.01)	-0.01	(0.04)	0.02	(0.05)	0.09	(0.06)	0.13	(0.04)	**0.14**	(0.05)
	Sweden	-0.04	(0.02)	1.03	(0.01)	-0.15	(0.05)	-0.06	(0.04)	-0.03	(0.05)	0.06	(0.05)	**0.22**	(0.07)
	Switzerland	0.13	(0.02)	0.99	(0.01)	0.06	(0.05)	0.13	(0.04)	0.08	(0.05)	0.23	(0.04)	**0.16**	(0.06)
	Turkey	-0.04	(0.02)	0.98	(0.01)	-0.09	(0.04)	-0.03	(0.04)	0.01	(0.04)	-0.05	(0.04)	0.05	(0.06)
	United Kingdom	0.09	(0.01)	0.94	(0.01)	0.12	(0.03)	0.08	(0.03)	0.04	(0.03)	0.13	(0.02)	0.02	(0.04)
	United States	0.32	(0.02)	1.07	(0.01)	0.23	(0.04)	0.31	(0.04)	0.36	(0.05)	0.39	(0.03)	**0.16**	(0.04)
	OECD average	0.00	(0.00)	0.97	(0.00)	-0.06	(0.01)	-0.02	(0.01)	0.01	(0.01)	0.07	(0.01)	**0.13**	(0.01)
Partners	**Albania**	-0.02	(0.01)	0.78	(0.01)	-0.02	(0.02)	-0.03	(0.03)	-0.02	(0.04)	-0.02	(0.03)	0.00	(0.04)
	Algeria	0.18	(0.03)	1.15	(0.02)	0.15	(0.07)	0.14	(0.07)	0.24	(0.05)	0.19	(0.05)	0.04	(0.09)
	Brazil	-0.15	(0.01)	1.03	(0.01)	-0.25	(0.03)	-0.22	(0.03)	-0.22	(0.03)	0.04	(0.03)	**0.29**	(0.04)
	B-S-J-G (China)	0.01	(0.03)	1.02	(0.02)	-0.22	(0.03)	-0.11	(0.06)	0.13	(0.07)	0.22	(0.06)	**0.45**	(0.07)
	Bulgaria	-0.09	(0.02)	1.12	(0.01)	-0.11	(0.05)	-0.14	(0.04)	-0.08	(0.03)	-0.06	(0.04)	0.06	(0.06)
	CABA (Argentina)	-0.04	(0.04)	0.86	(0.02)	-0.18	(0.05)	-0.18	(0.06)	0.09	(0.08)	0.08	(0.08)	**0.26**	(0.09)
	Colombia	-0.02	(0.02)	0.91	(0.01)	-0.17	(0.04)	-0.09	(0.04)	0.00	(0.03)	0.15	(0.03)	**0.32**	(0.06)
	Costa Rica	-0.21	(0.02)	0.98	(0.01)	-0.33	(0.03)	-0.26	(0.03)	-0.20	(0.03)	-0.07	(0.05)	**0.26**	(0.06)
	Croatia	0.00	(0.02)	1.01	(0.01)	-0.04	(0.03)	-0.03	(0.05)	0.01	(0.04)	0.06	(0.04)	0.10	(0.05)
	Cyprus*	0.18	(0.02)	1.12	(0.01)	0.12	(0.03)	0.22	(0.03)	0.19	(0.03)	0.20	(0.04)	0.08	(0.05)
	Dominican Republic	0.13	(0.02)	1.01	(0.01)	0.09	(0.05)	0.05	(0.06)	0.11	(0.04)	0.23	(0.05)	**0.13**	(0.06)
	FYROM	-0.05	(0.02)	0.96	(0.01)	-0.10	(0.03)	-0.07	(0.03)	-0.04	(0.03)	0.02	(0.03)	**0.13**	(0.04)
	Georgia	-0.03	(0.01)	0.86	(0.01)	0.04	(0.04)	-0.07	(0.04)	-0.03	(0.04)	-0.06	(0.03)	**-0.10**	(0.05)
	Hong Kong (China)	0.11	(0.02)	0.90	(0.02)	0.00	(0.04)	0.08	(0.04)	0.12	(0.05)	0.19	(0.03)	**0.19**	(0.05)
	Indonesia	-0.16	(0.02)	0.80	(0.01)	-0.21	(0.03)	-0.21	(0.03)	-0.12	(0.04)	-0.08	(0.03)	**0.13**	(0.05)
	Jordan	0.37	(0.02)	1.18	(0.01)	0.22	(0.06)	0.45	(0.07)	0.33	(0.06)	0.47	(0.05)	**0.26**	(0.08)
	Kosovo	-0.28	(0.02)	1.24	(0.02)	-0.43	(0.04)	-0.40	(0.04)	-0.31	(0.05)	-0.01	(0.05)	**0.41**	(0.06)
	Lebanon	0.25	(0.03)	0.98	(0.02)	0.27	(0.09)	0.26	(0.08)	0.20	(0.05)	0.28	(0.04)	0.01	(0.10)
	Lithuania	0.01	(0.02)	1.10	(0.01)	0.05	(0.04)	-0.01	(0.05)	-0.03	(0.03)	0.05	(0.03)	0.00	(0.06)
	Macao (China)	-0.03	(0.01)	0.84	(0.01)	0.00	(0.03)	-0.03	(0.02)	-0.02	(0.02)	-0.07	(0.03)	-0.07	(0.04)
	Malta	0.12	(0.02)	0.91	(0.01)	-0.02	(0.04)	0.10	(0.03)	0.13	(0.03)	0.27	(0.03)	**0.28**	(0.05)
	Moldova	0.07	(0.02)	0.86	(0.01)	0.06	(0.04)	0.04	(0.03)	0.04	(0.03)	0.14	(0.03)	0.09	(0.05)
	Montenegro	-0.27	(0.02)	1.09	(0.01)	-0.11	(0.03)	-0.23	(0.04)	-0.24	(0.03)	-0.45	(0.04)	**-0.33**	(0.04)
	Peru	-0.02	(0.02)	0.93	(0.01)	-0.02	(0.03)	0.01	(0.04)	-0.04	(0.04)	-0.03	(0.04)	-0.01	(0.05)
	Qatar	0.18	(0.01)	1.10	(0.01)	0.05	(0.02)	0.19	(0.02)	0.27	(0.02)	0.21	(0.02)	**0.16**	(0.03)
	Romania	-0.31	(0.02)	0.74	(0.01)	-0.44	(0.03)	-0.34	(0.03)	-0.32	(0.04)	-0.15	(0.03)	**0.28**	(0.04)
	Russia	0.31	(0.02)	1.01	(0.01)	0.36	(0.06)	0.27	(0.05)	0.29	(0.06)	0.30	(0.04)	-0.06	(0.07)
	Singapore	0.27	(0.01)	0.95	(0.01)	0.14	(0.02)	0.15	(0.03)	0.34	(0.03)	0.44	(0.04)	**0.30**	(0.06)
	Chinese Taipei	0.17	(0.02)	1.01	(0.01)	0.12	(0.04)	0.15	(0.04)	0.13	(0.04)	0.28	(0.04)	**0.16**	(0.05)
	Thailand	0.39	(0.02)	1.04	(0.01)	0.42	(0.05)	0.44	(0.04)	0.39	(0.04)	0.31	(0.03)	-0.11	(0.06)
	Trinidad and Tobago	0.07	(0.02)	0.99	(0.01)	0.01	(0.03)	0.03	(0.04)	0.04	(0.04)	0.20	(0.03)	**0.18**	(0.05)
	Tunisia	0.31	(0.02)	1.04	(0.01)	0.27	(0.04)	0.35	(0.04)	0.30	(0.04)	0.32	(0.04)	0.05	(0.06)
	United Arab Emirates	0.30	(0.01)	1.07	(0.01)	0.30	(0.03)	0.30	(0.03)	0.32	(0.04)	0.29	(0.02)	-0.01	(0.04)
	Uruguay	-0.28	(0.01)	0.89	(0.01)	-0.35	(0.02)	-0.32	(0.03)	-0.29	(0.03)	-0.18	(0.03)	**0.18**	(0.03)
	Viet Nam	-0.04	(0.02)	0.74	(0.01)	-0.03	(0.04)	-0.11	(0.04)	-0.06	(0.04)	0.04	(0.04)	0.07	(0.05)
	Argentina**	-0.14	(0.02)	0.93	(0.01)	-0.20	(0.05)	-0.27	(0.04)	-0.11	(0.03)	0.01	(0.04)	**0.22**	(0.06)
	Kazakhstan**	0.54	(0.02)	0.93	(0.01)	0.45	(0.05)	0.49	(0.06)	0.50	(0.05)	0.72	(0.05)	**0.27**	(0.08)
	Malaysia**	0.51	(0.02)	0.91	(0.01)	0.50	(0.04)	0.46	(0.04)	0.61	(0.04)	0.47	(0.05)	-0.03	(0.06)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.17 Index of teacher-directed science instruction, by student and school characteristics

Results based on students' reports

		By school location								By type of school						By education level					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	0.24	(0.09)	0.23	(0.03)	0.29	(0.02)	0.05	(0.09)	0.21	(0.02)	0.35	(0.02)	**0.14**	(0.03)	0.25	(0.02)	0.45	(0.04)	**0.20**	(0.04)
	Austria	-0.02	(0.07)	-0.03	(0.03)	0.01	(0.04)	0.03	(0.09)	-0.03	(0.02)	0.11	(0.07)	**0.14**	(0.07)	-0.13	(0.15)	-0.01	(0.02)	0.13	(0.15)
	Belgium	-0.19	(0.06)	-0.25	(0.02)	-0.16	(0.03)	0.03	(0.06)	w	w	w	w	w	w	-0.04	(0.05)	-0.23	(0.01)	**-0.18**	(0.05)
	Canada	0.29	(0.07)	0.36	(0.03)	0.39	(0.02)	0.10	(0.07)	0.35	(0.02)	0.62	(0.04)	**0.27**	(0.05)	0.40	(0.04)	0.36	(0.01)	-0.04	(0.04)
	Chile	-0.18	(0.17)	-0.02	(0.02)	-0.04	(0.02)	0.14	(0.17)	-0.07	(0.03)	-0.02	(0.02)	0.06	(0.04)	0.03	(0.09)	-0.04	(0.02)	-0.08	(0.09)
	Czech Republic	-0.34	(0.06)	-0.39	(0.02)	-0.32	(0.03)	0.03	(0.07)	-0.37	(0.01)	-0.26	(0.04)	**0.12**	(0.04)	-0.35	(0.02)	-0.38	(0.02)	-0.02	(0.03)
	Denmark	-0.17	(0.04)	-0.16	(0.02)	-0.08	(0.03)	0.08	(0.06)	-0.18	(0.02)	-0.05	(0.05)	**0.13**	(0.05)	-0.15	(0.02)	c	c	c	c
	Estonia	0.00	(0.03)	-0.05	(0.02)	-0.08	(0.03)	-0.08	(0.04)	-0.05	(0.02)	0.08	(0.11)	0.13	(0.11)	-0.05	(0.02)	0.06	(0.10)	0.10	(0.10)
	Finland	0.13	(0.05)	0.20	(0.02)	0.34	(0.03)	**0.21**	(0.06)	0.22	(0.02)	0.45	(0.07)	**0.24**	(0.08)	0.23	(0.02)	c	c	c	c
	France	0.13	(0.07)	-0.06	(0.02)	-0.07	(0.03)	**-0.20**	(0.08)	-0.06	(0.02)	-0.03	(0.03)	0.03	(0.04)	-0.18	(0.03)	-0.02	(0.02)	**0.15**	(0.04)
	Germany	-0.35	(0.09)	-0.21	(0.02)	-0.23	(0.04)	0.12	(0.09)	-0.24	(0.02)	-0.16	(0.06)	0.08	(0.07)	-0.23	(0.01)	-0.16	(0.07)	0.07	(0.07)
	Greece	0.23	(0.08)	0.19	(0.03)	0.27	(0.03)	0.04	(0.09)	0.20	(0.02)	0.54	(0.05)	**0.34**	(0.05)	0.00	(0.08)	0.23	(0.02)	**0.23**	(0.08)
	Hungary	0.08	(0.10)	0.00	(0.03)	0.00	(0.03)	-0.08	(0.10)	-0.01	(0.02)	0.06	(0.04)	0.07	(0.05)	0.07	(0.08)	0.00	(0.02)	-0.08	(0.08)
	Iceland	0.13	(0.04)	0.21	(0.03)	0.28	(0.03)	**0.15**	(0.05)	0.22	(0.02)	c	c	c	c	0.21	(0.02)	m	m	m	m
	Ireland	-0.07	(0.06)	-0.03	(0.03)	0.05	(0.03)	0.12	(0.07)	-0.02	(0.03)	-0.02	(0.03)	0.01	(0.04)	-0.05	(0.02)	0.03	(0.03)	**0.08**	(0.03)
	Israel	0.14	(0.07)	0.10	(0.03)	0.02	(0.04)	-0.11	(0.08)	m	m	m	m	m	m	0.00	(0.04)	0.09	(0.02)	**0.09**	(0.05)
	Italy	-0.02	(0.12)	-0.17	(0.02)	-0.09	(0.03)	-0.07	(0.12)	-0.15	(0.01)	-0.05	(0.09)	0.10	(0.09)	-0.30	(0.16)	-0.15	(0.01)	0.15	(0.16)
	Japan	c	c	-0.26	(0.04)	-0.19	(0.02)	c	c	-0.23	(0.02)	-0.18	(0.03)	0.05	(0.04)	m	m	-0.21	(0.02)	m	m
	Korea	c	c	-0.54	(0.07)	-0.60	(0.02)	c	c	-0.59	(0.02)	-0.58	(0.04)	0.02	(0.05)	-0.48	(0.06)	-0.60	(0.02)	-0.11	(0.07)
	Latvia	-0.08	(0.04)	0.01	(0.02)	-0.07	(0.03)	0.01	(0.05)	-0.03	(0.01)	0.14	(0.16)	0.17	(0.16)	-0.03	(0.01)	0.04	(0.08)	0.07	(0.08)
	Luxembourg	m	m	-0.10	(0.02)	0.01	(0.02)	m	m	-0.08	(0.02)	0.09	(0.04)	**0.17**	(0.04)	-0.14	(0.02)	0.07	(0.02)	**0.21**	(0.03)
	Mexico	0.06	(0.05)	0.08	(0.03)	0.09	(0.02)	0.03	(0.06)	0.08	(0.02)	0.07	(0.05)	-0.01	(0.06)	0.06	(0.03)	0.10	(0.02)	0.03	(0.03)
	Netherlands	c	c	-0.27	(0.02)	-0.26	(0.05)	c	c	-0.26	(0.03)	-0.27	(0.03)	-0.01	(0.04)	-0.30	(0.02)	-0.17	(0.03)	**0.13**	(0.03)
	New Zealand	0.35	(0.08)	0.27	(0.03)	0.31	(0.02)	-0.04	(0.08)	0.27	(0.02)	0.46	(0.07)	**0.19**	(0.07)	0.22	(0.07)	0.29	(0.02)	0.07	(0.07)
	Norway	-0.08	(0.04)	-0.01	(0.02)	0.09	(0.03)	**0.17**	(0.05)	-0.01	(0.02)	0.18	(0.10)	0.19	(0.10)	0.00	(0.02)	c	c	c	c
	Poland	0.28	(0.03)	0.25	(0.03)	0.15	(0.03)	**-0.12**	(0.04)	0.24	(0.02)	0.23	(0.12)	-0.01	(0.12)	0.24	(0.02)	c	c	c	c
	Portugal	0.44	(0.10)	0.34	(0.02)	0.38	(0.06)	-0.06	(0.11)	0.34	(0.02)	0.62	(0.16)	0.28	(0.16)	0.28	(0.03)	0.40	(0.02)	**0.12**	(0.04)
	Slovak Republic	-0.32	(0.04)	-0.36	(0.02)	-0.56	(0.03)	**-0.23**	(0.05)	-0.39	(0.02)	-0.33	(0.07)	0.05	(0.07)	-0.36	(0.02)	-0.40	(0.03)	-0.04	(0.04)
	Slovenia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Spain	0.09	(0.15)	0.05	(0.02)	0.08	(0.03)	-0.01	(0.15)	0.01	(0.02)	0.16	(0.03)	**0.15**	(0.04)	0.06	(0.02)	c	c	c	c
	Sweden	-0.13	(0.08)	-0.07	(0.02)	0.04	(0.04)	0.16	(0.09)	-0.05	(0.02)	-0.02	(0.05)	0.03	(0.05)	-0.05	(0.02)	0.44	(0.12)	**0.49**	(0.13)
	Switzerland	0.16	(0.11)	0.11	(0.02)	0.20	(0.04)	0.03	(0.11)	0.13	(0.02)	0.14	(0.13)	0.00	(0.14)	0.09	(0.02)	0.27	(0.04)	**0.18**	(0.04)
	Turkey	c	c	-0.02	(0.03)	-0.05	(0.03)	c	c	-0.04	(0.02)	0.11	(0.15)	0.15	(0.15)	-0.05	(0.20)	-0.04	(0.02)	0.01	(0.20)
	United Kingdom	0.03	(0.06)	0.09	(0.02)	0.08	(0.04)	0.06	(0.08)	0.08	(0.02)	0.14	(0.05)	0.07	(0.06)	-0.05	(0.10)	0.09	(0.01)	0.14	(0.10)
	United States	0.30	(0.05)	0.33	(0.03)	0.32	(0.04)	0.02	(0.07)	0.32	(0.02)	0.45	(0.12)	0.14	(0.12)	0.13	(0.05)	0.34	(0.02)	**0.22**	(0.06)
	OECD average	0.04	(0.01)	-0.01	(0.00)	0.02	(0.01)	0.02	(0.02)	-0.01	(0.00)	0.09	(0.01)	**0.11**	(0.01)	-0.02	(0.01)	0.03	(0.01)	**0.09**	(0.02)
Partners	Albania	0.02	(0.03)	-0.02	(0.02)	-0.06	(0.03)	**-0.08**	(0.04)	-0.02	(0.01)	-0.08	(0.04)	-0.06	(0.04)	0.02	(0.02)	-0.05	(0.02)	**-0.07**	(0.03)
	Algeria	0.18	(0.07)	0.17	(0.04)	0.23	(0.05)	0.06	(0.09)	0.18	(0.03)	c	c	c	c	0.16	(0.04)	0.23	(0.04)	0.07	(0.05)
	Brazil	-0.23	(0.07)	-0.17	(0.02)	-0.12	(0.03)	0.11	(0.07)	-0.20	(0.02)	0.18	(0.03)	**0.39**	(0.04)	-0.22	(0.03)	-0.13	(0.02)	**0.09**	(0.03)
	B-S-J-G (China)	-0.26	(0.05)	-0.01	(0.04)	0.09	(0.04)	**0.36**	(0.07)	0.01	(0.03)	0.00	(0.08)	-0.01	(0.08)	0.00	(0.03)	0.02	(0.05)	0.02	(0.06)
	Bulgaria	-0.11	(0.14)	-0.06	(0.02)	-0.13	(0.03)	-0.02	(0.15)	-0.10	(0.02)	c	c	c	c	-0.08	(0.23)	-0.09	(0.02)	-0.02	(0.23)
	CABA (Argentina)	m	m	c	c	-0.05	(0.04)	m	m	-0.13	(0.05)	0.03	(0.05)	**0.16**	(0.06)	-0.04	(0.03)	-0.07	(0.13)	-0.03	(0.12)
	Colombia	-0.09	(0.05)	-0.08	(0.03)	0.04	(0.02)	**0.13**	(0.05)	-0.06	(0.02)	0.15	(0.04)	**0.21**	(0.04)	-0.15	(0.02)	0.05	(0.02)	**0.20**	(0.02)
	Costa Rica	-0.23	(0.04)	-0.20	(0.03)	-0.25	(0.05)	-0.01	(0.07)	-0.21	(0.02)	-0.22	(0.03)	-0.01	(0.04)	-0.21	(0.02)	-0.22	(0.03)	-0.01	(0.03)
	Croatia	c	c	0.01	(0.03)	0.00	(0.03)	c	c	0.00	(0.02)	0.02	(0.12)	0.01	(0.13)	c	c	0.00	(0.02)	c	c
	Cyprus*	0.22	(0.07)	0.16	(0.02)	0.23	(0.03)	0.01	(0.07)	0.19	(0.02)	0.15	(0.04)	-0.04	(0.05)	0.08	(0.05)	0.19	(0.02)	0.11	(0.06)
	Dominican Republic	0.11	(0.07)	0.13	(0.03)	0.13	(0.05)	0.02	(0.09)	0.13	(0.03)	0.13	(0.05)	0.00	(0.06)	-0.05	(0.06)	0.16	(0.02)	**0.21**	(0.06)
	FYROM	-0.15	(0.09)	-0.05	(0.02)	-0.04	(0.02)	0.11	(0.08)	-0.05	(0.02)	0.03	(0.06)	0.08	(0.06)	c	c	-0.05	(0.02)	c	c
	Georgia	0.05	(0.03)	-0.04	(0.03)	-0.08	(0.02)	**-0.13**	(0.04)	-0.05	(0.02)	0.16	(0.06)	**0.20**	(0.06)	-0.03	(0.03)	-0.03	(0.02)	0.00	(0.04)
	Hong Kong (China)	m	m	m	m	0.11	(0.02)	m	m	0.18	(0.06)	0.10	(0.02)	-0.08	(0.06)	0.04	(0.02)	0.15	(0.02)	**0.11**	(0.03)
	Indonesia	-0.18	(0.03)	-0.16	(0.02)	-0.10	(0.03)	0.08	(0.04)	-0.14	(0.02)	-0.18	(0.03)	-0.03	(0.04)	-0.17	(0.02)	-0.14	(0.03)	0.02	(0.03)
	Jordan	0.24	(0.06)	0.34	(0.04)	0.45	(0.04)	**0.21**	(0.08)	0.33	(0.03)	0.50	(0.04)	**0.16**	(0.05)	0.37	(0.02)	m	m	m	m
	Kosovo	-0.42	(0.08)	-0.31	(0.03)	-0.16	(0.04)	**0.25**	(0.10)	-0.29	(0.02)	-0.10	(0.10)	0.19	(0.11)	-0.36	(0.04)	-0.26	(0.03)	**0.10**	(0.05)
	Lebanon	0.34	(0.06)	0.22	(0.04)	0.24	(0.05)	-0.10	(0.08)	0.19	(0.05)	0.32	(0.03)	**0.13**	(0.06)	0.15	(0.07)	0.29	(0.03)	0.14	(0.07)
	Lithuania	0.03	(0.04)	0.00	(0.03)	0.02	(0.03)	-0.01	(0.05)	0.01	(0.02)	0.02	(0.17)	0.00	(0.17)	0.01	(0.02)	c	c	c	c
	Macao (China)	c	c	c	c	-0.03	(0.01)	c	c	c	c	-0.03	(0.01)	c	c	-0.06	(0.02)	0.00	(0.02)	0.05	(0.03)
	Malta	0.11	(0.04)	0.12	(0.02)	m	m	m	m	0.03	(0.02)	0.23	(0.02)	**0.20**	(0.03)	c	c	0.12	(0.02)	c	c
	Moldova	0.05	(0.03)	0.06	(0.02)	0.13	(0.03)	**0.08**	(0.04)	0.07	(0.02)	c	c	c	c	0.07	(0.02)	0.11	(0.05)	0.04	(0.05)
	Montenegro	c	c	-0.21	(0.02)	-0.38	(0.03)	c	c	-0.27	(0.02)	c	c	c	c	0.08	(0.15)	-0.27	(0.02)	**-0.35**	(0.15)
	Peru	-0.04	(0.04)	-0.01	(0.02)	-0.06	(0.05)	-0.03	(0.06)	0.00	(0.02)	-0.07	(0.04)	-0.07	(0.04)	-0.03	(0.03)	-0.02	(0.02)	0.02	(0.04)
	Qatar	0.16	(0.05)	0.12	(0.02)	0.23	(0.02)	0.08	(0.06)	0.15	(0.01)	0.23	(0.02)	**0.08**	(0.02)	0.08	(0.03)	0.21	(0.01)	**0.13**	(0.03)
	Romania	-0.31	(0.05)	-0.34	(0.02)	-0.25	(0.03)	0.06	(0.06)	-0.31	(0.02)	c	c	c	c	-0.31	(0.02)	m	m	m	m
	Russia	0.33	(0.04)	0.33	(0.04)	0.28	(0.02)	-0.05	(0.04)	0.30	(0.02)	c	c	c	c	0.30	(0.02)	0.34	(0.07)	0.05	(0.07)
	Singapore	m	m	m	m	0.27	(0.01)	m	m	0.26	(0.01)	0.39	(0.05)	**0.13**	(0.05)	0.26	(0.11)	0.27	(0.01)	0.02	(0.11)
	Chinese Taipei	c	c	0.16	(0.03)	0.18	(0.02)	c	c	0.20	(0.02)	0.11	(0.04)	**-0.09**	(0.04)	0.21	(0.02)	0.15	(0.03)	-0.06	(0.03)
	Thailand	0.45	(0.05)	0.38	(0.02)	0.33	(0.05)	-0.12	(0.07)	0.40	(0.02)	0.26	(0.03)	**-0.14**	(0.04)	0.45	(0.04)	0.36	(0.02)	**-0.09**	(0.04)
	Trinidad and Tobago	0.10	(0.04)	0.07	(0.02)	m	m	m	m	0.06	(0.02)	0.16	(0.08)	0.11	(0.08)	-0.03	(0.03)	0.15	(0.02)	**0.18**	(0.04)
	Tunisia	0.22	(0.16)	0.31	(0.03)	0.34	(0.04)	0.12	(0.17)	0.32	(0.02)	0.32	(0.35)	0.01	(0.35)	0.21	(0.03)	0.36	(0.02)	**0.15**	(0.04)
	United Arab Emirates	0.28	(0.05)	0.28	(0.03)	0.31	(0.02)	0.03	(0.06)	0.31	(0.02)	0.29	(0.02)	-0.02	(0.03)	0.21	(0.04)	0.32	(0.01)	**0.11**	(0.04)
	Uruguay	-0.38	(0.03)	-0.29	(0.02)	-0.25	(0.02)	**0.13**	(0.03)	-0.31	(0.01)	-0.13	(0.03)	**0.19**	(0.03)	-0.38	(0.02)	-0.24	(0.01)	**0.14**	(0.03)
	Viet Nam	-0.03	(0.02)	-0.05	(0.03)	-0.05	(0.04)	-0.02	(0.05)	-0.04	(0.02)	-0.06	(0.07)	-0.02	(0.07)	-0.10	(0.04)	-0.04	(0.02)	0.07	(0.04)
	Argentina**	-0.18	(0.09)	-0.17	(0.03)	-0.10	(0.02)	0.08	(0.10)	-0.19	(0.02)	0.02	(0.03)	**0.21**	(0.03)	-0.19	(0.02)	-0.10	(0.02)	**0.09**	(0.03)
	Kazakhstan**	0.51	(0.04)	0.47	(0.03)	0.60	(0.04)	0.09	(0.05)	0.55	(0.02)	0.33	(0.07)	**-0.22**	(0.07)	0.54	(0.02)	0.64	(0.03)	**0.10**	(0.04)
	Malaysia**	0.52	(0.04)	0.56	(0.03)	0.46	(0.03)	-0.06	(0.05)	0.52	(0.02)	0.37	(0.07)	-0.15	(0.08)	-0.03	(0.07)	0.53	(0.02)	**0.56**	(0.07)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.2.17 Index of teacher-directed science instruction, by student and school characteristics

Results based on students' reports

		Change in science score per unit increase on the index of teacher-directed science instruction				Change in the index of epistemic beliefs per unit increase on the index of teacher-directed science instruction				Increased likelihood of expecting to work in science-related occupations per unit increase on the index of teacher-directed science instruction			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	Australia	**16**	(1.1)	**12**	(1.1)	**0.20**	(0.01)	**0.19**	(0.01)	**1.24**	(0.03)	**1.21**	(0.03)
	Austria	**11**	(1.5)	**7**	(1.3)	**0.19**	(0.02)	**0.16**	(0.02)	**1.16**	(0.04)	**1.15**	(0.04)
	Belgium	**6**	(1.5)	**5**	(1.2)	**0.13**	(0.02)	**0.12**	(0.02)	**1.17**	(0.06)	**1.16**	(0.05)
	Canada	**11**	(1.1)	**10**	(1.0)	**0.19**	(0.01)	**0.17**	(0.01)	**1.17**	(0.03)	**1.15**	(0.03)
	Chile	**11**	(1.6)	**7**	(1.4)	**0.17**	(0.02)	**0.16**	(0.02)	1.06	(0.04)	1.04	(0.03)
	Czech Republic	**9**	(1.6)	**6**	(1.3)	**0.14**	(0.02)	**0.13**	(0.02)	1.08	(0.04)	1.06	(0.04)
	Denmark	**8**	(1.5)	**5**	(1.4)	**0.10**	(0.02)	**0.09**	(0.02)	1.08	(0.05)	1.08	(0.05)
	Estonia	**5**	(1.7)	**4**	(1.5)	**0.14**	(0.02)	**0.13**	(0.02)	**1.13**	(0.05)	**1.12**	(0.05)
	Finland	**20**	(1.5)	**17**	(1.4)	**0.18**	(0.02)	**0.16**	(0.02)	**1.23**	(0.05)	**1.19**	(0.05)
	France	**11**	(1.5)	**8**	(1.2)	**0.16**	(0.02)	**0.15**	(0.02)	**1.14**	(0.04)	**1.12**	(0.04)
	Germany	**15**	(1.6)	**8**	(1.3)	**0.20**	(0.02)	**0.18**	(0.02)	**1.29**	(0.06)	**1.22**	(0.06)
	Greece	**15**	(1.3)	**12**	(1.2)	**0.13**	(0.02)	**0.12**	(0.02)	**1.14**	(0.03)	**1.11**	(0.03)
	Hungary	**9**	(1.7)	**4**	(1.3)	**0.13**	(0.02)	**0.11**	(0.02)	**1.32**	(0.05)	**1.27**	(0.05)
	Iceland	**11**	(1.7)	**9**	(1.7)	**0.20**	(0.02)	**0.18**	(0.02)	**1.10**	(0.04)	**1.08**	(0.04)
	Ireland	**8**	(1.5)	**7**	(1.4)	**0.14**	(0.02)	**0.13**	(0.02)	**1.12**	(0.04)	**1.11**	(0.04)
	Israel	**13**	(1.7)	**13**	(1.4)	**0.24**	(0.02)	**0.23**	(0.02)	**1.28**	(0.05)	**1.27**	(0.04)
	Italy	**18**	(1.9)	**13**	(1.6)	**0.16**	(0.02)	**0.14**	(0.02)	**1.38**	(0.05)	**1.33**	(0.04)
	Japan	**10**	(1.8)	**4**	(1.4)	**0.22**	(0.02)	**0.19**	(0.02)	**1.17**	(0.05)	**1.12**	(0.05)
	Korea	-1	(1.6)	-2	(1.3)	**0.11**	(0.02)	**0.10**	(0.01)	**1.10**	(0.03)	**1.09**	(0.03)
	Latvia	**7**	(1.7)	**7**	(1.5)	**0.11**	(0.02)	**0.11**	(0.02)	1.07	(0.05)	1.07	(0.05)
	Luxembourg	**13**	(1.4)	**9**	(1.1)	**0.22**	(0.02)	**0.20**	(0.02)	**1.17**	(0.04)	**1.14**	(0.04)
	Mexico	**9**	(1.2)	**8**	(1.1)	**0.15**	(0.02)	**0.15**	(0.02)	1.05	(0.04)	1.05	(0.04)
	Netherlands	**20**	(2.6)	**11**	(2.0)	**0.18**	(0.02)	**0.15**	(0.02)	**1.25**	(0.07)	**1.18**	(0.06)
	New Zealand	**9**	(1.7)	**7**	(1.7)	**0.18**	(0.02)	**0.16**	(0.02)	**1.16**	(0.04)	**1.15**	(0.04)
	Norway	**8**	(1.5)	**7**	(1.5)	**0.14**	(0.02)	**0.13**	(0.02)	**1.07**	(0.04)	1.07	(0.04)
	Poland	**13**	(1.5)	**12**	(1.4)	**0.17**	(0.02)	**0.16**	(0.02)	**1.22**	(0.05)	**1.21**	(0.05)
	Portugal	**10**	(1.5)	**9**	(1.3)	**0.16**	(0.02)	**0.15**	(0.02)	**1.26**	(0.03)	**1.26**	(0.04)
	Slovak Republic	3	(1.6)	**3**	(1.2)	**0.09**	(0.02)	**0.09**	(0.02)	**1.08**	(0.04)	**1.08**	(0.04)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	**14**	(1.8)	**11**	(1.7)	**0.19**	(0.02)	**0.18**	(0.02)	**1.30**	(0.05)	**1.27**	(0.05)
	Sweden	**9**	(1.7)	**6**	(1.5)	**0.17**	(0.02)	**0.15**	(0.01)	**1.08**	(0.04)	**1.07**	(0.04)
	Switzerland	**11**	(1.8)	**8**	(1.5)	**0.20**	(0.02)	**0.18**	(0.02)	**1.16**	(0.05)	**1.14**	(0.04)
	Turkey	**7**	(1.6)	**6**	(1.3)	**0.17**	(0.02)	**0.16**	(0.02)	**1.09**	(0.04)	**1.09**	(0.04)
	United Kingdom	**12**	(1.7)	**10**	(1.5)	**0.16**	(0.02)	**0.15**	(0.02)	**1.15**	(0.04)	**1.14**	(0.04)
	United States	**12**	(1.3)	**9**	(1.2)	**0.18**	(0.02)	**0.17**	(0.02)	**1.07**	(0.03)	**1.06**	(0.03)
	OECD average	**11**	(0.3)	**8**	(0.2)	**0.16**	(0.00)	**0.15**	(0.00)	**1.16**	(0.01)	**1.14**	(0.01)
Partners	Albania	m	m	m	m	**0.19**	(0.02)	**0.19**	(0.02)	**1.14**	(0.05)	**1.13**	(0.05)
	Algeria	**5**	(1.1)	**5**	(1.0)	**0.12**	(0.01)	**0.12**	(0.01)	**1.09**	(0.03)	**1.08**	(0.03)
	Brazil	**13**	(1.1)	**8**	(0.9)	**0.16**	(0.01)	**0.15**	(0.01)	**1.07**	(0.02)	1.04	(0.02)
	B-S-J-G (China)	**18**	(2.1)	**8**	(1.6)	**0.15**	(0.02)	**0.11**	(0.02)	**1.19**	(0.04)	**1.14**	(0.04)
	Bulgaria	**7**	(1.4)	**5**	(1.2)	**0.12**	(0.02)	**0.11**	(0.02)	**1.08**	(0.03)	**1.07**	(0.03)
	CABA (Argentina)	**17**	(3.7)	**10**	(2.7)	**0.24**	(0.04)	**0.21**	(0.04)	1.10	(0.07)	1.08	(0.07)
	Colombia	**19**	(1.4)	**13**	(1.2)	**0.16**	(0.02)	**0.14**	(0.02)	1.03	(0.03)	1.03	(0.03)
	Costa Rica	**8**	(1.7)	**4**	(1.3)	**0.17**	(0.02)	**0.16**	(0.02)	1.03	(0.03)	1.01	(0.03)
	Croatia	**10**	(1.5)	**8**	(1.1)	**0.15**	(0.01)	**0.14**	(0.01)	**1.14**	(0.04)	**1.11**	(0.04)
	Cyprus*	**14**	(1.1)	**13**	(1.0)	**0.20**	(0.01)	**0.20**	(0.01)	**1.17**	(0.04)	**1.17**	(0.04)
	Dominican Republic	**10**	(1.7)	**7**	(1.5)	**0.20**	(0.03)	**0.19**	(0.03)	**1.12**	(0.04)	**1.12**	(0.04)
	FYROM	**12**	(1.4)	**10**	(1.3)	**0.22**	(0.01)	**0.21**	(0.02)	**1.18**	(0.04)	**1.17**	(0.04)
	Georgia	**14**	(2.0)	**14**	(1.8)	**0.22**	(0.02)	**0.22**	(0.02)	1.08	(0.05)	1.08	(0.05)
	Hong Kong (China)	**12**	(1.9)	**10**	(1.7)	**0.23**	(0.03)	**0.22**	(0.03)	**1.16**	(0.05)	**1.13**	(0.05)
	Indonesia	0	(1.6)	**-3**	(1.3)	**0.09**	(0.01)	**0.08**	(0.01)	1.03	(0.05)	1.00	(0.05)
	Jordan	**16**	(1.3)	**14**	(1.2)	**0.25**	(0.02)	**0.25**	(0.02)	**1.15**	(0.03)	**1.11**	(0.03)
	Kosovo	**15**	(1.2)	**12**	(1.1)	**0.12**	(0.02)	**0.10**	(0.02)	**1.15**	(0.03)	**1.11**	(0.03)
	Lebanon	**17**	(2.9)	**17**	(2.1)	**0.19**	(0.03)	**0.19**	(0.02)	**1.21**	(0.06)	**1.21**	(0.06)
	Lithuania	**4**	(1.2)	**4**	(1.0)	**0.11**	(0.02)	**0.10**	(0.02)	**1.07**	(0.03)	1.06	(0.03)
	Macao (China)	**9**	(1.5)	**9**	(1.5)	**0.18**	(0.02)	**0.17**	(0.02)	**1.14**	(0.05)	**1.14**	(0.05)
	Malta	**19**	(2.3)	**13**	(2.0)	**0.19**	(0.02)	**0.17**	(0.02)	**1.25**	(0.06)	**1.20**	(0.06)
	Moldova	**23**	(1.7)	**21**	(1.5)	**0.20**	(0.01)	**0.19**	(0.01)	**1.16**	(0.04)	**1.12**	(0.04)
	Montenegro	0	(1.1)	**3**	(1.0)	**0.15**	(0.02)	**0.16**	(0.02)	1.03	(0.03)	1.04	(0.04)
	Peru	1	(1.3)	1	(1.1)	**0.11**	(0.02)	**0.11**	(0.02)	**1.11**	(0.03)	**1.10**	(0.03)
	Qatar	**17**	(0.9)	**14**	(0.9)	**0.22**	(0.01)	**0.20**	(0.01)	**1.21**	(0.02)	**1.20**	(0.02)
	Romania	**18**	(2.3)	**11**	(2.0)	**0.14**	(0.02)	**0.12**	(0.02)	**1.31**	(0.06)	**1.17**	(0.06)
	Russia	**9**	(1.6)	**9**	(1.4)	**0.16**	(0.02)	**0.15**	(0.02)	1.05	(0.04)	1.04	(0.04)
	Singapore	**16**	(1.6)	**9**	(1.2)	**0.17**	(0.02)	**0.15**	(0.02)	**1.15**	(0.04)	**1.13**	(0.04)
	Chinese Taipei	**12**	(1.6)	**8**	(1.2)	**0.15**	(0.01)	**0.13**	(0.01)	**1.09**	(0.04)	1.07	(0.04)
	Thailand	**4**	(1.5)	**6**	(1.4)	**0.13**	(0.01)	**0.13**	(0.01)	1.03	(0.03)	1.05	(0.03)
	Trinidad and Tobago	**12**	(1.7)	**7**	(1.4)	**0.16**	(0.02)	**0.14**	(0.02)	**1.19**	(0.05)	**1.16**	(0.05)
	Tunisia	**5**	(1.0)	**5**	(1.0)	**0.14**	(0.02)	**0.14**	(0.02)	**1.08**	(0.03)	**1.07**	(0.03)
	United Arab Emirates	**14**	(1.0)	**14**	(0.9)	**0.20**	(0.01)	**0.20**	(0.01)	**1.14**	(0.03)	**1.14**	(0.03)
	Uruguay	**14**	(1.7)	**9**	(1.4)	**0.16**	(0.02)	**0.14**	(0.03)	**1.08**	(0.04)	1.04	(0.04)
	Viet Nam	**13**	(2.4)	**10**	(1.9)	**0.16**	(0.02)	**0.15**	(0.02)	**1.14**	(0.05)	**1.12**	(0.05)
	Argentina**	**14**	(1.6)	**10**	(1.4)	**0.23**	(0.02)	**0.20**	(0.02)	**1.18**	(0.04)	**1.12**	(0.04)
	Kazakhstan**	**13**	(1.8)	**10**	(1.6)	**0.23**	(0.02)	**0.22**	(0.02)	**1.18**	(0.04)	**1.16**	(0.04)
	Malaysia**	**11**	(1.5)	**11**	(1.1)	**0.21**	(0.01)	**0.21**	(0.01)	**1.21**	(0.04)	**1.21**	(0.04)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/2]

Table II.2.19 Perceived feedback from science teachers

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons																							
		The teacher tells me how I am performing in this course								The teacher gives me feedback on my strengths in this class								The teacher tells me in which areas I can still improve							
		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	23.0	(0.5)	48.3	(0.5)	23.3	(0.5)	5.4	(0.2)	27.8	(0.6)	42.6	(0.5)	23.6	(0.5)	6.0	(0.3)	25.4	(0.6)	41.9	(0.5)	25.8	(0.6)	6.9	(0.3)
	Austria	25.5	(0.9)	45.9	(0.8)	20.2	(0.7)	8.5	(0.5)	55.8	(1.0)	24.8	(0.8)	13.0	(0.7)	6.5	(0.4)	42.4	(1.0)	32.9	(0.7)	17.2	(0.7)	7.5	(0.5)
	Belgium	25.9	(0.7)	46.4	(0.7)	20.5	(0.5)	7.3	(0.3)	46.3	(0.8)	35.2	(0.6)	14.0	(0.4)	4.5	(0.3)	36.3	(0.8)	41.0	(0.6)	17.4	(0.6)	5.3	(0.3)
	Canada	15.1	(0.4)	47.7	(0.5)	28.8	(0.5)	8.4	(0.3)	26.6	(0.7)	37.4	(0.5)	27.6	(0.5)	8.4	(0.3)	25.7	(0.7)	37.1	(0.5)	28.0	(0.5)	9.3	(0.4)
	Chile	24.6	(0.7)	43.9	(0.7)	22.9	(0.6)	8.6	(0.5)	29.2	(0.8)	40.0	(0.8)	22.2	(0.7)	8.6	(0.5)	29.3	(0.9)	36.2	(0.8)	24.0	(0.7)	10.5	(0.4)
	Czech Republic	38.5	(0.8)	42.6	(0.7)	13.2	(0.5)	5.8	(0.3)	37.7	(0.9)	43.5	(0.7)	13.5	(0.5)	5.2	(0.3)	29.6	(0.7)	43.8	(0.7)	20.5	(0.6)	6.1	(0.4)
	Denmark	35.0	(0.9)	49.5	(0.7)	13.1	(0.5)	2.3	(0.2)	37.2	(0.9)	42.8	(0.7)	16.7	(0.6)	3.3	(0.3)	37.1	(0.9)	44.2	(0.6)	16.0	(0.6)	2.8	(0.2)
	Estonia	26.9	(0.6)	50.4	(0.7)	18.2	(0.6)	4.5	(0.3)	29.9	(0.7)	43.6	(0.6)	21.2	(0.7)	5.2	(0.3)	42.7	(0.9)	37.0	(0.7)	15.8	(0.6)	4.5	(0.3)
	Finland	33.3	(0.9)	50.6	(0.8)	13.0	(0.5)	3.2	(0.3)	39.1	(0.8)	43.5	(0.8)	14.1	(0.6)	3.2	(0.3)	39.8	(0.8)	42.6	(0.8)	14.4	(0.5)	3.3	(0.3)
	France	37.4	(0.6)	40.2	(0.6)	15.7	(0.5)	6.7	(0.4)	51.1	(0.9)	31.2	(0.7)	11.7	(0.5)	6.0	(0.4)	35.9	(0.7)	39.0	(0.6)	18.1	(0.6)	7.0	(0.4)
	Germany	24.1	(0.8)	57.4	(0.8)	14.8	(0.6)	3.7	(0.3)	51.4	(0.9)	34.0	(0.8)	11.4	(0.5)	3.2	(0.3)	36.1	(0.9)	43.2	(0.8)	16.7	(0.6)	4.0	(0.3)
	Greece	27.8	(0.8)	43.4	(0.8)	20.3	(0.8)	8.5	(0.5)	39.3	(1.3)	33.1	(0.9)	19.7	(0.8)	7.9	(0.5)	29.3	(1.1)	35.7	(0.8)	25.3	(0.9)	9.7	(0.6)
	Hungary	22.6	(0.7)	48.3	(0.7)	22.7	(0.7)	6.3	(0.4)	34.9	(1.0)	39.1	(0.8)	20.6	(0.7)	5.4	(0.4)	34.2	(1.0)	38.7	(0.8)	21.7	(0.8)	5.4	(0.5)
	Iceland	34.3	(0.8)	41.7	(0.8)	19.4	(0.8)	4.6	(0.3)	56.0	(1.0)	28.7	(0.9)	11.6	(0.5)	3.8	(0.3)	52.4	(0.9)	30.2	(0.9)	13.3	(0.6)	4.1	(0.3)
	Ireland	23.7	(0.9)	51.6	(0.8)	20.6	(0.7)	4.1	(0.3)	31.9	(1.0)	42.2	(0.8)	21.8	(0.7)	4.1	(0.3)	24.9	(0.8)	44.5	(0.8)	25.1	(0.8)	5.5	(0.4)
	Israel	35.1	(0.9)	37.3	(0.6)	19.4	(0.8)	8.2	(0.4)	38.0	(1.1)	33.6	(0.8)	20.2	(0.7)	8.1	(0.4)	37.0	(1.0)	33.6	(0.6)	20.4	(0.7)	9.0	(0.5)
	Italy	19.6	(0.9)	50.4	(0.8)	22.7	(0.8)	7.2	(0.4)	41.9	(0.9)	35.6	(0.8)	18.1	(0.7)	4.3	(0.3)	26.0	(0.7)	41.3	(0.8)	25.3	(0.8)	7.4	(0.4)
	Japan	51.0	(0.9)	32.3	(0.6)	12.1	(0.6)	4.6	(0.3)	70.4	(0.9)	19.3	(0.7)	7.2	(0.5)	3.1	(0.2)	59.3	(1.0)	25.0	(0.7)	11.1	(0.6)	4.6	(0.3)
	Korea	47.4	(0.9)	34.7	(0.8)	13.2	(0.5)	4.8	(0.3)	57.2	(0.9)	27.4	(0.8)	11.4	(0.5)	4.1	(0.3)	51.3	(1.0)	29.8	(0.8)	14.1	(0.5)	4.8	(0.3)
	Latvia	17.0	(0.7)	40.9	(0.9)	30.0	(0.7)	12.1	(0.6)	27.5	(0.8)	39.3	(0.8)	25.1	(0.9)	8.1	(0.4)	22.7	(0.8)	37.7	(0.8)	30.3	(0.8)	9.2	(0.5)
	Luxembourg	34.1	(0.8)	41.7	(0.8)	16.8	(0.5)	7.4	(0.3)	47.5	(0.7)	32.1	(0.7)	14.5	(0.6)	6.0	(0.4)	37.9	(0.7)	36.1	(0.7)	19.2	(0.6)	6.9	(0.3)
	Mexico	14.4	(0.6)	42.1	(0.7)	27.6	(0.7)	15.9	(0.6)	27.2	(0.9)	36.0	(0.6)	25.2	(0.7)	11.6	(0.5)	22.3	(0.9)	34.1	(0.7)	28.3	(0.8)	15.3	(0.6)
	Netherlands	24.2	(0.8)	51.9	(0.8)	19.9	(0.7)	3.9	(0.3)	36.2	(0.9)	42.5	(0.9)	18.0	(0.7)	3.3	(0.3)	29.6	(0.9)	44.1	(0.7)	22.1	(0.8)	4.2	(0.3)
	New Zealand	18.1	(0.7)	47.6	(0.9)	27.3	(0.8)	6.9	(0.5)	23.1	(0.7)	41.5	(0.7)	27.7	(0.7)	7.6	(0.5)	18.4	(0.6)	40.2	(0.8)	32.1	(0.7)	9.3	(0.5)
	Norway	27.2	(0.8)	47.1	(0.8)	20.2	(0.6)	5.5	(0.4)	34.3	(0.9)	42.3	(0.8)	18.0	(0.7)	5.4	(0.3)	24.6	(0.9)	47.6	(0.8)	21.5	(0.7)	6.4	(0.4)
	Poland	23.2	(0.7)	45.4	(0.8)	24.4	(0.7)	7.0	(0.4)	34.9	(0.9)	36.5	(0.7)	22.2	(0.8)	6.3	(0.4)	16.1	(0.7)	41.0	(0.8)	32.2	(0.7)	10.7	(0.5)
	Portugal	25.5	(0.7)	47.3	(0.9)	19.5	(0.7)	7.7	(0.4)	34.9	(0.9)	39.7	(0.8)	18.4	(0.7)	7.0	(0.5)	27.2	(0.9)	42.0	(0.9)	22.1	(0.8)	8.8	(0.5)
	Slovak Republic	37.3	(0.9)	42.3	(0.8)	13.7	(0.6)	6.7	(0.4)	38.4	(1.0)	38.8	(0.8)	16.7	(0.7)	6.1	(0.3)	31.0	(0.9)	41.9	(0.8)	20.4	(0.7)	6.7	(0.4)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	18.7	(0.7)	47.0	(0.7)	25.4	(0.8)	8.8	(0.5)	38.2	(0.9)	34.8	(0.7)	20.6	(0.7)	6.4	(0.4)	27.7	(0.9)	36.3	(0.8)	26.4	(0.8)	9.6	(0.5)
	Sweden	26.6	(0.9)	48.3	(0.8)	18.0	(0.7)	7.1	(0.5)	37.9	(1.2)	38.6	(0.8)	16.7	(0.6)	6.7	(0.4)	29.8	(1.2)	43.2	(0.9)	19.4	(0.7)	7.6	(0.4)
	Switzerland	33.4	(1.1)	40.3	(0.8)	19.2	(0.7)	7.2	(0.4)	53.6	(1.2)	26.8	(0.8)	14.3	(0.6)	5.3	(0.3)	43.4	(1.2)	33.2	(0.7)	17.3	(0.7)	6.1	(0.4)
	Turkey	18.9	(0.7)	46.7	(0.8)	23.5	(0.7)	10.8	(0.5)	20.4	(0.7)	42.7	(0.8)	26.2	(0.7)	10.7	(0.6)	22.2	(0.9)	39.5	(0.7)	25.8	(0.7)	12.5	(0.6)
	United Kingdom	14.5	(0.6)	49.9	(0.8)	28.1	(0.7)	7.4	(0.4)	16.2	(0.6)	44.1	(0.8)	30.3	(0.8)	9.4	(0.5)	13.1	(0.6)	41.6	(0.9)	34.0	(0.8)	11.3	(0.6)
	United States	17.6	(0.8)	41.0	(0.7)	27.7	(0.8)	13.7	(0.6)	25.6	(0.9)	35.2	(0.7)	26.5	(0.8)	12.8	(0.6)	24.6	(0.9)	34.5	(0.7)	26.7	(0.9)	14.2	(0.7)
	OECD average	27.1	(0.1)	45.3	(0.1)	20.5	(0.1)	7.1	(0.1)	38.2	(0.2)	36.7	(0.1)	18.8	(0.1)	6.3	(0.1)	31.9	(0.2)	38.5	(0.1)	22.0	(0.1)	7.5	(0.1)
Partners	**Albania**	10.0	(0.5)	43.3	(0.9)	30.9	(0.8)	15.8	(0.7)	12.9	(0.7)	39.9	(1.1)	31.6	(0.8)	15.6	(0.6)	12.0	(0.5)	36.8	(0.9)	33.7	(0.8)	17.5	(0.7)
	Algeria	31.9	(0.8)	42.9	(0.9)	11.3	(0.5)	13.9	(0.6)	27.0	(0.8)	40.8	(1.0)	18.1	(0.6)	14.1	(0.5)	26.7	(0.7)	34.3	(0.9)	26.3	(0.8)	12.7	(0.6)
	Brazil	21.2	(0.5)	45.7	(0.6)	22.4	(0.5)	10.8	(0.4)	45.7	(0.6)	33.0	(0.5)	14.6	(0.5)	6.8	(0.3)	24.5	(0.7)	41.4	(0.6)	23.5	(0.5)	10.5	(0.3)
	B-S-J-G (China)	28.6	(1.2)	49.3	(1.0)	14.9	(0.5)	7.3	(0.4)	26.7	(1.2)	43.5	(1.1)	21.3	(0.7)	8.5	(0.4)	13.5	(0.8)	46.5	(0.8)	28.5	(0.7)	11.5	(0.5)
	Bulgaria	16.5	(0.6)	39.1	(0.8)	29.3	(0.8)	15.1	(0.6)	25.1	(0.9)	35.3	(0.7)	26.7	(0.7)	12.9	(0.6)	27.3	(0.9)	32.3	(0.7)	26.9	(0.8)	13.5	(0.5)
	CABA (Argentina)	31.9	(1.8)	49.0	(1.6)	13.7	(0.9)	5.4	(0.8)	38.8	(2.0)	41.4	(1.8)	15.1	(1.1)	4.7	(0.7)	39.4	(2.2)	38.2	(1.6)	15.5	(1.0)	6.8	(0.9)
	Colombia	13.6	(0.5)	51.4	(0.7)	24.4	(0.5)	10.6	(0.4)	23.3	(0.8)	44.2	(0.7)	23.4	(0.6)	9.1	(0.4)	16.4	(0.5)	42.0	(0.7)	28.8	(0.7)	12.9	(0.5)
	Costa Rica	29.2	(0.9)	37.9	(0.8)	19.4	(0.6)	13.5	(0.5)	43.5	(0.8)	30.9	(0.8)	16.3	(0.6)	9.4	(0.4)	35.3	(0.8)	34.0	(0.8)	19.5	(0.7)	11.2	(0.5)
	Croatia	20.9	(0.7)	53.1	(0.7)	19.8	(0.7)	6.2	(0.3)	35.5	(0.9)	40.9	(0.7)	18.3	(0.6)	5.3	(0.3)	23.0	(0.8)	45.1	(0.7)	24.6	(0.6)	7.2	(0.4)
	Cyprus*	22.6	(0.6)	45.1	(0.8)	23.7	(0.6)	8.6	(0.4)	28.1	(0.6)	39.9	(0.7)	23.7	(0.6)	8.3	(0.3)	23.7	(0.6)	38.5	(0.7)	28.1	(0.7)	9.7	(0.5)
	Dominican Republic	13.4	(0.7)	40.9	(0.9)	29.0	(0.8)	16.7	(0.8)	13.7	(0.7)	36.1	(0.8)	31.8	(0.7)	18.4	(0.8)	14.3	(0.6)	35.1	(1.0)	32.5	(0.9)	18.1	(0.8)
	FYROM	18.2	(0.6)	47.4	(0.8)	24.7	(0.8)	9.8	(0.5)	14.8	(0.7)	46.0	(0.7)	26.9	(0.7)	12.4	(0.5)	14.8	(0.6)	36.4	(0.7)	30.9	(0.7)	17.9	(0.5)
	Georgia	8.4	(0.4)	41.0	(0.9)	32.0	(0.8)	18.5	(0.7)	14.0	(0.5)	43.0	(0.8)	28.8	(0.7)	14.1	(0.5)	10.9	(0.6)	38.5	(0.8)	32.9	(0.8)	17.7	(0.6)
	Hong Kong (China)	17.3	(0.9)	54.7	(1.0)	23.0	(0.9)	5.0	(0.5)	24.8	(1.0)	47.3	(0.9)	22.7	(1.0)	5.3	(0.5)	18.9	(0.9)	47.3	(0.9)	27.6	(0.9)	6.2	(0.5)
	Indonesia	30.6	(1.0)	49.9	(0.9)	11.6	(0.6)	7.9	(0.4)	33.0	(1.1)	46.6	(0.9)	12.4	(0.6)	8.0	(0.4)	21.2	(0.7)	46.6	(0.7)	20.0	(0.8)	12.2	(0.5)
	Jordan	21.8	(0.7)	39.5	(0.8)	23.7	(0.6)	14.9	(0.6)	21.2	(0.6)	38.0	(0.7)	26.8	(0.7)	14.0	(0.5)	20.5	(0.6)	35.8	(0.7)	26.8	(0.7)	17.0	(0.6)
	Kosovo	23.5	(0.8)	42.5	(0.9)	23.1	(0.7)	10.9	(0.6)	23.3	(0.7)	42.7	(0.8)	22.6	(0.8)	11.3	(0.6)	20.7	(0.8)	37.7	(0.9)	28.2	(0.9)	13.4	(0.6)
	Lebanon	20.0	(1.1)	37.1	(1.1)	23.3	(0.9)	19.6	(1.2)	17.5	(0.9)	39.4	(0.9)	25.5	(1.0)	17.6	(1.2)	17.2	(0.8)	33.0	(0.9)	30.2	(1.0)	19.6	(1.0)
	Lithuania	27.6	(0.7)	41.0	(0.7)	21.0	(0.6)	10.4	(0.5)	32.5	(0.9)	35.4	(0.7)	22.0	(0.7)	10.1	(0.4)	25.8	(0.8)	36.1	(0.7)	26.2	(0.8)	11.9	(0.5)
	Macao (China)	25.4	(0.7)	55.7	(0.7)	14.7	(0.7)	4.2	(0.3)	44.4	(0.7)	40.3	(0.8)	12.0	(0.6)	3.2	(0.3)	27.0	(0.7)	48.5	(0.7)	19.3	(0.7)	5.2	(0.3)
	Malta	22.1	(0.7)	50.4	(0.8)	21.4	(0.6)	6.0	(0.4)	23.4	(0.7)	45.7	(0.8)	24.0	(0.7)	6.9	(0.4)	20.3	(0.6)	41.3	(0.9)	29.1	(0.8)	9.3	(0.5)
	Moldova	8.3	(0.4)	49.4	(0.8)	26.9	(0.7)	15.3	(0.6)	14.0	(0.6)	48.4	(0.7)	26.7	(0.7)	10.9	(0.6)	14.3	(0.7)	42.8	(0.8)	29.5	(0.8)	13.4	(0.7)
	Montenegro	18.2	(0.6)	42.8	(0.8)	25.7	(0.7)	13.4	(0.5)	20.6	(0.6)	41.8	(0.7)	26.3	(0.7)	11.3	(0.5)	23.0	(0.6)	38.4	(0.7)	26.7	(0.7)	11.9	(0.5)
	Peru	14.1	(0.5)	52.8	(0.7)	25.2	(0.6)	7.9	(0.4)	20.7	(0.7)	46.8	(0.8)	24.9	(0.7)	7.6	(0.4)	16.3	(0.6)	43.1	(0.7)	30.1	(0.6)	10.5	(0.5)
	Qatar	14.3	(0.4)	44.0	(0.5)	29.3	(0.5)	12.4	(0.3)	17.0	(0.4)	41.4	(0.5)	29.5	(0.5)	12.1	(0.3)	17.4	(0.4)	38.5	(0.5)	30.6	(0.5)	13.4	(0.3)
	Romania	16.7	(0.7)	46.8	(0.9)	22.4	(0.8)	14.1	(0.6)	30.0	(0.8)	45.8	(0.9)	16.0	(0.7)	8.2	(0.5)	25.9	(0.8)	44.7	(0.9)	21.1	(0.6)	8.4	(0.4)
	Russia	13.0	(0.7)	47.4	(0.8)	29.9	(0.6)	9.6	(0.5)	19.5	(0.7)	40.4	(0.7)	31.1	(0.7)	9.0	(0.5)	15.2	(0.7)	41.3	(0.8)	33.3	(0.7)	10.3	(0.4)
	Singapore	13.9	(0.5)	53.2	(0.8)	25.9	(0.6)	7.0	(0.4)	20.4	(0.6)	46.8	(0.7)	24.9	(0.5)	7.9	(0.4)	16.1	(0.5)	44.6	(0.8)	29.7	(0.6)	9.6	(0.5)
	Chinese Taipei	24.0	(0.7)	47.7	(0.7)	22.1	(0.6)	6.2	(0.3)	23.4	(0.6)	43.3	(0.6)	25.0	(0.7)	8.4	(0.4)	20.0	(0.6)	40.8	(0.6)	28.9	(0.6)	10.3	(0.4)
	Thailand	15.4	(0.6)	61.2	(0.8)	16.1	(0.6)	7.2	(0.5)	16.5	(0.7)	53.8	(0.8)	21.2	(0.6)	8.4	(0.5)	17.3	(0.6)	55.7	(0.8)	18.5	(0.7)	8.6	(0.4)
	Trinidad and Tobago	20.0	(0.7)	45.3	(0.9)	23.2	(0.7)	11.5	(0.6)	24.2	(0.7)	39.8	(0.9)	25.1	(0.7)	10.9	(0.6)	21.1	(0.6)	35.0	(0.6)	28.4	(0.8)	15.5	(0.6)
	Tunisia	15.3	(0.7)	38.9	(0.9)	25.1	(0.8)	20.7	(0.6)	22.7	(0.8)	36.0	(0.8)	26.3	(0.8)	15.0	(0.5)	16.9	(0.8)	36.2	(0.8)	29.9	(0.8)	17.0	(0.7)
	United Arab Emirates	14.4	(0.5)	41.5	(0.6)	29.6	(0.6)	14.5	(0.4)	18.8	(0.5)	38.7	(0.5)	28.2	(0.6)	14.3	(0.4)	16.3	(0.5)	36.1	(0.6)	31.0	(0.6)	16.6	(0.5)
	Uruguay	20.5	(0.7)	54.9	(0.8)	19.0	(0.6)	5.5	(0.4)	35.1	(0.8)	43.7	(0.8)	15.8	(0.6)	5.4	(0.4)	24.0	(0.8)	47.6	(1.0)	22.2	(0.8)	6.3	(0.4)
	Viet Nam	11.7	(0.4)	51.5	(0.8)	26.0	(0.8)	10.8	(0.5)	21.5	(0.7)	51.5	(0.8)	19.2	(0.7)	7.8	(0.5)	21.3	(0.9)	48.7	(1.0)	21.0	(0.9)	9.0	(0.5)
	Argentina**	21.9	(0.6)	51.5	(0.7)	17.8	(0.6)	8.8	(0.5)	26.6	(0.7)	45.5	(0.8)	19.9	(0.6)	8.0	(0.4)	27.6	(0.8)	41.7	(0.7)	20.5	(0.7)	10.1	(0.5)
	Kazakhstan**	6.4	(0.4)	35.4	(0.8)	38.2	(0.6)	20.0	(0.7)	7.1	(0.4)	36.3	(0.9)	37.1	(0.7)	19.4	(0.7)	7.7	(0.4)	26.5	(0.8)	39.9	(0.7)	25.9	(0.9)
	Malaysia**	11.1	(0.7)	46.9	(0.7)	29.6	(0.7)	12.4	(0.6)	16.2	(0.7)	44.6	(0.8)	29.5	(0.7)	9.7	(0.5)	8.5	(0.6)	37.9	(0.8)	36.2	(0.8)	17.4	(0.8)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/2]

Table II.2.19 Perceived feedback from science teachers

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons															
		The teacher tells me how I can improve my performance								The teacher advises me on how to reach my learning goals							
		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	25.7	(0.6)	41.0	(0.5)	26.1	(0.6)	7.2	(0.3)	28.9	(0.6)	39.5	(0.5)	24.5	(0.5)	7.1	(0.3)
	Austria	37.7	(1.1)	35.3	(0.7)	18.4	(0.9)	8.6	(0.4)	46.8	(1.0)	29.3	(0.7)	16.1	(0.7)	7.9	(0.5)
	Belgium	31.3	(0.7)	43.4	(0.5)	19.2	(0.5)	6.1	(0.4)	37.3	(0.8)	39.3	(0.6)	17.3	(0.5)	6.2	(0.3)
	Canada	23.1	(0.6)	38.0	(0.5)	29.0	(0.5)	9.9	(0.3)	25.9	(0.7)	35.5	(0.5)	28.1	(0.5)	10.5	(0.4)
	Chile	24.3	(0.8)	36.6	(0.7)	26.7	(0.6)	12.5	(0.6)	26.5	(0.8)	34.9	(0.7)	24.9	(0.6)	13.7	(0.6)
	Czech Republic	26.3	(0.7)	45.1	(0.7)	21.4	(0.6)	7.2	(0.4)	34.8	(0.7)	40.0	(0.7)	17.6	(0.5)	7.6	(0.3)
	Denmark	37.4	(1.0)	43.7	(0.7)	15.9	(0.6)	2.9	(0.2)	39.1	(1.0)	41.5	(0.7)	16.1	(0.7)	3.3	(0.2)
	Estonia	27.3	(0.7)	43.0	(0.8)	23.0	(0.8)	6.7	(0.4)	32.2	(0.8)	39.0	(0.8)	21.6	(0.7)	7.2	(0.3)
	Finland	36.7	(0.9)	44.5	(0.8)	15.4	(0.6)	3.4	(0.3)	36.4	(0.9)	43.3	(0.8)	16.0	(0.6)	4.2	(0.3)
	France	29.8	(0.7)	41.8	(0.8)	20.2	(0.6)	8.2	(0.4)	35.4	(0.7)	37.1	(0.7)	18.7	(0.6)	8.8	(0.4)
	Germany	34.7	(0.8)	44.2	(0.8)	17.0	(0.5)	4.0	(0.3)	47.2	(0.8)	34.3	(0.8)	14.5	(0.6)	3.9	(0.3)
	Greece	29.0	(1.1)	34.3	(0.8)	26.0	(0.9)	10.6	(0.6)	30.9	(1.0)	33.5	(0.8)	23.5	(0.8)	12.0	(0.6)
	Hungary	22.8	(0.8)	42.4	(0.8)	26.1	(0.8)	8.6	(0.5)	31.6	(0.9)	36.3	(0.8)	23.5	(0.8)	8.6	(0.5)
	Iceland	49.5	(1.0)	32.0	(0.9)	13.8	(0.6)	4.8	(0.4)	48.9	(1.0)	31.6	(0.9)	14.6	(0.6)	4.8	(0.4)
	Ireland	26.4	(0.9)	43.5	(0.7)	24.6	(0.8)	5.5	(0.4)	30.9	(1.0)	40.2	(0.8)	22.3	(0.7)	6.6	(0.4)
	Israel	33.9	(0.9)	32.6	(0.6)	23.0	(0.6)	10.5	(0.5)	35.7	(0.9)	30.0	(0.6)	22.3	(0.7)	12.0	(0.6)
	Italy	23.3	(0.7)	40.9	(0.7)	27.4	(0.8)	8.4	(0.4)	27.0	(0.9)	39.0	(0.8)	24.7	(0.6)	9.3	(0.4)
	Japan	33.7	(0.9)	35.4	(0.7)	21.7	(0.7)	9.3	(0.4)	37.6	(0.8)	34.2	(0.7)	20.2	(0.6)	8.0	(0.4)
	Korea	44.2	(1.0)	33.1	(0.8)	16.9	(0.6)	5.8	(0.4)	36.3	(0.8)	36.5	(0.8)	20.1	(0.6)	7.1	(0.4)
	Latvia	21.3	(0.7)	37.1	(0.8)	30.3	(0.6)	11.3	(0.5)	26.3	(0.8)	33.6	(0.7)	29.2	(0.7)	10.9	(0.5)
	Luxembourg	37.0	(0.7)	35.7	(0.7)	19.0	(0.6)	8.3	(0.4)	41.9	(0.7)	32.6	(0.7)	17.3	(0.6)	8.3	(0.4)
	Mexico	18.4	(0.8)	34.2	(0.6)	30.7	(0.8)	16.7	(0.6)	19.4	(0.9)	32.7	(0.7)	28.8	(0.7)	19.1	(0.6)
	Netherlands	26.9	(0.9)	46.0	(0.8)	22.9	(0.8)	4.2	(0.3)	27.9	(0.8)	45.4	(0.8)	22.1	(0.8)	4.7	(0.4)
	New Zealand	18.1	(0.7)	40.6	(0.8)	31.6	(0.8)	9.7	(0.6)	22.7	(0.7)	39.2	(0.8)	28.1	(0.7)	10.0	(0.5)
	Norway	25.9	(0.9)	46.3	(0.7)	21.5	(0.7)	6.4	(0.3)	28.8	(0.9)	43.6	(0.8)	21.1	(0.7)	6.5	(0.4)
	Poland	17.0	(0.7)	39.9	(0.8)	32.6	(0.8)	10.5	(0.5)	30.6	(0.9)	34.1	(0.8)	25.8	(0.8)	9.5	(0.5)
	Portugal	19.3	(0.7)	44.3	(0.9)	26.4	(0.9)	10.0	(0.5)	23.4	(0.7)	40.8	(0.9)	24.7	(0.8)	11.0	(0.5)
	Slovak Republic	24.8	(0.8)	44.3	(0.8)	22.1	(0.6)	8.7	(0.5)	32.5	(1.0)	38.1	(0.8)	20.1	(0.6)	9.2	(0.5)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	25.0	(0.8)	37.3	(0.6)	27.3	(0.8)	10.4	(0.5)	27.2	(0.8)	35.6	(0.7)	25.9	(0.8)	11.3	(0.5)
	Sweden	27.1	(1.1)	44.0	(0.8)	20.9	(0.8)	8.1	(0.5)	28.9	(1.1)	41.9	(0.9)	20.7	(0.7)	8.5	(0.5)
	Switzerland	39.4	(1.1)	34.9	(0.9)	18.7	(0.7)	7.0	(0.5)	40.1	(1.1)	32.8	(0.9)	19.2	(0.8)	7.8	(0.5)
	Turkey	17.8	(0.8)	39.3	(0.9)	28.4	(0.8)	14.5	(0.6)	17.4	(0.8)	36.9	(0.8)	29.4	(0.8)	16.3	(0.7)
	United Kingdom	15.1	(0.6)	42.6	(0.8)	31.9	(0.8)	10.3	(0.5)	18.2	(0.6)	40.7	(0.7)	30.5	(0.7)	10.6	(0.6)
	United States	22.4	(0.9)	35.1	(0.7)	27.7	(0.8)	14.8	(0.6)	23.9	(0.9)	32.8	(0.7)	27.4	(0.8)	15.9	(0.6)
	OECD average	28.0	(0.1)	39.8	(0.1)	23.6	(0.1)	8.6	(0.1)	31.7	(0.1)	36.9	(0.1)	22.3	(0.1)	9.1	(0.1)
Partners	**Albania**	8.1	(0.4)	32.4	(0.7)	35.4	(0.7)	24.0	(0.7)	8.8	(0.6)	30.8	(0.6)	34.9	(0.8)	25.5	(0.8)
	Algeria	24.1	(0.7)	38.7	(1.0)	18.6	(0.6)	18.6	(0.6)	19.4	(0.6)	36.3	(1.0)	20.5	(0.5)	23.7	(0.8)
	Brazil	19.9	(0.5)	42.3	(0.6)	25.3	(0.5)	12.6	(0.4)	20.1	(0.5)	37.4	(0.6)	25.9	(0.6)	16.5	(0.4)
	B-S-J-G (China)	18.4	(0.9)	46.9	(0.8)	24.9	(0.8)	9.8	(0.4)	15.5	(0.9)	44.9	(0.8)	27.4	(0.7)	12.1	(0.5)
	Bulgaria	15.1	(0.6)	34.0	(0.8)	33.6	(0.8)	17.4	(0.7)	21.8	(0.7)	31.5	(0.7)	29.4	(0.8)	17.2	(0.7)
	CABA (Argentina)	32.0	(1.7)	42.4	(1.3)	18.8	(1.1)	6.8	(0.9)	34.6	(2.1)	39.2	(1.5)	16.9	(1.0)	9.2	(0.8)
	Colombia	14.5	(0.6)	41.9	(0.7)	29.2	(0.6)	14.4	(0.5)	16.2	(0.7)	38.0	(0.7)	28.0	(0.6)	17.7	(0.5)
	Costa Rica	27.8	(0.8)	36.6	(0.8)	22.7	(0.6)	12.9	(0.5)	26.7	(0.6)	33.7	(0.7)	22.5	(0.6)	17.1	(0.6)
	Croatia	25.0	(0.8)	44.8	(0.7)	22.7	(0.7)	7.5	(0.4)	27.3	(0.8)	41.5	(0.6)	22.8	(0.6)	8.4	(0.4)
	Cyprus*	22.2	(0.7)	38.5	(0.8)	28.2	(0.7)	11.2	(0.4)	24.3	(0.7)	35.9	(0.7)	27.1	(0.6)	12.6	(0.5)
	Dominican Republic	12.0	(0.7)	33.0	(0.9)	34.4	(1.0)	20.6	(0.8)	11.8	(0.6)	29.0	(0.9)	33.1	(0.8)	26.0	(0.9)
	FYROM	11.4	(0.5)	31.6	(0.7)	33.2	(0.8)	23.8	(0.6)	13.1	(0.5)	31.6	(0.7)	29.9	(0.7)	25.4	(0.6)
	Georgia	9.2	(0.5)	36.2	(0.8)	34.1	(0.8)	20.5	(0.6)	12.0	(0.5)	32.6	(0.7)	33.0	(0.7)	22.4	(0.6)
	Hong Kong (China)	18.1	(0.9)	47.3	(0.8)	27.6	(0.8)	7.0	(0.6)	20.1	(0.9)	46.7	(0.9)	26.0	(0.8)	7.2	(0.5)
	Indonesia	10.7	(0.5)	42.0	(0.8)	26.3	(0.7)	21.0	(0.6)	8.9	(0.4)	40.6	(0.8)	25.8	(0.8)	24.7	(0.8)
	Jordan	18.1	(0.6)	33.3	(0.6)	27.1	(0.6)	21.5	(0.7)	19.3	(0.7)	30.7	(0.7)	25.9	(0.7)	24.0	(0.7)
	Kosovo	20.7	(0.7)	32.2	(0.8)	30.0	(0.7)	17.2	(0.7)	21.9	(0.7)	30.1	(0.7)	25.7	(0.7)	22.3	(0.7)
	Lebanon	13.2	(0.7)	30.1	(1.0)	30.8	(1.0)	25.9	(1.1)	13.7	(0.8)	28.9	(1.0)	28.1	(0.9)	29.4	(1.0)
	Lithuania	22.2	(0.8)	36.1	(0.7)	27.6	(0.7)	14.1	(0.5)	28.1	(0.8)	33.0	(0.8)	25.3	(0.7)	13.6	(0.5)
	Macao (China)	29.6	(0.7)	47.6	(0.8)	18.3	(0.6)	4.4	(0.3)	28.1	(0.7)	46.8	(0.8)	19.4	(0.6)	5.7	(0.4)
	Malta	20.9	(0.6)	41.7	(0.8)	27.5	(0.7)	9.9	(0.5)	24.3	(0.8)	38.7	(0.8)	26.2	(0.7)	10.8	(0.6)
	Moldova	8.8	(0.4)	39.6	(0.8)	34.2	(0.8)	17.5	(0.7)	10.2	(0.5)	38.9	(0.8)	30.6	(0.8)	20.2	(0.8)
	Montenegro	19.6	(0.5)	38.2	(0.8)	28.1	(0.8)	14.0	(0.6)	19.3	(0.6)	37.6	(0.6)	28.0	(0.7)	15.1	(0.5)
	Peru	13.0	(0.5)	41.7	(0.7)	32.6	(0.6)	12.6	(0.6)	12.9	(0.5)	36.5	(0.7)	31.8	(0.6)	18.7	(0.6)
	Qatar	15.2	(0.4)	37.5	(0.5)	31.8	(0.5)	15.5	(0.3)	16.5	(0.4)	36.1	(0.5)	30.0	(0.5)	17.3	(0.4)
	Romania	14.2	(0.6)	45.5	(0.8)	28.4	(0.7)	11.9	(0.5)	18.3	(0.7)	44.9	(0.9)	24.4	(0.7)	12.3	(0.6)
	Russia	11.6	(0.7)	39.7	(0.7)	36.2	(0.7)	12.6	(0.5)	14.6	(0.7)	37.7	(0.8)	33.9	(0.9)	13.8	(0.5)
	Singapore	15.2	(0.5)	44.7	(0.8)	29.7	(0.6)	10.4	(0.4)	16.2	(0.5)	43.4	(0.8)	29.6	(0.6)	10.8	(0.4)
	Chinese Taipei	19.3	(0.5)	40.6	(0.5)	29.2	(0.6)	11.0	(0.4)	18.6	(0.6)	41.0	(0.7)	29.4	(0.6)	11.0	(0.4)
	Thailand	15.4	(0.5)	54.3	(0.8)	21.0	(0.6)	9.2	(0.5)	10.2	(0.5)	50.5	(0.9)	23.7	(0.7)	15.5	(0.6)
	Trinidad and Tobago	19.4	(0.7)	35.9	(0.8)	27.2	(0.8)	17.5	(0.6)	23.7	(0.6)	31.5	(0.8)	26.0	(0.8)	18.9	(0.7)
	Tunisia	12.8	(0.6)	34.9	(0.8)	30.7	(0.7)	21.6	(0.8)	14.6	(0.7)	34.0	(0.8)	27.8	(0.7)	23.7	(0.7)
	United Arab Emirates	15.4	(0.4)	35.9	(0.5)	30.6	(0.5)	18.0	(0.5)	17.3	(0.5)	34.4	(0.7)	28.9	(0.5)	19.5	(0.5)
	Uruguay	20.3	(0.8)	48.8	(0.9)	23.7	(0.6)	7.2	(0.5)	27.4	(0.7)	41.7	(0.9)	22.4	(0.7)	8.5	(0.5)
	Viet Nam	5.0	(0.3)	35.2	(0.9)	36.5	(0.9)	23.4	(0.8)	4.4	(0.4)	34.2	(0.7)	34.5	(0.6)	27.0	(0.8)
	Argentina**	21.3	(0.6)	43.1	(0.7)	23.1	(0.6)	12.5	(0.6)	23.4	(0.7)	38.4	(0.7)	22.2	(0.6)	16.0	(0.6)
	Kazakhstan**	6.3	(0.3)	24.5	(0.8)	40.4	(0.7)	28.9	(1.0)	6.2	(0.4)	22.0	(0.8)	39.7	(0.7)	32.1	(1.0)
	Malaysia**	8.9	(0.5)	37.6	(0.8)	35.5	(0.8)	18.1	(0.8)	8.0	(0.6)	35.4	(0.9)	35.6	(0.7)	21.1	(0.8)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.2.20 Index of perceived feedback from science teachers, by student and school characteristics

Results based on students' reports

		All students				By school socio-economic profile[1]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.07	(0.01)	0.98	(0.01)	0.16	(0.03)	0.05	(0.03)	0.05	(0.04)	0.01	(0.03)	**-0.16**	(0.04)
	Austria	-0.21	(0.02)	1.02	(0.01)	0.07	(0.05)	-0.16	(0.07)	-0.27	(0.07)	-0.34	(0.05)	**-0.41**	(0.07)
	Belgium	-0.15	(0.02)	0.91	(0.01)	0.12	(0.04)	-0.08	(0.03)	-0.20	(0.04)	-0.33	(0.04)	**-0.45**	(0.06)
	Canada	0.21	(0.02)	1.00	(0.01)	0.31	(0.04)	0.22	(0.04)	0.24	(0.04)	0.08	(0.04)	**-0.23**	(0.06)
	Chile	0.16	(0.02)	1.02	(0.01)	0.32	(0.04)	0.28	(0.05)	0.11	(0.05)	-0.03	(0.04)	**-0.35**	(0.05)
	Czech Republic	-0.08	(0.02)	0.91	(0.01)	-0.03	(0.04)	-0.04	(0.03)	-0.01	(0.04)	-0.25	(0.03)	**-0.21**	(0.05)
	Denmark	-0.27	(0.02)	0.89	(0.01)	-0.18	(0.03)	-0.24	(0.03)	-0.32	(0.04)	-0.33	(0.04)	**-0.15**	(0.05)
	Estonia	-0.08	(0.02)	0.93	(0.01)	0.04	(0.04)	0.02	(0.03)	-0.08	(0.03)	-0.30	(0.04)	**-0.34**	(0.06)
	Finland	-0.27	(0.02)	0.92	(0.01)	-0.32	(0.04)	-0.30	(0.04)	-0.26	(0.05)	-0.22	(0.04)	0.10	(0.06)
	France	-0.14	(0.01)	0.96	(0.01)	0.10	(0.03)	-0.06	(0.04)	-0.23	(0.03)	-0.28	(0.03)	**-0.39**	(0.05)
	Germany	-0.28	(0.01)	0.89	(0.01)	-0.09	(0.04)	-0.18	(0.05)	-0.34	(0.03)	-0.42	(0.03)	**-0.33**	(0.05)
	Greece	0.07	(0.03)	1.02	(0.01)	0.28	(0.06)	0.07	(0.05)	-0.02	(0.04)	-0.04	(0.05)	**-0.32**	(0.07)
	Hungary	0.03	(0.02)	0.93	(0.01)	0.39	(0.05)	0.03	(0.04)	-0.07	(0.04)	-0.20	(0.03)	**-0.59**	(0.06)
	Iceland	-0.44	(0.02)	1.02	(0.01)	-0.24	(0.04)	-0.44	(0.04)	-0.55	(0.03)	-0.52	(0.03)	**-0.28**	(0.05)
	Ireland	0.00	(0.02)	0.92	(0.01)	0.14	(0.06)	0.01	(0.06)	-0.03	(0.04)	-0.10	(0.04)	**-0.24**	(0.07)
	Israel	-0.04	(0.02)	1.10	(0.01)	0.37	(0.07)	0.07	(0.07)	-0.19	(0.06)	-0.41	(0.05)	**-0.78**	(0.09)
	Italy	0.08	(0.02)	0.90	(0.01)	0.35	(0.04)	0.10	(0.04)	-0.05	(0.05)	-0.07	(0.04)	**-0.43**	(0.06)
	Japan	-0.36	(0.02)	0.95	(0.01)	-0.33	(0.05)	-0.35	(0.05)	-0.33	(0.05)	-0.41	(0.03)	-0.08	(0.06)
	Korea	-0.37	(0.02)	1.05	(0.01)	-0.27	(0.05)	-0.33	(0.05)	-0.45	(0.06)	-0.40	(0.05)	-0.12	(0.08)
	Latvia	0.25	(0.02)	0.95	(0.01)	0.47	(0.05)	0.29	(0.04)	0.23	(0.04)	0.02	(0.05)	**-0.45**	(0.07)
	Luxembourg	-0.18	(0.01)	1.05	(0.01)	-0.02	(0.04)	-0.06	(0.03)	-0.27	(0.03)	-0.33	(0.03)	**-0.31**	(0.05)
	Mexico	0.40	(0.02)	1.04	(0.01)	0.67	(0.04)	0.45	(0.05)	0.32	(0.05)	0.19	(0.05)	**-0.48**	(0.06)
	Netherlands	-0.06	(0.02)	0.88	(0.01)	0.11	(0.04)	0.06	(0.04)	-0.14	(0.05)	-0.24	(0.03)	**-0.35**	(0.06)
	New Zealand	0.27	(0.02)	0.97	(0.01)	0.42	(0.05)	0.33	(0.04)	0.24	(0.05)	0.11	(0.04)	**-0.31**	(0.06)
	Norway	-0.01	(0.02)	0.97	(0.01)	0.10	(0.03)	0.02	(0.05)	-0.04	(0.05)	-0.12	(0.04)	**-0.21**	(0.06)
	Poland	0.21	(0.02)	0.93	(0.01)	0.31	(0.03)	0.28	(0.04)	0.23	(0.04)	0.04	(0.04)	**-0.27**	(0.05)
	Portugal	0.12	(0.02)	1.01	(0.01)	0.31	(0.03)	0.15	(0.04)	0.03	(0.05)	-0.06	(0.05)	**-0.37**	(0.06)
	Slovak Republic	-0.04	(0.02)	0.95	(0.01)	0.23	(0.04)	-0.04	(0.04)	-0.09	(0.04)	-0.20	(0.04)	**-0.42**	(0.05)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	0.13	(0.02)	0.99	(0.01)	0.29	(0.04)	0.13	(0.06)	0.07	(0.06)	0.04	(0.06)	**-0.25**	(0.07)
	Sweden	-0.02	(0.03)	1.02	(0.01)	0.04	(0.05)	0.06	(0.05)	-0.08	(0.05)	-0.09	(0.05)	-0.13	(0.07)
	Switzerland	-0.23	(0.02)	1.02	(0.01)	-0.02	(0.05)	-0.19	(0.04)	-0.25	(0.06)	-0.41	(0.06)	**-0.38**	(0.07)
	Turkey	0.35	(0.02)	0.99	(0.01)	0.42	(0.04)	0.42	(0.05)	0.31	(0.05)	0.26	(0.05)	**-0.16**	(0.07)
	United Kingdom	0.37	(0.02)	0.93	(0.01)	0.54	(0.04)	0.41	(0.05)	0.32	(0.04)	0.23	(0.04)	**-0.32**	(0.06)
	United States	0.32	(0.03)	1.11	(0.01)	0.50	(0.04)	0.34	(0.05)	0.32	(0.05)	0.14	(0.05)	**-0.36**	(0.07)
	OECD average	-0.01	(0.00)	0.98	(0.00)	0.16	(0.01)	0.04	(0.01)	-0.05	(0.01)	-0.15	(0.01)	**-0.31**	(0.01)
Partners	**Albania**	0.69	(0.02)	0.86	(0.01)	0.68	(0.03)	0.73	(0.03)	0.70	(0.04)	0.66	(0.04)	-0.01	(0.05)
	Algeria	0.28	(0.01)	0.88	(0.01)	0.32	(0.03)	0.37	(0.03)	0.28	(0.04)	0.16	(0.04)	**-0.16**	(0.05)
	Brazil	0.17	(0.01)	0.96	(0.01)	0.20	(0.02)	0.15	(0.03)	0.17	(0.03)	0.18	(0.03)	-0.03	(0.04)
	B-S-J-G (China)	0.25	(0.02)	0.93	(0.01)	0.24	(0.05)	0.25	(0.06)	0.25	(0.07)	0.26	(0.06)	0.02	(0.08)
	Bulgaria	0.40	(0.02)	1.04	(0.01)	0.64	(0.05)	0.50	(0.04)	0.35	(0.05)	0.20	(0.04)	**-0.44**	(0.06)
	CABA (Argentina)	-0.14	(0.04)	0.92	(0.02)	0.19	(0.05)	-0.11	(0.09)	-0.28	(0.07)	-0.34	(0.09)	**-0.54**	(0.10)
	Colombia	0.38	(0.02)	0.93	(0.01)	0.54	(0.03)	0.39	(0.04)	0.35	(0.03)	0.27	(0.04)	**-0.27**	(0.05)
	Costa Rica	0.08	(0.02)	1.10	(0.01)	0.23	(0.05)	0.16	(0.05)	-0.01	(0.05)	-0.05	(0.04)	**-0.28**	(0.06)
	Croatia	0.05	(0.02)	0.94	(0.01)	0.29	(0.05)	0.17	(0.05)	0.03	(0.05)	-0.23	(0.04)	**-0.52**	(0.06)
	Cyprus*	0.20	(0.01)	1.00	(0.01)	0.37	(0.03)	0.15	(0.03)	0.11	(0.03)	0.21	(0.03)	**-0.16**	(0.04)
	Dominican Republic	0.65	(0.02)	0.95	(0.01)	0.77	(0.06)	0.67	(0.07)	0.62	(0.04)	0.59	(0.05)	**-0.18**	(0.08)
	FYROM	0.57	(0.01)	0.89	(0.01)	0.57	(0.03)	0.61	(0.02)	0.56	(0.03)	0.53	(0.03)	-0.04	(0.04)
	Georgia	0.64	(0.01)	0.87	(0.01)	0.69	(0.03)	0.64	(0.04)	0.60	(0.04)	0.65	(0.03)	-0.04	(0.05)
	Hong Kong (China)	0.16	(0.03)	0.92	(0.01)	0.28	(0.04)	0.16	(0.05)	0.13	(0.07)	0.09	(0.05)	**-0.19**	(0.06)
	Indonesia	0.33	(0.02)	0.80	(0.01)	0.40	(0.04)	0.39	(0.04)	0.32	(0.04)	0.23	(0.03)	**-0.18**	(0.06)
	Jordan	0.46	(0.02)	0.97	(0.01)	0.45	(0.04)	0.46	(0.04)	0.44	(0.04)	0.49	(0.04)	0.04	(0.05)
	Kosovo	0.36	(0.02)	0.92	(0.01)	0.30	(0.03)	0.29	(0.03)	0.38	(0.03)	0.46	(0.04)	**0.16**	(0.05)
	Lebanon	0.62	(0.03)	0.92	(0.02)	0.75	(0.08)	0.65	(0.06)	0.62	(0.04)	0.48	(0.05)	**-0.27**	(0.09)
	Lithuania	0.20	(0.02)	1.07	(0.01)	0.48	(0.04)	0.22	(0.06)	0.13	(0.05)	-0.03	(0.04)	**-0.51**	(0.06)
	Macao (China)	-0.12	(0.01)	0.88	(0.01)	-0.05	(0.02)	-0.15	(0.03)	-0.11	(0.02)	-0.18	(0.02)	**-0.13**	(0.04)
	Malta	0.20	(0.02)	0.93	(0.01)	0.28	(0.04)	0.21	(0.03)	0.09	(0.03)	0.22	(0.03)	-0.06	(0.05)
	Moldova	0.54	(0.02)	0.79	(0.01)	0.62	(0.03)	0.57	(0.04)	0.51	(0.03)	0.46	(0.03)	**-0.17**	(0.05)
	Montenegro	0.33	(0.01)	1.03	(0.01)	0.53	(0.03)	0.36	(0.03)	0.39	(0.03)	0.10	(0.03)	**-0.43**	(0.04)
	Peru	0.40	(0.02)	0.85	(0.01)	0.48	(0.03)	0.48	(0.03)	0.36	(0.04)	0.30	(0.04)	**-0.17**	(0.05)
	Qatar	0.45	(0.01)	0.97	(0.01)	0.47	(0.02)	0.49	(0.02)	0.51	(0.02)	0.34	(0.02)	**-0.13**	(0.03)
	Romania	0.24	(0.01)	0.75	(0.01)	0.30	(0.03)	0.25	(0.03)	0.23	(0.03)	0.18	(0.03)	**-0.12**	(0.04)
	Russia	0.43	(0.02)	0.89	(0.01)	0.60	(0.04)	0.39	(0.04)	0.41	(0.05)	0.34	(0.05)	**-0.25**	(0.07)
	Singapore	0.31	(0.01)	0.93	(0.01)	0.36	(0.02)	0.33	(0.02)	0.34	(0.03)	0.22	(0.04)	**-0.14**	(0.05)
	Chinese Taipei	0.24	(0.02)	0.99	(0.01)	0.33	(0.04)	0.29	(0.04)	0.22	(0.04)	0.15	(0.04)	**-0.18**	(0.05)
	Thailand	0.26	(0.02)	0.83	(0.01)	0.33	(0.04)	0.32	(0.04)	0.27	(0.03)	0.15	(0.03)	**-0.18**	(0.04)
	Trinidad and Tobago	0.35	(0.02)	1.02	(0.01)	0.51	(0.03)	0.47	(0.04)	0.34	(0.03)	0.12	(0.03)	**-0.39**	(0.04)
	Tunisia	0.55	(0.02)	0.93	(0.01)	0.59	(0.04)	0.62	(0.04)	0.59	(0.05)	0.41	(0.04)	**-0.17**	(0.05)
	United Arab Emirates	0.50	(0.02)	1.02	(0.01)	0.58	(0.04)	0.53	(0.04)	0.55	(0.04)	0.35	(0.03)	**-0.23**	(0.05)
	Uruguay	0.05	(0.02)	0.90	(0.01)	0.14	(0.05)	0.21	(0.03)	-0.04	(0.03)	-0.04	(0.03)	**-0.18**	(0.06)
	Viet Nam	0.52	(0.02)	0.70	(0.01)	0.61	(0.03)	0.51	(0.04)	0.52	(0.03)	0.42	(0.04)	**-0.19**	(0.05)
	Argentina**	0.17	(0.02)	0.90	(0.01)	0.32	(0.04)	0.23	(0.03)	0.16	(0.03)	-0.01	(0.05)	**-0.33**	(0.06)
	Kazakhstan**	0.92	(0.02)	0.84	(0.01)	0.92	(0.05)	0.90	(0.04)	0.90	(0.04)	0.98	(0.05)	0.06	(0.06)
	Malaysia**	0.61	(0.02)	0.89	(0.01)	0.76	(0.05)	0.63	(0.04)	0.70	(0.05)	0.37	(0.06)	**-0.39**	(0.07)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/3]

Table II.2.20 Index of perceived feedback from science teachers, by student and school characteristics

Results based on students' reports

		By school location								By type of school						By education level					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.03	(0.09)	0.11	(0.03)	0.05	(0.02)	0.02	(0.09)	0.08	(0.02)	0.05	(0.02)	-0.03	(0.03)	0.06	(0.01)	0.17	(0.03)	**0.12**	(0.04)
	Austria	-0.13	(0.10)	-0.23	(0.03)	-0.18	(0.04)	-0.05	(0.11)	-0.21	(0.02)	-0.16	(0.06)	0.05	(0.07)	0.09	(0.13)	-0.21	(0.02)	**-0.30**	(0.13)
	Belgium	-0.28	(0.11)	-0.21	(0.02)	-0.02	(0.04)	**0.25**	(0.12)	w	w	w	w	w	w	0.37	(0.05)	-0.18	(0.02)	**-0.55**	(0.05)
	Canada	0.34	(0.04)	0.23	(0.03)	0.17	(0.02)	**-0.17**	(0.05)	0.22	(0.02)	0.05	(0.07)	**-0.17**	(0.08)	0.22	(0.04)	0.21	(0.02)	-0.01	(0.04)
	Chile	0.51	(0.23)	0.27	(0.03)	0.10	(0.03)	-0.41	(0.23)	0.27	(0.04)	0.10	(0.03)	**-0.17**	(0.05)	0.40	(0.09)	0.15	(0.02)	**-0.26**	(0.09)
	Czech Republic	0.11	(0.05)	-0.09	(0.02)	-0.17	(0.03)	**-0.27**	(0.07)	-0.10	(0.02)	0.09	(0.06)	**0.19**	(0.06)	-0.02	(0.02)	-0.16	(0.02)	**-0.13**	(0.03)
	Denmark	-0.24	(0.05)	-0.26	(0.02)	-0.32	(0.06)	-0.08	(0.08)	-0.25	(0.02)	-0.30	(0.06)	-0.05	(0.06)	-0.27	(0.02)	c	c	c	c
	Estonia	0.07	(0.04)	-0.11	(0.03)	-0.15	(0.03)	**-0.22**	(0.05)	-0.07	(0.02)	-0.19	(0.07)	-0.12	(0.07)	-0.08	(0.02)	0.02	(0.11)	0.11	(0.11)
	Finland	-0.44	(0.05)	-0.30	(0.02)	-0.14	(0.04)	**0.30**	(0.06)	-0.28	(0.02)	-0.22	(0.06)	0.06	(0.07)	-0.27	(0.02)	c	c	c	c
	France	0.06	(0.06)	-0.13	(0.02)	-0.18	(0.03)	**-0.24**	(0.07)	-0.13	(0.02)	-0.14	(0.03)	-0.01	(0.03)	0.09	(0.03)	-0.20	(0.02)	**-0.29**	(0.03)
	Germany	-0.12	(0.11)	-0.27	(0.02)	-0.31	(0.04)	-0.19	(0.12)	-0.25	(0.02)	-0.47	(0.08)	**-0.21**	(0.09)	-0.28	(0.02)	-0.21	(0.06)	0.06	(0.07)
	Greece	0.27	(0.11)	0.09	(0.04)	-0.02	(0.04)	**-0.29**	(0.11)	0.06	(0.03)	0.21	(0.08)	0.15	(0.09)	0.36	(0.06)	0.05	(0.03)	**-0.31**	(0.06)
	Hungary	0.61	(0.18)	0.08	(0.03)	-0.07	(0.03)	**-0.68**	(0.18)	0.03	(0.02)	-0.01	(0.04)	-0.05	(0.05)	0.40	(0.08)	-0.01	(0.02)	**-0.41**	(0.08)
	Iceland	-0.23	(0.05)	-0.44	(0.02)	-0.57	(0.03)	**-0.35**	(0.05)	-0.43	(0.02)	c	c	c	c	-0.44	(0.02)	m	m	m	m
	Ireland	0.00	(0.05)	0.03	(0.03)	-0.04	(0.04)	-0.04	(0.06)	0.09	(0.03)	-0.06	(0.03)	**-0.16**	(0.04)	0.05	(0.02)	-0.07	(0.03)	**-0.12**	(0.03)
	Israel	0.08	(0.10)	0.04	(0.05)	-0.20	(0.06)	**-0.28**	(0.11)	m	m	m	m	m	m	-0.01	(0.05)	-0.04	(0.03)	-0.03	(0.06)
	Italy	0.24	(0.05)	0.07	(0.03)	0.04	(0.04)	**-0.20**	(0.06)	0.06	(0.02)	0.22	(0.07)	**0.17**	(0.07)	0.69	(0.07)	0.07	(0.02)	**-0.61**	(0.07)
	Japan	c	c	-0.38	(0.04)	-0.35	(0.02)	c	c	-0.38	(0.02)	-0.31	(0.03)	0.07	(0.04)	m	m	-0.36	(0.02)	m	m
	Korea	c	c	-0.33	(0.05)	-0.37	(0.02)	c	c	-0.36	(0.03)	-0.37	(0.04)	-0.01	(0.05)	-0.15	(0.05)	-0.39	(0.02)	**-0.24**	(0.06)
	Latvia	0.44	(0.04)	0.27	(0.03)	0.07	(0.03)	**-0.36**	(0.06)	0.24	(0.02)	0.46	(0.26)	0.22	(0.26)	0.26	(0.02)	0.13	(0.11)	-0.13	(0.11)
	Luxembourg	m	m	-0.17	(0.02)	-0.20	(0.02)	m	m	-0.21	(0.02)	-0.03	(0.04)	**0.18**	(0.04)	-0.08	(0.02)	-0.31	(0.02)	**-0.23**	(0.03)
	Mexico	0.72	(0.05)	0.42	(0.04)	0.28	(0.03)	**-0.44**	(0.06)	0.40	(0.02)	0.38	(0.08)	-0.03	(0.08)	0.57	(0.04)	0.29	(0.03)	**-0.28**	(0.04)
	Netherlands	c	c	-0.06	(0.03)	-0.06	(0.05)	c	c	-0.04	(0.03)	-0.09	(0.03)	-0.05	(0.05)	0.01	(0.02)	-0.24	(0.03)	**-0.24**	(0.04)
	New Zealand	0.28	(0.14)	0.33	(0.03)	0.21	(0.03)	-0.07	(0.14)	0.26	(0.02)	0.34	(0.05)	0.09	(0.05)	0.27	(0.07)	0.26	(0.02)	-0.01	(0.07)
	Norway	-0.01	(0.04)	-0.02	(0.03)	0.00	(0.05)	0.00	(0.06)	-0.02	(0.02)	0.15	(0.16)	0.17	(0.16)	-0.01	(0.02)	c	c	c	c
	Poland	0.31	(0.03)	0.23	(0.03)	0.04	(0.04)	**-0.27**	(0.05)	0.22	(0.02)	-0.04	(0.07)	**-0.26**	(0.08)	0.21	(0.02)	c	c	c	c
	Portugal	0.45	(0.04)	0.12	(0.02)	0.06	(0.06)	**-0.38**	(0.07)	0.11	(0.02)	0.25	(0.14)	0.14	(0.14)	0.30	(0.03)	-0.03	(0.03)	**-0.32**	(0.04)
	Slovak Republic	0.22	(0.05)	-0.04	(0.02)	-0.33	(0.05)	**-0.55**	(0.08)	-0.03	(0.02)	-0.06	(0.05)	-0.02	(0.06)	0.08	(0.03)	-0.14	(0.03)	**-0.23**	(0.04)
	Slovenia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Spain	0.39	(0.10)	0.13	(0.02)	0.10	(0.04)	**-0.28**	(0.11)	0.11	(0.03)	0.16	(0.04)	0.05	(0.05)	0.13	(0.02)	c	c	c	c
	Sweden	0.04	(0.08)	-0.02	(0.03)	-0.03	(0.05)	-0.07	(0.10)	-0.02	(0.03)	-0.03	(0.06)	-0.01	(0.06)	-0.02	(0.03)	-0.15	(0.26)	-0.13	(0.26)
	Switzerland	-0.24	(0.09)	-0.21	(0.03)	-0.24	(0.06)	0.01	(0.10)	-0.23	(0.02)	-0.14	(0.14)	0.09	(0.14)	-0.19	(0.03)	-0.39	(0.04)	**-0.19**	(0.05)
	Turkey	c	c	0.33	(0.04)	0.36	(0.03)	c	c	0.34	(0.02)	0.46	(0.10)	0.12	(0.10)	0.50	(0.11)	0.34	(0.02)	-0.16	(0.11)
	United Kingdom	0.29	(0.08)	0.34	(0.03)	0.41	(0.04)	0.12	(0.09)	0.37	(0.02)	0.09	(0.05)	**-0.28**	(0.06)	0.40	(0.11)	0.37	(0.02)	-0.03	(0.11)
	United States	0.26	(0.07)	0.28	(0.03)	0.38	(0.05)	0.12	(0.09)	0.33	(0.02)	0.18	(0.14)	-0.15	(0.14)	0.50	(0.05)	0.30	(0.03)	**-0.19**	(0.06)
	OECD average	0.14	(0.02)	0.00	(0.01)	-0.05	(0.01)	**-0.18**	(0.02)	0.01	(0.00)	0.02	(0.02)	0.00	(0.02)	0.12	(0.01)	-0.03	(0.01)	**-0.19**	(0.02)
Partners	**Albania**	0.70	(0.03)	0.70	(0.03)	0.67	(0.03)	-0.03	(0.05)	0.69	(0.02)	0.67	(0.05)	-0.02	(0.06)	0.72	(0.03)	0.68	(0.02)	-0.04	(0.03)
	Algeria	0.33	(0.04)	0.29	(0.02)	0.22	(0.03)	**-0.11**	(0.06)	0.28	(0.01)	c	c	c	c	0.34	(0.01)	0.10	(0.03)	**-0.24**	(0.04)
	Brazil	0.30	(0.07)	0.18	(0.02)	0.17	(0.02)	-0.13	(0.07)	0.16	(0.01)	0.21	(0.04)	0.05	(0.04)	0.28	(0.03)	0.16	(0.01)	**-0.13**	(0.03)
	B-S-J-G (China)	0.28	(0.05)	0.27	(0.04)	0.20	(0.04)	-0.08	(0.06)	0.23	(0.02)	0.36	(0.09)	0.13	(0.10)	0.37	(0.02)	0.03	(0.03)	**-0.34**	(0.03)
	Bulgaria	0.47	(0.09)	0.48	(0.02)	0.28	(0.03)	-0.18	(0.10)	0.40	(0.02)	c	c	c	c	0.60	(0.18)	0.40	(0.02)	-0.20	(0.18)
	CABA (Argentina)	m	m	c	c	-0.14	(0.04)	m	m	-0.01	(0.06)	-0.27	(0.05)	**-0.26**	(0.08)	-0.13	(0.04)	-0.32	(0.08)	**-0.19**	(0.09)
	Colombia	0.50	(0.06)	0.39	(0.04)	0.32	(0.02)	**-0.18**	(0.06)	0.38	(0.02)	0.37	(0.05)	-0.01	(0.05)	0.48	(0.02)	0.32	(0.02)	**-0.16**	(0.03)
	Costa Rica	0.07	(0.05)	0.07	(0.03)	0.16	(0.06)	0.10	(0.07)	0.08	(0.02)	0.06	(0.06)	-0.02	(0.07)	0.16	(0.03)	0.00	(0.03)	**-0.16**	(0.04)
	Croatia	c	c	0.13	(0.03)	-0.07	(0.03)	c	c	0.05	(0.02)	-0.05	(0.18)	-0.11	(0.19)	c	c	0.05	(0.02)	c	c
	Cyprus*	0.37	(0.05)	0.19	(0.02)	0.22	(0.02)	**-0.15**	(0.06)	0.17	(0.01)	0.37	(0.04)	**0.20**	(0.04)	0.32	(0.05)	0.20	(0.02)	**-0.13**	(0.05)
	Dominican Republic	0.80	(0.07)	0.66	(0.03)	0.57	(0.05)	**-0.23**	(0.09)	0.69	(0.03)	0.56	(0.04)	**-0.13**	(0.05)	0.70	(0.06)	0.64	(0.02)	-0.06	(0.07)
	FYROM	0.57	(0.06)	0.58	(0.02)	0.55	(0.02)	-0.02	(0.07)	0.57	(0.01)	0.59	(0.07)	0.02	(0.07)	c	c	0.56	(0.01)	c	c
	Georgia	0.70	(0.03)	0.64	(0.03)	0.61	(0.02)	**-0.09**	(0.04)	0.62	(0.01)	0.92	(0.07)	**0.29**	(0.07)	0.63	(0.03)	0.65	(0.02)	0.01	(0.03)
	Hong Kong (China)	m	m	m	m	0.16	(0.03)	m	m	0.20	(0.04)	0.16	(0.03)	-0.04	(0.05)	0.10	(0.03)	0.20	(0.03)	**0.10**	(0.03)
	Indonesia	0.42	(0.03)	0.33	(0.02)	0.20	(0.03)	**-0.21**	(0.05)	0.31	(0.02)	0.37	(0.03)	0.06	(0.03)	0.41	(0.02)	0.25	(0.02)	**-0.15**	(0.03)
	Jordan	0.46	(0.04)	0.47	(0.03)	0.45	(0.03)	-0.01	(0.05)	0.44	(0.02)	0.54	(0.03)	**0.09**	(0.04)	0.46	(0.02)	m	m	m	m
	Kosovo	0.42	(0.06)	0.34	(0.02)	0.37	(0.03)	-0.04	(0.07)	0.35	(0.02)	0.56	(0.06)	**0.21**	(0.06)	0.36	(0.03)	0.36	(0.02)	0.00	(0.04)
	Lebanon	0.75	(0.09)	0.62	(0.03)	0.50	(0.06)	**-0.25**	(0.11)	0.62	(0.04)	0.63	(0.04)	0.00	(0.06)	0.67	(0.06)	0.60	(0.03)	-0.07	(0.06)
	Lithuania	0.41	(0.05)	0.19	(0.03)	0.09	(0.03)	**-0.32**	(0.05)	0.20	(0.02)	0.09	(0.20)	-0.11	(0.20)	0.20	(0.02)	c	c	c	c
	Macao (China)	c	c	c	c	-0.12	(0.01)	c	c	c	c	-0.13	(0.01)	c	c	-0.03	(0.02)	-0.20	(0.02)	**-0.17**	(0.02)
	Malta	0.28	(0.05)	0.18	(0.02)	m	m	m	m	0.22	(0.02)	0.15	(0.02)	**-0.06**	(0.03)	c	c	0.20	(0.02)	c	c
	Moldova	0.59	(0.02)	0.53	(0.03)	0.44	(0.04)	**-0.15**	(0.04)	0.55	(0.02)	c	c	c	c	0.55	(0.02)	0.42	(0.05)	**-0.14**	(0.06)
	Montenegro	c	c	0.39	(0.02)	0.21	(0.03)	c	c	0.33	(0.01)	c	c	c	c	0.75	(0.14)	0.32	(0.01)	**-0.43**	(0.14)
	Peru	0.45	(0.03)	0.40	(0.02)	0.29	(0.05)	**-0.15**	(0.06)	0.42	(0.02)	0.34	(0.04)	**-0.08**	(0.04)	0.52	(0.03)	0.36	(0.02)	**-0.15**	(0.03)
	Qatar	0.37	(0.04)	0.47	(0.01)	0.45	(0.01)	0.08	(0.05)	0.45	(0.01)	0.46	(0.01)	0.01	(0.02)	0.43	(0.02)	0.46	(0.01)	0.02	(0.02)
	Romania	0.45	(0.04)	0.23	(0.02)	0.17	(0.03)	**-0.28**	(0.04)	0.24	(0.01)	c	c	c	c	0.24	(0.01)	m	m	m	m
	Russia	0.58	(0.04)	0.47	(0.03)	0.37	(0.03)	**-0.21**	(0.05)	0.43	(0.02)	c	c	c	c	0.44	(0.02)	0.42	(0.04)	-0.02	(0.04)
	Singapore	m	m	m	m	0.32	(0.01)	m	m	0.30	(0.01)	0.40	(0.06)	0.10	(0.06)	0.45	(0.09)	0.31	(0.01)	-0.15	(0.10)
	Chinese Taipei	c	c	0.31	(0.02)	0.20	(0.02)	c	c	0.25	(0.02)	0.22	(0.03)	-0.03	(0.04)	0.38	(0.02)	0.16	(0.02)	**-0.23**	(0.03)
	Thailand	0.40	(0.04)	0.26	(0.02)	0.16	(0.04)	**-0.25**	(0.06)	0.26	(0.02)	0.27	(0.04)	0.01	(0.04)	0.38	(0.03)	0.22	(0.02)	**-0.16**	(0.03)
	Trinidad and Tobago	0.47	(0.04)	0.33	(0.02)	m	m	m	m	0.36	(0.02)	0.23	(0.07)	-0.13	(0.07)	0.39	(0.03)	0.33	(0.02)	**-0.07**	(0.03)
	Tunisia	0.59	(0.10)	0.58	(0.02)	0.49	(0.05)	-0.09	(0.11)	0.56	(0.02)	0.43	(0.16)	-0.13	(0.16)	0.57	(0.03)	0.54	(0.03)	-0.03	(0.04)
	United Arab Emirates	0.56	(0.06)	0.52	(0.04)	0.49	(0.02)	-0.07	(0.07)	0.52	(0.02)	0.49	(0.03)	-0.03	(0.03)	0.51	(0.04)	0.50	(0.02)	-0.01	(0.04)
	Uruguay	0.07	(0.09)	0.10	(0.02)	0.00	(0.03)	-0.08	(0.10)	0.07	(0.02)	0.00	(0.04)	-0.07	(0.04)	0.22	(0.03)	-0.02	(0.02)	**-0.24**	(0.04)
	Viet Nam	0.54	(0.02)	0.54	(0.03)	0.46	(0.03)	**-0.09**	(0.04)	0.51	(0.02)	0.63	(0.05)	**0.11**	(0.05)	0.63	(0.05)	0.51	(0.02)	**-0.12**	(0.05)
	Argentina**	0.21	(0.09)	0.19	(0.02)	0.14	(0.03)	-0.06	(0.09)	0.22	(0.02)	0.02	(0.04)	**-0.20**	(0.05)	0.24	(0.03)	0.14	(0.02)	**-0.10**	(0.04)
	Kazakhstan**	0.94	(0.03)	0.91	(0.03)	0.92	(0.03)	-0.02	(0.04)	0.93	(0.02)	0.86	(0.06)	-0.07	(0.06)	0.89	(0.02)	1.04	(0.03)	**0.15**	(0.04)
	Malaysia**	0.77	(0.03)	0.67	(0.03)	0.47	(0.04)	**-0.30**	(0.05)	0.63	(0.02)	0.28	(0.14)	**-0.35**	(0.14)	0.42	(0.08)	0.61	(0.02)	**0.19**	(0.08)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.2.20 Index of perceived feedback from science teachers, by student and school characteristics

Results based on students' reports

		Change in science score per unit increase on the index of perceived feedback from science teachers				Change in the index of epistemic beliefs per unit increase on the index of perceived feedback from science teachers				Increased likelihood of expecting to work in science-related occupations per unit increase on the index of perceived feedback from science teachers			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	**Australia**	**-6**	(1.2)	**-5**	(1.1)	**0.06**	(0.01)	**0.06**	(0.01)	**1.12**	(0.03)	**1.13**	(0.03)
	Austria	**-17**	(1.6)	**-11**	(1.4)	-0.03	(0.02)	0.00	(0.02)	1.05	(0.04)	**1.08**	(0.04)
	Belgium	**-19**	(1.6)	**-9**	(1.2)	0.00	(0.02)	**0.04**	(0.02)	1.02	(0.05)	1.08	(0.06)
	Canada	**-10**	(1.2)	**-9**	(1.1)	**0.07**	(0.01)	**0.07**	(0.01)	1.03	(0.02)	1.05	(0.02)
	Chile	**-12**	(1.5)	**-6**	(1.2)	**0.04**	(0.02)	**0.07**	(0.02)	1.05	(0.03)	**1.08**	(0.03)
	Czech Republic	**-8**	(1.5)	**-4**	(1.4)	**0.05**	(0.02)	**0.06**	(0.02)	1.03	(0.04)	1.05	(0.05)
	Denmark	**-11**	(1.9)	**-9**	(1.8)	**-0.05**	(0.02)	**-0.04**	(0.02)	1.00	(0.05)	1.00	(0.05)
	Estonia	**-14**	(1.7)	**-11**	(1.6)	-0.01	(0.01)	0.01	(0.02)	1.05	(0.04)	**1.08**	(0.04)
	Finland	**-14**	(1.5)	**-14**	(1.3)	0.00	(0.02)	0.00	(0.01)	0.97	(0.04)	0.97	(0.04)
	France	**-13**	(1.6)	**-4**	(1.3)	**0.06**	(0.02)	**0.09**	(0.02)	1.02	(0.03)	**1.09**	(0.04)
	Germany	**-15**	(2.1)	**-6**	(1.7)	0.02	(0.03)	**0.06**	(0.02)	**1.12**	(0.05)	**1.20**	(0.06)
	Greece	**-15**	(1.4)	**-11**	(1.3)	-0.01	(0.01)	0.01	(0.01)	0.95	(0.03)	0.98	(0.03)
	Hungary	**-23**	(1.7)	**-8**	(1.5)	0.01	(0.02)	**0.06**	(0.02)	1.06	(0.05)	**1.24**	(0.06)
	Iceland	**-14**	(1.6)	**-13**	(1.5)	0.01	(0.02)	0.03	(0.02)	0.94	(0.04)	0.95	(0.04)
	Ireland	**-10**	(1.6)	**-8**	(1.6)	**0.05**	(0.02)	**0.06**	(0.02)	**1.07**	(0.03)	**1.09**	(0.03)
	Israel	**-23**	(2.0)	**-13**	(1.7)	0.01	(0.02)	**0.06**	(0.02)	**1.26**	(0.04)	**1.25**	(0.04)
	Italy	**-21**	(1.7)	**-14**	(1.6)	-0.01	(0.02)	0.02	(0.02)	1.03	(0.04)	**1.13**	(0.04)
	Japan	**-9**	(1.7)	**-7**	(1.3)	**0.10**	(0.01)	**0.11**	(0.01)	1.07	(0.04)	**1.08**	(0.04)
	Korea	**-15**	(1.6)	**-14**	(1.3)	**0.05**	(0.01)	**0.05**	(0.01)	0.98	(0.03)	0.98	(0.03)
	Latvia	**-11**	(1.6)	**-7**	(1.5)	0.02	(0.02)	**0.04**	(0.02)	0.97	(0.04)	1.02	(0.04)
	Luxembourg	**-20**	(1.3)	**-14**	(1.1)	**0.06**	(0.02)	**0.09**	(0.02)	0.97	(0.03)	1.02	(0.03)
	Mexico	**-9**	(1.2)	**-5**	(1.1)	**0.06**	(0.02)	**0.08**	(0.02)	1.02	(0.03)	1.04	(0.03)
	Netherlands	**-20**	(2.3)	**-10**	(1.9)	0.00	(0.02)	**0.04**	(0.02)	1.00	(0.05)	1.08	(0.05)
	New Zealand	**-16**	(1.8)	**-13**	(1.6)	**0.07**	(0.01)	**0.08**	(0.01)	1.01	(0.04)	1.02	(0.04)
	Norway	**-6**	(1.3)	**-4**	(1.3)	**0.07**	(0.02)	**0.07**	(0.02)	1.05	(0.03)	1.05	(0.03)
	Poland	**-10**	(1.7)	**-6**	(1.4)	0.01	(0.02)	**0.03**	(0.02)	**0.91**	(0.04)	0.97	(0.04)
	Portugal	**-15**	(1.6)	**-10**	(1.4)	**0.04**	(0.02)	**0.07**	(0.02)	0.94	(0.03)	0.99	(0.03)
	Slovak Republic	**-16**	(1.8)	**-8**	(1.5)	0.01	(0.02)	**0.05**	(0.02)	0.99	(0.04)	**1.09**	(0.04)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	**-15**	(1.6)	**-11**	(1.4)	0.00	(0.02)	0.02	(0.01)	1.00	(0.03)	1.03	(0.03)
	Sweden	**-11**	(1.8)	**-8**	(1.6)	0.04	(0.02)	**0.05**	(0.02)	1.05	(0.03)	**1.07**	(0.03)
	Switzerland	**-20**	(1.8)	**-14**	(1.4)	0.02	(0.02)	**0.06**	(0.02)	0.99	(0.04)	1.03	(0.04)
	Turkey	**-6**	(1.6)	**-2**	(1.2)	**0.13**	(0.02)	**0.15**	(0.02)	1.00	(0.04)	1.03	(0.04)
	United Kingdom	**-5**	(1.8)	-1	(1.6)	**0.10**	(0.02)	**0.12**	(0.02)	**1.12**	(0.04)	**1.13**	(0.04)
	United States	**-15**	(1.3)	**-13**	(1.2)	**0.06**	(0.01)	**0.07**	(0.01)	0.98	(0.02)	0.98	(0.02)
	OECD average	**-14**	(0.3)	**-9**	(0.2)	**0.03**	(0.00)	**0.05**	(0.00)	**1.02**	(0.01)	**1.06**	(0.01)
Partners	**Albania**	m	m	m	m	**0.16**	(0.02)	**0.16**	(0.02)	1.08	(0.05)	1.08	(0.04)
	Algeria	**-9**	(1.4)	**-7**	(1.4)	**0.09**	(0.02)	**0.10**	(0.02)	1.05	(0.04)	**1.08**	(0.04)
	Brazil	**-4**	(1.3)	**-4**	(1.0)	**0.11**	(0.01)	**0.11**	(0.01)	1.04	(0.03)	1.04	(0.03)
	B-S-J-G (China)	**-7**	(2.2)	**-8**	(1.8)	**0.11**	(0.02)	**0.11**	(0.02)	1.05	(0.04)	1.04	(0.04)
	Bulgaria	**-12**	(1.8)	**-3**	(1.5)	**0.10**	(0.02)	**0.13**	(0.02)	1.04	(0.04)	**1.11**	(0.04)
	CABA (Argentina)	**-21**	(3.3)	**-10**	(2.5)	-0.02	(0.03)	0.03	(0.03)	0.87	(0.06)	0.89	(0.06)
	Colombia	**-11**	(1.3)	**-7**	(1.3)	**0.07**	(0.02)	**0.08**	(0.02)	1.01	(0.03)	1.01	(0.03)
	Costa Rica	**-9**	(1.2)	**-7**	(1.1)	**0.06**	(0.02)	**0.07**	(0.02)	1.02	(0.03)	1.03	(0.03)
	Croatia	**-18**	(1.7)	**-9**	(1.4)	0.02	(0.02)	**0.06**	(0.02)	**0.90**	(0.03)	0.98	(0.03)
	Cyprus*	**-9**	(1.5)	**-7**	(1.4)	**0.06**	(0.02)	**0.07**	(0.02)	1.06	(0.03)	**1.07**	(0.03)
	Dominican Republic	-1	(2.1)	2	(1.6)	**0.18**	(0.02)	**0.20**	(0.02)	**1.12**	(0.04)	**1.12**	(0.04)
	FYROM	1	(1.8)	3	(1.7)	**0.19**	(0.02)	**0.20**	(0.02)	**1.13**	(0.05)	**1.14**	(0.05)
	Georgia	**9**	(1.5)	**8**	(1.6)	**0.22**	(0.02)	**0.22**	(0.02)	**1.09**	(0.05)	1.08	(0.05)
	Hong Kong (China)	-3	(2.0)	-1	(1.9)	**0.12**	(0.02)	**0.12**	(0.02)	1.06	(0.04)	1.07	(0.04)
	Indonesia	**-11**	(1.7)	**-7**	(1.4)	**0.07**	(0.01)	**0.08**	(0.01)	**0.87**	(0.04)	**0.90**	(0.05)
	Jordan	**4**	(1.4)	2	(1.3)	**0.20**	(0.02)	**0.20**	(0.02)	**1.12**	(0.04)	**1.10**	(0.04)
	Kosovo	**12**	(1.5)	**10**	(1.4)	**0.20**	(0.02)	**0.19**	(0.02)	**1.15**	(0.05)	**1.12**	(0.05)
	Lebanon	-3	(2.4)	2	(2.1)	**0.12**	(0.03)	**0.14**	(0.02)	**1.12**	(0.04)	**1.18**	(0.05)
	Lithuania	**-12**	(1.6)	**-7**	(1.3)	0.01	(0.02)	0.03	(0.02)	1.01	(0.03)	**1.06**	(0.03)
	Macao (China)	**-13**	(1.4)	**-12**	(1.4)	**0.05**	(0.02)	**0.05**	(0.02)	0.99	(0.05)	0.99	(0.05)
	Malta	-2	(2.2)	0	(2.1)	**0.11**	(0.02)	**0.11**	(0.02)	**1.17**	(0.05)	**1.19**	(0.05)
	Moldova	4	(2.0)	**6**	(1.8)	**0.13**	(0.02)	**0.14**	(0.02)	1.01	(0.04)	1.02	(0.04)
	Montenegro	-3	(1.4)	2	(1.3)	**0.15**	(0.02)	**0.17**	(0.02)	**1.07**	(0.04)	**1.10**	(0.04)
	Peru	**-9**	(1.9)	**-5**	(1.5)	**0.10**	(0.02)	**0.11**	(0.02)	**1.07**	(0.03)	**1.09**	(0.04)
	Qatar	-1	(1.0)	0	(1.0)	**0.15**	(0.01)	**0.16**	(0.01)	**1.10**	(0.02)	**1.10**	(0.02)
	Romania	-1	(2.2)	2	(2.0)	**0.10**	(0.02)	**0.10**	(0.02)	1.00	(0.05)	1.06	(0.05)
	Russia	**-4**	(1.7)	-3	(1.5)	**0.10**	(0.02)	**0.11**	(0.02)	1.09	(0.05)	1.09	(0.05)
	Singapore	**-9**	(1.6)	**-7**	(1.5)	**0.10**	(0.02)	**0.10**	(0.01)	**1.12**	(0.04)	**1.12**	(0.04)
	Chinese Taipei	**-7**	(1.7)	**-4**	(1.2)	**0.08**	(0.02)	**0.09**	(0.01)	1.06	(0.03)	**1.08**	(0.03)
	Thailand	**-7**	(1.9)	**-3**	(1.7)	**0.06**	(0.02)	**0.08**	(0.02)	**0.87**	(0.04)	**0.90**	(0.04)
	Trinidad and Tobago	**-12**	(1.4)	**-4**	(1.2)	**0.06**	(0.02)	**0.08**	(0.02)	1.03	(0.03)	**1.09**	(0.04)
	Tunisia	**-7**	(1.6)	**-5**	(1.3)	**0.10**	(0.02)	**0.11**	(0.02)	1.01	(0.03)	1.03	(0.03)
	United Arab Emirates	**-3**	(1.4)	0	(1.1)	**0.14**	(0.01)	**0.15**	(0.01)	**1.07**	(0.02)	**1.07**	(0.02)
	Uruguay	**-13**	(1.8)	**-9**	(1.5)	0.02	(0.02)	0.03	(0.02)	0.96	(0.03)	0.98	(0.04)
	Viet Nam	**-12**	(2.3)	**-7**	(1.7)	**0.09**	(0.02)	**0.11**	(0.02)	1.09	(0.06)	**1.12**	(0.06)
	Argentina**	**-9**	(1.7)	**-4**	(1.5)	**0.07**	(0.02)	**0.11**	(0.02)	0.94	(0.04)	0.99	(0.04)
	Kazakhstan**	**8**	(2.0)	**7**	(1.8)	**0.26**	(0.02)	**0.26**	(0.02)	**1.12**	(0.04)	**1.11**	(0.04)
	Malaysia**	**-7**	(2.0)	-1	(1.4)	**0.16**	(0.02)	**0.18**	(0.02)	1.02	(0.03)	**1.08**	(0.03)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.2.22 Adaptive instruction in science lessons

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons																							
		The teacher adapts the lesson to my class's needs and knowledge								The teacher provides individual help when a student has difficulties understanding a topic or task								The teacher changes the structure of the lesson on a topic that most students find difficult to understand							
		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson		Never or almost never		Some lessons		Many lessons		Every lesson or almost every lesson	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	13.2	(0.4)	37.0	(0.6)	33.3	(0.6)	16.5	(0.4)	8.6	(0.3)	31.0	(0.5)	36.7	(0.5)	23.8	(0.5)	17.8	(0.5)	38.5	(0.6)	30.4	(0.6)	13.2	(0.3)
	Austria	25.1	(1.0)	32.5	(0.8)	25.5	(0.7)	16.8	(0.7)	32.3	(1.1)	34.0	(0.7)	21.5	(0.7)	12.2	(0.6)	39.6	(1.1)	27.4	(0.7)	21.4	(0.7)	11.6	(0.6)
	Belgium	34.5	(0.8)	39.2	(0.6)	18.2	(0.5)	8.0	(0.4)	19.3	(0.7)	42.1	(0.5)	26.6	(0.6)	12.1	(0.4)	40.9	(0.8)	34.3	(0.6)	18.1	(0.5)	6.7	(0.3)
	Canada	14.6	(0.5)	33.9	(0.5)	33.5	(0.6)	18.0	(0.5)	9.1	(0.4)	28.5	(0.6)	36.3	(0.5)	26.1	(0.6)	18.3	(0.4)	32.3	(0.6)	32.2	(0.5)	17.2	(0.5)
	Chile	12.0	(0.6)	36.4	(0.8)	32.0	(0.8)	19.6	(0.7)	8.9	(0.4)	34.9	(0.7)	32.7	(0.8)	23.5	(0.8)	19.1	(0.6)	37.9	(0.8)	27.6	(0.7)	15.4	(0.7)
	Czech Republic	20.1	(0.7)	43.6	(0.7)	26.1	(0.8)	10.2	(0.4)	19.3	(0.7)	44.3	(0.6)	26.3	(0.6)	10.2	(0.4)	23.0	(0.8)	40.9	(0.7)	26.0	(0.7)	10.2	(0.4)
	Denmark	10.6	(0.6)	30.4	(0.7)	35.7	(0.7)	23.3	(0.9)	10.7	(0.5)	32.6	(0.8)	34.4	(0.7)	22.3	(0.8)	14.0	(0.6)	37.9	(0.8)	33.8	(0.7)	14.3	(0.7)
	Estonia	28.8	(0.8)	40.8	(0.7)	21.6	(0.7)	8.8	(0.4)	15.3	(0.5)	41.5	(0.8)	29.7	(0.8)	13.5	(0.6)	23.6	(0.7)	40.9	(0.8)	25.8	(0.8)	9.7	(0.4)
	Finland	17.6	(0.6)	44.9	(0.7)	28.6	(0.7)	8.9	(0.5)	11.7	(0.5)	36.9	(0.7)	34.4	(0.6)	17.0	(0.7)	20.2	(0.6)	42.3	(0.7)	27.8	(0.6)	9.7	(0.5)
	France	25.0	(0.8)	33.9	(0.7)	27.0	(0.6)	14.1	(0.6)	24.9	(0.6)	37.2	(0.6)	24.8	(0.5)	13.1	(0.5)	43.3	(0.8)	29.8	(0.6)	18.3	(0.6)	8.6	(0.4)
	Germany	19.2	(0.6)	38.2	(0.7)	28.2	(0.8)	14.4	(0.6)	26.7	(0.6)	39.3	(0.8)	24.3	(0.8)	9.7	(0.5)	32.6	(0.8)	35.7	(0.8)	22.4	(0.7)	9.3	(0.4)
	Greece	19.9	(0.8)	35.7	(0.8)	25.7	(0.7)	18.8	(0.7)	21.3	(0.9)	35.6	(0.8)	25.4	(0.7)	17.7	(0.7)	18.9	(0.7)	31.1	(0.8)	29.5	(0.8)	20.5	(0.8)
	Hungary	21.7	(0.8)	35.6	(0.7)	27.9	(0.7)	14.9	(0.6)	22.0	(0.8)	38.8	(0.7)	28.3	(0.9)	10.9	(0.5)	23.9	(0.8)	35.9	(0.8)	27.6	(0.9)	12.6	(0.6)
	Iceland	18.5	(0.7)	39.9	(0.9)	27.8	(0.8)	13.7	(0.6)	14.7	(0.7)	33.8	(0.8)	29.5	(0.8)	22.0	(0.7)	19.0	(0.7)	37.4	(0.9)	27.4	(0.8)	16.2	(0.6)
	Ireland	18.1	(0.7)	39.3	(0.7)	29.2	(0.6)	13.4	(0.5)	14.3	(0.6)	37.9	(0.7)	31.1	(0.7)	16.7	(0.5)	23.2	(0.7)	40.7	(0.9)	25.7	(0.7)	10.4	(0.5)
	Israel	22.0	(0.8)	39.2	(0.8)	25.0	(0.7)	13.8	(0.6)	17.9	(0.7)	37.7	(0.8)	27.1	(0.6)	17.3	(0.7)	26.2	(0.9)	33.1	(0.7)	25.9	(0.6)	14.8	(0.6)
	Italy	16.8	(0.6)	40.1	(0.6)	30.1	(0.8)	13.1	(0.5)	20.2	(0.7)	42.4	(0.8)	28.2	(0.7)	9.3	(0.4)	19.4	(0.6)	38.5	(0.7)	30.8	(0.7)	11.3	(0.5)
	Japan	19.0	(0.7)	25.7	(0.5)	36.7	(0.7)	18.5	(0.7)	37.4	(1.1)	37.6	(0.7)	17.6	(0.7)	7.4	(0.5)	31.9	(0.9)	34.1	(0.7)	23.7	(0.6)	10.3	(0.4)
	Korea	15.4	(0.7)	35.3	(0.7)	34.1	(0.7)	15.2	(0.6)	19.7	(0.8)	37.1	(0.7)	29.2	(0.8)	13.9	(0.7)	26.0	(0.9)	38.0	(0.7)	25.3	(0.7)	10.7	(0.6)
	Latvia	10.4	(0.6)	29.2	(0.7)	36.3	(0.8)	24.1	(0.8)	9.9	(0.5)	34.1	(0.7)	36.1	(0.8)	19.9	(0.7)	26.7	(0.7)	36.4	(0.8)	25.9	(0.7)	11.0	(0.5)
	Luxembourg	25.4	(0.6)	37.0	(0.8)	23.7	(0.6)	14.0	(0.6)	26.2	(0.6)	38.8	(0.7)	22.7	(0.5)	12.3	(0.5)	41.3	(0.7)	30.7	(0.8)	18.5	(0.5)	9.5	(0.5)
	Mexico	8.9	(0.4)	35.1	(0.7)	33.9	(0.7)	22.0	(0.6)	9.1	(0.5)	31.8	(0.6)	34.1	(0.7)	25.0	(0.8)	16.0	(0.7)	34.8	(0.7)	30.5	(0.7)	18.7	(0.7)
	Netherlands	23.9	(0.9)	44.8	(1.0)	24.4	(0.9)	6.9	(0.6)	11.9	(0.7)	39.1	(0.8)	35.5	(0.8)	13.6	(0.6)	16.0	(0.7)	44.4	(0.8)	31.0	(0.8)	8.6	(0.6)
	New Zealand	12.0	(0.6)	36.8	(0.8)	34.9	(0.8)	16.3	(0.6)	6.6	(0.4)	31.1	(0.8)	37.6	(0.8)	24.7	(0.6)	16.3	(0.6)	38.6	(0.9)	30.8	(0.8)	14.4	(0.5)
	Norway	14.0	(0.7)	35.7	(0.7)	33.0	(0.6)	17.3	(0.7)	12.4	(0.6)	33.8	(0.7)	32.8	(0.7)	21.0	(0.7)	28.0	(0.8)	34.2	(0.6)	25.8	(0.5)	12.0	(0.5)
	Poland	22.8	(0.9)	36.0	(0.8)	27.7	(0.8)	13.6	(0.6)	20.7	(0.8)	36.0	(0.8)	27.7	(0.8)	15.6	(0.6)	24.3	(0.8)	33.9	(0.7)	28.2	(0.7)	13.6	(0.6)
	Portugal	9.7	(0.5)	28.6	(0.7)	33.1	(0.7)	28.6	(0.7)	6.2	(0.4)	24.6	(0.8)	34.6	(0.8)	34.6	(0.9)	12.6	(0.4)	29.1	(0.7)	31.1	(0.9)	27.2	(0.9)
	Slovak Republic	24.6	(0.8)	41.1	(0.9)	23.5	(0.7)	10.7	(0.5)	21.4	(0.7)	44.7	(0.7)	23.1	(0.7)	10.9	(0.5)	28.5	(0.8)	39.8	(0.8)	21.7	(0.6)	10.0	(0.4)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	15.1	(0.6)	36.4	(0.8)	30.6	(0.8)	17.9	(0.7)	13.3	(0.7)	35.5	(0.8)	31.1	(0.7)	20.2	(0.8)	19.2	(0.7)	32.9	(0.7)	30.0	(0.7)	17.9	(0.7)
	Sweden	13.6	(0.7)	38.3	(0.9)	30.7	(0.8)	17.4	(0.8)	13.5	(0.6)	34.7	(0.8)	30.9	(0.8)	21.0	(0.9)	19.9	(0.8)	35.8	(0.8)	28.0	(0.8)	16.4	(0.6)
	Switzerland	19.3	(0.8)	34.8	(0.8)	28.8	(0.9)	17.1	(0.6)	19.0	(0.8)	34.8	(0.9)	29.6	(0.8)	16.5	(0.7)	36.0	(1.0)	31.4	(0.8)	20.9	(0.7)	11.7	(0.5)
	Turkey	13.8	(0.5)	37.4	(0.7)	30.9	(0.7)	17.9	(0.7)	12.3	(0.5)	38.9	(0.7)	30.9	(0.6)	17.9	(0.7)	18.2	(0.6)	38.7	(0.7)	28.8	(0.8)	14.2	(0.6)
	United Kingdom	14.9	(0.5)	37.5	(0.7)	31.6	(0.7)	15.9	(0.6)	10.0	(0.4)	34.2	(0.7)	33.8	(0.6)	22.0	(0.7)	17.7	(0.6)	37.8	(0.8)	31.2	(0.8)	13.3	(0.6)
	United States	13.9	(0.6)	37.6	(0.9)	29.8	(0.8)	18.7	(0.7)	8.2	(0.5)	32.1	(0.8)	32.7	(0.9)	27.0	(0.9)	19.0	(0.7)	36.5	(0.7)	27.2	(0.8)	17.2	(0.6)
	OECD average	18.1	(0.1)	36.7	(0.1)	29.4	(0.1)	15.8	(0.1)	16.3	(0.1)	36.1	(0.1)	29.9	(0.1)	17.7	(0.1)	24.1	(0.1)	35.9	(0.1)	26.7	(0.1)	13.2	(0.1)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	15.9	(0.5)	39.9	(0.6)	26.7	(0.6)	17.5	(0.5)	12.9	(0.4)	38.9	(0.6)	29.5	(0.5)	18.7	(0.5)	20.1	(0.5)	38.3	(0.6)	25.5	(0.5)	16.1	(0.6)
	B-S-J-G (China)	21.8	(0.6)	41.6	(0.8)	22.8	(0.7)	13.8	(0.6)	6.5	(0.4)	41.4	(0.8)	32.4	(0.5)	19.7	(0.7)	18.5	(0.5)	42.8	(0.7)	24.9	(0.5)	13.8	(0.6)
	Bulgaria	16.1	(0.7)	34.3	(0.8)	30.2	(0.7)	19.4	(0.7)	12.6	(0.6)	33.7	(0.8)	32.7	(0.7)	21.0	(0.6)	16.3	(0.6)	30.1	(0.7)	31.6	(0.8)	22.0	(0.7)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	12.3	(0.5)	41.4	(0.6)	28.4	(0.6)	17.9	(0.5)	13.9	(0.6)	39.0	(0.7)	30.4	(0.6)	16.6	(0.6)	26.5	(0.6)	36.5	(0.6)	23.9	(0.6)	13.1	(0.5)
	Costa Rica	12.7	(0.5)	35.1	(0.8)	29.2	(0.6)	23.0	(0.8)	13.9	(0.6)	31.5	(0.8)	28.2	(0.6)	26.4	(0.8)	20.9	(0.6)	34.8	(0.8)	25.4	(0.5)	18.8	(0.7)
	Croatia	21.0	(0.7)	40.1	(0.7)	26.6	(0.8)	12.3	(0.6)	20.8	(0.8)	41.6	(0.7)	25.3	(0.7)	12.4	(0.6)	25.6	(0.9)	40.8	(0.7)	23.0	(0.7)	10.5	(0.5)
	Cyprus*	17.2	(0.6)	38.5	(0.8)	29.5	(0.7)	14.7	(0.5)	13.6	(0.5)	38.4	(0.7)	31.0	(0.7)	17.0	(0.5)	16.3	(0.6)	35.0	(0.7)	31.7	(0.8)	16.9	(0.5)
	Dominican Republic	13.9	(0.7)	44.1	(1.0)	26.1	(0.7)	15.9	(0.7)	11.6	(0.6)	38.7	(0.9)	32.1	(0.6)	17.6	(0.8)	22.6	(0.8)	38.0	(1.0)	24.3	(0.8)	15.1	(0.8)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	10.1	(0.6)	43.8	(0.9)	35.7	(0.9)	10.4	(0.6)	8.7	(0.5)	43.1	(0.9)	36.2	(0.8)	12.0	(0.6)	14.2	(0.7)	43.9	(1.0)	32.7	(1.0)	9.2	(0.5)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	29.4	(0.7)	37.1	(0.7)	21.1	(0.7)	12.4	(0.6)	13.6	(0.5)	36.2	(0.6)	29.3	(0.6)	20.9	(0.7)	33.2	(0.8)	32.4	(0.8)	22.2	(0.6)	12.3	(0.5)
	Macao (China)	17.2	(0.6)	46.8	(0.8)	26.5	(0.7)	9.5	(0.4)	7.2	(0.4)	44.1	(0.8)	34.6	(0.7)	14.1	(0.5)	26.5	(0.7)	43.9	(0.8)	21.9	(0.6)	7.7	(0.4)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	20.8	(0.6)	37.2	(0.7)	25.9	(0.7)	16.2	(0.6)	17.1	(0.5)	36.4	(0.8)	28.4	(0.7)	18.1	(0.6)	24.7	(0.7)	37.7	(0.8)	24.0	(0.6)	13.6	(0.5)
	Peru	15.2	(0.6)	46.7	(0.7)	27.5	(0.7)	10.6	(0.4)	8.9	(0.4)	39.2	(0.8)	34.0	(0.7)	17.8	(0.6)	19.1	(0.5)	42.7	(0.8)	27.0	(0.6)	11.2	(0.5)
	Qatar	15.6	(0.4)	41.8	(0.5)	26.9	(0.5)	15.6	(0.3)	9.2	(0.3)	38.2	(0.5)	33.5	(0.4)	19.0	(0.3)	16.7	(0.4)	38.4	(0.5)	28.7	(0.4)	16.3	(0.4)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	11.6	(0.7)	35.0	(1.0)	33.0	(1.0)	20.4	(0.7)	7.5	(0.6)	33.1	(1.1)	37.1	(1.0)	22.3	(0.9)	19.2	(0.8)	39.1	(0.8)	28.5	(0.8)	13.2	(0.6)
	Singapore	6.7	(0.4)	34.2	(0.7)	38.8	(0.7)	20.3	(0.5)	4.8	(0.3)	29.8	(0.6)	39.1	(0.6)	26.3	(0.6)	10.9	(0.4)	36.2	(0.8)	35.0	(0.8)	17.9	(0.6)
	Chinese Taipei	14.3	(0.5)	41.1	(0.6)	31.3	(0.7)	13.3	(0.5)	14.3	(0.4)	42.8	(0.7)	28.0	(0.6)	14.9	(0.6)	18.4	(0.6)	39.2	(0.6)	29.1	(0.7)	13.2	(0.5)
	Thailand	12.5	(0.5)	48.5	(0.9)	24.4	(0.6)	14.7	(0.5)	6.1	(0.4)	42.1	(0.9)	30.5	(0.6)	21.4	(0.7)	12.8	(0.5)	47.9	(0.8)	24.7	(0.7)	14.6	(0.6)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	16.2	(0.6)	46.0	(0.9)	26.2	(0.8)	11.6	(0.5)	9.5	(0.5)	39.5	(0.7)	34.8	(0.8)	16.1	(0.6)	11.1	(0.5)	36.1	(0.8)	32.8	(0.8)	20.0	(0.7)
	United Arab Emirates	13.9	(0.5)	40.4	(0.6)	28.0	(0.6)	17.8	(0.5)	9.6	(0.4)	35.5	(0.5)	33.1	(0.5)	21.8	(0.6)	15.3	(0.5)	35.9	(0.6)	29.7	(0.5)	19.1	(0.6)
	Uruguay	14.1	(0.5)	41.0	(0.7)	29.4	(0.7)	15.5	(0.7)	14.5	(0.7)	42.0	(0.8)	29.9	(0.7)	13.6	(0.7)	21.9	(0.7)	38.8	(0.9)	27.7	(0.7)	11.6	(0.6)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	5.2	(0.4)	46.1	(0.8)	34.1	(0.7)	14.6	(0.6)	3.1	(0.3)	31.3	(0.8)	39.8	(0.8)	25.8	(1.0)	7.9	(0.4)	39.1	(0.9)	34.8	(0.8)	18.2	(0.6)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436477

[Part 1/3]

Table II.2.23 Index of adaptive instruction in science lessons, by student and school characteristics

Results based on students' reports

		All students				By school socio-economic profile[1]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.20	(0.01)	0.95	(0.01)	0.12	(0.02)	0.13	(0.03)	0.25	(0.03)	0.29	(0.03)	**0.16**	(0.04)
	Austria	-0.28	(0.03)	1.09	(0.01)	-0.21	(0.04)	-0.27	(0.09)	-0.30	(0.09)	-0.31	(0.06)	-0.10	(0.08)
	Belgium	-0.38	(0.02)	0.92	(0.01)	-0.27	(0.03)	-0.38	(0.03)	-0.42	(0.03)	-0.42	(0.04)	**-0.14**	(0.05)
	Canada	0.26	(0.02)	1.01	(0.01)	0.28	(0.03)	0.22	(0.04)	0.27	(0.04)	0.26	(0.04)	-0.02	(0.06)
	Chile	0.21	(0.02)	0.95	(0.01)	0.14	(0.03)	0.24	(0.04)	0.25	(0.05)	0.21	(0.04)	0.07	(0.06)
	Czech Republic	-0.16	(0.02)	0.95	(0.01)	-0.24	(0.04)	-0.15	(0.04)	-0.12	(0.04)	-0.16	(0.03)	0.09	(0.06)
	Denmark	0.28	(0.02)	0.92	(0.01)	0.15	(0.04)	0.29	(0.04)	0.33	(0.05)	0.34	(0.04)	**0.19**	(0.05)
	Estonia	-0.17	(0.02)	0.92	(0.01)	-0.14	(0.04)	-0.17	(0.04)	-0.18	(0.03)	-0.21	(0.04)	-0.07	(0.06)
	Finland	-0.01	(0.02)	0.92	(0.01)	-0.08	(0.04)	-0.02	(0.04)	0.00	(0.04)	0.04	(0.03)	**0.12**	(0.05)
	France	-0.29	(0.02)	1.01	(0.01)	-0.17	(0.04)	-0.23	(0.04)	-0.36	(0.04)	-0.34	(0.03)	**-0.17**	(0.05)
	Germany	-0.22	(0.02)	0.98	(0.01)	-0.31	(0.03)	-0.29	(0.03)	-0.20	(0.04)	-0.14	(0.04)	**0.17**	(0.05)
	Greece	0.06	(0.03)	1.05	(0.01)	0.04	(0.06)	0.06	(0.04)	0.05	(0.05)	0.07	(0.06)	0.03	(0.09)
	Hungary	-0.11	(0.02)	1.01	(0.01)	-0.04	(0.04)	-0.21	(0.04)	-0.12	(0.05)	-0.08	(0.04)	-0.05	(0.06)
	Iceland	0.07	(0.02)	1.04	(0.01)	0.11	(0.04)	0.01	(0.03)	0.01	(0.03)	0.17	(0.04)	0.05	(0.06)
	Ireland	-0.02	(0.02)	0.95	(0.01)	0.03	(0.04)	-0.06	(0.04)	-0.02	(0.03)	-0.04	(0.03)	-0.07	(0.05)
	Israel	-0.06	(0.02)	1.03	(0.01)	0.07	(0.05)	-0.09	(0.05)	-0.14	(0.07)	-0.08	(0.05)	**-0.15**	(0.07)
	Italy	-0.07	(0.02)	0.90	(0.01)	0.05	(0.03)	-0.08	(0.04)	-0.14	(0.03)	-0.10	(0.03)	**-0.15**	(0.05)
	Japan	-0.24	(0.02)	0.97	(0.01)	-0.37	(0.05)	-0.30	(0.06)	-0.17	(0.04)	-0.12	(0.05)	**0.25**	(0.07)
	Korea	-0.05	(0.02)	1.01	(0.01)	-0.06	(0.06)	0.00	(0.06)	-0.10	(0.05)	-0.03	(0.06)	0.02	(0.08)
	Latvia	0.18	(0.02)	0.88	(0.01)	0.26	(0.04)	0.17	(0.04)	0.16	(0.04)	0.14	(0.04)	**-0.13**	(0.06)
	Luxembourg	-0.31	(0.01)	1.03	(0.01)	-0.30	(0.03)	-0.32	(0.03)	-0.31	(0.03)	-0.31	(0.03)	-0.01	(0.04)
	Mexico	0.32	(0.02)	0.95	(0.01)	0.40	(0.04)	0.34	(0.04)	0.24	(0.04)	0.30	(0.05)	-0.10	(0.06)
	Netherlands	-0.07	(0.02)	0.86	(0.01)	-0.24	(0.04)	-0.11	(0.03)	-0.03	(0.03)	0.04	(0.04)	**0.28**	(0.06)
	New Zealand	0.25	(0.02)	0.93	(0.01)	0.22	(0.04)	0.20	(0.04)	0.28	(0.04)	0.31	(0.03)	0.09	(0.05)
	Norway	0.08	(0.02)	0.99	(0.01)	0.10	(0.05)	0.07	(0.05)	0.07	(0.05)	0.09	(0.04)	0.00	(0.07)
	Poland	-0.08	(0.02)	1.03	(0.01)	-0.02	(0.05)	-0.12	(0.06)	-0.07	(0.05)	-0.10	(0.05)	-0.08	(0.07)
	Portugal	0.53	(0.02)	1.05	(0.01)	0.57	(0.03)	0.57	(0.04)	0.51	(0.04)	0.49	(0.04)	-0.08	(0.06)
	Slovak Republic	-0.24	(0.02)	0.96	(0.01)	-0.17	(0.04)	-0.29	(0.04)	-0.29	(0.04)	-0.22	(0.03)	-0.05	(0.05)
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	0.15	(0.02)	0.99	(0.01)	0.22	(0.05)	0.15	(0.06)	0.15	(0.06)	0.08	(0.05)	**-0.14**	(0.07)
	Sweden	0.13	(0.03)	1.03	(0.01)	0.01	(0.05)	0.15	(0.06)	0.12	(0.05)	0.24	(0.05)	**0.24**	(0.07)
	Switzerland	-0.09	(0.02)	1.01	(0.01)	-0.13	(0.04)	-0.11	(0.04)	-0.11	(0.07)	-0.02	(0.04)	**0.11**	(0.06)
	Turkey	0.12	(0.02)	0.97	(0.01)	0.06	(0.04)	0.16	(0.03)	0.10	(0.04)	0.15	(0.05)	0.09	(0.06)
	United Kingdom	0.15	(0.02)	0.97	(0.01)	0.20	(0.04)	0.15	(0.04)	0.09	(0.04)	0.18	(0.03)	-0.02	(0.04)
	United States	0.24	(0.02)	1.01	(0.01)	0.18	(0.04)	0.22	(0.04)	0.26	(0.05)	0.28	(0.04)	**0.10**	(0.05)
	OECD average	0.01	(0.00)	0.98	(0.00)	0.01	(0.01)	0.00	(0.01)	0.00	(0.01)	0.03	(0.01)	0.02	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	0.08	(0.01)	0.98	(0.01)	0.00	(0.04)	-0.01	(0.03)	0.03	(0.03)	0.25	(0.03)	**0.25**	(0.05)
	B-S-J-G (China)	0.06	(0.02)	0.92	(0.01)	-0.12	(0.03)	0.00	(0.04)	0.15	(0.04)	0.21	(0.04)	**0.34**	(0.05)
	Bulgaria	0.22	(0.02)	1.03	(0.01)	0.20	(0.05)	0.20	(0.04)	0.20	(0.03)	0.28	(0.04)	0.08	(0.06)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	0.04	(0.01)	0.90	(0.01)	0.02	(0.04)	-0.04	(0.04)	0.03	(0.03)	0.16	(0.03)	**0.14**	(0.06)
	Costa Rica	0.22	(0.02)	1.02	(0.01)	0.19	(0.04)	0.22	(0.05)	0.13	(0.05)	0.32	(0.04)	**0.13**	(0.06)
	Croatia	-0.16	(0.02)	0.98	(0.01)	-0.05	(0.05)	-0.15	(0.05)	-0.21	(0.06)	-0.22	(0.04)	**-0.17**	(0.06)
	Cyprus*	0.10	(0.01)	0.98	(0.01)	0.12	(0.02)	0.12	(0.03)	0.05	(0.03)	0.11	(0.03)	-0.01	(0.04)
	Dominican Republic	0.08	(0.02)	0.93	(0.01)	0.03	(0.06)	0.05	(0.07)	0.05	(0.04)	0.15	(0.04)	0.12	(0.08)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	0.08	(0.02)	0.86	(0.01)	0.07	(0.04)	0.07	(0.04)	0.09	(0.05)	0.07	(0.04)	0.00	(0.06)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	-0.11	(0.02)	1.01	(0.01)	-0.03	(0.04)	-0.16	(0.04)	-0.15	(0.04)	-0.11	(0.04)	-0.09	(0.06)
	Macao (China)	-0.07	(0.01)	0.83	(0.01)	0.00	(0.02)	-0.13	(0.03)	-0.09	(0.02)	-0.05	(0.03)	-0.05	(0.04)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	-0.03	(0.02)	1.05	(0.01)	0.15	(0.04)	0.03	(0.03)	0.01	(0.03)	-0.27	(0.03)	**-0.43**	(0.05)
	Peru	0.04	(0.01)	0.84	(0.01)	0.06	(0.03)	0.07	(0.03)	-0.01	(0.03)	0.06	(0.03)	0.00	(0.04)
	Qatar	0.14	(0.01)	0.96	(0.01)	0.03	(0.02)	0.14	(0.02)	0.21	(0.02)	0.15	(0.02)	**0.12**	(0.03)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	0.23	(0.02)	0.91	(0.01)	0.28	(0.04)	0.15	(0.05)	0.27	(0.07)	0.22	(0.06)	-0.06	(0.07)
	Singapore	0.41	(0.01)	0.90	(0.01)	0.31	(0.02)	0.34	(0.03)	0.45	(0.03)	0.53	(0.05)	**0.22**	(0.05)
	Chinese Taipei	0.03	(0.02)	0.96	(0.01)	0.07	(0.03)	0.03	(0.04)	-0.02	(0.03)	0.04	(0.04)	-0.03	(0.05)
	Thailand	0.15	(0.02)	0.90	(0.01)	0.11	(0.03)	0.16	(0.04)	0.20	(0.03)	0.13	(0.03)	0.02	(0.04)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	0.14	(0.01)	0.85	(0.01)	0.16	(0.04)	0.19	(0.04)	0.10	(0.03)	0.12	(0.03)	-0.04	(0.05)
	United Arab Emirates	0.21	(0.01)	0.98	(0.01)	0.19	(0.04)	0.19	(0.03)	0.26	(0.04)	0.22	(0.02)	0.03	(0.04)
	Uruguay	0.00	(0.02)	0.93	(0.01)	-0.06	(0.03)	0.02	(0.04)	0.00	(0.04)	0.05	(0.04)	**0.11**	(0.05)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	0.38	(0.02)	0.81	(0.01)	0.38	(0.04)	0.35	(0.03)	0.44	(0.03)	0.35	(0.04)	-0.03	(0.06)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.23 Index of adaptive instruction in science lessons, by student and school characteristics

Results based on students' reports

		By school location								By type of school						By education level					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	0.05	(0.05)	0.17	(0.03)	0.23	(0.02)	**0.17**	(0.06)	0.17	(0.01)	0.26	(0.02)	**0.09**	(0.02)	0.19	(0.01)	0.34	(0.04)	**0.16**	(0.04)
	Austria	-0.24	(0.15)	-0.27	(0.03)	-0.32	(0.05)	-0.08	(0.15)	-0.31	(0.03)	-0.12	(0.09)	**0.19**	(0.09)	0.01	(0.17)	-0.29	(0.03)	-0.30	(0.17)
	Belgium	-0.44	(0.11)	-0.40	(0.02)	-0.33	(0.03)	0.12	(0.10)	w	w	w	w	w	w	-0.14	(0.06)	-0.40	(0.02)	**-0.26**	(0.06)
	Canada	0.26	(0.06)	0.26	(0.03)	0.26	(0.02)	0.01	(0.06)	0.24	(0.02)	0.43	(0.07)	**0.19**	(0.07)	0.25	(0.04)	0.26	(0.02)	0.00	(0.05)
	Chile	0.23	(0.23)	0.19	(0.03)	0.22	(0.03)	-0.01	(0.23)	0.18	(0.03)	0.23	(0.02)	0.04	(0.04)	0.20	(0.06)	0.21	(0.02)	0.01	(0.06)
	Czech Republic	-0.12	(0.07)	-0.18	(0.02)	-0.12	(0.03)	0.00	(0.08)	-0.17	(0.02)	-0.03	(0.04)	**0.14**	(0.05)	-0.13	(0.02)	-0.20	(0.03)	**-0.07**	(0.03)
	Denmark	0.38	(0.07)	0.25	(0.03)	0.28	(0.04)	-0.11	(0.09)	0.22	(0.03)	0.47	(0.04)	**0.25**	(0.05)	0.28	(0.02)	c	c	c	c
	Estonia	-0.17	(0.04)	-0.17	(0.02)	-0.19	(0.03)	-0.02	(0.05)	-0.17	(0.02)	-0.02	(0.06)	**0.16**	(0.06)	-0.18	(0.02)	0.04	(0.12)	0.22	(0.12)
	Finland	-0.09	(0.06)	-0.04	(0.02)	0.07	(0.03)	**0.16**	(0.07)	-0.03	(0.02)	0.15	(0.07)	**0.17**	(0.07)	-0.02	(0.02)	c	c	c	c
	France	-0.22	(0.07)	-0.28	(0.02)	-0.32	(0.03)	-0.10	(0.08)	-0.30	(0.02)	-0.24	(0.03)	**0.07**	(0.03)	-0.18	(0.04)	-0.32	(0.02)	**-0.13**	(0.04)
	Germany	-0.16	(0.08)	-0.20	(0.02)	-0.31	(0.04)	-0.15	(0.08)	-0.23	(0.02)	-0.26	(0.08)	-0.03	(0.09)	-0.22	(0.02)	-0.25	(0.09)	-0.03	(0.09)
	Greece	0.19	(0.10)	0.04	(0.04)	0.05	(0.03)	-0.14	(0.10)	0.04	(0.03)	0.29	(0.05)	**0.25**	(0.06)	0.13	(0.09)	0.05	(0.03)	-0.08	(0.10)
	Hungary	0.15	(0.15)	-0.12	(0.03)	-0.12	(0.03)	-0.28	(0.15)	-0.12	(0.02)	-0.10	(0.05)	0.01	(0.05)	0.12	(0.09)	-0.14	(0.02)	**-0.25**	(0.09)
	Iceland	0.14	(0.04)	0.07	(0.02)	0.04	(0.03)	-0.10	(0.06)	0.07	(0.02)	c	c	c	c	0.07	(0.02)	m	m	m	m
	Ireland	-0.05	(0.05)	-0.01	(0.03)	-0.01	(0.02)	0.04	(0.06)	-0.02	(0.03)	-0.03	(0.02)	-0.01	(0.04)	-0.04	(0.02)	0.00	(0.02)	0.03	(0.03)
	Israel	0.03	(0.08)	-0.05	(0.04)	-0.11	(0.04)	-0.14	(0.09)	m	m	m	m	m	m	-0.12	(0.04)	-0.05	(0.02)	0.07	(0.04)
	Italy	-0.06	(0.11)	-0.07	(0.02)	-0.04	(0.03)	0.02	(0.11)	-0.07	(0.02)	0.15	(0.10)	**0.23**	(0.10)	0.23	(0.08)	-0.07	(0.02)	**-0.30**	(0.08)
	Japan	c	c	-0.28	(0.04)	-0.22	(0.02)	c	c	-0.31	(0.02)	-0.09	(0.04)	**0.22**	(0.04)	m	m	-0.24	(0.02)	m	m
	Korea	c	c	0.06	(0.08)	-0.07	(0.03)	c	c	-0.07	(0.02)	-0.01	(0.05)	0.06	(0.05)	0.03	(0.05)	-0.06	(0.03)	-0.08	(0.05)
	Latvia	0.23	(0.05)	0.21	(0.02)	0.11	(0.03)	**-0.13**	(0.06)	0.18	(0.02)	0.30	(0.13)	0.12	(0.13)	0.18	(0.02)	0.18	(0.10)	0.00	(0.10)
	Luxembourg	m	m	-0.34	(0.02)	-0.28	(0.02)	m	m	-0.33	(0.01)	-0.18	(0.04)	**0.15**	(0.04)	-0.31	(0.02)	-0.31	(0.02)	0.01	(0.03)
	Mexico	0.40	(0.04)	0.34	(0.03)	0.27	(0.03)	**-0.14**	(0.05)	0.31	(0.02)	0.37	(0.08)	0.06	(0.08)	0.30	(0.04)	0.32	(0.02)	0.02	(0.04)
	Netherlands	c	c	-0.10	(0.03)	-0.04	(0.05)	c	c	-0.08	(0.03)	-0.09	(0.03)	-0.02	(0.04)	-0.13	(0.02)	0.06	(0.04)	**0.19**	(0.04)
	New Zealand	0.19	(0.16)	0.25	(0.03)	0.30	(0.02)	0.11	(0.16)	0.25	(0.02)	0.40	(0.12)	0.15	(0.13)	0.19	(0.07)	0.26	(0.02)	0.07	(0.07)
	Norway	0.09	(0.06)	0.07	(0.03)	0.09	(0.04)	-0.01	(0.07)	0.08	(0.02)	0.24	(0.16)	0.17	(0.16)	0.08	(0.02)	c	c	c	c
	Poland	-0.02	(0.04)	-0.06	(0.04)	-0.20	(0.04)	**-0.18**	(0.06)	-0.08	(0.02)	-0.11	(0.17)	-0.03	(0.17)	-0.08	(0.02)	c	c	c	c
	Portugal	0.56	(0.08)	0.54	(0.02)	0.54	(0.04)	-0.02	(0.08)	0.52	(0.02)	0.78	(0.09)	**0.25**	(0.09)	0.52	(0.02)	0.55	(0.03)	0.03	(0.04)
	Slovak Republic	-0.10	(0.05)	-0.24	(0.02)	-0.43	(0.05)	**-0.33**	(0.07)	-0.24	(0.02)	-0.24	(0.06)	0.00	(0.07)	-0.18	(0.03)	-0.30	(0.02)	**-0.12**	(0.04)
	Slovenia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Spain	0.34	(0.15)	0.15	(0.03)	0.13	(0.03)	-0.21	(0.15)	0.13	(0.03)	0.17	(0.03)	0.04	(0.04)	0.15	(0.02)	c	c	c	c
	Sweden	0.03	(0.09)	0.12	(0.03)	0.20	(0.05)	0.17	(0.11)	0.12	(0.03)	0.18	(0.07)	0.06	(0.07)	0.12	(0.03)	0.63	(0.12)	**0.51**	(0.13)
	Switzerland	-0.01	(0.08)	-0.09	(0.02)	-0.12	(0.04)	-0.11	(0.09)	-0.09	(0.02)	-0.12	(0.11)	-0.03	(0.11)	-0.11	(0.02)	-0.05	(0.04)	0.05	(0.04)
	Turkey	c	c	0.11	(0.03)	0.13	(0.02)	c	c	0.12	(0.02)	0.18	(0.09)	0.06	(0.10)	0.21	(0.11)	0.12	(0.02)	-0.09	(0.11)
	United Kingdom	0.09	(0.06)	0.15	(0.02)	0.16	(0.04)	0.07	(0.07)	0.15	(0.02)	0.12	(0.07)	-0.03	(0.08)	0.18	(0.10)	0.15	(0.02)	-0.02	(0.10)
	United States	0.19	(0.08)	0.25	(0.02)	0.24	(0.04)	0.05	(0.09)	0.23	(0.02)	0.38	(0.12)	0.15	(0.12)	0.09	(0.07)	0.25	(0.02)	**0.17**	(0.07
	OECD average	0.06	(0.02)	0.01	(0.01)	0.00	(0.01)	**-0.05**	(0.02)	0.00	(0.00)	0.10	(0.01)	**0.10**	(0.01)	0.05	(0.01)	0.03	(0.01)	-0.01	(0.02)
Partners	Albania	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Algeria	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Brazil	0.07	(0.11)	0.09	(0.02)	0.10	(0.03)	0.03	(0.11)	0.03	(0.02)	0.38	(0.04)	**0.35**	(0.05)	0.01	(0.03)	0.10	(0.02)	**0.09**	(0.04)
	B-S-J-G (China)	-0.11	(0.05)	0.04	(0.02)	0.14	(0.03)	**0.26**	(0.05)	0.06	(0.02)	0.08	(0.06)	0.02	(0.06)	0.05	(0.02)	0.08	(0.02)	0.03	(0.03)
	Bulgaria	0.16	(0.15)	0.26	(0.02)	0.18	(0.03)	0.03	(0.15)	0.22	(0.02)	c	c	c	c	0.25	(0.13)	0.22	(0.02)	-0.03	(0.14)
	CABA (Argentina)	m	m	c	c	c	c	m	m	c	c	c	c	c	c	c	c	c	c	c	c
	Colombia	0.05	(0.04)	-0.01	(0.03)	0.07	(0.02)	0.03	(0.05)	0.00	(0.02)	0.19	(0.03)	**0.19**	(0.04)	-0.01	(0.02)	0.08	(0.02)	**0.09**	(0.02)
	Costa Rica	0.23	(0.04)	0.23	(0.03)	0.21	(0.05)	-0.02	(0.06)	0.22	(0.02)	0.19	(0.06)	-0.03	(0.06)	0.16	(0.03)	0.27	(0.03)	**0.11**	(0.03)
	Croatia	c	c	-0.14	(0.03)	-0.21	(0.03)	c	c	-0.16	(0.02)	-0.13	(0.18)	0.03	(0.18)	c	c	-0.16	(0.02)	c	c
	Cyprus*	0.31	(0.06)	0.07	(0.02)	0.12	(0.03)	**-0.19**	(0.06)	0.08	(0.02)	0.20	(0.04)	**0.13**	(0.04)	0.09	(0.06)	0.10	(0.02)	0.01	(0.06)
	Dominican Republic	0.10	(0.06)	0.08	(0.03)	0.08	(0.04)	-0.02	(0.07)	0.07	(0.03)	0.10	(0.04)	0.03	(0.05)	0.02	(0.05)	0.09	(0.02)	0.07	(0.05)
	FYROM	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Georgia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Hong Kong (China)	m	m	m	m	0.08	(0.02)	m	m	0.08	(0.04)	0.08	(0.02)	0.00	(0.05)	0.03	(0.03)	0.11	(0.02)	**0.08**	(0.03)
	Indonesia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Jordan	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	m	m	m	m
	Kosovo	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lebanon	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lithuania	-0.07	(0.04)	-0.14	(0.03)	-0.11	(0.03)	-0.04	(0.05)	-0.12	(0.02)	0.04	(0.21)	0.15	(0.21)	-0.11	(0.02)	c	c	c	c
	Macao (China)	c	c	c	c	-0.07	(0.01)	c	c	c	c	-0.06	(0.01)	c	c	-0.10	(0.02)	-0.03	(0.02)	**0.07**	(0.02)
	Malta	c	c	c	c	m	m	m	m	c	c	c	c	c	c	c	c	c	c	c	c
	Moldova	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Montenegro	c	c	0.02	(0.02)	-0.15	(0.03)	c	c	-0.03	(0.02)	c	c	c	c	0.16	(0.24)	-0.04	(0.01)	-0.19	(0.24)
	Peru	0.05	(0.03)	0.04	(0.02)	0.03	(0.04)	-0.03	(0.05)	0.03	(0.02)	0.06	(0.03)	0.03	(0.04)	0.04	(0.03)	0.04	(0.02)	0.00	(0.03)
	Qatar	0.05	(0.04)	0.10	(0.01)	0.18	(0.01)	**0.13**	(0.05)	0.08	(0.01)	0.22	(0.01)	**0.14**	(0.02)	0.07	(0.02)	0.15	(0.01)	**0.09**	(0.02)
	Romania	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	m	m	m	m
	Russia	0.28	(0.03)	0.25	(0.03)	0.21	(0.03)	-0.07	(0.04)	0.23	(0.02)	c	c	c	c	0.23	(0.02)	0.25	(0.05)	0.02	(0.05)
	Singapore	m	m	m	m	0.40	(0.01)	m	m	0.41	(0.01)	0.41	(0.06)	0.01	(0.06)	0.37	(0.16)	0.41	(0.01)	0.04	(0.16)
	Chinese Taipei	c	c	0.08	(0.02)	-0.01	(0.02)	c	c	0.02	(0.02)	0.05	(0.04)	0.03	(0.04)	0.11	(0.02)	-0.02	(0.02)	**-0.12**	(0.03)
	Thailand	0.18	(0.04)	0.14	(0.02)	0.12	(0.04)	-0.05	(0.06)	0.16	(0.02)	0.10	(0.04)	-0.05	(0.04)	0.16	(0.03)	0.15	(0.02)	-0.01	(0.03)
	Trinidad and Tobago	c	c	c	c	m	m	m	m	c	c	c	c	c	c	c	c	c	c	c	c
	Tunisia	0.02	(0.13)	0.16	(0.02)	0.16	(0.03)	0.14	(0.13)	0.15	(0.02)	0.31	(0.12)	0.15	(0.13)	0.13	(0.03)	0.15	(0.02)	0.02	(0.03)
	United Arab Emirates	0.18	(0.09)	0.19	(0.03)	0.22	(0.02)	0.04	(0.09)	0.18	(0.02)	0.24	(0.02)	0.06	(0.03)	0.14	(0.05)	0.23	(0.01)	0.09	(0.05)
	Uruguay	0.06	(0.04)	0.00	(0.02)	0.01	(0.03)	-0.05	(0.05)	-0.02	(0.02)	0.12	(0.05)	**0.14**	(0.05)	-0.05	(0.03)	0.03	(0.02)	0.07	(0.04)
	Viet Nam	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Argentina**	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Kazakhstan**	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Malaysia**	0.40	(0.02)	0.41	(0.03)	0.34	(0.03)	-0.06	(0.04)	0.38	(0.02)	0.28	(0.08)	-0.11	(0.09)	-0.01	(0.06)	0.39	(0.02)	**0.40**	(0.07)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink `http://dx.doi.org/10.1787/888933436477`

[Part 3/3]

Table II.2.23 Index of adaptive instruction in science lessons, by student and school characteristics

Results based on students' reports

		Change in science score per unit increase on the index of adaptive instruction in science lessons				Change in the index of epistemic beliefs per unit increase on the index of adaptive instruction in science lessons				Increased likelihood of expecting to work in science-related occupations per unit increase on the index of adaptive instruction in science lessons			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	**Australia**	**16**	(1.2)	**13**	(1.2)	**0.22**	(0.01)	**0.21**	(0.01)	**1.18**	(0.03)	**1.16**	(0.03)
	Austria	-1	(1.5)	0	(1.3)	**0.10**	(0.02)	**0.10**	(0.02)	**1.08**	(0.04)	**1.09**	(0.04)
	Belgium	-2	(1.4)	1	(1.2)	**0.09**	(0.01)	**0.10**	(0.01)	**1.14**	(0.05)	**1.16**	(0.05)
	Canada	**9**	(1.2)	**8**	(1.1)	**0.20**	(0.01)	**0.19**	(0.01)	**1.22**	(0.02)	**1.21**	(0.02)
	Chile	**9**	(1.7)	**8**	(1.5)	**0.16**	(0.02)	**0.15**	(0.02)	**1.08**	(0.03)	**1.08**	(0.03)
	Czech Republic	**9**	(1.6)	**7**	(1.4)	**0.15**	(0.02)	**0.15**	(0.02)	**1.22**	(0.05)	**1.20**	(0.05)
	Denmark	**17**	(1.6)	**14**	(1.4)	**0.19**	(0.02)	**0.17**	(0.02)	**1.25**	(0.06)	**1.24**	(0.06)
	Estonia	**6**	(1.5)	**6**	(1.4)	**0.14**	(0.02)	**0.14**	(0.02)	**1.18**	(0.04)	**1.18**	(0.04)
	Finland	**16**	(1.6)	**14**	(1.5)	**0.17**	(0.02)	**0.16**	(0.02)	**1.24**	(0.05)	**1.20**	(0.05)
	France	-1	(1.5)	**3**	(1.1)	**0.13**	(0.02)	**0.14**	(0.02)	1.06	(0.04)	**1.09**	(0.04)
	Germany	**13**	(1.6)	**10**	(1.4)	**0.17**	(0.02)	**0.15**	(0.02)	**1.21**	(0.06)	**1.18**	(0.06)
	Greece	**5**	(1.5)	**4**	(1.4)	**0.10**	(0.01)	**0.10**	(0.01)	**1.09**	(0.03)	**1.09**	(0.03)
	Hungary	**4**	(1.8)	**4**	(1.4)	**0.13**	(0.02)	**0.13**	(0.02)	**1.20**	(0.05)	**1.20**	(0.05)
	Iceland	**12**	(1.7)	**11**	(1.7)	**0.19**	(0.02)	**0.18**	(0.02)	**1.11**	(0.05)	**1.11**	(0.05)
	Ireland	**7**	(1.3)	**7**	(1.2)	**0.12**	(0.01)	**0.12**	(0.01)	**1.14**	(0.04)	**1.14**	(0.04)
	Israel	**7**	(1.9)	**8**	(1.5)	**0.22**	(0.02)	**0.23**	(0.02)	**1.35**	(0.05)	**1.34**	(0.05)
	Italy	1	(1.7)	**3**	(1.6)	**0.10**	(0.02)	**0.11**	(0.02)	**1.17**	(0.05)	**1.21**	(0.05)
	Japan	**5**	(1.8)	0	(1.4)	**0.18**	(0.01)	**0.16**	(0.01)	**1.12**	(0.04)	1.08	(0.04)
	Korea	**5**	(2.0)	**4**	(1.6)	**0.19**	(0.02)	**0.18**	(0.02)	**1.10**	(0.04)	**1.10**	(0.04)
	Latvia	**7**	(1.9)	**8**	(1.6)	**0.12**	(0.02)	**0.13**	(0.02)	**1.14**	(0.05)	**1.15**	(0.05)
	Luxembourg	0	(1.6)	1	(1.3)	**0.19**	(0.02)	**0.19**	(0.02)	**1.13**	(0.04)	**1.13**	(0.04)
	Mexico	**3**	(1.3)	**4**	(1.2)	**0.13**	(0.02)	**0.14**	(0.02)	**1.10**	(0.03)	**1.10**	(0.04)
	Netherlands	**23**	(2.3)	**15**	(1.6)	**0.20**	(0.02)	**0.17**	(0.02)	**1.26**	(0.06)	**1.20**	(0.06)
	New Zealand	**10**	(1.8)	**7**	(1.6)	**0.20**	(0.02)	**0.18**	(0.02)	**1.18**	(0.05)	**1.16**	(0.05)
	Norway	**19**	(1.5)	**17**	(1.5)	**0.23**	(0.02)	**0.22**	(0.02)	**1.13**	(0.03)	**1.12**	(0.03)
	Poland	**7**	(1.4)	**7**	(1.3)	**0.11**	(0.02)	**0.11**	(0.02)	1.07	(0.04)	1.06	(0.04)
	Portugal	**8**	(1.4)	**9**	(1.3)	**0.20**	(0.02)	**0.20**	(0.02)	**1.19**	(0.04)	**1.21**	(0.04)
	Slovak Republic	**3**	(1.5)	**5**	(1.3)	**0.14**	(0.02)	**0.15**	(0.02)	1.09	(0.05)	**1.11**	(0.05)
	Slovenia	m	m	m	m	m	m	m	m	c	c	c	c
	Spain	1	(1.6)	2	(1.5)	**0.11**	(0.02)	**0.12**	(0.02)	**1.10**	(0.04)	**1.12**	(0.04)
	Sweden	**15**	(1.4)	**13**	(1.3)	**0.24**	(0.02)	**0.22**	(0.02)	**1.17**	(0.04)	**1.16**	(0.04)
	Switzerland	**7**	(1.8)	**6**	(1.8)	**0.15**	(0.02)	**0.14**	(0.02)	**1.13**	(0.05)	**1.13**	(0.05)
	Turkey	**8**	(1.6)	**7**	(1.2)	**0.20**	(0.02)	**0.20**	(0.02)	1.05	(0.03)	1.05	(0.03)
	United Kingdom	**12**	(1.8)	**12**	(1.7)	**0.20**	(0.02)	**0.20**	(0.02)	**1.23**	(0.04)	**1.22**	(0.04)
	United States	**7**	(1.6)	**5**	(1.4)	**0.20**	(0.02)	**0.18**	(0.02)	**1.07**	(0.03)	**1.06**	(0.03)
	OECD average	**8**	(0.3)	**7**	(0.2)	**0.16**	(0.00)	**0.16**	(0.00)	**1.15**	(0.01)	**1.15**	(0.01)
Partners	**Albania**	m	m	m	m	m	m	m	m	c	c	c	c
	Algeria	m	m	m	m	m	m	m	m	c	c	c	c
	Brazil	**14**	(1.3)	**8**	(1.1)	**0.21**	(0.01)	**0.20**	(0.01)	**1.09**	(0.03)	**1.06**	(0.02)
	B-S-J-G (China)	**18**	(1.8)	**8**	(1.4)	**0.21**	(0.02)	**0.18**	(0.02)	**1.22**	(0.05)	**1.17**	(0.05)
	Bulgaria	**10**	(1.8)	**9**	(1.5)	**0.19**	(0.02)	**0.19**	(0.02)	**1.14**	(0.04)	**1.13**	(0.04)
	CABA (Argentina)	m	m	m	m	m	m	m	m	c	c	c	c
	Colombia	**11**	(1.4)	**7**	(1.2)	**0.16**	(0.01)	**0.14**	(0.01)	1.01	(0.03)	1.01	(0.03)
	Costa Rica	**6**	(1.1)	**4**	(1.1)	**0.17**	(0.02)	**0.17**	(0.02)	1.01	(0.03)	1.00	(0.03)
	Croatia	1	(1.4)	**4**	(1.2)	**0.13**	(0.01)	**0.14**	(0.01)	1.06	(0.03)	**1.08**	(0.03)
	Cyprus*	**11**	(1.5)	**11**	(1.4)	**0.24**	(0.02)	**0.24**	(0.02)	**1.19**	(0.04)	**1.20**	(0.04)
	Dominican Republic	**7**	(1.6)	**5**	(1.5)	**0.25**	(0.03)	**0.25**	(0.03)	1.06	(0.04)	1.06	(0.04)
	FYROM	m	m	m	m	m	m	m	m	c	c	c	c
	Georgia	m	m	m	m	m	m	m	m	c	c	c	c
	Hong Kong (China)	**8**	(1.8)	**8**	(1.7)	**0.23**	(0.03)	**0.22**	(0.03)	**1.14**	(0.04)	**1.12**	(0.04)
	Indonesia	m	m	m	m	m	m	m	m	c	c	c	c
	Jordan	m	m	m	m	m	m	m	m	c	c	c	c
	Kosovo	m	m	m	m	m	m	m	m	c	c	c	c
	Lebanon	m	m	m	m	m	m	m	m	c	c	c	c
	Lithuania	**6**	(1.6)	**6**	(1.3)	**0.15**	(0.02)	**0.15**	(0.02)	**1.12**	(0.03)	**1.11**	(0.03)
	Macao (China)	**7**	(1.6)	**6**	(1.6)	**0.16**	(0.02)	**0.16**	(0.02)	**1.14**	(0.05)	**1.14**	(0.05)
	Malta	m	m	m	m	m	m	m	m	c	c	c	c
	Moldova	m	m	m	m	m	m	m	m	c	c	c	c
	Montenegro	-1	(1.4)	**4**	(1.3)	**0.18**	(0.01)	**0.20**	(0.01)	1.04	(0.04)	1.07	(0.04)
	Peru	0	(1.6)	0	(1.3)	**0.15**	(0.02)	**0.15**	(0.02)	**1.16**	(0.04)	**1.16**	(0.04)
	Qatar	**17**	(1.1)	**14**	(1.1)	**0.26**	(0.02)	**0.24**	(0.02)	**1.18**	(0.03)	**1.17**	(0.02)
	Romania	m	m	m	m	m	m	m	m	c	c	c	c
	Russia	**9**	(1.3)	**8**	(1.3)	**0.18**	(0.02)	**0.17**	(0.02)	1.09	(0.05)	1.08	(0.05)
	Singapore	**18**	(1.7)	**13**	(1.6)	**0.21**	(0.02)	**0.20**	(0.02)	**1.19**	(0.04)	**1.17**	(0.04)
	Chinese Taipei	-1	(1.4)	-1	(1.1)	**0.11**	(0.01)	**0.11**	(0.01)	1.06	(0.04)	1.05	(0.04)
	Thailand	**6**	(1.7)	**6**	(1.6)	**0.18**	(0.01)	**0.18**	(0.01)	1.05	(0.04)	1.05	(0.04)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	c	c	c	c
	Tunisia	0	(1.5)	1	(1.4)	**0.18**	(0.02)	**0.18**	(0.02)	**1.09**	(0.03)	**1.11**	(0.03)
	United Arab Emirates	**16**	(1.3)	**15**	(1.1)	**0.28**	(0.01)	**0.27**	(0.01)	**1.17**	(0.03)	**1.17**	(0.03)
	Uruguay	**8**	(1.8)	**5**	(1.5)	**0.16**	(0.02)	**0.15**	(0.02)	1.06	(0.03)	1.04	(0.04)
	Viet Nam	m	m	m	m	m	m	m	m	c	c	c	c
	Argentina**	m	m	m	m	m	m	m	m	c	c	c	c
	Kazakhstan**	m	m	m	m	m	m	m	m	c	c	c	c
	Malaysia**	**13**	(1.6)	**13**	(1.4)	**0.27**	(0.02)	**0.27**	(0.02)	**1.16**	(0.04)	**1.16**	(0.04)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.2.26 Enquiry-based instruction in science lessons

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons																							
		Students are given opportunities to explain their ideas								Students spend time in the laboratory doing practical experiments								Students are required to argue about science questions							
		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	33.8	(0.5)	40.0	(0.6)	21.2	(0.5)	5.1	(0.3)	4.6	(0.3)	19.0	(0.5)	62.8	(0.6)	13.5	(0.5)	6.4	(0.3)	17.9	(0.5)	42.2	(0.6)	33.5	(0.7)
	Austria	30.0	(0.9)	32.4	(0.8)	24.4	(0.8)	13.2	(0.7)	5.8	(0.5)	12.1	(0.8)	32.0	(1.1)	50.1	(1.7)	9.4	(0.6)	19.7	(0.8)	37.5	(0.9)	33.4	(1.2)
	Belgium	32.2	(0.7)	33.2	(0.5)	24.3	(0.6)	10.2	(0.5)	4.0	(0.3)	7.8	(0.4)	40.0	(0.9)	48.2	(1.0)	5.9	(0.4)	13.3	(0.4)	34.8	(0.6)	46.0	(0.8)
	Canada	40.4	(0.6)	36.7	(0.6)	18.0	(0.4)	4.9	(0.3)	8.9	(0.3)	19.9	(0.6)	58.6	(0.6)	12.6	(0.6)	10.1	(0.4)	19.8	(0.4)	40.5	(0.6)	29.6	(0.6)
	Chile	41.6	(0.8)	29.1	(0.7)	23.6	(0.7)	5.7	(0.4)	10.6	(0.6)	9.8	(0.5)	40.0	(1.4)	39.6	(1.7)	14.3	(0.6)	18.8	(0.6)	42.2	(0.6)	24.6	(0.7)
	Czech Republic	41.9	(0.8)	31.1	(0.6)	20.4	(0.7)	6.5	(0.5)	4.1	(0.4)	7.3	(0.6)	44.6	(1.3)	44.0	(1.8)	9.3	(0.4)	19.4	(0.6)	43.4	(0.8)	27.9	(0.8)
	Denmark	26.4	(0.8)	40.7	(0.8)	24.6	(0.7)	8.4	(0.5)	13.4	(0.6)	54.9	(0.9)	28.4	(0.9)	3.3	(0.3)	12.9	(0.5)	33.2	(0.9)	38.8	(0.7)	15.1	(0.7)
	Estonia	28.4	(0.7)	41.8	(0.7)	25.2	(0.7)	4.5	(0.3)	2.9	(0.3)	6.1	(0.4)	54.6	(1.3)	36.4	(1.4)	4.0	(0.3)	11.0	(0.5)	41.4	(0.8)	43.6	(1.0)
	Finland	31.0	(0.8)	40.7	(0.7)	22.9	(0.6)	5.5	(0.4)	3.2	(0.2)	17.6	(0.8)	48.9	(0.8)	30.3	(1.1)	3.6	(0.3)	11.5	(0.6)	35.0	(0.7)	50.0	(1.0)
	France	38.3	(1.0)	35.4	(0.7)	19.2	(0.7)	7.0	(0.4)	5.5	(0.4)	23.8	(0.7)	46.9	(0.9)	23.8	(0.9)	13.5	(0.5)	31.7	(0.8)	37.4	(0.7)	17.4	(0.7)
	Germany	30.0	(0.8)	40.0	(0.9)	22.7	(0.7)	7.3	(0.4)	4.0	(0.3)	17.6	(0.7)	50.7	(1.0)	27.7	(1.1)	6.8	(0.4)	23.3	(0.8)	42.0	(0.9)	27.9	(0.9)
	Greece	38.9	(1.0)	29.9	(0.6)	24.5	(0.7)	6.6	(0.4)	5.6	(0.5)	9.0	(0.7)	35.4	(1.5)	50.0	(1.8)	11.0	(0.6)	20.2	(0.8)	39.5	(0.8)	29.2	(0.8)
	Hungary	26.4	(0.8)	35.6	(1.0)	27.5	(0.8)	10.5	(0.5)	3.6	(0.4)	8.1	(0.5)	29.1	(1.0)	59.2	(1.2)	5.9	(0.4)	12.7	(0.6)	39.9	(0.9)	41.5	(0.9)
	Iceland	35.0	(0.8)	37.4	(0.9)	21.6	(0.7)	6.0	(0.5)	3.5	(0.3)	4.9	(0.4)	31.2	(0.8)	60.5	(0.9)	8.6	(0.5)	20.9	(0.8)	45.3	(1.0)	25.1	(0.8)
	Ireland	28.3	(0.8)	35.1	(0.7)	25.8	(0.6)	10.9	(0.6)	4.2	(0.3)	22.6	(0.9)	63.0	(1.0)	10.2	(0.7)	7.5	(0.4)	18.1	(0.6)	38.6	(0.8)	35.8	(0.9)
	Israel	28.5	(0.9)	31.5	(0.7)	26.8	(0.7)	13.2	(0.5)	5.5	(0.4)	15.6	(0.7)	43.8	(1.3)	35.1	(1.7)	14.9	(0.6)	29.0	(0.6)	39.3	(0.7)	16.9	(0.7)
	Italy	41.0	(0.7)	33.9	(0.7)	19.4	(0.8)	5.7	(0.4)	4.4	(0.3)	10.4	(0.6)	43.2	(1.2)	42.0	(1.4)	8.1	(0.5)	19.7	(0.6)	48.3	(0.8)	23.9	(0.7)
	Japan	17.3	(0.8)	30.0	(0.8)	35.8	(0.8)	16.8	(0.9)	6.2	(0.5)	8.6	(0.7)	44.7	(1.9)	40.5	(2.3)	4.0	(0.4)	8.3	(0.4)	26.4	(0.9)	61.3	(1.2)
	Korea	13.8	(0.6)	30.0	(0.9)	34.8	(0.8)	21.4	(0.8)	3.3	(0.3)	6.8	(0.4)	34.3	(1.6)	55.6	(1.8)	3.7	(0.3)	8.7	(0.6)	28.3	(1.1)	59.3	(1.4)
	Latvia	31.0	(0.9)	36.6	(0.7)	25.9	(0.8)	6.5	(0.4)	3.0	(0.3)	10.1	(0.6)	70.3	(1.0)	16.7	(0.9)	6.7	(0.4)	20.7	(0.8)	48.2	(0.9)	24.4	(0.8)
	Luxembourg	41.0	(0.9)	31.8	(0.8)	19.3	(0.6)	7.8	(0.4)	6.9	(0.4)	17.0	(0.5)	45.8	(0.7)	30.3	(0.6)	12.6	(0.5)	24.3	(0.6)	38.7	(0.7)	24.5	(0.6)
	Mexico	47.6	(0.9)	28.2	(0.6)	21.4	(0.6)	2.7	(0.3)	15.6	(0.7)	19.5	(0.7)	44.9	(0.9)	20.0	(1.3)	14.8	(0.6)	18.7	(0.6)	42.9	(0.8)	23.6	(0.9)
	Netherlands	14.1	(0.7)	38.8	(0.8)	35.2	(0.8)	11.9	(0.6)	9.4	(0.6)	20.0	(0.7)	52.7	(0.8)	18.0	(0.8)	4.2	(0.4)	14.6	(0.5)	38.7	(0.9)	42.5	(1.0)
	New Zealand	33.7	(1.0)	40.0	(0.9)	21.0	(0.7)	5.3	(0.4)	4.3	(0.4)	17.6	(1.0)	62.8	(1.0)	15.2	(0.8)	8.0	(0.4)	23.4	(0.7)	40.8	(0.8)	27.9	(0.9)
	Norway	26.2	(0.8)	40.8	(0.8)	25.4	(0.9)	7.5	(0.4)	3.6	(0.3)	12.8	(0.8)	62.6	(1.3)	21.0	(1.5)	6.7	(0.5)	27.4	(0.8)	48.8	(0.9)	17.1	(0.7)
	Poland	26.7	(0.8)	32.2	(0.8)	30.5	(0.8)	10.6	(0.6)	3.1	(0.4)	4.5	(0.4)	28.9	(1.4)	63.4	(1.6)	9.5	(0.5)	24.9	(0.7)	45.1	(0.7)	20.6	(0.8)
	Portugal	53.9	(1.0)	29.6	(0.8)	13.2	(0.7)	3.2	(0.4)	8.9	(0.5)	14.8	(0.7)	56.7	(1.1)	19.6	(1.1)	18.6	(0.7)	25.5	(0.8)	38.3	(1.0)	17.6	(0.8)
	Slovak Republic	35.0	(0.8)	32.9	(0.7)	24.2	(0.7)	7.9	(0.4)	6.0	(0.5)	9.4	(0.6)	35.3	(1.2)	49.3	(1.6)	7.0	(0.5)	13.9	(0.6)	40.1	(0.7)	39.0	(0.9)
	Slovenia	41.2	(1.1)	31.3	(1.2)	18.5	(0.9)	9.0	(0.8)	10.7	(0.7)	16.0	(1.0)	55.4	(1.3)	17.9	(0.9)	10.8	(0.7)	27.5	(1.2)	44.2	(1.2)	17.6	(0.8)
	Spain	36.7	(0.9)	34.6	(0.7)	22.5	(0.7)	6.3	(0.4)	2.5	(0.2)	4.3	(0.3)	32.1	(1.5)	61.1	(1.6)	5.8	(0.3)	13.6	(0.6)	40.5	(0.7)	40.1	(0.9)
	Sweden	31.5	(0.9)	40.9	(0.8)	22.3	(0.7)	5.3	(0.4)	6.5	(0.4)	17.9	(0.9)	59.3	(1.1)	16.4	(1.2)	14.3	(0.7)	33.9	(0.8)	42.4	(0.9)	9.4	(0.6)
	Switzerland	37.4	(1.1)	34.2	(0.8)	20.2	(0.9)	8.2	(0.5)	6.0	(0.6)	18.5	(0.8)	44.3	(1.2)	31.1	(1.3)	10.3	(0.6)	26.1	(0.9)	39.3	(0.7)	24.4	(0.9)
	Turkey	44.6	(0.8)	30.8	(0.7)	20.1	(0.6)	4.5	(0.3)	10.0	(0.6)	10.7	(0.8)	28.9	(1.6)	50.4	(1.9)	21.9	(0.9)	26.9	(0.7)	37.0	(0.9)	14.1	(0.6)
	United Kingdom	35.8	(0.8)	38.0	(0.7)	20.4	(0.6)	5.7	(0.3)	3.7	(0.2)	15.0	(0.7)	62.5	(0.8)	18.9	(0.7)	5.3	(0.3)	12.4	(0.6)	37.0	(0.9)	45.3	(0.9)
	United States	36.7	(1.2)	37.6	(0.8)	19.9	(0.9)	5.8	(0.4)	13.0	(0.6)	25.6	(0.8)	47.1	(1.1)	14.3	(0.9)	12.4	(0.8)	18.1	(0.6)	35.9	(0.9)	33.5	(1.0)
	OECD average	33.6	(0.1)	34.9	(0.1)	23.5	(0.1)	7.9	(0.1)	6.2	(0.1)	14.7	(0.1)	46.3	(0.2)	32.8	(0.2)	9.4	(0.1)	20.3	(0.1)	40.0	(0.1)	30.4	(0.1)
Partners	Albania	69.9	(0.8)	18.4	(0.7)	9.9	(0.5)	1.8	(0.2)	4.2	(0.4)	9.7	(0.6)	44.8	(1.1)	41.4	(1.2)	13.0	(0.6)	26.1	(0.8)	46.8	(0.9)	14.2	(0.8)
	Algeria	47.1	(0.6)	22.0	(0.5)	21.3	(0.6)	9.6	(0.5)	12.9	(0.6)	26.0	(0.7)	39.8	(0.8)	21.3	(0.9)	21.9	(0.7)	26.8	(0.7)	33.2	(0.7)	18.0	(0.8)
	Brazil	17.5	(0.5)	26.7	(0.5)	39.4	(0.6)	16.4	(0.4)	4.3	(0.2)	6.7	(0.3)	24.4	(1.0)	64.6	(1.2)	12.8	(0.4)	23.7	(0.5)	44.0	(0.6)	19.5	(0.6)
	B-S-J-G (China)	30.3	(0.8)	34.0	(0.8)	28.1	(0.9)	7.6	(0.5)	4.6	(0.3)	6.8	(0.5)	51.8	(1.8)	36.8	(2.0)	6.9	(0.4)	13.9	(0.7)	43.7	(0.8)	35.4	(1.0)
	Bulgaria	32.1	(0.9)	35.1	(0.7)	24.9	(0.8)	8.0	(0.5)	8.7	(0.6)	12.6	(0.7)	26.3	(1.1)	52.4	(1.7)	14.7	(0.6)	28.7	(0.7)	41.5	(0.8)	15.1	(0.7)
	CABA (Argentina)	33.2	(1.6)	29.7	(1.3)	27.1	(1.2)	10.0	(1.0)	2.8	(0.5)	8.1	(1.1)	46.1	(3.0)	43.0	(3.7)	4.1	(0.6)	12.8	(0.8)	38.0	(1.2)	45.1	(1.5)
	Colombia	42.5	(0.8)	27.6	(0.6)	24.9	(0.7)	5.0	(0.4)	5.7	(0.4)	8.0	(0.5)	40.2	(1.3)	46.1	(1.6)	10.9	(0.5)	15.0	(0.5)	43.4	(0.7)	30.7	(0.9)
	Costa Rica	30.7	(0.7)	30.1	(0.7)	28.9	(0.6)	10.3	(0.6)	3.6	(0.3)	4.2	(0.3)	15.2	(0.9)	77.0	(1.1)	12.4	(0.4)	19.7	(0.6)	41.8	(0.8)	26.2	(0.8)
	Croatia	25.5	(0.7)	36.9	(0.7)	28.0	(0.7)	9.6	(0.4)	5.1	(0.4)	7.8	(0.4)	29.3	(1.1)	57.9	(1.3)	8.2	(0.4)	17.2	(0.6)	43.3	(0.8)	31.3	(0.7)
	Cyprus*	40.4	(0.7)	33.6	(0.7)	21.0	(0.7)	5.1	(0.4)	10.7	(0.4)	19.1	(0.6)	52.2	(0.7)	18.0	(0.5)	16.9	(0.5)	29.5	(0.7)	38.9	(0.9)	14.7	(0.5)
	Dominican Republic	63.9	(1.0)	21.7	(0.8)	11.6	(0.6)	2.8	(0.3)	9.0	(0.7)	8.9	(0.6)	30.2	(1.7)	51.9	(1.9)	36.3	(1.1)	25.5	(0.7)	28.8	(0.9)	9.4	(0.6)
	FYROM	42.5	(0.7)	27.8	(0.6)	24.5	(0.7)	5.2	(0.4)	6.6	(0.4)	8.8	(0.4)	27.6	(0.7)	57.0	(0.7)	12.3	(0.5)	18.1	(0.6)	45.8	(0.7)	23.8	(0.7)
	Georgia	61.3	(0.8)	21.9	(0.7)	14.3	(0.6)	2.5	(0.2)	6.8	(0.5)	7.2	(0.5)	37.5	(1.3)	48.5	(1.7)	30.5	(0.8)	29.6	(0.6)	34.4	(0.7)	5.5	(0.4)
	Hong Kong (China)	16.2	(0.7)	41.3	(1.0)	36.9	(0.9)	5.6	(0.5)	7.3	(0.5)	25.8	(0.9)	60.4	(1.0)	6.6	(0.6)	6.1	(0.5)	18.1	(1.0)	45.8	(0.8)	30.0	(1.2)
	Indonesia	35.4	(1.0)	24.3	(0.7)	35.7	(1.0)	4.5	(0.3)	4.1	(0.3)	6.1	(0.4)	54.6	(1.7)	35.1	(1.8)	24.3	(0.9)	25.9	(0.8)	41.0	(0.9)	8.8	(0.6)
	Jordan	49.5	(1.0)	29.7	(0.7)	14.7	(0.6)	6.2	(0.4)	12.0	(0.6)	22.7	(0.8)	31.1	(1.0)	34.2	(1.4)	19.7	(0.6)	31.5	(0.8)	31.4	(0.7)	17.4	(0.6)
	Kosovo	72.1	(0.7)	16.6	(0.7)	9.1	(0.5)	2.3	(0.2)	6.8	(0.5)	10.3	(0.5)	34.6	(0.9)	48.3	(0.9)	24.3	(0.8)	29.7	(0.8)	37.5	(0.8)	8.5	(0.5)
	Lebanon	51.5	(1.3)	26.8	(0.9)	18.5	(0.8)	3.3	(0.3)	7.2	(0.6)	18.4	(1.3)	46.4	(1.7)	28.0	(2.0)	23.7	(1.3)	30.2	(0.9)	37.1	(1.1)	9.0	(0.7)
	Lithuania	40.8	(0.7)	32.2	(0.8)	21.0	(0.6)	5.9	(0.4)	8.1	(0.4)	12.1	(0.5)	55.2	(0.8)	24.7	(0.8)	18.0	(0.5)	29.8	(0.7)	40.1	(0.8)	12.1	(0.5)
	Macao (China)	17.4	(0.7)	34.4	(0.7)	40.1	(0.8)	8.1	(0.4)	3.7	(0.3)	9.3	(0.5)	76.3	(0.8)	10.7	(0.5)	4.4	(0.3)	15.2	(0.6)	59.8	(0.8)	20.6	(0.5)
	Malta	33.1	(0.8)	35.7	(0.8)	23.2	(0.7)	8.0	(0.5)	4.2	(0.3)	16.3	(0.7)	66.6	(0.8)	12.9	(0.5)	10.2	(0.5)	26.1	(0.7)	40.3	(0.8)	23.4	(0.7)
	Moldova	66.1	(0.7)	20.2	(0.5)	12.2	(0.5)	1.5	(0.2)	4.9	(0.4)	6.0	(0.5)	58.6	(1.2)	30.5	(1.3)	20.9	(0.8)	29.5	(0.8)	44.5	(0.9)	5.1	(0.4)
	Montenegro	33.0	(0.7)	31.6	(0.8)	24.7	(0.6)	10.8	(0.4)	8.4	(0.4)	10.3	(0.4)	20.5	(0.6)	60.8	(0.6)	12.9	(0.5)	20.2	(0.6)	36.7	(0.7)	30.1	(0.6)
	Peru	51.7	(0.7)	28.8	(0.6)	17.2	(0.6)	2.2	(0.2)	16.4	(0.8)	16.7	(0.7)	36.1	(1.0)	30.8	(1.4)	29.6	(0.7)	30.0	(0.7)	33.9	(0.7)	6.5	(0.4)
	Qatar	35.1	(0.4)	34.2	(0.5)	24.1	(0.4)	6.6	(0.2)	12.9	(0.3)	24.8	(0.5)	46.5	(0.5)	15.8	(0.3)	20.2	(0.4)	30.3	(0.5)	35.0	(0.5)	14.4	(0.4)
	Romania	45.8	(1.0)	26.7	(0.8)	22.5	(0.7)	4.9	(0.4)	8.3	(0.6)	11.6	(0.8)	54.8	(1.4)	25.2	(1.3)	10.2	(0.7)	16.7	(0.7)	50.1	(1.1)	23.0	(0.7)
	Russia	33.1	(1.0)	35.1	(0.7)	25.8	(0.9)	6.0	(0.4)	8.0	(0.5)	24.6	(1.1)	63.4	(1.0)	3.9	(0.4)	19.6	(0.8)	36.0	(0.7)	37.1	(0.6)	7.2	(0.3)
	Singapore	23.4	(0.5)	46.5	(0.7)	26.3	(0.6)	3.9	(0.3)	6.4	(0.4)	15.3	(0.8)	66.7	(0.8)	11.6	(0.5)	6.1	(0.3)	15.8	(0.5)	43.0	(0.6)	35.1	(0.7)
	Chinese Taipei	24.8	(0.6)	32.8	(0.7)	33.2	(0.8)	9.2	(0.4)	3.9	(0.2)	6.9	(0.4)	55.8	(1.2)	33.4	(1.3)	4.2	(0.2)	7.8	(0.4)	43.4	(0.8)	44.6	(0.8)
	Thailand	14.5	(0.6)	20.1	(0.5)	56.0	(0.7)	9.4	(0.5)	7.9	(0.5)	15.6	(0.7)	62.0	(0.8)	14.6	(0.7)	7.2	(0.5)	15.6	(0.6)	52.5	(0.6)	24.7	(0.8)
	Trinidad and Tobago	39.5	(0.8)	31.6	(0.7)	22.2	(0.6)	6.7	(0.4)	8.2	(0.4)	24.4	(0.7)	45.6	(0.8)	21.7	(0.6)	9.5	(0.5)	17.3	(0.6)	37.2	(0.7)	36.0	(0.8)
	Tunisia	41.9	(0.8)	28.9	(0.7)	23.3	(0.6)	5.9	(0.4)	11.4	(0.5)	24.0	(0.7)	44.5	(0.8)	20.0	(0.8)	21.1	(0.6)	29.8	(0.8)	37.2	(0.8)	11.9	(0.5)
	United Arab Emirates	35.2	(0.7)	34.9	(0.5)	22.8	(0.4)	7.1	(0.4)	13.1	(0.4)	22.7	(0.6)	44.0	(0.8)	20.3	(0.9)	19.7	(0.6)	28.8	(0.7)	35.1	(0.7)	16.4	(0.4)
	Uruguay	36.1	(0.8)	31.5	(0.8)	26.1	(0.8)	6.3	(0.4)	6.6	(0.4)	10.5	(0.4)	52.4	(1.3)	30.6	(1.3)	8.0	(0.5)	17.2	(0.6)	46.1	(0.7)	28.7	(0.7)
	Viet Nam	37.3	(0.7)	27.5	(0.8)	29.0	(0.8)	6.3	(0.5)	3.2	(0.4)	3.3	(0.3)	67.0	(1.7)	26.5	(1.8)	18.8	(0.7)	23.9	(0.7)	51.3	(0.8)	5.9	(0.5)
	Argentina**	41.4	(0.9)	26.5	(0.7)	25.8	(0.7)	6.2	(0.4)	6.3	(0.4)	9.0	(0.5)	31.8	(1.2)	53.0	(1.5)	9.3	(0.5)	14.0	(0.5)	39.2	(0.9)	37.5	(0.9)
	Kazakhstan**	58.7	(0.9)	29.9	(0.8)	9.2	(0.5)	2.1	(0.2)	15.6	(0.7)	20.1	(0.6)	49.0	(0.8)	15.3	(0.8)	30.5	(0.9)	36.5	(0.7)	29.6	(0.8)	3.5	(0.3)
	Malaysia**	35.9	(1.1)	32.5	(0.8)	29.3	(0.8)	2.2	(0.2)	13.9	(0.5)	20.6	(0.7)	58.9	(0.9)	6.5	(0.5)	7.6	(0.5)	16.2	(0.6)	46.6	(0.7)	29.6	(0.9)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.2.26 Enquiry-based instruction in science lessons

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons																							
		Students are asked to draw conclusions from an experiment they have conducted								The teacher explains how a <school science> idea can be applied to a number of different phenomena (e.g. the movement of objects, substances with similar properties)								Students are allowed to design their own experiments							
		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	15.4	(0.4)	40.2	(0.6)	38.5	(0.5)	5.9	(0.3)	27.1	(0.5)	42.8	(0.5)	24.6	(0.5)	5.4	(0.3)	3.9	(0.2)	9.4	(0.4)	35.0	(0.7)	51.7	(0.8)
	Austria	9.0	(0.6)	19.4	(0.8)	33.8	(1.0)	37.8	(1.6)	19.2	(0.8)	32.4	(0.8)	28.8	(0.8)	19.6	(1.1)	3.8	(0.3)	7.2	(0.5)	16.4	(0.7)	72.7	(1.0)
	Belgium	10.9	(0.4)	29.0	(0.6)	41.6	(0.7)	18.5	(0.6)	23.8	(0.6)	37.6	(0.6)	27.7	(0.6)	10.9	(0.4)	4.4	(0.3)	6.9	(0.3)	20.3	(0.5)	68.4	(0.7)
	Canada	17.6	(0.4)	35.4	(0.6)	40.2	(0.6)	6.8	(0.4)	33.5	(0.6)	39.6	(0.6)	21.5	(0.5)	5.5	(0.3)	8.0	(0.4)	13.0	(0.4)	30.5	(0.6)	48.5	(0.8)
	Chile	16.2	(0.8)	19.2	(0.6)	44.8	(0.8)	19.8	(1.0)	33.8	(0.8)	34.5	(0.8)	26.3	(0.7)	5.4	(0.3)	7.8	(0.5)	8.5	(0.5)	30.1	(0.8)	53.6	(1.2)
	Czech Republic	13.5	(0.6)	20.9	(0.7)	38.7	(0.8)	26.9	(1.2)	21.8	(0.7)	35.9	(0.7)	33.1	(0.6)	9.2	(0.5)	5.1	(0.4)	8.7	(0.5)	22.7	(0.8)	63.4	(1.2)
	Denmark	20.4	(0.6)	46.0	(0.8)	27.7	(0.7)	5.9	(0.4)	28.8	(0.9)	45.7	(0.8)	22.0	(0.7)	3.5	(0.3)	2.8	(0.3)	7.4	(0.4)	26.1	(1.0)	63.7	(1.2)
	Estonia	7.0	(0.5)	22.7	(0.7)	55.0	(0.9)	15.3	(0.8)	17.6	(0.6)	40.2	(0.7)	35.6	(0.8)	6.6	(0.4)	3.7	(0.3)	7.9	(0.5)	30.2	(0.8)	58.2	(1.0)
	Finland	7.0	(0.4)	29.7	(0.9)	43.0	(0.7)	20.3	(0.8)	14.2	(0.6)	39.5	(0.7)	36.3	(0.7)	9.9	(0.5)	1.7	(0.2)	4.5	(0.3)	13.6	(0.6)	80.2	(0.8)
	France	21.9	(0.6)	43.1	(0.8)	27.9	(0.8)	7.1	(0.5)	29.2	(0.7)	37.2	(0.7)	25.4	(0.6)	8.2	(0.4)	7.2	(0.5)	14.8	(0.5)	31.9	(0.7)	46.1	(1.0)
	Germany	18.6	(0.7)	40.1	(0.7)	30.2	(0.8)	11.1	(0.6)	16.5	(0.7)	39.5	(0.8)	33.7	(0.8)	10.3	(0.6)	3.7	(0.3)	9.1	(0.4)	23.2	(0.7)	63.9	(0.9)
	Greece	11.1	(0.6)	19.6	(0.8)	38.8	(1.0)	30.6	(1.4)	20.6	(0.6)	30.8	(0.7)	36.5	(0.7)	12.1	(0.5)	6.1	(0.5)	8.9	(0.7)	18.5	(0.9)	66.5	(1.6)
	Hungary	6.9	(0.5)	19.7	(0.7)	37.3	(0.9)	36.0	(1.1)	23.9	(0.7)	37.1	(0.7)	28.0	(0.9)	11.0	(0.5)	3.7	(0.4)	8.2	(0.5)	21.4	(0.7)	66.8	(1.0)
	Iceland	6.3	(0.4)	13.6	(0.6)	39.0	(0.8)	41.1	(0.9)	16.7	(0.7)	33.6	(1.0)	35.6	(0.9)	14.1	(0.6)	4.1	(0.4)	6.7	(0.5)	26.7	(0.7)	62.5	(0.8)
	Ireland	14.8	(0.6)	40.0	(0.8)	38.7	(0.8)	6.4	(0.4)	25.2	(0.7)	37.9	(0.8)	28.0	(0.7)	8.9	(0.6)	2.2	(0.2)	4.0	(0.3)	24.1	(0.8)	69.7	(0.9)
	Israel	13.2	(0.6)	26.1	(0.8)	38.5	(0.9)	22.2	(1.3)	20.1	(0.7)	31.1	(0.7)	32.2	(0.7)	16.5	(0.6)	8.5	(0.5)	13.0	(0.6)	24.0	(0.7)	54.5	(1.0)
	Italy	8.0	(0.5)	16.3	(0.7)	38.4	(1.0)	37.3	(1.3)	13.2	(0.6)	31.7	(0.7)	40.6	(0.7)	14.5	(0.6)	4.7	(0.3)	8.3	(0.4)	20.8	(0.7)	66.1	(0.9)
	Japan	11.6	(0.7)	21.4	(0.8)	30.2	(1.1)	36.9	(1.8)	12.1	(0.5)	27.7	(0.7)	38.7	(0.7)	21.5	(0.8)	3.4	(0.3)	7.0	(0.4)	21.1	(0.8)	68.4	(1.1)
	Korea	3.9	(0.3)	9.7	(0.6)	32.8	(1.3)	53.7	(1.6)	19.5	(0.7)	35.5	(0.7)	31.7	(0.7)	13.3	(0.7)	3.7	(0.3)	8.8	(0.4)	25.6	(0.9)	61.9	(1.1)
	Latvia	8.8	(0.5)	34.3	(0.9)	49.8	(0.9)	7.1	(0.5)	23.6	(0.7)	40.5	(0.8)	30.9	(0.8)	5.1	(0.3)	4.3	(0.4)	10.7	(0.5)	33.7	(0.8)	51.3	(1.1)
	Luxembourg	15.4	(0.4)	30.6	(0.7)	38.3	(0.7)	15.7	(0.5)	26.1	(0.6)	35.9	(0.8)	28.4	(0.7)	9.5	(0.4)	6.7	(0.4)	10.9	(0.4)	22.4	(0.6)	60.1	(0.6)
	Mexico	23.8	(0.7)	28.4	(0.8)	37.3	(0.7)	10.5	(0.7)	40.1	(0.8)	32.2	(0.6)	22.8	(0.6)	4.9	(0.3)	13.3	(0.6)	16.4	(0.5)	35.2	(0.7)	35.1	(1.0)
	Netherlands	9.1	(0.6)	29.4	(0.9)	47.6	(1.0)	13.9	(0.8)	10.4	(0.6)	35.3	(0.8)	40.1	(0.9)	14.2	(0.6)	3.3	(0.3)	8.0	(0.6)	25.3	(0.7)	63.4	(1.0)
	New Zealand	10.8	(0.6)	38.4	(0.8)	43.8	(0.9)	7.1	(0.4)	26.5	(0.8)	41.8	(0.8)	26.5	(0.7)	5.2	(0.4)	3.8	(0.3)	9.2	(0.6)	25.7	(0.8)	61.3	(1.1)
	Norway	7.8	(0.5)	27.1	(1.0)	52.3	(0.9)	12.8	(0.8)	14.3	(0.7)	39.8	(0.8)	37.1	(0.8)	8.8	(0.5)	3.4	(0.3)	7.8	(0.4)	24.0	(0.7)	64.7	(1.0)
	Poland	11.0	(0.5)	29.3	(0.8)	44.2	(0.8)	15.4	(0.9)	23.5	(0.8)	40.1	(0.9)	29.7	(0.7)	6.7	(0.5)	5.4	(0.4)	10.9	(0.6)	31.6	(0.9)	52.1	(1.2)
	Portugal	19.0	(0.7)	28.8	(0.8)	42.3	(0.8)	9.8	(0.7)	28.5	(0.8)	36.3	(0.7)	28.9	(0.8)	6.4	(0.5)	8.5	(0.5)	11.0	(0.5)	23.7	(0.8)	56.8	(1.1)
	Slovak Republic	12.3	(0.7)	19.2	(0.7)	38.1	(1.0)	30.4	(1.3)	17.7	(0.7)	31.1	(0.8)	34.0	(0.8)	17.3	(0.8)	5.9	(0.5)	10.5	(0.6)	23.6	(0.7)	60.1	(1.1)
	Slovenia	12.2	(0.7)	27.9	(1.1)	45.4	(1.2)	14.5	(0.8)	16.3	(1.0)	30.6	(1.2)	40.0	(1.3)	13.1	(0.7)	9.6	(0.8)	18.0	(0.9)	40.4	(1.1)	32.0	(1.3)
	Spain	8.5	(0.4)	18.9	(0.7)	37.9	(0.7)	34.7	(1.3)	18.7	(0.7)	35.3	(0.9)	33.8	(0.8)	12.2	(0.6)	4.3	(0.3)	6.8	(0.4)	21.3	(0.8)	67.7	(1.0)
	Sweden	18.1	(0.8)	37.8	(0.8)	37.6	(1.0)	6.5	(0.6)	22.0	(0.8)	42.7	(0.9)	29.0	(0.8)	6.4	(0.5)	7.0	(0.5)	15.8	(0.6)	40.0	(0.9)	37.2	(1.3)
	Switzerland	14.5	(0.8)	36.4	(1.0)	36.4	(0.9)	12.7	(0.7)	25.8	(0.7)	39.9	(0.7)	25.7	(0.8)	8.6	(0.5)	5.7	(0.4)	11.6	(0.5)	26.0	(1.0)	56.8	(1.3)
	Turkey	18.6	(0.8)	21.9	(0.7)	31.6	(0.9)	27.9	(1.0)	26.4	(0.7)	32.0	(0.8)	29.2	(0.7)	12.4	(0.5)	17.5	(0.8)	18.8	(0.6)	28.0	(0.7)	35.7	(1.1)
	United Kingdom	11.7	(0.4)	36.8	(0.7)	44.5	(0.8)	7.0	(0.4)	21.3	(0.6)	39.2	(0.8)	30.2	(0.6)	9.3	(0.5)	3.3	(0.2)	6.1	(0.3)	29.2	(0.8)	61.4	(1.0)
	United States	23.1	(0.9)	37.4	(0.7)	33.0	(0.8)	6.5	(0.4)	31.9	(0.8)	35.6	(0.5)	25.7	(0.6)	6.8	(0.4)	10.1	(0.6)	15.3	(0.5)	32.6	(0.7)	42.1	(1.2)
	OECD average	13.1	(0.1)	28.4	(0.1)	39.3	(0.1)	19.2	(0.2)	22.6	(0.1)	36.5	(0.1)	30.8	(0.1)	10.1	(0.1)	5.7	(0.1)	10.0	(0.1)	26.4	(0.1)	57.8	(0.2)
Partners	**Albania**	13.9	(0.7)	29.9	(0.8)	41.2	(0.8)	15.0	(0.7)	25.0	(0.9)	30.8	(0.7)	34.3	(0.8)	9.9	(0.6)	32.6	(0.9)	31.4	(0.8)	28.9	(0.8)	7.1	(0.4)
	Algeria	35.4	(0.9)	29.0	(0.8)	26.9	(0.8)	8.7	(0.5)	38.2	(0.9)	27.4	(0.6)	25.5	(0.7)	8.9	(0.4)	17.0	(0.6)	21.7	(0.7)	32.6	(0.7)	28.7	(0.9)
	Brazil	11.9	(0.4)	20.1	(0.5)	38.7	(0.7)	29.3	(0.7)	23.2	(0.5)	34.3	(0.5)	31.8	(0.5)	10.8	(0.4)	9.8	(0.3)	15.8	(0.5)	33.9	(0.7)	40.5	(0.7)
	B-S-J-G (China)	8.7	(0.4)	17.1	(0.8)	47.7	(1.0)	26.5	(1.2)	18.3	(0.7)	31.2	(0.8)	38.2	(0.9)	12.4	(0.6)	5.2	(0.4)	7.9	(0.5)	37.4	(1.0)	49.4	(1.3)
	Bulgaria	13.1	(0.6)	23.7	(0.9)	35.6	(0.8)	27.6	(1.1)	26.3	(0.7)	35.2	(0.7)	30.6	(0.7)	7.9	(0.5)	9.9	(0.6)	14.7	(0.7)	27.7	(0.9)	47.7	(1.4)
	CABA (Argentina)	8.6	(1.1)	23.9	(1.5)	44.1	(1.7)	23.4	(2.4)	18.2	(1.3)	34.0	(1.6)	33.2	(1.3)	14.7	(1.4)	2.6	(0.4)	4.8	(0.7)	19.0	(1.5)	73.6	(1.9)
	Colombia	14.1	(0.6)	22.6	(0.7)	42.8	(0.7)	20.5	(1.0)	27.6	(0.7)	32.2	(0.6)	30.7	(0.6)	9.5	(0.5)	9.6	(0.5)	12.4	(0.5)	34.8	(0.7)	43.3	(1.0)
	Costa Rica	9.7	(0.5)	13.5	(0.7)	31.2	(0.8)	45.6	(1.1)	28.0	(0.8)	30.3	(0.7)	27.7	(0.8)	14.0	(0.6)	11.0	(0.5)	11.9	(0.5)	26.8	(0.8)	50.2	(1.0)
	Croatia	10.0	(0.5)	19.6	(0.7)	40.5	(1.0)	29.9	(1.1)	16.5	(0.5)	31.9	(0.6)	37.1	(0.7)	14.5	(0.6)	6.6	(0.4)	8.0	(0.5)	25.7	(0.7)	59.6	(0.9)
	Cyprus*	19.9	(0.5)	36.8	(0.7)	36.5	(0.7)	6.8	(0.3)	25.7	(0.7)	36.9	(0.8)	30.4	(0.7)	7.0	(0.4)	9.7	(0.4)	15.8	(0.5)	26.5	(0.6)	47.9	(0.7)
	Dominican Republic	31.7	(1.2)	22.2	(0.8)	28.1	(1.0)	18.0	(1.1)	42.7	(0.9)	28.5	(0.7)	21.5	(0.7)	7.4	(0.6)	25.1	(1.1)	16.6	(0.6)	28.4	(1.0)	29.9	(1.4)
	FYROM	14.6	(0.5)	23.4	(0.7)	36.7	(0.7)	25.3	(0.7)	21.7	(0.7)	27.7	(0.7)	35.9	(0.8)	14.7	(0.6)	12.8	(0.5)	14.6	(0.5)	33.2	(0.7)	39.3	(0.8)
	Georgia	23.2	(0.8)	22.1	(0.7)	33.5	(0.8)	21.2	(1.1)	33.7	(0.7)	29.6	(0.7)	30.1	(0.7)	6.7	(0.4)	17.8	(0.7)	14.0	(0.5)	34.5	(0.9)	33.7	(1.0)
	Hong Kong (China)	10.0	(0.5)	29.9	(0.9)	52.2	(1.0)	8.0	(0.7)	16.5	(0.7)	37.4	(0.9)	39.9	(0.9)	6.2	(0.5)	4.9	(0.4)	14.6	(0.7)	39.3	(1.1)	41.2	(1.4)
	Indonesia	17.5	(0.7)	21.5	(0.6)	49.8	(0.9)	11.2	(0.8)	31.2	(0.8)	24.8	(0.8)	37.4	(0.8)	6.6	(0.4)	10.9	(0.6)	12.4	(0.6)	45.3	(0.9)	31.4	(1.0)
	Jordan	23.5	(0.8)	29.9	(0.7)	26.1	(0.7)	20.6	(1.0)	43.9	(0.9)	31.3	(0.7)	17.3	(0.5)	7.6	(0.5)	21.5	(0.7)	26.2	(0.7)	26.0	(0.6)	26.3	(0.8)
	Kosovo	13.1	(0.6)	18.3	(0.6)	36.1	(0.8)	32.6	(0.8)	30.0	(0.9)	31.9	(0.9)	29.1	(0.8)	9.0	(0.5)	9.9	(0.6)	12.0	(0.6)	32.8	(0.8)	45.3	(0.8)
	Lebanon	35.1	(1.4)	34.1	(1.2)	22.7	(1.0)	8.2	(0.8)	39.5	(1.6)	31.4	(1.0)	24.0	(1.1)	5.1	(0.4)	18.5	(0.8)	24.6	(1.0)	35.6	(1.3)	21.4	(1.2)
	Lithuania	19.1	(0.6)	27.7	(0.8)	41.2	(0.7)	12.0	(0.6)	28.8	(0.6)	36.4	(0.7)	29.1	(0.8)	5.7	(0.3)	6.7	(0.4)	8.7	(0.4)	20.3	(0.7)	64.3	(0.9)
	Macao (China)	6.8	(0.4)	20.7	(0.6)	61.9	(0.7)	10.6	(0.5)	14.3	(0.5)	33.5	(0.8)	44.1	(0.8)	8.0	(0.4)	2.7	(0.3)	6.6	(0.3)	36.0	(0.8)	54.7	(0.7)
	Malta	12.5	(0.6)	34.6	(0.8)	43.5	(0.9)	9.4	(0.5)	26.8	(0.8)	41.1	(1.0)	25.1	(0.8)	6.9	(0.4)	4.9	(0.4)	11.0	(0.6)	29.1	(0.9)	55.0	(0.8)
	Moldova	27.3	(0.8)	27.5	(0.7)	38.3	(0.8)	6.9	(0.5)	34.5	(0.8)	27.6	(0.8)	31.9	(0.9)	6.0	(0.4)	10.7	(0.5)	10.8	(0.4)	41.3	(1.0)	37.2	(0.9)
	Montenegro	12.8	(0.4)	18.4	(0.6)	29.1	(0.7)	39.7	(0.7)	17.7	(0.5)	26.6	(0.7)	35.3	(0.7)	20.4	(0.5)	10.8	(0.5)	15.3	(0.5)	23.4	(0.6)	50.4	(0.7)
	Peru	30.0	(1.0)	29.1	(0.7)	28.4	(0.8)	12.5	(0.8)	38.0	(0.7)	32.7	(0.7)	23.4	(0.7)	5.9	(0.4)	20.4	(0.8)	18.7	(0.6)	33.6	(0.7)	27.4	(0.9)
	Qatar	20.1	(0.4)	32.4	(0.6)	35.5	(0.5)	12.1	(0.3)	29.9	(0.5)	36.9	(0.5)	26.8	(0.4)	6.4	(0.2)	14.4	(0.4)	20.8	(0.4)	30.5	(0.4)	34.3	(0.5)
	Romania	15.6	(0.8)	23.4	(0.8)	45.2	(0.9)	15.8	(0.7)	25.1	(0.7)	28.2	(0.8)	36.6	(0.8)	10.0	(0.6)	11.0	(0.7)	12.4	(0.7)	36.1	(0.9)	40.5	(1.2)
	Russia	17.5	(0.7)	34.0	(0.6)	41.7	(0.8)	6.8	(0.3)	30.1	(1.0)	39.1	(0.8)	27.7	(0.8)	3.1	(0.4)	11.4	(0.6)	18.7	(0.5)	38.6	(0.7)	31.3	(0.8)
	Singapore	16.7	(0.5)	32.8	(0.7)	41.7	(0.7)	8.8	(0.4)	18.9	(0.6)	41.4	(0.7)	33.5	(0.6)	6.1	(0.3)	4.1	(0.3)	9.3	(0.3)	31.6	(0.6)	54.9	(0.7)
	Chinese Taipei	4.3	(0.3)	8.9	(0.3)	49.4	(0.9)	37.4	(0.9)	11.0	(0.4)	23.6	(0.6)	50.3	(0.7)	15.1	(0.5)	4.1	(0.3)	6.4	(0.3)	30.3	(0.7)	59.2	(0.8)
	Thailand	11.5	(0.5)	24.3	(0.7)	56.1	(0.9)	8.2	(0.5)	18.7	(0.7)	30.5	(0.7)	44.5	(0.9)	6.3	(0.3)	8.2	(0.5)	14.7	(0.6)	53.1	(0.8)	24.1	(0.9)
	Trinidad and Tobago	20.8	(0.7)	33.9	(0.8)	33.2	(0.7)	12.1	(0.6)	30.8	(0.8)	33.0	(0.9)	25.8	(0.7)	10.4	(0.5)	8.9	(0.5)	15.4	(0.6)	32.9	(0.9)	42.9	(0.7)
	Tunisia	26.4	(0.8)	31.0	(0.8)	33.4	(0.9)	9.2	(0.6)	34.5	(0.8)	30.6	(0.7)	27.9	(0.8)	7.0	(0.4)	14.3	(0.6)	21.7	(0.7)	32.4	(0.8)	31.6	(0.9)
	United Arab Emirates	22.4	(0.6)	31.8	(0.6)	32.7	(0.6)	13.1	(0.5)	34.3	(0.6)	33.9	(0.6)	25.0	(0.4)	6.7	(0.3)	16.1	(0.4)	21.8	(0.6)	31.6	(0.6)	30.5	(0.8)
	Uruguay	13.9	(0.6)	30.9	(0.8)	41.8	(0.8)	13.4	(0.7)	19.4	(0.5)	34.4	(0.8)	35.9	(0.8)	10.4	(0.4)	7.0	(0.4)	9.9	(0.5)	28.4	(0.8)	54.6	(1.0)
	Viet Nam	22.9	(0.7)	22.9	(0.6)	44.5	(0.9)	9.7	(1.2)	29.8	(0.8)	30.5	(0.9)	35.8	(0.9)	3.9	(0.4)	5.3	(0.5)	5.3	(0.4)	34.7	(1.1)	54.7	(1.1)
	Argentina**	13.4	(0.7)	20.5	(0.7)	39.5	(0.8)	26.6	(0.9)	21.2	(0.7)	28.7	(0.7)	32.5	(0.6)	17.5	(0.6)	8.0	(0.5)	11.4	(0.6)	25.8	(0.8)	54.9	(1.1)
	Kazakhstan**	35.9	(0.9)	35.6	(0.8)	24.3	(0.8)	4.2	(0.4)	48.8	(0.9)	36.1	(0.8)	13.3	(0.6)	1.8	(0.2)	27.2	(0.7)	28.1	(0.8)	30.1	(0.8)	14.6	(0.8)
	Malaysia**	28.2	(0.9)	31.6	(0.7)	36.1	(0.8)	4.1	(0.4)	34.7	(0.9)	31.0	(0.8)	31.3	(0.8)	3.1	(0.3)	7.4	(0.5)	14.8	(0.6)	37.5	(0.8)	40.2	(1.1)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436477

[Part 3/3]

Table II.2.26 Enquiry-based instruction in science lessons

Results based on students' reports

		Percentage of students who reported that the following things happen in their science lessons																							
		There is a class debate about investigations								The teacher clearly explains the relevance of <broad science> concepts to our lives								Students are asked to do an investigation to test ideas							
		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	5.6	(0.3)	16.4	(0.4)	38.4	(0.5)	39.7	(0.6)	22.6	(0.5)	35.3	(0.6)	31.2	(0.6)	10.9	(0.4)	9.6	(0.3)	27.4	(0.6)	46.2	(0.6)	16.7	(0.5)
	Austria	8.6	(0.5)	18.7	(0.8)	34.7	(0.9)	38.0	(1.2)	15.8	(0.6)	28.5	(0.6)	33.3	(0.7)	22.4	(0.8)	6.5	(0.5)	12.7	(0.6)	27.2	(0.8)	53.6	(1.2)
	Belgium	9.0	(0.4)	19.6	(0.5)	36.4	(0.7)	35.0	(0.8)	12.9	(0.5)	24.4	(0.5)	37.0	(0.6)	25.7	(0.6)	5.0	(0.3)	11.0	(0.4)	32.2	(0.6)	51.8	(0.8)
	Canada	9.0	(0.4)	16.1	(0.4)	33.9	(0.6)	41.0	(0.8)	28.1	(0.5)	33.9	(0.5)	27.2	(0.5)	10.9	(0.4)	11.9	(0.4)	23.9	(0.5)	37.0	(0.6)	27.2	(0.7)
	Chile	8.2	(0.5)	11.0	(0.5)	32.5	(0.7)	48.4	(1.0)	26.7	(0.8)	28.2	(0.7)	32.9	(0.8)	12.2	(0.5)	10.8	(0.5)	15.7	(0.6)	43.1	(0.7)	30.4	(0.9)
	Czech Republic	7.0	(0.5)	14.2	(0.5)	38.4	(0.7)	40.3	(0.9)	17.2	(0.6)	31.4	(0.6)	37.5	(0.8)	14.0	(0.5)	9.0	(0.5)	19.0	(0.5)	40.6	(0.7)	31.5	(0.9)
	Denmark	9.4	(0.5)	28.3	(0.8)	42.7	(0.7)	19.7	(0.8)	18.4	(0.7)	39.5	(0.7)	34.3	(0.8)	7.7	(0.5)	6.9	(0.4)	24.9	(0.8)	39.2	(0.7)	29.0	(0.7)
	Estonia	7.8	(0.4)	22.7	(0.7)	48.2	(0.9)	21.3	(0.7)	19.6	(0.6)	37.2	(0.8)	34.1	(0.8)	9.1	(0.4)	4.3	(0.3)	10.3	(0.5)	39.9	(0.8)	45.5	(0.8)
	Finland	2.8	(0.2)	9.5	(0.6)	31.4	(0.7)	56.3	(1.0)	12.7	(0.5)	35.6	(0.8)	37.1	(0.7)	14.6	(0.5)	2.6	(0.2)	10.2	(0.4)	29.8	(0.7)	57.5	(0.9)
	France	8.8	(0.4)	15.2	(0.5)	33.7	(0.7)	42.3	(0.9)	14.0	(0.5)	23.3	(0.7)	38.5	(0.6)	24.2	(0.7)	7.0	(0.3)	14.3	(0.5)	29.4	(0.7)	49.4	(0.9)
	Germany	9.1	(0.4)	28.9	(0.7)	40.0	(0.8)	22.1	(0.8)	10.2	(0.5)	27.3	(0.7)	39.9	(0.8)	22.7	(0.8)	6.3	(0.4)	22.4	(0.7)	41.5	(0.9)	29.8	(0.9)
	Greece	12.5	(0.6)	17.1	(0.6)	35.5	(1.0)	34.8	(1.6)	19.4	(0.7)	28.0	(0.7)	36.8	(0.8)	15.8	(0.7)	10.9	(0.7)	17.4	(0.7)	34.0	(0.7)	37.8	(1.1)
	Hungary	8.0	(0.4)	18.1	(0.6)	33.4	(0.7)	40.5	(0.9)	22.8	(0.7)	32.8	(0.7)	29.3	(0.7)	15.1	(0.6)	9.3	(0.5)	16.7	(0.6)	34.5	(0.8)	39.4	(0.9)
	Iceland	8.4	(0.5)	19.2	(0.7)	40.9	(1.0)	31.5	(0.9)	22.1	(0.7)	33.3	(0.8)	30.9	(0.7)	13.7	(0.7)	8.4	(0.5)	17.8	(0.7)	42.1	(1.0)	31.7	(0.8)
	Ireland	3.6	(0.3)	9.6	(0.5)	31.0	(0.8)	55.8	(1.0)	22.6	(0.8)	30.9	(0.7)	32.6	(0.7)	13.8	(0.6)	7.3	(0.4)	21.8	(0.7)	44.1	(0.8)	26.7	(0.8)
	Israel	12.8	(0.6)	23.5	(0.8)	40.1	(0.8)	23.6	(0.8)	22.6	(0.7)	28.5	(0.6)	31.9	(0.7)	17.1	(0.6)	10.1	(0.7)	15.1	(0.5)	32.0	(0.8)	42.7	(1.0)
	Italy	7.4	(0.4)	16.5	(0.5)	41.3	(0.7)	34.8	(0.9)	13.1	(0.6)	26.2	(0.7)	39.5	(0.7)	21.2	(0.7)	4.8	(0.3)	9.3	(0.5)	31.3	(0.8)	54.6	(0.9)
	Japan	3.0	(0.3)	5.7	(0.4)	18.0	(0.7)	73.3	(1.0)	11.7	(0.5)	21.4	(0.6)	37.4	(0.7)	29.6	(0.9)	4.0	(0.3)	8.5	(0.5)	22.3	(0.7)	65.2	(1.1)
	Korea	3.9	(0.3)	8.9	(0.5)	27.4	(1.0)	59.8	(1.3)	13.5	(0.5)	29.6	(0.6)	38.7	(0.8)	18.2	(0.7)	4.1	(0.3)	8.7	(0.4)	29.9	(1.1)	57.3	(1.3)
	Latvia	6.5	(0.4)	17.9	(0.7)	43.2	(0.8)	32.4	(1.0)	23.1	(0.7)	36.4	(0.8)	31.8	(0.7)	8.8	(0.5)	7.5	(0.6)	20.4	(0.8)	46.7	(0.8)	25.4	(0.8)
	Luxembourg	11.1	(0.5)	22.3	(0.7)	38.3	(0.7)	28.3	(0.6)	19.5	(0.6)	29.5	(0.7)	33.4	(0.7)	17.5	(0.6)	10.2	(0.5)	17.8	(0.6)	37.3	(0.7)	34.7	(0.7)
	Mexico	15.1	(0.7)	20.5	(0.6)	39.3	(0.8)	25.1	(0.8)	35.7	(0.8)	29.4	(0.7)	28.0	(0.7)	6.9	(0.4)	24.1	(0.8)	26.5	(0.6)	37.0	(0.7)	12.3	(0.6)
	Netherlands	3.5	(0.4)	11.2	(0.5)	34.9	(0.7)	50.4	(0.9)	8.8	(0.5)	30.4	(0.7)	40.5	(0.8)	20.3	(0.6)	4.1	(0.4)	12.6	(0.6)	35.0	(0.8)	48.2	(0.9)
	New Zealand	6.1	(0.4)	15.3	(0.7)	34.6	(0.8)	44.0	(1.0)	22.3	(0.7)	34.9	(0.8)	31.4	(0.9)	11.4	(0.6)	9.2	(0.5)	27.3	(0.9)	47.0	(1.0)	16.6	(0.8)
	Norway	5.8	(0.5)	19.1	(0.6)	48.4	(0.8)	26.6	(0.8)	12.9	(0.7)	28.8	(0.7)	39.2	(0.7)	19.2	(0.7)	5.4	(0.4)	16.2	(0.6)	43.2	(0.8)	35.3	(1.0)
	Poland	7.7	(0.5)	16.4	(0.7)	40.8	(0.8)	35.1	(1.1)	16.2	(0.6)	30.9	(0.7)	37.2	(0.7)	15.7	(0.7)	5.8	(0.5)	11.2	(0.6)	35.7	(0.9)	47.3	(1.2)
	Portugal	12.9	(0.6)	20.7	(0.6)	44.0	(0.9)	22.4	(0.8)	28.7	(0.8)	32.1	(0.7)	31.1	(0.9)	8.2	(0.5)	11.8	(0.6)	16.4	(0.7)	39.3	(0.8)	32.5	(0.9)
	Slovak Republic	8.0	(0.5)	12.5	(0.5)	32.7	(0.8)	46.8	(1.1)	20.6	(0.7)	30.5	(0.7)	32.3	(0.7)	16.7	(0.6)	7.2	(0.5)	10.2	(0.5)	26.9	(0.8)	55.7	(1.0)
	Slovenia	13.2	(0.7)	27.5	(1.1)	38.5	(1.3)	20.8	(1.1)	17.1	(1.0)	29.5	(1.2)	36.3	(1.2)	17.0	(0.9)	9.3	(0.7)	18.8	(1.0)	37.6	(1.2)	34.3	(1.2)
	Spain	5.5	(0.3)	11.7	(0.5)	34.8	(0.7)	47.9	(0.9)	20.1	(0.7)	30.1	(0.6)	34.6	(0.7)	15.2	(0.7)	6.6	(0.4)	15.6	(0.6)	40.5	(0.8)	37.3	(1.0)
	Sweden	9.3	(0.5)	26.3	(0.8)	46.3	(0.9)	18.2	(0.9)	18.5	(0.7)	35.6	(0.8)	34.3	(0.8)	11.6	(0.6)	7.7	(0.5)	19.7	(0.6)	39.1	(0.9)	33.5	(1.1)
	Switzerland	13.3	(0.6)	27.3	(0.8)	38.1	(0.8)	21.3	(0.9)	17.8	(0.8)	30.5	(0.7)	34.4	(0.8)	17.3	(0.7)	8.2	(0.5)	19.3	(0.8)	35.1	(0.8)	37.4	(1.2)
	Turkey	20.6	(0.8)	23.1	(0.7)	34.0	(0.7)	22.2	(0.8)	26.6	(0.7)	28.8	(0.8)	31.9	(0.8)	12.7	(0.7)	18.2	(0.8)	18.8	(0.7)	32.8	(0.7)	30.1	(0.9)
	United Kingdom	4.4	(0.3)	10.2	(0.4)	32.7	(0.8)	52.7	(1.0)	18.3	(0.6)	29.7	(0.6)	34.9	(0.8)	17.1	(0.6)	7.5	(0.4)	22.2	(0.7)	50.9	(0.9)	19.4	(0.7)
	United States	11.5	(0.7)	17.7	(0.7)	32.5	(0.8)	38.3	(1.2)	24.7	(0.7)	30.0	(0.6)	32.0	(0.7)	13.4	(0.5)	17.0	(0.8)	26.1	(0.7)	36.7	(0.8)	20.1	(0.7)
	OECD average	8.6	(0.1)	17.7	(0.1)	36.9	(0.1)	36.9	(0.2)	19.3	(0.1)	30.6	(0.1)	34.4	(0.1)	15.7	(0.1)	8.5	(0.1)	17.3	(0.1)	37.1	(0.1)	37.1	(0.2)
Partners	**Albania**	9.5	(0.6)	16.1	(0.6)	40.2	(0.8)	34.2	(1.0)	11.9	(0.7)	22.7	(0.7)	41.7	(0.9)	23.7	(0.9)	40.0	(1.1)	26.6	(0.9)	24.2	(0.7)	9.2	(0.5)
	Algeria	17.4	(0.7)	20.7	(0.6)	33.6	(0.8)	28.4	(0.8)	40.9	(0.7)	23.8	(0.6)	23.7	(0.7)	11.6	(0.5)	30.9	(0.7)	25.6	(0.7)	26.7	(0.7)	16.8	(0.6)
	Brazil	11.7	(0.4)	17.1	(0.5)	33.3	(0.5)	37.8	(0.6)	30.0	(0.6)	31.4	(0.5)	28.7	(0.4)	9.9	(0.4)	15.4	(0.5)	25.1	(0.5)	40.4	(0.6)	19.0	(0.6)
	B-S-J-G (China)	4.8	(0.4)	6.9	(0.4)	33.0	(1.0)	55.3	(1.2)	12.6	(0.6)	23.7	(0.6)	40.1	(0.7)	23.7	(0.8)	6.2	(0.5)	10.7	(0.5)	36.4	(0.8)	46.8	(1.2)
	Bulgaria	18.2	(0.8)	24.8	(0.9)	32.4	(0.7)	24.6	(1.2)	25.9	(0.8)	34.0	(0.7)	29.5	(0.8)	10.6	(0.5)	12.3	(0.7)	19.2	(0.7)	32.3	(0.6)	36.2	(1.1)
	CABA (Argentina)	7.3	(0.7)	19.5	(1.2)	43.4	(1.5)	29.9	(1.6)	22.0	(1.2)	30.5	(1.3)	33.8	(1.3)	13.6	(1.2)	8.4	(0.8)	24.6	(1.4)	41.0	(1.7)	26.0	(1.7)
	Colombia	13.6	(0.6)	19.0	(0.6)	39.1	(0.5)	28.3	(0.8)	34.0	(0.8)	30.5	(0.7)	28.7	(0.6)	6.8	(0.4)	21.1	(0.8)	27.5	(0.6)	36.7	(0.6)	14.7	(0.7)
	Costa Rica	7.1	(0.4)	9.4	(0.5)	25.5	(0.6)	58.0	(0.8)	37.3	(0.8)	28.8	(0.6)	24.6	(0.6)	9.3	(0.5)	12.8	(0.5)	16.9	(0.6)	35.1	(0.8)	35.2	(1.0)
	Croatia	9.0	(0.4)	15.7	(0.6)	40.3	(0.7)	35.0	(0.7)	18.6	(0.6)	30.4	(0.6)	36.3	(0.7)	14.8	(0.6)	7.7	(0.4)	12.0	(0.5)	37.5	(0.8)	42.8	(0.8)
	Cyprus*	19.9	(0.6)	29.9	(0.8)	34.8	(0.8)	15.3	(0.5)	22.4	(0.7)	34.0	(0.7)	33.9	(0.8)	9.8	(0.5)	13.5	(0.5)	22.8	(0.6)	39.1	(0.7)	24.7	(0.5)
	Dominican Republic	35.6	(1.3)	25.3	(0.9)	27.3	(1.0)	11.8	(0.8)	46.9	(1.1)	25.6	(0.8)	20.8	(0.8)	6.6	(0.5)	41.2	(1.1)	25.1	(0.7)	24.5	(0.8)	9.2	(0.6)
	FYROM	11.3	(0.5)	20.3	(0.7)	49.1	(0.7)	19.4	(0.7)	30.2	(0.8)	30.0	(0.7)	30.4	(0.7)	9.5	(0.4)	14.4	(0.5)	24.1	(0.6)	43.3	(0.7)	18.2	(0.6)
	Georgia	19.8	(0.9)	23.1	(0.7)	40.7	(0.8)	16.5	(0.7)	39.5	(0.8)	27.2	(0.7)	26.2	(0.7)	7.1	(0.4)	23.6	(0.9)	21.8	(0.6)	35.2	(0.7)	19.4	(0.7)
	Hong Kong (China)	6.0	(0.4)	16.6	(0.7)	37.6	(1.0)	39.7	(1.3)	13.8	(0.7)	34.2	(1.0)	43.1	(0.9)	8.8	(0.6)	8.2	(0.6)	25.8	(0.8)	48.5	(0.9)	17.5	(0.9)
	Indonesia	5.9	(0.5)	8.8	(0.5)	34.5	(0.9)	50.8	(1.1)	41.3	(0.8)	29.5	(0.7)	24.9	(0.7)	4.3	(0.3)	13.8	(0.7)	16.6	(0.6)	45.5	(0.9)	24.2	(1.0)
	Jordan	24.9	(0.8)	28.6	(0.6)	29.8	(0.7)	16.7	(0.7)	46.6	(0.9)	29.9	(0.8)	17.5	(0.6)	6.0	(0.4)	22.9	(0.7)	29.8	(0.7)	27.8	(0.7)	19.5	(0.7)
	Kosovo	12.3	(0.6)	16.5	(0.7)	42.0	(0.9)	29.2	(0.8)	35.4	(0.9)	26.2	(0.8)	26.9	(0.8)	11.4	(0.5)	22.0	(0.9)	23.3	(0.7)	37.9	(0.8)	16.8	(0.6)
	Lebanon	16.0	(1.0)	26.3	(0.9)	38.4	(1.2)	19.2	(1.3)	39.1	(1.2)	30.8	(1.0)	23.4	(0.8)	6.7	(0.5)	17.8	(1.0)	26.3	(0.9)	36.1	(1.1)	19.8	(1.4)
	Lithuania	8.3	(0.4)	11.3	(0.5)	28.8	(0.7)	51.6	(0.9)	24.6	(0.7)	31.5	(0.7)	32.6	(0.8)	11.3	(0.5)	11.2	(0.4)	16.9	(0.6)	39.3	(0.8)	32.6	(0.9)
	Macao (China)	2.8	(0.3)	7.0	(0.4)	40.1	(0.6)	50.0	(0.7)	10.9	(0.5)	29.9	(0.8)	49.0	(0.9)	10.1	(0.5)	3.2	(0.3)	9.3	(0.4)	42.2	(0.7)	45.3	(0.8)
	Malta	6.0	(0.4)	15.3	(0.7)	37.2	(0.7)	41.4	(0.8)	23.1	(0.7)	35.3	(0.8)	30.2	(0.7)	11.3	(0.5)	6.6	(0.4)	19.4	(0.7)	42.3	(0.8)	31.8	(0.7)
	Moldova	11.5	(0.6)	19.7	(0.7)	49.6	(0.9)	19.2	(0.7)	46.9	(0.9)	26.9	(0.8)	22.6	(0.8)	3.5	(0.3)	18.6	(0.7)	24.9	(0.7)	46.1	(0.8)	10.4	(0.5)
	Montenegro	11.9	(0.5)	19.6	(0.6)	34.5	(0.7)	34.0	(0.7)	19.6	(0.6)	26.1	(0.7)	34.0	(0.7)	20.3	(0.7)	13.9	(0.5)	19.4	(0.6)	31.1	(0.7)	35.6	(0.7)
	Peru	21.0	(0.6)	22.3	(0.6)	38.3	(0.6)	18.4	(0.6)	37.4	(0.7)	31.4	(0.6)	25.2	(0.7)	6.0	(0.4)	26.9	(0.7)	29.1	(0.6)	34.8	(0.7)	9.2	(0.5)
	Qatar	16.8	(0.4)	23.1	(0.4)	33.1	(0.5)	26.9	(0.4)	30.5	(0.5)	33.9	(0.5)	26.9	(0.5)	8.6	(0.3)	17.6	(0.4)	24.7	(0.5)	34.5	(0.5)	23.3	(0.4)
	Romania	10.8	(0.6)	15.6	(0.7)	43.6	(0.9)	30.0	(0.8)	24.7	(0.8)	26.4	(0.7)	36.9	(0.9)	12.0	(0.5)	13.0	(0.7)	18.2	(0.6)	42.4	(0.9)	26.4	(0.8)
	Russia	15.4	(0.6)	25.3	(0.8)	41.5	(0.7)	17.8	(0.7)	31.7	(1.0)	35.3	(0.7)	27.2	(0.8)	5.8	(0.4)	12.6	(0.6)	20.5	(1.0)	39.7	(0.9)	27.2	(1.0)
	Singapore	4.2	(0.2)	10.9	(0.5)	33.2	(0.7)	51.7	(0.6)	14.5	(0.5)	32.8	(0.6)	38.9	(0.7)	13.9	(0.5)	6.0	(0.3)	19.0	(0.7)	43.6	(0.7)	31.4	(0.7)
	Chinese Taipei	4.7	(0.3)	8.2	(0.4)	35.3	(0.6)	51.7	(0.7)	12.5	(0.4)	22.6	(0.6)	47.4	(0.7)	17.6	(0.5)	4.9	(0.3)	9.1	(0.4)	40.5	(0.8)	45.6	(0.8)
	Thailand	11.8	(0.5)	22.6	(0.7)	55.6	(0.8)	10.0	(0.5)	7.3	(0.4)	16.9	(0.6)	54.3	(0.7)	21.5	(0.6)	9.8	(0.5)	20.6	(0.7)	58.1	(0.9)	11.5	(0.5)
	Trinidad and Tobago	6.6	(0.4)	14.4	(0.6)	33.4	(0.8)	45.6	(0.8)	26.8	(0.8)	27.9	(0.8)	31.8	(0.8)	13.5	(0.5)	14.2	(0.6)	25.4	(0.7)	37.1	(0.8)	23.2	(0.6)
	Tunisia	21.7	(0.7)	28.3	(0.8)	38.4	(0.8)	11.6	(0.6)	33.5	(0.8)	30.2	(0.6)	28.5	(0.7)	7.8	(0.5)	17.4	(0.6)	22.4	(0.6)	36.0	(0.9)	24.3	(0.7)
	United Arab Emirates	15.9	(0.5)	21.7	(0.6)	32.0	(0.5)	30.4	(0.8)	32.7	(0.6)	32.1	(0.5)	26.3	(0.5)	8.9	(0.4)	19.8	(0.5)	25.9	(0.6)	33.8	(0.6)	20.5	(0.6)
	Uruguay	7.1	(0.3)	11.8	(0.5)	37.7	(0.7)	43.4	(0.8)	14.0	(0.5)	23.5	(0.7)	40.6	(0.7)	21.8	(0.6)	10.6	(0.5)	20.9	(0.6)	44.9	(0.8)	23.6	(0.7)
	Viet Nam	11.8	(0.7)	13.3	(0.5)	52.5	(0.8)	22.3	(0.9)	34.0	(0.8)	32.5	(0.7)	29.6	(0.8)	3.9	(0.3)	5.6	(0.5)	6.4	(0.4)	45.8	(1.1)	42.2	(1.2)
	Argentina**	15.1	(0.7)	21.2	(0.6)	37.9	(0.8)	25.8	(0.9)	29.5	(0.8)	28.6	(0.6)	29.6	(0.7)	12.3	(0.5)	17.8	(0.7)	26.6	(0.6)	36.1	(0.7)	19.5	(0.6)
	Kazakhstan**	35.3	(1.0)	38.3	(0.7)	23.4	(0.8)	3.0	(0.3)	45.6	(0.9)	36.7	(0.9)	15.5	(0.6)	2.2	(0.2)	24.1	(0.7)	29.2	(0.8)	36.1	(0.9)	10.6	(0.6)
	Malaysia**	7.6	(0.5)	16.5	(0.6)	41.1	(0.7)	34.8	(0.9)	34.8	(0.9)	30.1	(0.7)	31.5	(0.8)	3.6	(0.4)	18.2	(0.6)	26.5	(0.7)	42.3	(0.8)	13.0	(0.6)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink `http://dx.doi.org/10.1787/888933436477`

[Part 1/3]

Table II.2.27 Index of enquiry-based instruction, by student and school characteristics

Results based on students' reports

		All students				By school socio-economic profile[1]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.18	(0.01)	0.84	(0.01)	0.20	(0.03)	0.12	(0.03)	0.17	(0.02)	0.22	(0.02)	0.02	(0.04)
	Austria	-0.28	(0.03)	1.09	(0.02)	-0.26	(0.05)	-0.31	(0.10)	-0.35	(0.09)	-0.20	(0.05)	0.06	(0.07)
	Belgium	-0.21	(0.02)	0.98	(0.01)	-0.12	(0.05)	-0.28	(0.04)	-0.16	(0.04)	-0.25	(0.03)	**-0.14**	(0.06)
	Canada	0.27	(0.01)	0.97	(0.01)	0.28	(0.03)	0.27	(0.04)	0.31	(0.04)	0.24	(0.03)	-0.05	(0.05)
	Chile	0.10	(0.02)	0.99	(0.02)	0.25	(0.05)	0.11	(0.05)	0.09	(0.04)	-0.02	(0.04)	**-0.27**	(0.06)
	Czech Republic	-0.05	(0.02)	0.94	(0.02)	-0.04	(0.05)	-0.02	(0.04)	-0.08	(0.05)	-0.04	(0.04)	0.01	(0.06)
	Denmark	0.36	(0.02)	0.74	(0.02)	0.28	(0.04)	0.37	(0.03)	0.37	(0.04)	0.40	(0.03)	**0.11**	(0.05)
	Estonia	-0.07	(0.02)	0.83	(0.02)	-0.07	(0.04)	-0.01	(0.05)	-0.06	(0.03)	-0.14	(0.03)	-0.06	(0.05)
	Finland	-0.30	(0.02)	0.86	(0.02)	-0.40	(0.03)	-0.37	(0.04)	-0.27	(0.04)	-0.18	(0.04)	**0.22**	(0.06)
	France	0.15	(0.02)	0.90	(0.01)	0.06	(0.05)	0.16	(0.03)	0.16	(0.04)	0.21	(0.03)	**0.15**	(0.06)
	Germany	0.06	(0.02)	0.88	(0.02)	-0.06	(0.04)	0.03	(0.04)	0.09	(0.03)	0.13	(0.03)	**0.19**	(0.05)
	Greece	-0.07	(0.03)	1.04	(0.02)	0.17	(0.07)	-0.07	(0.05)	-0.20	(0.04)	-0.17	(0.05)	**-0.34**	(0.09)
	Hungary	-0.21	(0.02)	1.01	(0.02)	-0.12	(0.05)	-0.30	(0.05)	-0.26	(0.04)	-0.17	(0.04)	-0.05	(0.05)
	Iceland	-0.15	(0.02)	1.07	(0.02)	-0.24	(0.04)	-0.14	(0.04)	-0.18	(0.04)	-0.02	(0.04)	**0.22**	(0.06)
	Ireland	0.01	(0.02)	0.80	(0.01)	0.03	(0.04)	-0.03	(0.03)	0.02	(0.05)	0.02	(0.03)	-0.01	(0.05)
	Israel	0.05	(0.03)	1.12	(0.02)	0.28	(0.08)	0.02	(0.07)	-0.02	(0.07)	-0.09	(0.05)	**-0.37**	(0.09)
	Italy	-0.20	(0.02)	0.92	(0.01)	0.01	(0.05)	-0.18	(0.04)	-0.28	(0.05)	-0.32	(0.03)	**-0.33**	(0.06)
	Japan	-0.64	(0.03)	1.09	(0.02)	-0.79	(0.08)	-0.66	(0.07)	-0.53	(0.06)	-0.58	(0.06)	**0.21**	(0.10)
	Korea	-0.61	(0.03)	1.16	(0.02)	-0.60	(0.07)	-0.51	(0.07)	-0.74	(0.09)	-0.61	(0.08)	-0.01	(0.12)
	Latvia	0.13	(0.01)	0.76	(0.02)	0.20	(0.04)	0.13	(0.04)	0.11	(0.03)	0.08	(0.03)	**-0.13**	(0.05)
	Luxembourg	0.12	(0.01)	1.02	(0.02)	0.15	(0.03)	0.22	(0.03)	0.05	(0.03)	0.08	(0.02)	-0.07	(0.04)
	Mexico	0.51	(0.02)	0.97	(0.02)	0.59	(0.05)	0.59	(0.05)	0.42	(0.04)	0.43	(0.05)	**-0.16**	(0.07)
	Netherlands	-0.25	(0.02)	0.95	(0.02)	-0.26	(0.06)	-0.26	(0.04)	-0.29	(0.04)	-0.19	(0.04)	0.07	(0.07)
	New Zealand	0.16	(0.02)	0.86	(0.02)	0.29	(0.05)	0.15	(0.05)	0.14	(0.05)	0.08	(0.03)	**-0.21**	(0.06)
	Norway	-0.03	(0.02)	0.91	(0.02)	-0.03	(0.05)	-0.05	(0.05)	0.00	(0.04)	-0.02	(0.04)	0.02	(0.06)
	Poland	-0.07	(0.02)	0.95	(0.02)	0.04	(0.05)	-0.01	(0.05)	-0.10	(0.04)	-0.22	(0.05)	**-0.26**	(0.06)
	Portugal	0.32	(0.02)	1.02	(0.02)	0.38	(0.04)	0.30	(0.04)	0.29	(0.06)	0.29	(0.05)	-0.09	(0.06)
	Slovak Republic	-0.24	(0.03)	1.11	(0.02)	-0.11	(0.07)	-0.27	(0.05)	-0.34	(0.07)	-0.21	(0.05)	-0.10	(0.09)
	Slovenia	0.20	(0.02)	1.03	(0.02)	0.24	(0.06)	0.19	(0.05)	0.07	(0.04)	0.29	(0.04)	0.04	(0.07)
	Spain	-0.25	(0.02)	0.95	(0.02)	-0.26	(0.04)	-0.21	(0.04)	-0.25	(0.06)	-0.28	(0.05)	-0.02	(0.06)
	Sweden	0.31	(0.02)	0.97	(0.02)	0.24	(0.05)	0.33	(0.05)	0.28	(0.05)	0.37	(0.06)	0.13	(0.07)
	Switzerland	0.15	(0.02)	0.95	(0.02)	0.21	(0.05)	0.15	(0.05)	0.12	(0.06)	0.13	(0.03)	-0.07	(0.06)
	Turkey	0.32	(0.02)	1.17	(0.02)	0.45	(0.06)	0.44	(0.07)	0.22	(0.06)	0.19	(0.04)	**-0.26**	(0.07)
	United Kingdom	-0.01	(0.01)	0.84	(0.01)	0.00	(0.04)	0.04	(0.04)	-0.06	(0.03)	0.00	(0.03)	0.00	(0.04)
	United States	0.34	(0.03)	1.04	(0.02)	0.48	(0.06)	0.31	(0.04)	0.32	(0.05)	0.25	(0.04)	**-0.23**	(0.07)
	OECD average	0.00	(0.00)	0.96	(0.00)	0.04	(0.01)	0.01	(0.01)	-0.03	(0.01)	-0.01	(0.01)	**-0.05**	(0.01)
Partners	**Albania**	0.45	(0.02)	0.67	(0.01)	0.40	(0.03)	0.40	(0.03)	0.51	(0.05)	0.50	(0.03)	**0.10**	(0.04)
	Algeria	0.57	(0.01)	0.84	(0.02)	0.56	(0.03)	0.64	(0.04)	0.59	(0.03)	0.49	(0.04)	-0.07	(0.05)
	Brazil	0.04	(0.01)	1.04	(0.01)	0.14	(0.04)	0.01	(0.03)	-0.03	(0.03)	0.06	(0.03)	-0.08	(0.05)
	B-S-J-G (China)	-0.28	(0.03)	1.10	(0.02)	-0.55	(0.06)	-0.35	(0.08)	-0.16	(0.08)	-0.08	(0.06)	**0.47**	(0.09)
	Bulgaria	0.19	(0.03)	1.11	(0.02)	0.55	(0.07)	0.29	(0.06)	0.08	(0.07)	-0.05	(0.04)	**-0.60**	(0.08)
	CABA (Argentina)	-0.10	(0.04)	0.77	(0.03)	-0.12	(0.10)	-0.11	(0.06)	-0.03	(0.09)	-0.16	(0.08)	-0.04	(0.13)
	Colombia	0.24	(0.02)	0.90	(0.02)	0.23	(0.04)	0.27	(0.04)	0.25	(0.04)	0.19	(0.04)	-0.04	(0.06)
	Costa Rica	-0.11	(0.02)	1.03	(0.02)	-0.09	(0.05)	-0.04	(0.04)	-0.18	(0.05)	-0.14	(0.05)	-0.06	(0.07)
	Croatia	-0.19	(0.02)	1.08	(0.02)	-0.09	(0.05)	-0.15	(0.05)	-0.28	(0.05)	-0.25	(0.04)	**-0.16**	(0.06)
	Cyprus*	0.43	(0.01)	1.00	(0.02)	0.57	(0.03)	0.43	(0.03)	0.39	(0.03)	0.32	(0.03)	**-0.25**	(0.05)
	Dominican Republic	0.78	(0.03)	0.95	(0.02)	0.85	(0.07)	0.81	(0.05)	0.82	(0.04)	0.67	(0.06)	**-0.19**	(0.08)
	FYROM	0.18	(0.02)	0.94	(0.02)	0.32	(0.03)	0.17	(0.03)	0.16	(0.03)	0.09	(0.02)	**-0.22**	(0.04)
	Georgia	0.52	(0.02)	0.84	(0.01)	0.67	(0.04)	0.59	(0.03)	0.48	(0.04)	0.35	(0.04)	**-0.31**	(0.06)
	Hong Kong (China)	0.10	(0.02)	0.98	(0.03)	0.12	(0.04)	0.15	(0.04)	0.09	(0.05)	0.04	(0.05)	-0.07	(0.07)
	Indonesia	0.26	(0.02)	0.72	(0.01)	0.24	(0.04)	0.21	(0.04)	0.27	(0.03)	0.31	(0.03)	0.07	(0.05)
	Jordan	0.62	(0.02)	1.01	(0.02)	0.60	(0.05)	0.72	(0.04)	0.55	(0.04)	0.60	(0.05)	0.01	(0.08)
	Kosovo	0.35	(0.01)	0.79	(0.02)	0.40	(0.04)	0.35	(0.03)	0.32	(0.03)	0.31	(0.03)	-0.08	(0.05)
	Lebanon	0.61	(0.02)	0.73	(0.02)	0.65	(0.07)	0.66	(0.05)	0.65	(0.04)	0.49	(0.04)	**-0.16**	(0.08)
	Lithuania	0.17	(0.01)	0.97	(0.02)	0.25	(0.03)	0.17	(0.03)	0.15	(0.04)	0.13	(0.03)	**-0.12**	(0.05)
	Macao (China)	-0.16	(0.01)	0.79	(0.02)	-0.22	(0.03)	-0.14	(0.02)	-0.14	(0.02)	-0.14	(0.03)	**0.08**	(0.04)
	Malta	0.13	(0.01)	0.82	(0.02)	0.08	(0.04)	0.06	(0.02)	0.15	(0.03)	0.22	(0.02)	**0.14**	(0.05)
	Moldova	0.51	(0.01)	0.63	(0.01)	0.53	(0.03)	0.53	(0.03)	0.50	(0.03)	0.50	(0.02)	-0.03	(0.03)
	Montenegro	-0.12	(0.02)	1.34	(0.02)	0.25	(0.04)	0.03	(0.04)	-0.11	(0.04)	-0.57	(0.04)	**-0.83**	(0.05)
	Peru	0.69	(0.02)	0.97	(0.01)	0.86	(0.04)	0.79	(0.04)	0.69	(0.04)	0.48	(0.05)	**-0.38**	(0.06)
	Qatar	0.47	(0.01)	1.13	(0.01)	0.65	(0.03)	0.47	(0.02)	0.58	(0.02)	0.21	(0.02)	**-0.44**	(0.03)
	Romania	0.19	(0.02)	0.75	(0.02)	0.22	(0.04)	0.21	(0.05)	0.18	(0.05)	0.15	(0.03)	-0.07	(0.04)
	Russia	0.50	(0.02)	0.93	(0.01)	0.62	(0.04)	0.48	(0.05)	0.49	(0.05)	0.40	(0.05)	**-0.22**	(0.06)
	Singapore	0.01	(0.01)	0.85	(0.01)	-0.08	(0.02)	-0.10	(0.03)	0.03	(0.03)	0.17	(0.02)	**0.24**	(0.03)
	Chinese Taipei	-0.45	(0.02)	1.11	(0.01)	-0.46	(0.04)	-0.45	(0.04)	-0.48	(0.04)	-0.42	(0.04)	0.05	(0.06)
	Thailand	0.13	(0.02)	0.91	(0.02)	0.20	(0.03)	0.21	(0.04)	0.10	(0.04)	0.04	(0.03)	**-0.15**	(0.05)
	Trinidad and Tobago	0.20	(0.01)	0.88	(0.02)	0.18	(0.03)	0.19	(0.03)	0.21	(0.03)	0.20	(0.02)	0.02	(0.04)
	Tunisia	0.55	(0.02)	0.93	(0.02)	0.58	(0.03)	0.66	(0.03)	0.55	(0.04)	0.41	(0.04)	**-0.16**	(0.04)
	United Arab Emirates	0.48	(0.02)	1.13	(0.01)	0.65	(0.03)	0.60	(0.04)	0.43	(0.04)	0.25	(0.04)	**-0.40**	(0.05)
	Uruguay	0.01	(0.01)	0.99	(0.02)	0.10	(0.04)	0.08	(0.04)	-0.05	(0.04)	-0.04	(0.03)	**-0.14**	(0.06)
	Viet Nam	0.20	(0.02)	0.68	(0.02)	0.29	(0.04)	0.15	(0.06)	0.20	(0.04)	0.16	(0.04)	**-0.13**	(0.05)
	Argentina**	0.10	(0.02)	0.92	(0.02)	0.16	(0.06)	0.09	(0.05)	0.08	(0.04)	0.06	(0.05)	-0.10	(0.09)
	Kazakhstan**	0.98	(0.02)	0.79	(0.02)	0.99	(0.04)	0.96	(0.04)	0.97	(0.04)	1.00	(0.05)	0.02	(0.06)
	Malaysia**	0.38	(0.02)	0.80	(0.02)	0.47	(0.04)	0.37	(0.04)	0.41	(0.02)	0.28	(0.04)	**-0.19**	(0.06)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/3]

Table II.2.27 Index of enquiry-based instruction, by student and school characteristics

Results based on students' reports

		By school location								By type of school						By education level					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	0.18	(0.07)	0.17	(0.02)	0.19	(0.02)	0.01	(0.07)	0.18	(0.02)	0.20	(0.02)	0.03	(0.03)	0.17	(0.01)	0.26	(0.03)	**0.09**	(0.03)
	Austria	-0.28	(0.19)	-0.30	(0.03)	-0.25	(0.05)	0.03	(0.20)	-0.30	(0.03)	-0.20	(0.09)	0.10	(0.09)	-0.09	(0.15)	-0.29	(0.03)	-0.20	(0.15)
	Belgium	-0.20	(0.09)	-0.23	(0.02)	-0.17	(0.04)	0.03	(0.09)	w	w	w	w	w	w	0.16	(0.07)	-0.23	(0.02)	**-0.39**	(0.07)
	Canada	0.29	(0.08)	0.28	(0.03)	0.27	(0.02)	-0.02	(0.08)	0.28	(0.02)	0.18	(0.05)	**-0.11**	(0.05)	0.27	(0.03)	0.27	(0.02)	0.01	(0.04)
	Chile	-0.01	(0.18)	0.21	(0.04)	0.05	(0.03)	0.06	(0.18)	0.16	(0.04)	0.07	(0.03)	-0.09	(0.05)	0.52	(0.12)	0.08	(0.02)	**-0.44**	(0.12)
	Czech Republic	0.04	(0.08)	-0.03	(0.02)	-0.13	(0.03)	-0.17	(0.09)	-0.04	(0.02)	-0.10	(0.06)	-0.06	(0.06)	0.02	(0.03)	-0.13	(0.03)	**-0.15**	(0.04)
	Denmark	0.36	(0.04)	0.34	(0.02)	0.39	(0.03)	0.04	(0.05)	0.33	(0.02)	0.43	(0.04)	**0.10**	(0.04)	0.35	(0.02)	c	c	c	c
	Estonia	-0.06	(0.05)	-0.04	(0.02)	-0.13	(0.02)	-0.07	(0.05)	-0.07	(0.02)	0.07	(0.08)	0.15	(0.09)	-0.07	(0.02)	-0.11	(0.11)	-0.04	(0.11)
	Finland	-0.39	(0.07)	-0.32	(0.02)	-0.24	(0.03)	**0.16**	(0.07)	-0.31	(0.02)	-0.21	(0.07)	0.10	(0.08)	-0.30	(0.02)	c	c	c	c
	France	0.31	(0.07)	0.15	(0.02)	0.14	(0.04)	**-0.17**	(0.08)	0.15	(0.02)	0.15	(0.04)	0.00	(0.04)	0.15	(0.05)	0.16	(0.02)	0.01	(0.05)
	Germany	0.09	(0.06)	0.04	(0.02)	0.10	(0.04)	0.01	(0.07)	0.05	(0.02)	0.11	(0.07)	0.06	(0.07)	0.06	(0.02)	0.03	(0.08)	-0.03	(0.07)
	Greece	0.19	(0.12)	-0.07	(0.04)	-0.14	(0.04)	**-0.33**	(0.12)	-0.08	(0.03)	0.08	(0.08)	0.16	(0.08)	0.52	(0.12)	-0.10	(0.03)	**-0.62**	(0.13)
	Hungary	0.00	(0.15)	-0.23	(0.02)	-0.22	(0.03)	-0.22	(0.15)	-0.24	(0.02)	-0.10	(0.05)	**0.14**	(0.05)	0.09	(0.07)	-0.25	(0.02)	**-0.34**	(0.07)
	Iceland	-0.13	(0.04)	-0.16	(0.03)	-0.14	(0.04)	-0.01	(0.06)	-0.15	(0.02)	c	c	c	c	-0.15	(0.02)	m	m	m	m
	Ireland	-0.06	(0.04)	0.02	(0.03)	0.04	(0.03)	**0.10**	(0.05)	0.03	(0.03)	-0.01	(0.02)	-0.03	(0.04)	0.02	(0.02)	-0.01	(0.03)	-0.03	(0.03)
	Israel	0.15	(0.11)	0.16	(0.04)	-0.14	(0.05)	**-0.29**	(0.12)	m	m	m	m	m	m	0.23	(0.05)	0.02	(0.03)	**-0.21**	(0.05)
	Italy	0.02	(0.10)	-0.21	(0.03)	-0.24	(0.04)	**-0.26**	(0.10)	-0.22	(0.02)	-0.14	(0.08)	0.08	(0.08)	0.44	(0.12)	-0.20	(0.02)	**-0.65**	(0.12)
	Japan	c	c	-0.59	(0.07)	-0.66	(0.04)	c	c	-0.58	(0.04)	-0.76	(0.06)	**-0.19**	(0.07)	m	m	-0.64	(0.03)	m	m
	Korea	c	c	-0.64	(0.07)	-0.60	(0.03)	c	c	-0.57	(0.03)	-0.69	(0.04)	**-0.12**	(0.06)	-0.05	(0.07)	-0.67	(0.03)	**-0.63**	(0.07)
	Latvia	0.23	(0.05)	0.13	(0.02)	0.07	(0.02)	**-0.16**	(0.05)	0.13	(0.01)	0.05	(0.19)	-0.08	(0.18)	0.13	(0.02)	0.10	(0.06)	-0.03	(0.06)
	Luxembourg	m	m	0.13	(0.02)	0.11	(0.02)	m	m	0.11	(0.01)	0.16	(0.03)	0.05	(0.03)	0.16	(0.02)	0.07	(0.02)	**-0.10**	(0.03)
	Mexico	0.60	(0.05)	0.55	(0.03)	0.44	(0.03)	**-0.17**	(0.06)	0.52	(0.02)	0.42	(0.07)	-0.10	(0.07)	0.63	(0.03)	0.43	(0.03)	**-0.19**	(0.04)
	Netherlands	c	c	-0.27	(0.02)	-0.22	(0.06)	c	c	-0.23	(0.03)	-0.29	(0.03)	-0.05	(0.05)	-0.27	(0.02)	-0.21	(0.02)	**0.06**	(0.03)
	New Zealand	0.34	(0.05)	0.19	(0.03)	0.12	(0.02)	**-0.22**	(0.06)	0.14	(0.02)	0.20	(0.06)	0.06	(0.06)	0.22	(0.06)	0.16	(0.02)	-0.07	(0.06)
	Norway	-0.05	(0.05)	-0.03	(0.03)	0.01	(0.05)	0.06	(0.07)	-0.03	(0.02)	0.15	(0.11)	0.18	(0.10)	-0.02	(0.02)	c	c	c	c
	Poland	0.05	(0.04)	-0.07	(0.04)	-0.24	(0.05)	**-0.29**	(0.06)	-0.07	(0.02)	-0.31	(0.09)	**-0.24**	(0.10)	-0.08	(0.02)	c	c	c	c
	Portugal	0.54	(0.10)	0.31	(0.02)	0.35	(0.06)	-0.19	(0.11)	0.32	(0.02)	0.47	(0.14)	0.15	(0.14)	0.36	(0.03)	0.28	(0.03)	**-0.08**	(0.04)
	Slovak Republic	0.01	(0.05)	-0.26	(0.03)	-0.47	(0.06)	**-0.48**	(0.09)	-0.24	(0.03)	-0.26	(0.06)	-0.02	(0.06)	-0.05	(0.04)	-0.41	(0.03)	**-0.36**	(0.05)
	Slovenia	0.48	(0.12)	0.21	(0.03)	0.15	(0.04)	**-0.32**	(0.12)	0.20	(0.02)	-0.01	(0.16)	-0.22	(0.17)	0.32	(0.12)	0.19	(0.02)	-0.14	(0.11)
	Spain	-0.19	(0.11)	-0.22	(0.03)	-0.29	(0.03)	-0.10	(0.11)	-0.26	(0.03)	-0.22	(0.03)	0.04	(0.04)	-0.25	(0.02)	c	c	c	c
	Sweden	0.35	(0.06)	0.31	(0.03)	0.28	(0.05)	-0.07	(0.08)	0.31	(0.02)	0.31	(0.06)	0.01	(0.06)	0.31	(0.02)	0.23	(0.17)	-0.08	(0.17)
	Switzerland	0.09	(0.10)	0.15	(0.03)	0.19	(0.05)	0.10	(0.11)	0.15	(0.02)	0.19	(0.11)	0.04	(0.11)	0.20	(0.02)	-0.04	(0.04)	**-0.24**	(0.05)
	Turkey	c	c	0.27	(0.04)	0.33	(0.04)	c	c	0.30	(0.02)	0.56	(0.23)	0.26	(0.23)	0.60	(0.20)	0.31	(0.03)	-0.29	(0.21)
	United Kingdom	-0.03	(0.06)	-0.03	(0.02)	0.01	(0.03)	0.04	(0.07)	-0.03	(0.02)	0.01	(0.06)	0.05	(0.06)	0.30	(0.12)	-0.01	(0.01)	**-0.30**	(0.13)
	United States	0.30	(0.06)	0.30	(0.03)	0.39	(0.05)	0.09	(0.07)	0.35	(0.03)	0.17	(0.08)	**-0.17**	(0.08)	0.46	(0.07)	0.32	(0.03)	**-0.14**	(0.07)
	OECD average	0.11	(0.02)	0.01	(0.01)	-0.02	(0.01)	**-0.09**	(0.02)	0.00	(0.00)	0.02	(0.02)	0.01	(0.02)	0.16	(0.01)	-0.01	(0.01)	**-0.20**	(0.02)
Partners	Albania	0.45	(0.03)	0.48	(0.02)	0.41	(0.03)	-0.04	(0.05)	0.46	(0.02)	0.40	(0.06)	-0.06	(0.06)	0.47	(0.03)	0.44	(0.02)	-0.04	(0.03)
	Algeria	0.59	(0.04)	0.60	(0.02)	0.47	(0.04)	**-0.11**	(0.05)	0.57	(0.01)	c	c	c	c	0.59	(0.02)	0.49	(0.02)	**-0.11**	(0.03)
	Brazil	0.12	(0.07)	0.08	(0.02)	-0.02	(0.03)	-0.14	(0.08)	0.02	(0.02)	0.07	(0.05)	0.05	(0.05)	0.33	(0.03)	-0.01	(0.02)	**-0.34**	(0.04)
	B-S-J-G (China)	-0.53	(0.07)	-0.29	(0.04)	-0.21	(0.05)	**0.32**	(0.09)	-0.27	(0.03)	-0.34	(0.12)	-0.07	(0.13)	-0.25	(0.04)	-0.34	(0.03)	-0.09	(0.05)
	Bulgaria	0.66	(0.16)	0.30	(0.03)	0.00	(0.04)	**-0.66**	(0.17)	0.18	(0.03)	c	c	c	c	0.46	(0.18)	0.18	(0.03)	-0.28	(0.18)
	CABA (Argentina)	m	m	c	c	-0.10	(0.04)	m	m	-0.09	(0.05)	-0.12	(0.05)	-0.03	(0.08)	-0.10	(0.04)	-0.11	(0.11)	-0.01	(0.11)
	Colombia	0.27	(0.07)	0.23	(0.03)	0.24	(0.03)	-0.02	(0.07)	0.24	(0.02)	0.28	(0.05)	0.04	(0.06)	0.30	(0.03)	0.19	(0.02)	**-0.11**	(0.03)
	Costa Rica	-0.07	(0.05)	-0.14	(0.03)	-0.07	(0.04)	0.00	(0.07)	-0.10	(0.02)	-0.18	(0.06)	-0.07	(0.06)	0.01	(0.03)	-0.23	(0.02)	**-0.23**	(0.04)
	Croatia	c	c	-0.15	(0.02)	-0.26	(0.03)	c	c	-0.20	(0.02)	-0.04	(0.05)	**0.16**	(0.06)	c	c	-0.19	(0.02)	c	c
	Cyprus*	0.43	(0.05)	0.46	(0.02)	0.36	(0.03)	-0.07	(0.06)	0.44	(0.02)	0.33	(0.04)	**-0.11**	(0.04)	0.53	(0.05)	0.42	(0.01)	**-0.11**	(0.05)
	Dominican Republic	0.90	(0.07)	0.80	(0.03)	0.70	(0.05)	**-0.19**	(0.09)	0.82	(0.03)	0.69	(0.06)	-0.13	(0.07)	0.93	(0.06)	0.75	(0.03)	**-0.18**	(0.07)
	FYROM	0.45	(0.09)	0.18	(0.02)	0.15	(0.02)	**-0.30**	(0.09)	0.17	(0.02)	0.50	(0.05)	**0.33**	(0.06)	c	c	0.18	(0.02)	c	c
	Georgia	0.67	(0.04)	0.59	(0.03)	0.37	(0.03)	**-0.30**	(0.05)	0.51	(0.02)	0.71	(0.08)	**0.19**	(0.08)	0.65	(0.03)	0.49	(0.02)	**-0.16**	(0.03)
	Hong Kong (China)	m	m	m	m	0.10	(0.02)	m	m	0.07	(0.08)	0.10	(0.02)	0.03	(0.08)	0.19	(0.03)	0.04	(0.03)	**-0.15**	(0.04)
	Indonesia	0.24	(0.03)	0.25	(0.02)	0.29	(0.03)	0.05	(0.05)	0.26	(0.02)	0.25	(0.03)	-0.01	(0.04)	0.25	(0.02)	0.26	(0.02)	0.00	(0.03)
	Jordan	0.70	(0.08)	0.58	(0.03)	0.63	(0.03)	-0.07	(0.08)	0.60	(0.03)	0.67	(0.06)	0.07	(0.07)	0.62	(0.02)	m	m	m	m
	Kosovo	0.38	(0.05)	0.37	(0.01)	0.26	(0.03)	**-0.11**	(0.06)	0.34	(0.01)	0.65	(0.05)	**0.31**	(0.05)	0.41	(0.03)	0.32	(0.02)	**-0.09**	(0.03)
	Lebanon	0.66	(0.05)	0.62	(0.03)	0.54	(0.05)	-0.12	(0.07)	0.63	(0.04)	0.59	(0.03)	-0.04	(0.05)	0.72	(0.03)	0.57	(0.03)	**-0.15**	(0.04)
	Lithuania	0.26	(0.03)	0.17	(0.02)	0.13	(0.02)	**-0.12**	(0.04)	0.18	(0.01)	0.10	(0.07)	-0.08	(0.08)	0.17	(0.01)	c	c	c	c
	Macao (China)	c	c	c	c	-0.16	(0.01)	c	c	c	c	-0.16	(0.01)	c	c	-0.14	(0.02)	-0.18	(0.02)	-0.03	(0.02)
	Malta	0.19	(0.04)	0.11	(0.01)	m	m	m	m	0.06	(0.02)	0.20	(0.02)	**0.15**	(0.03)	c	c	0.13	(0.01)	c	c
	Moldova	0.53	(0.02)	0.54	(0.02)	0.43	(0.02)	**-0.10**	(0.03)	0.52	(0.01)	c	c	c	c	0.52	(0.01)	0.49	(0.03)	-0.02	(0.03)
	Montenegro	c	c	-0.05	(0.02)	-0.27	(0.03)	c	c	-0.12	(0.02)	c	c	c	c	0.23	(0.17)	-0.13	(0.02)	**-0.36**	(0.17)
	Peru	0.76	(0.05)	0.71	(0.03)	0.51	(0.06)	**-0.26**	(0.08)	0.81	(0.02)	0.46	(0.04)	**-0.34**	(0.05)	0.86	(0.04)	0.65	(0.02)	**-0.21**	(0.04)
	Qatar	0.58	(0.05)	0.50	(0.02)	0.44	(0.02)	**-0.15**	(0.05)	0.67	(0.02)	0.24	(0.02)	**-0.43**	(0.02)	0.66	(0.03)	0.43	(0.01)	**-0.23**	(0.03)
	Romania	0.25	(0.06)	0.21	(0.02)	0.12	(0.03)	-0.13	(0.07)	0.19	(0.02)	c	c	c	c	0.19	(0.02)	m	m	m	m
	Russia	0.56	(0.04)	0.59	(0.03)	0.41	(0.03)	**-0.14**	(0.05)	0.50	(0.02)	c	c	c	c	0.49	(0.02)	0.55	(0.06)	0.06	(0.06)
	Singapore	m	m	m	m	0.01	(0.01)	m	m	-0.01	(0.01)	0.21	(0.07)	**0.23**	(0.07)	0.54	(0.10)	0.00	(0.01)	**-0.55**	(0.10)
	Chinese Taipei	c	c	-0.42	(0.03)	-0.48	(0.02)	c	c	-0.38	(0.02)	-0.60	(0.03)	**-0.21**	(0.04)	-0.28	(0.02)	-0.56	(0.02)	**-0.28**	(0.04)
	Thailand	0.29	(0.05)	0.12	(0.02)	0.02	(0.04)	**-0.27**	(0.06)	0.15	(0.02)	0.06	(0.05)	-0.08	(0.06)	0.23	(0.03)	0.10	(0.02)	**-0.13**	(0.03)
	Trinidad and Tobago	0.20	(0.03)	0.20	(0.02)	m	m	m	m	0.20	(0.01)	0.18	(0.05)	-0.02	(0.05)	0.18	(0.02)	0.21	(0.02)	0.03	(0.03)
	Tunisia	0.55	(0.05)	0.57	(0.02)	0.52	(0.04)	-0.03	(0.06)	0.54	(0.02)	0.76	(0.29)	0.22	(0.28)	0.67	(0.03)	0.49	(0.02)	**-0.18**	(0.03)
	United Arab Emirates	0.70	(0.06)	0.59	(0.05)	0.41	(0.02)	**-0.28**	(0.06)	0.65	(0.03)	0.36	(0.03)	**-0.28**	(0.04)	0.61	(0.05)	0.46	(0.02)	**-0.15**	(0.06)
	Uruguay	0.16	(0.10)	0.05	(0.02)	-0.05	(0.03)	**-0.21**	(0.10)	0.02	(0.02)	-0.03	(0.03)	-0.05	(0.03)	0.16	(0.04)	-0.05	(0.02)	**-0.21**	(0.04)
	Viet Nam	0.24	(0.03)	0.22	(0.05)	0.11	(0.04)	**-0.13**	(0.05)	0.20	(0.02)	0.19	(0.05)	-0.01	(0.05)	0.19	(0.04)	0.20	(0.02)	0.01	(0.04)
	Argentina**	0.02	(0.07)	0.13	(0.02)	0.07	(0.03)	0.05	(0.08)	0.11	(0.02)	0.04	(0.03)	-0.06	(0.04)	0.16	(0.03)	0.06	(0.02)	**-0.10**	(0.04)
	Kazakhstan**	1.01	(0.03)	0.93	(0.05)	0.99	(0.03)	-0.02	(0.04)	0.98	(0.02)	0.96	(0.09)	-0.02	(0.09)	0.96	(0.03)	1.02	(0.03)	0.06	(0.04)
	Malaysia**	0.42	(0.03)	0.44	(0.03)	0.31	(0.03)	**-0.11**	(0.04)	0.40	(0.02)	0.13	(0.14)	-0.27	(0.14)	0.34	(0.11)	0.38	(0.02)	0.04	(0.12)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.2.27 Index of enquiry-based instruction, by student and school characteristics

Results based on students' reports

		Change in science score per unit increase on the index of enquiry-based instruction				Change in the index of epistemic beliefs per unit increase on the index of enquiry-based instruction				Increased likelihood of expecting to work in science-related occupations per unit increase on the index of enquiry-based instruction			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Unit dif.	S.E.	Unit dif.	S.E.	Odds ratio	S.E.	Odds ratio	S.E.
OECD	**Australia**	-3	(1.6)	**-4**	(1.3)	**0.09**	(0.02)	**0.08**	(0.02)	**1.15**	(0.04)	**1.13**	(0.03)
	Austria	-1	(1.7)	**-3**	(1.3)	**0.08**	(0.02)	**0.07**	(0.02)	**1.14**	(0.04)	**1.13**	(0.04)
	Belgium	**-3**	(1.7)	-2	(1.4)	**0.07**	(0.02)	**0.07**	(0.01)	1.10	(0.06)	**1.15**	(0.06)
	Canada	**-10**	(1.2)	**-11**	(1.1)	**0.05**	(0.02)	**0.04**	(0.02)	**1.05**	(0.02)	1.04	(0.02)
	Chile	**-16**	(1.6)	**-12**	(1.4)	0.02	(0.02)	0.04	(0.02)	1.00	(0.03)	1.02	(0.03)
	Czech Republic	**-7**	(1.7)	**-7**	(1.6)	0.02	(0.02)	0.02	(0.02)	**1.09**	(0.04)	**1.09**	(0.04)
	Denmark	4	(2.2)	0	(2.0)	**0.10**	(0.03)	**0.08**	(0.03)	1.02	(0.05)	1.01	(0.05)
	Estonia	**-19**	(1.9)	**-18**	(1.7)	-0.03	(0.02)	-0.03	(0.02)	0.96	(0.04)	0.96	(0.04)
	Finland	-1	(1.9)	**-5**	(1.8)	**0.07**	(0.02)	**0.04**	(0.02)	**1.07**	(0.03)	1.02	(0.03)
	France	0	(2.3)	**-3**	(1.5)	**0.09**	(0.02)	**0.08**	(0.03)	**1.09**	(0.03)	**1.07**	(0.04)
	Germany	3	(1.8)	-2	(1.4)	**0.14**	(0.02)	**0.12**	(0.02)	**1.14**	(0.05)	**1.10**	(0.05)
	Greece	**-18**	(1.8)	**-14**	(1.4)	-0.04	(0.02)	-0.02	(0.02)	1.01	(0.04)	1.04	(0.04)
	Hungary	**-6**	(1.8)	**-5**	(1.4)	**0.05**	(0.02)	**0.06**	(0.02)	**1.15**	(0.05)	**1.17**	(0.05)
	Iceland	-2	(1.7)	**-4**	(1.7)	**0.06**	(0.03)	0.05	(0.03)	0.95	(0.04)	0.93	(0.04)
	Ireland	-3	(2.5)	-4	(2.3)	**0.10**	(0.02)	**0.09**	(0.02)	**1.17**	(0.05)	**1.17**	(0.05)
	Israel	**-11**	(1.9)	**-8**	(1.7)	**0.04**	(0.02)	**0.05**	(0.02)	**1.23**	(0.04)	**1.21**	(0.04)
	Italy	**-12**	(1.8)	**-7**	(1.6)	0.02	(0.02)	0.04	(0.02)	**1.20**	(0.04)	**1.31**	(0.05)
	Japan	-1	(1.9)	**-4**	(1.4)	**0.09**	(0.02)	**0.07**	(0.01)	**1.07**	(0.03)	1.05	(0.03)
	Korea	**-9**	(1.8)	**-9**	(1.3)	**0.06**	(0.01)	**0.06**	(0.01)	1.00	(0.03)	1.00	(0.03)
	Latvia	**-12**	(2.3)	**-10**	(2.1)	-0.04	(0.03)	-0.03	(0.03)	**0.90**	(0.04)	0.92	(0.05)
	Luxembourg	**-6**	(1.6)	**-4**	(1.4)	**0.05**	(0.02)	**0.07**	(0.02)	**1.10**	(0.04)	**1.12**	(0.04)
	Mexico	**-8**	(1.3)	**-7**	(1.2)	**0.07**	(0.02)	**0.08**	(0.02)	1.05	(0.03)	1.05	(0.03)
	Netherlands	-3	(2.1)	**-6**	(1.6)	**0.04**	(0.02)	0.03	(0.02)	**1.15**	(0.05)	**1.15**	(0.04)
	New Zealand	**-17**	(1.9)	**-16**	(1.8)	**0.06**	(0.02)	**0.06**	(0.02)	1.00	(0.04)	1.00	(0.04)
	Norway	**-8**	(2.1)	**-8**	(2.0)	**0.05**	(0.03)	**0.05**	(0.03)	1.05	(0.04)	1.05	(0.04)
	Poland	**-16**	(1.9)	**-12**	(1.7)	-0.03	(0.02)	-0.01	(0.02)	**0.89**	(0.04)	0.94	(0.04)
	Portugal	**-7**	(1.9)	**-6**	(1.6)	**0.05**	(0.02)	**0.05**	(0.02)	**1.10**	(0.04)	**1.11**	(0.04)
	Slovak Republic	**-11**	(1.5)	**-8**	(1.3)	**-0.05**	(0.02)	**-0.04**	(0.02)	1.07	(0.04)	**1.09**	(0.04)
	Slovenia	**-6**	(2.6)	**-6**	(2.1)	0.01	(0.03)	0.01	(0.03)	**1.13**	(0.06)	**1.13**	(0.06)
	Spain	**-6**	(1.6)	**-5**	(1.4)	**0.05**	(0.02)	**0.05**	(0.02)	**1.07**	(0.03)	**1.08**	(0.03)
	Sweden	**-5**	(1.7)	**-7**	(1.6)	**0.07**	(0.02)	**0.06**	(0.02)	1.05	(0.04)	1.05	(0.04)
	Switzerland	**-10**	(2.0)	**-8**	(1.7)	0.04	(0.02)	**0.05**	(0.02)	1.01	(0.04)	1.02	(0.04)
	Turkey	**-10**	(1.3)	**-7**	(1.0)	-0.02	(0.02)	-0.01	(0.02)	1.01	(0.03)	1.04	(0.03)
	United Kingdom	**-5**	(1.7)	**-6**	(1.5)	**0.10**	(0.02)	**0.10**	(0.02)	**1.13**	(0.04)	**1.12**	(0.04)
	United States	**-11**	(1.4)	**-10**	(1.3)	0.02	(0.02)	0.02	(0.02)	1.03	(0.03)	1.03	(0.03)
	OECD average	**-7**	(0.3)	**-7**	(0.3)	**0.05**	(0.00)	**0.04**	(0.00)	**1.07**	(0.01)	**1.07**	(0.01)
Partners	**Albania**	m	m	m	m	**0.12**	(0.02)	**0.11**	(0.02)	**1.13**	(0.06)	1.09	(0.06)
	Algeria	**-4**	(1.4)	**-3**	(1.3)	**0.04**	(0.02)	**0.04**	(0.02)	1.06	(0.04)	1.07	(0.05)
	Brazil	**-11**	(1.2)	**-10**	(1.0)	0.02	(0.01)	0.02	(0.01)	1.00	(0.02)	1.01	(0.02)
	B-S-J-G (China)	**7**	(2.0)	-2	(1.3)	**0.11**	(0.02)	**0.08**	(0.01)	**1.07**	(0.03)	1.03	(0.03)
	Bulgaria	**-22**	(1.9)	**-12**	(1.2)	**-0.07**	(0.02)	-0.04	(0.02)	0.96	(0.03)	1.02	(0.04)
	CABA (Argentina)	-1	(3.5)	-3	(2.9)	0.09	(0.07)	0.08	(0.07)	1.02	(0.07)	1.02	(0.07)
	Colombia	**-7**	(1.6)	**-8**	(1.3)	0.00	(0.02)	0.00	(0.02)	1.00	(0.03)	1.00	(0.03)
	Costa Rica	**-6**	(1.5)	**-6**	(1.2)	**0.07**	(0.02)	**0.07**	(0.02)	1.00	(0.02)	1.00	(0.02)
	Croatia	**-6**	(1.4)	**-4**	(1.3)	**0.04**	(0.02)	**0.05**	(0.02)	**1.09**	(0.04)	**1.10**	(0.04)
	Cyprus*	**-11**	(1.4)	**-9**	(1.3)	-0.01	(0.02)	0.01	(0.02)	1.05	(0.03)	1.06	(0.03)
	Dominican Republic	**-12**	(1.9)	**-9**	(1.5)	-0.03	(0.03)	-0.02	(0.03)	1.01	(0.04)	1.01	(0.04)
	FYROM	**-9**	(1.7)	**-6**	(1.6)	**-0.03**	(0.02)	-0.03	(0.02)	**1.12**	(0.03)	**1.14**	(0.04)
	Georgia	**-16**	(2.0)	**-11**	(1.7)	-0.02	(0.02)	0.00	(0.02)	1.01	(0.05)	1.03	(0.05)
	Hong Kong (China)	**-4**	(1.7)	**-4**	(1.7)	**0.12**	(0.02)	**0.11**	(0.02)	**1.10**	(0.04)	**1.09**	(0.05)
	Indonesia	**-7**	(2.1)	**-8**	(1.8)	**0.05**	(0.02)	**0.04**	(0.02)	1.02	(0.05)	0.99	(0.06)
	Jordan	**-8**	(1.6)	**-9**	(1.5)	0.01	(0.02)	0.01	(0.02)	1.02	(0.03)	1.01	(0.03)
	Kosovo	**-12**	(1.8)	**-12**	(1.6)	-0.01	(0.03)	-0.01	(0.03)	1.05	(0.05)	1.04	(0.05)
	Lebanon	**-16**	(3.2)	**-12**	(3.1)	0.01	(0.03)	0.02	(0.03)	1.01	(0.05)	1.05	(0.05)
	Lithuania	**-8**	(1.4)	**-7**	(1.3)	0.01	(0.02)	0.02	(0.02)	1.01	(0.03)	1.02	(0.04)
	Macao (China)	-3	(2.3)	-4	(2.3)	**0.10**	(0.02)	**0.10**	(0.02)	1.09	(0.05)	1.07	(0.05)
	Malta	1	(3.2)	**-5**	(2.6)	**0.06**	(0.03)	0.03	(0.03)	**1.27**	(0.06)	**1.24**	(0.06)
	Moldova	3	(2.7)	3	(2.7)	**0.07**	(0.02)	**0.07**	(0.02)	1.06	(0.06)	1.06	(0.06)
	Montenegro	**-13**	(0.9)	**-8**	(0.9)	-0.02	(0.02)	-0.01	(0.02)	0.99	(0.03)	1.02	(0.03)
	Peru	**-13**	(1.5)	**-8**	(1.1)	0.02	(0.02)	**0.04**	(0.02)	0.99	(0.03)	1.02	(0.03)
	Qatar	**-15**	(0.9)	**-11**	(0.9)	-0.01	(0.01)	0.00	(0.01)	0.99	(0.02)	1.00	(0.02)
	Romania	**-8**	(2.1)	**-6**	(1.7)	-0.01	(0.02)	-0.01	(0.02)	0.99	(0.04)	1.03	(0.05)
	Russia	**-12**	(1.6)	**-12**	(1.7)	0.00	(0.02)	0.00	(0.02)	**1.09**	(0.04)	**1.09**	(0.04)
	Singapore	**7**	(1.9)	-1	(1.7)	**0.14**	(0.02)	**0.11**	(0.02)	**1.19**	(0.04)	**1.16**	(0.04)
	Chinese Taipei	0	(1.5)	-2	(1.2)	**0.07**	(0.01)	**0.06**	(0.01)	**1.11**	(0.03)	**1.10**	(0.03)
	Thailand	**-3**	(1.4)	0	(1.3)	**0.09**	(0.01)	**0.09**	(0.01)	0.99	(0.03)	1.02	(0.04)
	Trinidad and Tobago	-2	(1.8)	**-4**	(1.5)	0.01	(0.02)	0.01	(0.02)	**1.09**	(0.04)	**1.08**	(0.04)
	Tunisia	**-12**	(1.3)	**-9**	(1.3)	0.03	(0.02)	**0.04**	(0.02)	0.97	(0.03)	0.99	(0.03)
	United Arab Emirates	**-13**	(1.4)	**-8**	(1.3)	0.01	(0.01)	0.02	(0.01)	1.01	(0.02)	1.02	(0.02)
	Uruguay	**-12**	(1.7)	**-10**	(1.4)	-0.04	(0.02)	-0.03	(0.02)	**1.08**	(0.03)	**1.09**	(0.03)
	Viet Nam	0	(3.1)	3	(2.3)	0.04	(0.02)	**0.05**	(0.02)	1.09	(0.06)	1.10	(0.06)
	Argentina**	**-8**	(1.7)	**-7**	(1.6)	-0.01	(0.02)	0.00	(0.02)	1.02	(0.04)	1.03	(0.04)
	Kazakhstan**	-5	(2.5)	**-6**	(2.3)	**0.20**	(0.02)	**0.19**	(0.02)	1.03	(0.04)	1.02	(0.04)
	Malaysia**	**-4**	(1.8)	-1	(1.5)	**0.10**	(0.02)	**0.11**	(0.02)	1.01	(0.04)	1.04	(0.04)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.3.1 Student truancy

Results based on students' self-reports

		Percentage of students who reported that, during the two weeks prior to the PISA test																							
		I skipped a whole day of school								I skipped some classes								I arrived late for school							
		Never		Once or twice		Three or four times		Five or more times		Never		Once or twice		Three or four times		Five or more times		Never		Once or twice		Three or four times		Five or more times	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	71.0	(0.6)	22.4	(0.5)	3.8	(0.2)	2.8	(0.2)	84.0	(0.4)	12.2	(0.3)	2.2	(0.1)	1.6	(0.1)	59.0	(0.6)	27.1	(0.5)	8.2	(0.3)	5.7	(0.3)
	Austria	89.1	(0.5)	7.7	(0.4)	1.6	(0.2)	1.7	(0.2)	82.8	(0.7)	12.9	(0.6)	2.3	(0.2)	2.0	(0.2)	64.8	(1.0)	24.9	(0.8)	5.8	(0.4)	4.5	(0.3)
	Belgium	92.9	(0.3)	5.1	(0.3)	0.9	(0.1)	1.0	(0.1)	88.3	(0.6)	8.7	(0.4)	1.7	(0.2)	1.4	(0.2)	48.5	(0.9)	32.4	(0.7)	9.5	(0.4)	9.7	(0.5)
	Canada	82.2	(0.5)	14.3	(0.4)	1.9	(0.2)	1.6	(0.1)	73.5	(0.7)	20.1	(0.5)	3.9	(0.2)	2.5	(0.2)	52.3	(0.8)	30.1	(0.5)	9.6	(0.4)	8.0	(0.4)
	Chile	90.7	(0.6)	7.1	(0.5)	1.1	(0.2)	1.1	(0.2)	81.3	(0.8)	14.7	(0.7)	2.5	(0.3)	1.5	(0.2)	33.3	(0.9)	37.5	(0.8)	13.8	(0.5)	15.4	(0.6)
	Czech Republic	91.9	(0.4)	6.0	(0.4)	0.8	(0.1)	1.2	(0.2)	90.4	(0.5)	7.2	(0.4)	1.2	(0.1)	1.2	(0.2)	48.0	(0.9)	33.8	(0.7)	8.8	(0.5)	9.3	(0.4)
	Denmark	83.0	(0.6)	12.7	(0.4)	2.0	(0.2)	2.3	(0.3)	76.0	(0.8)	18.5	(0.7)	2.7	(0.3)	2.8	(0.3)	52.4	(0.9)	28.5	(0.6)	9.9	(0.4)	9.1	(0.5)
	Estonia	77.0	(0.8)	17.5	(0.7)	3.0	(0.3)	2.5	(0.2)	65.1	(0.8)	26.7	(0.7)	5.1	(0.4)	3.1	(0.3)	57.1	(0.9)	29.4	(0.7)	7.8	(0.4)	5.7	(0.4)
	Finland	63.4	(0.9)	27.1	(0.7)	5.9	(0.3)	3.6	(0.3)	51.8	(0.9)	38.0	(0.8)	6.1	(0.4)	4.0	(0.3)	63.8	(0.9)	25.7	(0.7)	6.6	(0.4)	3.9	(0.3)
	France	89.2	(0.6)	7.1	(0.4)	1.4	(0.2)	2.3	(0.3)	75.2	(0.8)	16.7	(0.6)	4.1	(0.3)	4.0	(0.3)	47.4	(0.9)	31.9	(0.7)	9.6	(0.4)	11.1	(0.5)
	Germany	91.1	(0.4)	6.6	(0.4)	1.1	(0.2)	1.2	(0.2)	84.3	(0.7)	12.2	(0.6)	2.2	(0.2)	1.4	(0.2)	59.9	(1.0)	27.3	(0.8)	6.9	(0.4)	5.9	(0.4)
	Greece	80.4	(0.8)	14.9	(0.6)	1.9	(0.2)	2.8	(0.3)	54.7	(1.4)	31.9	(1.0)	7.4	(0.4)	6.0	(0.5)	45.8	(0.8)	33.0	(0.6)	11.2	(0.5)	10.0	(0.5)
	Hungary	91.6	(0.5)	6.5	(0.4)	0.8	(0.1)	1.1	(0.2)	82.3	(0.8)	13.6	(0.7)	2.4	(0.3)	1.7	(0.2)	64.2	(0.9)	25.9	(0.8)	5.4	(0.3)	4.4	(0.4)
	Iceland	95.5	(0.4)	3.1	(0.3)	0.6	(0.1)	0.8	(0.1)	81.5	(0.7)	13.3	(0.5)	2.7	(0.3)	2.5	(0.3)	50.0	(1.0)	32.1	(0.9)	9.5	(0.5)	8.4	(0.5)
	Ireland	75.6	(0.8)	20.5	(0.7)	2.6	(0.2)	1.3	(0.2)	76.9	(0.8)	18.0	(0.6)	3.5	(0.3)	1.5	(0.2)	68.9	(0.9)	24.0	(0.7)	4.6	(0.3)	2.5	(0.2)
	Israel	67.3	(0.9)	24.3	(0.8)	4.4	(0.3)	4.0	(0.3)	62.0	(1.1)	25.6	(0.8)	5.9	(0.4)	6.5	(0.5)	42.1	(1.1)	33.4	(0.6)	11.4	(0.5)	13.1	(0.7)
	Italy	44.8	(0.8)	41.6	(0.8)	6.6	(0.3)	7.0	(0.4)	59.1	(0.7)	31.4	(0.6)	5.9	(0.3)	3.6	(0.3)	63.8	(0.9)	24.5	(0.7)	6.3	(0.3)	5.4	(0.4)
	Japan	98.2	(0.2)	1.3	(0.2)	0.2	(0.1)	0.3	(0.1)	96.9	(0.3)	2.2	(0.3)	0.5	(0.1)	0.4	(0.1)	88.3	(0.6)	9.4	(0.5)	1.2	(0.2)	1.1	(0.2)
	Korea	98.1	(0.2)	1.4	(0.2)	0.3	(0.1)	0.2	(0.1)	97.4	(0.3)	2.0	(0.3)	0.3	(0.1)	0.3	(0.1)	80.6	(1.0)	14.4	(0.6)	3.2	(0.4)	1.8	(0.2)
	Latvia	75.3	(0.7)	19.6	(0.6)	3.0	(0.3)	2.2	(0.2)	60.9	(0.9)	30.0	(0.8)	5.4	(0.3)	3.6	(0.3)	46.9	(1.0)	33.4	(0.8)	10.8	(0.5)	8.9	(0.4)
	Luxembourg	88.6	(0.4)	7.5	(0.3)	1.6	(0.2)	2.4	(0.2)	84.7	(0.5)	10.7	(0.4)	2.1	(0.2)	2.5	(0.2)	45.7	(0.7)	34.0	(0.6)	9.8	(0.4)	10.5	(0.4)
	Mexico	74.2	(0.8)	22.0	(0.7)	2.5	(0.2)	1.3	(0.2)	75.1	(0.8)	21.1	(0.7)	2.4	(0.2)	1.4	(0.2)	51.1	(0.9)	38.4	(0.8)	7.1	(0.3)	3.3	(0.3)
	Netherlands	94.7	(0.3)	4.4	(0.3)	0.4	(0.1)	0.6	(0.1)	81.1	(0.8)	14.4	(0.6)	2.5	(0.2)	1.9	(0.2)	49.0	(0.8)	32.1	(0.6)	10.1	(0.5)	8.8	(0.4)
	New Zealand	75.0	(0.7)	18.7	(0.6)	2.9	(0.2)	3.3	(0.3)	77.4	(0.7)	16.2	(0.6)	3.7	(0.2)	2.7	(0.3)	54.7	(1.0)	27.9	(0.7)	9.6	(0.4)	7.8	(0.5)
	Norway	86.5	(0.5)	9.9	(0.5)	1.6	(0.2)	2.0	(0.2)	80.3	(0.7)	14.6	(0.6)	2.7	(0.2)	2.4	(0.2)	53.0	(0.9)	30.9	(0.7)	8.3	(0.4)	7.8	(0.5)
	Poland	79.7	(0.9)	13.5	(0.6)	2.9	(0.3)	3.9	(0.3)	62.6	(1.2)	24.6	(0.8)	5.4	(0.4)	7.3	(0.5)	43.5	(1.2)	31.2	(0.9)	10.2	(0.5)	15.1	(0.8)
	Portugal	79.2	(0.7)	17.0	(0.6)	2.4	(0.2)	1.5	(0.2)	67.1	(0.7)	26.6	(0.7)	4.1	(0.3)	2.3	(0.2)	54.4	(1.0)	31.4	(0.7)	7.4	(0.4)	6.8	(0.4)
	Slovak Republic	48.9	(1.0)	31.8	(0.8)	7.5	(0.4)	11.9	(0.4)	50.3	(0.8)	32.9	(0.7)	7.0	(0.3)	9.8	(0.4)	62.8	(0.9)	25.3	(0.7)	5.5	(0.4)	6.4	(0.4)
	Slovenia	87.6	(0.5)	9.2	(0.5)	1.7	(0.2)	1.5	(0.2)	70.9	(0.8)	20.9	(0.7)	5.0	(0.3)	3.2	(0.2)	50.5	(0.9)	35.5	(0.8)	7.6	(0.4)	6.5	(0.4)
	Spain	75.3	(0.7)	20.3	(0.6)	2.5	(0.2)	1.8	(0.2)	66.5	(0.9)	26.4	(0.7)	4.4	(0.3)	2.6	(0.2)	58.0	(0.9)	27.4	(0.6)	8.1	(0.4)	6.5	(0.4)
	Sweden	91.0	(0.5)	6.6	(0.4)	1.0	(0.2)	1.4	(0.2)	83.7	(0.7)	12.2	(0.5)	2.2	(0.2)	1.9	(0.2)	45.5	(0.8)	32.6	(0.6)	12.1	(0.5)	9.8	(0.4)
	Switzerland	90.4	(0.6)	6.0	(0.5)	1.4	(0.2)	2.2	(0.3)	82.7	(0.8)	12.0	(0.7)	2.6	(0.3)	2.7	(0.3)	54.2	(1.1)	29.5	(0.7)	8.7	(0.5)	7.6	(0.5)
	Turkey	53.0	(0.9)	29.8	(0.7)	9.3	(0.4)	7.9	(0.5)	55.4	(1.0)	29.7	(0.8)	8.8	(0.4)	6.2	(0.5)	51.8	(1.2)	31.6	(0.8)	8.5	(0.5)	8.1	(0.6)
	United Kingdom	74.5	(0.6)	21.0	(0.6)	2.6	(0.2)	1.9	(0.2)	66.1	(0.8)	27.2	(0.7)	4.3	(0.3)	2.4	(0.2)	67.1	(0.9)	23.9	(0.7)	5.4	(0.4)	3.6	(0.3)
	United States	62.8	(0.8)	30.9	(0.7)	4.2	(0.3)	2.1	(0.2)	57.8	(1.1)	35.1	(1.0)	5.2	(0.3)	1.9	(0.2)	65.2	(1.1)	25.8	(0.8)	5.5	(0.3)	3.4	(0.4)
	OECD average	80.3	(0.1)	14.7	(0.1)	2.5	(0.0)	2.5	(0.0)	73.9	(0.1)	19.4	(0.1)	3.7	(0.0)	2.9	(0.0)	55.5	(0.2)	29.0	(0.1)	8.1	(0.1)	7.3	(0.1)
Partners	**Brazil**	52.0	(0.6)	37.9	(0.5)	5.9	(0.2)	4.1	(0.2)	54.0	(0.6)	36.1	(0.6)	6.2	(0.3)	3.7	(0.2)	60.1	(0.7)	28.7	(0.5)	6.2	(0.3)	5.0	(0.2)
	B-S-J-G (China)	97.7	(0.2)	1.6	(0.2)	0.3	(0.1)	0.4	(0.1)	89.9	(0.5)	8.3	(0.5)	1.0	(0.1)	0.8	(0.1)	60.2	(1.1)	29.9	(0.9)	5.7	(0.3)	4.2	(0.3)
	Bulgaria	55.3	(0.9)	31.2	(0.8)	6.1	(0.3)	7.4	(0.4)	52.5	(1.2)	32.7	(0.9)	7.9	(0.5)	7.0	(0.4)	44.3	(1.0)	31.6	(0.7)	11.1	(0.5)	13.0	(0.7)
	Colombia	56.2	(0.8)	37.5	(0.7)	3.8	(0.2)	2.6	(0.2)	54.5	(0.8)	38.5	(0.7)	4.6	(0.3)	2.4	(0.2)	57.1	(0.9)	33.4	(0.7)	6.5	(0.4)	3.0	(0.2)
	Costa Rica	60.9	(0.9)	32.0	(0.8)	3.7	(0.3)	3.3	(0.3)	56.7	(0.9)	34.1	(0.8)	6.2	(0.3)	3.0	(0.2)	46.3	(1.0)	35.8	(0.8)	11.6	(0.6)	6.3	(0.4)
	Croatia	87.7	(0.6)	8.7	(0.4)	1.8	(0.2)	1.8	(0.2)	75.5	(0.8)	18.2	(0.6)	3.5	(0.3)	2.8	(0.3)	57.4	(0.9)	29.2	(0.8)	6.9	(0.4)	6.5	(0.5)
	Cyprus*	76.6	(0.6)	16.8	(0.5)	3.3	(0.2)	3.2	(0.2)	60.7	(0.7)	25.5	(0.6)	7.8	(0.4)	6.0	(0.4)	42.7	(0.7)	31.7	(0.7)	12.7	(0.5)	12.9	(0.4)
	Dominican Republic	48.6	(0.9)	40.9	(0.9)	6.5	(0.5)	4.0	(0.4)	44.5	(1.1)	46.3	(1.0)	6.1	(0.4)	3.1	(0.3)	58.5	(1.1)	31.7	(1.0)	5.6	(0.4)	4.2	(0.4)
	Hong Kong (China)	96.5	(0.2)	2.3	(0.2)	0.6	(0.1)	0.7	(0.2)	94.8	(0.3)	3.8	(0.3)	0.7	(0.1)	0.7	(0.2)	75.5	(0.7)	19.2	(0.6)	2.9	(0.2)	2.4	(0.3)
	Lithuania	77.7	(0.7)	16.7	(0.7)	2.8	(0.3)	2.8	(0.2)	59.6	(0.9)	29.6	(0.7)	6.2	(0.4)	4.6	(0.3)	52.2	(0.8)	29.7	(0.7)	9.9	(0.4)	8.1	(0.4)
	Macao (China)	93.6	(0.4)	5.0	(0.3)	0.6	(0.1)	0.7	(0.1)	90.6	(0.4)	7.6	(0.4)	1.1	(0.2)	0.8	(0.1)	70.9	(0.6)	23.3	(0.6)	3.4	(0.3)	2.4	(0.2)
	Montenegro	40.4	(0.8)	38.1	(0.7)	10.4	(0.4)	11.1	(0.5)	45.1	(0.7)	33.8	(0.7)	10.1	(0.4)	11.1	(0.5)	36.6	(0.8)	38.0	(0.7)	13.0	(0.5)	12.4	(0.5)
	Peru	60.0	(0.8)	32.0	(0.7)	5.2	(0.2)	2.7	(0.3)	58.9	(0.7)	35.2	(0.6)	4.2	(0.3)	1.8	(0.2)	40.3	(0.9)	41.6	(0.8)	10.5	(0.4)	7.6	(0.4)
	Qatar	59.7	(0.5)	28.0	(0.5)	8.2	(0.2)	4.0	(0.2)	65.2	(0.4)	25.4	(0.4)	6.3	(0.2)	3.1	(0.2)	53.2	(0.4)	30.5	(0.4)	10.0	(0.3)	6.2	(0.2)
	Russia	76.8	(0.7)	17.1	(0.5)	3.2	(0.2)	2.9	(0.2)	61.4	(1.2)	26.7	(0.8)	6.0	(0.5)	5.9	(0.4)	44.5	(1.4)	32.3	(0.7)	11.0	(0.6)	12.2	(0.7)
	Singapore	85.7	(0.5)	11.9	(0.4)	1.7	(0.2)	0.7	(0.1)	86.5	(0.5)	11.7	(0.4)	1.3	(0.2)	0.5	(0.1)	76.1	(0.6)	18.5	(0.6)	3.4	(0.2)	2.1	(0.2)
	Chinese Taipei	96.8	(0.2)	2.1	(0.2)	0.5	(0.1)	0.6	(0.1)	89.4	(0.5)	8.0	(0.5)	1.4	(0.1)	1.3	(0.1)	66.2	(0.8)	23.7	(0.7)	5.4	(0.3)	4.7	(0.3)
	Thailand	68.6	(0.9)	25.9	(0.7)	4.0	(0.3)	1.5	(0.2)	58.1	(1.1)	36.0	(0.9)	4.7	(0.3)	1.2	(0.2)	63.9	(1.0)	25.6	(0.7)	5.9	(0.4)	4.6	(0.3)
	Tunisia	69.0	(0.9)	21.8	(0.7)	4.4	(0.4)	4.7	(0.3)	57.6	(0.9)	29.7	(0.8)	7.4	(0.4)	5.3	(0.5)	25.6	(0.8)	41.7	(0.8)	16.1	(0.5)	16.7	(0.6)
	United Arab Emirates	79.0	(0.7)	15.4	(0.6)	2.9	(0.2)	2.6	(0.2)	66.9	(0.7)	23.7	(0.6)	5.5	(0.3)	3.8	(0.2)	56.5	(0.7)	28.4	(0.6)	8.8	(0.3)	6.2	(0.3)
	Uruguay	48.5	(0.8)	40.1	(0.8)	6.1	(0.3)	5.4	(0.3)	59.7	(0.9)	30.6	(0.7)	5.7	(0.3)	4.0	(0.3)	35.0	(0.9)	38.7	(0.7)	14.3	(0.6)	12.0	(0.5)
	Malaysia**	87.6	(0.7)	10.1	(0.5)	1.4	(0.2)	0.9	(0.1)	77.1	(0.9)	18.7	(0.7)	2.8	(0.3)	1.4	(0.2)	65.5	(0.9)	25.6	(0.8)	5.4	(0.3)	3.5	(0.3)

Note: Only countries and economies with data from the computer-based questionnaire are shown.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436489

[Part 1/3]

Table II.3.4 Skipping a school day, science performance and school characteristics

Results based on students' self-reports

		Percentage of students who reported skipping a whole school day at least once in the two weeks prior to the PISA test													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	29.0	(0.6)	45.4	(0.3)	33.7	(1.2)	31.5	(1.0)	27.4	(1.4)	23.5	(1.1)	**-10.2**	(1.6)
	Austria	10.9	(0.5)	31.1	(0.6)	14.4	(1.1)	10.1	(1.1)	8.2	(1.0)	10.8	(1.2)	**-3.6**	(1.6)
	Belgium	7.1	(0.3)	25.6	(0.6)	12.2	(1.2)	8.3	(0.9)	5.7	(0.7)	2.9	(0.3)	**-9.2**	(1.3)
	Canada	17.8	(0.5)	38.3	(0.4)	21.5	(1.1)	17.9	(0.9)	17.7	(1.1)	14.2	(1.2)	**-7.3**	(1.6)
	Chile	9.3	(0.6)	29.0	(0.8)	13.2	(1.3)	9.7	(1.2)	7.9	(1.4)	6.4	(1.2)	**-6.8**	(1.6)
	Czech Republic	8.1	(0.4)	27.2	(0.7)	10.8	(0.9)	8.3	(1.1)	7.8	(1.2)	5.6	(0.7)	**-5.2**	(1.1)
	Denmark	17.0	(0.6)	37.6	(0.5)	19.1	(1.3)	17.7	(1.3)	17.0	(1.7)	14.2	(1.3)	**-4.8**	(1.9)
	Estonia	23.0	(0.8)	42.1	(0.5)	26.6	(2.1)	24.3	(2.6)	27.3	(1.8)	13.7	(1.0)	**-12.9**	(2.4)
	Finland	36.6	(0.9)	48.2	(0.2)	42.2	(1.9)	37.4	(2.4)	35.9	(2.0)	31.1	(1.6)	**-11.1**	(2.4)
	France	10.8	(0.6)	31.1	(0.7)	21.3	(1.8)	11.1	(1.4)	5.8	(0.8)	5.9	(0.8)	**-15.4**	(2.1)
	Germany	8.9	(0.4)	28.4	(0.6)	12.4	(1.3)	9.7	(1.0)	6.7	(1.0)	7.3	(0.9)	**-5.1**	(1.7)
	Greece	19.6	(0.8)	39.7	(0.6)	27.6	(2.4)	17.9	(1.8)	14.9	(1.6)	18.4	(1.4)	**-9.3**	(2.9)
	Hungary	8.4	(0.5)	27.8	(0.7)	16.3	(1.4)	8.3	(1.1)	5.4	(0.9)	3.9	(0.6)	**-12.4**	(1.5)
	Iceland	4.5	(0.4)	20.7	(0.8)	5.7	(0.9)	5.1	(0.7)	2.8	(0.6)	4.3	(0.7)	-1.4	(1.1)
	Ireland	24.4	(0.8)	42.9	(0.5)	27.7	(1.8)	23.5	(1.8)	26.0	(2.1)	20.3	(1.5)	**-7.4**	(2.5)
	Israel	32.7	(0.9)	46.9	(0.3)	33.0	(2.2)	34.1	(2.1)	32.1	(2.3)	31.6	(1.8)	-1.3	(2.9)
	Italy	55.2	(0.8)	49.7	(0.1)	63.8	(1.8)	57.3	(2.3)	51.7	(1.9)	48.2	(1.8)	**-15.6**	(2.6)
	Japan	1.8	(0.2)	13.2	(0.8)	3.5	(0.7)	1.7	(0.5)	1.3	(0.5)	0.6	(0.3)	**-3.0**	(0.7)
	Korea	1.9	(0.2)	13.5	(0.8)	3.9	(0.7)	1.0	(0.4)	1.3	(0.4)	1.2	(0.4)	**-2.7**	(0.7)
	Latvia	24.7	(0.7)	43.1	(0.4)	29.0	(2.5)	25.5	(1.7)	24.6	(1.4)	19.8	(1.5)	**-9.2**	(3.3)
	Luxembourg	11.4	(0.4)	31.8	(0.5)	18.3	(1.0)	10.7	(0.8)	9.5	(0.7)	7.5	(0.8)	**-10.8**	(1.2)
	Mexico	25.8	(0.8)	43.7	(0.4)	26.8	(1.9)	26.9	(1.9)	28.7	(1.9)	20.8	(1.9)	**-6.1**	(2.8)
	Netherlands	5.3	(0.3)	22.5	(0.7)	7.7	(0.8)	7.2	(1.0)	4.1	(0.9)	2.6	(0.4)	**-5.1**	(0.8)
	New Zealand	25.0	(0.7)	43.3	(0.4)	32.2	(1.7)	26.1	(1.4)	20.9	(1.5)	21.0	(1.3)	**-11.2**	(2.1)
	Norway	13.5	(0.5)	34.1	(0.5)	11.8	(1.3)	13.8	(1.4)	14.1	(1.3)	14.3	(1.2)	2.4	(1.7)
	Poland	20.3	(0.9)	40.2	(0.7)	19.0	(1.4)	21.8	(1.9)	21.3	(2.3)	19.0	(1.6)	0.0	(2.2)
	Portugal	20.8	(0.7)	40.6	(0.5)	23.8	(1.7)	22.8	(1.5)	18.2	(1.5)	18.4	(1.4)	**-5.4**	(2.2)
	Slovak Republic	51.1	(1.0)	50.0	(0.0)	55.0	(2.0)	52.8	(2.2)	51.9	(2.0)	45.4	(2.1)	**-9.6**	(2.9)
	Slovenia	12.4	(0.5)	33.0	(0.6)	20.0	(1.2)	14.0	(1.2)	10.1	(0.8)	5.8	(0.8)	**-14.2**	(1.5)
	Spain	24.7	(0.7)	43.1	(0.4)	28.2	(1.5)	26.9	(1.8)	23.3	(1.6)	20.2	(1.3)	**-8.1**	(2.1)
	Sweden	9.0	(0.5)	28.6	(0.7)	11.0	(1.1)	8.1	(1.1)	9.3	(1.1)	7.7	(1.1)	**-3.4**	(1.4)
	Switzerland	9.6	(0.6)	29.5	(0.9)	11.7	(1.6)	10.4	(1.8)	8.6	(1.2)	7.9	(1.2)	**-3.8**	(1.9)
	Turkey	47.0	(0.9)	49.9	(0.1)	42.1	(2.1)	45.5	(2.0)	49.6	(1.7)	50.6	(2.5)	**8.5**	(3.3)
	United Kingdom	25.5	(0.6)	43.6	(0.4)	31.3	(1.7)	27.6	(1.4)	22.1	(1.5)	21.0	(1.1)	**-10.4**	(2.0)
	United States	37.2	(0.8)	48.3	(0.2)	41.8	(2.0)	37.5	(2.2)	37.6	(1.8)	31.8	(1.4)	**-10.1**	(2.5)
	OECD average	19.7	(0.1)	36.1	(0.1)	23.4	(0.3)	20.4	(0.3)	18.8	(0.2)	16.5	(0.2)	**-6.9**	(0.3)
Partners	Brazil	48.0	(0.6)	50.0	(0.0)	46.0	(1.0)	50.0	(1.9)	55.0	(1.8)	41.3	(1.6)	**-4.7**	(1.9)
	B-S-J-G (China)	2.3	(0.2)	15.0	(0.7)	4.5	(0.7)	2.8	(0.5)	1.1	(0.4)	0.8	(0.2)	**-3.7**	(0.8)
	Bulgaria	44.7	(0.9)	49.7	(0.1)	51.7	(2.1)	48.7	(1.9)	41.9	(1.6)	37.5	(1.8)	**-14.3**	(2.8)
	Colombia	43.8	(0.8)	49.6	(0.1)	45.2	(1.9)	47.1	(1.6)	43.8	(1.4)	39.3	(1.5)	**-5.8**	(2.4)
	Costa Rica	39.1	(0.9)	48.8	(0.2)	44.1	(2.2)	40.6	(1.9)	38.9	(1.9)	32.6	(1.7)	**-11.6**	(2.8)
	Croatia	12.3	(0.6)	32.9	(0.7)	18.2	(1.3)	12.6	(1.7)	12.7	(1.6)	5.8	(0.8)	**-12.4**	(1.5)
	Cyprus*	23.4	(0.6)	42.3	(0.4)	26.4	(1.1)	19.3	(1.1)	19.0	(1.2)	28.7	(1.2)	2.4	(1.5)
	Dominican Republic	51.4	(0.9)	50.0	(0.0)	51.7	(2.6)	57.0	(3.1)	54.8	(2.1)	42.7	(2.1)	**-9.1**	(3.2)
	Hong Kong (China)	3.5	(0.2)	18.5	(0.6)	5.3	(0.7)	3.5	(0.6)	2.1	(0.6)	3.3	(0.6)	**-2.0**	(0.9)
	Lithuania	22.3	(0.7)	41.6	(0.5)	29.7	(1.7)	22.0	(2.0)	21.3	(1.7)	16.1	(1.0)	**-13.6**	(1.9)
	Macao (China)	6.4	(0.4)	24.4	(0.7)	6.1	(0.7)	4.0	(0.6)	4.2	(0.6)	11.1	(1.0)	**5.1**	(1.2)
	Montenegro	59.6	(0.8)	49.1	(0.2)	61.9	(1.4)	54.9	(1.4)	61.7	(1.4)	60.0	(1.3)	-1.8	(1.6)
	Peru	40.0	(0.8)	49.0	(0.2)	31.1	(1.3)	41.6	(2.2)	45.0	(1.7)	41.2	(2.0)	**10.1**	(2.3)
	Qatar	40.3	(0.5)	49.0	(0.1)	44.9	(1.0)	39.9	(0.9)	42.1	(1.0)	34.4	(0.8)	**-10.5**	(1.2)
	Russia	23.2	(0.7)	42.2	(0.4)	21.9	(1.2)	24.5	(1.8)	20.5	(1.9)	26.0	(2.1)	4.0	(2.5)
	Singapore	14.3	(0.5)	35.0	(0.5)	14.4	(0.8)	16.7	(1.2)	13.5	(0.9)	12.7	(0.9)	-1.7	(1.2)
	Chinese Taipei	3.2	(0.2)	17.5	(0.5)	6.6	(0.6)	3.1	(0.6)	1.9	(0.4)	1.2	(0.3)	**-5.4**	(0.7)
	Thailand	31.4	(0.9)	46.4	(0.3)	33.7	(2.0)	32.8	(2.1)	32.7	(2.2)	26.4	(1.7)	**-7.3**	(2.7)
	Tunisia	31.0	(0.9)	46.2	(0.4)	32.4	(2.6)	33.1	(2.1)	32.4	(2.3)	26.0	(1.9)	**-6.5**	(3.1)
	United Arab Emirates	21.0	(0.7)	40.7	(0.5)	18.4	(2.4)	14.8	(1.0)	21.6	(1.5)	28.8	(1.8)	**10.5**	(3.1)
	Uruguay	51.5	(0.8)	50.0	(0.0)	56.3	(1.8)	54.6	(1.9)	53.7	(2.0)	42.1	(1.8)	**-14.2**	(2.6)
	Malaysia**	12.4	(0.7)	32.9	(0.8)	10.7	(1.2)	12.2	(1.4)	11.9	(1.9)	14.7	(1.5)	**4.0**	(2.0)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with data from the computer-based questionnaire are shown.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

StatLink http://dx.doi.org/10.1787/888933436489

[Part 2/3]

Table II.3.4 Skipping a school day, science performance and school characteristics

Results based on students' self-reports

		Percentage of students who reported skipping a whole school day at least once in the two weeks prior to the PISA test													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	28.4	(2.6)	30.5	(1.0)	28.0	(0.8)	-0.4	(2.7)	30.2	(0.8)	26.8	(0.8)	**-3.4**	(1.2)
	Austria	11.1	(1.9)	9.8	(0.5)	12.5	(1.1)	1.5	(2.3)	10.8	(0.5)	11.0	(1.7)	0.2	(1.8)
	Belgium	3.5	(1.1)	5.9	(0.4)	9.6	(1.0)	**6.1**	(1.5)	w	w	w	w	w	w
	Canada	25.6	(2.2)	19.7	(0.8)	15.3	(0.8)	**-10.3**	(2.4)	18.8	(0.6)	8.7	(1.7)	**-10.1**	(1.8)
	Chile	17.6	(5.8)	9.8	(1.0)	8.9	(0.8)	-8.7	(5.8)	11.0	(1.1)	8.3	(0.7)	**-2.7**	(1.3)
	Czech Republic	7.0	(1.2)	8.4	(0.6)	7.6	(0.9)	0.6	(1.4)	8.1	(0.5)	8.1	(1.6)	0.0	(1.7)
	Denmark	17.6	(1.8)	17.0	(0.7)	16.9	(1.3)	-0.7	(2.3)	17.8	(0.6)	14.9	(1.5)	-2.8	(1.7)
	Estonia	18.2	(1.8)	22.4	(1.3)	27.6	(1.5)	**9.5**	(2.5)	23.2	(0.8)	20.2	(4.7)	-3.0	(4.9)
	Finland	38.5	(2.6)	36.5	(1.3)	36.4	(1.5)	-2.1	(3.2)	36.6	(0.9)	40.1	(3.4)	3.5	(3.6)
	France	9.5	(2.5)	11.3	(0.9)	9.6	(1.0)	0.1	(2.8)	11.5	(0.7)	6.6	(0.9)	**-4.8**	(1.1)
	Germany	5.5	(1.4)	8.3	(0.5)	10.2	(1.1)	**4.7**	(1.8)	8.8	(0.5)	7.5	(1.1)	-1.3	(1.2)
	Greece	21.2	(3.0)	20.6	(1.1)	17.9	(1.2)	-3.3	(3.4)	20.0	(0.9)	14.0	(2.5)	**-6.0**	(2.6)
	Hungary	14.9	(4.6)	8.5	(0.7)	7.8	(0.7)	-7.1	(4.8)	8.7	(0.5)	6.5	(0.9)	**-2.2**	(1.1)
	Iceland	4.1	(0.9)	3.8	(0.4)	5.8	(0.9)	1.7	(1.2)	4.3	(0.4)	m	m	m	m
	Ireland	25.8	(1.5)	25.0	(1.1)	22.0	(1.6)	-3.7	(2.3)	24.9	(1.3)	24.0	(0.9)	-1.0	(1.6)
	Israel	23.5	(2.3)	34.2	(1.1)	34.3	(1.6)	**10.8**	(2.8)	m	m	m	m	m	m
	Italy	54.5	(4.5)	56.1	(1.1)	51.1	(2.3)	-3.4	(5.0)	54.5	(0.9)	50.4	(4.9)	-4.1	(4.9)
	Japan	m	m	2.0	(0.5)	1.7	(0.3)	m	m	1.9	(0.3)	1.5	(0.3)	-0.4	(0.4)
	Korea	m	m	0.9	(0.4)	2.0	(0.3)	m	m	2.2	(0.3)	1.3	(0.3)	-0.8	(0.5)
	Latvia	28.2	(2.3)	23.0	(1.0)	24.8	(1.2)	-3.4	(2.7)	24.7	(0.8)	23.3	(4.7)	-1.4	(4.8)
	Luxembourg	m	m	12.8	(0.6)	9.7	(0.6)	m	m	11.3	(0.4)	12.1	(1.0)	0.8	(1.1)
	Mexico	30.7	(2.5)	23.2	(1.3)	26.0	(1.2)	-4.6	(2.7)	25.5	(0.8)	27.9	(2.7)	2.4	(2.8)
	Netherlands	m	m	5.4	(0.6)	4.4	(0.7)	m	m	5.1	(0.8)	5.0	(0.6)	-0.1	(1.0)
	New Zealand	29.9	(5.5)	25.9	(1.4)	23.7	(0.9)	-6.3	(5.6)	25.2	(0.8)	16.6	(1.9)	**-8.6**	(2.1)
	Norway	12.2	(1.3)	14.1	(0.6)	13.3	(1.3)	1.1	(1.8)	13.5	(0.5)	15.0	(7.7)	1.5	(7.7)
	Poland	18.2	(1.3)	19.5	(1.5)	24.1	(2.0)	**5.9**	(2.4)	20.5	(0.9)	12.7	(3.1)	**-7.8**	(3.2)
	Portugal	31.4	(1.3)	20.5	(0.7)	20.2	(1.5)	**-11.1**	(2.1)	20.8	(0.7)	20.4	(1.9)	-0.4	(2.0)
	Slovak Republic	54.3	(2.5)	51.0	(1.2)	47.8	(2.0)	-6.5	(3.4)	51.8	(1.0)	46.3	(3.1)	-5.5	(3.2)
	Slovenia	9.9	(3.1)	12.5	(0.6)	12.1	(0.9)	2.2	(3.2)	12.4	(0.5)	6.6	(2.8)	**-5.8**	(2.8)
	Spain	18.8	(2.9)	24.8	(1.0)	25.0	(1.1)	6.2	(3.2)	26.0	(0.9)	21.7	(1.1)	**-4.3**	(1.5)
	Sweden	10.0	(1.7)	8.7	(0.5)	9.4	(1.2)	-0.6	(2.1)	8.4	(0.4)	11.7	(1.7)	**3.3**	(1.7)
	Switzerland	6.4	(1.1)	9.6	(0.8)	11.4	(1.6)	**4.9**	(1.9)	9.7	(0.7)	8.9	(2.6)	-0.7	(2.7)
	Turkey	45.1	(6.0)	46.4	(1.3)	47.2	(1.2)	2.2	(6.1)	46.9	(0.9)	46.3	(2.7)	-0.6	(2.9)
	United Kingdom	26.5	(1.5)	24.4	(0.9)	28.9	(1.6)	2.4	(2.4)	26.0	(0.8)	22.6	(1.9)	-3.4	(2.2)
	United States	35.4	(2.8)	35.7	(1.0)	39.6	(1.3)	4.2	(3.1)	38.1	(0.8)	26.6	(2.0)	**-11.5**	(2.2)
	OECD average	22.0	(0.5)	19.7	(0.2)	19.8	(0.2)	-0.3	(0.6)	19.8	(0.1)	17.6	(0.5)	**-2.7**	(0.5)
Partners	**Brazil**	52.5	(3.7)	47.8	(1.1)	49.1	(1.2)	-3.4	(4.0)	50.4	(0.9)	38.8	(1.6)	**-11.6**	(1.8)
	B-S-J-G (China)	2.1	(0.8)	2.9	(0.4)	1.2	(0.3)	-0.9	(0.8)	2.3	(0.3)	2.5	(0.7)	0.2	(0.7)
	Bulgaria	46.1	(6.5)	46.2	(1.2)	42.5	(1.4)	-3.7	(6.7)	45.0	(0.9)	m	m	m	m
	Colombia	44.7	(2.5)	42.9	(1.5)	43.9	(1.1)	-0.7	(2.7)	43.6	(1.1)	44.4	(1.6)	0.8	(1.9)
	Costa Rica	42.7	(2.3)	37.4	(1.0)	42.1	(2.4)	-0.5	(3.3)	38.5	(0.9)	43.4	(2.5)	4.9	(2.6)
	Croatia	m	m	13.1	(0.8)	11.1	(1.1)	m	m	12.3	(0.6)	13.2	(3.3)	0.9	(3.4)
	Cyprus*	23.2	(2.4)	22.2	(0.6)	25.4	(1.1)	2.2	(2.6)	21.3	(0.6)	33.8	(1.8)	**12.5**	(1.9)
	Dominican Republic	50.2	(2.9)	52.5	(1.4)	47.9	(1.7)	-2.4	(3.4)	52.8	(1.1)	46.2	(1.4)	**-6.6**	(1.7)
	Hong Kong (China)	m	m	m	m	3.5	(0.2)	m	m	2.7	(0.8)	3.6	(0.3)	0.9	(0.8)
	Lithuania	27.8	(1.9)	21.1	(1.0)	20.5	(1.1)	**-7.4**	(2.2)	22.4	(0.8)	17.7	(4.4)	-4.7	(4.6)
	Macao (China)	m	m	m	m	6.4	(0.4)	m	m	m	m	6.2	(0.4)	m	m
	Montenegro	m	m	58.6	(0.9)	61.8	(1.2)	m	m	59.6	(0.8)	m	m	m	m
	Peru	33.0	(1.3)	42.5	(1.1)	41.1	(3.1)	**8.1**	(3.3)	37.9	(0.9)	44.5	(1.7)	**6.6**	(1.9)
	Qatar	52.9	(2.2)	41.3	(0.7)	38.2	(0.7)	**-14.6**	(2.3)	51.3	(0.7)	26.0	(0.6)	**-25.4**	(0.9)
	Russia	20.7	(1.8)	21.4	(1.5)	25.2	(0.9)	**4.5**	(2.0)	23.2	(0.7)	m	m	m	m
	Singapore	m	m	m	m	14.5	(0.6)	m	m	14.1	(0.5)	17.2	(3.1)	3.1	(3.2)
	Chinese Taipei	m	m	3.9	(0.4)	2.7	(0.3)	m	m	2.3	(0.2)	4.9	(0.4)	**2.6**	(0.5)
	Thailand	36.4	(2.7)	30.4	(1.3)	29.9	(1.9)	-6.4	(3.5)	30.6	(0.9)	36.6	(3.2)	6.0	(3.3)
	Tunisia	44.2	(4.4)	29.9	(1.3)	30.5	(2.1)	**-13.8**	(4.9)	30.1	(1.0)	51.3	(19.8)	21.2	(19.8)
	United Arab Emirates	14.0	(3.0)	17.0	(1.5)	23.7	(1.1)	**9.7**	(3.3)	13.7	(0.8)	26.1	(1.3)	**12.3**	(1.6)
	Uruguay	59.5	(6.7)	52.4	(1.0)	49.3	(1.6)	-10.2	(6.9)	54.5	(0.9)	35.9	(2.1)	**-18.5**	(2.3)
	Malaysia**	10.2	(1.3)	10.5	(1.0)	15.5	(1.4)	**5.2**	(2.0)	12.0	(0.7)	18.7	(4.4)	6.7	(4.5)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the computer-based questionnaire are shown.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.3.4 Skipping a school day, science performance and school characteristics

Results based on students' self-reports

		Percentage of students who reported skipping a whole school day at least once in the two weeks prior to the PISA test													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in science score when students skipped a whole school day at least once		Explained variance in student performance (r-squared x 100)		Change in science score when students skipped a whole school day at least once		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	29.2	(0.6)	27.5	(1.4)	-1.7	(1.6)	**-35**	(2.5)	2.4	(0.4)	**-27**	(2.3)	17.8	(1.1)
	Austria	17.5	(5.4)	10.8	(0.5)	-6.8	(5.5)	**-32**	(5.4)	1.1	(0.4)	**-24**	(4.6)	31.9	(1.8)
	Belgium	14.7	(2.2)	6.5	(0.3)	**-8.1**	(2.3)	**-65**	(5.2)	3.0	(0.5)	**-36**	(3.7)	35.6	(1.9)
	Canada	14.1	(1.1)	18.3	(0.5)	**4.1**	(1.2)	**-39**	(2.8)	2.6	(0.4)	**-31**	(2.7)	13.5	(0.9)
	Chile	21.2	(4.9)	8.6	(0.5)	**-12.7**	(4.9)	**-43**	(5.4)	2.1	(0.6)	**-32**	(4.8)	27.3	(1.6)
	Czech Republic	7.3	(0.6)	8.9	(0.7)	1.6	(0.9)	**-43**	(5.5)	1.6	(0.4)	**-29**	(4.6)	32.1	(1.9)
	Denmark	16.9	(0.6)	24.5	(7.5)	7.5	(7.5)	**-47**	(3.6)	3.9	(0.6)	**-40**	(3.4)	14.3	(1.3)
	Estonia	22.6	(0.7)	48.5	(6.5)	**25.9**	(6.5)	**-42**	(3.7)	3.9	(0.7)	**-33**	(3.6)	13.6	(1.3)
	Finland	36.7	(0.9)	m	m	m	m	**-23**	(3.1)	1.4	(0.4)	**-20**	(3.0)	10.9	(1.1)
	France	18.4	(1.5)	8.7	(0.5)	**-9.7**	(1.6)	**-70**	(5.8)	4.9	(0.8)	**-36**	(4.3)	38.5	(1.8)
	Germany	8.9	(0.5)	7.9	(2.0)	-1.1	(2.1)	**-50**	(6.5)	2.1	(0.6)	**-36**	(4.8)	34.0	(1.9)
	Greece	36.3	(4.9)	18.8	(0.8)	**-17.5**	(5.0)	**-46**	(4.1)	4.1	(0.7)	**-37**	(3.3)	26.4	(2.5)
	Hungary	13.5	(2.8)	7.9	(0.4)	**-5.6**	(2.8)	**-64**	(5.4)	3.4	(0.6)	**-29**	(4.4)	44.3	(1.9)
	Iceland	4.5	(0.4)	m	m	m	m	**-68**	(8.9)	2.4	(0.6)	**-61**	(9.1)	7.3	(0.9)
	Ireland	20.8	(0.8)	30.4	(1.4)	**9.6**	(1.5)	**-21**	(3.4)	1.1	(0.3)	**-15**	(2.9)	15.3	(1.3)
	Israel	33.5	(2.1)	32.6	(1.0)	-0.9	(2.4)	**-15**	(3.9)	0.4	(0.2)	**-14**	(2.9)	23.6	(2.3)
	Italy	58.8	(4.9)	55.2	(0.8)	-3.7	(5.0)	**-31**	(3.3)	2.9	(0.6)	**-21**	(2.7)	24.5	(2.2)
	Japan	m	m	1.8	(0.2)	m	m	**-78**	(10.2)	1.2	(0.4)	**-48**	(9.2)	28.4	(2.3)
	Korea	2.8	(0.8)	1.8	(0.2)	-1.0	(0.8)	**-96**	(10.1)	1.9	(0.5)	**-75**	(9.3)	18.9	(2.1)
	Latvia	24.6	(0.7)	27.9	(4.1)	3.3	(4.0)	**-44**	(3.0)	5.3	(0.7)	**-38**	(2.9)	16.4	(1.5)
	Luxembourg	14.5	(0.6)	7.5	(0.5)	**-7.0**	(0.8)	**-54**	(4.2)	2.9	(0.5)	**-34**	(3.9)	35.1	(1.0)
	Mexico	35.0	(1.6)	20.0	(0.8)	**-15.0**	(1.8)	**-24**	(2.6)	2.2	(0.5)	**-23**	(2.3)	18.7	(2.0)
	Netherlands	6.3	(0.4)	3.1	(0.5)	**-3.3**	(0.6)	**-66**	(6.3)	2.3	(0.4)	**-47**	(6.0)	36.5	(3.2)
	New Zealand	29.0	(2.9)	24.7	(0.7)	-4.2	(2.9)	**-41**	(4.2)	3.0	(0.6)	**-29**	(3.7)	19.8	(1.5)
	Norway	13.5	(0.5)	m	m	m	m	**-52**	(4.0)	3.5	(0.5)	**-50**	(3.7)	11.8	(1.0)
	Poland	20.2	(0.9)	m	m	m	m	**-33**	(3.8)	2.2	(0.5)	**-30**	(3.5)	17.4	(1.6)
	Portugal	30.5	(1.1)	15.7	(0.8)	**-14.8**	(1.3)	**-41**	(3.3)	3.3	(0.5)	**-33**	(3.2)	21.7	(1.9)
	Slovak Republic	52.8	(1.4)	49.7	(1.3)	-3.0	(1.8)	**-26**	(2.8)	1.9	(0.4)	**-19**	(2.4)	27.9	(2.0)
	Slovenia	18.6	(2.7)	12.1	(0.5)	**-6.5**	(2.7)	**-73**	(4.1)	6.6	(0.7)	**-47**	(3.4)	37.7	(1.3)
	Spain	24.7	(0.7)	m	m	m	m	**-36**	(2.7)	3.1	(0.5)	**-29**	(2.5)	16.3	(1.2)
	Sweden	9.1	(0.5)	4.3	(3.0)	-4.8	(3.0)	**-67**	(5.2)	3.6	(0.6)	**-55**	(4.7)	18.7	(1.6)
	Switzerland	11.0	(0.8)	4.5	(0.6)	**-6.4**	(1.0)	**-51**	(5.7)	2.3	(0.5)	**-41**	(5.3)	26.5	(1.9)
	Turkey	38.8	(7.5)	47.2	(0.9)	8.4	(7.6)	5	(3.2)	0.1	(0.1)	-1	(2.4)	26.6	(4.1)
	United Kingdom	14.4	(3.1)	25.5	(0.6)	**11.1**	(3.1)	**-35**	(3.6)	2.4	(0.5)	**-25**	(2.9)	18.9	(1.6)
	United States	45.9	(2.3)	36.2	(0.8)	**-9.6**	(2.4)	**-29**	(2.7)	2.1	(0.4)	**-23**	(2.6)	15.4	(1.5)
	OECD average	22.5	(0.4)	19.9	(0.4)	**-2.5**	(0.7)	**-45**	(0.8)	2.7	(0.1)	**-33**	(0.7)	23.5	(0.3)
Partners	**Brazil**	52.7	(1.1)	46.8	(0.7)	**-5.9**	(1.4)	**-11**	(2.2)	0.4	(0.2)	**-8**	(2.0)	23.2	(2.1)
	B-S-J-G (China)	3.1	(0.3)	1.0	(0.2)	**-2.2**	(0.4)	**-107**	(10.7)	2.4	(0.5)	**-71**	(9.4)	35.7	(3.0)
	Bulgaria	52.6	(8.9)	44.5	(1.0)	-8.1	(9.0)	**-30**	(4.1)	2.3	(0.6)	**-17**	(2.9)	38.1	(2.7)
	Colombia	51.6	(1.1)	38.7	(1.1)	**-12.9**	(1.4)	**-19**	(2.4)	1.4	(0.4)	**-16**	(2.2)	22.2	(2.4)
	Costa Rica	43.1	(1.3)	34.7	(1.3)	**-8.4**	(1.9)	**-20**	(2.3)	2.0	(0.5)	**-15**	(1.9)	23.4	(2.0)
	Croatia	m	m	12.3	(0.6)	m	m	**-61**	(3.9)	5.1	(0.6)	**-45**	(3.5)	28.6	(1.9)
	Cyprus*	29.3	(2.3)	23.0	(0.6)	**-6.3**	(2.4)	**-42**	(3.6)	3.7	(0.6)	**-45**	(3.3)	21.1	(1.0)
	Dominican Republic	58.9	(2.1)	49.6	(1.0)	**-9.3**	(2.3)	**-19**	(3.4)	1.6	(0.5)	**-11**	(2.4)	25.1	(3.1)
	Hong Kong (China)	4.1	(0.5)	3.3	(0.3)	-0.8	(0.6)	**-59**	(8.8)	1.8	(0.5)	**-54**	(8.1)	14.4	(1.7)
	Lithuania	22.3	(0.7)	m	m	m	m	**-52**	(3.4)	5.8	(0.8)	**-41**	(3.3)	24.7	(2.2)
	Macao (China)	7.5	(0.6)	5.4	(0.4)	**-2.1**	(0.8)	**-46**	(5.8)	1.9	(0.5)	**-51**	(5.7)	4.5	(0.7)
	Montenegro	61.5	(5.2)	59.6	(0.8)	-1.9	(5.3)	**-8**	(2.7)	0.2	(0.2)	**-9**	(2.5)	17.1	(0.9)
	Peru	45.9	(1.4)	38.1	(0.9)	**-7.8**	(1.6)	**-6**	(2.3)	0.2	(0.1)	**-12**	(2.0)	28.7	(2.2)
	Qatar	42.4	(0.9)	39.7	(0.6)	**-2.7**	(1.1)	**-41**	(2.0)	4.2	(0.4)	**-35**	(1.9)	17.5	(0.7)
	Russia	22.7	(0.7)	26.6	(1.7)	**3.9**	(1.8)	**-12**	(3.2)	0.4	(0.2)	**-13**	(2.8)	10.2	(1.8)
	Singapore	12.9	(3.5)	14.3	(0.5)	1.4	(3.7)	**-29**	(3.8)	1.0	(0.3)	**-24**	(3.5)	26.8	(1.5)
	Chinese Taipei	2.9	(0.3)	3.3	(0.3)	0.4	(0.4)	**-120**	(6.8)	4.5	(0.6)	**-86**	(6.1)	30.5	(2.4)
	Thailand	29.9	(1.4)	31.9	(1.1)	2.0	(1.8)	**-26**	(2.7)	2.3	(0.5)	**-22**	(2.6)	19.7	(2.9)
	Tunisia	42.0	(1.7)	25.5	(1.0)	**-16.5**	(2.0)	**-22**	(2.9)	2.4	(0.6)	**-19**	(2.7)	20.8	(3.1)
	United Arab Emirates	23.8	(1.5)	20.5	(0.8)	-3.2	(1.7)	0	(4.6)	0.0	(0.0)	**-8**	(4.1)	14.5	(1.9)
	Uruguay	58.8	(1.0)	47.5	(1.0)	**-11.3**	(1.2)	**-13**	(2.8)	0.6	(0.2)	-2	(2.4)	25.9	(1.8)
	Malaysia**	29.3	(3.9)	11.8	(0.6)	**-17.5**	(3.9)	**-20**	(4.6)	0.8	(0.4)	**-24**	(3.7)	19.2	(2.4)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the computer-based questionnaire are shown.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.3.8 Truancy at school and science performance

Results based on students' self-reports

		Change in science score per percentage-point increase in the share of students at school who had skipped a whole school day at least once in the two weeks prior to the PISA test			
		Before accounting for respondent's truancy, and students' and schools' socio-economic profile[1]		After accounting for respondent's truancy, and students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**1.1**	(0.1)	-0.1	(0.1)
	Austria	**-2.5**	(0.5)	**-1.4**	(0.3)
	Belgium	**-5.5**	(0.3)	**-1.8**	(0.3)
	Canada	**-1.4**	(0.2)	**-0.6**	(0.1)
	Chile	**-2.9**	(0.3)	**-1.4**	(0.3)
	Czech Republic	**-2.6**	(0.3)	**-1.1**	(0.3)
	Denmark	**-1.3**	(0.2)	**-0.6**	(0.2)
	Estonia	**-1.2**	(0.1)	**-0.7**	(0.1)
	Finland	**-0.4**	(0.2)	0.2	(0.1)
	France	**-3.8**	(0.3)	**-1.3**	(0.2)
	Germany	**-3.0**	(0.5)	**-0.9**	(0.3)
	Greece	**-2.6**	(0.3)	**-1.4**	(0.2)
	Hungary	**-3.5**	(0.5)	-0.6	(0.4)
	Iceland	**-1.4**	(0.4)	-0.5	(0.4)
	Ireland	**-1.0**	(0.3)	-0.1	(0.2)
	Israel	-0.6	(0.5)	-0.3	(0.3)
	Italy	**-2.1**	(0.2)	**-1.2**	(0.1)
	Japan	**-6.7**	(1.2)	**-2.3**	(0.9)
	Korea	**-7.3**	(1.0)	**-3.9**	(0.9)
	Latvia	**-1.3**	(0.2)	**-0.5**	(0.1)
	Luxembourg	**-7.2**	(0.2)	**-1.4**	(0.2)
	Mexico	**-1.2**	(0.2)	**-0.9**	(0.1)
	Netherlands	**-7.5**	(0.7)	**-4.2**	(0.6)
	New Zealand	**-2.0**	(0.2)	**-0.7**	(0.2)
	Norway	-0.5	(0.3)	-0.3	(0.2)
	Poland	**-0.7**	(0.3)	-0.3	(0.2)
	Portugal	**-2.3**	(0.3)	**-1.2**	(0.2)
	Slovak Republic	**-1.0**	(0.2)	-0.2	(0.1)
	Slovenia	**-4.1**	(0.1)	**-1.6**	(0.1)
	Spain	**-1.0**	(0.2)	-0.2	(0.2)
	Sweden	**-1.8**	(0.4)	**-0.6**	(0.3)
	Switzerland	**-2.9**	(0.3)	**-1.9**	(0.3)
	Turkey	0.8	(0.4)	0.0	(0.3)
	United Kingdom	**-1.6**	(0.3)	-0.1	(0.2)
	United States	**-1.4**	(0.3)	-0.4	(0.2)
	OECD average	**-2.5**	(0.1)	**-1.0**	(0.1)
Partners	Brazil	**-0.8**	(0.1)	**-0.6**	(0.1)
	B-S-J-G (China)	**-10.5**	(1.6)	**-4.0**	(1.3)
	Bulgaria	**-2.9**	(0.4)	**-1.0**	(0.3)
	Colombia	**-1.3**	(0.2)	**-0.6**	(0.2)
	Costa Rica	**-1.3**	(0.2)	**-0.5**	(0.1)
	Croatia	**-3.8**	(0.3)	**-1.9**	(0.2)
	Cyprus*	**-0.9**	(0.1)	**-0.7**	(0.1)
	Dominican Republic	**-1.3**	(0.2)	**-0.7**	(0.2)
	Hong Kong (China)	**-6.2**	(0.9)	**-4.8**	(0.6)
	Lithuania	**-2.3**	(0.2)	**-1.2**	(0.2)
	Macao (China)	**-2.4**	(0.2)	**-3.7**	(0.2)
	Montenegro	-0.3	(0.2)	-0.2	(0.2)
	Peru	**0.5**	(0.2)	**-0.3**	(0.1)
	Qatar	**-2.4**	(0.0)	**-1.8**	(0.1)
	Russia	**-0.5**	(0.2)	**-0.6**	(0.2)
	Singapore	**-2.3**	(0.2)	**-1.4**	(0.2)
	Chinese Taipei	**-7.7**	(0.6)	**-2.4**	(0.5)
	Thailand	**-1.4**	(0.2)	**-0.8**	(0.2)
	Tunisia	**-1.5**	(0.2)	**-0.9**	(0.2)
	United Arab Emirates	**0.7**	(0.2)	0.2	(0.2)
	Uruguay	**-1.6**	(0.2)	**-0.3**	(0.1)
	Malaysia**	-0.1	(0.3)	-0.4	(0.2)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the computer-based questionnaire are shown.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.3.9 Truancy at school and disciplinary climate in science lessons

Results based on students' reports

		Change in the index of disciplinary climate in science lessons per percentage-point increase in the share of students at school who had skipped a whole school day at least once in the two weeks prior to the PISA test			
		Before accounting for respondent's truancy, and students' and schools' socio-economic profile[1]		After accounting for respondent's truancy, and students' and schools' socio-economic profile	
		Unit dif.	S.E.	Unit dif.	S.E.
OECD	**Australia**	**-0.005**	(0.001)	0.000	(0.001)
	Austria	**-0.025**	(0.004)	**-0.021**	(0.004)
	Belgium	**-0.011**	(0.003)	-0.005	(0.004)
	Canada	**-0.006**	(0.001)	-0.002	(0.001)
	Chile	**-0.015**	(0.003)	**-0.012**	(0.003)
	Czech Republic	**-0.024**	(0.003)	**-0.017**	(0.003)
	Denmark	**-0.013**	(0.003)	**-0.010**	(0.003)
	Estonia	0.000	(0.001)	0.001	(0.001)
	Finland	**-0.007**	(0.002)	**-0.005**	(0.002)
	France	**-0.012**	(0.002)	-0.003	(0.002)
	Germany	**-0.015**	(0.003)	**-0.008**	(0.002)
	Greece	**-0.015**	(0.002)	**-0.010**	(0.002)
	Hungary	**-0.009**	(0.004)	-0.001	(0.004)
	Iceland	**-0.018**	(0.003)	**-0.011**	(0.003)
	Ireland	**-0.006**	(0.002)	-0.003	(0.003)
	Israel	**-0.009**	(0.003)	**-0.007**	(0.002)
	Italy	**-0.003**	(0.001)	0.002	(0.001)
	Japan	**-0.050**	(0.009)	**-0.033**	(0.009)
	Korea	**-0.040**	(0.005)	**-0.032**	(0.006)
	Latvia	**-0.006**	(0.002)	**-0.004**	(0.002)
	Luxembourg	**-0.025**	(0.002)	**-0.012**	(0.003)
	Mexico	**-0.008**	(0.002)	**-0.006**	(0.002)
	Netherlands	**-0.017**	(0.003)	**-0.012**	(0.003)
	New Zealand	**-0.007**	(0.002)	-0.002	(0.002)
	Norway	**-0.009**	(0.003)	**-0.006**	(0.003)
	Poland	**-0.012**	(0.002)	**-0.010**	(0.002)
	Portugal	**-0.006**	(0.003)	-0.005	(0.003)
	Slovak Republic	**-0.007**	(0.002)	**-0.004**	(0.002)
	Slovenia	**-0.017**	(0.002)	**-0.008**	(0.003)
	Spain	**-0.005**	(0.003)	-0.003	(0.003)
	Sweden	**-0.014**	(0.004)	**-0.009**	(0.004)
	Switzerland	-0.013	(0.004)	-0.007	(0.004)
	Turkey	**-0.007**	(0.002)	**-0.005**	(0.002)
	United Kingdom	**-0.003**	(0.002)	0.001	(0.002)
	United States	**-0.007**	(0.002)	-0.003	(0.002)
	OECD average	**-0.013**	(0.001)	**-0.008**	(0.001)
Partners	**Brazil**	**-0.008**	(0.001)	**-0.007**	(0.001)
	B-S-J-G (China)	**-0.032**	(0.007)	-0.014	(0.007)
	Bulgaria	**-0.008**	(0.002)	-0.004	(0.002)
	Colombia	-0.003	(0.002)	-0.002	(0.002)
	Costa Rica	-0.001	(0.002)	0.000	(0.002)
	Croatia	**-0.023**	(0.001)	**-0.016**	(0.002)
	Cyprus*	**-0.003**	(0.001)	-0.001	(0.001)
	Dominican Republic	**-0.007**	(0.002)	**-0.006**	(0.002)
	Hong Kong (China)	**-0.039**	(0.006)	**-0.034**	(0.006)
	Lithuania	**-0.012**	(0.001)	**-0.008**	(0.002)
	Macao (China)	**-0.014**	(0.002)	**-0.014**	(0.003)
	Montenegro	**-0.005**	(0.002)	**-0.004**	(0.002)
	Peru	-0.001	(0.001)	0.001	(0.001)
	Qatar	**-0.013**	(0.000)	**-0.010**	(0.001)
	Russia	**-0.014**	(0.003)	**-0.011**	(0.003)
	Singapore	**-0.012**	(0.002)	**-0.007**	(0.001)
	Chinese Taipei	**-0.023**	(0.004)	**-0.012**	(0.005)
	Thailand	**-0.003**	(0.001)	-0.002	(0.001)
	Tunisia	**-0.003**	(0.001)	**-0.003**	(0.001)
	United Arab Emirates	-0.002	(0.001)	-0.001	(0.001)
	Uruguay	-0.003	(0.001)	0.001	(0.002)
	Malaysia**	**-0.012**	(0.002)	**-0.010**	(0.002)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the computer-based questionnaire are shown.
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[Part 1/3]

Table II.3.11 Index of disciplinary climate in science classes, science performance and school characteristics

Results based on students' reports

		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	-0.19	(0.02)	1.02	(0.01)	-0.38	(0.04)	-0.30	(0.04)	-0.18	(0.03)	0.04	(0.03)	**0.42**	(0.04)
	Austria	0.21	(0.04)	1.09	(0.02)	0.04	(0.06)	0.14	(0.10)	0.30	(0.08)	0.30	(0.06)	**0.26**	(0.09)
	Belgium	-0.16	(0.02)	1.02	(0.01)	-0.21	(0.05)	-0.27	(0.06)	-0.11	(0.03)	-0.06	(0.04)	**0.15**	(0.06)
	Canada	-0.01	(0.02)	1.02	(0.01)	-0.12	(0.04)	-0.03	(0.05)	0.02	(0.03)	0.10	(0.03)	**0.22**	(0.05)
	Chile	-0.11	(0.03)	0.88	(0.01)	-0.22	(0.05)	-0.18	(0.06)	0.00	(0.07)	-0.06	(0.05)	**0.16**	(0.07)
	Czech Republic	-0.24	(0.02)	1.03	(0.01)	-0.50	(0.06)	-0.31	(0.06)	-0.17	(0.05)	-0.01	(0.06)	**0.50**	(0.08)
	Denmark	0.03	(0.02)	0.95	(0.01)	-0.11	(0.05)	0.00	(0.05)	0.08	(0.06)	0.15	(0.05)	**0.26**	(0.07)
	Estonia	-0.04	(0.02)	0.91	(0.01)	0.01	(0.05)	-0.15	(0.06)	-0.04	(0.04)	0.03	(0.04)	0.02	(0.07)
	Finland	-0.10	(0.02)	0.88	(0.01)	-0.10	(0.05)	-0.14	(0.06)	-0.12	(0.05)	-0.03	(0.05)	0.07	(0.07)
	France	-0.27	(0.02)	0.96	(0.01)	-0.55	(0.05)	-0.34	(0.04)	-0.20	(0.04)	-0.08	(0.04)	**0.48**	(0.07)
	Germany	0.05	(0.02)	0.94	(0.01)	-0.17	(0.05)	-0.05	(0.04)	0.14	(0.04)	0.21	(0.04)	**0.38**	(0.06)
	Greece	-0.23	(0.03)	0.85	(0.01)	-0.49	(0.07)	-0.26	(0.05)	-0.09	(0.04)	-0.09	(0.05)	**0.39**	(0.07)
	Hungary	-0.08	(0.02)	0.99	(0.01)	-0.33	(0.06)	-0.15	(0.06)	-0.01	(0.05)	0.15	(0.05)	**0.48**	(0.08)
	Iceland	0.01	(0.02)	0.95	(0.01)	-0.09	(0.04)	-0.07	(0.03)	0.04	(0.03)	0.18	(0.03)	**0.27**	(0.05)
	Ireland	0.09	(0.02)	1.03	(0.01)	0.00	(0.06)	0.09	(0.05)	0.11	(0.06)	0.17	(0.05)	**0.17**	(0.08)
	Israel	-0.03	(0.03)	1.07	(0.01)	0.02	(0.08)	-0.07	(0.05)	-0.09	(0.08)	0.04	(0.06)	0.02	(0.10)
	Italy	-0.07	(0.02)	0.89	(0.01)	-0.30	(0.05)	-0.18	(0.04)	0.06	(0.04)	0.14	(0.04)	**0.44**	(0.07)
	Japan	0.83	(0.03)	0.94	(0.02)	0.51	(0.08)	0.82	(0.08)	0.97	(0.08)	1.01	(0.06)	**0.51**	(0.10)
	Korea	0.63	(0.02)	0.92	(0.01)	0.52	(0.04)	0.56	(0.04)	0.67	(0.06)	0.74	(0.07)	**0.22**	(0.08)
	Latvia	-0.17	(0.02)	0.92	(0.01)	-0.06	(0.06)	-0.29	(0.05)	-0.25	(0.04)	-0.09	(0.04)	-0.03	(0.07)
	Luxembourg	-0.12	(0.01)	1.09	(0.01)	-0.31	(0.03)	-0.18	(0.03)	-0.09	(0.03)	0.06	(0.02)	**0.36**	(0.04)
	Mexico	0.04	(0.02)	0.89	(0.01)	0.16	(0.05)	-0.03	(0.04)	-0.05	(0.03)	0.09	(0.06)	-0.07	(0.08)
	Netherlands	-0.10	(0.02)	0.81	(0.01)	-0.19	(0.04)	-0.12	(0.04)	-0.05	(0.04)	-0.05	(0.04)	**0.14**	(0.06)
	New Zealand	-0.15	(0.02)	1.04	(0.01)	-0.35	(0.04)	-0.23	(0.07)	-0.09	(0.05)	0.01	(0.04)	**0.35**	(0.06)
	Norway	0.14	(0.03)	0.93	(0.01)	0.14	(0.06)	0.15	(0.06)	0.12	(0.05)	0.16	(0.05)	0.02	(0.07)
	Poland	-0.04	(0.02)	0.93	(0.01)	0.02	(0.05)	-0.09	(0.06)	-0.04	(0.07)	-0.04	(0.06)	-0.06	(0.08)
	Portugal	0.07	(0.03)	1.00	(0.02)	0.09	(0.04)	0.06	(0.06)	0.00	(0.07)	0.15	(0.05)	0.07	(0.07)
	Slovak Republic	-0.13	(0.02)	1.00	(0.01)	-0.28	(0.05)	-0.25	(0.06)	-0.18	(0.05)	0.18	(0.06)	**0.45**	(0.07)
	Slovenia	-0.07	(0.03)	1.04	(0.01)	-0.22	(0.04)	-0.22	(0.04)	-0.04	(0.06)	0.26	(0.06)	**0.48**	(0.08)
	Spain	-0.08	(0.02)	0.95	(0.01)	-0.06	(0.05)	-0.12	(0.07)	-0.12	(0.07)	-0.02	(0.05)	0.04	(0.07)
	Sweden	0.02	(0.03)	0.95	(0.01)	-0.19	(0.04)	0.02	(0.08)	-0.02	(0.05)	0.25	(0.06)	**0.44**	(0.07)
	Switzerland	0.05	(0.03)	1.04	(0.01)	-0.07	(0.06)	-0.03	(0.06)	0.06	(0.07)	0.20	(0.06)	**0.27**	(0.08)
	Turkey	-0.12	(0.02)	0.96	(0.02)	-0.10	(0.04)	-0.20	(0.05)	-0.13	(0.05)	-0.07	(0.07)	0.02	(0.08)
	United Kingdom	-0.08	(0.02)	1.03	(0.01)	-0.11	(0.05)	-0.11	(0.05)	-0.19	(0.05)	0.08	(0.04)	**0.19**	(0.06)
	United States	0.29	(0.03)	1.01	(0.01)	0.12	(0.05)	0.27	(0.06)	0.27	(0.06)	0.49	(0.04)	**0.37**	(0.06)
	OECD average	0.00	(0.00)	0.97	(0.00)	-0.11	(0.01)	-0.06	(0.01)	0.02	(0.01)	0.13	(0.01)	**0.24**	(0.01)
Partners	**Albania**	0.42	(0.02)	0.86	(0.01)	0.44	(0.04)	0.40	(0.05)	0.39	(0.03)	0.44	(0.04)	0.00	(0.06)
	Algeria	-0.12	(0.02)	0.91	(0.01)	-0.06	(0.04)	-0.02	(0.04)	-0.20	(0.05)	-0.20	(0.04)	**-0.14**	(0.06)
	Brazil	-0.22	(0.02)	0.97	(0.01)	-0.33	(0.04)	-0.31	(0.04)	-0.31	(0.04)	0.00	(0.03)	**0.33**	(0.04)
	B-S-J-G (China)	0.28	(0.02)	0.92	(0.01)	0.10	(0.04)	0.18	(0.06)	0.39	(0.05)	0.46	(0.05)	**0.36**	(0.06)
	Bulgaria	-0.18	(0.02)	0.99	(0.01)	-0.22	(0.06)	-0.37	(0.06)	-0.20	(0.04)	0.04	(0.05)	**0.26**	(0.09)
	CABA (Argentina)	-0.10	(0.05)	0.84	(0.01)	-0.10	(0.09)	-0.14	(0.12)	-0.20	(0.12)	0.04	(0.11)	0.14	(0.15)
	Colombia	0.04	(0.02)	0.89	(0.01)	0.08	(0.05)	0.01	(0.04)	0.01	(0.03)	0.04	(0.04)	-0.04	(0.06)
	Costa Rica	0.13	(0.02)	0.93	(0.01)	0.21	(0.05)	0.08	(0.04)	0.12	(0.04)	0.12	(0.05)	-0.09	(0.07)
	Croatia	-0.06	(0.02)	0.89	(0.01)	-0.23	(0.05)	-0.13	(0.05)	-0.10	(0.05)	0.20	(0.04)	**0.43**	(0.07)
	Cyprus*	-0.27	(0.01)	0.87	(0.01)	-0.42	(0.03)	-0.28	(0.03)	-0.27	(0.02)	-0.11	(0.03)	**0.31**	(0.04)
	Dominican Republic	0.00	(0.02)	1.01	(0.01)	0.01	(0.06)	-0.06	(0.06)	-0.05	(0.06)	0.09	(0.05)	0.08	(0.09)
	FYROM	0.21	(0.01)	0.88	(0.01)	0.14	(0.03)	0.17	(0.03)	0.22	(0.02)	0.30	(0.03)	**0.16**	(0.04)
	Georgia	0.37	(0.02)	0.86	(0.01)	0.39	(0.05)	0.32	(0.04)	0.36	(0.05)	0.43	(0.05)	0.04	(0.07)
	Hong Kong (China)	0.35	(0.03)	0.93	(0.02)	0.21	(0.04)	0.35	(0.05)	0.36	(0.06)	0.45	(0.08)	**0.23**	(0.08)
	Indonesia	0.23	(0.02)	0.87	(0.01)	0.28	(0.06)	0.23	(0.05)	0.21	(0.06)	0.20	(0.07)	-0.08	(0.09)
	Jordan	-0.10	(0.03)	0.97	(0.01)	-0.12	(0.07)	-0.06	(0.06)	-0.13	(0.05)	-0.07	(0.06)	0.05	(0.09)
	Kosovo	0.59	(0.01)	0.87	(0.01)	0.53	(0.03)	0.62	(0.03)	0.62	(0.03)	0.61	(0.03)	0.08	(0.04)
	Lebanon	-0.09	(0.03)	0.88	(0.02)	-0.10	(0.07)	-0.08	(0.05)	-0.15	(0.04)	-0.04	(0.04)	0.06	(0.09)
	Lithuania	0.05	(0.02)	1.07	(0.01)	-0.07	(0.05)	-0.06	(0.06)	0.04	(0.04)	0.26	(0.05)	**0.33**	(0.07)
	Macao (China)	0.16	(0.01)	0.77	(0.01)	0.18	(0.02)	0.22	(0.02)	0.12	(0.03)	0.11	(0.03)	**-0.07**	(0.03)
	Malta	-0.02	(0.02)	1.00	(0.01)	-0.20	(0.04)	0.00	(0.04)	-0.08	(0.03)	0.17	(0.03)	**0.38**	(0.05)
	Moldova	0.39	(0.02)	0.78	(0.01)	0.45	(0.04)	0.41	(0.05)	0.35	(0.04)	0.34	(0.04)	**-0.11**	(0.05)
	Montenegro	0.07	(0.01)	1.04	(0.01)	0.11	(0.03)	0.01	(0.02)	0.04	(0.03)	0.12	(0.03)	0.01	(0.04)
	Peru	0.14	(0.02)	0.86	(0.01)	0.22	(0.04)	0.07	(0.04)	0.07	(0.03)	0.19	(0.04)	-0.03	(0.05)
	Qatar	-0.07	(0.01)	1.02	(0.01)	-0.21	(0.02)	-0.12	(0.02)	-0.11	(0.02)	0.15	(0.02)	**0.36**	(0.03)
	Romania	0.26	(0.03)	0.82	(0.01)	0.19	(0.05)	0.18	(0.07)	0.18	(0.07)	0.47	(0.05)	**0.28**	(0.07)
	Russia	0.34	(0.04)	1.03	(0.01)	0.51	(0.08)	0.27	(0.09)	0.33	(0.08)	0.25	(0.05)	**-0.26**	(0.08)
	Singapore	0.20	(0.01)	0.89	(0.01)	0.02	(0.02)	0.04	(0.03)	0.23	(0.02)	0.51	(0.02)	**0.49**	(0.03)
	Chinese Taipei	0.18	(0.02)	0.90	(0.01)	0.09	(0.04)	0.17	(0.05)	0.13	(0.03)	0.32	(0.05)	**0.23**	(0.06)
	Thailand	0.36	(0.02)	0.85	(0.01)	0.44	(0.04)	0.41	(0.04)	0.31	(0.04)	0.28	(0.03)	**-0.16**	(0.05)
	Trinidad and Tobago	-0.06	(0.01)	0.91	(0.01)	-0.20	(0.03)	-0.21	(0.03)	-0.04	(0.02)	0.20	(0.02)	**0.39**	(0.04)
	Tunisia	-0.42	(0.02)	0.85	(0.01)	-0.27	(0.03)	-0.39	(0.05)	-0.47	(0.04)	-0.55	(0.03)	**-0.28**	(0.05)
	United Arab Emirates	0.03	(0.02)	1.03	(0.01)	0.03	(0.03)	0.01	(0.03)	0.02	(0.04)	0.06	(0.03)	0.03	(0.04)
	Uruguay	-0.11	(0.02)	0.98	(0.01)	-0.23	(0.05)	-0.20	(0.04)	-0.04	(0.05)	0.00	(0.04)	**0.23**	(0.07)
	Viet Nam	0.42	(0.02)	0.67	(0.01)	0.49	(0.05)	0.41	(0.05)	0.36	(0.05)	0.41	(0.04)	-0.08	(0.07)
	Argentina**	-0.22	(0.02)	0.88	(0.01)	-0.19	(0.04)	-0.30	(0.06)	-0.19	(0.04)	-0.19	(0.06)	0.00	(0.07)
	Kazakhstan**	0.93	(0.02)	0.83	(0.01)	0.84	(0.06)	0.93	(0.05)	0.88	(0.05)	1.08	(0.05)	**0.24**	(0.07)
	Malaysia**	0.10	(0.02)	0.83	(0.01)	-0.03	(0.04)	0.02	(0.05)	0.21	(0.04)	0.21	(0.05)	**0.24**	(0.06)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Greater values in the index indicate a more positive disciplinary climate in science lessons.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/3]

Table II.3.11 Index of disciplinary climate in science classes, science performance and school characteristics

Results based on students' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	-0.39	(0.06)	-0.36	(0.03)	-0.12	(0.02)	**0.27**	(0.06)	-0.29	(0.02)	-0.08	(0.03)	**0.21**	(0.03)
	Austria	0.05	(0.21)	0.29	(0.04)	0.12	(0.07)	0.07	(0.22)	0.22	(0.04)	0.21	(0.14)	-0.01	(0.14)
	Belgium	0.00	(0.12)	-0.14	(0.03)	-0.20	(0.04)	-0.20	(0.12)	w	w	w	(0.04)	w	w
	Canada	-0.15	(0.12)	-0.06	(0.03)	0.05	(0.02)	0.21	(0.13)	-0.01	(0.02)	0.06	(0.08)	0.07	(0.08)
	Chile	-0.22	(0.07)	-0.07	(0.05)	-0.12	(0.04)	0.10	(0.08)	-0.18	(0.05)	-0.06	(0.03)	**0.12**	(0.06)
	Czech Republic	-0.31	(0.09)	-0.26	(0.03)	-0.16	(0.05)	0.15	(0.11)	-0.24	(0.03)	-0.22	(0.08)	0.02	(0.08)
	Denmark	0.04	(0.08)	0.02	(0.03)	0.07	(0.06)	0.02	(0.09)	-0.03	(0.03)	0.22	(0.06)	**0.24**	(0.07)
	Estonia	0.01	(0.06)	-0.06	(0.03)	-0.06	(0.04)	-0.06	(0.07)	-0.04	(0.02)	0.05	(0.09)	0.08	(0.10)
	Finland	-0.06	(0.08)	-0.11	(0.03)	-0.11	(0.05)	-0.04	(0.09)	-0.10	(0.02)	-0.10	(0.13)	0.00	(0.13)
	France	-0.32	(0.09)	-0.27	(0.02)	-0.29	(0.05)	0.02	(0.09)	-0.31	(0.02)	-0.12	(0.04)	**0.20**	(0.05)
	Germany	0.14	(0.08)	0.07	(0.02)	-0.01	(0.05)	-0.15	(0.10)	0.04	(0.02)	0.08	(0.06)	0.04	(0.07)
	Greece	-0.27	(0.08)	-0.27	(0.04)	-0.14	(0.04)	0.13	(0.08)	-0.24	(0.03)	0.00	(0.08)	**0.25**	(0.09)
	Hungary	-0.26	(0.13)	-0.09	(0.04)	-0.06	(0.04)	0.19	(0.13)	-0.11	(0.03)	0.04	(0.04)	**0.15**	(0.05)
	Iceland	-0.01	(0.04)	-0.04	(0.02)	0.11	(0.02)	**0.12**	(0.04)	0.01	(0.02)	c	c	m	m
	Ireland	0.06	(0.06)	0.08	(0.04)	0.13	(0.04)	0.06	(0.07)	0.04	(0.04)	0.13	(0.03)	0.09	(0.05)
	Israel	0.02	(0.07)	-0.05	(0.05)	0.00	(0.06)	-0.02	(0.09)	m	m	m	m	m	m
	Italy	-0.39	(0.05)	-0.06	(0.03)	-0.05	(0.04)	**0.34**	(0.07)	-0.06	(0.02)	-0.04	(0.16)	0.02	(0.16)
	Japan	c	c	0.91	(0.06)	0.81	(0.04)	m	m	0.92	(0.03)	0.66	(0.07)	**-0.26**	(0.08)
	Korea	c	c	0.62	(0.11)	0.62	(0.03)	m	m	0.53	(0.03)	0.79	(0.04)	**0.25**	(0.05)
	Latvia	-0.18	(0.05)	-0.18	(0.03)	-0.15	(0.03)	0.03	(0.06)	-0.17	(0.02)	-0.32	(0.21)	-0.15	(0.21)
	Luxembourg	m	m	-0.19	(0.02)	-0.03	(0.02)	m	m	-0.12	(0.01)	-0.12	(0.04)	0.00	(0.04)
	Mexico	0.13	(0.06)	0.04	(0.02)	0.00	(0.04)	-0.13	(0.07)	0.04	(0.02)	0.04	(0.10)	-0.01	(0.10)
	Netherlands	c	c	-0.08	(0.02)	-0.14	(0.06)	m	m	-0.14	(0.04)	-0.07	(0.03)	0.06	(0.06)
	New Zealand	-0.27	(0.15)	-0.18	(0.04)	-0.09	(0.03)	0.17	(0.15)	-0.17	(0.02)	0.27	(0.12)	**0.44**	(0.12)
	Norway	0.21	(0.09)	0.13	(0.03)	0.12	(0.05)	-0.09	(0.10)	0.13	(0.03)	0.33	(0.22)	0.20	(0.23)
	Poland	0.00	(0.03)	0.01	(0.04)	-0.17	(0.04)	**-0.17**	(0.06)	-0.05	(0.02)	0.24	(0.14)	0.29	(0.15)
	Portugal	0.17	(0.11)	0.07	(0.03)	0.11	(0.06)	-0.06	(0.12)	0.08	(0.02)	0.22	(0.18)	0.14	(0.18)
	Slovak Republic	-0.27	(0.06)	-0.09	(0.03)	-0.13	(0.08)	0.14	(0.09)	-0.13	(0.03)	-0.13	(0.11)	-0.01	(0.11)
	Slovenia	0.32	(0.12)	-0.03	(0.03)	-0.22	(0.06)	**-0.55**	(0.13)	-0.06	(0.03)	-0.14	(0.14)	-0.08	(0.14)
	Spain	0.07	(0.19)	-0.10	(0.03)	-0.06	(0.04)	-0.13	(0.20)	-0.14	(0.03)	0.04	(0.04)	**0.18**	(0.05)
	Sweden	-0.21	(0.07)	0.02	(0.04)	0.08	(0.06)	**0.29**	(0.09)	0.01	(0.03)	0.05	(0.08)	0.04	(0.08)
	Switzerland	0.03	(0.13)	0.05	(0.04)	0.00	(0.08)	-0.03	(0.15)	0.03	(0.03)	0.28	(0.14)	0.25	(0.14)
	Turkey	c	c	-0.05	(0.04)	-0.17	(0.03)	m	m	-0.12	(0.02)	-0.24	(0.15)	-0.12	(0.15)
	United Kingdom	-0.13	(0.10)	-0.10	(0.03)	-0.03	(0.05)	0.09	(0.12)	-0.11	(0.02)	0.31	(0.08)	**0.42**	(0.08)
	United States	0.19	(0.09)	0.30	(0.03)	0.32	(0.05)	0.12	(0.10)	0.27	(0.03)	0.60	(0.08)	**0.33**	(0.08)
	OECD average	-0.07	(0.02)	-0.01	(0.01)	0.00	(0.01)	0.03	(0.02)	-0.03	(0.00)	0.09	(0.02)	**0.12**	(0.02)
Partners	**Albania**	0.48	(0.04)	0.41	(0.03)	0.39	(0.03)	**-0.09**	(0.04)	0.42	(0.02)	0.43	(0.04)	0.01	(0.05)
	Algeria	-0.14	(0.05)	-0.10	(0.03)	-0.17	(0.05)	-0.03	(0.08)	-0.13	(0.02)	c	c	m	m
	Brazil	-0.17	(0.10)	-0.24	(0.03)	-0.20	(0.03)	-0.03	(0.10)	-0.29	(0.02)	0.11	(0.04)	**0.40**	(0.04)
	B-S-J-G (China)	0.19	(0.07)	0.26	(0.03)	0.35	(0.04)	0.16	(0.08)	0.29	(0.02)	0.22	(0.10)	-0.07	(0.10)
	Bulgaria	-0.20	(0.15)	-0.16	(0.03)	-0.21	(0.04)	-0.01	(0.15)	-0.19	(0.02)	c	c	m	m
	CABA (Argentina)	m	m	c	c	-0.09	(0.06)	m	m	-0.09	(0.09)	-0.12	(0.07)	-0.03	(0.11)
	Colombia	0.15	(0.05)	-0.01	(0.04)	0.02	(0.03)	**-0.12**	(0.06)	0.03	(0.02)	0.05	(0.05)	0.01	(0.06)
	Costa Rica	0.14	(0.04)	0.12	(0.03)	0.14	(0.07)	0.00	(0.07)	0.12	(0.02)	0.19	(0.05)	0.07	(0.05)
	Croatia	c	c	-0.08	(0.02)	-0.01	(0.03)	m	m	-0.06	(0.02)	0.04	(0.16)	0.10	(0.16)
	Cyprus*	-0.22	(0.05)	-0.29	(0.02)	-0.23	(0.02)	-0.01	(0.05)	-0.28	(0.02)	-0.18	(0.03)	**0.10**	(0.04)
	Dominican Republic	0.12	(0.07)	-0.01	(0.04)	-0.01	(0.05)	-0.13	(0.08)	0.01	(0.03)	-0.03	(0.04)	-0.04	(0.05)
	FYROM	0.31	(0.08)	0.23	(0.02)	0.14	(0.02)	**-0.17**	(0.08)	0.20	(0.01)	0.22	(0.06)	0.02	(0.06)
	Georgia	0.47	(0.05)	0.35	(0.04)	0.33	(0.03)	**-0.14**	(0.05)	0.34	(0.02)	0.78	(0.07)	**0.44**	(0.07)
	Hong Kong (China)	m	m	m	m	0.35	(0.03)	m	m	0.30	(0.06)	0.35	(0.03)	0.05	(0.07)
	Indonesia	0.28	(0.06)	0.24	(0.03)	0.08	(0.04)	**-0.21**	(0.07)	0.23	(0.03)	0.22	(0.05)	-0.01	(0.05)
	Jordan	-0.04	(0.08)	-0.15	(0.04)	-0.05	(0.04)	-0.01	(0.09)	-0.12	(0.03)	-0.01	(0.06)	0.11	(0.06)
	Kosovo	0.63	(0.05)	0.59	(0.02)	0.59	(0.03)	-0.05	(0.05)	0.59	(0.02)	0.64	(0.07)	0.04	(0.08)
	Lebanon	-0.09	(0.09)	-0.11	(0.03)	-0.08	(0.04)	0.01	(0.11)	-0.17	(0.04)	-0.03	(0.03)	**0.14**	(0.05)
	Lithuania	-0.02	(0.05)	0.03	(0.03)	0.10	(0.05)	0.12	(0.07)	0.04	(0.02)	0.24	(0.25)	0.20	(0.25)
	Macao (China)	c	c	c	c	0.16	(0.01)	m	m	c	c	0.16	(0.01)	m	m
	Malta	-0.05	(0.05)	-0.03	(0.02)	m	m	m	m	-0.09	(0.03)	0.09	(0.02)	**0.18**	(0.04)
	Moldova	0.44	(0.03)	0.36	(0.03)	0.29	(0.05)	**-0.15**	(0.06)	0.39	(0.02)	c	c	m	m
	Montenegro	c	c	0.09	(0.02)	0.02	(0.03)	m	m	0.07	(0.01)	c	c	m	m
	Peru	0.18	(0.03)	0.13	(0.02)	0.10	(0.03)	-0.09	(0.05)	0.12	(0.02)	0.18	(0.03)	0.06	(0.04)
	Qatar	-0.32	(0.04)	-0.15	(0.01)	0.02	(0.01)	**0.34**	(0.04)	-0.24	(0.01)	0.16	(0.01)	**0.40**	(0.02)
	Romania	0.28	(0.11)	0.23	(0.03)	0.30	(0.05)	0.02	(0.12)	0.26	(0.03)	c	c	m	m
	Russia	0.61	(0.09)	0.34	(0.07)	0.26	(0.04)	**-0.34**	(0.08)	0.34	(0.04)	c	c	m	m
	Singapore	m	m	m	m	0.20	(0.01)	m	m	0.19	(0.01)	0.39	(0.04)	**0.20**	(0.04)
	Chinese Taipei	c	c	0.15	(0.03)	0.20	(0.03)	m	m	0.21	(0.02)	0.11	(0.04)	**-0.09**	(0.04)
	Thailand	0.37	(0.05)	0.36	(0.02)	0.33	(0.03)	-0.05	(0.06)	0.36	(0.02)	0.28	(0.03)	**-0.08**	(0.03)
	Trinidad and Tobago	-0.22	(0.03)	-0.04	(0.01)	m	m	m	m	-0.08	(0.01)	0.00	(0.06)	0.07	(0.06)
	Tunisia	-0.39	(0.09)	-0.38	(0.02)	-0.45	(0.03)	-0.05	(0.10)	-0.41	(0.02)	-0.28	(0.14)	0.13	(0.14)
	United Arab Emirates	0.06	(0.06)	-0.03	(0.03)	0.06	(0.02)	0.00	(0.07)	0.00	(0.02)	0.07	(0.02)	**0.07**	(0.03)
	Uruguay	0.02	(0.09)	-0.12	(0.03)	-0.11	(0.03)	-0.13	(0.10)	-0.14	(0.02)	0.04	(0.06)	**0.18**	(0.06)
	Viet Nam	0.45	(0.03)	0.43	(0.04)	0.36	(0.04)	-0.10	(0.06)	0.43	(0.02)	0.29	(0.09)	-0.13	(0.09)
	Argentina**	0.01	(0.09)	-0.23	(0.03)	-0.24	(0.04)	**-0.25**	(0.09)	-0.24	(0.02)	-0.15	(0.05)	0.09	(0.06)
	Kazakhstan**	0.90	(0.04)	0.88	(0.04)	0.99	(0.03)	0.09	(0.06)	0.94	(0.02)	0.89	(0.13)	-0.04	(0.13)
	Malaysia**	-0.01	(0.04)	0.12	(0.03)	0.14	(0.03)	**0.14**	(0.05)	0.10	(0.02)	0.17	(0.07)	0.07	(0.07)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Greater values in the index indicate a more positive disciplinary climate in science lessons.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.3.11 Index of disciplinary climate in science classes, science performance and school characteristics

Results based on students' reports

		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in science score per unit increase on the index of disciplinary climate in science classes		Explained variance in student performance (r-squared x 100)		Change in science score per unit increase on the index of disciplinary climate in science classes		Explained variance in student performance (r-squared x 100)	
		Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	-0.23	(0.02)	0.16	(0.05)	**0.39**	(0.05)	**21**	(1.2)	4.7	(0.5)	**16**	(1.2)	17.3	(1.0)
	Austria	-0.09	(0.18)	0.22	(0.04)	0.31	(0.19)	**14**	(2.1)	2.6	(0.8)	**10**	(1.7)	29.6	(2.1)
	Belgium	-0.53	(0.06)	-0.13	(0.02)	**0.40**	(0.06)	**13**	(1.3)	2.0	(0.4)	**9**	(1.1)	35.3	(2.0)
	Canada	-0.13	(0.04)	0.01	(0.02)	**0.14**	(0.05)	**14**	(1.1)	2.6	(0.4)	**12**	(1.1)	12.8	(0.9)
	Chile	-0.29	(0.11)	-0.10	(0.03)	0.19	(0.11)	**17**	(2.4)	3.0	(0.8)	**12**	(2.2)	27.7	(1.7)
	Czech Republic	-0.32	(0.03)	-0.14	(0.03)	**0.18**	(0.05)	**19**	(1.6)	4.5	(0.8)	**11**	(1.4)	34.1	(1.9)
	Denmark	0.03	(0.02)	c	c	m	m	**12**	(1.6)	1.6	(0.5)	**8**	(1.5)	12.6	(1.3)
	Estonia	-0.04	(0.02)	0.29	(0.12)	**0.33**	(0.12)	**12**	(1.9)	1.6	(0.5)	**12**	(1.6)	12.7	(1.4)
	Finland	-0.10	(0.02)	c	c	m	m	**11**	(1.9)	1.1	(0.4)	**10**	(1.8)	12.1	(1.4)
	France	-0.55	(0.04)	-0.20	(0.02)	**0.35**	(0.05)	**18**	(1.9)	3.2	(0.7)	**7**	(1.3)	35.5	(1.8)
	Germany	0.04	(0.02)	0.22	(0.11)	0.18	(0.12)	**20**	(2.0)	3.6	(0.7)	**11**	(1.3)	34.6	(1.9)
	Greece	-0.54	(0.10)	-0.21	(0.03)	**0.33**	(0.10)	**24**	(2.3)	5.0	(0.9)	**15**	(1.8)	25.4	(2.5)
	Hungary	-0.11	(0.10)	-0.08	(0.02)	0.03	(0.10)	**18**	(2.1)	3.5	(0.8)	**8**	(1.6)	43.3	(2.1)
	Iceland	0.01	(0.02)	m	m	m	m	**8**	(2.0)	0.7	(0.3)	**6**	(1.9)	6.0	(0.9)
	Ireland	0.07	(0.03)	0.13	(0.03)	0.06	(0.04)	**7**	(1.7)	0.8	(0.3)	**7**	(1.5)	13.9	(1.3)
	Israel	-0.16	(0.07)	-0.01	(0.03)	**0.15**	(0.08)	**13**	(2.4)	1.7	(0.6)	**12**	(1.7)	26.8	(2.4)
	Italy	-0.22	(0.16)	-0.06	(0.02)	0.15	(0.16)	**15**	(1.7)	2.2	(0.5)	**7**	(1.6)	23.4	(2.2)
	Japan	m	m	0.83	(0.03)	m	m	**23**	(2.3)	5.6	(1.1)	**14**	(2.0)	29.7	(2.2)
	Korea	0.48	(0.07)	0.64	(0.03)	**0.17**	(0.08)	**6**	(2.3)	0.4	(0.3)	2	(1.8)	15.9	(2.1)
	Latvia	-0.18	(0.02)	0.06	(0.09)	**0.25**	(0.09)	**10**	(1.9)	1.3	(0.5)	**10**	(1.8)	13.7	(1.4)
	Luxembourg	-0.28	(0.02)	0.10	(0.02)	**0.38**	(0.03)	**21**	(1.3)	5.4	(0.6)	**14**	(1.2)	35.6	(1.0)
	Mexico	-0.07	(0.04)	0.11	(0.02)	**0.19**	(0.05)	**10**	(1.8)	1.5	(0.5)	**11**	(1.3)	18.0	(2.0)
	Netherlands	-0.15	(0.02)	0.04	(0.03)	**0.20**	(0.03)	**15**	(2.4)	1.4	(0.4)	**12**	(2.0)	39.3	(3.2)
	New Zealand	-0.36	(0.07)	-0.14	(0.02)	**0.22**	(0.07)	**16**	(1.6)	2.9	(0.5)	**11**	(1.6)	17.7	(1.4)
	Norway	0.14	(0.03)	c	c	m	m	**12**	(1.7)	1.4	(0.4)	**11**	(1.7)	9.8	(1.0)
	Poland	-0.04	(0.02)	c	c	m	m	**9**	(1.8)	0.9	(0.4)	**9**	(1.7)	16.6	(1.6)
	Portugal	-0.12	(0.03)	0.23	(0.04)	**0.35**	(0.04)	**15**	(2.0)	2.3	(0.6)	**13**	(1.8)	25.3	(2.2)
	Slovak Republic	-0.28	(0.03)	0.01	(0.03)	**0.29**	(0.05)	**22**	(1.8)	5.5	(0.9)	**16**	(1.6)	30.4	(1.9)
	Slovenia	-0.08	(0.20)	-0.07	(0.03)	0.00	(0.20)	**15**	(2.6)	2.6	(0.9)	**6**	(2.1)	34.8	(2.0)
	Spain	-0.08	(0.02)	c	c	m	m	**11**	(1.8)	1.3	(0.5)	**10**	(1.7)	16.7	(1.3)
	Sweden	0.00	(0.03)	0.73	(0.16)	**0.73**	(0.16)	**13**	(1.9)	1.7	(0.5)	**8**	(1.6)	16.4	(1.6)
	Switzerland	0.01	(0.04)	0.23	(0.04)	**0.22**	(0.05)	**17**	(2.1)	3.2	(0.8)	**13**	(1.7)	27.8	(2.0)
	Turkey	-0.15	(0.16)	-0.12	(0.02)	0.03	(0.16)	**10**	(2.1)	1.6	(0.6)	**9**	(1.6)	27.2	(4.0)
	United Kingdom	-0.17	(0.12)	-0.08	(0.02)	0.08	(0.12)	**20**	(1.7)	4.6	(0.7)	**17**	(1.4)	20.3	(1.6)
	United States	-0.08	(0.06)	0.33	(0.02)	**0.41**	(0.06)	**24**	(1.5)	6.2	(0.8)	**20**	(1.4)	18.6	(1.6)
	OECD average	-0.13	(0.01)	0.10	(0.01)	**0.24**	(0.02)	**15**	(0.3)	2.7	(0.1)	**11**	(0.3)	23.3	(0.3)
Partners	**Albania**	0.44	(0.03)	0.40	(0.02)	-0.04	(0.03)	m	m	m	m	m	m	m	m
	Algeria	-0.11	(0.02)	-0.16	(0.05)	-0.05	(0.05)	**5**	(1.9)	0.4	(0.3)	**6**	(1.6)	10.3	(3.1)
	Brazil	-0.47	(0.03)	-0.17	(0.02)	**0.30**	(0.03)	**18**	(1.3)	3.9	(0.5)	**12**	(1.1)	24.9	(2.1)
	B-S-J-G (China)	0.25	(0.03)	0.33	(0.03)	0.08	(0.04)	**22**	(2.3)	3.8	(0.8)	**12**	(2.0)	36.0	(2.9)
	Bulgaria	-0.07	(0.15)	-0.18	(0.02)	-0.11	(0.16)	**16**	(1.9)	2.6	(0.6)	**10**	(1.6)	37.5	(2.6)
	CABA (Argentina)	-0.10	(0.06)	-0.12	(0.06)	-0.02	(0.08)	4	(4.3)	0.2	(0.4)	2	(3.0)	31.9	(3.5)
	Colombia	-0.09	(0.03)	0.12	(0.02)	**0.21**	(0.03)	**10**	(1.8)	1.2	(0.4)	**11**	(1.3)	22.9	(2.4)
	Costa Rica	0.07	(0.03)	0.19	(0.03)	**0.12**	(0.04)	**5**	(1.5)	0.5	(0.3)	**6**	(1.2)	22.0	(2.2)
	Croatia	c	c	-0.05	(0.02)	m	m	**24**	(1.7)	6.0	(0.8)	**16**	(1.5)	27.5	(2.0)
	Cyprus*	-0.44	(0.04)	-0.25	(0.01)	**0.18**	(0.04)	**24**	(1.5)	5.3	(0.6)	**19**	(1.5)	20.8	(1.1)
	Dominican Republic	-0.26	(0.06)	0.05	(0.03)	**0.32**	(0.07)	**11**	(1.7)	2.2	(0.7)	**9**	(1.4)	25.9	(3.0)
	FYROM	c	c	0.21	(0.01)	m	m	**13**	(1.6)	1.9	(0.4)	**10**	(1.5)	17.3	(1.3)
	Georgia	0.22	(0.03)	0.42	(0.02)	**0.20**	(0.04)	**16**	(1.9)	2.4	(0.6)	**15**	(1.7)	16.3	(1.5)
	Hong Kong (China)	0.17	(0.03)	0.46	(0.03)	**0.29**	(0.04)	**12**	(1.7)	2.0	(0.6)	**10**	(1.6)	13.2	(1.8)
	Indonesia	0.17	(0.03)	0.29	(0.04)	**0.11**	(0.05)	**7**	(1.5)	0.9	(0.4)	**9**	(1.4)	25.2	(2.9)
	Jordan	-0.10	(0.03)	m	m	m	m	**9**	(1.8)	1.3	(0.5)	**8**	(1.6)	13.4	(2.1)
	Kosovo	0.54	(0.02)	0.61	(0.02)	**0.08**	(0.03)	**12**	(1.5)	2.1	(0.5)	**11**	(1.3)	15.8	(1.4)
	Lebanon	-0.08	(0.06)	-0.10	(0.03)	-0.02	(0.07)	**14**	(2.7)	1.8	(0.7)	**13**	(2.2)	20.4	(2.9)
	Lithuania	0.05	(0.02)	c	c	m	m	**16**	(1.5)	3.6	(0.6)	**12**	(1.2)	23.1	(2.3)
	Macao (China)	0.10	(0.02)	0.22	(0.02)	**0.12**	(0.02)	**9**	(1.9)	0.8	(0.3)	**10**	(1.9)	3.1	(0.6)
	Malta	c	c	-0.02	(0.02)	m	m	**30**	(1.8)	6.6	(0.8)	**25**	(1.6)	27.7	(1.2)
	Moldova	0.37	(0.02)	0.54	(0.08)	**0.17**	(0.08)	**6**	(2.2)	0.3	(0.2)	**7**	(2.0)	14.1	(1.8)
	Montenegro	0.19	(0.13)	0.07	(0.01)	-0.12	(0.13)	**12**	(1.3)	2.1	(0.5)	**12**	(1.2)	18.5	(1.0)
	Peru	0.00	(0.03)	0.17	(0.02)	**0.17**	(0.03)	**6**	(1.4)	0.4	(0.2)	**6**	(1.1)	28.4	(2.3)
	Qatar	-0.18	(0.02)	-0.04	(0.01)	**0.14**	(0.02)	**25**	(1.1)	7.1	(0.6)	**20**	(1.1)	19.2	(0.7)
	Romania	0.26	(0.03)	m	m	m	m	**20**	(2.3)	4.5	(1.0)	**15**	(1.8)	25.5	(2.8)
	Russia	0.32	(0.05)	0.45	(0.11)	0.13	(0.12)	**9**	(1.5)	1.2	(0.4)	**10**	(1.3)	11.4	(1.6)
	Singapore	0.00	(0.11)	0.21	(0.01)	0.21	(0.11)	**30**	(1.7)	7.0	(0.8)	**18**	(1.4)	27.3	(1.7)
	Chinese Taipei	0.13	(0.02)	0.21	(0.03)	**0.09**	(0.03)	**12**	(2.1)	1.2	(0.4)	**6**	(1.5)	28.1	(2.6)
	Thailand	0.37	(0.03)	0.35	(0.02)	-0.01	(0.03)	**6**	(1.5)	0.4	(0.2)	**9**	(1.3)	19.1	(3.1)
	Trinidad and Tobago	-0.31	(0.02)	0.11	(0.02)	**0.42**	(0.03)	**26**	(1.6)	6.4	(0.8)	**14**	(1.4)	39.3	(1.2)
	Tunisia	-0.41	(0.03)	-0.43	(0.02)	-0.01	(0.03)	1	(1.5)	0.0	(0.1)	**4**	(1.4)	20.1	(3.2)
	United Arab Emirates	0.01	(0.03)	0.04	(0.02)	0.03	(0.03)	**13**	(1.1)	1.9	(0.3)	**13**	(1.0)	17.5	(1.7)
	Uruguay	-0.41	(0.04)	0.03	(0.02)	**0.44**	(0.04)	**11**	(1.7)	1.6	(0.5)	**7**	(1.3)	25.7	(1.9)
	Viet Nam	0.42	(0.07)	0.42	(0.02)	0.00	(0.07)	**10**	(2.8)	0.7	(0.4)	**13**	(2.3)	20.7	(4.2)
	Argentina**	-0.31	(0.03)	-0.16	(0.03)	**0.15**	(0.05)	**11**	(1.9)	1.6	(0.5)	**11**	(1.8)	20.6	(2.1)
	Kazakhstan**	0.93	(0.03)	0.98	(0.03)	0.05	(0.03)	**11**	(2.7)	1.5	(0.7)	**8**	(2.4)	9.5	(2.4)
	Malaysia**	-0.25	(0.09)	0.11	(0.02)	**0.36**	(0.10)	**22**	(1.7)	5.9	(0.9)	**17**	(1.5)	21.5	(2.1)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Greater values in the index indicate a more positive disciplinary climate in science lessons.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.3.15 Index of student behaviour hindering learning, science performance and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	-0.13	(0.04)	1.08	(0.03)	0.60	(0.07)	0.24	(0.08)	-0.40	(0.10)	-0.90	(0.08)	**-1.50**	(0.10)
	Austria	0.20	(0.07)	1.06	(0.05)	0.45	(0.13)	0.43	(0.17)	0.05	(0.14)	-0.11	(0.15)	**-0.56**	(0.20)
	Belgium	0.13	(0.05)	0.94	(0.05)	0.92	(0.09)	0.34	(0.09)	-0.16	(0.11)	-0.54	(0.12)	**-1.46**	(0.14)
	Canada	0.48	(0.05)	0.95	(0.04)	0.75	(0.10)	0.82	(0.09)	0.54	(0.11)	-0.14	(0.13)	**-0.89**	(0.16)
	Chile	-0.21	(0.08)	1.15	(0.05)	0.35	(0.17)	0.46	(0.20)	-0.64	(0.22)	-0.95	(0.17)	**-1.30**	(0.23)
	Czech Republic	0.10	(0.05)	0.95	(0.04)	0.51	(0.11)	0.12	(0.10)	0.21	(0.14)	-0.42	(0.12)	**-0.93**	(0.17)
	Denmark	-0.31	(0.05)	0.99	(0.04)	0.38	(0.13)	-0.49	(0.13)	-0.43	(0.12)	-0.66	(0.14)	**-1.05**	(0.19)
	Estonia	-0.01	(0.04)	0.86	(0.03)	-0.09	(0.10)	0.03	(0.12)	0.18	(0.12)	-0.15	(0.07)	-0.07	(0.13)
	Finland	0.28	(0.06)	0.77	(0.05)	0.17	(0.11)	0.30	(0.14)	0.44	(0.15)	0.20	(0.11)	0.03	(0.15)
	France	0.22	(0.07)	0.94	(0.05)	0.54	(0.14)	0.29	(0.19)	0.18	(0.12)	-0.10	(0.10)	**-0.64**	(0.16)
	Germany	0.05	(0.05)	0.78	(0.05)	0.24	(0.12)	0.16	(0.16)	-0.09	(0.12)	-0.13	(0.14)	**-0.36**	(0.18)
	Greece	-0.40	(0.07)	1.03	(0.06)	0.08	(0.20)	-0.28	(0.23)	-0.70	(0.16)	-0.69	(0.11)	**-0.77**	(0.23)
	Hungary	-0.36	(0.08)	1.18	(0.06)	0.51	(0.16)	-0.04	(0.22)	-0.72	(0.17)	-1.16	(0.11)	**-1.67**	(0.18)
	Iceland	-0.34	(0.00)	0.90	(0.00)	-0.38	(0.01)	-0.33	(0.02)	-0.50	(0.01)	-0.12	(0.01)	**0.26**	(0.01)
	Ireland	0.04	(0.08)	0.91	(0.05)	0.41	(0.18)	0.07	(0.16)	0.05	(0.16)	-0.39	(0.18)	**-0.80**	(0.25)
	Israel	0.06	(0.07)	0.83	(0.04)	0.19	(0.14)	0.15	(0.14)	0.13	(0.16)	-0.23	(0.14)	**-0.42**	(0.20)
	Italy	-0.06	(0.06)	0.90	(0.05)	0.40	(0.09)	0.24	(0.15)	-0.28	(0.12)	-0.51	(0.11)	**-0.91**	(0.15)
	Japan	-0.53	(0.06)	0.92	(0.05)	0.04	(0.12)	-0.49	(0.14)	-0.78	(0.14)	-0.89	(0.11)	**-0.92**	(0.17)
	Korea	-0.29	(0.08)	1.17	(0.06)	0.39	(0.18)	-0.46	(0.19)	-0.45	(0.18)	-0.62	(0.17)	**-1.01**	(0.26)
	Latvia	0.10	(0.05)	0.85	(0.03)	-0.01	(0.10)	0.12	(0.12)	0.17	(0.11)	0.13	(0.10)	0.14	(0.15)
	Luxembourg	0.17	(0.00)	0.80	(0.00)	0.87	(0.00)	0.51	(0.00)	0.00	(0.00)	-0.70	(0.00)	**-1.57**	(0.00)
	Mexico	0.21	(0.05)	0.93	(0.03)	0.17	(0.11)	0.18	(0.16)	0.61	(0.10)	-0.10	(0.12)	-0.27	(0.15)
	Netherlands	0.40	(0.08)	0.76	(0.06)	0.52	(0.20)	0.52	(0.21)	0.31	(0.16)	0.26	(0.12)	-0.26	(0.24)
	New Zealand	0.15	(0.05)	0.93	(0.03)	0.72	(0.11)	0.36	(0.13)	0.25	(0.13)	-0.67	(0.10)	**-1.40**	(0.15)
	Norway	-0.11	(0.06)	0.85	(0.06)	-0.03	(0.16)	-0.01	(0.15)	-0.21	(0.12)	-0.17	(0.10)	-0.14	(0.19)
	Poland	-0.08	(0.06)	0.89	(0.04)	-0.13	(0.15)	0.17	(0.13)	-0.15	(0.17)	-0.21	(0.15)	-0.07	(0.21)
	Portugal	0.32	(0.06)	0.92	(0.05)	0.27	(0.11)	0.52	(0.13)	0.37	(0.16)	0.13	(0.11)	-0.15	(0.17)
	Slovak Republic	0.08	(0.06)	0.96	(0.04)	0.35	(0.13)	0.09	(0.12)	0.10	(0.12)	-0.22	(0.14)	**-0.57**	(0.19)
	Slovenia	0.31	(0.01)	0.81	(0.01)	0.58	(0.02)	0.53	(0.02)	0.17	(0.02)	-0.05	(0.01)	**-0.63**	(0.02)
	Spain	-0.14	(0.06)	1.02	(0.05)	0.44	(0.14)	0.19	(0.17)	-0.29	(0.14)	-0.92	(0.11)	**-1.36**	(0.18)
	Sweden	0.12	(0.06)	0.84	(0.04)	0.39	(0.13)	0.20	(0.13)	0.07	(0.16)	-0.19	(0.13)	**-0.58**	(0.19)
	Switzerland	-0.03	(0.07)	0.91	(0.04)	-0.04	(0.18)	0.07	(0.14)	-0.11	(0.13)	-0.06	(0.12)	-0.02	(0.21)
	Turkey	0.18	(0.07)	0.93	(0.06)	0.33	(0.12)	0.45	(0.14)	0.08	(0.18)	-0.14	(0.17)	**-0.47**	(0.21)
	United Kingdom	-0.50	(0.06)	0.89	(0.04)	-0.20	(0.09)	-0.28	(0.15)	-0.55	(0.13)	-0.91	(0.15)	**-0.71**	(0.16)
	United States	0.25	(0.07)	0.97	(0.06)	0.78	(0.15)	0.37	(0.20)	0.26	(0.21)	-0.39	(0.20)	**-1.18**	(0.27)
	OECD average	0.01	(0.01)	0.93	(0.01)	0.33	(0.02)	0.16	(0.02)	-0.07	(0.02)	-0.36	(0.02)	**-0.69**	(0.03)
Partners	Albania	-0.68	(0.08)	0.99	(0.06)	-0.65	(0.18)	-0.77	(0.22)	-0.53	(0.24)	-0.72	(0.14)	-0.07	(0.23)
	Algeria	0.14	(0.11)	1.20	(0.06)	0.10	(0.21)	-0.57	(0.19)	0.39	(0.25)	0.65	(0.25)	0.54	(0.35)
	Brazil	0.55	(0.06)	1.24	(0.04)	0.79	(0.08)	0.85	(0.12)	0.82	(0.14)	-0.21	(0.14)	**-1.00**	(0.16)
	B-S-J-G (China)	0.34	(0.18)	2.08	(0.09)	0.79	(0.26)	0.62	(0.35)	0.39	(0.51)	-0.45	(0.28)	**-1.24**	(0.37)
	Bulgaria	-0.11	(0.10)	1.38	(0.06)	0.57	(0.20)	-0.05	(0.25)	-0.30	(0.18)	-0.71	(0.23)	**-1.28**	(0.28)
	CABA (Argentina)	-0.14	(0.11)	1.08	(0.09)	0.71	(0.28)	0.18	(0.27)	-0.64	(0.37)	-0.92	(0.32)	**-1.64**	(0.42)
	Colombia	0.10	(0.07)	1.10	(0.05)	0.09	(0.17)	0.41	(0.15)	0.42	(0.13)	-0.52	(0.15)	**-0.60**	(0.23)
	Costa Rica	0.74	(0.08)	1.12	(0.06)	0.76	(0.19)	0.71	(0.20)	0.72	(0.19)	0.75	(0.14)	-0.01	(0.22)
	Croatia	0.98	(0.08)	1.02	(0.06)	1.24	(0.12)	1.22	(0.17)	1.07	(0.16)	0.38	(0.22)	**-0.86**	(0.25)
	Cyprus*	0.05	(0.00)	0.79	(0.00)	0.16	(0.01)	0.23	(0.01)	0.25	(0.00)	-0.45	(0.00)	**-0.61**	(0.01)
	Dominican Republic	-0.14	(0.07)	0.92	(0.07)	-0.14	(0.14)	0.20	(0.13)	0.02	(0.18)	-0.62	(0.15)	**-0.48**	(0.21)
	FYROM	-0.28	(0.01)	1.01	(0.00)	-0.16	(0.02)	-0.24	(0.01)	-0.47	(0.01)	-0.26	(0.01)	**-0.10**	(0.02)
	Georgia	-0.54	(0.08)	1.19	(0.08)	-0.40	(0.17)	-0.62	(0.15)	-0.37	(0.21)	-0.78	(0.16)	-0.38	(0.24)
	Hong Kong (China)	-0.75	(0.08)	0.82	(0.04)	-0.30	(0.13)	-0.59	(0.15)	-1.01	(0.14)	-1.08	(0.21)	**-0.78**	(0.25)
	Indonesia	-0.90	(0.07)	0.91	(0.05)	-0.82	(0.15)	-0.86	(0.16)	-0.88	(0.17)	-1.04	(0.17)	-0.22	(0.24)
	Jordan	0.12	(0.09)	1.33	(0.06)	0.63	(0.27)	-0.14	(0.21)	0.34	(0.20)	-0.34	(0.19)	**-0.97**	(0.34)
	Kosovo	0.05	(0.03)	1.09	(0.02)	-0.01	(0.09)	0.18	(0.06)	0.16	(0.04)	-0.13	(0.06)	-0.12	(0.11)
	Lebanon	-0.73	(0.09)	1.17	(0.08)	-0.40	(0.18)	-0.66	(0.18)	-0.83	(0.13)	-1.03	(0.15)	**-0.63**	(0.21)
	Lithuania	-0.26	(0.05)	0.84	(0.05)	-0.16	(0.09)	-0.12	(0.12)	-0.16	(0.12)	-0.60	(0.13)	**-0.44**	(0.17)
	Macao (China)	-0.52	(0.00)	1.77	(0.00)	0.70	(0.01)	-1.32	(0.00)	-0.68	(0.01)	-0.78	(0.00)	**-1.49**	(0.01)
	Malta	-0.57	(0.00)	1.09	(0.00)	0.39	(0.00)	-0.41	(0.01)	-1.04	(0.01)	-1.25	(0.01)	**-1.64**	(0.01)
	Moldova	0.30	(0.07)	1.14	(0.07)	0.19	(0.15)	0.38	(0.15)	0.63	(0.13)	0.01	(0.15)	-0.19	(0.21)
	Montenegro	0.50	(0.01)	0.67	(0.00)	0.81	(0.02)	0.39	(0.02)	0.59	(0.01)	0.19	(0.00)	**-0.62**	(0.02)
	Peru	-0.33	(0.07)	1.20	(0.06)	-0.57	(0.15)	0.44	(0.17)	-0.12	(0.13)	-1.08	(0.18)	**-0.50**	(0.24)
	Qatar	-0.84	(0.00)	1.08	(0.00)	-0.88	(0.01)	-0.46	(0.01)	-1.22	(0.00)	-0.80	(0.00)	**0.08**	(0.01)
	Romania	-0.05	(0.08)	1.01	(0.05)	0.48	(0.18)	0.22	(0.21)	-0.12	(0.17)	-0.78	(0.16)	**-1.26**	(0.24)
	Russia	0.70	(0.12)	1.45	(0.09)	0.80	(0.22)	0.82	(0.27)	0.84	(0.30)	0.32	(0.34)	-0.48	(0.40)
	Singapore	-0.67	(0.02)	0.83	(0.01)	-0.28	(0.01)	-0.58	(0.04)	-0.67	(0.05)	-1.12	(0.08)	**-0.84**	(0.09)
	Chinese Taipei	-0.69	(0.10)	1.39	(0.09)	-0.41	(0.21)	-0.61	(0.21)	-0.60	(0.21)	-1.14	(0.22)	**-0.73**	(0.31)
	Thailand	-0.10	(0.06)	0.88	(0.04)	-0.18	(0.13)	0.09	(0.15)	0.21	(0.17)	-0.52	(0.13)	-0.34	(0.18)
	Trinidad and Tobago	0.83	(0.01)	1.06	(0.00)	1.52	(0.01)	1.32	(0.02)	0.56	(0.01)	-0.22	(0.01)	**-1.73**	(0.01)
	Tunisia	0.81	(0.11)	1.09	(0.09)	0.75	(0.18)	0.82	(0.19)	0.72	(0.21)	0.98	(0.31)	0.22	(0.36)
	United Arab Emirates	-0.60	(0.05)	1.25	(0.05)	-0.11	(0.13)	-0.53	(0.14)	-0.84	(0.16)	-0.93	(0.09)	**-0.83**	(0.16)
	Uruguay	0.08	(0.06)	1.19	(0.05)	0.63	(0.09)	0.34	(0.15)	0.26	(0.16)	-0.92	(0.11)	**-1.55**	(0.13)
	Viet Nam	-0.16	(0.06)	0.72	(0.05)	0.01	(0.14)	0.07	(0.14)	-0.15	(0.11)	-0.58	(0.10)	**-0.59**	(0.18)
	Argentina**	0.35	(0.06)	0.99	(0.05)	0.36	(0.14)	0.86	(0.17)	0.35	(0.18)	-0.16	(0.15)	**-0.51**	(0.19)
	Kazakhstan**	0.89	(0.11)	1.71	(0.06)	0.88	(0.23)	0.89	(0.28)	1.35	(0.30)	0.46	(0.26)	-0.41	(0.36)
	Malaysia**	-0.19	(0.08)	1.08	(0.07)	0.05	(0.18)	0.12	(0.18)	-0.39	(0.20)	-0.53	(0.19)	**-0.58**	(0.22)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Higher values on the index indicate that student behaviour hinders learning to a greater extent.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.3.15 Index of student behaviour hindering learning, science performance and school characteristics

Results based on school principals' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.09	(0.14)	0.22	(0.08)	-0.29	(0.04)	**-0.37**	(0.15)	0.34	(0.05)	-0.73	(0.05)	**-1.07**	(0.07)
	Austria	0.40	(0.37)	0.09	(0.09)	0.33	(0.12)	-0.07	(0.39)	0.21	(0.08)	0.08	(0.20)	-0.13	(0.22)
	Belgium	-0.11	(0.25)	-0.02	(0.06)	0.46	(0.12)	0.58	(0.29)	w	w	w	w	w	w
	Canada	0.72	(0.18)	0.51	(0.08)	0.43	(0.07)	-0.29	(0.20)	0.61	(0.05)	-0.87	(0.20)	**-1.48**	(0.20)
	Chile	-0.27	(0.25)	-0.22	(0.16)	-0.21	(0.10)	0.06	(0.27)	0.38	(0.10)	-0.57	(0.12)	**-0.95**	(0.15)
	Czech Republic	-0.17	(0.11)	0.16	(0.07)	0.02	(0.10)	0.19	(0.15)	0.12	(0.05)	-0.15	(0.18)	-0.28	(0.20)
	Denmark	-0.45	(0.14)	-0.30	(0.08)	-0.20	(0.13)	0.25	(0.20)	-0.19	(0.07)	-0.75	(0.10)	**-0.57**	(0.13)
	Estonia	-0.12	(0.12)	0.16	(0.06)	-0.16	(0.09)	-0.04	(0.14)	0.00	(0.05)	-0.30	(0.21)	-0.30	(0.21)
	Finland	-0.06	(0.14)	0.30	(0.07)	0.39	(0.13)	**0.46**	(0.19)	0.31	(0.06)	-0.29	(0.29)	**-0.60**	(0.30)
	France	-0.58	(0.26)	0.21	(0.08)	0.39	(0.13)	**0.97**	(0.28)	0.41	(0.07)	-0.51	(0.14)	**-0.92**	(0.15)
	Germany	-0.18	(0.20)	0.01	(0.07)	0.21	(0.11)	0.38	(0.25)	0.07	(0.05)	-0.29	(0.33)	-0.36	(0.34)
	Greece	-0.99	(0.20)	-0.31	(0.10)	-0.40	(0.14)	**0.58**	(0.25)	-0.35	(0.08)	-1.37	(0.13)	**-1.02**	(0.15)
	Hungary	-0.43	(0.30)	-0.22	(0.13)	-0.51	(0.11)	-0.07	(0.32)	-0.23	(0.09)	-0.91	(0.16)	**-0.68**	(0.18)
	Iceland	-0.74	(0.01)	-0.41	(0.01)	0.09	(0.01)	**0.83**	(0.01)	-0.34	(0.00)	c	c	m	m
	Ireland	-0.01	(0.16)	0.15	(0.09)	-0.08	(0.16)	-0.06	(0.22)	0.23	(0.10)	-0.09	(0.11)	**-0.33**	(0.15)
	Israel	0.03	(0.15)	0.12	(0.09)	0.01	(0.12)	-0.03	(0.20)	m	m	m	m	m	m
	Italy	-0.32	(0.14)	-0.04	(0.08)	-0.08	(0.12)	0.24	(0.16)	-0.04	(0.06)	-0.43	(0.30)	-0.39	(0.31)
	Japan	c	c	-0.49	(0.13)	-0.54	(0.07)	m	m	-0.55	(0.08)	-0.49	(0.10)	0.05	(0.13)
	Korea	c	c	-0.59	(0.27)	-0.24	(0.09)	m	m	-0.28	(0.10)	-0.31	(0.16)	-0.03	(0.21)
	Latvia	-0.09	(0.10)	0.15	(0.08)	0.18	(0.08)	0.27	(0.14)	0.12	(0.05)	-0.59	(0.38)	-0.71	(0.38)
	Luxembourg	m	m	0.39	(0.00)	-0.12	(0.00)	m	m	0.23	(0.00)	-0.13	(0.00)	**-0.36**	(0.01)
	Mexico	-0.13	(0.12)	0.29	(0.08)	0.30	(0.10)	**0.44**	(0.15)	0.31	(0.05)	-0.45	(0.11)	**-0.76**	(0.12)
	Netherlands	c	c	0.33	(0.09)	0.60	(0.18)	m	m	0.36	(0.14)	0.42	(0.09)	0.06	(0.17)
	New Zealand	0.09	(0.42)	0.32	(0.09)	0.01	(0.07)	-0.08	(0.43)	0.26	(0.05)	-1.55	(0.22)	**-1.81**	(0.23)
	Norway	-0.27	(0.17)	-0.04	(0.07)	-0.12	(0.12)	0.16	(0.21)	-0.10	(0.06)	-0.49	(0.25)	-0.39	(0.26)
	Poland	-0.08	(0.10)	-0.09	(0.10)	-0.03	(0.14)	0.05	(0.17)	-0.03	(0.06)	-1.41	(0.26)	**-1.38**	(0.27)
	Portugal	-0.01	(0.22)	0.40	(0.07)	0.09	(0.15)	0.09	(0.28)	0.41	(0.06)	-1.19	(0.23)	**-1.61**	(0.24)
	Slovak Republic	0.03	(0.13)	0.11	(0.07)	-0.01	(0.16)	-0.04	(0.22)	0.11	(0.07)	-0.16	(0.17)	-0.28	(0.19)
	Slovenia	-0.12	(0.14)	0.33	(0.01)	0.27	(0.01)	**0.39**	(0.14)	0.31	(0.01)	0.18	(0.00)	**-0.13**	(0.01)
	Spain	-0.69	(0.45)	0.00	(0.08)	-0.34	(0.12)	0.35	(0.47)	0.24	(0.08)	-0.99	(0.08)	**-1.22**	(0.12)
	Sweden	0.10	(0.26)	0.10	(0.07)	0.17	(0.12)	0.06	(0.29)	0.18	(0.06)	-0.19	(0.16)	**-0.37**	(0.18)
	Switzerland	-0.52	(0.21)	-0.10	(0.08)	0.39	(0.14)	**0.91**	(0.26)	0.00	(0.07)	-0.75	(0.19)	**-0.75**	(0.21)
	Turkey	1.00	(0.39)	0.13	(0.12)	0.18	(0.10)	**-0.81**	(0.40)	0.18	(0.08)	0.11	(0.33)	-0.07	(0.34)
	United Kingdom	-0.55	(0.21)	-0.53	(0.08)	-0.40	(0.11)	0.16	(0.25)	-0.42	(0.06)	-1.37	(0.24)	**-0.96**	(0.23)
	United States	0.02	(0.19)	0.23	(0.09)	0.34	(0.14)	0.32	(0.24)	0.39	(0.07)	-1.39	(0.17)	**-1.78**	(0.19)
	OECD average	-0.14	(0.04)	0.04	(0.02)	0.03	(0.02)	**0.19**	(0.05)	0.12	(0.01)	-0.55	(0.03)	**-0.68**	(0.04)
Partners	**Albania**	-0.87	(0.16)	-0.51	(0.13)	-0.70	(0.11)	0.17	(0.18)	-0.59	(0.09)	-1.29	(0.13)	**-0.69**	(0.16)
	Algeria	-0.13	(0.24)	0.14	(0.12)	0.34	(0.31)	0.47	(0.40)	0.16	(0.11)	c	c	m	m
	Brazil	0.30	(0.20)	0.60	(0.09)	0.51	(0.11)	0.21	(0.21)	0.81	(0.05)	-1.05	(0.17)	**-1.86**	(0.18)
	B-S-J-G (China)	1.25	(0.69)	0.49	(0.29)	-0.10	(0.21)	-1.35	(0.73)	0.29	(0.20)	0.63	(0.47)	0.33	(0.51)
	Bulgaria	0.89	(0.64)	-0.02	(0.11)	-0.34	(0.17)	-1.22	(0.66)	-0.10	(0.10)	c	c	m	m
	CABA (Argentina)	m	m	c	c	-0.10	(0.11)	m	m	0.38	(0.19)	-0.67	(0.17)	**-1.05**	(0.26)
	Colombia	0.00	(0.13)	0.16	(0.14)	0.08	(0.10)	0.08	(0.18)	0.31	(0.08)	-0.52	(0.16)	**-0.83**	(0.17)
	Costa Rica	0.56	(0.20)	0.83	(0.08)	0.47	(0.22)	-0.09	(0.27)	0.97	(0.07)	-0.88	(0.18)	**-1.85**	(0.18)
	Croatia	c	c	1.00	(0.08)	0.97	(0.16)	m	m	1.01	(0.08)	c	c	m	m
	Cyprus*	-0.59	(0.01)	0.15	(0.00)	-0.06	(0.00)	**0.52**	(0.01)	0.20	(0.00)	-0.77	(0.01)	**-0.97**	(0.01)
	Dominican Republic	-0.34	(0.16)	-0.01	(0.09)	-0.38	(0.15)	-0.04	(0.23)	0.00	(0.08)	-0.63	(0.16)	**-0.62**	(0.18)
	FYROM	0.23	(0.01)	-0.29	(0.00)	-0.26	(0.01)	**-0.50**	(0.02)	-0.25	(0.01)	-1.99	(0.01)	**-1.74**	(0.01)
	Georgia	-0.49	(0.12)	-0.63	(0.12)	-0.51	(0.15)	-0.02	(0.20)	-0.49	(0.08)	-1.13	(0.39)	-0.64	(0.40)
	Hong Kong (China)	m	m	m	m	-0.75	(0.08)	m	m	-0.83	(0.35)	-0.74	(0.08)	0.09	(0.36)
	Indonesia	-0.87	(0.14)	-0.89	(0.09)	-1.06	(0.16)	-0.19	(0.18)	-0.88	(0.10)	-0.94	(0.10)	-0.06	(0.14)
	Jordan	0.28	(0.22)	0.09	(0.13)	0.13	(0.17)	-0.16	(0.28)	0.26	(0.11)	-0.45	(0.13)	**-0.72**	(0.16)
	Kosovo	-0.48	(0.13)	0.13	(0.04)	0.13	(0.06)	**0.61**	(0.15)	0.08	(0.03)	-1.22	(0.28)	**-1.30**	(0.28)
	Lebanon	-0.80	(0.20)	-0.80	(0.11)	-0.59	(0.15)	0.21	(0.21)	-0.55	(0.14)	-0.90	(0.09)	**-0.35**	(0.17)
	Lithuania	-0.24	(0.10)	-0.13	(0.08)	-0.41	(0.09)	-0.18	(0.14)	-0.24	(0.05)	-1.17	(0.49)	-0.93	(0.49)
	Macao (China)	c	c	c	c	-0.53	(0.00)	m	m	c	c	-0.58	(0.00)	m	m
	Malta	-0.39	(0.01)	-0.59	(0.00)	m	m	m	m	-0.13	(0.00)	-1.24	(0.00)	**-1.11**	(0.00)
	Moldova	0.23	(0.09)	0.47	(0.18)	0.14	(0.11)	-0.09	(0.14)	0.31	(0.07)	c	c	m	m
	Montenegro	c	c	0.52	(0.01)	0.47	(0.01)	m	m	0.50	(0.01)	c	c	m	m
	Peru	-0.55	(0.16)	-0.19	(0.10)	-0.53	(0.22)	0.02	(0.29)	-0.02	(0.09)	-1.00	(0.11)	**-0.97**	(0.14)
	Qatar	-0.63	(0.01)	-0.53	(0.00)	-1.15	(0.00)	**-0.51**	(0.01)	-1.00	(0.00)	-0.58	(0.00)	**0.42**	(0.00)
	Romania	0.24	(0.16)	0.06	(0.10)	-0.37	(0.16)	**-0.61**	(0.21)	-0.06	(0.08)	c	c	m	m
	Russia	0.73	(0.15)	0.73	(0.17)	0.66	(0.22)	-0.06	(0.27)	0.69	(0.12)	c	c	m	m
	Singapore	m	m	m	m	-0.66	(0.02)	m	m	-0.63	(0.00)	-1.03	(0.26)	-0.40	(0.26)
	Chinese Taipei	c	c	-0.59	(0.14)	-0.78	(0.12)	m	m	-0.68	(0.12)	-0.73	(0.17)	-0.05	(0.21)
	Thailand	-0.10	(0.17)	-0.10	(0.07)	-0.14	(0.15)	-0.04	(0.24)	-0.07	(0.06)	-0.27	(0.19)	-0.20	(0.20)
	Trinidad and Tobago	0.92	(0.01)	0.81	(0.01)	m	m	m	m	0.88	(0.01)	0.18	(0.01)	**-0.70**	(0.01)
	Tunisia	0.59	(0.32)	0.84	(0.10)	0.73	(0.28)	0.14	(0.42)	0.86	(0.11)	-1.00	(0.38)	**-1.86**	(0.39)
	United Arab Emirates	0.12	(0.24)	-0.36	(0.11)	-0.80	(0.06)	**-0.92**	(0.24)	0.08	(0.08)	-1.11	(0.07)	**-1.19**	(0.10)
	Uruguay	-0.70	(0.26)	0.26	(0.08)	-0.08	(0.13)	**0.62**	(0.29)	0.38	(0.07)	-1.58	(0.12)	**-1.96**	(0.13)
	Viet Nam	-0.14	(0.08)	0.02	(0.13)	-0.42	(0.11)	-0.27	(0.14)	-0.17	(0.06)	0.01	(0.30)	0.18	(0.31)
	Argentina**	-0.19	(0.18)	0.37	(0.10)	0.41	(0.12)	**0.60**	(0.21)	0.55	(0.07)	-0.36	(0.13)	**-0.91**	(0.15)
	Kazakhstan**	1.00	(0.19)	0.95	(0.24)	0.78	(0.16)	-0.22	(0.25)	0.90	(0.12)	0.79	(0.67)	-0.11	(0.68)
	Malaysia**	-0.22	(0.17)	-0.02	(0.14)	-0.37	(0.12)	-0.15	(0.21)	-0.13	(0.09)	-1.19	(0.15)	**-1.06**	(0.17)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Higher values on the index indicate that student behaviour hinders learning to a greater extent.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.3.15 Index of student behaviour hindering learning, science performance and school characteristics

Results based on school principals' reports

		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in science score per unit increase on the index of student behaviour hindering learning		Explained variance in student performance (r-squared x 100)		Change in science score per unit increase on the index of student behaviour hindering learning		Explained variance in student performance (r-squared x 100)	
		Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	-0.16	(0.04)	0.01	(0.07)	**0.16**	(0.07)	**-26**	(1.8)	7.6	(1.0)	**-10**	(1.8)	17.4	(1.1)
	Austria	0.17	(0.12)	0.20	(0.08)	0.04	(0.13)	**-17**	(3.2)	3.2	(1.4)	**-6**	(2.4)	31.5	(1.8)
	Belgium	0.85	(0.10)	0.07	(0.05)	**-0.79**	(0.10)	**-45**	(3.6)	17.9	(2.2)	**-11**	(3.6)	36.4	(2.1)
	Canada	0.14	(0.07)	0.53	(0.06)	**0.39**	(0.07)	**-14**	(2.5)	2.3	(0.7)	**-6**	(2.3)	11.3	(1.0)
	Chile	-0.03	(0.20)	-0.22	(0.08)	-0.20	(0.19)	**-26**	(2.4)	11.8	(1.9)	**-9**	(2.6)	27.8	(1.6)
	Czech Republic	-0.06	(0.07)	0.30	(0.07)	**0.37**	(0.10)	**-28**	(3.8)	7.7	(2.0)	**-9**	(2.5)	34.0	(2.0)
	Denmark	-0.31	(0.06)	c	c	m	m	**-14**	(2.2)	2.4	(0.7)	**-7**	(2.3)	12.6	(1.4)
	Estonia	-0.01	(0.05)	0.04	(0.18)	0.05	(0.18)	-5	(3.0)	0.2	(0.3)	-3	(2.7)	11.1	(1.3)
	Finland	0.28	(0.06)	c	c	m	m	-2	(3.5)	0.0	(0.1)	-2	(2.7)	10.9	(1.3)
	France	0.06	(0.11)	0.27	(0.07)	0.21	(0.11)	**-17**	(5.0)	2.6	(1.4)	1	(3.3)	37.9	(2.2)
	Germany	0.04	(0.05)	0.26	(0.16)	0.22	(0.17)	**-27**	(6.0)	4.3	(1.9)	**-15**	(3.1)	36.8	(2.3)
	Greece	-0.48	(0.17)	-0.39	(0.07)	0.09	(0.18)	**-21**	(4.4)	5.5	(2.1)	**-10**	(2.8)	24.5	(2.8)
	Hungary	-0.76	(0.16)	-0.31	(0.09)	**0.45**	(0.17)	**-32**	(3.2)	14.9	(2.7)	**-6**	(2.4)	43.8	(2.2)
	Iceland	-0.34	(0.00)	m	m	m	m	-2	(1.9)	0.0	(0.1)	-3	(1.9)	5.2	(0.8)
	Ireland	0.03	(0.08)	0.06	(0.08)	0.03	(0.03)	**-15**	(3.2)	2.4	(1.1)	-3	(2.3)	15.6	(1.3)
	Israel	0.08	(0.10)	0.06	(0.07)	-0.02	(0.10)	-11	(6.4)	0.7	(0.9)	-1	(4.0)	23.3	(2.4)
	Italy	0.05	(0.15)	-0.06	(0.06)	-0.11	(0.16)	**-23**	(4.1)	5.3	(1.6)	-6	(3.6)	24.8	(2.5)
	Japan	m	m	-0.53	(0.06)	m	m	**-24**	(4.0)	5.5	(1.9)	-6	(3.1)	28.3	(2.4)
	Korea	-0.24	(0.23)	-0.29	(0.08)	-0.06	(0.25)	**-20**	(2.9)	5.8	(1.8)	**-11**	(2.1)	19.3	(2.1)
	Latvia	0.10	(0.05)	0.30	(0.17)	0.20	(0.17)	3	(2.2)	0.1	(0.1)	1	(2.3)	12.5	(1.5)
	Luxembourg	0.34	(0.00)	-0.05	(0.00)	**-0.39**	(0.00)	**-50**	(1.6)	16.1	(0.9)	**-5**	(2.2)	34.5	(1.0)
	Mexico	0.29	(0.10)	0.16	(0.06)	-0.13	(0.12)	**-8**	(2.3)	1.0	(0.6)	**-5**	(2.1)	17.6	(2.0)
	Netherlands	0.43	(0.10)	0.32	(0.09)	-0.11	(0.12)	-19	(10.3)	2.1	(2.3)	-8	(5.8)	39.1	(5.0)
	New Zealand	0.15	(0.10)	0.15	(0.05)	-0.01	(0.08)	**-25**	(3.4)	5.1	(1.4)	-4	(3.3)	20.0	(2.0)
	Norway	-0.11	(0.06)	c	c	m	m	**-8**	(3.3)	0.5	(0.4)	-6	(3.0)	8.8	(0.9)
	Poland	-0.08	(0.06)	c	c	m	m	**-10**	(3.6)	0.9	(0.7)	**-6**	(2.1)	15.8	(1.6)
	Portugal	0.41	(0.08)	0.27	(0.07)	-0.14	(0.08)	**-9**	(3.5)	0.8	(0.7)	-3	(2.5)	19.8	(2.0)
	Slovak Republic	0.04	(0.07)	0.12	(0.09)	0.07	(0.11)	**-23**	(4.6)	4.9	(1.9)	**-11**	(2.6)	31.3	(2.3)
	Slovenia	0.11	(0.12)	0.32	(0.00)	0.21	(0.12)	**-30**	(2.1)	6.6	(0.9)	**-10**	(1.8)	36.2	(1.3)
	Spain	-0.14	(0.06)	c	c	m	m	**-14**	(2.0)	2.5	(0.7)	0	(2.1)	14.4	(1.2)
	Sweden	0.12	(0.06)	-0.04	(0.44)	-0.16	(0.45)	**-13**	(3.6)	1.2	(0.6)	-4	(2.4)	16.5	(1.7)
	Switzerland	-0.06	(0.07)	0.04	(0.13)	0.10	(0.14)	**-10**	(5.1)	0.8	(0.9)	**-8**	(3.8)	25.1	(2.1)
	Turkey	0.56	(0.17)	0.17	(0.08)	**-0.40**	(0.19)	**-27**	(4.5)	9.9	(3.0)	**-19**	(3.5)	30.7	(3.7)
	United Kingdom	0.04	(0.13)	-0.50	(0.06)	**-0.53**	(0.13)	**-19**	(3.8)	3.0	(1.2)	-4	(2.6)	19.6	(1.8)
	United States	0.49	(0.12)	0.23	(0.07)	**-0.26**	(0.09)	**-19**	(3.5)	3.3	(1.4)	-6	(3.5)	14.6	(1.6)
	OECD average	0.06	(0.02)	0.05	(0.02)	-0.03	(0.03)	**-19**	(0.7)	4.5	(0.2)	**-6**	(0.5)	23.1	(0.3)
Partners	**Albania**	-1.00	(0.11)	-0.49	(0.09)	**0.51**	(0.13)	m	m	m	m	m	m	m	m
	Algeria	-0.01	(0.11)	0.66	(0.24)	**0.68**	(0.27)	5	(3.4)	0.8	(1.0)	1	(2.5)	9.6	(2.9)
	Brazil	0.67	(0.09)	0.53	(0.07)	-0.14	(0.10)	**-19**	(2.2)	6.7	(1.5)	**-6**	(1.7)	21.9	(2.2)
	B-S-J-G (China)	0.26	(0.17)	0.46	(0.38)	0.20	(0.40)	**-8**	(3.5)	2.7	(2.1)	-1	(2.4)	34.8	(3.0)
	Bulgaria	0.89	(0.39)	-0.14	(0.10)	**-1.03**	(0.39)	**-20**	(3.4)	7.3	(2.4)	-3	(2.2)	39.5	(2.7)
	CABA (Argentina)	-0.08	(0.12)	-0.91	(0.25)	**-0.83**	(0.25)	**-27**	(4.2)	10.9	(3.2)	-2	(3.9)	32.5	(3.5)
	Colombia	0.23	(0.08)	0.03	(0.07)	**-0.20**	(0.07)	**-13**	(2.4)	3.4	(1.3)	**-5**	(2.0)	20.3	(2.5)
	Costa Rica	0.70	(0.08)	0.77	(0.09)	0.07	(0.07)	1	(2.2)	0.0	(0.2)	1	(1.3)	21.5	(2.1)
	Croatia	c	c	0.98	(0.08)	m	m	**-24**	(3.9)	7.6	(2.5)	**-12**	(2.6)	27.7	(2.0)
	Cyprus*	-0.26	(0.02)	0.07	(0.00)	**0.32**	(0.02)	**-20**	(1.6)	3.0	(0.5)	**-6**	(1.6)	17.4	(0.9)
	Dominican Republic	-0.04	(0.16)	-0.17	(0.08)	-0.13	(0.18)	**-13**	(5.0)	2.8	(2.1)	-5	(2.9)	26.5	(3.2)
	FYROM	c	c	-0.28	(0.00)	m	m	**-9**	(1.4)	1.2	(0.4)	**-8**	(1.4)	15.3	(1.2)
	Georgia	-0.55	(0.09)	-0.54	(0.08)	0.00	(0.07)	-4	(2.4)	0.3	(0.3)	-2	(1.9)	15.0	(1.6)
	Hong Kong (China)	-0.67	(0.09)	-0.79	(0.08)	**-0.12**	(0.04)	**-23**	(4.2)	5.6	(2.1)	**-15**	(4.3)	14.9	(2.0)
	Indonesia	-0.86	(0.10)	-0.95	(0.10)	-0.10	(0.14)	-5	(3.0)	0.4	(0.5)	-1	(2.5)	23.4	(3.1)
	Jordan	0.12	(0.09)	m	m	m	m	**-10**	(2.7)	2.5	(1.3)	**-5**	(2.3)	13.0	(2.3)
	Kosovo	-0.32	(0.11)	0.18	(0.02)	**0.49**	(0.11)	**-5**	(1.7)	0.7	(0.4)	**-3**	(1.4)	14.3	(1.5)
	Lebanon	-0.39	(0.13)	-0.86	(0.10)	**-0.47**	(0.14)	**-9**	(3.6)	1.5	(1.1)	-4	(2.7)	18.5	(3.2)
	Lithuania	-0.26	(0.05)	c	c	m	m	**-21**	(4.3)	3.8	(1.6)	**-12**	(2.4)	22.5	(2.5)
	Macao (China)	-0.28	(0.01)	-0.71	(0.00)	**-0.43**	(0.01)	**-8**	(0.6)	3.2	(0.4)	**-7**	(0.6)	4.7	(0.6)
	Malta	c	c	-0.57	(0.00)	m	m	**-28**	(1.4)	6.6	(0.7)	0	(1.6)	24.4	(1.1)
	Moldova	0.32	(0.07)	0.05	(0.17)	-0.27	(0.18)	-1	(2.5)	0.0	(0.1)	1	(2.0)	14.2	(1.7)
	Montenegro	-0.12	(0.13)	0.51	(0.00)	**0.63**	(0.13)	**-26**	(2.2)	4.2	(0.7)	**-12**	(2.2)	17.8	(0.9)
	Peru	-0.13	(0.08)	-0.40	(0.08)	**-0.27**	(0.07)	**-8**	(2.4)	1.6	(0.9)	-1	(1.3)	29.9	(2.2)
	Qatar	-0.71	(0.01)	-0.88	(0.00)	**-0.17**	(0.01)	**-4**	(0.7)	0.2	(0.1)	0	(0.7)	14.0	(0.6)
	Romania	-0.05	(0.08)	m	m	m	m	**-22**	(4.1)	8.0	(2.8)	**-7**	(3.5)	24.0	(2.9)
	Russia	0.63	(0.12)	1.14	(0.18)	**0.51**	(0.17)	-3	(1.9)	0.3	(0.3)	-2	(1.4)	9.8	(1.8)
	Singapore	-0.48	(0.07)	-0.67	(0.02)	**-0.19**	(0.06)	**-28**	(1.7)	5.2	(0.5)	**-6**	(2.6)	26.3	(1.5)
	Chinese Taipei	-0.75	(0.14)	-0.66	(0.12)	0.09	(0.18)	**-10**	(3.1)	1.8	(1.1)	-2	(1.8)	28.3	(2.6)
	Thailand	-0.28	(0.06)	-0.04	(0.07)	**0.24**	(0.07)	**-12**	(3.0)	1.7	(0.9)	**-6**	(2.7)	18.5	(3.2)
	Trinidad and Tobago	1.18	(0.01)	0.58	(0.01)	**-0.60**	(0.01)	**-42**	(1.0)	23.2	(1.0)	**-17**	(1.3)	38.7	(1.1)
	Tunisia	0.84	(0.14)	0.80	(0.15)	-0.04	(0.19)	0	(3.4)	0.0	(0.3)	-2	(2.3)	18.7	(3.8)
	United Arab Emirates	-0.33	(0.12)	-0.65	(0.06)	**-0.32**	(0.12)	**-24**	(2.3)	9.0	(1.6)	**-17**	(2.1)	19.7	(1.9)
	Uruguay	0.53	(0.09)	-0.20	(0.07)	**-0.73**	(0.10)	**-22**	(2.5)	8.9	(1.8)	-3	(2.2)	26.4	(1.8)
	Viet Nam	-0.32	(0.18)	-0.15	(0.06)	0.17	(0.19)	**-27**	(6.9)	6.3	(3.3)	**-12**	(4.9)	20.6	(4.4)
	Argentina**	0.43	(0.08)	0.30	(0.07)	-0.13	(0.08)	**-18**	(2.7)	4.9	(1.5)	**-10**	(2.3)	20.8	(2.3)
	Kazakhstan**	0.92	(0.13)	0.75	(0.17)	-0.17	(0.13)	2	(2.4)	0.3	(0.7)	4	(2.5)	9.4	(2.5)
	Malaysia**	-0.07	(0.19)	-0.19	(0.08)	-0.13	(0.20)	**-14**	(2.9)	4.1	(1.6)	**-9**	(2.0)	19.6	(2.6)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Higher values on the index indicate that student behaviour hinders learning to a greater extent.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/2]

Table II.3.16 Student behaviour hindering learning and science performance

Results based on school principals' reports

		Change in science score when the school principal reported that the following phenomena hinder learning to some extent or a lot											
		Student truancy				Students skipping classes				Students lacking respect for teachers			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-52**	(4.0)	**-15**	(4.0)	**-54**	(4.0)	**-17**	(3.9)	**-50**	(4.2)	**-17**	(3.7)
	Austria	**-18**	(8.3)	-2	(5.2)	-17	(8.9)	-6	(5.0)	**-54**	(10.6)	**-25**	(7.6)
	Belgium	**-83**	(6.2)	**-22**	(5.9)	**-88**	(6.9)	**-23**	(7.3)	**-63**	(10.0)	**-17**	(6.4)
	Canada	**-19**	(4.8)	-5	(3.7)	**-17**	(4.5)	-6	(3.5)	**-23**	(7.0)	-7	(5.8)
	Chile	**-55**	(7.5)	**-28**	(6.6)	**-45**	(7.7)	**-21**	(6.5)	**-56**	(6.7)	**-23**	(6.2)
	Czech Republic	**-43**	(7.2)	**-12**	(4.6)	**-43**	(7.5)	**-13**	(4.6)	**-45**	(7.5)	**-14**	(6.2)
	Denmark	**-29**	(5.2)	**-15**	(4.9)	**-31**	(5.6)	**-16**	(6.8)	**-27**	(5.7)	-10	(5.4)
	Estonia	-6	(4.4)	-1	(4.0)	-4	(4.9)	-4	(4.4)	**-20**	(6.3)	-7	(6.7)
	Finland	-2	(4.8)	-3	(4.1)	-7	(5.3)	**-8**	(3.9)	-6	(5.5)	0	(4.3)
	France	**-36**	(8.6)	0	(5.7)	**-25**	(9.7)	9	(6.5)	**-58**	(10.5)	-9	(6.6)
	Germany	**-53**	(12.3)	**-25**	(5.6)	**-47**	(12.0)	**-28**	(6.3)	**-61**	(11.0)	**-17**	(8.5)
	Greece	**-61**	(10.3)	**-29**	(7.6)	**-63**	(12.2)	**-37**	(7.7)	**-40**	(15.5)	-18	(9.9)
	Hungary	**-98**	(7.2)	**-25**	(6.8)	**-76**	(9.5)	-12	(6.5)	**-55**	(9.1)	-7	(6.1)
	Iceland	-3	(4.3)	-3	(4.3)	-4	(4.6)	-4	(4.6)	-5	(6.1)	2	(5.8)
	Ireland	**-21**	(5.7)	-3	(4.0)	-10	(9.0)	2	(5.8)	**-39**	(11.2)	-16	(9.1)
	Israel	-18	(9.5)	-1	(6.5)	3	(11.7)	0	(7.4)	-12	(15.1)	3	(8.7)
	Italy	**-45**	(8.3)	-12	(8.4)	**-40**	(8.6)	-9	(7.8)	**-32**	(9.6)	-12	(7.7)
	Japan	**-75**	(9.5)	**-27**	(8.1)	**-66**	(11.3)	-15	(8.0)	**-53**	(11.1)	**-18**	(6.9)
	Korea	**-51**	(8.9)	**-25**	(6.4)	**-40**	(10.9)	**-21**	(7.1)	**-22**	(8.4)	**-17**	(5.2)
	Latvia	5	(3.9)	2	(3.5)	-2	(3.8)	1	(3.6)	-6	(4.4)	-2	(3.5)
	Luxembourg	**-60**	(2.5)	**-10**	(2.7)	**-76**	(2.7)	**-9**	(3.0)	**-75**	(2.3)	**-10**	(2.9)
	Mexico	**-21**	(5.4)	**-11**	(4.3)	**-10**	(5.3)	-5	(4.7)	**-18**	(6.5)	**-11**	(5.3)
	Netherlands	-20	(18.5)	-9	(10.6)	**-37**	(17.8)	-9	(11.5)	-35	(18.9)	-11	(10.7)
	New Zealand	**-40**	(7.5)	-1	(6.1)	**-37**	(7.2)	-1	(5.6)	**-31**	(12.6)	-7	(8.7)
	Norway	-2	(5.6)	0	(4.9)	-9	(5.5)	-5	(4.8)	**-20**	(5.6)	-9	(5.2)
	Poland	-11	(6.3)	**-12**	(4.3)	**-15**	(5.6)	**-9**	(4.3)	-7	(7.4)	-3	(5.0)
	Portugal	-12	(6.4)	-2	(4.7)	-8	(6.7)	-1	(4.7)	-15	(7.7)	-5	(4.5)
	Slovak Republic	**-55**	(9.2)	**-19**	(5.2)	-18	(9.6)	-10	(5.8)	**-40**	(9.9)	**-19**	(6.1)
	Slovenia	**-36**	(3.4)	**-9**	(2.9)	-3	(2.8)	**-8**	(2.7)	**-46**	(4.2)	**-9**	(3.5)
	Spain	**-23**	(4.9)	1	(4.3)	**-27**	(4.9)	-3	(4.3)	**-23**	(5.7)	-4	(4.5)
	Sweden	**-23**	(6.8)	-9	(4.9)	**-16**	(7.1)	-4	(4.6)	**-23**	(6.6)	-9	(5.9)
	Switzerland	-7	(10.3)	-12	(7.4)	-10	(12.4)	-6	(7.5)	**-55**	(10.8)	**-25**	(8.8)
	Turkey	**-46**	(9.1)	**-31**	(6.8)	**-41**	(8.0)	**-30**	(5.8)	**-42**	(9.3)	**-29**	(6.2)
	United Kingdom	**-43**	(7.6)	-12	(6.8)	**-23**	(11.4)	**-14**	(6.3)	-6	(10.4)	1	(5.9)
	United States	**-33**	(6.3)	**-11**	(5.4)	**-32**	(7.5)	-10	(6.1)	**-47**	(10.0)	**-24**	(8.1)
	OECD average	**-34**	(1.3)	**-11**	(1.0)	**-30**	(1.4)	**-10**	(1.0)	**-35**	(1.6)	**-12**	(1.1)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	10	(7.8)	8	(6.0)	13	(9.0)	-2	(6.5)	9	(7.4)	7	(6.0)
	Brazil	**-38**	(6.0)	**-10**	(4.4)	**-27**	(5.4)	-6	(4.4)	**-35**	(5.1)	**-16**	(3.6)
	B-S-J-G (China)	**-38**	(13.2)	-9	(9.7)	**-39**	(13.4)	-7	(9.8)	**-52**	(12.9)	-17	(9.4)
	Bulgaria	**-60**	(9.8)	**-15**	(5.9)	**-48**	(10.8)	-6	(7.0)	**-40**	(11.2)	-10	(6.6)
	CABA (Argentina)	**-37**	(14.3)	-7	(7.8)	**-41**	(15.6)	9	(8.3)	c	c	c	c
	Colombia	**-22**	(5.8)	-5	(5.0)	**-20**	(6.5)	-8	(5.1)	**-14**	(6.5)	-7	(4.6)
	Costa Rica	6	(6.6)	3	(3.2)	3	(6.8)	2	(3.6)	-3	(6.2)	5	(3.9)
	Croatia	**-58**	(9.7)	**-28**	(6.4)	**-45**	(9.8)	**-24**	(6.3)	**-42**	(8.3)	**-19**	(5.6)
	Cyprus*	**-41**	(2.8)	**-17**	(2.7)	**-21**	(3.0)	**-6**	(2.8)	**-20**	(2.7)	-2	(2.8)
	Dominican Republic	**-23**	(8.2)	-12	(6.4)	-13	(7.4)	-6	(5.6)	**-21**	(7.0)	**-15**	(5.1)
	FYROM	**-22**	(2.6)	**-6**	(2.7)	**-11**	(3.5)	**-9**	(3.5)	**-24**	(3.6)	**-26**	(3.6)
	Georgia	-7	(7.0)	-2	(4.6)	-8	(6.8)	-6	(5.5)	-13	(8.6)	-8	(7.1)
	Hong Kong (China)	**-33**	(12.9)	-23	(13.0)	-32	(18.1)	-10	(15.9)	-17	(10.5)	-13	(7.7)
	Indonesia	**-15**	(6.9)	-8	(5.5)	0	(8.3)	5	(6.6)	-7	(8.8)	3	(8.6)
	Jordan	**-13**	(6.3)	-2	(5.5)	**-24**	(7.8)	-11	(6.6)	**-20**	(6.6)	**-14**	(5.5)
	Kosovo	-5	(3.4)	0	(3.3)	**-15**	(3.1)	**-9**	(3.0)	**-13**	(3.9)	-5	(3.8)
	Lebanon	**-45**	(9.1)	**-26**	(7.7)	**-26**	(11.8)	-8	(9.3)	**-31**	(10.8)	-12	(8.3)
	Lithuania	**-30**	(6.4)	**-18**	(5.0)	**-24**	(7.6)	**-16**	(6.0)	**-18**	(8.0)	-1	(7.7)
	Macao (China)	**-35**	(2.5)	**-31**	(2.6)	**-33**	(2.6)	**-28**	(2.7)	**-33**	(2.6)	**-27**	(2.7)
	Malta	**-34**	(5.4)	**17**	(5.6)	**-55**	(4.8)	-2	(5.2)	**-62**	(3.6)	-2	(4.1)
	Moldova	-5	(7.0)	-2	(4.7)	1	(5.7)	3	(5.0)	6	(6.2)	7	(4.9)
	Montenegro	**-33**	(4.7)	-2	(4.3)	**-28**	(2.6)	**-11**	(2.6)	**-60**	(3.2)	**-32**	(3.3)
	Peru	**-14**	(6.3)	-2	(3.6)	**-17**	(6.2)	-1	(4.1)	4	(6.0)	-3	(3.8)
	Qatar	**26**	(2.3)	**28**	(2.4)	**-16**	(1.9)	**6**	(2.0)	**-43**	(2.7)	**-22**	(2.8)
	Romania	**-40**	(7.5)	**-15**	(6.1)	**-43**	(7.6)	**-18**	(6.4)	**-31**	(8.7)	-15	(8.3)
	Russia	**-12**	(5.1)	-7	(4.0)	-3	(6.3)	0	(4.9)	-5	(6.0)	-4	(5.5)
	Singapore	**-68**	(4.6)	**-20**	(4.6)	**-27**	(5.6)	1	(5.5)	**-46**	(4.7)	**-17**	(4.6)
	Chinese Taipei	-19	(12.2)	-9	(7.2)	-15	(11.4)	-7	(6.8)	**-24**	(9.6)	-6	(5.7)
	Thailand	**-31**	(6.3)	**-14**	(6.2)	**-28**	(5.8)	**-17**	(5.5)	**-29**	(8.0)	**-20**	(7.0)
	Trinidad and Tobago	**-80**	(2.8)	**-27**	(3.2)	**-77**	(2.5)	**-23**	(2.8)	**-72**	(2.6)	**-20**	(2.8)
	Tunisia	-10	(11.1)	-2	(7.7)	5	(7.1)	0	(5.2)	1	(7.6)	-9	(5.8)
	United Arab Emirates	**-56**	(7.3)	**-32**	(6.7)	**-57**	(6.4)	**-36**	(7.2)	**-41**	(11.8)	**-29**	(10.5)
	Uruguay	**-42**	(6.0)	-5	(4.9)	**-28**	(5.7)	-1	(4.4)	**-51**	(8.0)	**-18**	(7.5)
	Viet Nam	**-37**	(7.3)	**-17**	(6.7)	**-34**	(10.6)	-15	(8.5)	-26	(23.7)	**-29**	(13.0)
	Argentina**	**-34**	(6.7)	**-17**	(5.9)	**-26**	(6.5)	**-11**	(4.6)	**-24**	(7.5)	**-16**	(6.0)
	Kazakhstan**	7	(7.6)	12	(7.7)	9	(7.4)	14	(7.7)	4	(8.9)	8	(8.1)
	Malaysia**	**-30**	(5.2)	**-16**	(4.1)	**-25**	(5.1)	**-15**	(4.3)	**-19**	(6.1)	**-23**	(5.5)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/2]

Table II.3.16 Student behaviour hindering learning and science performance

Results based on school principals' reports

		Change in science score when the school principal reported that the following phenomena hinder learning to some extent or a lot							
		Student use of alcohol or illegal drugs				Students intimidating or bullying other students			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-29**	(8.3)	-8	(6.3)	**-34**	(5.9)	**-12**	(3.9)
	Austria	**-60**	(10.5)	**-27**	(8.7)	**-26**	(12.6)	-14	(7.9)
	Belgium	**-57**	(16.1)	**-32**	(9.9)	**-31**	(11.0)	1	(5.8)
	Canada	**-16**	(4.7)	-4	(4.0)	**-16**	(8.0)	-8	(7.1)
	Chile	**-49**	(6.5)	**-20**	(6.3)	**-51**	(8.8)	**-25**	(8.2)
	Czech Republic	**-58**	(16.3)	**-23**	(7.6)	**-50**	(13.9)	-15	(8.8)
	Denmark	-7	(12.4)	6	(20.1)	-16	(11.2)	-2	(9.7)
	Estonia	-11	(16.8)	-13	(16.1)	-3	(7.9)	-4	(6.6)
	Finland	7	(12.4)	3	(7.5)	3	(6.5)	1	(4.9)
	France	**19**	(9.5)	0	(5.9)	**-94**	(14.2)	**-25**	(10.2)
	Germany	-29	(20.0)	-15	(11.4)	-28	(14.1)	**-18**	(8.0)
	Greece	-11	(23.7)	0	(16.0)	-26	(21.6)	-2	(17.0)
	Hungary	-19	(14.8)	10	(8.7)	**-63**	(20.2)	0	(9.7)
	Iceland	c	c	c	c	5	(5.1)	4	(4.9)
	Ireland	**-19**	(8.8)	-2	(6.9)	-18	(10.0)	-3	(8.1)
	Israel	5	(24.2)	-16	(16.6)	c	c	c	c
	Italy	-3	(16.6)	9	(16.1)	**-34**	(15.8)	0	(16.8)
	Japan	c	c	c	c	8	(13.5)	-3	(10.8)
	Korea	**-42**	(15.6)	**-25**	(9.0)	**-48**	(19.7)	**-43**	(11.4)
	Latvia	3	(8.8)	2	(7.5)	-12	(7.2)	-7	(7.5)
	Luxembourg	m	m	m	m	c	c	c	c
	Mexico	**-15**	(5.2)	-4	(4.8)	**-18**	(5.7)	**-14**	(4.3)
	Netherlands	-34	(19.2)	**-30**	(8.9)	**-35**	(17.0)	-17	(10.3)
	New Zealand	**-28**	(11.3)	-8	(7.6)	1	(9.1)	4	(7.6)
	Norway	c	c	c	c	-12	(6.9)	-1	(6.4)
	Poland	-1	(18.1)	0	(11.5)	c	c	c	c
	Portugal	-10	(10.2)	-6	(10.6)	**-31**	(15.5)	-9	(10.7)
	Slovak Republic	**-80**	(25.4)	**-19**	(9.0)	**-81**	(18.5)	**-38**	(10.3)
	Slovenia	**-17**	(3.9)	3	(3.6)	**-49**	(7.9)	**-15**	(7.1)
	Spain	-18	(16.1)	3	(15.5)	-16	(9.7)	4	(8.3)
	Sweden	**-38**	(10.3)	**-20**	(10.1)	**-20**	(9.8)	-2	(6.8)
	Switzerland	**-35**	(11.0)	**-21**	(9.8)	**-44**	(11.1)	-17	(8.6)
	Turkey	-2	(9.4)	**-35**	(15.1)	**-25**	(11.6)	**-29**	(11.2)
	United Kingdom	-8	(26.8)	3	(15.9)	**-32**	(12.2)	1	(12.1)
	United States	-1	(12.0)	5	(7.5)	-8	(14.5)	-10	(8.2)
	OECD average	**-21**	(2.7)	**-9**	(2.0)	**-28**	(2.2)	**-10**	(1.6)
Partners	**Albania**	m	m	m	m	m	m	m	m
	Algeria	15	(16.7)	2	(13.1)	3	(12.3)	-6	(9.2)
	Brazil	**-19**	(5.9)	-4	(4.9)	**-14**	(5.9)	-3	(5.3)
	B-S-J-G (China)	**-31**	(14.6)	-4	(10.2)	**-38**	(13.9)	-10	(9.8)
	Bulgaria	**-44**	(13.3)	-3	(9.2)	**-32**	(13.2)	-5	(7.9)
	CABA (Argentina)	-14	(23.4)	0	(13.7)	c	c	c	c
	Colombia	**-19**	(7.9)	-11	(6.3)	**-17**	(5.3)	**-11**	(4.9)
	Costa Rica	2	(5.2)	2	(3.5)	5	(6.2)	5	(4.1)
	Croatia	-13	(10.3)	-6	(7.3)	-8	(10.6)	-5	(7.4)
	Cyprus*	c	c	c	c	**-43**	(4.6)	**-15**	(4.5)
	Dominican Republic	-6	(19.7)	7	(13.9)	-4	(9.5)	4	(7.3)
	FYROM	c	c	c	c	c	c	c	c
	Georgia	-18	(10.7)	-16	(8.9)	-10	(10.8)	-10	(7.7)
	Hong Kong (China)	m	m	m	m	15	(22.2)	-14	(16.3)
	Indonesia	c	c	c	c	-4	(22.2)	2	(10.9)
	Jordan	-11	(13.5)	-5	(10.3)	**-17**	(8.7)	-11	(7.4)
	Kosovo	-9	(5.6)	-9	(5.0)	4	(5.5)	4	(4.9)
	Lebanon	-24	(17.2)	1	(10.2)	**-39**	(14.2)	-18	(10.1)
	Lithuania	-5	(14.9)	-11	(17.0)	**-28**	(10.6)	-7	(9.5)
	Macao (China)	**-20**	(2.6)	**-15**	(2.7)	**-17**	(2.6)	**-14**	(2.6)
	Malta	c	c	c	c	**-50**	(3.5)	-4	(3.7)
	Moldova	-1	(8.3)	-1	(6.3)	-11	(6.6)	-6	(5.3)
	Montenegro	c	c	c	c	c	c	c	c
	Peru	-8	(9.4)	2	(4.8)	-2	(6.1)	3	(4.4)
	Qatar	c	c	c	c	**28**	(2.9)	**33**	(2.8)
	Romania	c	c	c	c	**-27**	(11.2)	-11	(8.5)
	Russia	0	(6.6)	1	(4.6)	2	(6.5)	2	(4.7)
	Singapore	c	c	c	c	0	(3.9)	**15**	(3.7)
	Chinese Taipei	-18	(15.3)	-6	(9.0)	-17	(12.7)	-7	(7.2)
	Thailand	**-35**	(9.5)	**-23**	(8.6)	**-27**	(10.4)	-16	(11.8)
	Trinidad and Tobago	**-50**	(2.5)	**-20**	(2.5)	**-44**	(2.5)	**-14**	(2.5)
	Tunisia	11	(12.8)	2	(7.7)	-6	(9.7)	-11	(5.8)
	United Arab Emirates	**-57**	(13.7)	**-24**	(9.6)	**-28**	(10.8)	**-14**	(6.9)
	Uruguay	-15	(10.9)	-5	(7.9)	**-42**	(8.2)	**-14**	(7.1)
	Viet Nam	c	c	c	c	4	(18.9)	-8	(13.7)
	Argentina**	**-21**	(9.6)	**-14**	(7.1)	**-20**	(8.0)	**-13**	(6.0)
	Kazakhstan**	2	(8.7)	4	(8.5)	3	(8.7)	5	(8.6)
	Malaysia**	-13	(7.7)	-14	(10.5)	**-20**	(7.1)	**-18**	(7.8)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/2]

Table II.3.21 Teacher behaviour hindering learning and science performance

Results based on school principals' reports

		Change in science score when the school principal reported that the following phenomena hinder learning to some extent or a lot											
		Teachers not meeting individual students' needs				Teacher absenteeism				Staff resisting change			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-20**	(5.0)	**-8**	(3.5)	**-30**	(5.2)	**-14**	(3.7)	3	(4.9)	0	(3.3)
	Austria	6	(13.5)	3	(7.4)	-15	(13.9)	-14	(8.3)	-5	(8.5)	-2	(6.1)
	Belgium	**-22**	(11.1)	-1	(5.0)	-13	(9.6)	0	(5.1)	-6	(10.2)	-3	(4.7)
	Canada	-7	(5.4)	-1	(4.3)	-11	(6.8)	-9	(5.3)	-3	(4.8)	0	(3.6)
	Chile	**-37**	(8.1)	**-16**	(5.9)	**-22**	(7.9)	-2	(6.5)	**-22**	(7.2)	-5	(5.5)
	Czech Republic	-15	(9.7)	9	(7.4)	-4	(10.8)	-2	(7.2)	-9	(9.6)	0	(5.5)
	Denmark	-1	(8.8)	5	(9.1)	-5	(6.6)	1	(5.5)	-3	(6.2)	1	(6.2)
	Estonia	7	(5.1)	1	(5.0)	3	(6.1)	-2	(5.6)	10	(5.2)	3	(4.6)
	Finland	3	(5.1)	5	(4.8)	**-10**	(4.9)	-4	(5.3)	2	(6.0)	0	(4.9)
	France	-8	(10.4)	3	(6.5)	-22	(13.0)	-3	(6.7)	19	(9.9)	**13**	(5.2)
	Germany	11	(12.7)	2	(6.9)	-2	(10.8)	0	(6.0)	22	(13.0)	5	(6.4)
	Greece	4	(20.1)	0	(14.2)	7	(21.8)	13	(13.8)	-7	(12.0)	0	(7.6)
	Hungary	1	(12.5)	-3	(6.9)	9	(18.8)	-2	(9.3)	-1	(16.1)	-7	(7.9)
	Iceland	-1	(3.8)	-3	(3.8)	-3	(5.0)	0	(5.0)	2	(3.7)	-3	(3.6)
	Ireland	-7	(9.3)	2	(6.3)	-14	(8.9)	-7	(6.9)	0	(8.3)	3	(5.0)
	Israel	-19	(14.1)	-9	(9.8)	**-24**	(11.8)	-10	(6.8)	10	(13.4)	6	(7.5)
	Italy	**32**	(8.4)	**26**	(7.1)	-12	(11.1)	-4	(8.7)	**25**	(9.3)	**17**	(6.9)
	Japan	-18	(10.2)	-1	(6.9)	0	(17.1)	**-22**	(9.9)	17	(9.4)	8	(6.0)
	Korea	4	(14.3)	-13	(8.2)	c	c	c	c	-2	(15.8)	-9	(8.8)
	Latvia	7	(6.0)	3	(5.9)	8	(5.6)	3	(6.7)	5	(5.8)	3	(5.1)
	Luxembourg	**40**	(2.6)	**12**	(2.6)	c	c	c	c	4	(2.3)	**-6**	(2.3)
	Mexico	-8	(7.4)	-1	(5.6)	-1	(7.4)	-9	(5.9)	0	(5.7)	-3	(3.9)
	Netherlands	-4	(17.8)	-2	(10.9)	-5	(17.2)	-5	(9.5)	13	(15.5)	12	(9.4)
	New Zealand	-13	(7.8)	-4	(5.4)	-18	(14.3)	-4	(8.1)	2	(7.9)	7	(5.8)
	Norway	-8	(5.0)	-6	(4.3)	-6	(4.7)	1	(4.3)	3	(5.0)	6	(4.4)
	Poland	-7	(7.3)	-9	(6.0)	-10	(8.2)	-7	(5.6)	2	(6.2)	4	(4.7)
	Portugal	-11	(7.6)	2	(5.5)	-17	(9.3)	-9	(5.3)	-3	(7.6)	0	(5.3)
	Slovak Republic	2	(14.6)	-7	(6.3)	31	(17.6)	-1	(9.3)	17	(11.8)	1	(7.4)
	Slovenia	5	(6.2)	4	(5.1)	0	(4.0)	-6	(4.0)	**-26**	(3.5)	-6	(3.3)
	Spain	-5	(6.8)	6	(4.7)	-13	(11.2)	-2	(8.5)	-3	(5.1)	2	(3.8)
	Sweden	-10	(6.4)	1	(4.5)	-10	(7.3)	10	(5.5)	-7	(8.2)	3	(5.8)
	Switzerland	-3	(14.5)	5	(9.8)	-15	(20.6)	-12	(11.5)	-4	(11.5)	-5	(6.5)
	Turkey	-18	(10.1)	**-18**	(7.2)	20	(19.1)	-6	(14.4)	-1	(9.5)	-5	(8.2)
	United Kingdom	-11	(8.2)	1	(5.3)	6	(8.3)	9	(4.8)	**18**	(9.1)	2	(5.4)
	United States	-17	(10.1)	-8	(5.8)	**-28**	(12.7)	-11	(8.0)	-13	(9.4)	-9	(5.8)
	OECD average	**-4**	(1.7)	-1	(1.1)	**-7**	(2.1)	**-4**	(1.3)	2	(1.6)	1	(1.0
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	8	(6.6)	7	(6.1)	12	(7.2)	4	(6.1)	2	(7.6)	-4	(6.1)
	Brazil	**-13**	(5.7)	2	(4.4)	**-22**	(5.5)	**-12**	(4.0)	**-11**	(5.6)	0	(4.5)
	B-S-J-G (China)	-6	(13.7)	12	(8.6)	-27	(14.8)	2	(9.9)	-24	(14.0)	7	(9.1)
	Bulgaria	-13	(16.5)	1	(8.3)	16	(17.7)	3	(9.0)	6	(15.4)	6	(7.7)
	CABA (Argentina)	-7	(15.9)	-11	(8.9)	-6	(14.6)	8	(7.3)	**-29**	(13.4)	-4	(8.0)
	Colombia	-5	(6.7)	-3	(4.9)	**-14**	(6.9)	-10	(6.0)	-10	(7.7)	-1	(4.6)
	Costa Rica	11	(6.7)	1	(3.9)	9	(7.0)	4	(3.7)	10	(6.6)	5	(3.8)
	Croatia	7	(10.4)	8	(5.9)	19	(10.9)	-2	(6.3)	-10	(8.7)	-2	(5.7)
	Cyprus*	**-17**	(3.9)	-4	(3.8)	**-19**	(4.2)	**-16**	(4.1)	4	(3.1)	**-6**	(3.1)
	Dominican Republic	-7	(9.0)	-8	(6.7)	-20	(20.4)	**-19**	(9.4)	12	(11.9)	11	(7.3)
	FYROM	5	(3.5)	-3	(3.5)	c	c	c	c	**23**	(3.4)	**16**	(3.4)
	Georgia	-1	(10.3)	-4	(8.1)	-14	(9.0)	-8	(6.9)	-13	(9.4)	-1	(6.9)
	Hong Kong (China)	-10	(7.5)	-1	(5.6)	**-23**	(10.2)	-6	(9.9)	2	(8.5)	1	(6.6)
	Indonesia	-8	(14.2)	7	(12.2)	-9	(10.7)	3	(8.2)	c	c	c	c
	Jordan	-11	(7.7)	1	(6.4)	0	(6.8)	1	(5.6)	-2	(6.9)	-1	(6.0)
	Kosovo	1	(3.6)	2	(3.5)	**-11**	(3.7)	-5	(3.6)	-4	(3.4)	-3	(3.1)
	Lebanon	**-30**	(13.7)	-13	(11.0)	-26	(13.7)	-5	(10.0)	-13	(9.0)	9	(7.2)
	Lithuania	**-17**	(8.2)	-12	(7.7)	-8	(15.9)	-18	(17.7)	**15**	(7.8)	5	(7.1)
	Macao (China)	**-12**	(2.1)	**-8**	(2.2)	**-10**	(2.4)	**-10**	(2.3)	**-14**	(2.0)	**-12**	(2.1)
	Malta	**-12**	(3.5)	-3	(3.4)	**-24**	(4.0)	-3	(4.0)	-7	(3.8)	**13**	(3.8)
	Moldova	-2	(9.2)	1	(6.6)	3	(9.9)	5	(8.0)	-8	(6.5)	-4	(5.2)
	Montenegro	**13**	(3.3)	**7**	(3.3)	**-9**	(3.4)	**-8**	(3.4)	**-48**	(3.0)	**-19**	(3.2)
	Peru	-6	(6.3)	0	(3.6)	-9	(6.8)	0	(4.0)	-2	(6.1)	2	(3.4)
	Qatar	**20**	(3.4)	4	(3.4)	**-30**	(3.2)	**-18**	(3.2)	**11**	(3.6)	**-17**	(3.7)
	Romania	27	(16.3)	13	(10.0)	c	c	c	c	-13	(9.5)	-7	(5.9)
	Russia	-7	(6.0)	-8	(4.0)	-8	(7.0)	-5	(4.6)	-3	(6.7)	2	(4.7)
	Singapore	**-22**	(2.5)	-3	(4.8)	4	(7.4)	**21**	(6.9)	4	(3.8)	0	(3.8)
	Chinese Taipei	-4	(9.6)	3	(5.5)	-11	(12.2)	-3	(7.8)	0	(9.3)	4	(5.4)
	Thailand	**-24**	(8.5)	**-16**	(7.2)	**-45**	(8.4)	**-26**	(8.2)	**-24**	(7.5)	**-16**	(6.1)
	Trinidad and Tobago	**-38**	(2.9)	**-21**	(2.9)	**-34**	(3.1)	**-16**	(2.9)	**-31**	(2.9)	**-15**	(2.8)
	Tunisia	12	(9.9)	3	(6.5)	4	(7.2)	0	(6.0)	12	(7.1)	4	(5.2)
	United Arab Emirates	**-19**	(9.7)	-4	(8.0)	**-31**	(6.1)	-7	(8.2)	**-17**	(7.4)	-5	(6.2)
	Uruguay	-12	(8.3)	-1	(4.8)	**-20**	(6.6)	-5	(4.8)	-1	(7.0)	**9**	(4.3)
	Viet Nam	5	(11.2)	5	(8.6)	-14	(16.3)	-6	(9.5)	27	(14.5)	**28**	(13.1)
	Argentina**	-7	(7.9)	-4	(5.7)	**-28**	(7.1)	**-18**	(5.2)	-12	(6.7)	-3	(4.9)
	Kazakhstan**	10	(8.6)	10	(8.1)	8	(7.5)	11	(7.8)	-2	(7.4)	2	(7.6)
	Malaysia**	-12	(10.0)	-11	(8.9)	-13	(7.9)	**-15**	(5.8)	**-22**	(6.9)	**-23**	(8.2)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/2]

Table II.3.21 Teacher behaviour hindering learning and science performance

Results based on school principals' reports

		Change in science score when the school principal reported that the following phenomena hinder learning to some extent or a lot							
		Teachers being too strict with students				Teachers not being well prepared for classes			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	**-26**	(7.3)	**-15**	(5.6)	**-33**	(6.5)	**-12**	(4.2)
	Austria	14	(12.1)	10	(7.8)	7	(23.4)	10	(12.6)
	Belgium	-10	(10.7)	-3	(5.4)	**-35**	(10.9)	-3	(5.5)
	Canada	4	(9.0)	-2	(6.5)	-13	(9.3)	-9	(7.6)
	Chile	**-18**	(8.7)	-3	(6.0)	**-24**	(8.3)	-7	(6.2)
	Czech Republic	20	(12.0)	6	(6.4)	9	(20.9)	2	(12.2)
	Denmark	**-32**	(8.5)	-15	(12.1)	-17	(9.1)	2	(11.3)
	Estonia	11	(6.6)	-2	(5.2)	-12	(9.2)	1	(8.6)
	Finland	12	(7.5)	**12**	(3.8)	-6	(4.8)	-2	(7.7)
	France	**24**	(10.6)	10	(6.4)	**-27**	(13.3)	5	(7.7)
	Germany	**42**	(15.4)	**19**	(8.0)	-34	(17.6)	-18	(11.0)
	Greece	1	(13.5)	7	(8.5)	-37	(21.2)	-16	(14.7)
	Hungary	7	(15.4)	3	(7.7)	7	(22.6)	0	(10.5)
	Iceland	5	(7.2)	5	(7.0)	8	(5.0)	3	(5.1)
	Ireland	11	(7.8)	8	(6.5)	-5	(16.1)	-4	(10.4)
	Israel	6	(15.7)	11	(8.6)	-18	(16.0)	-4	(9.7)
	Italy	**31**	(10.7)	11	(7.4)	6	(10.4)	3	(7.7)
	Japan	-11	(9.7)	-2	(6.1)	-13	(9.5)	-2	(6.4)
	Korea	4	(11.1)	0	(6.8)	-15	(17.6)	-13	(10.7)
	Latvia	0	(6.3)	-2	(4.9)	**36**	(8.5)	**24**	(7.0)
	Luxembourg	c	c	c	c	c	c	c	c
	Mexico	-1	(5.7)	-3	(4.6)	**-16**	(7.7)	-13	(7.0)
	Netherlands	23	(19.6)	9	(10.6)	-26	(15.6)	-13	(9.2)
	New Zealand	-17	(14.8)	-10	(9.4)	**-20**	(9.9)	-4	(6.6)
	Norway	7	(14.3)	11	(10.8)	-14	(7.3)	-8	(6.6)
	Poland	-2	(9.8)	-6	(5.5)	-3	(12.7)	-8	(10.0)
	Portugal	-3	(8.8)	-8	(6.7)	-14	(12.3)	8	(10.5)
	Slovak Republic	**23**	(9.9)	**11**	(5.5)	-13	(23.7)	-6	(10.0)
	Slovenia	-4	(4.8)	0	(4.5)	**-31**	(4.8)	**-11**	(5.0)
	Spain	-9	(6.1)	0	(4.2)	-5	(6.5)	7	(4.8)
	Sweden	10	(18.2)	0	(13.4)	-17	(9.6)	1	(6.9)
	Switzerland	2	(25.9)	-2	(12.5)	**-45**	(21.5)	-27	(14.0)
	Turkey	10	(32.2)	**-28**	(12.3)	-6	(11.2)	**-21**	(8.8)
	United Kingdom	6	(19.5)	5	(9.8)	-10	(11.8)	-4	(8.0)
	United States	**-27**	(12.8)	-14	(8.0)	**-48**	(11.0)	**-29**	(6.8)
	OECD average	3	(2.3)	1	(1.4)	**-14**	(2.4)	**-5**	(1.5)
Partners	**Albania**	m	m	m	m	m	m	m	m
	Algeria	-2	(8.0)	-2	(7.0)	15	(8.8)	**13**	(6.4)
	Brazil	-9	(6.6)	3	(5.6)	-7	(6.4)	5	(4.8)
	B-S-J-G (China)	-25	(16.1)	-10	(11.1)	**-35**	(11.9)	-3	(8.3)
	Bulgaria	30	(16.0)	4	(8.5)	-21	(15.3)	-6	(8.3)
	CABA (Argentina)	-22	(18.7)	-4	(11.8)	c	c	c	c
	Colombia	-4	(6.1)	1	(4.3)	-7	(5.5)	4	(6.2)
	Costa Rica	-2	(8.1)	-1	(4.7)	12	(7.0)	**9**	(4.1)
	Croatia	17	(11.0)	1	(6.9)	-15	(10.4)	-2	(6.0)
	Cyprus*	**-21**	(3.2)	-4	(3.3)	**-53**	(4.8)	**-26**	(4.8)
	Dominican Republic	-1	(9.2)	0	(5.6)	1	(12.0)	3	(7.6)
	FYROM	**12**	(4.5)	**-18**	(4.4)	c	c	c	c
	Georgia	-16	(13.1)	-8	(8.0)	-16	(10.0)	-6	(7.2)
	Hong Kong (China)	**-21**	(10.7)	-6	(9.3)	-16	(11.0)	-3	(8.5)
	Indonesia	-10	(8.9)	-5	(7.5)	-3	(17.6)	7	(10.4)
	Jordan	-8	(7.6)	-6	(6.0)	-7	(6.9)	-8	(5.9)
	Kosovo	0	(3.2)	6	(2.9)	**-24**	(3.7)	**-18**	(3.5)
	Lebanon	**-40**	(10.6)	**-27**	(12.1)	**-31**	(11.0)	-2	(9.9)
	Lithuania	-1	(19.9)	-4	(15.8)	-13	(11.5)	-6	(13.0)
	Macao (China)	**-29**	(2.6)	**-22**	(2.8)	**-25**	(2.6)	**-22**	(2.7)
	Malta	-6	(3.9)	**19**	(4.0)	c	c	c	c
	Moldova	0	(8.9)	0	(6.3)	-6	(7.1)	3	(5.8)
	Montenegro	**-20**	(2.9)	**13**	(3.3)	6	(3.5)	**8**	(3.4)
	Peru	-10	(7.3)	-4	(4.0)	**-12**	(6.2)	1	(3.7)
	Qatar	**-66**	(4.7)	**-25**	(5.0)	**-26**	(3.7)	**-10**	(3.6)
	Romania	-14	(11.5)	-6	(6.3)	11	(29.4)	-10	(9.4)
	Russia	9	(6.4)	1	(4.7)	-3	(6.0)	-2	(4.1)
	Singapore	**-7**	(3.1)	-5	(6.2)	**-49**	(3.5)	**-18**	(3.4)
	Chinese Taipei	4	(9.5)	6	(5.7)	**-23**	(9.6)	-6	(5.7)
	Thailand	-5	(8.2)	-5	(6.4)	**-21**	(8.4)	-14	(7.6)
	Trinidad and Tobago	**-19**	(4.0)	**-18**	(3.9)	**-46**	(2.6)	**-28**	(2.6)
	Tunisia	8	(9.7)	-3	(6.2)	-9	(8.9)	-4	(6.3)
	United Arab Emirates	**-45**	(7.4)	**-28**	(7.9)	**-39**	(6.7)	**-16**	(6.7)
	Uruguay	-8	(12.0)	6	(7.1)	**-36**	(7.6)	-9	(5.8)
	Viet Nam	-3	(9.4)	**20**	(8.7)	13	(9.0)	8	(8.6)
	Argentina**	-6	(10.1)	-2	(9.4)	-3	(8.8)	0	(6.6)
	Kazakhstan**	2	(7.7)	4	(7.6)	2	(8.6)	6	(8.2)
	Malaysia**	1	(12.3)	1	(7.4)	-11	(10.0)	-13	(7.8)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.3.22 Teacher support in science classes

Results based on students' reports

		Percentage of students reporting that the following things happen in their science lessons															
		The teacher shows an interest in every student's learning								The teacher gives extra help when students need it							
		Every lesson		Most lessons		Some lessons		Never or hardly ever		Every lesson		Most lessons		Some lessons		Never or hardly ever	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	41.3	(0.7)	35.7	(0.5)	18.4	(0.5)	4.7	(0.2)	48.5	(0.7)	32.0	(0.5)	15.2	(0.4)	4.3	(0.3)
	Austria	25.1	(0.9)	31.5	(0.8)	27.5	(0.7)	15.8	(0.9)	30.7	(0.9)	29.7	(0.7)	24.5	(0.7)	15.2	(0.8)
	Belgium	25.4	(0.6)	33.4	(0.7)	28.4	(0.6)	12.7	(0.5)	36.7	(0.7)	34.4	(0.5)	21.0	(0.5)	7.9	(0.4)
	Canada	43.4	(0.7)	33.0	(0.5)	17.7	(0.5)	5.9	(0.3)	52.5	(0.7)	29.7	(0.5)	13.7	(0.4)	4.1	(0.3)
	Chile	49.8	(1.0)	32.4	(0.7)	14.5	(0.6)	3.3	(0.3)	46.5	(1.0)	31.5	(0.8)	17.7	(0.6)	4.3	(0.3)
	Czech Republic	28.1	(0.7)	35.0	(0.8)	25.8	(0.7)	11.1	(0.6)	40.7	(0.9)	35.6	(0.7)	17.5	(0.6)	6.3	(0.5)
	Denmark	31.3	(0.9)	39.0	(0.7)	22.7	(0.7)	7.0	(0.4)	37.0	(1.0)	36.8	(0.7)	19.7	(0.7)	6.6	(0.3)
	Estonia	28.3	(0.7)	34.7	(0.8)	26.0	(0.7)	10.9	(0.5)	40.9	(1.0)	32.4	(0.8)	20.3	(0.7)	6.4	(0.3)
	Finland	32.5	(0.9)	42.2	(0.7)	19.5	(0.6)	5.8	(0.4)	48.0	(0.8)	35.9	(0.6)	12.9	(0.6)	3.1	(0.3)
	France	23.0	(0.8)	34.3	(0.6)	29.0	(0.7)	13.7	(0.5)	34.9	(0.9)	34.8	(0.7)	21.9	(0.7)	8.4	(0.4)
	Germany	20.1	(0.7)	33.2	(0.7)	31.1	(0.6)	15.6	(0.7)	32.8	(0.9)	33.5	(0.8)	23.5	(0.7)	10.2	(0.5)
	Greece	36.1	(1.0)	27.3	(0.6)	23.7	(0.8)	12.9	(0.7)	39.7	(1.1)	31.7	(0.8)	19.9	(0.6)	8.7	(0.6)
	Hungary	31.1	(0.8)	35.1	(0.8)	22.9	(0.7)	10.9	(0.6)	32.5	(0.9)	33.9	(0.9)	23.0	(0.6)	10.7	(0.6)
	Iceland	40.8	(0.8)	34.8	(0.9)	18.9	(0.7)	5.5	(0.5)	45.8	(0.8)	29.8	(0.7)	17.5	(0.6)	7.0	(0.5)
	Ireland	41.1	(1.0)	34.8	(0.7)	18.5	(0.6)	5.6	(0.5)	41.7	(0.9)	32.3	(0.7)	19.3	(0.7)	6.7	(0.5)
	Israel	33.7	(0.9)	30.5	(0.7)	23.6	(0.7)	12.1	(0.5)	35.5	(0.8)	29.2	(0.6)	22.7	(0.7)	12.6	(0.6)
	Italy	31.8	(0.7)	38.8	(0.7)	22.4	(0.6)	7.0	(0.4)	28.9	(0.8)	37.9	(0.6)	26.0	(0.6)	7.2	(0.5)
	Japan	22.6	(0.7)	40.8	(0.8)	25.9	(0.7)	10.7	(0.6)	34.7	(0.8)	40.9	(0.7)	17.9	(0.6)	6.4	(0.5)
	Korea	26.9	(0.8)	41.9	(0.8)	24.8	(0.6)	6.4	(0.5)	29.4	(0.8)	39.7	(0.7)	25.0	(0.7)	5.9	(0.4)
	Latvia	24.2	(0.8)	35.6	(0.8)	28.8	(0.7)	11.4	(0.6)	38.6	(0.8)	37.2	(0.6)	19.3	(0.5)	5.0	(0.4)
	Luxembourg	26.1	(0.7)	31.2	(0.8)	27.3	(0.5)	15.3	(0.6)	33.1	(0.7)	33.7	(0.8)	23.0	(0.6)	10.3	(0.5)
	Mexico	64.1	(1.0)	23.4	(0.7)	10.4	(0.5)	2.1	(0.2)	54.7	(1.0)	27.4	(0.5)	15.1	(0.6)	2.8	(0.3)
	Netherlands	21.3	(0.9)	42.6	(0.8)	27.7	(0.9)	8.5	(0.5)	27.3	(1.0)	43.0	(0.8)	23.5	(0.8)	6.2	(0.4)
	New Zealand	40.9	(0.9)	36.3	(0.7)	18.6	(0.7)	4.2	(0.3)	50.3	(0.9)	32.4	(0.8)	14.2	(0.6)	3.1	(0.3)
	Norway	30.0	(0.8)	37.0	(0.8)	25.1	(0.7)	7.9	(0.5)	36.1	(0.9)	35.9	(0.8)	20.5	(0.6)	7.5	(0.4)
	Poland	26.2	(0.8)	35.3	(0.9)	27.8	(0.8)	10.6	(0.6)	34.2	(0.9)	34.1	(0.8)	23.0	(0.8)	8.7	(0.6)
	Portugal	54.5	(1.0)	28.3	(0.8)	14.0	(0.8)	3.2	(0.3)	54.8	(1.0)	27.8	(0.7)	14.6	(0.7)	2.7	(0.3)
	Slovak Republic	33.5	(1.0)	34.3	(0.7)	23.2	(0.8)	9.0	(0.4)	33.4	(0.9)	34.5	(0.7)	23.0	(0.7)	9.1	(0.4)
	Slovenia	23.5	(1.0)	35.3	(1.4)	28.7	(1.1)	12.5	(0.9)	29.6	(0.9)	35.6	(1.3)	26.7	(1.3)	8.1	(0.7)
	Spain	41.7	(1.0)	34.0	(0.7)	19.2	(0.8)	5.1	(0.3)	37.7	(1.1)	32.4	(0.7)	22.1	(0.8)	7.9	(0.5)
	Sweden	41.4	(1.1)	35.8	(0.7)	16.2	(0.7)	6.6	(0.5)	39.5	(1.2)	34.2	(0.7)	19.0	(0.9)	7.3	(0.5)
	Switzerland	23.9	(0.9)	33.6	(0.7)	28.2	(0.7)	14.3	(0.7)	37.0	(1.0)	34.2	(0.8)	20.3	(0.8)	8.5	(0.5)
	Turkey	44.1	(1.1)	28.8	(0.7)	21.2	(0.6)	5.9	(0.5)	40.7	(1.0)	31.4	(0.7)	21.9	(0.7)	5.9	(0.4)
	United Kingdom	41.4	(0.8)	34.5	(0.6)	18.6	(0.6)	5.4	(0.3)	50.4	(0.8)	30.5	(0.7)	15.1	(0.6)	3.9	(0.3)
	United States	50.5	(1.0)	29.6	(0.8)	16.1	(0.7)	3.8	(0.3)	54.7	(1.0)	26.6	(0.6)	15.3	(0.6)	3.4	(0.3)
	OECD average	34.3	(0.1)	34.4	(0.1)	22.6	(0.1)	8.7	(0.1)	39.7	(0.2)	33.5	(0.1)	19.9	(0.1)	6.9	(0.1)
Partners	Albania	62.2	(0.9)	20.8	(0.7)	11.3	(0.5)	5.7	(0.5)	57.0	(0.9)	26.0	(0.7)	14.8	(0.6)	2.2	(0.2)
	Algeria	55.9	(1.0)	19.3	(0.5)	15.2	(0.6)	9.6	(0.5)	41.5	(0.8)	31.5	(0.8)	19.3	(0.6)	7.6	(0.4)
	Brazil	58.9	(0.7)	25.3	(0.5)	12.4	(0.4)	3.3	(0.2)	47.0	(0.7)	30.0	(0.5)	18.3	(0.5)	4.7	(0.2)
	B-S-J-G (China)	44.9	(1.0)	32.6	(0.8)	18.7	(0.8)	3.8	(0.3)	46.2	(1.1)	30.6	(0.8)	19.6	(0.7)	3.7	(0.3)
	Bulgaria	45.9	(1.0)	33.4	(0.8)	15.9	(0.6)	4.9	(0.4)	39.0	(0.9)	32.2	(0.7)	21.3	(0.7)	7.4	(0.4)
	CABA (Argentina)	58.3	(1.9)	25.1	(1.3)	12.9	(0.8)	3.7	(0.6)	41.3	(1.8)	31.3	(1.5)	19.3	(1.2)	8.1	(1.1)
	Colombia	57.7	(0.9)	27.1	(0.7)	12.3	(0.5)	2.9	(0.2)	43.2	(0.8)	29.6	(0.6)	21.0	(0.6)	6.2	(0.4)
	Costa Rica	65.2	(0.9)	22.5	(0.5)	9.8	(0.5)	2.6	(0.2)	53.1	(0.9)	27.9	(0.7)	14.7	(0.5)	4.3	(0.3)
	Croatia	29.3	(0.8)	34.7	(0.7)	25.9	(0.7)	10.2	(0.6)	30.8	(0.8)	34.3	(0.7)	25.5	(0.8)	9.4	(0.6)
	Cyprus*	38.1	(0.6)	29.4	(0.6)	22.8	(0.6)	9.7	(0.4)	38.4	(0.8)	33.6	(0.7)	20.8	(0.7)	7.2	(0.3)
	Dominican Republic	72.2	(1.0)	17.0	(0.7)	8.4	(0.6)	2.5	(0.3)	58.1	(1.2)	22.2	(0.8)	15.6	(0.7)	4.0	(0.4)
	FYROM	50.7	(0.6)	25.4	(0.6)	17.8	(0.5)	6.2	(0.4)	49.7	(0.8)	27.6	(0.8)	18.6	(0.6)	4.0	(0.3)
	Georgia	71.3	(0.7)	18.7	(0.6)	8.4	(0.5)	1.6	(0.2)	39.0	(0.9)	27.6	(0.6)	27.4	(0.7)	6.0	(0.4)
	Hong Kong (China)	27.8	(0.9)	44.1	(0.8)	24.4	(0.8)	3.6	(0.3)	30.5	(0.9)	44.7	(0.8)	21.9	(0.6)	2.9	(0.3)
	Indonesia	23.0	(0.9)	23.1	(0.7)	44.9	(1.0)	9.0	(0.7)	36.6	(0.8)	29.2	(0.8)	29.1	(0.8)	5.1	(0.4)
	Jordan	56.5	(1.2)	25.2	(0.8)	12.4	(0.6)	6.0	(0.5)	52.8	(1.0)	29.2	(0.7)	13.2	(0.5)	4.8	(0.4)
	Kosovo	53.5	(0.9)	19.8	(0.6)	15.4	(0.7)	11.3	(0.7)	65.6	(0.8)	21.1	(0.8)	11.6	(0.5)	1.7	(0.2)
	Lebanon	49.0	(1.5)	26.8	(1.1)	19.1	(0.9)	5.1	(0.5)	44.5	(1.3)	31.6	(1.2)	18.0	(0.9)	5.9	(0.6)
	Lithuania	30.3	(0.6)	32.3	(0.7)	27.9	(0.6)	9.5	(0.4)	44.5	(0.8)	31.3	(0.6)	19.4	(0.6)	4.9	(0.3)
	Macao (China)	27.8	(0.8)	40.1	(0.9)	28.2	(0.7)	3.8	(0.3)	30.0	(0.7)	39.8	(0.9)	27.3	(0.7)	2.9	(0.3)
	Malta	49.4	(0.8)	28.4	(0.7)	16.7	(0.6)	5.5	(0.4)	48.7	(0.8)	30.6	(0.8)	15.2	(0.6)	5.5	(0.4)
	Moldova	51.2	(0.9)	23.1	(0.7)	21.6	(0.7)	4.1	(0.3)	57.6	(1.0)	24.6	(0.7)	15.8	(0.7)	2.0	(0.2)
	Montenegro	42.6	(0.7)	30.4	(0.8)	18.9	(0.6)	8.2	(0.4)	40.9	(0.8)	32.5	(0.8)	18.7	(0.5)	7.9	(0.4)
	Peru	55.6	(0.9)	28.5	(0.7)	13.2	(0.5)	2.8	(0.2)	47.4	(0.8)	31.0	(0.7)	18.2	(0.6)	3.4	(0.3)
	Qatar	48.6	(0.4)	30.7	(0.4)	16.1	(0.3)	4.6	(0.2)	49.2	(0.5)	31.0	(0.5)	16.2	(0.4)	3.6	(0.2)
	Romania	42.3	(1.1)	28.1	(0.7)	24.0	(0.7)	5.6	(0.4)	41.4	(1.0)	29.5	(0.9)	24.6	(0.8)	4.5	(0.3)
	Russia	44.2	(1.1)	34.2	(0.7)	17.3	(0.8)	4.3	(0.4)	45.9	(1.1)	35.6	(0.7)	15.3	(0.6)	3.2	(0.3)
	Singapore	38.1	(0.7)	41.4	(0.8)	17.9	(0.5)	2.5	(0.2)	48.2	(0.6)	38.2	(0.7)	12.0	(0.4)	1.6	(0.2)
	Chinese Taipei	22.0	(0.6)	35.2	(0.6)	36.4	(0.6)	6.3	(0.3)	40.8	(0.7)	37.8	(0.6)	19.1	(0.6)	2.3	(0.2)
	Thailand	56.2	(0.8)	26.2	(0.6)	16.0	(0.6)	1.7	(0.2)	49.0	(0.9)	29.1	(0.6)	19.9	(0.7)	2.1	(0.2)
	Trinidad and Tobago	47.1	(0.8)	26.6	(0.8)	19.7	(0.7)	6.7	(0.4)	40.2	(0.9)	29.5	(0.8)	21.7	(0.6)	8.6	(0.5)
	Tunisia	44.7	(1.0)	28.4	(0.6)	20.3	(0.7)	6.5	(0.4)	36.6	(0.9)	31.8	(0.7)	25.3	(0.8)	6.3	(0.4)
	United Arab Emirates	51.0	(0.6)	29.4	(0.5)	14.5	(0.4)	5.2	(0.3)	48.9	(0.6)	30.7	(0.5)	15.9	(0.4)	4.4	(0.3)
	Uruguay	49.3	(0.9)	30.9	(0.7)	15.5	(0.6)	4.3	(0.3)	43.1	(0.8)	31.0	(0.7)	20.0	(0.7)	5.9	(0.4)
	Viet Nam	47.2	(0.9)	36.6	(0.8)	14.4	(0.7)	1.8	(0.2)	54.4	(1.0)	35.8	(0.8)	8.8	(0.5)	1.0	(0.2)
	Argentina**	65.7	(0.8)	22.2	(0.7)	9.2	(0.4)	2.9	(0.2)	51.2	(0.9)	28.4	(0.6)	15.4	(0.6)	5.0	(0.3)
	Kazakhstan**	50.2	(1.0)	35.4	(0.9)	12.5	(0.6)	1.9	(0.2)	53.0	(0.9)	35.0	(0.8)	10.3	(0.5)	1.6	(0.2)
	Malaysia**	45.0	(1.0)	34.0	(0.6)	19.2	(0.7)	1.8	(0.2)	52.0	(1.1)	32.8	(0.7)	14.1	(0.7)	1.1	(0.2)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436489

[Part 2/3]

Table II.3.22 Teacher support in science classes

Results based on students' reports

		Percentage of students reporting that the following things happen in their science lessons															
		The teacher helps students with their learning								The teacher continues teaching until the students understand							
		Every lesson		Most lessons		Some lessons		Never or hardly ever		Every lesson		Most lessons		Some lessons		Never or hardly ever	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	52.3	(0.6)	31.3	(0.5)	13.3	(0.4)	3.0	(0.2)	43.5	(0.7)	31.3	(0.6)	18.2	(0.4)	7.0	(0.3)
	Austria	16.8	(0.7)	23.2	(0.6)	29.2	(0.7)	30.9	(1.1)	29.6	(1.0)	27.6	(0.8)	26.0	(0.7)	16.9	(0.9)
	Belgium	28.0	(0.7)	27.9	(0.5)	27.8	(0.5)	16.4	(0.6)	35.0	(0.8)	31.9	(0.5)	23.9	(0.6)	9.2	(0.4)
	Canada	55.2	(0.7)	28.6	(0.5)	12.4	(0.5)	3.8	(0.2)	44.7	(0.6)	30.7	(0.4)	16.6	(0.5)	8.0	(0.4)
	Chile	53.9	(0.9)	30.6	(0.7)	13.5	(0.5)	2.1	(0.2)	47.8	(1.1)	30.4	(0.8)	17.0	(0.7)	4.8	(0.4)
	Czech Republic	20.2	(0.7)	28.8	(0.7)	32.1	(0.9)	18.9	(0.7)	23.6	(0.8)	28.9	(0.7)	31.1	(0.7)	16.5	(0.7)
	Denmark	45.0	(0.9)	37.4	(0.7)	14.3	(0.6)	3.3	(0.3)	39.0	(0.9)	35.5	(0.7)	19.4	(0.7)	6.1	(0.4)
	Estonia	39.2	(0.9)	35.1	(0.7)	19.3	(0.7)	6.4	(0.3)	31.7	(0.9)	33.8	(0.8)	22.9	(0.8)	11.6	(0.5)
	Finland	51.3	(0.8)	35.3	(0.6)	10.7	(0.5)	2.7	(0.3)	36.3	(0.9)	38.2	(0.7)	20.1	(0.6)	5.5	(0.4)
	France	33.2	(0.8)	34.8	(0.6)	22.5	(0.7)	9.4	(0.4)	36.5	(0.9)	30.8	(0.7)	22.1	(0.7)	10.7	(0.5)
	Germany	19.2	(0.7)	30.2	(0.7)	30.1	(0.8)	20.5	(0.8)	30.1	(0.9)	30.6	(0.8)	25.8	(0.8)	13.5	(0.6)
	Greece	49.2	(1.0)	28.7	(0.6)	16.4	(0.6)	5.7	(0.5)	38.5	(1.0)	28.9	(0.7)	22.3	(0.7)	10.4	(0.6)
	Hungary	25.7	(0.8)	30.6	(0.8)	26.6	(0.7)	17.0	(0.7)	27.9	(0.9)	28.8	(0.8)	25.7	(0.7)	17.5	(0.7)
	Iceland	54.0	(0.9)	29.8	(0.8)	12.7	(0.6)	3.4	(0.3)	52.4	(0.8)	29.0	(0.8)	14.6	(0.6)	4.0	(0.4)
	Ireland	45.9	(1.0)	31.4	(0.7)	16.9	(0.7)	5.8	(0.4)	43.7	(1.0)	29.2	(0.6)	18.7	(0.6)	8.4	(0.6)
	Israel	36.4	(0.8)	29.5	(0.6)	24.1	(0.7)	9.9	(0.6)	44.4	(1.0)	27.9	(0.7)	18.9	(0.6)	8.8	(0.6)
	Italy	33.1	(0.7)	38.7	(0.7)	22.0	(0.5)	6.2	(0.4)	29.3	(0.6)	34.4	(0.7)	25.8	(0.6)	10.4	(0.5)
	Japan	34.1	(0.8)	42.4	(0.7)	17.9	(0.5)	5.6	(0.5)	30.6	(0.8)	38.6	(0.7)	22.1	(0.6)	8.8	(0.6)
	Korea	34.5	(0.8)	43.3	(0.7)	18.6	(0.6)	3.6	(0.3)	28.8	(0.8)	38.7	(0.8)	25.6	(0.7)	6.9	(0.5)
	Latvia	39.1	(0.8)	37.3	(0.8)	18.3	(0.6)	5.3	(0.5)	33.2	(0.7)	34.7	(0.7)	23.4	(0.6)	8.7	(0.5)
	Luxembourg	21.3	(0.5)	26.2	(0.6)	28.4	(0.6)	24.2	(0.6)	33.6	(0.7)	29.7	(0.7)	24.2	(0.7)	12.5	(0.5)
	Mexico	58.4	(0.9)	26.7	(0.6)	12.9	(0.6)	1.9	(0.2)	54.2	(0.9)	25.5	(0.6)	16.1	(0.6)	4.1	(0.3)
	Netherlands	14.2	(0.8)	29.5	(0.7)	37.7	(0.8)	18.6	(0.8)	23.2	(0.9)	38.6	(0.8)	29.1	(0.8)	9.1	(0.5)
	New Zealand	53.7	(0.9)	31.6	(0.8)	12.3	(0.5)	2.4	(0.3)	42.5	(0.9)	32.5	(0.8)	18.7	(0.7)	6.3	(0.5)
	Norway	44.2	(1.0)	36.7	(0.7)	14.8	(0.6)	4.3	(0.4)	38.8	(1.0)	33.0	(0.7)	19.9	(0.7)	8.3	(0.5)
	Poland	31.2	(0.9)	35.5	(0.8)	24.8	(0.7)	8.5	(0.5)	33.2	(1.0)	29.1	(0.7)	24.2	(0.8)	13.5	(0.7)
	Portugal	59.1	(1.0)	27.1	(0.8)	11.5	(0.6)	2.3	(0.2)	56.7	(1.1)	26.2	(0.8)	13.1	(0.7)	4.0	(0.3)
	Slovak Republic	23.7	(0.8)	28.4	(0.7)	28.9	(0.7)	19.0	(0.7)	27.6	(0.9)	28.2	(0.7)	28.2	(0.8)	16.1	(0.6)
	Slovenia	18.8	(0.9)	30.3	(1.2)	32.5	(1.1)	18.5	(0.9)	21.9	(1.0)	30.0	(1.1)	33.0	(1.3)	15.1	(1.0)
	Spain	45.2	(1.1)	33.4	(0.7)	17.3	(0.7)	4.1	(0.3)	42.0	(1.0)	30.2	(0.8)	20.5	(0.8)	7.3	(0.5)
	Sweden	46.8	(1.1)	33.4	(0.7)	15.1	(0.7)	4.7	(0.5)	42.2	(1.2)	31.1	(0.8)	18.6	(0.7)	8.1	(0.6)
	Switzerland	27.9	(0.9)	30.7	(0.9)	25.6	(0.8)	15.8	(0.7)	34.3	(0.9)	31.2	(0.8)	23.6	(0.7)	10.8	(0.7)
	Turkey	49.7	(1.0)	30.3	(0.8)	15.9	(0.6)	4.0	(0.4)	44.5	(1.1)	28.7	(0.7)	20.7	(0.7)	6.1	(0.3)
	United Kingdom	54.5	(0.9)	30.3	(0.6)	12.4	(0.5)	2.8	(0.2)	43.9	(0.9)	30.5	(0.8)	18.7	(0.6)	6.9	(0.4)
	United States	58.2	(0.9)	26.7	(0.7)	12.7	(0.5)	2.4	(0.3)	47.8	(0.9)	27.6	(0.6)	18.2	(0.6)	6.4	(0.4)
	OECD average	39.2	(0.1)	31.8	(0.1)	20.0	(0.1)	9.0	(0.1)	37.5	(0.2)	31.2	(0.1)	21.9	(0.1)	9.4	(0.1)
Partners	**Albania**	71.6	(0.8)	18.3	(0.7)	8.2	(0.5)	1.8	(0.2)	68.9	(0.9)	18.5	(0.8)	10.1	(0.6)	2.5	(0.3)
	Algeria	62.1	(0.8)	19.8	(0.6)	13.5	(0.6)	4.6	(0.4)	60.1	(1.1)	22.3	(0.9)	12.0	(0.6)	5.6	(0.4)
	Brazil	57.0	(0.7)	27.8	(0.6)	12.6	(0.5)	2.6	(0.2)	55.0	(0.6)	25.6	(0.5)	14.9	(0.4)	4.5	(0.2)
	B-S-J-G (China)	51.0	(0.9)	29.5	(0.7)	16.4	(0.7)	3.1	(0.3)	36.4	(0.9)	31.7	(0.7)	26.6	(0.8)	5.4	(0.3)
	Bulgaria	37.0	(0.9)	29.5	(0.6)	22.1	(0.7)	11.4	(0.5)	45.7	(0.8)	29.1	(0.7)	17.9	(0.6)	7.3	(0.4)
	CABA (Argentina)	51.4	(1.9)	30.3	(0.8)	14.7	(1.1)	3.6	(0.7)	46.9	(1.5)	28.5	(1.0)	17.8	(1.0)	6.7	(1.0)
	Colombia	53.1	(0.9)	29.5	(0.6)	15.0	(0.5)	2.4	(0.2)	47.9	(0.9)	27.7	(0.6)	19.6	(0.6)	4.8	(0.3)
	Costa Rica	60.9	(0.9)	25.7	(0.7)	11.1	(0.5)	2.4	(0.2)	55.3	(1.0)	25.5	(0.6)	15.0	(0.6)	4.2	(0.3)
	Croatia	22.5	(0.8)	27.3	(0.7)	32.1	(0.8)	18.2	(0.7)	24.7	(0.9)	26.2	(0.6)	31.6	(0.7)	17.5	(0.6)
	Cyprus*	43.4	(0.6)	32.6	(0.6)	18.8	(0.6)	5.2	(0.4)	36.7	(0.7)	31.1	(0.7)	23.0	(0.6)	9.2	(0.4)
	Dominican Republic	67.4	(1.0)	19.8	(0.7)	10.6	(0.6)	2.1	(0.3)	63.3	(1.2)	20.5	(0.9)	12.1	(0.7)	4.0	(0.4)
	FYROM	50.0	(0.7)	23.9	(0.8)	20.4	(0.7)	5.7	(0.4)	55.1	(0.8)	22.5	(0.7)	16.0	(0.6)	6.4	(0.4)
	Georgia	58.0	(0.7)	24.0	(0.7)	14.8	(0.5)	3.2	(0.3)	56.3	(0.8)	22.6	(0.6)	15.9	(0.6)	5.2	(0.3)
	Hong Kong (China)	32.4	(0.9)	45.3	(1.0)	19.5	(0.7)	2.8	(0.3)	29.0	(0.8)	42.5	(0.8)	24.5	(0.8)	4.0	(0.4)
	Indonesia	52.0	(0.8)	25.6	(0.6)	18.0	(0.7)	4.4	(0.4)	61.7	(0.9)	24.0	(0.7)	12.4	(0.7)	2.0	(0.3)
	Jordan	60.7	(1.0)	23.1	(0.7)	12.3	(0.7)	3.9	(0.3)	60.4	(1.1)	21.1	(0.7)	12.3	(0.6)	6.3	(0.5)
	Kosovo	76.9	(0.7)	14.9	(0.7)	6.6	(0.4)	1.7	(0.2)	75.6	(0.7)	14.6	(0.6)	7.4	(0.5)	2.3	(0.3)
	Lebanon	51.8	(1.3)	26.3	(0.9)	18.0	(0.9)	3.9	(0.4)	62.4	(1.4)	19.9	(0.7)	12.0	(0.9)	5.7	(0.5)
	Lithuania	47.8	(0.8)	30.6	(0.7)	16.7	(0.6)	4.9	(0.3)	40.8	(0.7)	29.4	(0.6)	21.2	(0.6)	8.6	(0.4)
	Macao (China)	31.8	(0.7)	41.6	(0.8)	23.9	(0.7)	2.8	(0.2)	29.2	(0.7)	39.5	(0.8)	27.0	(0.7)	4.3	(0.3)
	Malta	53.0	(0.9)	29.9	(0.8)	13.2	(0.6)	3.9	(0.4)	54.0	(0.8)	25.1	(0.6)	14.9	(0.6)	6.0	(0.4)
	Moldova	62.6	(0.9)	23.2	(0.6)	11.9	(0.6)	2.3	(0.2)	60.4	(1.0)	21.5	(0.7)	15.4	(0.6)	2.7	(0.3)
	Montenegro	35.2	(0.8)	29.1	(0.7)	23.6	(0.7)	12.1	(0.6)	40.4	(0.8)	28.7	(0.7)	21.1	(0.6)	9.9	(0.5)
	Peru	52.0	(0.9)	31.5	(0.8)	14.5	(0.6)	2.0	(0.2)	47.0	(0.8)	29.4	(0.6)	19.8	(0.6)	3.8	(0.3)
	Qatar	53.1	(0.4)	28.5	(0.4)	15.2	(0.3)	3.2	(0.2)	50.4	(0.5)	27.2	(0.4)	16.7	(0.4)	5.7	(0.2)
	Romania	47.1	(1.1)	26.6	(0.7)	19.7	(0.7)	6.6	(0.8)	46.4	(1.0)	26.5	(0.7)	21.6	(0.8)	5.5	(0.5)
	Russia	44.9	(1.1)	35.4	(0.9)	16.9	(0.7)	2.8	(0.3)	44.2	(1.1)	30.2	(0.9)	19.4	(0.9)	6.1	(0.4)
	Singapore	50.6	(0.6)	38.3	(0.7)	9.7	(0.4)	1.4	(0.2)	44.1	(0.6)	37.5	(0.7)	15.6	(0.5)	2.7	(0.2)
	Chinese Taipei	44.5	(0.8)	36.6	(0.7)	16.7	(0.6)	2.2	(0.2)	32.0	(0.7)	35.2	(0.6)	28.4	(0.6)	4.4	(0.3)
	Thailand	52.0	(0.9)	27.5	(0.7)	18.5	(0.7)	2.0	(0.2)	51.1	(0.9)	27.5	(0.6)	18.6	(0.7)	2.7	(0.3)
	Trinidad and Tobago	46.6	(0.9)	28.5	(0.8)	19.7	(0.7)	5.2	(0.4)	42.3	(0.9)	26.1	(0.8)	22.5	(0.7)	9.1	(0.5)
	Tunisia	46.8	(0.9)	29.7	(0.7)	18.9	(0.8)	4.5	(0.4)	43.3	(1.0)	27.4	(0.7)	21.7	(0.8)	7.6	(0.5)
	United Arab Emirates	55.2	(0.7)	27.6	(0.6)	13.5	(0.4)	3.8	(0.3)	53.6	(0.6)	26.0	(0.5)	14.7	(0.5)	5.7	(0.4)
	Uruguay	48.6	(0.8)	31.8	(0.7)	15.5	(0.6)	4.0	(0.4)	48.6	(0.9)	29.1	(0.7)	17.3	(0.7)	5.0	(0.4)
	Viet Nam	40.4	(0.9)	35.3	(0.9)	18.6	(0.7)	5.8	(0.5)	45.1	(1.1)	36.5	(0.9)	16.1	(0.6)	2.3	(0.2)
	Argentina**	60.2	(0.8)	26.3	(0.7)	10.9	(0.5)	2.6	(0.3)	56.1	(0.9)	24.8	(0.7)	14.6	(0.5)	4.5	(0.4)
	Kazakhstan**	60.4	(1.1)	31.5	(0.9)	7.2	(0.5)	0.9	(0.1)	57.0	(1.0)	31.7	(0.9)	9.4	(0.5)	1.9	(0.2)
	Malaysia**	57.5	(1.0)	30.8	(0.7)	11.1	(0.6)	0.6	(0.1)	51.7	(1.0)	30.2	(0.7)	16.2	(0.7)	1.9	(0.2)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.3.22 Teacher support in science classes

Results based on students' reports

		Percentage of students reporting that the following things happen in their science lessons							
		The teacher gives students an opportunity to express opinions							
		Every lesson		Most lessons		Some lessons		Never or hardly ever	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	37.9	(0.6)	33.7	(0.5)	21.1	(0.5)	7.4	(0.3)
	Austria	34.5	(1.0)	29.1	(0.7)	22.2	(0.7)	14.2	(0.7)
	Belgium	29.8	(0.7)	29.5	(0.6)	28.1	(0.6)	12.6	(0.5)
	Canada	41.9	(0.6)	31.5	(0.5)	18.9	(0.4)	7.6	(0.4)
	Chile	44.2	(1.0)	30.7	(0.6)	20.2	(0.8)	5.0	(0.4)
	Czech Republic	32.4	(0.9)	30.9	(0.7)	24.9	(0.6)	11.8	(0.6)
	Denmark	35.6	(0.8)	37.1	(0.6)	20.7	(0.7)	6.6	(0.4)
	Estonia	37.6	(0.9)	32.3	(0.8)	22.8	(0.6)	7.3	(0.4)
	Finland	40.0	(1.0)	36.9	(0.7)	18.0	(0.6)	5.1	(0.4)
	France	32.0	(1.0)	31.5	(0.6)	24.4	(0.7)	12.1	(0.6)
	Germany	30.3	(0.7)	33.4	(0.6)	24.8	(0.7)	11.5	(0.6)
	Greece	44.8	(1.0)	27.0	(0.6)	20.4	(0.7)	7.9	(0.5)
	Hungary	30.8	(0.9)	31.9	(0.8)	24.8	(0.6)	12.4	(0.6)
	Iceland	48.3	(0.8)	31.8	(0.9)	14.9	(0.6)	5.0	(0.4)
	Ireland	33.0	(1.0)	29.4	(0.8)	24.2	(0.7)	13.3	(0.7)
	Israel	39.0	(0.9)	29.3	(0.7)	21.9	(0.6)	9.9	(0.5)
	Italy	32.3	(0.6)	33.5	(0.6)	25.7	(0.7)	8.5	(0.4)
	Japan	22.6	(0.9)	30.4	(0.7)	30.4	(0.8)	16.6	(0.8)
	Korea	24.4	(0.7)	35.0	(0.8)	30.1	(0.7)	10.6	(0.6)
	Latvia	36.2	(0.8)	34.1	(0.8)	23.0	(0.7)	6.6	(0.4)
	Luxembourg	36.5	(0.8)	30.2	(0.8)	21.6	(0.6)	11.7	(0.4)
	Mexico	55.8	(1.0)	26.5	(0.6)	14.6	(0.6)	3.1	(0.4)
	Netherlands	19.5	(0.9)	38.2	(0.8)	31.1	(0.8)	11.2	(0.6)
	New Zealand	36.3	(0.8)	34.0	(0.7)	21.6	(0.6)	8.1	(0.5)
	Norway	39.1	(0.9)	35.9	(0.8)	19.2	(0.6)	5.8	(0.4)
	Poland	31.1	(0.9)	30.6	(0.7)	26.0	(0.7)	12.3	(0.7)
	Portugal	50.9	(1.0)	28.9	(0.7)	15.7	(0.7)	4.5	(0.4)
	Slovak Republic	33.2	(0.9)	31.1	(0.6)	24.9	(0.7)	10.7	(0.5)
	Slovenia	31.2	(0.9)	37.0	(1.3)	23.5	(1.0)	8.3	(0.7)
	Spain	35.0	(1.0)	30.0	(0.6)	24.8	(0.7)	10.2	(0.5)
	Sweden	39.8	(1.1)	34.5	(0.8)	19.8	(0.7)	5.9	(0.5)
	Switzerland	39.5	(1.0)	33.0	(0.7)	18.9	(0.8)	8.6	(0.5)
	Turkey	45.5	(1.1)	28.9	(0.9)	19.7	(0.6)	5.8	(0.4)
	United Kingdom	34.1	(0.9)	30.8	(0.7)	23.9	(0.7)	11.1	(0.4)
	United States	43.2	(1.0)	27.9	(0.6)	21.2	(0.7)	7.7	(0.5)
	OECD average	36.5	(0.2)	31.9	(0.1)	22.5	(0.1)	9.1	(0.1)
Partners	**Albania**	63.3	(0.9)	23.5	(0.7)	10.6	(0.6)	2.5	(0.3)
	Algeria	41.9	(1.0)	29.4	(0.9)	18.2	(0.6)	10.5	(0.6)
	Brazil	49.7	(0.7)	26.9	(0.5)	17.5	(0.5)	5.9	(0.3)
	B-S-J-G (China)	41.1	(0.9)	29.6	(0.6)	23.7	(0.7)	5.7	(0.4)
	Bulgaria	43.1	(0.9)	30.1	(0.8)	19.4	(0.8)	7.4	(0.4)
	CABA (Argentina)	40.5	(2.0)	30.9	(1.6)	20.5	(1.1)	8.1	(1.1)
	Colombia	48.2	(0.8)	28.3	(0.6)	19.4	(0.6)	4.1	(0.3)
	Costa Rica	49.5	(0.9)	27.5	(0.6)	17.3	(0.5)	5.7	(0.4)
	Croatia	33.4	(1.0)	32.1	(0.7)	25.4	(0.8)	9.1	(0.5)
	Cyprus*	38.2	(0.7)	31.3	(0.7)	22.4	(0.6)	8.2	(0.4)
	Dominican Republic	64.6	(1.0)	21.4	(0.8)	11.0	(0.6)	3.0	(0.4)
	FYROM	53.3	(0.8)	25.2	(0.7)	16.9	(0.6)	4.5	(0.3)
	Georgia	67.0	(0.8)	21.0	(0.7)	9.9	(0.5)	2.2	(0.2)
	Hong Kong (China)	28.1	(0.9)	43.2	(0.9)	24.8	(0.8)	3.9	(0.4)
	Indonesia	50.1	(1.1)	28.0	(0.8)	19.6	(0.8)	2.3	(0.2)
	Jordan	47.7	(1.0)	28.9	(0.6)	15.5	(0.6)	7.9	(0.5)
	Kosovo	67.8	(0.8)	19.5	(0.7)	9.8	(0.5)	2.8	(0.3)
	Lebanon	48.8	(1.3)	27.2	(0.9)	18.1	(0.9)	5.8	(0.5)
	Lithuania	38.0	(0.8)	31.2	(0.7)	22.9	(0.5)	7.9	(0.4)
	Macao (China)	28.0	(0.6)	37.5	(0.8)	29.6	(0.8)	4.8	(0.3)
	Malta	40.2	(0.9)	32.4	(0.8)	19.3	(0.7)	8.0	(0.5)
	Moldova	65.0	(0.8)	22.4	(0.6)	11.2	(0.5)	1.3	(0.2)
	Montenegro	40.9	(0.7)	28.9	(0.7)	21.1	(0.6)	9.2	(0.4)
	Peru	54.4	(0.9)	28.5	(0.7)	15.0	(0.6)	2.1	(0.2)
	Qatar	40.5	(0.4)	29.1	(0.5)	22.4	(0.4)	8.0	(0.3)
	Romania	40.6	(1.0)	29.6	(0.8)	24.9	(0.8)	4.8	(0.4)
	Russia	41.7	(1.3)	31.2	(0.8)	21.6	(0.9)	5.5	(0.4)
	Singapore	38.6	(0.6)	37.7	(0.7)	18.9	(0.5)	4.8	(0.3)
	Chinese Taipei	38.4	(0.7)	35.8	(0.7)	22.2	(0.6)	3.6	(0.3)
	Thailand	53.6	(0.9)	25.9	(0.6)	18.2	(0.7)	2.3	(0.2)
	Trinidad and Tobago	39.9	(0.9)	28.4	(0.8)	23.8	(0.8)	7.9	(0.5)
	Tunisia	38.2	(0.9)	28.7	(0.6)	25.5	(0.7)	7.6	(0.4)
	United Arab Emirates	43.9	(0.7)	28.5	(0.5)	19.6	(0.5)	8.1	(0.4)
	Uruguay	45.0	(0.9)	29.7	(0.6)	19.7	(0.6)	5.6	(0.4)
	Viet Nam	57.8	(1.0)	33.7	(0.8)	7.8	(0.5)	0.7	(0.1)
	Argentina**	48.5	(0.9)	27.8	(0.6)	18.5	(0.7)	5.2	(0.4)
	Kazakhstan**	57.0	(1.1)	32.2	(0.8)	9.3	(0.5)	1.5	(0.2)
	Malaysia**	45.8	(1.0)	32.8	(0.7)	19.5	(0.8)	2.0	(0.2)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.3.24 Legislation on including parents in school activities[1]

Results based on school principals' reports

		Percentage of students in schools whose principals reported that there is national, state or district legislation on including parents in school activities	
		%	S.E.
OECD	**Australia**	52.3	(2.1)
	Austria	86.5	(1.5)
	Belgium	78.0	(2.7)
	Canada	85.1	(1.6)
	Chile	62.9	(3.7)
	Czech Republic	57.5	(3.1)
	Denmark	60.7	(3.1)
	Estonia	58.2	(2.7)
	Finland	90.8	(2.2)
	France	m	m
	Germany	87.1	(2.6)
	Greece	75.9	(3.6)
	Hungary	75.5	(3.2)
	Iceland	99.7	(0.0)
	Ireland	79.5	(3.5)
	Israel	56.0	(4.0)
	Italy	79.4	(3.3)
	Japan	7.8	(1.9)
	Korea	88.1	(2.5)
	Latvia	67.9	(2.6)
	Luxembourg	73.3	(0.1)
	Mexico	72.4	(2.8)
	Netherlands	60.4	(5.4)
	New Zealand	61.2	(3.6)
	Norway	84.6	(2.5)
	Poland	67.0	(3.4)
	Portugal	89.5	(2.1)
	Slovak Republic	23.7	(3.2)
	Slovenia	72.3	(0.6)
	Spain	68.0	(3.0)
	Sweden	90.2	(2.4)
	Switzerland	47.2	(4.0)
	Turkey	94.4	(1.7)
	United Kingdom	49.3	(3.7)
	United States	69.7	(3.4)
	OECD average	69.8	(0.5)
Partners	**Albania**	96.9	(1.1)
	Algeria	91.0	(2.6)
	Brazil	64.6	(2.4)
	B-S-J-G (China)	32.9	(3.5)
	Bulgaria	70.3	(3.8)
	CABA (Argentina)	61.7	(7.1)
	Colombia	86.2	(2.8)
	Costa Rica	62.3	(3.8)
	Croatia	88.8	(2.3)
	Cyprus*	48.7	(0.2)
	Dominican Republic	94.0	(1.5)
	FYROM	87.1	(0.1)
	Georgia	78.0	(2.7)
	Hong Kong (China)	55.2	(4.9)
	Indonesia	85.7	(2.7)
	Jordan	86.6	(2.5)
	Kosovo	94.3	(0.9)
	Lebanon	76.2	(2.7)
	Lithuania	78.3	(2.7)
	Macao (China)	26.9	(0.1)
	Malta	59.6	(0.1)
	Moldova	91.9	(1.8)
	Montenegro	89.8	(0.1)
	Peru	81.6	(2.6)
	Qatar	68.4	(0.1)
	Romania	96.6	(1.5)
	Russia	92.8	(2.1)
	Singapore	18.1	(0.9)
	Chinese Taipei	92.8	(1.6)
	Thailand	73.0	(3.7)
	Trinidad and Tobago	49.8	(0.3)
	Tunisia	52.1	(4.8)
	United Arab Emirates	74.1	(2.4)
	Uruguay	68.7	(2.5)
	Viet Nam	94.0	(2.2)
	Argentina**	69.5	(3.6)
	Kazakhstan**	87.4	(2.6)
	Malaysia**	92.1	(2.2)

1. Depending on the education system, the question refers to national, state and/or district. For instance, in Sweden it refers only to national legistlation and in Japan only to local legislation.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.3.26 School efforts to involve parents

Results based on school principals' reports

		Percentage of students in schools whose principals reported that the following statements apply to the school							
		Our school provides a welcoming and accepting atmosphere for parents to get involved		Our school designs effective forms of school-to-home and home-to-school communications about school programmes and children's progress		Our school includes parents in school decisions		Our school provides information and ideas for families about how to help students at home with homework and other curriculum-related activities, decisions, and planning	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	98.2	(0.4)	96.2	(0.9)	79.8	(1.9)	92.4	(1.1)
	Austria	85.6	(2.2)	85.7	(2.2)	77.3	(2.5)	70.0	(3.4)
	Belgium	84.1	(2.4)	81.6	(2.2)	60.5	(3.4)	63.1	(3.1)
	Canada	96.0	(0.8)	93.1	(1.2)	83.2	(2.1)	89.8	(1.4)
	Chile	96.6	(1.5)	92.5	(2.1)	59.1	(4.4)	95.4	(1.6)
	Czech Republic	100.0	c	98.5	(0.6)	63.6	(3.2)	86.0	(2.1)
	Denmark	97.7	(0.9)	90.7	(2.1)	67.7	(2.9)	88.1	(2.5)
	Estonia	99.7	(0.3)	99.3	(0.5)	96.0	(1.0)	92.3	(1.6)
	Finland	97.1	(1.4)	92.6	(2.2)	67.8	(3.8)	92.5	(2.2)
	France	m	m	m	m	m	m	m	m
	Germany	97.8	(1.7)	96.6	(1.4)	96.7	(1.3)	87.0	(2.6)
	Greece	99.6	(0.3)	99.5	(0.4)	44.4	(4.5)	90.6	(2.1)
	Hungary	99.2	(0.6)	88.3	(1.7)	86.7	(2.5)	80.8	(2.7)
	Iceland	97.2	(0.1)	99.8	(0.0)	87.2	(0.2)	95.4	(0.1)
	Ireland	100.0	c	98.8	(0.9)	98.6	(1.0)	93.8	(2.1)
	Israel	81.6	(3.0)	75.9	(3.8)	56.2	(3.9)	83.1	(3.2)
	Italy	98.7	(0.8)	96.2	(1.5)	77.7	(3.4)	87.8	(1.9)
	Japan	96.5	(1.3)	87.4	(2.4)	11.2	(2.3)	81.5	(3.0)
	Korea	95.2	(1.7)	94.9	(1.7)	96.9	(1.4)	93.5	(2.0)
	Latvia	100.0	c	89.5	(1.8)	95.4	(1.3)	95.8	(0.8)
	Luxembourg	93.1	(0.1)	65.6	(0.1)	66.4	(0.1)	76.3	(0.1)
	Mexico	96.8	(1.2)	90.7	(2.0)	75.2	(3.1)	90.6	(1.8)
	Netherlands	98.7	(1.2)	91.5	(2.8)	81.8	(3.8)	67.0	(5.2)
	New Zealand	99.5	(0.5)	98.5	(0.9)	85.6	(2.9)	91.2	(2.4)
	Norway	99.4	(0.6)	98.0	(1.0)	75.7	(2.9)	90.2	(2.3)
	Poland	99.3	(0.7)	96.1	(1.3)	98.2	(1.0)	100.0	(0.0)
	Portugal	98.5	(1.1)	97.5	(1.2)	93.4	(2.1)	93.8	(2.0)
	Slovak Republic	100.0	c	97.8	(1.1)	87.8	(2.0)	83.6	(2.2)
	Slovenia	100.0	c	98.1	(0.0)	91.5	(0.2)	88.4	(0.2)
	Spain	98.3	(0.9)	95.3	(1.7)	78.2	(3.3)	94.3	(1.6)
	Sweden	94.0	(1.6)	88.4	(2.3)	85.9	(2.7)	83.3	(2.5)
	Switzerland	81.9	(2.9)	86.0	(2.6)	36.7	(4.1)	69.8	(3.4)
	Turkey	97.9	(1.2)	89.0	(2.7)	91.2	(2.5)	94.8	(1.7)
	United Kingdom	100.0	(0.0)	96.9	(1.2)	75.2	(3.4)	98.3	(1.1)
	United States	98.1	(1.1)	92.7	(2.2)	80.9	(3.0)	90.9	(2.0)
	OECD average	96.4	(0.2)	92.3	(0.3)	76.8	(0.5)	87.4	(0.4)
Partners	**Albania**	100.0	c	93.9	(1.3)	98.7	(0.8)	93.6	(2.0)
	Algeria	99.0	(0.9)	75.3	(3.6)	64.5	(3.9)	74.7	(3.0)
	Brazil	99.1	(0.5)	98.0	(0.7)	87.1	(1.8)	87.7	(1.8)
	B-S-J-G (China)	89.4	(3.0)	91.6	(2.1)	53.1	(4.1)	87.7	(2.9)
	Bulgaria	99.7	(0.2)	89.1	(2.8)	75.5	(3.4)	84.6	(3.0)
	CABA (Argentina)	100.0	c	93.3	(4.1)	43.9	(7.5)	90.2	(4.1)
	Colombia	98.1	(1.0)	96.7	(1.4)	93.2	(1.9)	94.5	(1.5)
	Costa Rica	96.4	(1.4)	93.9	(1.8)	65.2	(3.3)	90.1	(2.4)
	Croatia	96.9	(1.3)	92.3	(2.1)	93.8	(1.9)	93.3	(2.0)
	Cyprus*	97.7	(0.0)	97.7	(0.0)	35.9	(0.2)	87.7	(0.1)
	Dominican Republic	99.8	(0.2)	98.4	(0.9)	96.0	(1.4)	97.4	(1.5)
	FYROM	99.3	(0.0)	94.9	(0.1)	98.2	(0.0)	86.4	(0.1)
	Georgia	98.0	(0.9)	77.2	(2.8)	89.6	(1.9)	95.7	(1.6)
	Hong Kong (China)	99.2	(0.7)	96.6	(1.6)	84.3	(3.0)	94.8	(2.0)
	Indonesia	99.0	(0.7)	98.2	(0.9)	90.4	(1.7)	93.2	(1.9)
	Jordan	99.7	(0.3)	95.3	(1.4)	81.1	(2.7)	89.7	(2.3)
	Kosovo	100.0	c	84.6	(0.7)	97.3	(0.5)	84.5	(0.6)
	Lebanon	93.3	(1.8)	80.9	(2.6)	53.9	(3.4)	90.0	(2.3)
	Lithuania	98.3	(1.1)	78.1	(2.5)	97.4	(0.9)	89.7	(1.8)
	Macao (China)	97.3	(0.0)	97.3	(0.0)	34.0	(0.1)	96.6	(0.0)
	Malta	100.0	c	86.0	(0.1)	59.6	(0.1)	82.7	(0.1)
	Moldova	98.1	(1.0)	81.7	(2.7)	89.9	(1.8)	98.3	(0.8)
	Montenegro	100.0	c	94.1	(0.1)	91.1	(0.1)	91.3	(0.2)
	Peru	96.7	(1.1)	89.0	(1.7)	73.9	(2.4)	90.4	(2.0)
	Qatar	99.2	(0.0)	98.8	(0.0)	68.7	(0.1)	98.7	(0.0)
	Romania	97.5	(1.2)	92.9	(2.1)	97.3	(1.2)	93.4	(2.1)
	Russia	100.0	c	98.6	(0.8)	98.0	(1.4)	98.4	(0.7)
	Singapore	100.0	c	97.5	(0.0)	47.4	(1.0)	94.4	(0.1)
	Chinese Taipei	99.5	(0.3)	96.3	(1.4)	84.0	(2.7)	93.7	(1.9)
	Thailand	100.0	c	95.0	(1.6)	94.9	(1.6)	95.1	(1.8)
	Trinidad and Tobago	94.8	(0.1)	85.6	(0.2)	67.0	(0.3)	88.8	(0.2)
	Tunisia	72.4	(4.5)	34.2	(4.2)	24.6	(3.7)	49.1	(4.2)
	United Arab Emirates	99.0	(0.6)	96.5	(1.1)	81.8	(2.0)	95.7	(1.1)
	Uruguay	100.0	c	92.1	(1.6)	34.0	(2.6)	85.3	(1.9)
	Viet Nam	97.5	(1.2)	95.6	(2.1)	93.7	(2.7)	91.7	(2.3)
	Argentina**	100.0	c	96.8	(1.2)	59.0	(3.5)	92.8	(1.8)
	Kazakhstan**	98.6	(0.9)	100.0	c	80.6	(2.8)	96.1	(1.2)
	Malaysia**	99.2	(0.8)	91.6	(2.5)	67.1	(3.7)	88.1	(2.5)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.3.29 Correlations between school efforts to involve parents and parents' responses and involvement

Results based on school principals' and parents' reports

		Correlations between the index of school efforts to involve parents and:																			
		Parents' perceptions of school efforts to involve them in school activities										Parental involvement in school activities									
		Agree that their child's school provides an inviting atmosphere for parents to get involved		Agree that their child's school provides effective communication between the school and families		Agree that their child's school involves parents in the school's decision-making process		Agree that their child's school informs families about how to help students with homework and other school-related activities		Agree that their child's school co-operates with <community services> to strengthen school programmes and student development		Have discussed their child's progress with a teacher on their own initiative		Have participated in local school government, e.g. parent council or school-management committee		Have volunteered to support school activities		Have attended a scheduled meeting or conferences for parents		Have talked about how to support learning at home and homework with their child's teachers	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	Corr.	S.E.
OECD	**Belgium (Fl.)**	0.030	(0.023)	0.006	(0.020)	0.022	(0.020)	0.013	(0.020)	0.018	(0.019)	0.006	(0.025)	-0.012	(0.022)	-0.023	(0.016)	0.003	(0.022)	0.019	(0.017)
	Chile	0.047	(0.024)	0.034	(0.026)	0.045	(0.025)	**0.059**	(0.026)	0.026	(0.030)	0.009	(0.019)	0.034	(0.022)	0.027	(0.016)	**0.042**	(0.018)	0.029	(0.018)
	France	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Germany	0.005	(0.025)	0.009	(0.026)	0.027	(0.027)	0.041	(0.024)	**0.069**	(0.031)	0.043	(0.045)	**0.068**	(0.022)	0.017	(0.020)	0.029	(0.032)	-0.004	(0.029)
	Ireland	0.017	(0.026)	-0.016	(0.020)	0.010	(0.017)	0.013	(0.024)	0.020	(0.022)	0.026	(0.023)	0.002	(0.019)	0.012	(0.017)	0.034	(0.019)	**0.036**	(0.013)
	Italy	-0.017	(0.022)	-0.002	(0.020)	0.008	(0.019)	0.035	(0.023)	0.042	(0.022)	-0.010	(0.027)	-0.009	(0.021)	-0.004	(0.020)	-0.025	(0.017)	0.014	(0.020)
	Korea	0.030	(0.016)	**0.043**	(0.015)	**0.052**	(0.015)	0.021	(0.021)	0.025	(0.016)	-0.002	(0.012)	**0.028**	(0.013)	0.023	(0.014)	0.043	(0.028)	0.014	(0.014)
	Luxembourg	0.029	(0.017)	**0.052**	(0.016)	0.023	(0.017)	-0.004	(0.018)	0.000	(0.017)	0.000	(0.019)	0.020	(0.022)	0.027	(0.018)	**0.047**	(0.017)	-0.015	(0.018)
	Mexico	**0.051**	(0.019)	**0.046**	(0.020)	**0.068**	(0.017)	**0.068**	(0.017)	**0.046**	(0.017)	**0.076**	(0.021)	**0.121**	(0.023)	0.042	(0.023)	**0.078**	(0.018)	**0.111**	(0.023)
	Portugal	0.024	(0.026)	0.014	(0.027)	**0.052**	(0.026)	0.017	(0.019)	0.016	(0.021)	-0.002	(0.028)	0.002	(0.025)	-0.002	(0.015)	-0.004	(0.014)	0.024	(0.022)
	Scotland (UK)	0.002	(0.026)	-0.006	(0.032)	-0.017	(0.019)	-0.018	(0.035)	**0.031**	(0.014)	0.033	(0.024)	**-0.049**	(0.019)	**0.038**	(0.018)	0.000	(0.033)	0.002	(0.021)
	Spain	-0.003	(0.018)	**-0.045**	(0.019)	0.006	(0.020)	0.007	(0.020)	0.019	(0.021)	**0.059**	(0.029)	-0.017	(0.022)	**0.043**	(0.017)	0.003	(0.023)	-0.006	(0.020)
	OECD average	**0.019**	(0.007)	0.012	(0.007)	**0.027**	(0.006)	**0.023**	(0.007)	**0.028**	(0.007)	**0.022**	(0.008)	**0.017**	(0.006)	**0.018**	(0.005)	**0.023**	(0.007)	**0.020**	(0.006)
Partners	**Croatia**	0.010	(0.022)	0.017	(0.016)	-0.013	(0.017)	-0.018	(0.017)	0.019	(0.021)	-0.011	(0.022)	0.003	(0.011)	0.017	(0.012)	0.003	(0.015)	-0.019	(0.018)
	Dominican Republic	-0.005	(0.015)	0.009	(0.015)	**0.065**	(0.032)	0.021	(0.017)	0.011	(0.025)	0.010	(0.014)	0.042	(0.028)	0.018	(0.025)	**0.062**	(0.031)	0.014	(0.017)
	Georgia	0.038	(0.021)	0.028	(0.021)	0.028	(0.023)	0.022	(0.030)	-0.015	(0.022)	0.033	(0.026)	0.032	(0.026)	0.027	(0.030)	0.017	(0.024)	0.008	(0.027)
	Hong Kong (China)	-0.006	(0.015)	-0.009	(0.017)	0.042	(0.023)	-0.025	(0.014)	-0.004	(0.015)	**0.032**	(0.014)	0.017	(0.013)	0.026	(0.015)	-0.022	(0.022)	0.018	(0.016)
	Macao (China)	**0.040**	(0.014)	**0.035**	(0.013)	**0.038**	(0.015)	**0.032**	(0.014)	**0.034**	(0.013)	-0.019	(0.015)	**0.026**	(0.012)	0.009	(0.014)	**0.087**	(0.013)	0.008	(0.012)
	Malta	-0.014	(0.016)	0.017	(0.016)	-0.031	(0.017)	-0.030	(0.020)	**-0.065**	(0.018)	-0.014	(0.017)	-0.015	(0.018)	**0.041**	(0.015)	**0.059**	(0.018)	0.009	(0.018)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with data from the parent questionnaire are shown.
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[Part 1/1]

Table II.3.30 Parental involvement in school-related activities

Results based on parents' self-reports

		Percentage of students whose parents reported that, during the previous academic year, they participated in the following school-related activities																			
		Discussed my child's behaviour with a teacher on my own initiative		Discussed my child's behaviour on the initiative of one of his/her teachers		Discussed my child's progress with a teacher on my own initiative		Discussed my child's progress on the initiative of one of his/her teachers		Participated in local school government, e.g. parent council or school management committee		Volunteered in physical or extra-curricular activities		Volunteered to support school activities		Attended a scheduled meeting or conferences for parents		Talked about how to support learning at home and homework with my child's teachers		Exchanged ideas on parenting, family support, or the child's development with my child's teachers	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium (Fl.)**	33.2	(0.9)	36.7	(1.0)	35.2	(0.9)	46.6	(1.0)	5.2	(0.4)	4.2	(0.4)	3.4	(0.3)	78.9	(0.8)	39.6	(0.8)	24.6	(0.7)
	Chile	64.4	(0.8)	63.1	(0.9)	65.2	(0.8)	62.4	(0.9)	26.6	(0.9)	18.0	(0.7)	13.3	(0.6)	85.1	(0.6)	73.3	(0.8)	55.4	(1.0)
	France	41.1	(0.8)	28.4	(0.7)	40.6	(0.8)	30.5	(0.9)	7.7	(0.4)	3.0	(0.3)	3.0	(0.3)	67.1	(0.8)	34.8	(0.9)	18.6	(0.7)
	Germany	62.8	(1.1)	37.9	(1.3)	53.5	(1.1)	28.9	(1.2)	17.5	(0.7)	16.7	(0.7)	11.0	(0.7)	90.9	(0.6)	45.0	(1.1)	28.1	(1.0)
	Ireland	30.8	(0.6)	19.2	(0.9)	35.3	(0.8)	28.7	(0.9)	9.4	(0.5)	7.2	(0.4)	6.6	(0.4)	83.0	(0.6)	52.6	(0.9)	25.4	(0.8)
	Italy	55.3	(0.9)	35.8	(0.8)	62.4	(0.8)	39.6	(0.8)	17.1	(0.6)	12.5	(0.5)	6.4	(0.4)	58.7	(0.8)	40.1	(0.7)	31.4	(0.8)
	Korea	45.4	(1.0)	66.0	(0.7)	39.4	(0.8)	59.2	(0.8)	14.6	(0.5)	28.2	(1.0)	14.3	(0.6)	55.1	(1.3)	29.1	(0.9)	40.4	(1.0)
	Luxembourg	54.5	(1.0)	34.8	(0.8)	55.6	(0.9)	40.3	(0.7)	8.8	(0.4)	7.8	(0.5)	6.0	(0.4)	71.9	(0.8)	47.3	(0.9)	26.4	(0.8)
	Mexico	55.1	(0.9)	44.0	(1.0)	56.3	(0.9)	44.8	(1.0)	46.2	(1.0)	18.0	(0.9)	11.7	(0.6)	82.3	(0.7)	63.8	(0.9)	37.1	(0.8)
	Portugal	75.6	(0.7)	51.2	(0.8)	73.0	(0.7)	56.6	(1.0)	11.1	(0.5)	7.6	(0.4)	5.7	(0.3)	71.0	(0.6)	61.4	(0.9)	58.6	(0.8)
	Scotland (UK)	14.3	(1.0)	11.2	(0.9)	25.5	(1.3)	26.4	(1.5)	6.8	(0.6)	6.2	(1.0)	6.0	(0.6)	86.5	(1.0)	68.3	(1.3)	19.4	(1.0)
	Spain	70.1	(0.8)	54.8	(1.2)	74.2	(0.8)	59.1	(1.3)	17.2	(0.7)	10.0	(0.6)	8.0	(0.5)	80.3	(0.7)	65.9	(0.8)	56.0	(0.9)
	OECD average	50.2	(0.3)	40.3	(0.3)	51.4	(0.3)	43.6	(0.3)	15.7	(0.2)	11.6	(0.2)	7.9	(0.1)	75.9	(0.2)	51.8	(0.3)	35.1	(0.2)
Partners	**Croatia**	71.7	(0.7)	28.3	(0.8)	64.5	(0.9)	30.1	(0.8)	19.1	(0.6)	13.7	(0.5)	9.1	(0.4)	98.8	(0.2)	51.7	(0.8)	46.6	(0.7)
	Dominican Republic	74.2	(0.9)	65.1	(1.0)	75.4	(1.0)	66.2	(1.0)	57.2	(1.3)	32.9	(1.2)	36.1	(1.2)	93.8	(0.5)	83.5	(0.8)	69.8	(1.1)
	Georgia	78.0	(0.8)	71.3	(1.0)	79.5	(0.7)	77.4	(0.8)	23.6	(0.9)	18.0	(0.8)	12.6	(0.7)	91.3	(0.5)	68.9	(0.8)	51.9	(1.0)
	Hong Kong (China)	52.6	(0.8)	63.9	(0.9)	53.0	(0.7)	64.4	(0.8)	9.1	(0.4)	7.9	(0.5)	8.3	(0.5)	29.0	(1.0)	43.5	(0.7)	40.0	(0.8)
	Macao (China)	35.4	(0.6)	58.0	(0.7)	33.4	(0.7)	54.2	(0.7)	34.6	(0.6)	18.1	(0.6)	17.4	(0.6)	59.5	(0.7)	46.2	(0.7)	43.8	(0.7)
	Malta	62.9	(0.8)	46.4	(0.7)	53.9	(0.9)	46.7	(0.9)	4.9	(0.4)	7.2	(0.4)	6.9	(0.4)	78.1	(0.7)	56.3	(0.7)	41.1	(0.8)

Note: Only countries and economies with data from the parent questionnaire are shown.

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[Part 1/5]

Table II.3.33 Educational leadership

Results based on school principals' self-reports

		Percentage of students in schools whose principal reported that…																	
		I use student performance results to develop the school's educational goals						I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school						I ensure that teachers work according to the school's educational goals					
		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.2	(0.0)	63.1	(2.1)	36.8	(2.1)	0.4	(0.3)	30.8	(2.2)	68.8	(2.2)	0.0	c	28.9	(1.9)	71.1	(1.9)
	Austria	5.9	(2.0)	78.9	(3.2)	15.2	(2.5)	2.1	(1.2)	77.5	(2.9)	20.3	(2.7)	1.6	(0.7)	68.2	(3.5)	30.2	(3.5)
	Belgium	14.0	(2.5)	78.7	(2.9)	7.3	(1.7)	1.7	(0.9)	72.3	(2.7)	26.0	(2.7)	0.1	(0.0)	60.0	(3.2)	39.9	(3.2)
	Canada	0.5	(0.2)	72.6	(2.6)	26.8	(2.5)	1.4	(0.5)	45.4	(2.6)	53.3	(2.7)	0.6	(0.5)	32.3	(2.5)	67.1	(2.6)
	Chile	3.0	(1.5)	57.2	(4.3)	39.8	(4.4)	3.9	(1.7)	44.2	(3.8)	51.9	(3.8)	0.0	c	30.0	(4.0)	70.0	(4.0)
	Czech Republic	1.8	(0.8)	85.8	(2.3)	12.4	(2.2)	0.0	c	73.6	(2.8)	26.4	(2.8)	0.0	c	44.1	(3.2)	55.9	(3.2)
	Denmark	5.7	(1.5)	84.7	(2.4)	9.6	(2.1)	0.0	c	83.7	(2.6)	16.3	(2.6)	0.3	(0.3)	69.9	(3.5)	29.8	(3.5)
	Estonia	1.4	(0.7)	76.4	(2.4)	22.2	(2.3)	0.5	(0.0)	68.2	(2.3)	31.2	(2.3)	0.3	(0.3)	50.4	(2.7)	49.3	(2.7)
	Finland	6.4	(1.8)	83.0	(3.1)	10.6	(2.6)	1.9	(1.1)	78.5	(3.0)	19.6	(2.8)	1.3	(0.9)	62.2	(4.2)	36.5	(4.2)
	France	3.3	(1.0)	79.4	(2.7)	17.3	(2.6)	5.7	(1.6)	81.5	(2.6)	12.8	(2.1)	1.3	(0.8)	58.0	(3.4)	40.7	(3.4)
	Germany	8.8	(2.2)	76.5	(3.4)	14.7	(2.6)	2.7	(1.4)	71.3	(3.1)	26.0	(2.9)	0.0	c	54.7	(3.5)	45.3	(3.5)
	Greece	2.9	(1.3)	81.9	(2.8)	15.3	(2.8)	7.3	(2.0)	73.2	(3.4)	19.4	(2.8)	2.3	(1.3)	29.2	(3.4)	68.6	(3.4)
	Hungary	3.3	(1.2)	74.3	(3.5)	22.4	(3.3)	1.2	(0.8)	59.2	(3.2)	39.6	(3.2)	0.0	c	22.3	(2.8)	77.7	(2.8)
	Iceland	0.2	(0.0)	74.8	(0.3)	25.0	(0.3)	1.4	(0.1)	55.9	(0.3)	42.7	(0.3)	2.4	(0.1)	62.0	(0.3)	35.5	(0.3)
	Ireland	1.5	(1.1)	86.5	(3.0)	12.0	(2.8)	2.1	(1.2)	71.0	(3.7)	26.9	(3.7)	0.0	c	54.2	(4.6)	45.8	(4.6)
	Israel	1.1	(0.8)	65.7	(4.2)	33.2	(4.1)	2.2	(1.1)	70.1	(3.9)	27.7	(3.8)	0.0	c	45.5	(4.3)	54.5	(4.3)
	Italy	0.5	(0.3)	88.5	(2.5)	11.0	(2.5)	1.3	(0.9)	73.1	(3.4)	25.7	(3.3)	0.0	c	54.6	(3.7)	45.4	(3.7)
	Japan	8.0	(1.7)	89.1	(2.0)	2.9	(1.2)	8.0	(1.7)	86.3	(2.3)	5.7	(1.5)	4.0	(1.2)	85.2	(2.5)	10.7	(2.2)
	Korea	0.6	(0.6)	85.6	(3.0)	13.8	(2.9)	0.6	(0.6)	62.8	(4.2)	36.6	(4.1)	4.0	(1.6)	61.4	(4.2)	34.5	(4.1)
	Latvia	0.0	c	74.4	(2.6)	25.6	(2.6)	0.7	(0.5)	70.9	(2.6)	28.4	(2.5)	0.0	c	45.0	(2.8)	55.0	(2.8)
	Luxembourg	5.0	(0.0)	82.2	(0.1)	12.8	(0.1)	8.6	(0.1)	78.9	(0.1)	12.5	(0.1)	5.0	(0.0)	59.8	(0.1)	35.2	(0.1)
	Mexico	0.4	(0.4)	49.1	(3.4)	50.5	(3.4)	3.1	(1.5)	53.4	(3.8)	43.5	(3.8)	0.4	(0.4)	31.9	(3.3)	67.7	(3.3)
	Netherlands	0.7	(0.6)	69.3	(3.6)	30.0	(3.6)	0.0	c	58.1	(4.3)	41.9	(4.3)	2.2	(1.6)	35.5	(4.6)	62.3	(4.6)
	New Zealand	0.0	c	61.2	(3.7)	38.8	(3.7)	0.0	c	32.5	(3.7)	67.5	(3.7)	0.0	c	42.7	(4.4)	57.3	(4.4)
	Norway	0.5	(0.4)	78.2	(3.0)	21.3	(3.0)	0.0	c	57.5	(3.8)	42.5	(3.8)	0.0	c	51.3	(4.0)	48.7	(4.0)
	Poland	0.0	c	91.0	(2.2)	9.0	(2.2)	0.0	c	93.0	(2.1)	7.0	(2.1)	0.0	c	65.9	(4.2)	34.1	(4.2)
	Portugal	0.3	(0.3)	70.0	(3.2)	29.7	(3.2)	2.5	(1.1)	77.6	(3.0)	19.8	(2.8)	0.5	(0.4)	57.1	(3.5)	42.3	(3.5)
	Slovak Republic	1.3	(0.7)	62.9	(3.1)	35.8	(3.2)	0.0	c	57.5	(3.2)	42.5	(3.2)	0.0	c	16.4	(2.2)	83.6	(2.2)
	Slovenia	2.2	(0.1)	69.4	(0.5)	28.4	(0.5)	0.0	c	43.0	(0.5)	57.0	(0.5)	0.0	c	24.7	(0.3)	75.3	(0.3)
	Spain	1.5	(0.9)	94.0	(1.8)	4.5	(1.7)	5.6	(1.6)	78.5	(3.0)	16.0	(2.6)	1.3	(1.0)	53.5	(3.6)	45.2	(3.5)
	Sweden	0.3	(0.3)	70.6	(2.8)	29.1	(2.8)	0.0	c	77.5	(2.9)	22.5	(2.9)	0.0	c	47.1	(3.5)	52.9	(3.5)
	Switzerland	25.3	(3.8)	66.0	(3.5)	8.6	(2.9)	7.9	(2.2)	78.4	(3.5)	13.7	(3.0)	3.6	(1.4)	75.3	(3.7)	21.1	(3.5)
	Turkey	1.9	(1.1)	65.5	(3.8)	32.6	(3.7)	1.1	(0.8)	68.8	(3.9)	30.1	(3.7)	0.0	c	23.3	(3.4)	76.7	(3.4)
	United Kingdom	1.0	(0.9)	39.8	(3.3)	59.2	(3.3)	0.0	(0.0)	39.9	(3.8)	60.1	(3.8)	0.0	(0.0)	15.0	(2.7)	84.9	(2.7)
	United States	1.1	(0.7)	42.4	(3.4)	56.5	(3.4)	0.3	(0.3)	25.5	(3.4)	74.2	(3.5)	0.3	(0.3)	9.3	(2.3)	90.4	(2.3)
	OECD average	3.2	(0.2)	73.4	(0.5)	23.4	(0.5)	2.1	(0.2)	64.8	(0.5)	33.0	(0.5)	0.9	(0.1)	46.5	(0.6)	52.6	(0.6)
Partners	**Albania**	0.0	c	48.2	(3.7)	51.8	(3.7)	0.0	c	26.8	(3.2)	73.2	(3.2)	0.0	c	13.5	(2.5)	86.5	(2.5)
	Algeria	2.1	(1.1)	79.5	(3.2)	18.4	(3.1)	8.8	(2.3)	65.4	(4.3)	25.8	(3.9)	4.8	(1.8)	39.4	(4.6)	55.8	(4.6)
	Brazil	2.7	(0.9)	66.6	(2.5)	30.8	(2.5)	0.9	(0.7)	19.7	(2.1)	79.4	(2.2)	0.6	(0.6)	15.3	(1.9)	84.2	(2.0)
	B-S-J-G (China)	6.3	(1.7)	73.5	(3.4)	20.2	(2.9)	0.8	(0.6)	51.4	(3.9)	47.8	(3.9)	1.4	(0.8)	41.3	(4.2)	57.3	(4.1)
	Bulgaria	0.6	(0.4)	83.1	(3.3)	16.3	(3.2)	0.4	(0.4)	66.1	(4.4)	33.5	(4.3)	0.0	c	19.4	(3.0)	80.6	(3.0)
	CABA (Argentina)	5.7	(3.9)	69.8	(6.5)	24.5	(6.1)	6.9	(3.7)	59.7	(7.5)	33.4	(6.6)	0.0	c	42.5	(7.8)	57.5	(7.8)
	Colombia	1.4	(0.9)	79.5	(2.8)	19.1	(2.7)	8.7	(2.3)	53.5	(3.8)	37.8	(3.6)	0.3	(0.3)	55.3	(3.5)	44.4	(3.5)
	Costa Rica	2.1	(1.1)	72.6	(3.2)	25.2	(2.9)	4.6	(1.5)	59.9	(3.0)	35.6	(3.0)	0.7	(0.6)	38.8	(3.5)	60.5	(3.5)
	Croatia	0.8	(0.6)	75.8	(3.4)	23.5	(3.3)	0.6	(0.6)	64.3	(4.2)	35.1	(4.1)	0.0	c	51.3	(4.3)	48.7	(4.3)
	Cyprus*	4.5	(0.1)	68.7	(0.2)	26.8	(0.1)	4.2	(0.1)	60.2	(0.2)	35.5	(0.1)	1.7	(0.1)	30.6	(0.1)	67.7	(0.1)
	Dominican Republic	0.3	(0.3)	56.4	(4.4)	43.3	(4.5)	0.9	(0.7)	25.3	(3.8)	73.9	(3.9)	0.0	c	15.4	(3.0)	84.6	(3.0)
	FYROM	0.0	c	55.8	(0.2)	44.2	(0.2)	0.0	c	56.4	(0.2)	43.6	(0.2)	0.8	(0.0)	30.9	(0.1)	68.3	(0.1)
	Georgia	0.5	(0.5)	68.0	(2.7)	31.4	(2.7)	1.7	(0.9)	57.2	(3.3)	41.1	(3.2)	0.0	c	20.0	(2.8)	80.0	(2.8)
	Hong Kong (China)	1.3	(1.0)	86.5	(3.0)	12.1	(2.8)	0.0	c	84.8	(3.4)	15.2	(3.4)	0.0	c	67.9	(4.2)	32.1	(4.2)
	Indonesia	3.5	(1.4)	71.2	(3.2)	25.3	(2.9)	2.6	(1.3)	56.1	(3.8)	41.3	(3.6)	1.4	(1.0)	30.1	(3.7)	68.6	(3.8)
	Jordan	1.3	(0.8)	56.6	(3.7)	42.1	(3.7)	1.4	(0.7)	48.9	(3.1)	49.6	(3.1)	1.1	(0.8)	17.9	(2.7)	81.0	(2.6)
	Kosovo	1.9	(0.2)	70.2	(1.0)	27.9	(1.0)	0.6	(0.4)	37.4	(1.3)	62.0	(1.3)	0.0	c	35.9	(1.3)	64.1	(1.3)
	Lebanon	4.3	(1.1)	56.8	(3.7)	38.9	(3.6)	3.7	(1.4)	49.9	(2.9)	46.4	(3.0)	0.6	(0.4)	19.5	(2.7)	79.9	(2.8)
	Lithuania	0.0	c	90.6	(2.4)	9.4	(2.4)	0.0	c	64.8	(2.9)	35.2	(2.9)	0.0	c	39.4	(3.0)	60.6	(3.0)
	Macao (China)	0.7	(0.0)	86.3	(0.1)	12.9	(0.0)	0.2	(0.0)	81.9	(0.0)	17.9	(0.0)	0.0	c	65.7	(0.0)	34.3	(0.0)
	Malta	5.9	(0.1)	82.4	(0.1)	11.8	(0.1)	0.2	(0.0)	85.3	(0.1)	14.5	(0.1)	0.0	c	41.8	(0.1)	58.2	(0.1)
	Moldova	1.2	(0.8)	69.3	(3.4)	29.4	(3.4)	1.0	(0.6)	57.2	(3.5)	41.8	(3.6)	0.0	c	11.0	(2.1)	89.0	(2.1)
	Montenegro	0.0	c	87.0	(0.4)	13.0	(0.4)	0.0	c	62.2	(0.3)	37.8	(0.3)	0.0	c	46.1	(0.5)	53.9	(0.5)
	Peru	6.8	(1.5)	75.6	(2.7)	17.5	(2.5)	4.2	(1.3)	53.1	(3.1)	42.7	(2.9)	1.9	(0.9)	40.6	(2.9)	57.5	(2.8)
	Qatar	2.2	(0.0)	58.5	(0.1)	39.3	(0.1)	0.0	c	39.0	(0.1)	61.0	(0.1)	0.0	c	16.3	(0.1)	83.7	(0.1)
	Romania	0.9	(0.7)	71.1	(3.7)	28.1	(3.6)	2.0	(1.0)	68.2	(3.8)	29.8	(3.9)	0.7	(0.6)	11.0	(2.3)	88.4	(2.4)
	Russia	0.7	(0.7)	68.2	(3.9)	31.2	(3.9)	0.0	c	50.6	(3.8)	49.4	(3.8)	0.0	c	29.6	(3.5)	70.4	(3.5)
	Singapore	0.0	c	83.7	(0.7)	16.3	(0.7)	0.0	c	49.4	(1.0)	50.6	(1.0)	0.0	c	39.2	(1.1)	60.8	(1.1)
	Chinese Taipei	3.2	(1.3)	62.4	(3.2)	34.5	(3.4)	1.4	(0.7)	50.8	(3.6)	47.8	(3.6)	0.5	(0.5)	47.0	(3.7)	52.5	(3.7)
	Thailand	0.6	(0.6)	67.2	(3.8)	32.1	(3.7)	1.3	(0.9)	55.9	(4.5)	42.8	(4.4)	0.6	(0.6)	43.3	(3.8)	56.0	(3.7)
	Trinidad and Tobago	1.1	(0.0)	78.3	(0.2)	20.5	(0.2)	3.1	(0.1)	82.2	(0.2)	14.7	(0.2)	0.0	c	29.3	(0.3)	70.7	(0.3)
	Tunisia	14.5	(3.3)	82.6	(3.8)	3.0	(1.7)	39.9	(4.1)	47.9	(4.1)	12.1	(2.7)	6.6	(2.2)	53.2	(4.5)	40.2	(4.4)
	United Arab Emirates	0.8	(0.8)	66.0	(2.3)	33.2	(2.1)	0.0	(0.0)	36.9	(2.4)	63.1	(2.4)	0.0	c	23.1	(2.1)	76.9	(2.1)
	Uruguay	2.1	(0.7)	69.1	(2.8)	28.8	(2.6)	5.6	(1.5)	47.0	(3.1)	47.4	(3.1)	0.4	(0.4)	29.2	(2.6)	70.4	(2.6)
	Viet Nam	0.0	c	76.5	(3.5)	23.5	(3.5)	0.0	c	54.9	(4.5)	45.1	(4.5)	0.0	c	23.8	(3.7)	76.2	(3.7)
	Argentina**	2.6	(1.2)	72.7	(3.4)	24.7	(3.2)	3.8	(1.4)	61.5	(3.4)	34.7	(3.4)	0.0	c	36.1	(3.3)	63.9	(3.3)
	Kazakhstan**	0.5	(0.5)	42.0	(3.0)	57.5	(3.0)	0.0	c	28.5	(3.1)	71.5	(3.1)	0.0	c	13.5	(2.2)	86.5	(2.2)
	Malaysia**	0.0	c	73.6	(3.8)	26.4	(3.8)	0.0	c	46.1	(4.1)	53.9	(4.1)	0.0	c	22.8	(3.5)	77.2	(3.5)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436489

[Part 2/5]

Table II.3.33 Educational leadership

Results based on school principals' self-reports

		Percentage of students in schools whose principal reported that…																	
		I promote teaching practices based on recent educational research						I praise teachers whose students are actively participating in learning						When a teacher has problems in his/her classroom, I take the initiative to discuss matters					
		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.0	(0.1)	24.3	(1.8)	75.6	(1.8)	0.2	(0.2)	12.6	(1.4)	87.2	(1.4)	1.1	(0.4)	19.4	(1.6)	79.6	(1.6)
	Austria	5.1	(1.3)	57.6	(3.7)	37.3	(3.6)	3.3	(1.2)	31.7	(3.5)	65.0	(3.5)	4.9	(1.4)	36.1	(3.3)	59.0	(3.3)
	Belgium	14.5	(2.4)	61.3	(3.5)	24.2	(3.3)	4.4	(1.6)	44.9	(3.0)	50.6	(2.9)	0.7	(0.6)	27.2	(2.8)	72.1	(2.8)
	Canada	2.7	(0.8)	32.9	(2.2)	64.4	(2.3)	0.1	(0.1)	14.6	(1.8)	85.3	(1.8)	0.5	(0.4)	11.9	(1.8)	87.6	(1.8)
	Chile	16.0	(3.3)	48.5	(4.3)	35.5	(3.8)	1.6	(1.0)	42.5	(4.0)	55.9	(4.0)	5.2	(1.8)	27.1	(3.8)	67.7	(3.8)
	Czech Republic	1.3	(0.6)	51.3	(2.7)	47.4	(2.7)	2.2	(1.0)	29.8	(2.9)	67.9	(3.0)	0.7	(0.5)	29.4	(3.1)	69.9	(3.2)
	Denmark	2.4	(1.3)	60.7	(3.7)	36.9	(3.5)	5.7	(1.6)	35.8	(3.6)	58.5	(3.7)	0.5	(0.5)	26.1	(3.2)	73.5	(3.3)
	Estonia	4.3	(1.1)	70.5	(2.2)	25.2	(2.2)	0.0	c	32.3	(2.5)	67.7	(2.5)	0.9	(0.7)	27.2	(2.3)	71.9	(2.4)
	Finland	1.9	(1.1)	63.8	(3.4)	34.2	(3.3)	2.6	(1.3)	49.1	(4.0)	48.3	(4.3)	0.6	(0.6)	46.8	(4.1)	52.6	(4.1)
	France	15.6	(2.4)	66.9	(3.2)	17.5	(2.3)	6.7	(1.5)	43.6	(3.3)	49.7	(3.2)	1.4	(0.8)	32.0	(3.2)	66.6	(3.1)
	Germany	2.9	(1.1)	67.1	(3.3)	30.1	(3.3)	2.2	(1.1)	28.7	(3.2)	69.0	(3.5)	0.9	(0.6)	38.9	(4.0)	60.2	(4.1)
	Greece	2.5	(1.2)	44.8	(3.8)	52.7	(3.8)	1.3	(0.8)	37.1	(3.5)	61.7	(3.5)	0.9	(0.9)	32.3	(3.4)	66.8	(3.4)
	Hungary	5.3	(1.6)	51.8	(3.5)	42.9	(3.4)	1.1	(0.8)	27.7	(3.3)	71.3	(3.4)	0.6	(0.6)	26.8	(3.2)	72.6	(3.3)
	Iceland	2.3	(0.1)	65.2	(0.2)	32.5	(0.2)	0.9	(0.1)	29.9	(0.2)	69.2	(0.2)	0.0	c	45.4	(0.3)	54.6	(0.3)
	Ireland	2.0	(1.2)	64.2	(4.4)	33.9	(4.3)	0.7	(0.7)	28.3	(4.0)	71.1	(3.9)	1.4	(1.0)	43.9	(4.1)	54.7	(4.1)
	Israel	5.6	(1.7)	72.0	(3.3)	22.5	(3.2)	1.7	(1.0)	30.3	(3.8)	68.0	(4.0)	0.5	(0.5)	19.9	(3.1)	79.6	(3.2)
	Italy	2.7	(1.1)	71.8	(3.7)	25.4	(3.8)	3.7	(1.4)	37.5	(3.7)	58.7	(3.7)	0.5	(0.4)	21.3	(2.8)	78.2	(2.7)
	Japan	10.2	(2.2)	77.5	(3.0)	12.3	(2.5)	8.9	(1.9)	85.3	(2.5)	5.8	(1.6)	6.1	(1.8)	61.0	(3.8)	32.9	(3.6)
	Korea	2.5	(1.3)	61.3	(4.3)	36.2	(4.2)	2.5	(1.3)	41.7	(3.9)	55.8	(3.7)	0.7	(0.7)	35.6	(3.8)	63.8	(3.8)
	Latvia	0.9	(0.6)	46.2	(2.9)	53.0	(2.9)	0.4	(0.4)	26.1	(2.4)	73.5	(2.4)	2.9	(1.0)	25.8	(2.2)	71.3	(2.2)
	Luxembourg	17.8	(0.1)	60.4	(0.1)	21.8	(0.1)	2.5	(0.0)	56.3	(0.1)	41.2	(0.1)	2.2	(0.0)	8.7	(0.1)	89.1	(0.1)
	Mexico	7.0	(2.1)	56.1	(3.6)	36.9	(3.3)	4.6	(1.7)	49.7	(3.0)	45.7	(2.7)	0.3	(0.2)	28.8	(3.0)	70.9	(3.0)
	Netherlands	9.1	(2.7)	62.0	(4.8)	28.9	(4.4)	5.1	(2.0)	37.1	(4.4)	57.8	(4.5)	1.0	(1.0)	41.6	(4.4)	57.5	(4.4)
	New Zealand	1.0	(0.9)	29.9	(3.9)	69.1	(4.1)	0.7	(0.6)	23.1	(4.0)	76.3	(4.0)	1.6	(1.0)	38.4	(4.3)	59.9	(4.3)
	Norway	0.6	(0.6)	39.1	(4.1)	60.3	(4.1)	1.2	(0.7)	33.8	(3.6)	65.0	(3.6)	0.5	(0.5)	35.3	(4.0)	64.3	(4.1)
	Poland	8.3	(2.3)	76.3	(3.6)	15.4	(3.0)	0.6	(0.6)	47.3	(4.0)	52.0	(4.0)	1.5	(1.0)	34.2	(3.4)	64.3	(3.5)
	Portugal	10.6	(2.3)	56.9	(3.6)	32.5	(3.8)	2.5	(1.2)	36.7	(3.7)	60.8	(3.7)	0.5	(0.4)	35.5	(3.5)	64.1	(3.5)
	Slovak Republic	0.9	(0.7)	34.1	(3.4)	65.0	(3.5)	1.9	(1.0)	42.4	(3.4)	55.7	(3.3)	0.0	c	41.5	(3.2)	58.5	(3.2)
	Slovenia	0.0	c	20.5	(0.3)	79.5	(0.3)	0.0	c	22.1	(0.3)	77.9	(0.3)	0.8	(0.0)	38.2	(0.3)	61.0	(0.3)
	Spain	15.4	(2.5)	67.2	(3.4)	17.3	(2.9)	3.0	(1.5)	49.0	(3.5)	48.0	(3.4)	3.7	(1.1)	32.5	(3.4)	63.8	(3.5)
	Sweden	0.9	(0.7)	47.2	(3.5)	51.9	(3.3)	0.6	(0.5)	32.3	(3.6)	67.1	(3.7)	0.6	(0.6)	34.7	(2.8)	64.7	(2.9)
	Switzerland	16.8	(2.8)	69.9	(4.0)	13.4	(3.1)	7.3	(2.0)	49.5	(4.6)	43.2	(4.5)	1.1	(0.8)	44.5	(4.2)	54.4	(4.2)
	Turkey	0.6	(0.7)	41.5	(3.7)	57.9	(3.7)	0.0	c	27.9	(3.9)	72.1	(3.9)	0.0	c	17.3	(3.4)	82.7	(3.4)
	United Kingdom	0.1	(0.1)	35.3	(3.5)	64.6	(3.5)	0.1	(0.1)	7.4	(1.6)	92.5	(1.6)	1.7	(0.8)	12.7	(2.1)	85.6	(2.3)
	United States	1.5	(0.9)	14.4	(2.7)	84.2	(2.8)	0.3	(0.3)	4.4	(1.7)	95.3	(1.7)	2.1	(1.1)	6.0	(1.8)	91.9	(2.2)
	OECD average	5.5	(0.3)	53.4	(0.6)	41.1	(0.5)	2.3	(0.2)	35.1	(0.5)	62.6	(0.5)	1.4	(0.1)	31.0	(0.5)	67.6	(0.5)
Partners	**Albania**	1.1	(0.8)	49.1	(3.7)	49.8	(3.7)	0.4	(0.4)	29.7	(3.3)	69.9	(3.3)	0.0	c	7.5	(1.8)	92.5	(1.8)
	Algeria	9.1	(2.5)	43.5	(4.0)	47.4	(3.8)	4.1	(1.7)	41.1	(3.9)	54.8	(4.2)	2.0	(1.5)	30.3	(4.0)	67.7	(4.2)
	Brazil	5.2	(1.1)	40.8	(2.4)	54.0	(2.7)	1.6	(0.8)	12.3	(1.7)	86.1	(1.8)	0.2	(0.1)	6.1	(1.3)	93.7	(1.3)
	B-S-J-G (China)	2.3	(1.2)	58.0	(4.6)	39.7	(4.4)	0.0	(0.0)	34.1	(4.3)	65.9	(4.3)	0.0	(0.0)	19.8	(3.5)	80.2	(3.5)
	Bulgaria	1.2	(0.7)	49.3	(3.7)	49.5	(3.7)	0.2	(0.2)	26.4	(3.4)	73.5	(3.4)	0.3	(0.3)	16.4	(2.8)	83.3	(2.9)
	CABA (Argentina)	7.4	(3.9)	56.7	(7.7)	35.9	(6.7)	3.0	(2.3)	29.9	(7.6)	67.0	(7.7)	0.0	c	47.7	(7.9)	52.3	(7.9)
	Colombia	12.9	(2.5)	59.5	(3.3)	27.5	(3.1)	4.0	(1.4)	58.1	(3.5)	37.9	(3.6)	6.0	(1.9)	37.4	(3.6)	56.6	(3.4)
	Costa Rica	12.9	(2.6)	51.9	(3.5)	35.2	(3.3)	3.4	(1.2)	50.3	(3.7)	46.3	(3.6)	3.1	(1.3)	29.3	(3.5)	67.6	(3.8)
	Croatia	1.0	(0.8)	65.7	(3.8)	33.3	(3.7)	1.3	(0.9)	46.5	(4.1)	52.2	(4.0)	0.8	(0.8)	29.2	(3.3)	70.0	(3.4)
	Cyprus*	4.8	(0.1)	47.7	(0.1)	47.4	(0.2)	0.0	c	25.9	(0.1)	74.1	(0.1)	0.0	c	35.4	(0.1)	64.6	(0.1)
	Dominican Republic	3.8	(1.5)	40.1	(4.1)	56.1	(4.2)	1.2	(0.9)	19.8	(3.3)	78.9	(3.3)	9.0	(2.7)	14.9	(2.9)	76.1	(3.2)
	FYROM	3.7	(0.1)	51.0	(0.2)	45.3	(0.2)	0.0	c	37.6	(0.2)	62.4	(0.2)	0.0	c	11.0	(0.1)	89.0	(0.1)
	Georgia	2.9	(1.1)	60.7	(3.4)	36.4	(3.4)	0.0	c	36.8	(3.2)	63.2	(3.2)	0.3	(0.2)	13.5	(2.2)	86.3	(2.2)
	Hong Kong (China)	5.4	(2.0)	81.5	(3.8)	13.2	(3.3)	1.6	(1.1)	52.4	(4.1)	46.0	(3.9)	0.0	c	60.3	(4.6)	39.7	(4.6)
	Indonesia	3.6	(1.5)	55.5	(4.2)	40.8	(4.1)	3.0	(1.4)	36.5	(3.5)	60.4	(3.4)	2.4	(1.2)	24.8	(3.1)	72.8	(3.2)
	Jordan	3.9	(1.3)	36.4	(3.2)	59.7	(3.4)	0.8	(0.6)	9.1	(2.0)	90.1	(2.1)	0.9	(0.7)	7.4	(2.0)	91.7	(2.1)
	Kosovo	2.2	(0.2)	59.6	(1.2)	38.2	(1.2)	0.9	(0.2)	62.0	(1.5)	37.1	(1.5)	0.0	c	17.6	(1.1)	82.4	(1.1)
	Lebanon	3.9	(1.2)	40.9	(3.4)	55.2	(3.4)	1.3	(0.7)	31.4	(3.6)	67.4	(3.6)	1.5	(0.8)	13.6	(2.5)	84.9	(2.5)
	Lithuania	0.8	(0.1)	62.5	(3.0)	36.7	(3.0)	0.0	c	30.8	(3.0)	69.2	(3.0)	0.1	(0.0)	28.5	(3.0)	71.4	(3.0)
	Macao (China)	3.1	(0.0)	80.3	(0.0)	16.5	(0.0)	0.0	c	56.9	(0.1)	43.1	(0.1)	0.6	(0.0)	45.0	(0.1)	54.5	(0.1)
	Malta	3.6	(0.0)	57.3	(0.1)	39.0	(0.1)	0.0	c	10.5	(0.1)	89.5	(0.1)	0.0	c	7.4	(0.1)	92.6	(0.1)
	Moldova	0.3	(0.3)	31.6	(3.1)	68.1	(3.1)	0.2	(0.1)	41.1	(3.5)	58.7	(3.5)	2.9	(1.0)	15.3	(2.8)	81.8	(2.9)
	Montenegro	0.2	(0.1)	62.4	(0.5)	37.5	(0.5)	0.0	c	55.4	(0.4)	44.6	(0.4)	0.0	c	13.8	(0.4)	86.2	(0.4)
	Peru	26.2	(2.7)	53.7	(3.2)	20.1	(2.3)	2.2	(0.9)	52.1	(3.4)	45.6	(3.3)	9.2	(1.9)	37.7	(3.3)	53.1	(3.2)
	Qatar	0.0	c	38.9	(0.1)	61.1	(0.1)	2.2	(0.0)	10.7	(0.1)	87.1	(0.1)	0.0	c	13.8	(0.1)	86.2	(0.1)
	Romania	1.6	(1.0)	29.2	(3.2)	69.2	(3.2)	0.0	c	16.8	(3.0)	83.2	(3.0)	4.1	(1.5)	21.2	(3.4)	74.7	(3.5)
	Russia	4.1	(1.5)	58.9	(4.5)	37.0	(4.5)	0.0	c	19.7	(2.7)	80.3	(2.7)	0.9	(0.5)	11.4	(2.3)	87.7	(2.3)
	Singapore	0.4	(0.0)	55.9	(1.0)	43.6	(1.0)	1.2	(0.0)	26.6	(0.7)	72.2	(0.7)	0.0	c	19.8	(0.6)	80.2	(0.6)
	Chinese Taipei	2.2	(1.1)	63.9	(3.0)	33.9	(2.9)	0.5	(0.5)	36.7	(3.2)	62.8	(3.2)	0.5	(0.5)	34.6	(3.3)	64.9	(3.3)
	Thailand	0.9	(0.7)	65.3	(4.1)	33.8	(4.2)	0.0	c	36.5	(3.9)	63.5	(3.9)	2.4	(1.4)	27.0	(3.9)	70.6	(4.0)
	Trinidad and Tobago	5.3	(0.1)	45.5	(0.3)	49.1	(0.3)	0.9	(0.0)	31.1	(0.3)	67.9	(0.3)	1.7	(0.1)	23.5	(0.2)	74.8	(0.2)
	Tunisia	30.1	(4.5)	44.1	(4.4)	25.8	(4.2)	15.7	(3.6)	56.2	(4.6)	28.1	(4.2)	1.0	(0.8)	24.0	(3.9)	75.0	(4.0)
	United Arab Emirates	2.7	(1.0)	39.5	(2.6)	57.8	(2.5)	0.0	(0.0)	21.0	(1.9)	79.0	(1.9)	2.9	(0.5)	20.1	(1.3)	77.0	(1.4)
	Uruguay	9.0	(1.9)	44.9	(2.8)	46.1	(2.9)	2.3	(1.1)	41.5	(3.2)	56.2	(3.3)	4.3	(1.4)	26.3	(2.3)	69.5	(2.6)
	Viet Nam	1.6	(1.6)	45.6	(4.0)	52.9	(4.2)	0.0	c	42.4	(3.8)	57.6	(3.8)	0.6	(0.6)	27.6	(3.3)	71.8	(3.4)
	Argentina**	6.3	(1.8)	65.2	(3.8)	28.4	(3.6)	2.3	(1.0)	42.1	(3.9)	55.6	(3.8)	0.2	(0.1)	27.0	(3.3)	72.8	(3.3)
	Kazakhstan**	0.2	(0.2)	22.8	(3.1)	76.9	(3.1)	0.0	c	70.8	(3.3)	29.2	(3.3)	5.5	(1.7)	15.8	(2.5)	78.6	(2.9)
	Malaysia**	0.7	(0.6)	44.4	(3.8)	54.9	(3.8)	0.5	(0.5)	22.6	(3.6)	76.9	(3.6)	0.6	(0.6)	28.3	(4.0)	71.1	(4.1)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/5]

Table II.3.33 Educational leadership

Results based on school principals' self-reports

		Percentage of students in schools whose principal reported that…																	
		I draw teachers' attention to the importance of pupils' development of critical and social capacities						I pay attention to disruptive behaviour in classrooms						I provide staff with opportunities to participate in school decision making					
		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.9	(0.4)	21.0	(1.7)	78.1	(1.7)	2.3	(0.5)	9.5	(1.2)	88.2	(1.3)	0.4	(0.3)	19.3	(1.5)	80.3	(1.5)
	Austria	3.4	(0.9)	46.3	(3.6)	50.3	(3.4)	2.8	(1.0)	30.4	(3.3)	66.8	(3.3)	1.0	(1.0)	35.5	(3.2)	63.5	(3.3)
	Belgium	2.3	(1.1)	48.1	(3.3)	49.6	(3.5)	0.0	c	15.4	(2.2)	84.6	(2.2)	2.9	(1.2)	31.8	(3.5)	65.3	(3.6)
	Canada	1.4	(0.6)	26.2	(2.5)	72.3	(2.7)	0.7	(0.4)	5.0	(1.2)	94.3	(1.3)	0.0	c	14.4	(2.0)	85.6	(2.0)
	Chile	1.1	(0.7)	28.7	(3.9)	70.2	(3.9)	2.0	(1.1)	11.5	(2.6)	86.5	(2.9)	1.9	(1.1)	19.2	(3.4)	78.8	(3.3)
	Czech Republic	1.3	(0.5)	53.8	(3.1)	44.9	(3.0)	2.5	(0.8)	28.9	(2.8)	68.6	(2.8)	0.7	(0.5)	31.9	(2.6)	67.4	(2.7)
	Denmark	5.9	(1.8)	50.4	(3.6)	43.7	(3.7)	1.3	(0.9)	19.0	(2.7)	79.7	(2.8)	0.0	c	16.9	(2.4)	83.1	(2.4)
	Estonia	0.8	(0.6)	48.6	(2.7)	50.7	(2.8)	1.8	(1.0)	27.9	(2.6)	70.2	(2.7)	0.0	c	29.4	(2.8)	70.6	(2.8)
	Finland	2.7	(1.4)	41.9	(3.4)	55.4	(3.6)	0.0	c	29.0	(3.3)	71.0	(3.3)	0.0	c	6.3	(1.9)	93.7	(1.9)
	France	8.0	(1.6)	43.2	(3.6)	48.8	(3.5)	1.3	(0.8)	16.1	(2.5)	82.5	(2.5)	2.7	(1.1)	52.7	(3.9)	44.7	(3.6)
	Germany	0.5	(0.5)	46.7	(3.4)	52.8	(3.5)	0.0	c	19.7	(3.4)	80.3	(3.4)	0.0	c	21.9	(3.1)	78.1	(3.1)
	Greece	0.0	c	46.2	(3.6)	53.8	(3.6)	0.4	(0.5)	21.6	(3.3)	77.9	(3.3)	0.0	c	15.5	(2.3)	84.5	(2.3)
	Hungary	4.4	(1.5)	48.8	(3.4)	46.8	(3.4)	1.6	(0.9)	22.4	(2.7)	76.0	(2.5)	0.6	(0.6)	34.0	(3.3)	65.4	(3.2)
	Iceland	3.2	(0.1)	33.9	(0.3)	63.0	(0.3)	0.0	c	8.6	(0.2)	91.4	(0.2)	0.0	c	12.2	(0.2)	87.8	(0.2)
	Ireland	4.4	(1.8)	51.0	(4.2)	44.5	(4.0)	1.4	(1.0)	10.9	(2.9)	87.7	(3.0)	0.0	c	24.5	(3.5)	75.5	(3.5)
	Israel	0.0	c	40.6	(3.6)	59.4	(3.6)	0.5	(0.5)	7.7	(2.0)	91.8	(2.1)	0.0	c	34.1	(3.8)	65.9	(3.8)
	Italy	0.0	(0.0)	38.2	(3.5)	61.7	(3.5)	1.2	(0.8)	11.9	(2.2)	86.9	(2.3)	1.5	(0.9)	45.2	(3.6)	53.3	(3.6)
	Japan	11.8	(2.2)	75.8	(3.1)	12.4	(2.3)	0.5	(0.5)	27.2	(3.3)	72.3	(3.3)	5.4	(1.6)	24.6	(2.7)	70.0	(2.8)
	Korea	4.3	(1.6)	41.1	(4.1)	54.6	(4.3)	0.6	(0.6)	14.7	(2.8)	84.7	(2.9)	0.5	(0.5)	18.1	(3.2)	81.4	(3.3)
	Latvia	2.2	(0.8)	37.8	(2.8)	60.0	(2.9)	0.7	(0.5)	17.8	(2.1)	81.5	(2.2)	0.0	c	38.9	(2.6)	61.1	(2.6)
	Luxembourg	6.8	(0.1)	46.7	(0.1)	46.5	(0.1)	0.0	c	10.0	(0.1)	90.0	(0.1)	0.0	c	60.6	(0.1)	39.4	(0.1)
	Mexico	1.9	(0.9)	36.1	(3.5)	62.1	(3.5)	0.0	c	12.5	(2.3)	87.5	(2.3)	0.5	(0.5)	27.7	(2.6)	71.9	(2.6)
	Netherlands	2.9	(1.5)	53.4	(4.8)	43.7	(4.9)	0.8	(0.9)	38.6	(4.5)	60.6	(4.5)	2.0	(1.4)	43.2	(4.6)	54.7	(4.5)
	New Zealand	0.7	(0.6)	36.3	(4.4)	62.9	(4.4)	0.4	(0.4)	13.9	(2.4)	85.7	(2.5)	0.5	(0.5)	22.5	(3.5)	76.9	(3.5)
	Norway	3.0	(1.3)	40.8	(3.8)	56.3	(3.9)	1.1	(0.8)	20.3	(3.4)	78.7	(3.5)	0.6	(0.6)	14.2	(2.6)	85.3	(2.7)
	Poland	0.0	c	57.9	(4.0)	42.1	(4.0)	2.6	(1.3)	34.8	(3.5)	62.6	(3.7)	1.3	(0.9)	52.4	(4.1)	46.3	(4.2)
	Portugal	1.4	(1.0)	40.5	(3.8)	58.2	(3.9)	0.0	c	4.2	(1.3)	95.8	(1.3)	0.0	c	19.4	(3.5)	80.6	(3.5)
	Slovak Republic	0.7	(0.7)	34.9	(3.7)	64.5	(3.6)	0.0	c	20.8	(2.6)	79.2	(2.6)	0.1	(0.1)	34.1	(3.0)	65.7	(3.0)
	Slovenia	0.0	c	19.1	(0.5)	80.9	(0.5)	0.0	c	18.1	(0.2)	81.9	(0.2)	0.0	c	20.6	(0.3)	79.4	(0.3)
	Spain	3.8	(1.5)	53.4	(3.5)	42.8	(3.4)	0.5	(0.8)	8.0	(2.0)	91.5	(2.1)	0.6	(0.5)	26.1	(3.1)	73.3	(3.1)
	Sweden	1.9	(1.0)	38.5	(3.5)	59.5	(3.5)	0.6	(0.5)	24.0	(3.0)	75.4	(3.1)	0.5	(0.5)	3.9	(1.3)	95.5	(1.4)
	Switzerland	8.3	(2.4)	53.2	(4.2)	38.5	(4.5)	0.7	(0.7)	35.4	(4.0)	63.9	(4.1)	0.6	(0.6)	44.2	(3.5)	55.2	(3.5)
	Turkey	0.4	(0.4)	20.7	(2.8)	78.9	(2.9)	0.0	c	6.3	(2.3)	93.7	(2.3)	0.0	c	13.9	(3.1)	86.1	(3.1)
	United Kingdom	0.2	(0.1)	22.7	(2.9)	77.2	(2.9)	1.4	(0.7)	6.4	(1.7)	92.2	(1.8)	0.0	c	32.5	(3.4)	67.5	(3.4)
	United States	0.7	(0.5)	11.9	(2.5)	87.4	(2.6)	0.3	(0.3)	3.0	(1.2)	96.7	(1.2)	0.7	(0.5)	6.7	(1.9)	92.6	(2.0)
	OECD average	2.6	(0.2)	41.0	(0.6)	56.4	(0.6)	0.9	(0.1)	17.5	(0.4)	81.7	(0.4)	0.7	(0.1)	27.1	(0.5)	72.2	(0.5)
Partners	**Albania**	0.0	c	22.3	(3.3)	77.7	(3.3)	0.0	c	5.5	(2.1)	94.5	(2.1)	0.4	(0.4)	27.8	(3.7)	71.8	(3.7)
	Algeria	1.1	(0.7)	30.7	(4.2)	68.2	(4.3)	0.6	(0.6)	17.4	(3.2)	82.0	(3.1)	3.0	(1.4)	41.4	(4.2)	55.6	(4.2)
	Brazil	0.3	(0.2)	16.5	(2.0)	83.2	(2.0)	0.1	(0.1)	3.5	(0.9)	96.4	(0.9)	1.3	(0.5)	20.7	(2.4)	78.1	(2.5)
	B-S-J-G (China)	1.1	(0.8)	41.5	(4.4)	57.4	(4.3)	0.6	(0.4)	8.8	(2.1)	90.6	(2.2)	0.4	(0.3)	75.8	(3.3)	23.8	(3.2)
	Bulgaria	0.0	c	27.0	(3.6)	73.0	(3.6)	0.0	c	3.8	(1.5)	96.2	(1.5)	0.0	c	28.4	(3.7)	71.6	(3.7)
	CABA (Argentina)	0.0	c	38.5	(7.5)	61.5	(7.5)	0.0	c	13.7	(5.6)	86.3	(5.6)	6.6	(3.9)	36.8	(7.6)	56.6	(8.0)
	Colombia	1.2	(0.8)	34.0	(3.5)	64.8	(3.4)	0.0	c	21.4	(3.0)	78.6	(3.0)	0.9	(0.9)	21.4	(3.0)	77.7	(3.1)
	Costa Rica	2.7	(1.1)	28.7	(3.6)	68.5	(3.8)	0.4	(0.0)	20.9	(3.0)	78.7	(3.0)	3.2	(1.3)	22.7	(3.3)	74.2	(3.5)
	Croatia	0.0	c	39.7	(3.5)	60.3	(3.5)	0.0	c	19.5	(2.8)	80.5	(2.8)	0.0	c	24.0	(3.3)	76.0	(3.3)
	Cyprus*	0.0	c	33.2	(0.1)	66.8	(0.1)	0.0	c	20.9	(0.1)	79.1	(0.1)	2.0	(0.0)	20.6	(0.1)	77.4	(0.1)
	Dominican Republic	1.0	(1.0)	16.6	(2.9)	82.4	(2.8)	0.7	(0.5)	3.7	(1.4)	95.5	(1.5)	0.7	(0.7)	9.9	(2.4)	89.4	(2.3)
	FYROM	2.0	(0.0)	27.6	(0.2)	70.4	(0.2)	1.8	(0.0)	8.4	(0.1)	89.8	(0.1)	0.0	c	32.2	(0.2)	67.8	(0.2)
	Georgia	0.0	c	17.9	(2.3)	82.1	(2.3)	0.1	(0.1)	3.2	(1.3)	96.7	(1.3)	0.5	(0.5)	19.7	(2.8)	79.8	(2.9)
	Hong Kong (China)	0.0	c	66.9	(4.3)	33.1	(4.3)	2.4	(1.4)	32.7	(4.8)	64.9	(4.9)	0.0	c	36.9	(4.1)	63.1	(4.1)
	Indonesia	1.4	(1.0)	28.4	(3.2)	70.2	(3.2)	1.4	(1.0)	10.0	(2.0)	88.6	(2.2)	1.4	(1.0)	28.3	(3.6)	70.3	(3.7)
	Jordan	0.0	c	11.9	(2.5)	88.1	(2.5)	1.2	(0.7)	6.7	(2.0)	92.2	(2.1)	0.5	(0.5)	16.7	(3.0)	82.8	(3.0)
	Kosovo	0.0	(0.0)	38.6	(1.3)	61.4	(1.3)	0.0	c	6.0	(0.6)	94.0	(0.6)	0.8	(0.0)	40.1	(1.4)	59.1	(1.4)
	Lebanon	0.9	(0.6)	19.9	(2.6)	79.2	(2.5)	0.4	(0.3)	6.5	(1.5)	93.1	(1.5)	6.2	(1.6)	33.1	(3.3)	60.7	(3.3)
	Lithuania	1.6	(0.7)	54.0	(3.1)	44.4	(3.1)	0.7	(0.0)	27.2	(2.4)	72.1	(2.4)	0.0	c	34.7	(3.0)	65.3	(3.0)
	Macao (China)	0.0	c	58.6	(0.1)	41.4	(0.1)	3.5	(0.0)	36.0	(0.1)	60.5	(0.1)	0.0	c	63.9	(0.0)	36.1	(0.0)
	Malta	3.7	(0.0)	17.0	(0.1)	79.3	(0.1)	0.0	c	5.8	(0.1)	94.2	(0.1)	0.0	c	23.5	(0.1)	76.5	(0.1)
	Moldova	0.0	c	12.8	(2.4)	87.2	(2.4)	13.9	(2.6)	7.6	(1.8)	78.6	(2.9)	1.4	(0.8)	21.3	(3.0)	77.3	(3.0)
	Montenegro	0.0	c	33.4	(0.5)	66.6	(0.5)	0.0	c	6.2	(0.4)	93.8	(0.4)	0.0	c	47.7	(0.5)	52.3	(0.5)
	Peru	3.0	(1.1)	43.8	(3.1)	53.2	(3.0)	2.1	(0.9)	19.9	(2.6)	77.9	(2.8)	2.2	(0.9)	38.9	(3.3)	58.9	(3.4)
	Qatar	0.0	c	18.0	(0.1)	82.0	(0.1)	0.4	(0.0)	11.3	(0.1)	88.3	(0.1)	4.7	(0.0)	22.1	(0.1)	73.2	(0.1)
	Romania	0.6	(0.6)	20.7	(3.3)	78.7	(3.4)	9.4	(2.5)	13.5	(2.6)	77.1	(3.6)	3.7	(1.6)	20.3	(3.3)	76.1	(3.7)
	Russia	0.3	(0.5)	37.0	(3.3)	62.7	(3.3)	0.6	(0.5)	15.5	(3.1)	83.9	(3.1)	0.3	(0.5)	39.7	(4.1)	60.0	(4.1)
	Singapore	0.0	c	18.1	(0.6)	81.9	(0.6)	0.0	c	10.0	(0.6)	90.0	(0.6)	0.0	c	33.3	(0.7)	66.7	(0.7)
	Chinese Taipei	2.7	(1.2)	45.7	(3.1)	51.6	(3.1)	0.5	(0.5)	12.6	(2.4)	86.9	(2.5)	0.5	(0.5)	28.6	(2.9)	70.9	(3.0)
	Thailand	0.0	c	32.7	(3.8)	67.3	(3.8)	0.1	(0.1)	18.5	(3.4)	81.3	(3.4)	0.7	(0.7)	19.3	(2.7)	80.0	(2.8)
	Trinidad and Tobago	0.1	(0.0)	20.3	(0.2)	79.5	(0.2)	0.0	c	4.5	(0.1)	95.5	(0.1)	0.0	c	11.0	(0.2)	89.0	(0.2)
	Tunisia	3.7	(1.8)	46.9	(5.0)	49.3	(5.1)	1.6	(1.0)	9.7	(2.8)	88.7	(3.0)	3.0	(1.5)	46.4	(3.9)	50.6	(4.0)
	United Arab Emirates	0.0	c	18.8	(1.6)	81.2	(1.6)	1.6	(0.1)	8.6	(1.5)	89.8	(1.5)	0.7	(0.5)	26.0	(2.1)	73.3	(2.1)
	Uruguay	3.1	(1.2)	25.9	(2.7)	71.0	(2.7)	1.3	(0.8)	10.6	(1.7)	88.1	(1.8)	0.8	(0.6)	18.1	(2.3)	81.1	(2.2)
	Viet Nam	2.1	(1.7)	41.9	(4.3)	55.9	(4.4)	1.1	(0.8)	11.2	(2.4)	87.7	(2.6)	0.2	(0.2)	25.4	(3.5)	74.3	(3.5)
	Argentina**	0.0	c	30.0	(3.3)	70.0	(3.3)	0.0	c	7.6	(1.6)	92.4	(1.6)	0.9	(0.5)	35.1	(3.6)	64.0	(3.6)
	Kazakhstan**	0.0	c	14.8	(2.7)	85.2	(2.7)	4.0	(1.2)	12.7	(2.4)	83.3	(2.8)	0.7	(0.7)	23.7	(2.8)	75.7	(2.9)
	Malaysia**	0.0	c	27.5	(3.8)	72.5	(3.8)	0.0	(0.0)	13.1	(2.8)	86.9	(2.8)	1.3	(0.9)	31.1	(3.8)	67.6	(3.8)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436489

[Part 4/5]

Table II.3.33 Educational leadership

Results based on school principals' self-reports

		Percentage of students in schools whose principal reported that…											
		I engage teachers to help build a school culture of continuous improvement						I ask teachers to participate in reviewing management practices					
		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.3	(0.2)	11.4	(1.4)	88.3	(1.4)	1.9	(0.5)	43.9	(2.1)	54.1	(2.1)
	Austria	0.3	(0.3)	33.4	(3.7)	66.3	(3.7)	15.7	(2.5)	70.1	(2.8)	14.2	(2.4)
	Belgium	2.3	(1.1)	43.2	(3.1)	54.6	(2.9)	28.3	(3.0)	50.5	(3.3)	21.2	(2.5)
	Canada	0.4	(0.4)	14.9	(1.8)	84.7	(1.8)	7.4	(1.6)	46.4	(3.1)	46.2	(3.1)
	Chile	0.0	c	18.1	(3.1)	81.9	(3.1)	13.4	(2.7)	56.3	(4.2)	30.3	(3.9)
	Czech Republic	0.0	c	30.9	(2.8)	69.1	(2.8)	9.3	(1.8)	65.9	(2.9)	24.8	(2.3)
	Denmark	0.0	c	16.2	(2.6)	83.8	(2.6)	6.3	(1.7)	71.8	(3.5)	21.9	(3.3)
	Estonia	0.3	(0.3)	21.5	(2.3)	78.2	(2.3)	0.3	(0.3)	80.0	(2.4)	19.7	(2.4)
	Finland	0.0	c	13.8	(2.9)	86.2	(2.9)	0.9	(0.7)	78.3	(3.5)	20.8	(3.5)
	France	3.1	(1.1)	50.4	(3.5)	46.5	(3.3)	34.2	(2.7)	54.2	(3.0)	11.6	(2.0)
	Germany	0.0	c	23.2	(3.0)	76.8	(3.0)	14.5	(2.4)	68.7	(3.4)	16.8	(2.8)
	Greece	0.2	(0.2)	24.6	(2.9)	75.2	(2.9)	3.9	(1.4)	58.0	(3.8)	38.1	(4.0)
	Hungary	1.9	(1.0)	37.3	(3.0)	60.8	(3.1)	16.9	(2.7)	70.8	(3.6)	12.3	(2.6)
	Iceland	1.5	(0.1)	24.4	(0.2)	74.1	(0.2)	4.5	(0.1)	77.5	(0.2)	17.9	(0.2)
	Ireland	0.0	c	24.4	(3.5)	75.6	(3.5)	9.1	(2.8)	50.6	(3.8)	40.3	(3.7)
	Israel	0.6	(0.6)	27.2	(3.4)	72.2	(3.3)	17.0	(2.9)	55.0	(3.8)	28.0	(3.4)
	Italy	0.2	(0.3)	30.2	(3.0)	69.6	(3.0)	4.0	(1.4)	57.8	(3.9)	38.1	(3.9)
	Japan	4.7	(1.5)	56.5	(3.8)	38.8	(3.7)	10.0	(2.1)	36.5	(3.7)	53.5	(3.8)
	Korea	0.0	c	25.1	(3.6)	74.9	(3.6)	2.4	(1.2)	32.0	(3.5)	65.5	(3.7)
	Latvia	0.0	c	19.5	(2.3)	80.5	(2.3)	3.6	(1.2)	69.5	(2.9)	26.9	(2.6)
	Luxembourg	4.3	(0.1)	55.9	(0.1)	39.8	(0.1)	39.0	(0.1)	44.5	(0.1)	16.5	(0.1)
	Mexico	0.0	c	23.2	(2.3)	76.8	(2.3)	5.6	(1.6)	43.7	(3.2)	50.7	(3.1)
	Netherlands	0.0	c	33.8	(4.7)	66.2	(4.7)	8.0	(2.7)	67.3	(4.0)	24.7	(4.0)
	New Zealand	0.5	(0.5)	17.5	(2.6)	82.0	(2.7)	1.9	(1.2)	58.2	(4.0)	40.0	(3.9)
	Norway	0.0	c	14.8	(3.0)	85.2	(3.0)	0.5	(0.5)	74.9	(3.2)	24.7	(3.2)
	Poland	0.6	(0.6)	49.9	(4.1)	49.5	(4.2)	2.1	(1.2)	69.0	(3.6)	28.8	(3.6)
	Portugal	0.0	c	15.9	(2.4)	84.1	(2.4)	1.1	(0.6)	46.1	(3.5)	52.8	(3.6)
	Slovak Republic	0.7	(0.7)	26.4	(3.2)	73.0	(3.1)	5.6	(1.5)	50.7	(3.0)	43.7	(3.1)
	Slovenia	0.0	c	11.2	(0.2)	88.8	(0.2)	3.0	(0.2)	55.6	(0.5)	41.4	(0.5)
	Spain	1.0	(0.4)	33.0	(4.0)	66.0	(4.0)	6.8	(1.8)	58.8	(3.7)	34.4	(3.6)
	Sweden	0.0	c	11.7	(2.2)	88.3	(2.2)	7.3	(1.8)	61.3	(3.9)	31.4	(3.5)
	Switzerland	1.1	(0.7)	47.2	(4.0)	51.7	(4.0)	20.0	(3.0)	69.4	(3.8)	10.6	(2.5)
	Turkey	0.0	c	15.7	(3.3)	84.3	(3.3)	0.6	(0.5)	25.3	(3.8)	74.1	(3.8)
	United Kingdom	0.0	c	15.3	(2.4)	84.7	(2.4)	2.7	(1.2)	51.4	(3.7)	45.9	(3.7)
	United States	0.3	(0.3)	5.1	(1.7)	94.6	(1.7)	2.3	(1.0)	27.2	(3.6)	70.5	(3.5)
	OECD average	0.7	(0.1)	26.4	(0.5)	72.9	(0.5)	8.9	(0.3)	57.1	(0.6)	34.1	(0.5)
Partners	**Albania**	1.7	(1.0)	17.4	(2.7)	81.0	(2.9)	0.0	c	29.0	(3.4)	71.0	(3.4)
	Algeria	1.4	(1.0)	42.0	(4.2)	56.6	(4.3)	5.4	(2.1)	42.9	(4.0)	51.7	(4.3)
	Brazil	0.4	(0.4)	15.1	(1.5)	84.4	(1.6)	5.7	(1.2)	37.0	(2.3)	57.3	(2.3)
	B-S-J-G (China)	0.5	(0.4)	45.2	(4.2)	54.3	(4.2)	0.0	(0.0)	72.6	(3.9)	27.4	(3.9)
	Bulgaria	0.0	c	22.3	(3.3)	77.7	(3.3)	0.0	c	39.6	(4.1)	60.4	(4.1)
	CABA (Argentina)	0.0	c	30.0	(6.8)	70.0	(6.8)	20.8	(5.3)	45.4	(6.6)	33.8	(7.0)
	Colombia	0.0	c	29.0	(3.4)	71.0	(3.4)	9.3	(2.4)	51.2	(3.6)	39.6	(3.5)
	Costa Rica	1.1	(0.9)	22.3	(3.2)	76.5	(3.4)	9.9	(2.1)	44.4	(3.8)	45.6	(3.9)
	Croatia	0.0	c	23.8	(3.2)	76.2	(3.2)	4.2	(1.5)	61.3	(4.1)	34.5	(3.9)
	Cyprus*	0.0	c	16.6	(0.1)	83.4	(0.1)	5.2	(0.1)	39.2	(0.2)	55.6	(0.2)
	Dominican Republic	0.0	c	7.1	(1.9)	92.9	(1.9)	7.4	(2.2)	30.8	(3.7)	61.8	(3.7)
	FYROM	0.0	c	21.4	(0.2)	78.6	(0.2)	2.6	(0.0)	32.0	(0.2)	65.4	(0.2)
	Georgia	0.1	(0.1)	16.8	(2.4)	83.1	(2.4)	1.7	(0.9)	40.4	(3.3)	57.9	(3.3)
	Hong Kong (China)	0.0	c	39.5	(4.3)	60.5	(4.3)	0.0	c	63.2	(3.9)	36.8	(3.9)
	Indonesia	1.7	(1.1)	16.1	(2.6)	82.2	(2.8)	3.5	(1.6)	42.8	(3.6)	53.7	(3.9)
	Jordan	0.8	(0.6)	21.8	(3.0)	77.5	(3.1)	2.9	(1.1)	30.8	(3.8)	66.3	(3.9)
	Kosovo	0.6	(0.4)	30.6	(1.3)	68.8	(1.3)	1.9	(0.3)	35.4	(1.3)	62.7	(1.3)
	Lebanon	1.2	(0.7)	27.7	(3.1)	71.1	(3.0)	6.8	(1.8)	46.0	(3.4)	47.2	(3.3)
	Lithuania	0.5	(0.4)	36.0	(3.0)	63.5	(3.0)	3.0	(1.0)	74.8	(2.5)	22.2	(2.3)
	Macao (China)	0.0	c	57.1	(0.1)	42.9	(0.1)	2.7	(0.0)	68.3	(0.1)	28.9	(0.1)
	Malta	0.0	c	29.5	(0.1)	70.5	(0.1)	1.5	(0.0)	63.9	(0.1)	34.6	(0.1)
	Moldova	0.6	(0.5)	19.3	(3.0)	80.1	(3.0)	3.3	(1.2)	40.2	(3.6)	56.5	(3.7)
	Montenegro	0.0	c	17.3	(0.5)	82.7	(0.5)	0.8	(0.1)	57.8	(0.3)	41.4	(0.3)
	Peru	2.7	(0.9)	29.7	(2.9)	67.7	(3.1)	9.0	(2.0)	51.4	(3.0)	39.5	(3.2)
	Qatar	0.0	c	28.0	(0.1)	72.0	(0.1)	11.5	(0.1)	40.9	(0.1)	47.6	(0.1)
	Romania	0.0	c	15.3	(3.1)	84.7	(3.1)	5.0	(1.8)	43.7	(3.9)	51.3	(4.1)
	Russia	0.3	(0.3)	34.1	(4.2)	65.5	(4.2)	3.9	(1.5)	53.8	(3.8)	42.3	(4.0)
	Singapore	0.0	c	22.1	(0.6)	77.9	(0.6)	0.0	c	67.0	(1.3)	33.0	(1.3)
	Chinese Taipei	0.5	(0.5)	35.3	(3.0)	64.2	(3.1)	2.9	(1.1)	51.1	(3.7)	46.0	(3.7)
	Thailand	0.0	c	16.6	(3.2)	83.4	(3.2)	1.1	(0.8)	27.8	(3.1)	71.2	(3.1)
	Trinidad and Tobago	0.9	(0.0)	11.7	(0.2)	87.3	(0.2)	5.8	(0.1)	32.7	(0.2)	61.6	(0.3)
	Tunisia	5.0	(1.9)	47.7	(5.0)	47.3	(4.9)	20.0	(3.2)	49.5	(4.6)	30.5	(4.2)
	United Arab Emirates	0.0	c	14.4	(1.6)	85.6	(1.6)	4.1	(0.9)	44.6	(2.6)	51.3	(2.7)
	Uruguay	1.0	(0.7)	12.8	(2.2)	86.2	(2.4)	7.0	(1.8)	33.5	(2.8)	59.5	(3.1)
	Viet Nam	0.6	(0.6)	22.9	(3.4)	76.5	(3.5)	1.4	(0.9)	50.2	(4.1)	48.4	(4.2)
	Argentina**	0.0	c	18.9	(2.8)	81.1	(2.8)	13.0	(2.4)	48.6	(4.1)	38.4	(4.2)
	Kazakhstan**	0.7	(0.5)	19.4	(3.1)	79.9	(3.2)	2.1	(0.9)	38.5	(3.7)	59.4	(3.7)
	Malaysia**	0.5	(0.5)	22.8	(3.6)	76.7	(3.6)	0.0	c	33.8	(3.8)	66.2	(3.8)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 5/5]

Table II.3.33 Educational leadership

Results based on school principals' self-reports

		Percentage of students in schools whose principal reported that…											
		When a teacher brings up a classroom problem, we solve the problem together						I discuss the school's academic goals with teachers at faculty meetings					
		Did not occur		Less than once a month		At least once a month		Did not occur		Less than once a month		At least once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	2.2	(0.6)	17.4	(1.6)	80.4	(1.6)	1.6	(0.5)	31.2	(1.8)	67.2	(1.9)
	Austria	1.7	(0.9)	33.7	(3.1)	64.6	(3.1)	0.8	(0.5)	71.5	(3.0)	27.8	(3.0)
	Belgium	0.0	c	18.3	(2.5)	81.7	(2.5)	3.3	(1.3)	70.7	(3.1)	26.0	(2.8)
	Canada	0.1	(0.1)	10.6	(1.8)	89.4	(1.8)	0.0	(0.0)	18.1	(2.2)	81.9	(2.2)
	Chile	3.3	(1.5)	14.5	(2.9)	82.2	(3.3)	1.3	(1.0)	27.2	(3.9)	71.5	(3.9)
	Czech Republic	0.1	(0.2)	21.5	(2.5)	78.3	(2.5)	0.4	(0.4)	60.9	(3.4)	38.7	(3.4)
	Denmark	0.0	c	20.1	(2.6)	79.9	(2.6)	5.4	(1.7)	53.7	(3.6)	40.9	(3.7)
	Estonia	1.2	(0.7)	24.2	(2.5)	74.6	(2.5)	0.3	(0.3)	57.1	(2.7)	42.7	(2.7)
	Finland	0.0	c	16.6	(2.6)	83.4	(2.6)	0.0	c	44.0	(4.1)	56.0	(4.1)
	France	1.2	(0.8)	26.7	(2.8)	72.0	(2.8)	2.2	(1.0)	62.1	(3.2)	35.6	(3.1)
	Germany	0.2	(0.2)	28.6	(3.7)	71.2	(3.7)	3.2	(1.3)	67.3	(3.6)	29.5	(3.3)
	Greece	0.2	(0.2)	29.2	(3.9)	70.6	(3.9)	0.2	(0.2)	51.5	(3.5)	48.3	(3.5)
	Hungary	0.6	(0.5)	35.1	(3.4)	64.3	(3.4)	1.7	(1.0)	66.6	(3.4)	31.8	(3.4)
	Iceland	0.0	c	12.0	(0.2)	88.0	(0.2)	0.0	c	33.4	(0.2)	66.6	(0.2)
	Ireland	0.0	c	26.7	(3.9)	73.3	(3.9)	3.9	(1.5)	65.0	(4.0)	31.1	(4.2)
	Israel	0.5	(0.5)	13.5	(2.9)	86.0	(2.9)	0.0	c	29.5	(3.6)	70.5	(3.6)
	Italy	0.0	c	18.5	(3.4)	81.5	(3.4)	0.0	(0.0)	67.2	(3.8)	32.8	(3.8)
	Japan	1.9	(1.0)	26.3	(2.9)	71.7	(3.0)	3.5	(1.3)	70.7	(3.5)	25.8	(3.2)
	Korea	0.5	(0.5)	24.6	(3.7)	74.9	(3.7)	4.3	(1.6)	31.8	(3.9)	63.9	(4.2)
	Latvia	0.4	(0.4)	18.8	(2.1)	80.8	(2.2)	0.0	c	61.9	(3.0)	38.1	(3.0)
	Luxembourg	0.0	c	21.4	(0.1)	78.6	(0.1)	1.4	(0.0)	61.6	(0.1)	37.0	(0.1)
	Mexico	0.3	(0.2)	20.9	(2.6)	78.8	(2.6)	0.6	(0.6)	32.2	(2.9)	67.2	(2.8)
	Netherlands	1.0	(1.0)	34.1	(4.1)	64.9	(4.2)	4.9	(2.0)	64.1	(4.3)	30.9	(4.2)
	New Zealand	2.3	(1.3)	29.9	(3.9)	67.8	(4.0)	2.9	(1.3)	38.2	(3.8)	58.9	(3.9)
	Norway	0.0	c	15.7	(2.7)	84.3	(2.7)	0.6	(0.6)	21.4	(3.1)	78.0	(3.1)
	Poland	0.2	(0.1)	24.8	(3.6)	75.0	(3.5)	0.0	c	70.0	(3.7)	30.0	(3.7)
	Portugal	0.5	(0.4)	16.6	(2.7)	82.9	(2.7)	0.7	(0.7)	13.9	(2.4)	85.4	(2.5)
	Slovak Republic	0.0	c	11.7	(2.1)	88.3	(2.1)	0.0	c	27.9	(3.0)	72.1	(3.0)
	Slovenia	0.0	c	31.9	(0.5)	68.1	(0.5)	0.0	c	22.0	(0.5)	78.0	(0.5)
	Spain	1.6	(1.0)	21.7	(2.7)	76.7	(2.8)	0.1	(0.1)	72.1	(3.1)	27.8	(3.1)
	Sweden	0.0	c	20.0	(3.2)	80.0	(3.2)	0.8	(0.6)	24.6	(3.3)	74.6	(3.4)
	Switzerland	0.3	(0.2)	36.4	(3.7)	63.4	(3.8)	6.6	(1.7)	71.2	(4.0)	22.1	(3.9)
	Turkey	0.0	c	11.7	(2.8)	88.3	(2.8)	0.0	c	58.4	(3.5)	41.6	(3.5)
	United Kingdom	1.5	(0.8)	11.9	(1.9)	86.7	(2.0)	0.6	(0.6)	31.0	(2.9)	68.4	(3.0)
	United States	0.3	(0.3)	9.3	(2.4)	90.4	(2.4)	0.9	(0.7)	19.3	(3.2)	79.8	(3.2)
	OECD average	0.6	(0.1)	21.6	(0.5)	77.8	(0.5)	1.5	(0.2)	47.7	(0.5)	50.8	(0.5)
Partners	**Albania**	0.0	c	4.4	(1.4)	95.6	(1.4)	1.3	(0.6)	38.1	(3.9)	60.7	(3.9)
	Algeria	0.6	(0.6)	19.0	(3.3)	80.4	(3.4)	6.5	(2.3)	34.0	(4.1)	59.4	(4.0)
	Brazil	0.0	(0.0)	4.6	(1.2)	95.4	(1.2)	0.2	(0.1)	23.6	(2.4)	76.2	(2.4)
	B-S-J-G (China)	0.0	(0.0)	21.4	(3.5)	78.6	(3.5)	0.5	(0.4)	52.1	(4.4)	47.3	(4.3)
	Bulgaria	0.0	c	17.9	(2.7)	82.1	(2.7)	0.0	c	29.8	(3.7)	70.2	(3.7)
	CABA (Argentina)	2.3	(2.3)	19.0	(4.9)	78.8	(5.4)	0.0	c	70.2	(6.1)	29.8	(6.1)
	Colombia	2.8	(1.2)	24.5	(3.3)	72.7	(3.2)	2.2	(1.0)	43.4	(3.4)	54.4	(3.5)
	Costa Rica	1.2	(0.8)	25.3	(3.6)	73.6	(3.6)	0.5	(0.5)	32.9	(3.8)	66.6	(3.9)
	Croatia	0.0	c	13.5	(2.6)	86.5	(2.6)	0.0	c	25.4	(3.2)	74.6	(3.2)
	Cyprus*	0.0	c	32.0	(0.2)	68.0	(0.2)	0.2	(0.0)	53.1	(0.2)	46.7	(0.2)
	Dominican Republic	0.0	c	9.4	(2.4)	90.6	(2.4)	0.0	c	19.4	(3.6)	80.6	(3.6)
	FYROM	1.0	(0.0)	13.8	(0.1)	85.2	(0.1)	1.1	(0.0)	38.5	(0.2)	60.4	(0.2)
	Georgia	0.3	(0.1)	6.9	(1.8)	92.9	(1.8)	0.2	(0.1)	77.0	(2.8)	22.8	(2.8)
	Hong Kong (China)	0.1	(0.0)	49.0	(4.8)	50.9	(4.8)	0.8	(0.7)	77.1	(4.0)	22.1	(3.9)
	Indonesia	2.4	(1.2)	19.1	(3.0)	78.5	(3.2)	2.1	(1.2)	30.8	(3.4)	67.1	(3.4)
	Jordan	1.1	(0.8)	12.0	(2.3)	86.9	(2.5)	0.5	(0.5)	24.2	(3.0)	75.3	(2.9)
	Kosovo	0.0	c	9.5	(0.9)	90.5	(0.9)	0.5	(0.4)	37.3	(1.4)	62.2	(1.4)
	Lebanon	0.3	(0.2)	15.7	(2.4)	84.0	(2.4)	0.9	(0.7)	35.7	(3.5)	63.3	(3.6)
	Lithuania	0.0	c	31.0	(2.8)	69.0	(2.8)	0.0	c	64.5	(3.2)	35.5	(3.2)
	Macao (China)	0.0	c	29.8	(0.1)	70.2	(0.1)	0.0	c	60.9	(0.1)	39.1	(0.1)
	Malta	0.0	c	5.8	(0.1)	94.2	(0.1)	0.0	c	49.6	(0.1)	50.4	(0.1)
	Moldova	0.4	(0.3)	12.7	(2.3)	86.9	(2.4)	0.3	(0.3)	33.4	(3.9)	66.3	(3.9)
	Montenegro	0.0	c	9.3	(0.4)	90.7	(0.4)	0.0	c	67.2	(0.3)	32.8	(0.3)
	Peru	6.1	(1.6)	27.6	(3.0)	66.2	(3.3)	1.5	(0.6)	41.2	(3.0)	57.3	(3.1)
	Qatar	0.0	c	14.4	(0.1)	85.6	(0.1)	0.0	c	25.7	(0.1)	74.3	(0.1)
	Romania	2.2	(1.2)	17.4	(3.1)	80.4	(3.3)	3.1	(1.4)	25.1	(3.5)	71.9	(3.6)
	Russia	0.0	c	12.1	(2.8)	87.9	(2.8)	0.0	c	56.0	(3.7)	44.0	(3.7)
	Singapore	0.0	c	19.0	(0.9)	81.0	(0.9)	0.8	(0.0)	48.8	(1.1)	50.4	(1.1)
	Chinese Taipei	0.5	(0.5)	22.7	(3.2)	76.8	(3.3)	1.3	(0.8)	57.6	(3.6)	41.1	(3.5)
	Thailand	0.1	(0.1)	17.0	(3.1)	82.9	(3.1)	0.0	c	18.9	(3.1)	81.1	(3.1)
	Trinidad and Tobago	1.0	(0.0)	12.7	(0.2)	86.4	(0.2)	1.7	(0.0)	26.4	(0.3)	72.0	(0.3)
	Tunisia	0.2	(0.2)	23.0	(3.9)	76.8	(3.9)	5.2	(2.0)	77.7	(3.5)	17.1	(3.5)
	United Arab Emirates	0.0	(0.0)	12.8	(1.6)	87.2	(1.6)	0.2	(0.0)	27.0	(2.1)	72.8	(2.1)
	Uruguay	0.1	(0.1)	12.8	(2.0)	87.1	(2.0)	1.3	(0.9)	11.1	(2.0)	87.5	(2.2)
	Viet Nam	0.0	c	12.9	(2.7)	87.1	(2.7)	0.0	c	15.9	(2.9)	84.1	(2.9)
	Argentina**	0.3	(0.2)	17.3	(2.5)	82.4	(2.5)	0.5	(0.5)	61.4	(3.4)	38.0	(3.4)
	Kazakhstan**	1.8	(0.9)	16.1	(2.9)	82.2	(2.9)	0.0	c	36.9	(3.6)	63.1	(3.6)
	Malaysia**	0.6	(0.6)	19.3	(3.5)	80.1	(3.5)	0.0	c	29.7	(3.7)	70.3	(3.7)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/5]

Table II.4.1 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where the principal has considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	87.3	(1.1)	58.0	(1.7)	16.9	(1.2)	17.5	(1.3)	76.3	(1.8)	91.0	(1.2)	79.6	(1.7)	69.9	(1.8)	88.2	(1.2)	19.3	(1.6)	18.2	(1.5)	80.6	(1.5)
	Austria	51.6	(3.4)	27.1	(3.2)	0.8	(0.5)	1.9	(0.8)	14.7	(2.4)	90.7	(2.3)	73.0	(3.4)	49.9	(3.7)	86.0	(2.2)	29.3	(3.0)	29.1	(3.0)	61.1	(3.1)
	Belgium	75.7	(2.5)	66.1	(2.8)	0.8	(0.5)	0.9	(0.5)	61.6	(2.4)	70.7	(2.7)	72.8	(2.7)	69.4	(2.7)	70.6	(3.0)	38.9	(3.2)	20.0	(2.3)	62.1	(2.7)
	Canada	79.3	(1.9)	36.4	(2.7)	3.2	(0.7)	2.7	(0.6)	49.6	(2.7)	91.6	(1.1)	85.2	(1.9)	67.4	(2.3)	86.3	(1.7)	47.4	(2.7)	23.7	(2.3)	91.0	(1.5)
	Chile	66.8	(3.8)	57.2	(3.3)	22.3	(2.7)	22.3	(2.9)	51.5	(3.8)	60.3	(4.0)	69.8	(3.6)	65.9	(3.6)	67.5	(3.8)	26.3	(3.3)	26.9	(3.4)	64.5	(3.4)
	Czech Republic	99.3	(0.4)	99.1	(0.4)	84.1	(2.1)	84.3	(2.1)	91.7	(1.4)	96.9	(0.8)	93.7	(1.1)	89.6	(1.7)	98.1	(0.7)	49.4	(3.1)	66.6	(2.6)	93.7	(1.3)
	Denmark	97.8	(0.9)	96.3	(1.2)	31.2	(2.8)	27.3	(2.9)	83.7	(3.2)	89.3	(1.9)	75.9	(3.2)	71.7	(3.5)	92.3	(2.1)	51.9	(3.6)	43.4	(3.6)	82.1	(2.8)
	Estonia	96.9	(1.0)	97.3	(0.8)	32.4	(2.6)	58.5	(2.6)	89.3	(1.8)	94.0	(1.3)	94.3	(1.3)	89.7	(1.7)	93.4	(1.2)	48.3	(2.9)	92.6	(0.9)	86.1	(2.0)
	Finland	91.1	(2.3)	50.8	(3.6)	18.2	(3.0)	21.0	(3.4)	65.9	(3.8)	96.6	(1.5)	80.1	(3.3)	61.0	(3.6)	84.6	(2.6)	44.0	(4.2)	23.6	(3.6)	79.0	(3.3)
	France	32.3	(2.7)	17.3	(2.8)	1.3	(0.8)	3.8	(1.3)	63.8	(3.3)	74.2	(2.9)	70.4	(3.3)	64.2	(3.1)	56.1	(2.9)	29.7	(2.9)	6.0	(1.5)	34.9	(2.9)
	Germany	62.4	(3.0)	18.0	(2.9)	0.7	(0.5)	4.1	(1.6)	9.1	(2.0)	73.8	(3.0)	81.2	(3.1)	50.6	(3.2)	94.3	(1.4)	27.3	(2.8)	23.4	(2.6)	88.4	(2.5)
	Greece	3.5	(0.9)	2.4	(0.9)	0.4	(0.4)	0.9	(0.7)	18.2	(2.4)	32.1	(3.2)	31.8	(3.7)	11.6	(1.8)	81.0	(3.1)	1.5	(0.8)	1.0	(0.9)	2.7	(1.3)
	Hungary	54.3	(3.3)	49.8	(3.3)	14.6	(2.6)	14.6	(2.6)	22.7	(2.4)	29.2	(2.8)	45.3	(3.2)	45.4	(3.0)	81.9	(2.6)	18.9	(2.4)	21.2	(2.8)	31.0	(3.1)
	Iceland	99.3	(0.1)	97.5	(0.1)	7.9	(0.1)	7.3	(0.2)	86.3	(0.2)	93.9	(0.2)	94.6	(0.2)	91.4	(0.2)	90.5	(0.2)	32.9	(0.3)	28.7	(0.2)	88.2	(0.2)
	Ireland	74.6	(3.2)	31.5	(3.7)	5.4	(1.9)	4.8	(1.8)	50.8	(4.2)	78.8	(3.5)	83.8	(3.1)	86.3	(2.9)	77.5	(3.5)	28.1	(3.7)	19.2	(3.2)	86.0	(2.7)
	Israel	92.4	(2.2)	86.6	(2.5)	15.1	(2.6)	23.7	(3.5)	39.9	(4.0)	83.3	(3.1)	80.2	(3.6)	79.7	(3.7)	82.0	(3.1)	42.6	(4.2)	42.5	(4.6)	88.4	(2.4)
	Italy	10.1	(2.0)	17.5	(2.7)	3.2	(1.1)	2.7	(0.9)	13.4	(2.7)	45.8	(4.1)	29.9	(3.5)	30.6	(3.8)	61.8	(3.7)	8.0	(1.6)	11.1	(2.0)	32.4	(3.5)
	Japan	31.8	(2.7)	29.1	(2.6)	13.4	(2.4)	23.2	(2.9)	42.6	(3.3)	83.2	(2.9)	92.6	(1.9)	90.0	(2.3)	98.8	(0.8)	75.5	(3.2)	82.0	(2.6)	79.8	(2.9)
	Korea	34.4	(3.8)	26.7	(3.6)	7.4	(2.2)	4.3	(1.7)	31.6	(3.5)	60.5	(3.7)	72.4	(3.8)	55.7	(4.0)	90.1	(2.3)	39.2	(4.2)	24.3	(3.5)	63.9	(3.9)
	Latvia	96.8	(0.9)	95.8	(1.1)	48.0	(3.0)	56.8	(3.0)	85.4	(2.0)	82.2	(2.1)	75.1	(2.3)	67.9	(2.2)	75.2	(2.3)	48.0	(3.1)	22.9	(2.3)	68.9	(2.9)
	Luxembourg	67.8	(0.1)	40.7	(0.1)	5.6	(0.1)	3.9	(0.0)	71.2	(0.1)	77.2	(0.1)	69.1	(0.1)	38.1	(0.1)	99.4	(0.0)	1.9	(0.0)	1.9	(0.0)	57.0	(0.1)
	Mexico	18.4	(2.0)	15.5	(2.2)	6.7	(1.4)	6.6	(1.3)	30.4	(2.9)	43.3	(3.0)	37.7	(3.2)	19.0	(2.5)	38.4	(3.3)	8.3	(1.5)	4.4	(1.2)	6.3	(1.4)
	Netherlands	92.9	(2.6)	90.3	(2.8)	48.9	(4.7)	63.1	(4.2)	80.6	(4.0)	82.1	(3.6)	91.5	(2.7)	83.6	(3.7)	91.0	(2.8)	48.6	(5.1)	20.8	(4.2)	90.9	(2.8)
	New Zealand	96.8	(1.1)	68.1	(3.3)	20.9	(3.5)	35.9	(4.1)	90.7	(1.6)	92.4	(1.7)	87.9	(2.2)	80.3	(3.4)	87.3	(2.5)	11.3	(2.6)	21.7	(3.1)	82.9	(3.1)
	Norway	96.2	(1.5)	76.6	(2.7)	13.8	(2.6)	20.8	(2.8)	74.6	(2.9)	94.9	(1.6)	72.2	(3.1)	67.6	(2.9)	61.8	(3.7)	71.6	(3.6)	37.9	(3.7)	80.3	(2.7)
	Poland	98.1	(1.1)	96.4	(1.5)	26.5	(3.3)	19.9	(3.0)	55.0	(3.8)	79.4	(2.9)	57.8	(4.0)	57.9	(4.3)	94.2	(1.7)	52.3	(3.9)	49.6	(3.8)	63.1	(3.6)
	Portugal	39.9	(3.6)	8.1	(2.3)	1.3	(1.0)	1.3	(1.0)	48.4	(3.7)	55.2	(3.8)	55.0	(3.5)	35.7	(4.0)	54.7	(4.1)	5.4	(1.7)	12.1	(2.5)	40.1	(3.9)
	Slovak Republic	98.0	(0.9)	99.0	(0.5)	52.0	(3.0)	57.5	(3.2)	75.5	(2.8)	89.0	(2.1)	79.0	(2.8)	58.6	(3.4)	98.0	(0.9)	32.5	(2.9)	30.4	(2.8)	76.8	(2.8)
	Slovenia	97.5	(0.1)	90.6	(0.5)	17.8	(0.4)	31.3	(0.3)	57.3	(0.6)	78.5	(0.3)	77.5	(0.4)	65.4	(0.4)	64.0	(0.6)	26.4	(0.4)	17.7	(0.3)	59.3	(0.5)
	Spain	34.3	(1.7)	33.1	(1.7)	4.4	(1.3)	5.5	(1.4)	63.2	(3.2)	71.1	(2.5)	62.4	(2.9)	44.6	(3.0)	29.3	(2.8)	20.6	(2.7)	15.7	(2.4)	50.8	(3.0)
	Sweden	100.0	c	86.2	(2.7)	76.9	(2.7)	90.2	(2.1)	80.2	(2.8)	96.0	(1.7)	95.0	(1.3)	83.3	(3.0)	64.0	(3.6)	32.1	(3.7)	19.8	(2.8)	42.7	(3.8)
	Switzerland	89.6	(2.8)	72.2	(3.7)	11.9	(2.0)	14.0	(2.3)	43.8	(3.9)	80.6	(3.6)	76.2	(3.7)	54.1	(3.7)	64.5	(3.7)	30.9	(3.3)	29.1	(3.5)	49.1	(3.7)
	Turkey	4.9	(2.2)	4.0	(2.1)	0.9	(0.8)	1.2	(0.8)	16.0	(2.9)	18.8	(3.3)	5.1	(2.1)	4.7	(2.1)	15.1	(2.9)	6.3	(2.2)	2.2	(1.3)	8.5	(2.6)
	United Kingdom	95.0	(1.5)	85.1	(2.2)	79.0	(2.4)	76.6	(2.6)	81.2	(2.6)	95.2	(1.5)	92.6	(1.8)	87.8	(2.1)	70.4	(3.6)	14.2	(2.6)	19.0	(2.9)	80.8	(2.7)
	United States	93.0	(1.9)	82.1	(3.0)	9.8	(2.3)	9.2	(2.3)	54.0	(3.5)	85.8	(2.8)	82.1	(3.0)	61.8	(3.6)	59.2	(3.6)	46.2	(3.6)	39.5	(3.3)	81.9	(2.9)
	OECD average	70.3	(0.4)	57.4	(0.4)	20.1	(0.4)	23.4	(0.4)	56.3	(0.5)	75.9	(0.4)	72.1	(0.5)	61.4	(0.5)	75.6	(0.4)	31.9	(0.5)	27.1	(0.5)	63.9	(0.5)
Partners	Albania	60.8	(3.5)	55.6	(3.6)	6.7	(0.9)	7.2	(1.0)	28.1	(2.7)	35.8	(3.2)	31.6	(3.4)	19.1	(3.5)	67.6	(3.9)	4.9	(1.8)	15.5	(2.4)	35.2	(4.1)
	Algeria	14.4	(3.1)	15.6	(3.0)	0.6	(0.6)	2.5	(1.2)	68.3	(4.0)	87.7	(2.9)	74.4	(3.8)	14.5	(2.7)	79.0	(3.4)	5.0	(1.6)	0.5	(0.5)	3.9	(1.3)
	Brazil	26.6	(2.5)	23.8	(2.0)	9.4	(1.5)	7.9	(1.5)	18.9	(2.0)	19.0	(1.9)	41.4	(2.9)	34.1	(2.3)	43.9	(2.6)	12.9	(1.6)	15.3	(2.1)	28.2	(2.5)
	B-S-J-G (China)	34.5	(3.6)	21.6	(3.1)	4.5	(1.5)	6.6	(1.7)	34.3	(4.1)	42.3	(4.0)	46.7	(4.0)	45.1	(3.9)	27.9	(3.7)	10.9	(2.3)	14.0	(2.5)	25.3	(3.4)
	Bulgaria	96.7	(1.5)	97.5	(1.2)	79.3	(3.0)	88.0	(2.4)	56.4	(3.8)	92.9	(1.9)	33.6	(3.6)	25.8	(3.5)	76.4	(3.5)	11.9	(2.7)	6.8	(2.0)	15.1	(2.9)
	CABA (Argentina)	53.5	(5.3)	40.1	(6.3)	2.1	(2.1)	0.0	c	22.8	(6.2)	41.2	(7.4)	60.6	(6.1)	39.4	(7.0)	68.4	(6.0)	11.2	(3.2)	30.3	(5.5)	37.1	(5.7)
	Colombia	24.2	(1.7)	22.0	(1.7)	17.4	(1.9)	16.6	(2.1)	32.5	(3.3)	39.7	(3.5)	27.2	(3.0)	27.1	(2.8)	53.2	(3.6)	20.5	(2.7)	26.5	(3.1)	52.8	(3.6)
	Costa Rica	18.9	(2.6)	14.9	(2.5)	6.7	(1.8)	4.8	(1.5)	54.5	(3.7)	64.3	(3.3)	80.7	(2.8)	51.5	(3.1)	89.4	(2.3)	16.9	(2.7)	7.6	(2.0)	20.2	(2.7)
	Croatia	88.2	(2.5)	76.3	(3.2)	0.0	c	1.4	(1.0)	63.6	(3.9)	76.0	(3.5)	54.0	(4.2)	35.2	(3.4)	50.7	(3.6)	8.0	(2.2)	4.6	(1.5)	20.8	(3.2)
	Cyprus*	14.2	(0.1)	14.0	(0.1)	6.7	(0.1)	6.9	(0.1)	37.0	(0.1)	52.2	(0.2)	37.8	(0.2)	31.2	(0.1)	28.8	(0.1)	7.3	(0.1)	7.5	(0.1)	16.5	(0.1)
	Dominican Republic	25.2	(2.7)	23.8	(2.3)	16.1	(1.6)	15.6	(1.7)	31.5	(3.4)	31.0	(3.5)	42.9	(3.9)	29.9	(3.8)	66.1	(3.6)	14.5	(2.5)	6.8	(2.1)	8.2	(2.0)
	FYROM	79.1	(0.1)	74.8	(0.1)	35.9	(0.2)	32.3	(0.1)	65.8	(0.2)	60.7	(0.1)	59.6	(0.2)	44.2	(0.2)	56.9	(0.1)	35.0	(0.1)	31.0	(0.2)	40.8	(0.2)
	Georgia	98.7	(0.8)	90.9	(2.0)	19.6	(1.9)	20.2	(2.4)	87.5	(2.2)	74.4	(3.0)	72.6	(2.9)	30.4	(3.4)	90.0	(2.3)	11.5	(2.2)	22.4	(3.2)	43.3	(3.6)
	Hong Kong (China)	85.6	(3.2)	74.6	(3.4)	50.3	(3.9)	38.7	(4.3)	85.6	(3.2)	87.7	(2.8)	72.7	(4.0)	75.3	(3.5)	81.1	(3.3)	28.2	(3.6)	30.8	(4.1)	80.4	(3.4)
	Indonesia	43.5	(3.6)	36.3	(3.4)	31.8	(3.4)	35.2	(3.7)	86.5	(2.1)	84.8	(2.4)	90.3	(2.0)	77.5	(2.8)	83.4	(2.7)	62.5	(3.6)	34.9	(3.3)	63.9	(3.9)
	Jordan	9.9	(1.5)	9.4	(1.6)	4.7	(1.2)	5.4	(1.5)	39.2	(3.8)	38.0	(3.6)	15.3	(1.9)	15.8	(2.3)	57.9	(3.9)	8.0	(1.5)	5.9	(1.6)	8.5	(1.8)
	Kosovo	35.3	(1.4)	20.7	(1.3)	2.7	(0.7)	2.5	(0.6)	37.1	(1.3)	42.1	(1.3)	50.3	(1.3)	27.7	(1.2)	49.7	(1.3)	6.2	(0.6)	12.2	(1.0)	17.2	(1.2)
	Lebanon	53.3	(3.0)	49.4	(3.3)	36.9	(2.4)	34.1	(2.3)	66.8	(3.4)	68.1	(3.6)	64.7	(3.2)	54.3	(3.2)	70.8	(3.0)	30.6	(2.8)	22.9	(2.3)	37.7	(3.5)
	Lithuania	97.0	(0.9)	99.5	(0.0)	67.4	(2.6)	65.5	(2.5)	73.0	(2.6)	79.9	(2.2)	57.4	(2.8)	46.7	(3.1)	95.2	(1.0)	30.3	(2.7)	19.3	(2.1)	47.7	(3.2)
	Macao (China)	90.8	(0.0)	90.0	(0.0)	90.2	(0.0)	87.8	(0.0)	90.2	(0.0)	88.6	(0.0)	83.8	(0.0)	86.5	(0.0)	85.2	(0.0)	68.1	(0.1)	52.1	(0.1)	90.3	(0.0)
	Malta	41.8	(0.1)	32.5	(0.1)	7.1	(0.0)	20.1	(0.1)	55.0	(0.1)	77.5	(0.1)	90.2	(0.1)	76.6	(0.1)	40.3	(0.1)	39.4	(0.1)	32.5	(0.1)	38.6	(0.1)
	Moldova	83.8	(2.3)	80.3	(2.6)	21.4	(3.0)	16.2	(2.6)	34.8	(3.6)	46.6	(3.7)	35.4	(3.4)	19.3	(2.6)	64.2	(3.0)	4.9	(1.5)	7.4	(1.8)	26.2	(3.3)
	Montenegro	99.4	(0.0)	95.3	(0.2)	2.1	(0.0)	30.5	(0.4)	24.9	(0.4)	50.9	(0.3)	29.0	(0.2)	25.3	(0.2)	23.3	(0.3)	1.2	(0.1)	4.3	(0.1)	26.2	(0.3)
	Peru	48.1	(2.6)	34.5	(2.6)	21.2	(1.5)	21.1	(1.5)	64.2	(3.1)	70.7	(3.1)	74.7	(2.9)	66.2	(3.0)	85.9	(2.2)	31.0	(3.0)	42.7	(3.1)	48.9	(3.4)
	Qatar	84.3	(0.1)	83.9	(0.1)	15.3	(0.1)	19.9	(0.1)	34.1	(0.1)	61.5	(0.1)	68.3	(0.1)	43.7	(0.1)	61.8	(0.1)	29.8	(0.1)	29.7	(0.1)	55.4	(0.1)
	Romania	20.6	(3.5)	18.3	(3.1)	9.1	(2.2)	4.4	(1.6)	28.3	(3.7)	37.1	(4.3)	44.0	(3.6)	39.6	(3.9)	19.7	(3.2)	23.3	(3.2)	13.4	(2.3)	33.6	(3.9)
	Russia	99.0	(1.0)	96.1	(1.6)	49.0	(4.4)	40.2	(3.4)	34.3	(3.5)	64.2	(3.2)	44.9	(4.0)	39.7	(4.1)	95.6	(1.6)	27.2	(3.2)	37.5	(3.7)	50.6	(4.1)
	Singapore	47.9	(0.8)	41.0	(1.0)	9.5	(0.8)	18.4	(0.8)	67.8	(0.8)	81.7	(0.5)	74.8	(0.8)	75.0	(0.8)	81.1	(0.8)	23.8	(0.2)	28.7	(0.2)	68.7	(0.5)
	Chinese Taipei	52.6	(3.5)	47.7	(3.4)	18.3	(2.5)	19.9	(2.8)	48.4	(3.6)	65.2	(3.8)	35.2	(3.4)	26.4	(3.2)	29.6	(3.4)	10.8	(2.4)	10.9	(2.3)	18.9	(2.9)
	Thailand	72.7	(3.8)	79.4	(3.3)	51.2	(4.0)	73.2	(3.3)	67.4	(3.2)	76.4	(3.1)	69.1	(3.3)	69.0	(3.4)	77.8	(2.8)	49.1	(4.0)	39.7	(3.9)	57.4	(3.7)
	Trinidad and Tobago	25.2	(0.1)	7.1	(0.1)	2.8	(0.0)	3.8	(0.1)	74.2	(0.3)	85.4	(0.2)	84.3	(0.2)	79.3	(0.3)	57.6	(0.3)	49.4	(0.2)	34.0	(0.2)	81.7	(0.3)
	Tunisia	5.6	(1.9)	9.0	(2.5)	1.8	(0.8)	1.3	(0.6)	36.9	(4.0)	75.3	(4.1)	60.7	(4.3)	9.6	(2.5)	71.7	(3.8)	3.3	(1.2)	0.5	(0.5)	1.1	(0.8)
	United Arab Emirates	52.7	(2.0)	52.5	(1.9)	27.7	(1.8)	31.4	(1.9)	43.5	(2.7)	51.4	(2.7)	55.0	(2.2)	51.1	(2.2)	64.8	(2.5)	35.7	(1.9)	33.8	(1.7)	41.2	(1.5)
	Uruguay	17.2	(1.9)	9.7	(1.5)	2.5	(1.1)	3.0	(1.2)	9.5	(1.8)	43.7	(3.1)	57.4	(3.3)	38.6	(2.9)	55.6	(2.8)	12.3	(1.9)	8.1	(1.6)	33.2	(2.6)
	Viet Nam	27.3	(3.6)	17.2	(3.5)	4.6	(1.4)	33.9	(3.6)	40.3	(3.9)	31.7	(3.4)	49.3	(3.9)	18.0	(3.7)	39.9	(4.0)	11.8	(3.0)	17.4	(3.6)	23.8	(3.3)
	Argentina**	34.6	(3.0)	16.6	(2.3)	1.0	(0.6)	0.3	(0.3)	15.6	(2.7)	34.7	(3.6)	53.5	(3.4)	46.3	(3.8)	63.2	(3.4)	10.6	(2.2)	14.0	(2.5)	13.0	(2.3)
	Kazakhstan**	92.4	(1.9)	88.7	(2.6)	21.0	(2.9)	9.2	(2.0)	20.8	(2.9)	20.2	(2.8)	28.0	(3.6)	12.9	(2.7)	87.3	(2.5)	8.8	(2.3)	11.5	(2.6)	20.7	(3.2)
	Malaysia**	18.8	(2.9)	14.4	(2.4)	4.6	(1.2)	13.1	(2.2)	72.8	(3.6)	66.4	(3.8)	57.9	(3.7)	35.0	(3.6)	28.1	(3.3)	16.5	(2.7)	12.6	(2.2)	69.8	(3.6)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436498

[Part 2/5]

Table II.4.1 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where teachers have considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	17.1	(1.5)	0.8	(0.4)	0.5	(0.3)	0.9	(0.4)	14.6	(1.6)	22.4	(2.0)	62.0	(1.9)	69.6	(1.7)	11.7	(1.4)	90.9	(1.3)	72.2	(1.9)	62.7	(1.7)
	Austria	3.2	(1.1)	2.4	(1.0)	0.1	(0.0)	0.0	(0.0)	2.7	(1.2)	27.7	(2.9)	54.3	(3.1)	69.4	(3.5)	14.4	(2.3)	90.3	(2.4)	67.0	(3.5)	35.8	(3.2)
	Belgium	5.4	(1.5)	1.2	(0.7)	0.0	c	0.0	c	9.0	(1.7)	9.9	(1.8)	55.2	(3.3)	66.9	(3.0)	25.7	(2.6)	91.0	(1.8)	66.6	(2.9)	43.2	(3.2)
	Canada	4.8	(0.9)	0.2	(0.2)	0.8	(0.4)	1.8	(0.7)	5.7	(1.3)	18.6	(2.0)	52.8	(2.8)	54.6	(2.7)	1.9	(0.4)	78.3	(2.2)	55.5	(2.6)	53.6	(2.6)
	Chile	4.9	(1.9)	1.0	(0.9)	0.1	(0.1)	0.1	(0.1)	3.6	(1.3)	9.9	(2.3)	62.6	(4.0)	64.3	(4.0)	20.5	(3.2)	77.1	(3.5)	52.6	(3.7)	21.7	(3.3)
	Czech Republic	1.7	(0.6)	0.9	(0.5)	0.0	c	0.1	(0.1)	2.8	(1.1)	7.7	(1.9)	59.6	(2.9)	66.9	(3.0)	11.5	(1.7)	93.0	(1.5)	90.2	(1.9)	61.2	(3.0)
	Denmark	22.7	(3.0)	0.0	c	0.1	(0.1)	1.2	(0.8)	8.5	(2.2)	30.7	(3.6)	63.7	(3.3)	55.6	(3.3)	13.6	(2.3)	93.4	(1.8)	89.2	(2.2)	46.0	(3.8)
	Estonia	5.6	(1.2)	3.5	(0.8)	4.0	(0.9)	6.0	(1.3)	19.5	(2.1)	23.9	(2.3)	73.0	(2.7)	84.2	(2.0)	17.2	(2.1)	94.1	(1.4)	66.2	(2.8)	80.9	(2.1)
	Finland	2.4	(0.9)	0.0	c	0.0	c	0.6	(0.6)	5.3	(1.8)	17.9	(3.1)	68.9	(3.6)	82.0	(3.1)	2.0	(1.1)	96.2	(1.6)	78.1	(3.8)	64.7	(4.2)
	France	3.4	(1.2)	0.0	c	0.0	c	0.0	c	2.4	(1.0)	8.8	(2.0)	54.8	(3.3)	69.5	(3.0)	2.5	(1.0)	87.8	(2.2)	72.9	(3.2)	60.4	(3.1)
	Germany	11.2	(2.5)	1.1	(0.8)	0.0	c	0.0	c	1.6	(1.0)	41.0	(3.2)	80.4	(2.5)	84.0	(2.3)	8.4	(2.0)	84.6	(2.4)	65.0	(3.0)	47.8	(3.5)
	Greece	0.0	c	0.0	c	0.0	c	0.0	c	7.8	(2.0)	11.9	(2.5)	89.9	(2.5)	39.5	(3.2)	11.8	(2.5)	5.5	(1.7)	1.4	(1.0)	6.2	(1.6)
	Hungary	1.1	(0.8)	0.6	(0.6)	0.0	c	0.0	c	0.1	(0.1)	0.9	(0.6)	76.6	(2.7)	74.6	(2.9)	4.4	(1.4)	85.2	(2.3)	66.0	(3.6)	43.7	(3.7)
	Iceland	0.0	c	0.0	c	6.1	(0.1)	6.1	(0.1)	0.2	(0.0)	8.0	(0.2)	88.8	(0.2)	92.6	(0.2)	3.9	(0.1)	99.3	(0.1)	91.9	(0.2)	57.6	(0.3)
	Ireland	3.4	(1.5)	0.0	c	0.0	c	0.0	c	2.1	(1.1)	6.7	(2.0)	77.7	(3.1)	80.1	(2.9)	5.9	(2.0)	98.6	(1.0)	74.3	(3.8)	55.9	(4.1)
	Israel	7.7	(2.3)	2.8	(1.3)	0.0	c	0.0	c	0.5	(0.5)	10.5	(2.3)	67.4	(4.1)	73.8	(3.8)	16.3	(3.3)	85.3	(3.3)	85.8	(3.3)	35.9	(4.0)
	Italy	0.8	(0.8)	0.8	(0.8)	0.0	(0.0)	0.0	(0.0)	0.4	(0.4)	6.9	(2.0)	35.5	(3.7)	88.9	(2.3)	41.5	(4.0)	91.0	(2.0)	76.8	(3.3)	59.1	(3.6)
	Japan	4.6	(1.6)	0.8	(0.8)	0.8	(0.8)	0.8	(0.8)	4.9	(1.6)	9.4	(2.1)	36.3	(3.8)	36.3	(3.2)	9.6	(2.1)	46.0	(3.6)	43.0	(3.4)	39.8	(3.1)
	Korea	6.9	(2.1)	3.6	(1.5)	0.6	(0.6)	0.0	c	12.1	(2.6)	46.8	(3.6)	53.5	(3.7)	71.0	(3.7)	10.8	(2.5)	72.3	(3.8)	90.4	(2.4)	61.0	(4.2)
	Latvia	7.5	(1.6)	5.8	(1.2)	2.1	(0.9)	7.4	(1.8)	29.0	(3.0)	22.8	(2.6)	77.7	(2.4)	81.9	(2.3)	21.5	(2.5)	94.1	(1.2)	60.7	(2.9)	48.8	(3.0)
	Luxembourg	6.8	(0.1)	0.3	(0.0)	0.0	c	0.0	c	9.4	(0.1)	12.4	(0.1)	46.9	(0.1)	36.1	(0.1)	12.4	(0.1)	84.8	(0.0)	79.1	(0.1)	56.3	(0.1)
	Mexico	1.9	(0.9)	0.0	c	0.4	(0.4)	0.3	(0.3)	2.1	(0.8)	3.9	(1.2)	18.9	(1.9)	40.4	(3.1)	8.9	(1.7)	51.7	(2.8)	13.1	(2.2)	1.9	(0.9)
	Netherlands	46.1	(4.5)	1.7	(1.1)	0.0	c	0.0	c	3.2	(1.5)	5.5	(2.0)	36.0	(4.0)	57.5	(4.3)	23.1	(3.6)	86.2	(3.0)	88.7	(2.7)	39.3	(4.0)
	New Zealand	19.2	(2.7)	0.7	(0.6)	0.4	(0.4)	1.9	(1.0)	17.3	(2.5)	18.2	(3.2)	47.0	(4.1)	62.3	(4.1)	15.3	(3.5)	94.1	(1.2)	95.0	(1.0)	72.0	(3.7)
	Norway	2.8	(1.1)	0.5	(0.5)	0.5	(0.4)	0.9	(0.5)	3.2	(1.3)	10.0	(2.2)	59.0	(3.5)	62.2	(3.3)	1.1	(0.8)	87.3	(2.5)	78.2	(3.1)	37.0	(3.2)
	Poland	0.0	c	0.7	(0.7)	0.0	c	0.0	c	8.2	(2.3)	12.9	(2.8)	91.1	(2.4)	94.9	(1.8)	18.5	(3.1)	95.7	(1.6)	94.4	(1.8)	33.2	(3.7)
	Portugal	2.2	(1.0)	0.0	c	0.0	c	0.0	c	2.2	(1.1)	4.7	(1.6)	36.3	(3.8)	51.5	(3.5)	5.7	(1.7)	95.7	(1.3)	43.6	(3.9)	31.6	(3.6)
	Slovak Republic	18.5	(2.6)	9.0	(2.0)	0.7	(0.7)	2.4	(1.1)	3.6	(1.4)	13.2	(2.3)	71.8	(3.0)	88.1	(2.3)	9.8	(2.0)	95.0	(1.5)	87.9	(2.3)	74.2	(2.9)
	Slovenia	14.0	(0.3)	0.9	(0.0)	0.0	c	0.7	(0.0)	0.9	(0.0)	9.6	(0.3)	88.6	(0.1)	83.4	(0.4)	17.1	(0.3)	91.8	(0.1)	69.7	(0.6)	49.1	(0.4)
	Spain	0.5	(0.5)	0.0	c	0.0	c	0.0	c	4.7	(1.6)	6.5	(1.9)	51.4	(3.2)	57.2	(3.6)	1.1	(0.8)	91.6	(2.1)	53.7	(3.8)	28.6	(3.4)
	Sweden	33.4	(3.3)	2.2	(1.0)	0.6	(0.4)	2.7	(0.8)	3.4	(1.3)	21.9	(2.7)	72.6	(3.3)	77.2	(3.1)	7.5	(1.9)	97.3	(1.1)	79.0	(3.2)	52.2	(3.8)
	Switzerland	6.6	(1.9)	1.5	(1.0)	0.8	(0.7)	0.8	(0.7)	6.3	(1.7)	13.4	(2.3)	61.6	(4.4)	63.0	(3.5)	7.7	(2.0)	64.0	(3.4)	57.0	(4.0)	32.3	(3.4)
	Turkey	0.7	(0.7)	0.0	c	0.0	c	0.4	(0.3)	4.0	(1.4)	5.7	(1.6)	4.7	(2.0)	8.4	(2.3)	2.3	(1.8)	11.5	(2.6)	8.9	(2.5)	12.0	(2.5)
	United Kingdom	34.6	(3.6)	1.0	(0.9)	0.0	(0.0)	6.4	(2.1)	4.2	(1.8)	12.0	(2.2)	59.8	(3.6)	69.8	(3.2)	14.6	(2.7)	95.8	(1.4)	92.5	(1.9)	80.5	(2.7)
	United States	42.4	(3.7)	0.7	(0.6)	6.3	(1.7)	8.3	(2.0)	15.2	(3.3)	25.2	(3.6)	50.2	(3.7)	51.1	(3.4)	5.3	(2.0)	67.6	(3.4)	64.5	(3.7)	61.1	(3.4)
	OECD average	9.8	(0.3)	1.3	(0.1)	0.7	(0.1)	1.4	(0.1)	6.3	(0.3)	14.8	(0.4)	59.6	(0.5)	66.0	(0.5)	11.6	(0.4)	81.8	(0.4)	67.8	(0.5)	47.1	(0.5)
Partners	**Albania**	15.6	(2.2)	6.6	(1.7)	0.0	c	0.0	c	11.6	(2.1)	14.4	(2.3)	25.5	(3.4)	36.2	(3.7)	12.9	(2.2)	89.1	(2.8)	43.0	(3.8)	27.9	(3.2)
	Algeria	0.0	c	0.0	c	0.0	c	0.0	c	5.9	(2.2)	9.9	(2.7)	7.7	(2.2)	18.9	(2.9)	3.6	(1.5)	22.7	(3.4)	15.7	(3.3)	22.2	(3.6)
	Brazil	0.9	(0.5)	0.0	c	0.1	(0.1)	0.1	(0.1)	2.5	(0.8)	6.3	(1.3)	33.8	(2.7)	42.2	(2.6)	16.2	(2.1)	88.9	(1.5)	44.4	(2.3)	15.6	(2.0)
	B-S-J-G (China)	12.3	(3.1)	3.8	(1.5)	1.7	(0.9)	2.5	(1.2)	7.5	(2.1)	12.7	(2.4)	36.6	(3.9)	44.6	(3.8)	5.6	(1.7)	14.2	(2.7)	23.3	(3.5)	18.0	(3.5)
	Bulgaria	22.0	(3.4)	8.3	(1.7)	7.2	(2.0)	7.9	(2.0)	2.7	(1.5)	10.6	(2.5)	27.1	(3.5)	46.3	(3.7)	24.7	(3.3)	82.1	(3.3)	26.7	(3.6)	10.1	(2.4)
	CABA (Argentina)	2.5	(2.2)	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	26.2	(5.6)	71.0	(6.8)	11.0	(4.8)	94.0	(3.1)	65.0	(6.4)	13.0	(4.0)
	Colombia	0.2	(0.1)	0.8	(0.6)	0.8	(0.7)	0.6	(0.4)	1.5	(1.0)	3.6	(1.3)	19.7	(2.7)	32.3	(3.4)	11.5	(2.3)	72.7	(2.9)	64.7	(3.2)	19.8	(2.7)
	Costa Rica	0.6	(0.4)	0.0	c	0.0	c	0.0	c	17.7	(2.7)	20.9	(3.1)	72.0	(3.4)	55.8	(3.5)	18.8	(2.8)	86.2	(2.9)	25.8	(3.1)	3.1	(1.3)
	Croatia	8.0	(1.9)	4.5	(1.8)	0.0	c	0.6	(0.6)	7.1	(1.5)	18.2	(3.2)	59.7	(4.4)	62.4	(3.8)	25.9	(3.2)	97.5	(1.2)	62.6	(4.0)	23.2	(3.3)
	Cyprus*	2.7	(0.0)	0.8	(0.0)	0.0	c	0.0	c	7.3	(0.1)	10.3	(0.1)	57.3	(0.2)	44.5	(0.2)	4.9	(0.1)	14.3	(0.1)	11.3	(0.1)	9.5	(0.1)
	Dominican Republic	0.0	c	0.1	(0.1)	0.0	c	0.2	(0.2)	11.2	(2.6)	9.0	(2.3)	34.1	(3.9)	38.5	(3.8)	15.6	(3.0)	25.1	(3.5)	19.2	(3.1)	3.9	(1.7)
	FYROM	30.8	(0.1)	30.3	(0.1)	29.0	(0.1)	28.5	(0.1)	38.8	(0.1)	38.2	(0.1)	71.8	(0.1)	79.4	(0.1)	54.5	(0.1)	69.4	(0.1)	48.1	(0.2)	43.1	(0.2)
	Georgia	12.8	(2.3)	2.5	(1.1)	0.0	(0.0)	1.2	(0.8)	13.9	(2.6)	9.1	(1.9)	45.0	(3.4)	62.1	(3.1)	12.5	(2.4)	95.2	(1.0)	44.4	(3.3)	41.5	(3.3)
	Hong Kong (China)	70.8	(3.9)	33.6	(4.1)	3.6	(1.7)	2.4	(1.4)	55.2	(4.3)	43.2	(4.1)	88.2	(2.8)	88.2	(2.8)	57.8	(3.8)	90.2	(2.6)	90.1	(2.6)	82.8	(3.3)
	Indonesia	4.0	(1.3)	1.7	(0.8)	0.8	(0.5)	3.2	(1.3)	54.3	(3.2)	49.0	(3.5)	72.7	(3.4)	80.7	(2.9)	67.4	(3.5)	86.4	(2.3)	85.0	(2.5)	64.2	(3.3)
	Jordan	1.8	(0.9)	1.2	(0.7)	1.0	(0.7)	1.2	(0.7)	5.7	(1.6)	5.7	(1.7)	8.4	(1.7)	15.7	(2.4)	4.7	(1.7)	5.9	(1.6)	6.5	(1.6)	5.5	(1.6)
	Kosovo	1.9	(0.4)	1.0	(0.3)	0.0	c	0.0	c	2.0	(0.7)	1.6	(0.5)	16.4	(1.3)	57.3	(1.2)	9.7	(0.8)	25.8	(1.3)	16.3	(1.2)	10.4	(1.1)
	Lebanon	7.7	(2.1)	4.5	(1.3)	3.3	(1.1)	1.6	(0.8)	1.8	(0.9)	2.9	(1.1)	24.6	(2.7)	44.5	(3.4)	29.3	(3.3)	41.9	(3.0)	46.2	(3.3)	49.2	(3.4)
	Lithuania	3.8	(1.2)	1.8	(0.9)	10.0	(1.9)	12.4	(2.1)	13.0	(2.0)	6.8	(1.3)	67.1	(2.8)	83.5	(2.0)	4.8	(1.2)	88.1	(1.8)	81.0	(2.2)	82.1	(2.2)
	Macao (China)	16.0	(0.0)	9.5	(0.0)	1.9	(0.0)	1.9	(0.0)	9.3	(0.0)	10.2	(0.0)	78.8	(0.0)	79.8	(0.0)	50.7	(0.1)	94.9	(0.0)	93.8	(0.0)	75.2	(0.1)
	Malta	1.6	(0.0)	0.0	c	0.0	c	3.4	(0.1)	3.4	(0.1)	15.6	(0.1)	67.3	(0.1)	64.4	(0.1)	0.9	(0.0)	52.7	(0.1)	33.2	(0.1)	19.1	(0.1)
	Moldova	5.1	(1.7)	4.2	(1.4)	2.8	(1.1)	0.7	(0.5)	4.1	(1.5)	13.0	(2.6)	38.7	(3.4)	32.2	(2.8)	15.7	(2.0)	45.6	(3.6)	52.5	(3.5)	40.5	(3.4)
	Montenegro	4.8	(0.0)	1.9	(0.1)	0.0	c	0.0	c	3.7	(0.1)	2.6	(0.1)	29.1	(0.5)	58.2	(0.4)	4.3	(0.2)	44.0	(0.3)	48.1	(0.3)	31.4	(0.4)
	Peru	6.7	(1.8)	1.3	(0.7)	0.2	(0.2)	0.7	(0.5)	21.5	(2.4)	25.1	(2.6)	69.5	(3.0)	71.4	(2.7)	33.0	(3.1)	45.7	(3.1)	64.1	(3.1)	34.6	(3.0)
	Qatar	13.4	(0.1)	4.5	(0.1)	0.2	(0.0)	0.2	(0.0)	3.1	(0.0)	2.7	(0.0)	29.2	(0.1)	28.9	(0.1)	7.3	(0.0)	30.3	(0.1)	29.0	(0.1)	25.3	(0.1)
	Romania	1.0	(0.6)	2.2	(1.2)	1.4	(1.0)	2.0	(1.0)	11.5	(2.7)	11.6	(2.8)	55.6	(4.2)	55.1	(4.0)	12.1	(2.6)	76.9	(2.9)	68.7	(3.4)	50.9	(4.0)
	Russia	0.0	c	0.7	(0.5)	1.1	(0.9)	4.6	(1.4)	2.1	(1.3)	4.0	(1.6)	41.3	(3.8)	66.3	(3.8)	4.2	(1.7)	77.6	(3.4)	51.8	(4.3)	59.7	(3.2)
	Singapore	0.6	(0.0)	0.7	(0.0)	0.0	c	0.0	c	26.4	(0.2)	16.5	(0.8)	38.7	(1.0)	39.6	(1.0)	4.1	(0.1)	63.4	(0.8)	55.9	(0.7)	29.6	(0.6)
	Chinese Taipei	54.3	(3.6)	51.2	(3.8)	3.6	(1.3)	4.0	(1.4)	25.4	(3.1)	29.4	(3.1)	45.6	(3.2)	57.8	(3.2)	19.2	(2.6)	88.4	(1.9)	88.8	(1.8)	74.3	(3.1)
	Thailand	44.7	(3.9)	40.8	(3.9)	15.4	(3.1)	42.0	(3.4)	59.1	(3.3)	62.4	(3.2)	80.7	(2.9)	76.4	(3.1)	59.3	(3.6)	88.3	(2.4)	91.3	(2.1)	84.8	(2.7)
	Trinidad and Tobago	5.1	(0.1)	0.0	c	2.6	(0.1)	3.1	(0.1)	28.4	(0.2)	36.8	(0.2)	73.5	(0.3)	77.9	(0.2)	4.5	(0.1)	91.0	(0.1)	55.2	(0.3)	63.6	(0.3)
	Tunisia	0.5	(0.6)	2.9	(1.4)	0.8	(0.8)	1.2	(0.9)	1.2	(0.9)	4.0	(1.6)	11.7	(2.6)	12.3	(2.7)	1.0	(0.7)	3.6	(1.3)	15.5	(2.7)	2.9	(1.5)
	United Arab Emirates	8.8	(1.3)	2.7	(1.1)	0.4	(0.4)	1.2	(0.8)	7.9	(1.7)	10.2	(1.8)	34.8	(2.5)	40.5	(2.7)	16.8	(1.5)	34.9	(2.0)	34.4	(1.8)	25.3	(2.2)
	Uruguay	2.0	(0.9)	0.6	(0.6)	0.0	c	1.0	(0.8)	2.8	(1.1)	15.3	(2.2)	43.0	(3.2)	50.0	(3.1)	4.6	(1.3)	62.8	(2.6)	36.3	(2.4)	14.1	(1.9)
	Viet Nam	1.0	(0.7)	2.3	(1.1)	1.2	(0.8)	0.6	(0.6)	0.6	(0.6)	0.0	c	11.9	(2.6)	6.4	(2.3)	0.0	c	11.9	(2.7)	11.5	(2.3)	3.4	(1.8)
	Argentina**	1.1	(0.8)	0.1	(0.1)	0.0	c	0.0	c	2.6	(1.2)	6.5	(1.8)	40.7	(3.6)	77.5	(3.1)	6.8	(1.8)	93.6	(1.9)	48.1	(3.6)	4.8	(1.5)
	Kazakhstan**	1.4	(1.2)	1.9	(1.2)	0.8	(1.1)	0.7	(1.1)	0.5	(0.4)	0.6	(0.4)	20.4	(3.3)	29.4	(3.6)	4.6	(1.8)	26.6	(3.3)	17.4	(2.6)	14.3	(2.4)
	Malaysia**	2.0	(1.2)	1.8	(1.3)	0.0	c	0.9	(0.7)	27.7	(3.6)	15.9	(3.1)	25.6	(3.3)	20.7	(3.4)	4.8	(1.8)	15.3	(2.5)	14.1	(2.2)	23.0	(3.4)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436498

[Part 3/5]

Table II.4.1 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where a school governing board has considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	3.2	(0.7)	2.2	(0.7)	7.6	(1.0)	10.2	(1.2)	35.0	(1.7)	27.2	(1.8)	18.8	(1.4)	11.4	(1.3)	2.5	(0.6)	1.6	(0.5)	2.1	(0.6)	8.6	(1.2)
	Austria	1.3	(0.8)	1.3	(0.8)	0.3	(0.2)	0.1	(0.0)	1.7	(0.8)	22.6	(3.0)	61.5	(3.3)	5.7	(1.5)	0.9	(0.6)	22.4	(2.7)	1.5	(0.3)	39.0	(3.2)
	Belgium	20.8	(2.6)	38.3	(2.8)	0.5	(0.4)	0.8	(0.5)	41.8	(3.0)	45.5	(3.5)	34.4	(2.5)	29.2	(2.7)	28.7	(2.5)	13.1	(2.1)	4.9	(1.4)	28.4	(2.7)
	Canada	4.9	(1.0)	8.7	(1.4)	7.7	(1.3)	7.9	(1.3)	15.2	(2.1)	8.5	(1.3)	24.0	(2.2)	15.0	(1.8)	5.9	(1.3)	7.2	(1.4)	2.4	(0.8)	11.0	(1.6)
	Chile	41.9	(4.4)	44.8	(4.1)	42.4	(2.9)	45.8	(3.1)	50.2	(3.5)	62.2	(3.6)	53.7	(4.1)	46.1	(4.4)	36.9	(4.0)	24.2	(3.9)	18.8	(3.3)	45.8	(4.2)
	Czech Republic	0.3	(0.3)	0.8	(0.5)	0.3	(0.3)	0.3	(0.3)	5.6	(1.3)	4.7	(1.3)	44.0	(3.3)	30.5	(3.2)	0.4	(0.3)	1.1	(0.6)	4.1	(1.2)	9.9	(1.6)
	Denmark	43.8	(4.3)	17.3	(2.6)	5.1	(1.8)	7.1	(2.0)	35.1	(3.8)	68.0	(3.7)	69.4	(3.1)	20.9	(2.9)	3.3	(1.5)	15.7	(2.0)	7.1	(1.8)	51.9	(3.6)
	Estonia	23.9	(2.6)	9.3	(1.6)	9.9	(1.6)	9.9	(1.7)	36.4	(2.5)	28.0	(2.6)	74.8	(2.6)	58.1	(3.0)	7.9	(1.6)	1.6	(0.7)	69.4	(2.6)	44.4	(2.9)
	Finland	6.1	(1.3)	6.1	(1.3)	1.0	(0.7)	2.2	(0.7)	3.4	(1.4)	4.2	(1.5)	9.6	(2.3)	3.2	(1.4)	1.2	(0.7)	0.5	(0.5)	3.0	(1.4)	6.6	(1.6)
	France	3.2	(1.0)	1.5	(0.8)	1.2	(0.7)	1.8	(0.8)	52.5	(3.3)	78.4	(2.6)	77.8	(2.4)	31.2	(3.2)	0.0	c	19.9	(2.7)	0.8	(0.6)	11.4	(2.0)
	Germany	7.2	(1.7)	1.6	(0.9)	0.5	(0.4)	0.5	(0.4)	3.8	(1.3)	61.7	(3.7)	29.1	(3.2)	35.5	(3.5)	1.2	(0.8)	53.3	(3.3)	22.3	(3.2)	26.8	(3.2)
	Greece	4.5	(0.8)	4.9	(0.7)	3.5	(0.8)	4.1	(0.9)	4.9	(0.7)	4.3	(0.9)	2.8	(0.8)	1.7	(0.8)	1.9	(0.9)	0.0	c	0.6	(0.8)	0.6	(0.8)
	Hungary	21.0	(2.7)	17.5	(2.7)	2.2	(1.1)	2.2	(0.8)	17.5	(2.5)	31.2	(3.3)	67.6	(3.5)	68.3	(3.4)	34.4	(3.4)	40.5	(3.5)	33.5	(3.5)	52.6	(3.8)
	Iceland	3.4	(0.1)	2.5	(0.1)	0.1	(0.0)	3.6	(0.0)	10.5	(0.1)	6.6	(0.2)	16.5	(0.2)	11.3	(0.1)	1.2	(0.1)	0.0	c	0.1	(0.0)	1.1	(0.1)
	Ireland	60.3	(3.1)	65.7	(3.1)	5.2	(1.8)	4.4	(1.7)	57.6	(3.4)	53.1	(4.1)	78.5	(3.6)	62.7	(4.3)	81.4	(3.1)	1.3	(0.7)	3.8	(1.6)	70.4	(4.0)
	Israel	2.6	(1.2)	2.1	(1.1)	0.0	c	0.0	c	8.1	(1.8)	18.1	(3.0)	47.0	(3.8)	23.5	(3.5)	9.2	(2.1)	7.6	(1.9)	8.4	(2.6)	13.0	(2.6)
	Italy	0.0	c	0.1	(0.0)	0.0	(0.0)	0.0	(0.0)	19.5	(3.0)	75.4	(3.4)	86.0	(2.2)	9.6	(2.2)	33.3	(3.7)	13.1	(2.8)	3.0	(1.1)	44.3	(3.8)
	Japan	17.9	(2.1)	21.6	(2.2)	24.1	(1.9)	23.8	(2.0)	27.2	(2.1)	21.0	(2.8)	3.5	(1.7)	2.2	(1.0)	3.4	(1.2)	4.4	(1.3)	3.9	(1.7)	5.7	(2.0)
	Korea	5.1	(1.8)	5.1	(1.8)	0.6	(0.6)	0.6	(0.6)	24.3	(3.1)	43.4	(3.7)	24.2	(3.3)	16.0	(2.6)	5.4	(1.8)	49.0	(3.8)	6.6	(2.0)	30.8	(3.7)
	Latvia	6.3	(1.4)	7.7	(1.4)	3.2	(0.7)	11.3	(1.6)	41.7	(3.1)	51.3	(2.9)	68.5	(3.0)	36.9	(2.8)	29.1	(2.1)	19.7	(2.6)	6.8	(1.4)	34.3	(2.8)
	Luxembourg	0.8	(0.0)	5.4	(0.0)	7.8	(0.1)	7.8	(0.1)	31.4	(0.1)	77.1	(0.1)	74.4	(0.1)	24.3	(0.1)	5.3	(0.1)	1.9	(0.0)	1.9	(0.0)	29.9	(0.1)
	Mexico	9.2	(2.0)	13.8	(2.0)	10.2	(1.9)	9.0	(1.8)	26.7	(3.0)	37.9	(3.3)	59.5	(2.9)	30.5	(2.8)	26.2	(2.9)	14.3	(2.4)	11.8	(2.1)	11.3	(1.9)
	Netherlands	10.5	(2.7)	35.4	(4.3)	45.5	(4.1)	38.7	(4.3)	45.1	(4.3)	30.9	(3.9)	14.0	(2.9)	5.6	(2.0)	10.2	(2.8)	2.2	(1.2)	0.6	(0.6)	19.0	(3.4)
	New Zealand	30.3	(3.5)	68.6	(3.2)	8.6	(2.0)	8.3	(2.0)	67.2	(3.4)	50.4	(3.8)	54.4	(4.3)	26.7	(3.3)	15.3	(2.7)	0.0	c	2.1	(1.3)	17.2	(2.8)
	Norway	2.3	(1.0)	1.8	(0.9)	0.9	(0.6)	0.9	(0.6)	5.1	(1.6)	10.0	(2.2)	34.0	(3.7)	2.5	(1.1)	1.7	(0.9)	2.1	(1.0)	0.7	(0.5)	4.4	(1.5)
	Poland	0.6	(0.6)	0.6	(0.6)	0.0	c	0.0	c	4.5	(1.6)	8.2	(2.2)	32.3	(3.9)	27.2	(3.7)	5.6	(1.8)	18.3	(3.4)	14.1	(3.0)	10.5	(2.6)
	Portugal	30.6	(3.2)	5.0	(1.3)	2.6	(1.4)	2.6	(1.4)	49.2	(3.8)	58.6	(3.5)	54.8	(3.7)	47.0	(3.7)	57.2	(4.0)	12.1	(2.5)	22.7	(3.1)	56.0	(3.7)
	Slovak Republic	3.1	(1.2)	5.9	(1.6)	0.2	(0.2)	0.2	(0.2)	8.7	(1.8)	14.1	(2.2)	22.8	(2.7)	7.6	(1.7)	4.7	(1.5)	2.3	(1.1)	4.9	(1.4)	11.1	(2.3)
	Slovenia	5.5	(0.2)	17.8	(0.5)	0.0	c	0.8	(0.0)	53.0	(0.5)	69.3	(0.5)	23.5	(0.6)	11.7	(0.2)	12.5	(0.1)	12.7	(0.5)	6.6	(0.1)	41.1	(0.3)
	Spain	4.6	(1.2)	4.7	(1.2)	0.3	(0.3)	0.3	(0.3)	35.1	(3.3)	48.8	(3.0)	62.0	(3.4)	11.8	(2.3)	26.1	(3.2)	20.0	(2.7)	2.5	(1.1)	18.5	(3.2)
	Sweden	4.3	(1.3)	4.3	(1.2)	5.6	(1.4)	8.6	(1.4)	11.9	(2.0)	9.6	(1.8)	9.7	(2.1)	9.3	(2.3)	4.4	(1.4)	2.5	(1.1)	2.0	(1.0)	1.6	(0.6)
	Switzerland	40.4	(3.8)	37.4	(3.3)	7.4	(1.9)	9.5	(1.8)	42.7	(3.2)	34.3	(3.5)	42.4	(3.7)	19.9	(3.1)	36.3	(3.8)	8.0	(2.0)	7.3	(1.8)	28.1	(3.5)
	Turkey	6.4	(2.2)	4.9	(2.0)	5.5	(2.2)	5.9	(2.3)	55.6	(3.9)	74.3	(3.5)	15.3	(3.2)	12.2	(2.9)	55.4	(4.7)	29.6	(3.6)	3.0	(1.4)	30.7	(4.0)
	United Kingdom	49.3	(3.5)	67.5	(3.1)	48.0	(3.2)	72.4	(2.9)	68.7	(3.1)	43.5	(3.8)	52.7	(3.6)	36.4	(3.4)	34.1	(3.3)	1.1	(0.9)	1.2	(0.9)	29.3	(3.1)
	United States	23.9	(3.6)	31.0	(3.1)	48.2	(3.7)	47.7	(3.8)	44.4	(3.7)	31.8	(3.6)	46.6	(3.5)	40.1	(3.7)	31.8	(3.8)	41.0	(3.8)	29.6	(3.6)	44.3	(3.8)
	OECD average	14.3	(0.4)	16.1	(0.3)	8.7	(0.3)	10.0	(0.3)	29.8	(0.4)	37.5	(0.5)	42.6	(0.5)	23.8	(0.5)	17.6	(0.4)	13.3	(0.4)	9.0	(0.3)	25.4	(0.5)
Partners	**Albania**	43.2	(3.2)	43.1	(3.4)	4.4	(1.8)	5.9	(1.9)	55.8	(3.6)	70.6	(3.4)	65.2	(3.6)	20.1	(3.3)	19.2	(2.8)	15.6	(2.7)	27.6	(3.9)	34.8	(3.7)
	Algeria	0.6	(0.5)	0.6	(0.6)	0.0	c	0.0	c	5.1	(2.0)	4.4	(2.0)	10.0	(2.6)	46.9	(3.4)	13.3	(3.0)	2.8	(1.3)	1.4	(1.0)	5.2	(1.9)
	Brazil	11.5	(1.7)	12.3	(1.8)	4.7	(1.1)	4.9	(1.1)	23.5	(2.3)	34.6	(2.6)	78.7	(2.3)	50.6	(2.3)	33.9	(2.5)	15.7	(2.1)	16.5	(1.9)	30.2	(2.5)
	B-S-J-G (China)	27.1	(2.7)	23.0	(2.8)	10.0	(1.9)	16.4	(2.3)	46.7	(4.2)	67.9	(3.5)	64.6	(3.5)	59.8	(3.5)	31.4	(3.2)	17.8	(3.2)	20.0	(3.1)	29.3	(3.3)
	Bulgaria	2.0	(1.2)	4.4	(1.9)	6.7	(2.0)	10.5	(2.6)	4.8	(1.4)	16.5	(2.8)	94.2	(1.8)	53.9	(3.7)	14.8	(2.6)	36.4	(3.7)	9.0	(2.1)	54.7	(3.0)
	CABA (Argentina)	15.5	(5.5)	33.5	(5.7)	12.7	(4.4)	6.4	(3.8)	37.7	(5.3)	48.0	(6.3)	48.3	(6.0)	30.9	(7.0)	18.3	(3.8)	8.2	(3.8)	15.1	(4.5)	24.8	(5.0)
	Colombia	1.9	(0.6)	3.7	(0.9)	1.6	(0.7)	1.8	(0.7)	43.5	(3.6)	69.4	(3.0)	90.1	(2.2)	71.1	(3.3)	43.7	(3.3)	29.5	(3.1)	32.4	(3.4)	43.4	(3.5)
	Costa Rica	3.3	(1.1)	4.3	(1.3)	6.7	(1.6)	7.2	(1.7)	69.7	(3.5)	82.1	(3.0)	4.9	(1.5)	2.3	(0.9)	4.7	(1.6)	1.3	(0.7)	0.9	(0.6)	4.5	(1.4)
	Croatia	86.5	(2.6)	76.3	(3.4)	0.0	c	0.7	(0.0)	64.1	(3.6)	84.4	(2.7)	46.3	(4.2)	11.1	(2.5)	34.2	(3.7)	3.4	(1.4)	0.0	c	8.4	(2.4)
	Cyprus*	10.6	(0.1)	14.4	(0.1)	14.2	(0.1)	14.2	(0.1)	20.4	(0.1)	22.3	(0.1)	25.1	(0.2)	11.9	(0.1)	9.0	(0.1)	2.0	(0.0)	2.2	(0.0)	8.6	(0.1)
	Dominican Republic	16.7	(2.5)	12.3	(2.4)	5.9	(2.0)	6.2	(2.0)	70.9	(3.6)	61.1	(3.5)	61.5	(4.1)	34.7	(3.9)	45.7	(4.5)	14.4	(2.5)	6.5	(1.9)	7.5	(1.8)
	FYROM	50.0	(0.2)	60.2	(0.2)	29.8	(0.2)	32.1	(0.1)	75.7	(0.1)	84.1	(0.1)	68.6	(0.2)	35.6	(0.2)	45.3	(0.2)	32.9	(0.2)	30.0	(0.1)	35.6	(0.2)
	Georgia	20.4	(2.8)	37.9	(3.2)	2.3	(0.8)	8.1	(1.8)	55.0	(3.2)	73.9	(2.5)	60.6	(3.0)	12.9	(1.9)	2.8	(0.7)	20.6	(2.7)	14.0	(2.1)	21.6	(2.6)
	Hong Kong (China)	45.2	(4.2)	70.3	(3.4)	36.8	(4.2)	31.6	(3.8)	63.5	(4.3)	63.7	(4.2)	14.2	(2.9)	12.4	(2.7)	12.8	(2.9)	6.6	(2.2)	2.1	(1.3)	32.4	(4.1)
	Indonesia	37.0	(2.6)	36.0	(2.4)	37.3	(2.5)	38.6	(2.6)	63.1	(3.5)	58.4	(3.6)	28.4	(3.2)	14.6	(2.8)	32.5	(3.4)	10.0	(2.1)	4.9	(1.5)	10.3	(1.7)
	Jordan	6.9	(1.3)	9.0	(1.5)	9.2	(1.4)	9.7	(1.5)	41.4	(3.1)	47.5	(3.7)	26.6	(3.3)	21.8	(2.9)	30.7	(3.6)	9.4	(1.9)	6.7	(1.7)	10.1	(2.1)
	Kosovo	11.4	(1.1)	9.9	(1.0)	0.8	(0.3)	1.7	(0.2)	42.5	(1.4)	56.5	(1.3)	59.7	(1.3)	22.7	(1.0)	37.1	(1.2)	9.2	(0.8)	12.1	(1.0)	14.7	(1.0)
	Lebanon	39.1	(2.9)	35.7	(3.0)	17.6	(2.6)	16.9	(2.3)	40.5	(3.3)	42.9	(3.7)	47.0	(3.3)	45.1	(3.4)	39.2	(3.5)	35.2	(3.4)	26.8	(3.5)	30.6	(3.3)
	Lithuania	21.4	(2.3)	10.9	(2.0)	23.6	(2.6)	29.3	(2.7)	49.4	(2.9)	48.2	(2.8)	76.1	(2.5)	57.5	(3.0)	5.0	(1.3)	47.4	(2.9)	20.1	(2.3)	45.1	(2.8)
	Macao (China)	47.6	(0.1)	60.5	(0.1)	67.2	(0.0)	72.0	(0.0)	69.1	(0.1)	73.4	(0.0)	44.5	(0.1)	39.7	(0.1)	25.7	(0.1)	29.9	(0.1)	22.2	(0.1)	36.3	(0.1)
	Malta	12.1	(0.1)	17.5	(0.1)	4.9	(0.0)	6.8	(0.1)	28.5	(0.1)	30.4	(0.1)	21.0	(0.1)	14.9	(0.1)	12.8	(0.1)	5.1	(0.1)	3.5	(0.0)	11.1	(0.1)
	Moldova	34.2	(3.2)	39.0	(3.3)	23.1	(2.8)	22.9	(2.9)	45.9	(3.7)	78.4	(2.7)	80.4	(2.9)	38.9	(3.3)	43.6	(3.5)	8.6	(1.7)	10.3	(2.1)	55.6	(3.4)
	Montenegro	29.7	(0.2)	20.3	(0.3)	0.6	(0.0)	10.7	(0.1)	69.3	(0.5)	78.1	(0.4)	31.1	(0.4)	0.6	(0.0)	16.0	(0.1)	0.6	(0.0)	0.6	(0.0)	37.6	(0.3)
	Peru	31.8	(2.8)	17.3	(2.5)	1.8	(0.8)	1.7	(0.8)	45.8	(2.8)	56.3	(2.8)	65.6	(2.4)	19.6	(2.8)	33.1	(3.1)	11.6	(2.0)	11.0	(2.1)	15.0	(2.2)
	Qatar	36.6	(0.1)	36.7	(0.1)	34.9	(0.1)	33.9	(0.1)	42.6	(0.1)	45.9	(0.1)	20.8	(0.1)	11.9	(0.1)	18.3	(0.1)	9.7	(0.1)	8.8	(0.1)	23.6	(0.1)
	Romania	61.0	(3.5)	76.6	(3.1)	7.0	(1.9)	5.7	(1.8)	56.8	(3.9)	72.3	(3.5)	78.0	(3.3)	44.8	(4.3)	30.7	(3.8)	14.0	(2.6)	16.2	(2.7)	57.7	(3.7)
	Russia	2.0	(1.2)	9.8	(2.4)	9.3	(2.8)	29.1	(4.2)	19.4	(3.4)	52.6	(3.9)	90.6	(2.2)	63.9	(3.7)	6.1	(1.9)	41.9	(4.5)	46.4	(4.5)	61.4	(3.6)
	Singapore	26.1	(1.1)	22.4	(1.2)	9.2	(1.3)	18.4	(1.3)	68.2	(0.9)	72.9	(0.9)	84.3	(0.9)	83.8	(1.2)	31.2	(1.3)	74.6	(1.0)	64.3	(1.1)	81.5	(1.1)
	Chinese Taipei	20.9	(3.0)	25.6	(3.2)	9.1	(1.7)	9.9	(1.8)	24.6	(2.6)	33.8	(3.2)	66.2	(3.3)	55.0	(3.5)	13.4	(2.3)	21.4	(2.9)	19.0	(2.8)	37.7	(3.2)
	Thailand	57.0	(3.3)	48.9	(3.8)	30.5	(3.9)	33.0	(3.2)	55.3	(3.9)	52.8	(4.1)	52.0	(3.7)	40.5	(3.8)	49.6	(3.7)	47.4	(4.2)	25.7	(3.3)	43.8	(4.0)
	Trinidad and Tobago	31.7	(0.1)	10.8	(0.1)	7.2	(0.1)	7.2	(0.1)	24.3	(0.2)	23.8	(0.2)	21.3	(0.2)	14.6	(0.2)	21.2	(0.1)	5.8	(0.1)	4.5	(0.1)	16.1	(0.1)
	Tunisia	2.7	(1.3)	3.6	(1.6)	1.3	(0.9)	1.3	(0.9)	12.7	(2.7)	25.0	(3.6)	31.3	(3.9)	11.0	(2.3)	21.3	(3.4)	0.2	(0.2)	0.0	c	0.8	(0.8)
	United Arab Emirates	23.9	(1.9)	27.9	(2.0)	44.7	(1.9)	48.1	(2.0)	49.7	(2.1)	37.3	(2.2)	19.6	(2.1)	12.1	(1.8)	11.7	(1.9)	7.8	(1.2)	8.0	(1.6)	19.8	(1.8)
	Uruguay	11.1	(1.6)	14.3	(1.4)	13.9	(1.2)	14.1	(1.3)	17.1	(1.7)	20.3	(2.0)	26.0	(2.6)	17.0	(2.3)	20.1	(2.4)	5.0	(1.3)	4.2	(1.2)	25.8	(1.8)
	Viet Nam	12.4	(2.5)	21.6	(2.7)	5.5	(1.5)	21.2	(2.8)	17.5	(2.7)	17.9	(3.4)	55.7	(3.9)	31.6	(3.4)	8.9	(2.7)	19.9	(3.1)	18.4	(3.3)	17.7	(3.1)
	Argentina**	22.8	(3.1)	17.0	(2.3)	4.7	(1.5)	3.4	(1.3)	23.2	(2.9)	28.8	(3.2)	50.7	(3.5)	19.2	(2.8)	17.9	(2.6)	4.0	(1.4)	6.5	(1.6)	9.8	(2.1)
	Kazakhstan**	17.7	(2.7)	23.9	(3.3)	10.7	(2.5)	5.8	(1.8)	10.3	(2.3)	16.5	(2.6)	66.2	(2.8)	43.8	(3.6)	18.1	(3.2)	28.8	(3.6)	28.1	(3.5)	53.3	(3.5)
	Malaysia**	3.0	(0.9)	5.5	(1.2)	3.6	(0.6)	5.4	(1.0)	12.3	(2.6)	13.9	(2.8)	15.2	(2.8)	10.5	(2.5)	5.6	(1.5)	4.1	(1.6)	3.3	(1.3)	12.9	(2.3)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436498

[Part 4/5]

Table II.4.1 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where local or regional education authorities have considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	19.7	(1.3)	47.7	(1.7)	77.6	(1.5)	74.2	(1.5)	24.0	(1.6)	4.8	(1.0)	19.4	(1.3)	29.1	(1.8)	16.9	(1.3)	4.4	(0.8)	45.6	(2.1)	18.5	(1.6)
	Austria	75.8	(3.1)	80.6	(2.9)	31.4	(3.1)	26.6	(3.0)	52.6	(3.5)	10.4	(2.0)	8.4	(1.8)	15.1	(2.6)	12.1	(1.9)	0.8	(0.6)	14.3	(2.4)	24.7	(2.6)
	Belgium	16.9	(2.4)	24.9	(2.4)	4.1	(1.3)	4.1	(1.3)	25.7	(2.6)	22.3	(2.4)	16.0	(2.1)	14.1	(2.0)	5.9	(1.7)	0.7	(0.6)	16.2	(2.5)	25.1	(2.8)
	Canada	53.4	(2.5)	74.5	(2.0)	41.5	(2.6)	38.6	(2.4)	67.3	(2.5)	22.0	(2.4)	51.4	(2.6)	58.9	(2.4)	42.9	(2.6)	28.6	(2.6)	18.9	(2.3)	28.5	(2.6)
	Chile	20.4	(2.8)	29.3	(2.3)	23.9	(2.6)	18.6	(2.3)	24.6	(2.3)	15.6	(2.8)	4.0	(1.8)	2.3	(1.2)	7.6	(1.9)	0.9	(0.6)	0.0	c	11.0	(2.6)
	Czech Republic	0.0	c	0.0	c	3.3	(1.0)	9.8	(1.9)	33.9	(2.9)	14.6	(1.8)	0.8	(0.6)	0.5	(0.3)	4.6	(1.2)	0.0	c	0.0	c	0.5	(0.4)
	Denmark	0.3	(0.3)	15.1	(2.7)	39.4	(3.4)	38.5	(3.3)	19.2	(2.8)	2.8	(1.2)	0.2	(0.3)	9.6	(1.6)	9.8	(2.1)	0.2	(0.3)	7.1	(1.6)	18.7	(2.6)
	Estonia	3.3	(1.2)	3.8	(1.0)	30.5	(2.4)	38.7	(2.8)	49.4	(2.7)	12.0	(1.9)	11.0	(1.7)	4.3	(0.9)	29.5	(2.7)	0.0	c	11.5	(1.6)	3.4	(1.0)
	Finland	41.0	(3.6)	69.9	(3.3)	30.2	(3.8)	43.6	(3.8)	63.3	(4.0)	7.4	(2.0)	18.6	(3.2)	27.4	(3.5)	39.5	(4.0)	0.7	(0.7)	26.6	(3.4)	32.3	(3.8)
	France	62.4	(3.2)	66.5	(3.1)	22.6	(2.7)	27.5	(2.8)	19.2	(2.4)	3.7	(1.4)	3.2	(1.2)	27.6	(3.1)	66.4	(2.3)	1.9	(1.0)	15.0	(2.3)	24.5	(2.8)
	Germany	70.0	(2.6)	91.9	(1.6)	97.5	(1.0)	96.8	(1.2)	96.8	(1.2)	21.7	(3.2)	17.4	(3.2)	24.3	(3.5)	27.7	(3.2)	17.8	(2.5)	70.6	(3.4)	22.4	(3.1)
	Greece	3.6	(1.4)	1.2	(0.7)	0.6	(0.4)	0.0	c	73.3	(2.6)	70.9	(3.2)	2.0	(1.2)	0.6	(0.4)	5.3	(1.6)	0.0	c	0.0	c	0.0	c
	Hungary	60.3	(3.6)	62.0	(3.6)	26.7	(3.2)	25.6	(3.1)	60.7	(3.2)	46.0	(3.4)	2.0	(1.0)	1.3	(1.0)	11.7	(2.6)	10.4	(2.1)	6.2	(1.7)	9.5	(2.2)
	Iceland	2.6	(0.1)	6.9	(0.1)	70.3	(0.3)	68.4	(0.3)	62.4	(0.3)	21.6	(0.2)	18.2	(0.2)	17.4	(0.1)	19.5	(0.2)	1.1	(0.0)	5.5	(0.1)	7.7	(0.1)
	Ireland	23.1	(1.6)	20.8	(1.8)	12.2	(1.9)	11.5	(1.8)	24.7	(1.4)	12.4	(1.9)	6.7	(1.9)	3.0	(1.4)	5.3	(1.9)	0.7	(0.5)	0.8	(0.8)	7.6	(2.0)
	Israel	18.3	(2.6)	21.5	(3.0)	30.2	(3.8)	24.1	(3.3)	53.8	(3.6)	22.6	(3.5)	7.2	(1.9)	1.9	(1.0)	39.2	(3.0)	0.5	(0.5)	0.4	(0.4)	12.6	(2.6)
	Italy	31.7	(3.5)	28.3	(3.1)	4.8	(1.2)	4.8	(1.2)	13.9	(2.4)	3.0	(1.2)	0.0	(0.0)	0.7	(0.3)	2.2	(0.9)	0.7	(0.5)	2.6	(1.0)	15.7	(2.8)
	Japan	65.7	(1.2)	65.7	(1.2)	67.2	(0.8)	66.6	(1.0)	54.4	(2.3)	9.2	(2.1)	1.7	(1.0)	0.9	(0.7)	3.5	(1.3)	18.5	(2.8)	6.3	(1.8)	8.5	(1.9)
	Korea	61.3	(4.1)	62.6	(4.2)	51.2	(4.1)	35.7	(4.0)	65.3	(3.8)	11.1	(2.6)	13.7	(2.7)	13.8	(2.8)	18.9	(3.2)	3.7	(1.5)	8.5	(2.4)	16.5	(2.7)
	Latvia	4.3	(1.2)	5.0	(1.3)	24.5	(2.5)	22.7	(2.5)	33.2	(2.9)	21.9	(2.4)	8.0	(1.6)	11.4	(1.9)	28.4	(2.3)	7.8	(1.2)	4.9	(1.3)	10.7	(1.7)
	Luxembourg	4.4	(0.0)	6.5	(0.1)	6.5	(0.1)	6.5	(0.1)	7.1	(0.1)	0.0	c	0.0	c	0.0	c	0.0	c	9.2	(0.1)	7.7	(0.1)	5.7	(0.1)
	Mexico	41.5	(3.0)	51.2	(3.1)	45.7	(3.1)	43.0	(3.3)	33.5	(3.4)	18.9	(2.6)	12.4	(2.2)	24.5	(3.0)	30.3	(2.8)	24.7	(2.7)	27.6	(2.7)	32.0	(2.7)
	Netherlands	0.0	c	0.0	c	0.0	c	0.0	c	0.9	(0.9)	0.0	c	0.0	c	0.0	c	1.2	(1.1)	0.0	c	0.0	c	0.0	c
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Norway	18.2	(2.6)	42.1	(3.3)	69.7	(3.4)	76.0	(3.2)	46.3	(3.4)	12.3	(2.4)	32.7	(3.2)	23.7	(3.1)	48.3	(3.8)	3.7	(1.4)	10.9	(2.2)	16.4	(3.0)
	Poland	11.4	(2.3)	11.5	(2.3)	28.4	(3.5)	39.3	(3.9)	86.8	(2.5)	58.2	(3.7)	0.8	(0.7)	1.0	(0.7)	17.7	(3.0)	0.0	c	0.0	c	13.9	(3.0)
	Portugal	11.6	(2.0)	7.6	(1.2)	2.5	(0.5)	2.0	(0.2)	9.5	(1.9)	7.1	(1.9)	6.1	(1.6)	4.4	(1.1)	10.7	(2.1)	0.1	(0.0)	5.7	(1.2)	30.9	(2.8)
	Slovak Republic	0.9	(0.5)	0.9	(0.5)	2.1	(1.0)	4.0	(1.3)	41.5	(3.2)	20.5	(2.3)	1.5	(0.8)	0.4	(0.4)	8.8	(2.3)	0.6	(0.6)	1.1	(0.8)	1.4	(1.0)
	Slovenia	0.0	c	0.1	(0.1)	0.3	(0.2)	0.3	(0.2)	4.6	(0.5)	1.4	(0.5)	0.0	c	0.0	c	1.8	(0.3)	0.0	c	7.1	(0.1)	9.9	(0.3)
	Spain	64.2	(1.7)	64.0	(1.7)	90.3	(2.0)	88.3	(2.2)	21.6	(2.9)	6.9	(1.5)	17.7	(2.6)	46.3	(3.7)	72.6	(3.2)	6.1	(1.8)	71.4	(3.4)	57.8	(3.5)
	Sweden	4.7	(1.7)	34.6	(3.5)	44.6	(2.9)	39.3	(3.3)	43.7	(3.2)	9.3	(2.1)	1.3	(0.9)	23.8	(3.0)	25.7	(3.0)	1.1	(0.8)	1.9	(1.0)	9.0	(2.0)
	Switzerland	14.9	(2.6)	30.8	(3.2)	84.6	(2.3)	81.9	(2.3)	49.6	(4.3)	18.1	(3.3)	11.1	(2.2)	36.9	(3.8)	34.8	(3.7)	61.1	(2.5)	65.1	(3.6)	69.9	(3.6)
	Turkey	11.3	(2.9)	12.7	(2.9)	2.2	(1.1)	1.2	(0.8)	5.3	(1.5)	2.8	(1.4)	4.1	(1.9)	3.8	(1.9)	10.2	(2.4)	4.1	(1.9)	2.8	(1.8)	2.8	(2.0)
	United Kingdom	4.2	(1.0)	15.3	(2.1)	10.9	(2.0)	7.8	(1.9)	19.1	(2.2)	2.5	(0.7)	6.8	(1.7)	6.1	(1.4)	39.7	(3.2)	0.4	(0.2)	1.9	(0.7)	2.8	(0.8)
	United States	16.9	(2.7)	30.6	(3.2)	60.9	(4.2)	61.7	(4.2)	46.7	(3.9)	18.7	(3.1)	40.9	(3.9)	51.1	(4.0)	45.7	(3.4)	47.8	(3.6)	61.1	(3.9)	48.5	(3.8)
	OECD average	24.7	(0.4)	31.9	(0.4)	33.5	(0.4)	33.2	(0.4)	39.2	(0.5)	15.7	(0.4)	10.2	(0.3)	14.3	(0.4)	21.9	(0.4)	7.6	(0.2)	15.5	(0.3)	17.6	(0.4)
Partners	**Albania**	38.6	(3.2)	33.4	(3.6)	12.8	(2.3)	8.8	(1.9)	30.7	(3.7)	11.5	(2.4)	5.3	(1.4)	6.3	(2.0)	24.8	(2.9)	0.9	(0.7)	9.0	(2.0)	16.0	(2.6)
	Algeria	78.7	(3.4)	69.1	(3.8)	5.8	(2.1)	1.7	(1.0)	11.8	(2.7)	4.3	(1.8)	3.6	(1.7)	1.7	(1.0)	13.3	(3.3)	3.9	(1.6)	0.0	c	1.5	(1.1)
	Brazil	68.4	(2.3)	69.1	(2.1)	77.2	(2.0)	78.2	(2.0)	64.6	(2.1)	52.9	(2.4)	16.2	(2.2)	44.3	(2.6)	23.2	(2.4)	5.3	(1.1)	52.7	(2.6)	60.8	(2.5)
	B-S-J-G (China)	73.6	(2.9)	79.3	(2.8)	83.3	(2.9)	80.1	(3.0)	54.7	(3.7)	19.4	(2.9)	19.2	(3.2)	24.9	(3.7)	73.4	(3.4)	85.7	(2.9)	78.1	(3.3)	83.1	(3.3)
	Bulgaria	1.5	(0.9)	2.5	(1.2)	3.0	(1.4)	4.6	(1.6)	21.1	(3.0)	5.0	(1.7)	4.8	(1.6)	14.6	(2.9)	12.5	(2.8)	1.3	(0.9)	8.0	(2.0)	5.8	(1.8)
	CABA (Argentina)	37.6	(4.4)	39.9	(4.0)	78.3	(4.4)	79.9	(5.7)	45.2	(5.9)	29.5	(6.2)	15.9	(4.3)	21.7	(6.1)	27.7	(4.6)	4.5	(2.7)	57.7	(5.8)	68.5	(5.9)
	Colombia	69.1	(2.2)	69.2	(2.3)	12.4	(2.4)	7.3	(1.8)	9.1	(2.0)	3.6	(1.4)	3.3	(1.2)	6.0	(1.5)	9.7	(1.6)	3.3	(1.2)	6.5	(1.8)	19.5	(2.9)
	Costa Rica	11.0	(2.4)	4.3	(1.5)	0.9	(0.6)	0.8	(0.5)	4.9	(1.3)	1.8	(0.8)	6.1	(1.7)	7.5	(1.9)	5.2	(1.8)	1.9	(1.1)	2.7	(1.2)	1.8	(0.9)
	Croatia	16.7	(3.0)	13.6	(2.6)	0.0	c	1.1	(0.8)	66.3	(4.1)	25.0	(3.6)	9.1	(2.0)	1.7	(0.2)	66.7	(3.6)	1.6	(1.0)	1.3	(0.9)	2.3	(1.3)
	Cyprus*	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Dominican Republic	0.6	(0.6)	0.0	c	0.0	c	0.0	c	0.6	(0.6)	0.0	c	0.0	c	0.0	c	0.0	c	0.7	(0.7)	0.7	(0.7)	0.0	c
	FYROM	42.1	(0.2)	33.1	(0.1)	34.5	(0.1)	31.0	(0.1)	51.2	(0.2)	40.2	(0.2)	34.5	(0.1)	32.0	(0.2)	46.8	(0.2)	28.4	(0.1)	28.0	(0.1)	28.1	(0.1)
	Georgia	2.3	(0.8)	0.5	(0.3)	0.7	(0.5)	0.0	c	0.0	c	0.6	(0.4)	0.8	(0.6)	0.8	(0.6)	0.2	(0.2)	0.1	(0.1)	0.6	(0.4)	0.6	(0.4)
	Hong Kong (China)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	40.4	(2.7)	39.2	(2.8)	32.1	(2.9)	33.1	(3.2)	9.7	(2.4)	8.9	(2.0)	6.5	(2.0)	13.4	(2.4)	24.4	(3.1)	25.7	(2.9)	17.1	(2.6)	20.7	(2.7)
	Jordan	14.2	(2.5)	11.0	(2.2)	9.3	(1.9)	9.0	(1.9)	8.9	(1.9)	10.6	(2.2)	15.0	(2.4)	19.2	(3.1)	6.9	(1.4)	10.5	(2.1)	8.3	(1.8)	9.3	(2.0)
	Kosovo	91.9	(0.8)	88.6	(0.8)	28.3	(1.1)	16.6	(1.0)	58.5	(1.4)	31.5	(1.4)	37.6	(1.2)	21.1	(1.3)	49.1	(1.3)	11.4	(1.0)	31.8	(1.5)	39.1	(1.4)
	Lebanon	13.0	(2.2)	9.2	(2.0)	8.2	(1.9)	10.2	(2.3)	10.5	(2.2)	8.9	(2.2)	6.8	(1.7)	6.9	(1.8)	6.7	(1.8)	7.9	(2.1)	10.2	(2.4)	10.3	(2.2)
	Lithuania	3.1	(1.1)	1.5	(0.8)	9.7	(1.8)	12.0	(1.8)	39.2	(2.6)	26.0	(2.2)	2.2	(0.8)	2.1	(0.7)	12.4	(1.9)	0.3	(0.0)	0.6	(0.2)	2.2	(0.8)
	Macao (China)	13.3	(0.0)	3.8	(0.0)	24.8	(0.1)	23.5	(0.0)	15.2	(0.0)	29.7	(0.0)	3.2	(0.0)	5.6	(0.0)	11.1	(0.0)	1.6	(0.0)	7.0	(0.0)	30.1	(0.1)
	Malta	11.1	(0.1)	11.1	(0.1)	4.2	(0.1)	12.1	(0.1)	28.0	(0.1)	18.5	(0.1)	13.6	(0.1)	11.2	(0.1)	50.7	(0.1)	2.0	(0.0)	4.8	(0.1)	9.6	(0.1)
	Moldova	24.6	(3.2)	18.7	(2.6)	14.5	(2.1)	9.1	(2.4)	32.6	(3.3)	13.0	(1.9)	2.9	(1.2)	28.9	(3.3)	12.8	(2.6)	7.9	(1.8)	7.5	(1.9)	15.1	(2.8)
	Montenegro	0.1	(0.1)	0.1	(0.1)	1.5	(0.0)	0.2	(0.1)	6.2	(0.1)	0.0	c	0.1	(0.1)	1.6	(0.1)	2.3	(0.2)	0.1	(0.1)	0.1	(0.1)	2.1	(0.2)
	Peru	65.7	(1.8)	62.9	(2.3)	17.2	(2.3)	8.1	(1.8)	17.8	(2.3)	8.7	(1.9)	3.8	(1.4)	21.4	(2.7)	8.6	(1.8)	15.3	(2.3)	18.9	(2.4)	18.6	(2.4)
	Qatar	18.6	(0.1)	19.8	(0.1)	6.9	(0.1)	7.3	(0.1)	10.0	(0.1)	15.5	(0.1)	22.7	(0.1)	17.7	(0.1)	17.5	(0.1)	10.7	(0.1)	14.6	(0.1)	16.5	(0.1)
	Romania	77.2	(3.3)	41.5	(3.5)	6.6	(1.8)	8.2	(2.0)	15.8	(3.2)	12.8	(2.8)	11.0	(2.4)	36.5	(3.6)	42.0	(3.6)	13.9	(2.9)	14.2	(3.0)	33.8	(3.6)
	Russia	1.2	(0.7)	1.0	(0.9)	45.4	(4.2)	50.2	(4.0)	76.6	(3.3)	38.8	(4.7)	3.1	(1.1)	10.3	(2.8)	10.4	(3.1)	9.6	(2.3)	26.2	(3.5)	19.4	(3.2)
	Singapore	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Chinese Taipei	19.0	(2.2)	21.1	(2.3)	15.2	(2.3)	12.0	(2.2)	33.3	(2.3)	10.6	(1.9)	10.0	(2.0)	12.8	(2.1)	41.1	(3.0)	4.3	(1.5)	6.4	(1.7)	9.1	(2.0)
	Thailand	19.6	(3.0)	13.6	(2.3)	18.9	(3.3)	15.4	(2.8)	10.5	(2.1)	7.9	(2.2)	11.1	(2.7)	13.6	(3.0)	11.0	(2.8)	3.0	(1.4)	4.6	(1.8)	6.5	(2.0)
	Trinidad and Tobago	3.8	(0.1)	4.9	(0.1)	1.3	(0.0)	1.1	(0.0)	5.0	(0.2)	1.7	(0.1)	34.0	(0.3)	19.2	(0.2)	47.0	(0.3)	2.9	(0.0)	4.7	(0.1)	6.1	(0.1)
	Tunisia	20.3	(3.4)	14.6	(2.9)	2.0	(1.2)	2.1	(1.3)	28.6	(4.1)	16.9	(2.9)	10.6	(2.6)	13.9	(3.0)	37.7	(4.3)	3.7	(1.6)	3.4	(1.5)	2.5	(1.2)
	United Arab Emirates	30.6	(2.4)	28.0	(2.5)	17.7	(1.9)	14.9	(1.9)	18.5	(1.8)	14.1	(1.6)	32.7	(2.4)	29.4	(2.3)	32.6	(2.5)	23.7	(2.0)	26.1	(1.9)	24.1	(1.9)
	Uruguay	12.0	(1.8)	5.6	(1.7)	0.0	c	0.4	(0.4)	3.3	(1.2)	4.1	(1.3)	11.9	(2.1)	19.8	(2.6)	9.2	(2.0)	31.6	(2.6)	32.8	(2.9)	19.1	(2.3)
	Viet Nam	67.2	(3.7)	70.0	(3.5)	28.9	(3.7)	46.4	(4.3)	50.2	(4.4)	57.7	(3.7)	0.1	(0.1)	14.1	(3.0)	56.2	(3.9)	18.0	(3.5)	25.3	(3.7)	60.2	(3.5)
	Argentina**	47.4	(3.0)	67.8	(2.4)	89.9	(2.3)	89.6	(2.4)	63.1	(3.6)	40.1	(3.9)	15.4	(2.5)	21.8	(3.5)	32.8	(3.3)	11.5	(2.6)	66.4	(3.5)	86.0	(2.3)
	Kazakhstan**	5.7	(1.3)	5.6	(1.8)	32.0	(3.2)	12.7	(2.2)	73.3	(3.8)	74.2	(3.5)	15.3	(2.7)	11.9	(2.5)	5.0	(1.4)	13.2	(2.7)	12.9	(2.8)	19.4	(2.9)
	Malaysia**	36.2	(3.8)	14.6	(2.7)	2.7	(1.3)	8.6	(2.3)	8.6	(2.1)	7.9	(2.0)	18.6	(2.9)	18.9	(3.1)	74.6	(3.0)	13.0	(2.9)	7.4	(2.1)	20.2	(3.7)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 5/5]

Table II.4.1 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where national education authorities have considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.2	(0.2)	1.4	(0.5)	3.4	(0.9)	3.5	(0.9)	1.8	(0.6)	0.1	(0.1)	0.6	(0.3)	6.0	(0.9)	0.2	(0.2)	0.3	(0.0)	25.1	(1.5)	7.0	(1.1)
	Austria	8.0	(1.8)	10.9	(2.2)	63.9	(3.1)	65.7	(3.3)	41.5	(3.0)	2.4	(0.9)	2.6	(0.4)	32.2	(3.0)	3.8	(1.1)	5.6	(1.6)	52.4	(3.9)	46.7	(3.1)
	Belgium	9.8	(1.8)	11.2	(2.1)	91.2	(2.0)	90.8	(2.1)	16.3	(2.7)	3.9	(1.4)	4.4	(1.2)	12.5	(1.9)	19.7	(2.5)	1.7	(0.9)	44.5	(3.2)	36.1	(2.7)
	Canada	2.1	(0.8)	11.2	(1.5)	67.2	(2.7)	72.5	(2.4)	16.0	(1.9)	3.1	(0.9)	20.9	(2.2)	44.9	(2.5)	9.8	(1.6)	33.5	(2.4)	77.0	(2.1)	29.2	(2.4)
	Chile	0.0	c	0.0	c	25.7	(3.4)	29.1	(3.4)	2.5	(1.4)	3.9	(1.6)	13.0	(2.6)	22.0	(3.0)	17.5	(3.2)	24.4	(3.4)	57.8	(3.7)	19.0	(3.0)
	Czech Republic	0.0	c	0.0	c	29.9	(2.7)	34.7	(2.9)	8.3	(1.7)	0.5	(0.4)	3.2	(1.3)	2.8	(1.0)	2.2	(1.1)	6.0	(1.4)	19.8	(2.2)	10.6	(1.8)
	Denmark	0.0	c	0.0	c	43.6	(3.2)	47.8	(3.4)	1.3	(0.8)	0.2	(0.1)	0.4	(0.4)	29.8	(3.1)	3.2	(1.4)	0.0	c	27.9	(3.4)	43.3	(3.1)
	Estonia	0.0	c	0.7	(0.0)	76.9	(2.4)	54.9	(2.9)	8.6	(1.5)	0.4	(0.4)	3.0	(0.9)	13.1	(1.7)	1.4	(0.1)	8.0	(1.4)	5.9	(0.8)	6.4	(1.1)
	Finland	0.0	c	0.0	c	58.0	(3.7)	51.0	(3.8)	0.3	(0.3)	0.0	c	6.6	(2.1)	22.2	(3.4)	1.7	(1.1)	0.0	c	37.5	(3.6)	14.1	(2.8)
	France	47.0	(2.8)	59.7	(2.9)	83.1	(2.4)	81.7	(2.2)	13.5	(2.2)	0.9	(0.7)	2.2	(1.2)	34.8	(2.8)	2.3	(1.0)	2.7	(1.2)	47.7	(3.2)	42.4	(3.2)
	Germany	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Greece	94.3	(1.1)	94.9	(0.9)	97.2	(1.1)	96.5	(1.4)	13.9	(2.7)	5.3	(1.7)	11.7	(2.5)	73.1	(3.2)	15.8	(2.9)	95.9	(1.3)	98.5	(0.7)	97.0	(1.1)
	Hungary	0.6	(0.6)	2.8	(1.2)	64.0	(3.3)	62.8	(3.1)	11.5	(2.3)	3.9	(1.4)	3.3	(1.5)	5.9	(1.8)	2.0	(0.9)	17.1	(2.4)	52.9	(3.5)	54.2	(3.6)
	Iceland	0.0	c	0.0	c	22.6	(0.2)	24.5	(0.2)	0.0	c	0.0	c	12.0	(0.1)	35.5	(0.2)	2.0	(0.1)	9.1	(0.1)	30.1	(0.3)	57.7	(0.2)
	Ireland	6.7	(2.0)	26.2	(3.8)	88.3	(2.0)	86.4	(2.4)	18.8	(2.6)	7.5	(2.2)	7.8	(2.0)	12.9	(2.8)	5.4	(1.8)	0.0	c	56.0	(4.0)	14.7	(3.0)
	Israel	16.9	(2.4)	25.7	(3.3)	73.6	(3.6)	71.8	(3.8)	41.5	(3.9)	12.1	(2.5)	15.2	(2.7)	20.0	(2.9)	9.5	(2.1)	42.0	(3.7)	38.4	(3.7)	50.6	(3.6)
	Italy	68.0	(3.0)	64.4	(3.0)	88.1	(2.2)	85.8	(2.3)	76.8	(2.8)	8.1	(2.6)	0.0	(0.0)	5.9	(1.8)	1.3	(0.9)	0.2	(0.2)	34.0	(3.3)	27.8	(3.7)
	Japan	0.0	c	0.0	c	1.6	(0.9)	0.0	c	0.0	c	0.0	c	0.5	(0.4)	0.7	(0.7)	0.0	c	1.4	(0.8)	1.7	(0.9)	0.0	c
	Korea	21.9	(3.6)	28.1	(3.8)	49.8	(4.2)	70.3	(3.9)	11.8	(2.7)	2.1	(1.2)	6.3	(2.0)	4.2	(1.6)	3.6	(1.5)	3.2	(1.4)	5.1	(1.8)	6.4	(2.0)
	Latvia	0.9	(0.6)	0.3	(0.3)	66.6	(2.9)	48.4	(2.8)	8.9	(1.5)	2.8	(1.0)	6.8	(1.4)	25.4	(2.4)	21.2	(2.6)	24.7	(2.0)	72.8	(2.3)	33.4	(2.7)
	Luxembourg	80.6	(0.1)	83.9	(0.1)	84.1	(0.1)	82.4	(0.1)	62.3	(0.1)	11.2	(0.1)	28.0	(0.1)	84.1	(0.1)	32.8	(0.1)	88.8	(0.0)	83.3	(0.1)	67.4	(0.1)
	Mexico	37.7	(2.8)	30.5	(2.6)	41.5	(2.7)	44.4	(3.1)	18.1	(2.6)	5.6	(1.6)	3.2	(0.9)	18.3	(2.1)	17.1	(2.4)	17.4	(2.3)	58.6	(2.8)	61.6	(2.8)
	Netherlands	0.0	c	0.0	c	23.2	(3.7)	26.2	(4.1)	1.1	(0.9)	1.8	(1.2)	0.0	c	0.0	c	3.7	(1.7)	0.0	c	7.6	(2.2)	14.1	(3.3)
	New Zealand	0.7	(0.6)	7.5	(2.0)	80.7	(3.2)	76.1	(3.3)	5.7	(1.9)	1.3	(0.9)	11.0	(2.8)	25.4	(4.1)	19.5	(3.0)	2.4	(1.4)	21.8	(3.2)	5.0	(1.9)
	Norway	0.0	c	0.0	c	29.2	(3.2)	29.6	(3.6)	0.0	c	0.0	c	14.5	(2.7)	51.2	(4.1)	5.5	(1.6)	1.1	(0.8)	54.2	(3.8)	54.4	(3.9)
	Poland	2.5	(1.2)	2.5	(1.2)	78.4	(3.3)	84.5	(3.0)	4.3	(1.6)	2.1	(1.1)	2.0	(1.1)	5.8	(1.9)	2.9	(1.3)	6.3	(2.0)	2.4	(1.2)	49.9	(3.7)
	Portugal	68.3	(2.9)	84.6	(1.7)	92.4	(1.5)	92.4	(1.4)	37.9	(3.5)	17.2	(2.6)	39.9	(3.3)	55.9	(3.5)	34.6	(3.4)	6.5	(1.7)	67.5	(3.3)	44.0	(3.2)
	Slovak Republic	0.0	c	0.0	c	56.3	(3.3)	55.7	(3.5)	18.7	(2.7)	5.3	(1.4)	1.7	(0.8)	13.2	(2.6)	0.9	(0.6)	19.4	(2.5)	42.9	(3.4)	34.7	(3.2)
	Slovenia	11.5	(0.2)	23.1	(0.6)	91.8	(0.2)	86.6	(0.2)	64.4	(0.4)	13.9	(0.4)	36.7	(0.4)	53.4	(0.4)	61.1	(0.6)	32.4	(0.5)	73.3	(0.3)	76.1	(0.4)
	Spain	5.7	(1.8)	5.7	(1.8)	17.4	(2.9)	16.2	(2.8)	1.7	(0.9)	1.2	(0.8)	4.5	(1.7)	14.5	(2.7)	5.8	(1.8)	0.9	(0.7)	23.6	(3.3)	13.6	(2.3)
	Sweden	0.5	(0.5)	0.5	(0.5)	1.6	(0.9)	2.1	(1.1)	0.5	(0.5)	0.0	c	1.0	(0.7)	16.0	(2.5)	15.0	(2.7)	1.4	(0.8)	45.3	(3.8)	45.2	(3.4)
	Switzerland	0.0	c	0.0	c	1.1	(0.8)	1.7	(1.0)	0.6	(0.6)	0.0	c	0.0	c	3.0	(1.2)	1.0	(0.7)	2.0	(1.0)	18.4	(3.1)	14.8	(2.9)
	Turkey	91.2	(2.3)	88.8	(2.7)	94.0	(2.2)	94.4	(2.1)	46.7	(3.9)	21.9	(3.3)	88.1	(2.8)	91.8	(2.3)	41.6	(4.5)	76.0	(3.2)	95.9	(1.1)	81.2	(3.3)
	United Kingdom	0.1	(0.1)	3.9	(0.9)	17.4	(2.2)	12.1	(1.3)	9.5	(1.9)	0.4	(0.3)	3.0	(1.1)	7.4	(1.5)	4.9	(1.5)	1.2	(0.9)	18.2	(2.9)	7.8	(2.0)
	United States	0.0	c	0.0	c	0.9	(0.6)	0.9	(0.6)	1.8	(1.0)	0.5	(0.5)	4.5	(1.6)	13.7	(2.8)	2.9	(1.3)	4.8	(1.5)	10.0	(2.3)	5.1	(1.9)
	OECD average	16.9	(0.3)	19.7	(0.3)	53.1	(0.4)	52.5	(0.4)	16.7	(0.3)	4.1	(0.2)	10.5	(0.3)	25.2	(0.4)	10.9	(0.3)	15.8	(0.3)	41.4	(0.5)	34.5	(0.5)
Partners	**Albania**	4.7	(1.2)	4.5	(1.9)	81.6	(2.4)	80.9	(2.4)	12.3	(2.6)	3.3	(1.2)	32.7	(3.1)	54.9	(3.5)	14.6	(2.4)	4.9	(1.3)	31.6	(3.5)	23.2	(3.4)
	Algeria	7.3	(1.9)	11.9	(2.5)	92.4	(2.0)	94.5	(1.6)	21.6	(3.2)	4.0	(1.2)	14.0	(3.2)	30.4	(3.5)	4.3	(1.4)	66.8	(3.2)	82.1	(3.0)	73.3	(3.0)
	Brazil	2.7	(1.0)	6.4	(1.6)	14.4	(2.2)	15.5	(2.1)	15.2	(1.9)	9.7	(1.5)	2.3	(0.8)	8.5	(1.4)	7.3	(1.7)	2.9	(1.0)	13.3	(2.0)	12.9	(1.9)
	B-S-J-G (China)	1.0	(0.4)	2.8	(1.4)	12.5	(2.5)	13.8	(2.6)	1.3	(0.8)	0.9	(0.5)	7.0	(2.1)	6.6	(2.1)	0.5	(0.3)	11.6	(2.2)	23.7	(3.1)	30.2	(3.9)
	Bulgaria	0.7	(0.5)	2.5	(1.3)	37.0	(3.6)	31.5	(3.7)	47.2	(3.9)	6.1	(1.8)	20.6	(2.8)	50.7	(4.0)	5.1	(1.5)	18.6	(3.0)	82.2	(3.3)	77.8	(2.9)
	CABA (Argentina)	1.7	(1.2)	1.3	(0.9)	27.1	(6.8)	34.1	(7.6)	9.0	(2.5)	9.8	(3.6)	6.2	(1.5)	5.3	(3.4)	0.9	(0.9)	0.8	(0.8)	22.1	(5.2)	25.2	(5.5)
	Colombia	10.5	(2.1)	9.3	(1.8)	70.8	(2.8)	75.3	(2.6)	27.7	(3.5)	0.4	(0.4)	3.0	(1.2)	10.4	(1.9)	2.1	(1.0)	2.9	(1.0)	19.3	(3.0)	12.1	(2.5)
	Costa Rica	86.1	(2.2)	86.5	(2.4)	89.2	(2.1)	88.7	(2.4)	22.0	(3.4)	3.4	(1.3)	34.5	(3.2)	59.6	(3.4)	11.0	(2.2)	23.1	(3.1)	86.8	(2.6)	88.7	(2.2)
	Croatia	8.5	(2.2)	22.5	(3.4)	99.3	(0.6)	98.2	(0.8)	31.4	(3.5)	6.9	(2.2)	61.6	(3.7)	72.1	(2.9)	83.8	(2.7)	48.7	(4.1)	90.8	(2.1)	96.0	(1.4)
	Cyprus*	83.2	(0.1)	83.2	(0.1)	83.2	(0.1)	81.4	(0.1)	63.5	(0.1)	47.8	(0.1)	51.3	(0.1)	56.8	(0.2)	77.0	(0.1)	83.6	(0.1)	84.4	(0.1)	81.9	(0.1)
	Dominican Republic	75.1	(2.6)	75.7	(2.3)	80.8	(1.7)	80.4	(1.8)	22.6	(3.5)	29.6	(3.2)	36.0	(3.4)	53.8	(3.5)	9.5	(2.4)	80.9	(2.2)	87.3	(2.3)	89.4	(2.2)
	FYROM	40.0	(0.2)	44.4	(0.2)	92.7	(0.1)	96.1	(0.0)	44.5	(0.2)	33.5	(0.2)	46.2	(0.2)	65.7	(0.1)	63.8	(0.2)	76.5	(0.1)	87.0	(0.1)	85.7	(0.1)
	Georgia	1.3	(0.7)	2.7	(1.0)	82.4	(2.2)	82.7	(2.3)	2.0	(0.9)	1.3	(0.8)	15.1	(2.6)	53.5	(3.4)	18.4	(2.5)	9.0	(1.8)	54.7	(3.1)	56.0	(3.1)
	Hong Kong (China)	8.2	(2.1)	24.4	(3.3)	65.6	(4.2)	69.2	(4.1)	9.3	(2.4)	3.6	(1.6)	2.0	(1.2)	2.8	(1.3)	12.4	(2.9)	5.2	(1.9)	12.9	(2.6)	9.2	(2.4)
	Indonesia	24.5	(3.1)	22.3	(2.5)	29.4	(2.7)	26.2	(2.9)	1.0	(0.7)	3.0	(1.2)	0.4	(0.4)	5.2	(1.3)	2.1	(1.1)	19.0	(2.8)	26.4	(3.1)	24.8	(3.4)
	Jordan	72.3	(2.7)	74.2	(2.5)	77.9	(2.2)	76.9	(2.2)	20.0	(2.7)	11.8	(2.3)	54.0	(3.8)	50.7	(3.6)	10.0	(2.1)	78.6	(2.6)	81.6	(2.4)	77.6	(3.0)
	Kosovo	5.4	(0.7)	14.0	(0.9)	83.9	(1.1)	89.4	(0.9)	13.1	(1.0)	5.5	(0.7)	37.0	(0.9)	44.2	(1.3)	18.1	(0.5)	86.5	(1.0)	48.8	(1.3)	54.2	(1.4)
	Lebanon	34.0	(2.3)	35.5	(2.7)	55.9	(2.8)	56.9	(2.7)	15.3	(2.5)	11.6	(2.1)	20.4	(2.7)	20.6	(2.2)	14.2	(2.5)	40.4	(2.8)	50.8	(3.2)	37.7	(3.4)
	Lithuania	0.1	(0.1)	0.0	c	38.2	(2.7)	35.5	(2.9)	19.4	(2.3)	6.2	(1.2)	4.3	(1.1)	10.8	(1.7)	0.4	(0.2)	3.8	(0.8)	32.6	(2.8)	9.2	(1.6)
	Macao (China)	0.1	(0.0)	0.1	(0.0)	1.2	(0.0)	6.9	(0.0)	0.4	(0.0)	0.1	(0.0)	1.1	(0.0)	1.1	(0.0)	1.2	(0.0)	1.4	(0.0)	2.5	(0.0)	4.2	(0.0)
	Malta	56.5	(0.1)	56.5	(0.1)	89.6	(0.0)	82.6	(0.1)	37.5	(0.1)	12.0	(0.1)	8.3	(0.0)	27.1	(0.1)	34.5	(0.1)	53.2	(0.1)	78.0	(0.1)	66.8	(0.1)
	Moldova	5.8	(1.1)	2.4	(1.0)	61.9	(3.4)	76.9	(3.1)	38.6	(3.7)	3.2	(1.2)	7.6	(2.0)	55.5	(3.6)	19.6	(2.7)	73.6	(2.9)	64.7	(3.2)	34.6	(3.7)
	Montenegro	26.8	(0.3)	28.6	(0.2)	97.3	(0.1)	70.1	(0.4)	54.6	(0.3)	11.8	(0.2)	59.2	(0.5)	67.5	(0.5)	89.1	(0.3)	90.8	(0.1)	83.6	(0.2)	76.4	(0.4)
	Peru	14.0	(2.2)	22.6	(2.3)	66.8	(2.0)	72.1	(1.5)	14.9	(2.4)	6.2	(1.7)	3.3	(1.5)	27.0	(2.8)	8.9	(1.9)	54.2	(2.6)	49.0	(2.9)	58.5	(2.7)
	Qatar	22.6	(0.1)	18.6	(0.1)	52.7	(0.1)	53.8	(0.1)	46.7	(0.1)	23.0	(0.1)	48.5	(0.1)	58.4	(0.1)	51.8	(0.1)	58.6	(0.1)	66.1	(0.1)	48.3	(0.1)
	Romania	20.6	(3.3)	15.3	(3.0)	85.0	(2.6)	86.5	(2.5)	36.9	(4.2)	13.9	(3.0)	13.0	(2.7)	46.3	(3.8)	58.2	(3.5)	21.9	(3.1)	41.7	(4.0)	28.9	(3.4)
	Russia	0.0	c	0.0	c	23.1	(3.6)	32.4	(4.2)	14.6	(2.9)	5.1	(2.0)	2.1	(0.7)	15.1	(2.6)	2.2	(1.0)	29.3	(4.1)	48.7	(4.1)	20.6	(2.5)
	Singapore	80.4	(0.6)	81.3	(0.6)	87.1	(0.6)	84.7	(0.6)	38.0	(0.3)	7.9	(0.1)	20.6	(0.2)	31.0	(0.2)	51.3	(0.4)	29.5	(0.2)	56.7	(0.4)	31.8	(0.3)
	Chinese Taipei	4.0	(1.1)	8.5	(1.9)	68.9	(2.7)	68.7	(2.7)	13.7	(2.6)	1.7	(0.9)	14.7	(2.8)	17.3	(2.9)	29.6	(3.1)	5.2	(1.7)	12.1	(2.4)	14.8	(2.6)
	Thailand	10.3	(2.0)	10.6	(1.9)	40.1	(3.3)	15.4	(2.5)	15.9	(2.4)	8.7	(2.2)	9.6	(2.5)	14.3	(2.7)	8.1	(2.1)	5.6	(1.8)	7.1	(2.1)	7.2	(1.8)
	Trinidad and Tobago	72.0	(0.1)	91.8	(0.1)	90.1	(0.1)	89.5	(0.1)	39.2	(0.3)	17.4	(0.2)	56.8	(0.3)	61.2	(0.3)	66.9	(0.3)	47.8	(0.3)	82.2	(0.2)	54.0	(0.3)
	Tunisia	80.8	(3.6)	82.5	(3.4)	95.2	(1.7)	95.2	(1.7)	53.3	(3.9)	17.4	(3.3)	26.4	(3.2)	77.0	(3.7)	7.1	(2.4)	93.7	(2.0)	88.8	(2.3)	96.4	(1.5)
	United Arab Emirates	27.1	(1.4)	28.5	(1.4)	30.7	(1.6)	29.7	(1.7)	19.3	(1.3)	19.2	(1.8)	29.2	(1.9)	31.7	(1.9)	16.8	(1.8)	43.7	(2.1)	47.4	(2.2)	44.8	(2.1)
	Uruguay	73.1	(1.9)	79.8	(1.7)	82.6	(1.3)	81.7	(1.8)	77.0	(1.8)	45.3	(2.6)	43.9	(2.8)	55.9	(3.0)	43.0	(2.7)	48.1	(3.1)	71.7	(2.7)	72.2	(2.6)
	Viet Nam	0.0	c	1.3	(0.9)	64.2	(3.8)	6.5	(1.8)	2.5	(1.2)	1.2	(0.8)	1.1	(0.7)	50.7	(4.1)	2.3	(1.1)	49.2	(4.2)	40.6	(3.4)	5.6	(1.4)
	Argentina**	0.7	(0.6)	1.4	(0.8)	14.5	(2.9)	15.5	(2.9)	8.0	(2.0)	4.9	(1.5)	2.0	(0.8)	3.6	(1.5)	3.7	(1.2)	4.0	(1.4)	17.2	(2.5)	19.7	(3.1)
	Kazakhstan**	0.1	(0.0)	0.6	(0.4)	51.2	(3.4)	81.8	(2.3)	17.1	(2.5)	16.2	(2.7)	13.0	(2.4)	37.9	(3.8)	2.5	(1.2)	52.2	(3.4)	61.1	(3.2)	27.3	(2.9)
	Malaysia**	69.9	(3.5)	86.6	(2.0)	93.0	(1.1)	86.5	(1.8)	25.3	(3.5)	37.7	(4.1)	55.7	(4.2)	70.4	(3.7)	27.4	(3.5)	78.8	(3.1)	86.9	(2.5)	37.4	(3.8)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.4.5 Index of school autonomy[1], science performance and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[2]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	75.7	(0.8)	20.8	(1.1)	68.7	(1.7)	72.0	(2.2)	75.5	(2.2)	85.9	(1.3)	**17.1**	(2.1)
	Austria	58.3	(1.3)	16.6	(1.6)	55.9	(2.7)	60.6	(2.2)	54.8	(3.5)	61.9	(2.3)	6.0	(3.6)
	Belgium	69.1	(1.2)	21.3	(1.5)	67.1	(2.0)	68.3	(3.4)	70.3	(2.8)	70.8	(2.2)	3.7	(3.0)
	Canada	65.3	(0.9)	20.4	(0.9)	65.7	(1.7)	61.9	(2.1)	68.3	(1.9)	65.1	(3.2)	-0.6	(3.8)
	Chile	80.0	(1.6)	23.1	(2.0)	72.9	(3.9)	70.8	(5.0)	82.2	(3.6)	93.5	(2.1)	**20.6**	(4.3)
	Czech Republic	95.6	(0.4)	10.7	(1.4)	96.3	(0.9)	95.1	(1.2)	95.8	(1.2)	95.1	(0.8)	-1.2	(1.2)
	Denmark	83.1	(1.0)	14.7	(1.9)	80.3	(2.2)	81.3	(2.9)	83.1	(2.5)	87.8	(1.8)	**7.4**	(3.1)
	Estonia	88.2	(0.7)	14.9	(1.7)	88.6	(2.3)	88.9	(2.6)	88.8	(2.4)	86.4	(1.3)	-2.2	(2.8)
	Finland	74.7	(1.4)	16.2	(1.6)	74.9	(2.0)	73.9	(2.9)	73.0	(3.1)	77.1	(3.5)	2.3	(4.1)
	France	58.5	(1.2)	20.0	(1.2)	53.6	(2.8)	61.0	(2.6)	58.7	(2.4)	60.3	(2.9)	6.6	(3.7)
	Germany	62.5	(0.8)	12.0	(0.9)	62.3	(1.7)	63.7	(2.3)	62.2	(1.8)	61.9	(2.1)	-0.4	(2.8)
	Greece	26.4	(0.9)	15.6	(1.2)	21.3	(1.2)	26.3	(1.7)	25.0	(1.7)	32.9	(2.3)	**11.6**	(2.6)
	Hungary	63.3	(1.3)	21.3	(1.0)	63.1	(2.7)	58.5	(3.6)	63.7	(3.3)	67.5	(3.6)	4.4	(4.9)
	Iceland	81.5	(0.1)	11.8	(0.3)	82.7	(0.2)	77.4	(0.4)	84.2	(0.2)	81.8	(0.2)	**-1.0**	(0.2)
	Ireland	75.2	(0.9)	13.1	(0.9)	71.1	(2.0)	71.7	(2.2)	77.5	(1.4)	80.3	(2.6)	**9.2**	(3.3)
	Israel	75.6	(1.4)	16.6	(1.8)	67.8	(4.3)	76.8	(2.3)	78.7	(2.9)	79.1	(1.9)	**11.3**	(4.7)
	Italy	56.8	(1.3)	16.7	(1.6)	59.0	(1.4)	55.1	(3.1)	54.4	(2.5)	58.9	(2.8)	-0.1	(3.1)
	Japan	73.3	(0.9)	21.1	(0.8)	69.7	(2.8)	68.3	(2.5)	72.5	(3.0)	82.8	(2.6)	**13.1**	(3.9)
	Korea	66.3	(1.0)	13.3	(0.9)	66.1	(2.4)	64.9	(2.4)	65.5	(2.1)	68.8	(2.1)	2.6	(3.3)
	Latvia	84.1	(0.9)	17.5	(1.4)	83.2	(1.4)	84.6	(2.2)	84.0	(1.7)	84.8	(1.8)	1.6	(2.4)
	Luxembourg	67.7	(0.0)	16.4	(0.0)	73.6	(0.1)	59.5	(0.1)	64.8	(0.1)	72.8	(0.0)	**-0.8**	(0.1)
	Mexico	45.3	(1.5)	25.8	(1.0)	36.4	(2.7)	38.3	(3.5)	42.3	(3.4)	64.2	(3.2)	**27.8**	(4.3)
	Netherlands	90.8	(2.3)	22.8	(4.1)	88.2	(4.8)	94.8	(2.5)	88.6	(5.1)	91.7	(3.7)	3.5	(3.9)
	New Zealand	84.9	(1.1)	16.1	(2.2)	89.5	(1.4)	83.5	(3.3)	79.8	(2.6)	87.2	(1.0)	-2.2	(1.7)
	Norway	72.7	(1.1)	17.3	(1.3)	79.0	(1.6)	72.6	(2.8)	66.3	(2.8)	73.3	(2.6)	**-5.7**	(2.8)
	Poland	77.7	(1.2)	16.0	(1.9)	79.7	(2.2)	77.7	(2.8)	79.2	(2.3)	74.4	(4.1)	-5.4	(4.3)
	Portugal	61.5	(1.2)	16.5	(1.1)	59.9	(2.4)	59.0	(2.6)	61.1	(2.5)	66.1	(2.9)	6.1	(3.7)
	Slovak Republic	88.4	(0.8)	13.5	(1.2)	87.6	(1.8)	88.4	(2.2)	89.0	(1.3)	88.4	(1.8)	0.7	(2.6)
	Slovenia	76.5	(0.2)	15.0	(0.2)	75.3	(0.4)	77.7	(0.3)	76.0	(0.5)	77.0	(0.3)	**1.7**	(0.5)
	Spain	57.5	(0.9)	18.4	(0.9)	48.3	(2.4)	54.7	(1.8)	53.8	(2.5)	73.2	(2.4)	**24.9**	(3.4)
	Sweden	87.7	(0.9)	12.3	(0.8)	85.2	(2.0)	85.7	(2.3)	88.7	(1.5)	91.1	(2.0)	**5.8**	(2.9)
	Switzerland	69.5	(1.5)	20.3	(1.6)	72.2	(2.5)	64.6	(3.8)	63.3	(4.1)	78.2	(2.4)	5.9	(3.5)
	Turkey	29.0	(2.0)	22.2	(2.3)	30.2	(2.9)	28.2	(6.3)	28.1	(3.5)	29.4	(4.3)	-0.9	(5.5)
	United Kingdom	91.5	(1.3)	19.7	(3.0)	94.5	(1.2)	83.5	(4.8)	93.7	(2.4)	94.0	(2.6)	-0.4	(2.8)
	United States	80.2	(1.8)	23.0	(1.8)	78.4	(3.6)	77.6	(4.3)	81.6	(4.0)	83.0	(4.2)	4.6	(5.6)
	OECD average	71.3	(0.2)	17.5	(0.3)	70.0	(0.4)	69.3	(0.5)	70.7	(0.4)	75.0	(0.4)	**5.1**	(0.6)
Partners	**Albania**	66.1	(1.4)	18.7	(0.8)	66.7	(3.2)	69.0	(3.8)	65.7	(5.6)	64.8	(3.5)	-1.9	(4.9)
	Algeria	43.0	(1.4)	16.1	(0.9)	42.9	(3.0)	46.7	(2.2)	39.0	(2.7)	43.6	(3.0)	0.7	(4.3)
	Brazil	49.5	(1.2)	25.3	(0.9)	46.4	(1.9)	41.8	(2.2)	38.1	(2.0)	70.8	(3.7)	**24.4**	(4.2)
	B-S-J-G (China)	51.5	(1.6)	24.1	(1.0)	43.8	(3.8)	47.1	(5.1)	54.7	(4.8)	60.5	(3.1)	**16.8**	(4.9)
	Bulgaria	81.2	(1.3)	16.2	(1.9)	83.8	(1.6)	80.5	(3.5)	80.6	(2.3)	79.8	(3.4)	-4.0	(3.7)
	CABA (Argentina)	63.0	(2.2)	22.5	(1.5)	40.0	(4.4)	54.1	(5.7)	77.2	(7.3)	82.4	(2.8)	**42.3**	(5.0)
	Colombia	66.4	(1.1)	19.5	(1.3)	61.2	(1.2)	60.6	(2.6)	61.3	(3.3)	82.3	(2.4)	**21.0**	(2.7)
	Costa Rica	51.9	(1.4)	20.4	(1.2)	53.7	(3.1)	53.8	(3.3)	53.8	(3.3)	46.4	(2.5)	-7.3	(3.9)
	Croatia	63.6	(1.2)	15.6	(0.8)	65.8	(2.2)	67.4	(2.6)	60.0	(2.8)	61.1	(2.8)	-4.7	(3.4)
	Cyprus*	33.5	(0.1)	31.9	(0.1)	21.9	(0.2)	20.2	(0.2)	24.2	(0.1)	67.4	(0.2)	**45.5**	(0.3)
	Dominican Republic	48.7	(1.2)	23.9	(0.8)	36.5	(2.3)	38.5	(3.1)	48.1	(3.6)	71.6	(3.2)	**35.1**	(4.2)
	FYROM	71.4	(0.1)	23.5	(0.0)	70.3	(0.1)	74.3	(0.2)	64.0	(0.2)	77.5	(0.2)	**7.2**	(0.2)
	Georgia	75.8	(0.9)	15.7	(1.4)	74.0	(1.4)	72.1	(2.5)	72.6	(2.2)	84.4	(1.8)	**10.4**	(2.2)
	Hong Kong (China)	84.0	(2.3)	26.9	(3.0)	80.4	(6.0)	84.0	(5.5)	81.9	(6.7)	89.9	(5.1)	9.4	(7.9)
	Indonesia	82.1	(1.0)	18.6	(0.6)	85.7	(2.6)	82.8	(2.6)	75.4	(3.1)	84.7	(4.0)	-1.0	(5.3)
	Jordan	35.6	(1.3)	24.8	(1.1)	26.5	(2.2)	28.9	(2.3)	30.6	(3.3)	56.5	(3.8)	**30.0**	(4.4)
	Kosovo	44.0	(0.6)	21.6	(0.4)	43.3	(2.1)	41.3	(1.3)	39.9	(1.5)	51.3	(1.7)	**8.1**	(2.9)
	Lebanon	73.1	(1.4)	26.4	(1.3)	55.6	(3.9)	64.5	(3.4)	77.9	(3.4)	94.4	(1.8)	**38.8**	(4.3)
	Lithuania	91.1	(0.6)	11.6	(0.5)	92.7	(1.4)	90.0	(1.6)	90.0	(1.7)	91.6	(1.1)	-1.1	(2.0)
	Macao (China)	98.7	(0.0)	7.0	(0.0)	95.9	(0.0)	100.0	c	99.9	(0.0)	99.1	(0.0)	**3.2**	(0.0)
	Malta	53.0	(0.0)	25.1	(0.0)	36.8	(0.1)	36.1	(0.1)	61.9	(0.1)	78.1	(0.1)	**41.2**	(0.2)
	Moldova	71.0	(1.3)	16.7	(0.7)	69.9	(2.6)	71.2	(2.2)	71.5	(2.2)	71.5	(2.9)	1.6	(3.8)
	Montenegro	58.1	(0.1)	19.8	(0.1)	53.0	(0.2)	59.0	(0.1)	60.4	(0.3)	60.2	(0.3)	**7.2**	(0.4)
	Peru	64.1	(1.2)	23.8	(0.9)	56.1	(1.9)	58.0	(2.5)	63.1	(3.1)	79.3	(4.0)	**23.2**	(4.7)
	Qatar	63.5	(0.1)	32.3	(0.0)	52.3	(0.2)	64.7	(0.2)	59.4	(0.2)	77.6	(0.1)	**25.3**	(0.2)
	Romania	68.2	(1.2)	15.2	(1.0)	69.4	(1.9)	70.3	(2.8)	66.7	(2.8)	66.5	(2.8)	-2.9	(3.4)
	Russia	81.4	(1.4)	16.2	(2.0)	76.3	(1.8)	78.3	(2.8)	84.6	(2.5)	86.5	(2.7)	**10.2**	(3.2)
	Singapore	73.9	(0.6)	16.4	(0.3)	68.5	(0.1)	68.4	(0.9)	70.9	(0.3)	87.8	(1.3)	**19.2**	(1.3)
	Chinese Taipei	74.5	(1.1)	19.4	(1.5)	80.3	(2.5)	68.0	(4.2)	74.4	(2.4)	75.3	(2.1)	-4.9	(3.5)
	Thailand	90.0	(1.8)	21.1	(2.9)	91.2	(1.7)	87.8	(4.3)	89.1	(4.5)	92.1	(3.5)	0.9	(3.6)
	Trinidad and Tobago	61.4	(0.1)	17.8	(0.1)	56.6	(0.2)	56.0	(0.3)	66.7	(0.3)	67.0	(0.2)	**10.4**	(0.3)
	Tunisia	30.4	(1.1)	15.4	(1.2)	32.4	(2.6)	28.9	(2.5)	28.5	(2.5)	31.9	(2.9)	-0.5	(3.9)
	United Arab Emirates	59.0	(1.0)	41.0	(0.6)	40.5	(4.0)	40.3	(4.0)	65.3	(3.5)	90.5	(2.6)	**50.0**	(5.0)
	Uruguay	41.7	(1.2)	29.8	(0.7)	32.7	(3.6)	31.8	(2.7)	31.4	(3.1)	70.7	(2.8)	**38.0**	(4.6)
	Viet Nam	45.7	(2.0)	25.9	(1.2)	36.9	(4.0)	42.0	(3.9)	54.3	(5.3)	49.5	(4.6)	**12.6**	(6.2)
	Argentina**	51.4	(1.1)	19.0	(0.8)	45.0	(2.6)	48.0	(3.2)	50.9	(3.0)	62.0	(2.8)	**17.1**	(3.9)
	Kazakhstan**	59.2	(1.3)	18.1	(0.8)	58.2	(2.2)	61.0	(2.6)	58.6	(3.5)	58.9	(2.6)	0.7	(3.2)
	Malaysia**	40.9	(1.4)	24.8	(1.0)	39.9	(2.6)	34.6	(4.7)	43.8	(4.3)	45.1	(3.5)	5.2	(4.7)

1. The index of school autonomy is calculated as the percentage of tasks for which the principal, the teachers or the school governing board have considerable responsibility.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.4.5 Index of school autonomy¹, science performance and school characteristics

Results based on school principals' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	72.5	(3.6)	76.4	(1.3)	77.9	(0.8)	5.4	(3.6)	70.6	(0.8)	87.1	(0.8)	**16.6**	(1.1)
	Austria	61.3	(3.3)	58.3	(1.8)	58.8	(1.9)	-2.5	(3.8)	58.6	(1.4)	60.3	(3.4)	1.7	(3.7)
	Belgium	79.1	(2.3)	71.7	(1.6)	64.2	(2.5)	**-14.9**	(3.8)	w	w	w	w	w	w
	Canada	65.2	(2.7)	67.6	(1.5)	63.7	(1.4)	-1.5	(3.0)	64.0	(0.8)	78.4	(5.9)	**14.4**	(5.9)
	Chile	67.8	(9.3)	75.3	(2.8)	84.0	(1.7)	16.2	(9.5)	61.7	(2.8)	92.1	(1.3)	**30.4**	(3.2)
	Czech Republic	96.9	(0.8)	95.9	(0.6)	96.1	(0.8)	-0.8	(1.2)	95.6	(0.4)	98.8	(0.6)	**3.2**	(0.7)
	Denmark	84.6	(1.7)	82.4	(1.6)	84.5	(2.0)	0.0	(2.7)	80.6	(1.4)	91.9	(1.5)	**11.3**	(2.2)
	Estonia	90.1	(1.0)	88.3	(1.2)	87.3	(0.9)	**-2.8**	(1.3)	87.7	(0.8)	96.8	(1.1)	**9.1**	(1.3)
	Finland	79.2	(2.4)	72.7	(1.6)	78.7	(2.2)	-0.5	(3.0)	74.7	(1.2)	98.8	(0.9)	**24.2**	(1.5)
	France	71.7	(3.4)	57.4	(1.6)	59.5	(2.3)	**-12.2**	(4.0)	54.8	(1.3)	75.3	(1.9)	**20.5**	(2.2)
	Germany	57.7	(3.1)	61.6	(1.1)	66.0	(1.5)	**8.3**	(3.7)	62.1	(0.7)	72.0	(3.4)	**10.0**	(3.5)
	Greece	29.9	(2.7)	25.3	(1.4)	26.9	(1.6)	-3.0	(3.2)	24.1	(0.7)	74.4	(4.8)	**50.3**	(4.8)
	Hungary	54.6	(8.0)	63.9	(1.8)	63.1	(2.4)	8.6	(9.0)	58.6	(1.4)	86.3	(2.1)	**27.7**	(2.5)
	Iceland	83.9	(0.2)	81.1	(0.1)	80.5	(0.3)	**-3.5**	(0.3)	81.5	(0.1)	m	m	m	m
	Ireland	73.4	(2.7)	73.5	(1.3)	79.5	(2.0)	6.2	(3.7)	66.2	(1.5)	81.4	(1.1)	**15.1**	(1.8)
	Israel	75.1	(4.6)	74.1	(2.3)	77.3	(1.8)	2.3	(5.0)	m	m	m	m	m	m
	Italy	44.9	(14.9)	55.6	(1.5)	62.6	(1.7)	17.7	(15.2)	56.5	(1.1)	89.3	(3.3)	**32.8**	(3.4)
	Japan	m	m	66.2	(2.3)	76.0	(1.2)	m	m	61.5	(1.1)	98.6	(1.5)	**37.2**	(1.7)
	Korea	m	m	67.0	(2.9)	66.3	(1.1)	m	m	60.9	(0.9)	76.6	(1.9)	**15.7**	(2.2)
	Latvia	84.0	(1.6)	84.2	(1.2)	85.1	(1.7)	1.1	(2.5)	84.4	(0.8)	87.4	(6.2)	3.0	(6.3)
	Luxembourg	m	m	66.4	(0.0)	69.3	(0.0)	m	m	64.7	(0.0)	83.6	(0.1)	**18.9**	(0.1)
	Mexico	34.3	(3.0)	43.4	(2.2)	51.4	(2.3)	**17.1**	(4.0)	39.1	(1.3)	89.5	(2.6)	**50.4**	(2.7)
	Netherlands	m	m	92.0	(2.8)	91.9	(3.3)	m	m	93.3	(2.4)	95.1	(1.7)	1.8	(1.5)
	New Zealand	83.9	(3.5)	85.1	(2.2)	84.8	(1.0)	0.8	(3.7)	84.0	(1.2)	97.2	(2.4)	**13.2**	(2.6)
	Norway	73.3	(2.0)	72.9	(1.6)	73.4	(2.5)	0.1	(3.6)	72.9	(1.1)	92.0	(4.4)	**19.1**	(4.6)
	Poland	80.6	(1.5)	79.0	(1.5)	76.3	(2.2)	-4.4	(2.7)	78.3	(1.0)	90.2	(4.8)	**11.9**	(4.9)
	Portugal	64.4	(2.5)	61.3	(1.2)	64.4	(3.4)	0.0	(4.2)	60.3	(1.2)	90.9	(3.7)	**30.6**	(4.0)
	Slovak Republic	88.3	(2.3)	88.3	(1.0)	88.9	(1.6)	0.6	(2.9)	87.4	(0.9)	95.4	(1.3)	**8.0**	(1.5)
	Slovenia	74.4	(1.2)	76.5	(0.3)	78.2	(0.1)	**3.8**	(1.2)	76.5	(0.2)	77.0	(0.1)	**0.5**	(0.2)
	Spain	51.3	(3.4)	53.9	(1.4)	64.8	(2.0)	**13.5**	(4.2)	49.4	(1.3)	75.2	(1.5)	**25.8**	(2.1)
	Sweden	82.9	(2.6)	88.1	(1.2)	88.0	(1.8)	5.1	(3.0)	87.0	(1.1)	90.6	(1.7)	3.5	(2.1)
	Switzerland	75.4	(3.2)	68.4	(1.7)	71.3	(3.9)	-4.1	(5.3)	68.7	(1.5)	86.1	(8.4)	**17.4**	(8.6)
	Turkey	27.1	(4.5)	27.2	(2.3)	30.3	(3.1)	3.3	(5.5)	26.1	(1.4)	89.4	(6.3)	**63.3**	(6.2)
	United Kingdom	96.0	(1.3)	91.8	(1.6)	94.6	(0.8)	-1.4	(1.5)	93.4	(0.8)	99.6	(0.2)	**6.2**	(0.9)
	United States	83.7	(4.1)	82.1	(2.3)	76.7	(3.4)	-7.0	(5.3)	79.4	(1.8)	95.6	(2.9)	**16.2**	(3.4)
	OECD average	70.6	(0.8)	70.7	(0.3)	72.6	(0.3)	1.7	(0.9)	68.1	(0.2)	86.7	(0.6)	**19.0**	(0.6)
Partners	**Albania**	64.8	(2.3)	63.3	(2.4)	71.1	(3.2)	6.3	(3.9)	62.2	(1.3)	95.6	(2.3)	**33.3**	(2.6)
	Algeria	38.9	(3.2)	45.3	(1.5)	35.2	(3.8)	-3.8	(5.0)	43.0	(1.4)	m	m	m	m
	Brazil	49.6	(3.5)	47.3	(1.3)	52.5	(2.3)	2.9	(4.0)	42.7	(0.9)	95.7	(1.2)	**53.0**	(1.6)
	B-S-J-G (China)	35.7	(6.3)	46.5	(2.3)	62.8	(2.8)	**27.2**	(7.2)	48.6	(1.7)	78.6	(5.6)	**30.0**	(5.6)
	Bulgaria	85.2	(4.1)	82.1	(1.7)	79.5	(2.4)	-5.7	(4.8)	82.1	(1.1)	m	m	m	m
	CABA (Argentina)	m	m	m	m	63.2	(2.4)	m	m	47.4	(3.7)	79.5	(3.0)	**32.1**	(5.2)
	Colombia	61.8	(1.9)	64.6	(1.7)	69.9	(1.6)	**8.0**	(2.6)	59.6	(0.7)	89.9	(3.7)	**30.3**	(3.9)
	Costa Rica	48.8	(2.8)	51.4	(1.8)	61.1	(4.6)	**12.3**	(5.0)	45.8	(1.1)	94.6	(1.7)	**48.8**	(2.1)
	Croatia	m	m	65.0	(1.6)	61.4	(1.8)	m	m	63.4	(1.2)	68.6	(5.3)	5.2	(5.5)
	Cyprus*	30.5	(0.2)	29.6	(0.1)	41.1	(0.2)	**10.6**	(0.3)	22.7	(0.0)	90.2	(0.3)	**67.5**	(0.3)
	Dominican Republic	37.2	(2.6)	47.1	(2.0)	60.2	(3.4)	**23.0**	(4.0)	39.7	(1.2)	80.6	(2.4)	**40.9**	(2.5)
	FYROM	68.8	(0.2)	70.9	(0.1)	74.2	(0.1)	**5.4**	(0.3)	70.7	(0.1)	100.0	c	**29.3**	(0.1)
	Georgia	75.1	(1.3)	72.8	(2.1)	78.6	(1.9)	3.5	(2.3)	74.4	(1.0)	88.9	(3.9)	**14.6**	(4.1)
	Hong Kong (China)	m	m	m	m	84.0	(2.3)	m	m	65.2	(12.2)	86.7	(2.1)	21.5	(12.4)
	Indonesia	83.0	(2.2)	81.6	(1.8)	83.2	(3.6)	0.2	(4.5)	71.3	(1.5)	97.8	(0.6)	**26.6**	(1.6)
	Jordan	35.8	(4.8)	32.7	(1.9)	39.9	(2.6)	4.2	(5.9)	28.3	(1.3)	62.9	(3.6)	**34.6**	(3.9)
	Kosovo	47.9	(2.7)	41.2	(0.6)	48.6	(1.1)	0.7	(3.0)	42.6	(0.6)	97.0	(0.8)	**54.4**	(1.0)
	Lebanon	63.7	(5.8)	73.4	(1.9)	79.2	(2.8)	**15.5**	(6.7)	51.9	(2.3)	93.7	(0.9)	**41.8**	(2.6)
	Lithuania	91.1	(1.5)	92.5	(1.1)	89.5	(0.8)	-1.6	(1.7)	91.0	(0.7)	93.3	(2.9)	2.3	(3.0)
	Macao (China)	m	m	m	m	98.7	(0.0)	m	m	m	m	99.8	(0.0)	m	m
	Malta	59.0	(0.1)	52.2	(0.1)	m	m	m	m	36.8	(0.1)	76.1	(0.0)	**39.3**	(0.1)
	Moldova	71.7	(1.6)	70.5	(2.6)	68.8	(3.1)	-2.9	(3.6)	70.8	(1.3)	m	m	m	m
	Montenegro	m	m	59.5	(0.1)	54.4	(0.1)	m	m	57.9	(0.1)	m	m	m	m
	Peru	58.4	(2.2)	64.5	(1.8)	72.6	(5.6)	**14.3**	(6.3)	54.8	(1.2)	85.3	(3.4)	**30.4**	(3.6)
	Qatar	44.3	(0.2)	56.7	(0.1)	71.3	(0.1)	**27.0**	(0.2)	42.8	(0.1)	93.7	(0.1)	**50.9**	(0.1)
	Romania	70.9	(2.0)	66.2	(1.6)	71.2	(2.2)	0.2	(3.0)	68.1	(1.2)	m	m	m	m
	Russia	74.2	(1.8)	80.7	(2.2)	84.4	(1.4)	**10.2**	(2.1)	81.5	(1.2)	m	m	m	m
	Singapore	m	m	m	m	74.7	(0.7)	m	m	73.2	(0.0)	87.3	(5.8)	**14.1**	(5.8)
	Chinese Taipei	m	m	74.1	(2.1)	75.0	(1.5)	m	m	66.9	(1.2)	91.3	(1.6)	**24.4**	(2.0)
	Thailand	93.0	(1.5)	92.8	(1.5)	91.3	(3.5)	-1.7	(3.6)	89.2	(1.9)	94.7	(4.9)	5.5	(5.2)
	Trinidad and Tobago	59.5	(0.2)	62.1	(0.1)	m	m	m	m	59.1	(0.1)	93.2	(0.5)	**34.1**	(0.5)
	Tunisia	25.1	(4.2)	32.0	(1.5)	27.3	(2.5)	2.2	(4.8)	29.5	(1.1)	77.5	(3.8)	**48.0**	(4.0)
	United Arab Emirates	14.3	(4.1)	40.4	(3.8)	72.6	(2.0)	**58.2**	(4.7)	18.0	(2.0)	89.8	(0.9)	**71.8**	(2.0)
	Uruguay	27.8	(5.5)	38.3	(1.9)	48.2	(2.1)	**20.4**	(5.9)	31.9	(1.3)	95.6	(1.4)	**63.8**	(2.0)
	Viet Nam	43.8	(2.8)	42.0	(3.0)	53.6	(4.4)	9.8	(5.2)	43.7	(2.0)	88.8	(5.9)	**45.2**	(6.2)
	Argentina**	47.5	(4.5)	51.3	(1.8)	52.2	(2.0)	4.7	(4.9)	45.8	(1.3)	71.2	(2.2)	**25.4**	(2.6)
	Kazakhstan**	58.5	(1.9)	55.6	(2.4)	61.7	(2.4)	3.3	(3.1)	58.0	(1.2)	87.4	(3.5)	**29.4**	(3.6)
	Malaysia**	45.9	(4.8)	38.6	(2.4)	41.6	(2.8)	-4.3	(5.6)	37.7	(1.4)	94.3	(7.4)	**56.7**	(7.6)

1. The index of school autonomy is calculated as the percentage of tasks for which the principal, the teachers or the school governing board have considerable responsibility.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.4.5 Index of school autonomy[1], science performance and school characteristics

Results based on school principals' reports

		By education level						Before accounting for students' and schools' socio-economic profile[2]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 - ISCED 2		Change in science score per percentage point increase on the index of school autonomy		Explained variance in student performance (r-squared x 100)		Change in science score per percentage point increase on the index of school autonomy		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	Australia	75.7	(0.8)	75.3	(1.4)	-0.5	(1.2)	**0.60**	(0.1)	1.5	(0.4)	0.08	(0.1)	16.2	(1.1)
	Austria	53.8	(2.4)	58.4	(1.3)	4.6	(2.6)	0.37	(0.3)	0.4	(0.7)	0.14	(0.2)	31.3	(1.8)
	Belgium	59.9	(2.9)	70.0	(1.3)	**10.1**	(2.9)	**0.47**	(0.2)	1.0	(0.8)	**0.23**	(0.1)	36.1	(2.0)
	Canada	65.9	(1.7)	65.2	(1.0)	-0.7	(1.7)	0.06	(0.1)	0.0	(0.1)	0.02	(0.1)	11.5	(1.0)
	Chile	65.2	(4.7)	80.9	(1.6)	**15.7**	(4.7)	**0.84**	(0.2)	5.0	(1.4)	0.14	(0.1)	26.4	(1.6)
	Czech Republic	95.8	(0.5)	95.3	(0.8)	-0.4	(0.9)	-0.13	(0.3)	0.0	(0.1)	0.01	(0.2)	33.2	(2.1)
	Denmark	83.1	(1.0)	91.9	(8.6)	8.8	(8.6)	0.31	(0.2)	0.3	(0.3)	0.10	(0.2)	12.0	(1.4)
	Estonia	88.2	(0.7)	88.1	(2.5)	-0.1	(2.5)	-0.17	(0.2)	0.1	(0.2)	-0.17	(0.1)	11.1	(1.3)
	Finland	74.8	(1.4)	m	m	m	m	0.21	(0.2)	0.1	(0.2)	0.18	(0.1)	11.2	(1.4)
	France	59.1	(2.3)	58.3	(1.3)	-0.8	(2.5)	0.09	(0.2)	0.0	(0.2)	**-0.28**	(0.1)	38.3	(2.2)
	Germany	62.4	(0.8)	65.5	(3.6)	3.1	(3.8)	-0.49	(0.3)	0.3	(0.6)	-0.32	(0.2)	35.6	(2.3)
	Greece	23.5	(2.3)	26.5	(0.9)	3.0	(2.6)	**0.90**	(0.2)	2.4	(1.1)	-0.09	(0.2)	23.4	(2.7)
	Hungary	58.3	(2.5)	63.8	(1.4)	5.5	(3.0)	0.28	(0.2)	0.4	(0.7)	-0.09	(0.1)	43.4	(2.2)
	Iceland	81.5	(0.1)	m	m	m	m	**0.48**	(0.1)	0.4	(0.2)	**0.42**	(0.1)	5.4	(0.8)
	Ireland	75.1	(0.9)	75.4	(0.9)	0.3	(0.5)	**0.84**	(0.3)	1.5	(0.8)	0.18	(0.2)	15.4	(1.4)
	Israel	70.7	(2.4)	76.2	(1.5)	**5.5**	(2.4)	**0.93**	(0.3)	2.2	(1.4)	0.18	(0.2)	23.2	(2.4)
	Italy	53.5	(3.0)	56.8	(1.3)	3.4	(3.1)	0.13	(0.3)	0.1	(0.5)	0.06	(0.3)	23.8	(2.4)
	Japan	m	m	73.3	(0.9)	m	m	-0.10	(0.2)	0.1	(0.2)	**-0.69**	(0.1)	30.4	(2.4)
	Korea	61.1	(2.4)	66.9	(1.1)	**5.8**	(2.8)	0.31	(0.4)	0.2	(0.5)	-0.03	(0.2)	17.9	(2.1)
	Latvia	84.0	(0.9)	88.1	(1.5)	**4.1**	(1.4)	0.17	(0.1)	0.1	(0.2)	0.06	(0.1)	12.5	(1.4)
	Luxembourg	65.8	(0.0)	70.1	(0.1)	**4.3**	(0.1)	**0.21**	(0.1)	0.1	(0.1)	**-0.26**	(0.1)	34.5	(1.0)
	Mexico	41.7	(1.9)	47.7	(1.9)	**5.9**	(2.5)	**0.49**	(0.1)	3.2	(1.2)	-0.04	(0.1)	17.3	(2.0)
	Netherlands	91.6	(2.1)	88.9	(3.8)	-2.7	(3.1)	-0.02	(0.3)	0.0	(0.3)	-0.08	(0.2)	36.5	(4.5)
	New Zealand	84.9	(2.0)	84.9	(1.1)	0.0	(1.1)	0.21	(0.2)	0.1	(0.2)	0.27	(0.2)	19.7	(1.9)
	Norway	72.7	(1.1)	m	m	m	m	-0.03	(0.2)	0.0	(0.1)	0.08	(0.2)	8.6	(0.9)
	Poland	77.7	(1.2)	m	m	m	m	-0.10	(0.2)	0.0	(0.1)	-0.04	(0.1)	15.6	(1.6)
	Portugal	60.8	(1.3)	61.9	(1.4)	1.1	(1.4)	0.07	(0.3)	0.0	(0.1)	-0.32	(0.2)	20.0	(2.0)
	Slovak Republic	87.8	(1.1)	88.8	(1.2)	1.0	(1.6)	0.00	(0.4)	0.0	(0.2)	0.19	(0.2)	30.3	(2.4)
	Slovenia	71.8	(3.3)	76.8	(0.0)	4.9	(3.3)	**0.39**	(0.1)	0.4	(0.2)	**0.32**	(0.1)	35.8	(1.3)
	Spain	57.5	(0.9)	m	m	m	m	**0.51**	(0.1)	1.2	(0.6)	**-0.28**	(0.1)	14.6	(1.2)
	Sweden	87.8	(0.9)	78.1	(6.4)	-9.7	(6.4)	0.43	(0.3)	0.3	(0.4)	-0.09	(0.2)	16.4	(1.7)
	Switzerland	69.3	(1.7)	71.1	(2.8)	1.8	(3.3)	0.19	(0.2)	0.2	(0.4)	-0.10	(0.2)	24.4	(2.0)
	Turkey	33.9	(5.2)	28.8	(2.0)	-5.1	(5.6)	-0.10	(0.2)	0.1	(0.4)	-0.23	(0.2)	26.7	(4.1)
	United Kingdom	67.7	(1.4)	91.5	(1.3)	**23.8**	(1.8)	0.15	(0.1)	0.1	(0.1)	0.05	(0.1)	18.8	(1.7)
	United States	77.7	(2.8)	80.4	(1.8)	2.8	(1.9)	0.25	(0.1)	0.4	(0.4)	0.18	(0.1)	14.3	(1.6)
	OECD average	68.8	(0.4)	71.5	(0.5)	**3.3**	(0.6)	**0.25**	(0.0)	0.6	(0.1)	-0.01	(0.0)	22.6	(0.3)
Partners	Albania	64.4	(1.8)	67.1	(1.9)	2.8	(2.5)	m	m	m	m	m	m	m	m
	Algeria	43.9	(1.4)	40.3	(3.8)	-3.6	(4.0)	-0.42	(0.3)	1.0	(1.3)	-0.38	(0.2)	10.3	(2.7)
	Brazil	46.6	(1.7)	50.2	(1.3)	3.5	(1.9)	**1.06**	(0.1)	9.2	(1.9)	**0.37**	(0.1)	22.7	(2.2)
	B-S-J-G (China)	48.5	(1.9)	56.7	(2.8)	**8.2**	(3.3)	**0.85**	(0.2)	3.9	(1.6)	-0.01	(0.2)	34.7	(3.0)
	Bulgaria	85.9	(3.2)	81.0	(1.4)	-4.9	(3.4)	**-0.72**	(0.3)	1.3	(1.3)	-0.19	(0.2)	38.4	(2.8)
	CABA (Argentina)	62.4	(2.4)	71.0	(5.5)	8.6	(6.1)	**1.37**	(0.3)	12.8	(4.0)	-0.31	(0.2)	32.8	(3.5)
	Colombia	64.4	(1.1)	67.8	(1.2)	**3.4**	(1.0)	**0.89**	(0.2)	4.8	(1.7)	0.05	(0.1)	20.2	(2.5)
	Costa Rica	53.0	(1.6)	50.6	(1.5)	-2.4	(1.3)	**-0.29**	(0.1)	0.7	(0.7)	-0.05	(0.1)	22.4	(2.1)
	Croatia	m	m	63.6	(1.2)	m	m	0.08	(0.3)	0.0	(0.2)	**0.40**	(0.2)	26.4	(2.0)
	Cyprus*	23.8	(0.6)	34.1	(0.1)	**10.3**	(0.6)	**0.63**	(0.0)	4.8	(0.6)	-0.06	(0.0)	17.2	(0.9)
	Dominican Republic	41.5	(2.0)	50.6	(1.4)	**9.1**	(2.5)	**0.90**	(0.2)	8.7	(2.6)	-0.04	(0.1)	26.0	(3.1)
	FYROM	m	m	71.4	(0.1)	m	m	-0.02	(0.1)	0.0	(0.0)	-0.05	(0.1)	13.5	(1.1)
	Georgia	75.0	(1.0)	76.0	(1.0)	1.0	(0.9)	**0.59**	(0.2)	1.1	(0.6)	0.14	(0.1)	15.2	(1.6)
	Hong Kong (China)	85.0	(2.5)	83.6	(2.3)	-1.4	(1.4)	-0.11	(0.1)	0.1	(0.4)	**-0.23**	(0.1)	13.4	(1.9)
	Indonesia	80.7	(1.5)	83.7	(1.5)	2.9	(2.1)	**-0.41**	(0.2)	1.2	(1.1)	**-0.32**	(0.1)	24.2	(3.0)
	Jordan	35.6	(1.3)	m	m	m	m	**0.49**	(0.1)	2.1	(1.1)	-0.07	(0.1)	12.4	(2.2)
	Kosovo	49.5	(2.0)	42.1	(0.5)	**-7.4**	(2.1)	0.02	(0.1)	0.0	(0.1)	**-0.25**	(0.1)	14.7	(1.4)
	Lebanon	67.2	(2.1)	75.4	(1.6)	**8.2**	(2.4)	**1.00**	(0.1)	8.6	(2.1)	**0.29**	(0.1)	19.7	(3.2)
	Lithuania	91.1	(0.6)	m	m	m	m	0.30	(0.2)	0.1	(0.2)	**0.44**	(0.2)	21.7	(2.3)
	Macao (China)	98.6	(0.0)	98.8	(0.0)	**0.2**	(0.1)	**1.01**	(0.2)	0.8	(0.3)	**0.91**	(0.2)	2.8	(0.5)
	Malta	m	m	53.0	(0.1)	m	m	**1.70**	(0.1)	13.2	(1.0)	**0.22**	(0.1)	24.5	(1.1)
	Moldova	71.0	(1.3)	71.5	(2.5)	0.6	(2.5)	-0.26	(0.1)	0.3	(0.3)	-0.23	(0.1)	14.3	(1.7)
	Montenegro	59.2	(2.4)	58.1	(0.0)	-1.1	(2.4)	**0.31**	(0.1)	0.5	(0.2)	**-0.13**	(0.1)	17.2	(0.9)
	Peru	61.0	(1.0)	65.2	(1.4)	**4.1**	(1.4)	**0.62**	(0.1)	3.6	(1.5)	-0.09	(0.1)	30.0	(2.2)
	Qatar	57.3	(0.2)	65.1	(0.1)	**7.8**	(0.2)	**1.12**	(0.0)	13.5	(0.5)	**0.87**	(0.0)	21.4	(0.7)
	Romania	68.2	(1.2)	m	m	m	m	-0.26	(0.2)	0.3	(0.5)	-0.09	(0.2)	23.2	(2.9)
	Russia	81.0	(1.4)	83.8	(1.4)	**2.8**	(1.3)	**0.53**	(0.2)	1.1	(0.9)	0.21	(0.2)	9.9	(1.8)
	Singapore	75.6	(4.1)	73.8	(0.5)	-1.8	(3.6)	**1.35**	(0.1)	4.6	(0.9)	-0.12	(0.2)	26.2	(1.5)
	Chinese Taipei	66.2	(1.5)	79.1	(1.4)	**12.8**	(2.0)	**-0.64**	(0.2)	1.5	(0.9)	**-0.55**	(0.2)	29.4	(2.5)
	Thailand	90.6	(1.3)	89.9	(2.1)	-0.7	(1.8)	0.09	(0.2)	0.1	(0.3)	0.05	(0.1)	18.0	(3.1)
	Trinidad and Tobago	58.7	(0.2)	63.4	(0.1)	**4.7**	(0.2)	**1.30**	(0.1)	6.3	(0.7)	**0.63**	(0.1)	37.5	(1.1)
	Tunisia	31.0	(1.8)	30.0	(1.4)	-1.0	(2.4)	-0.15	(0.2)	0.1	(0.3)	-0.19	(0.2)	18.8	(3.6)
	United Arab Emirates	52.8	(3.4)	60.0	(1.1)	7.2	(3.7)	**0.99**	(0.1)	16.5	(1.8)	**0.70**	(0.1)	21.5	(2.1)
	Uruguay	34.6	(1.9)	45.9	(1.3)	**11.3**	(2.0)	**0.77**	(0.1)	7.0	(1.4)	-0.14	(0.1)	26.4	(1.8)
	Viet Nam	39.8	(3.2)	46.2	(2.1)	6.5	(3.9)	0.00	(0.2)	0.0	(0.2)	-0.22	(0.1)	20.1	(4.2)
	Argentina**	50.2	(1.3)	52.2	(1.3)	1.9	(1.4)	**0.54**	(0.2)	1.6	(1.0)	-0.08	(0.1)	19.3	(2.2)
	Kazakhstan**	56.1	(1.1)	57.7	(1.8)	1.6	(1.3)	**-0.46**	(0.2)	1.2	(1.1)	**-0.53**	(0.2)	10.3	(2.5)
	Malaysia**	35.0	(4.1)	41.1	(1.3)	6.1	(3.8)	0.17	(0.2)	0.3	(0.7)	-0.02	(0.1)	18.2	(2.4)

1. The index of school autonomy is calculated as the percentage of tasks for which the principal, the teachers or the school governing board have considerable responsibility.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.4.6 School type

Results based on school principals' reports about the organisation managing the school

		Percentage of students enrolled in:			
		Government or public schools¹		Private schools²	
		%	S.E.	%	S.E.
OECD	Australia	56.3	(0.8)	43.7	(0.8)
	Austria	87.4	(2.2)	12.6	(2.2)
	Belgium	w	w	w	w
	Canada	90.3	(1.0)	9.7	(1.0)
	Chile	36.9	(1.6)	63.1	(1.6)
	Czech Republic	91.8	(1.4)	8.2	(1.4)
	Denmark	76.8	(2.3)	23.2	(2.3)
	Estonia	95.8	(1.0)	4.2	(1.0)
	Finland	95.5	(1.5)	4.5	(1.5)
	France	79.0	(1.3)	21.0	(1.3)
	Germany	92.7	(1.6)	7.3	(1.6)
	Greece	95.1	(0.7)	4.9	(0.7)
	Hungary	82.0	(2.3)	18.0	(2.3)
	Iceland	99.4	(0.1)	0.6	(0.1)
	Ireland	42.7	(1.0)	57.3	(1.0)
	Israel	m	m	m	m
	Italy	95.9	(1.1)	4.1	(1.1)
	Japan	68.2	(1.0)	31.8	(1.0)
	Korea	65.3	(3.8)	34.7	(3.8)
	Latvia	98.0	(0.7)	2.0	(0.7)
	Luxembourg	84.4	(0.1)	15.6	(0.1)
	Mexico	87.5	(1.4)	12.5	(1.4)
	Netherlands	39.9	(4.6)	60.1	(4.6)
	New Zealand	93.4	(1.2)	6.6	(1.2)
	Norway	98.1	(1.0)	1.9	(1.0)
	Poland	96.5	(1.0)	3.5	(1.0)
	Portugal	94.5	(0.6)	5.5	(0.6)
	Slovak Republic	88.4	(2.1)	11.6	(2.1)
	Slovenia	97.4	(0.0)	2.6	(0.0)
	Spain	68.7	(1.2)	31.3	(1.2)
	Sweden	82.1	(1.0)	17.9	(1.0)
	Switzerland	93.9	(1.0)	6.1	(1.0)
	Turkey	95.2	(2.1)	4.8	(2.1)
	United Kingdom	93.7	(1.7)	6.3	(1.7)
	United States	92.3	(1.3)	7.7	(1.3)
	OECD average	82.4	(0.3)	17.6	(0.3)
Partners	Albania	88.4	(1.8)	11.6	(1.8)
	Algeria	98.5	(1.0)	1.5	(1.0)
	Brazil	85.5	(1.4)	14.5	(1.4)
	B-S-J-G (China)	89.4	(2.1)	10.6	(2.1)
	Bulgaria	98.8	(0.8)	1.2	(0.8)
	CABA (Argentina)	50.8	(4.7)	49.2	(4.7)
	Colombia	75.9	(1.8)	24.1	(1.8)
	Costa Rica	87.6	(2.3)	12.4	(2.3)
	Croatia	97.7	(1.1)	2.3	(1.1)
	Cyprus*	84.0	(0.1)	16.0	(0.1)
	Dominican Republic	77.7	(1.8)	22.3	(1.8)
	FYROM	98.1	(0.0)	1.9	(0.0)
	Georgia	92.6	(0.8)	7.4	(0.8)
	Hong Kong (China)	6.5	(0.3)	93.5	(0.3)
	Indonesia	59.2	(1.5)	40.8	(1.5)
	Jordan	80.0	(1.1)	20.0	(1.1)
	Kosovo	97.5	(0.5)	2.5	(0.5)
	Lebanon	49.7	(1.6)	50.3	(1.6)
	Lithuania	97.7	(1.1)	2.3	(1.1)
	Macao (China)	2.7	(0.0)	97.3	(0.0)
	Malta	58.2	(0.1)	41.8	(0.1)
	Moldova	98.5	(0.9)	1.5	(0.9)
	Montenegro	99.4	(0.0)	0.6	(0.0)
	Peru	68.6	(1.8)	31.4	(1.8)
	Qatar	58.2	(0.1)	41.8	(0.1)
	Romania	98.9	(0.8)	1.1	(0.8)
	Russia	99.0	(0.7)	1.0	(0.7)
	Singapore	91.6	(0.7)	8.4	(0.7)
	Chinese Taipei	66.2	(0.9)	33.8	(0.9)
	Thailand	85.2	(0.7)	14.8	(0.7)
	Trinidad and Tobago	92.0	(0.1)	8.0	(0.1)
	Tunisia	97.9	(1.0)	2.1	(1.0)
	United Arab Emirates	42.6	(1.3)	57.4	(1.3)
	Uruguay	84.6	(0.8)	15.4	(0.8)
	Viet Nam	95.9	(1.0)	4.1	(1.0)
	Argentina**	78.5	(1.7)	21.5	(1.7)
	Kazakhstan**	96.0	(1.3)	4.0	(1.3)
	Malaysia**	94.4	(0.7)	5.6	(0.7)

1. Schools that are directly or indirectly managed by a public education authority, government agency, or governing board, appointed by a public authority or elected by public franchise.
2. Schools that are directly or indirectly managed by a non-government organisation, such as a church, trade union, business, or other private institution.

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.4.10 Attendance at public schools, science performance and school characteristics

Results based on school principals' reports

	All students				By school socio-economic profile[1]									
	Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
	%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD														
Australia	56.3	(0.8)	49.6	(0.1)	95.3	(1.7)	71.8	(3.5)	37.2	(3.8)	23.5	(2.6)	**-71.8**	(3.2)
Austria	87.4	(2.2)	33.2	(2.5)	93.2	(4.3)	95.2	(3.5)	92.0	(3.6)	69.7	(7.5)	**-23.5**	(9.1)
Belgium	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Canada	90.3	(1.0)	29.6	(1.4)	99.8	(0.2)	94.6	(3.5)	95.8	(3.3)	71.8	(4.3)	**-28.0**	(4.4)
Chile	36.9	(1.6)	48.2	(0.4)	66.4	(6.1)	44.4	(7.8)	32.8	(7.3)	5.5	(3.7)	**-60.9**	(7.2)
Czech Republic	91.8	(1.4)	27.4	(2.2)	96.7	(2.6)	95.7	(2.8)	86.5	(3.8)	88.6	(3.7)	**-8.0**	(3.8)
Denmark	76.8	(2.3)	42.2	(1.4)	93.4	(3.2)	81.3	(6.8)	76.4	(8.7)	55.9	(10.7)	**-37.5**	(11.5)
Estonia	95.8	(1.0)	20.1	(2.4)	98.6	(1.2)	98.6	(1.4)	96.2	(0.2)	89.6	(3.7)	**-9.0**	(3.9)
Finland	95.5	(1.5)	20.7	(3.4)	100.0	c	100.0	c	96.7	(2.4)	85.4	(5.8)	**-14.6**	(5.8)
France	79.0	(1.3)	40.7	(0.9)	93.5	(3.2)	80.2	(5.5)	81.3	(5.0)	62.7	(5.0)	**-30.8**	(5.9)
Germany	92.7	(1.6)	26.0	(2.7)	100.0	c	92.6	(3.9)	91.1	(4.8)	87.2	(4.7)	**-12.8**	(4.7)
Greece	95.1	(0.7)	21.6	(1.4)	100.0	c	100.0	c	100.0	c	80.5	(2.7)	**-19.5**	(2.7)
Hungary	82.0	(2.3)	38.4	(1.9)	88.1	(2.5)	93.4	(4.0)	74.5	(6.3)	72.8	(6.7)	**-15.3**	(7.4)
Iceland	99.4	(0.1)	7.6	(0.4)	99.0	(0.2)	100.0	c	99.7	(0.0)	98.9	(0.2)	-0.1	(0.2)
Ireland	42.7	(1.0)	49.5	(0.1)	59.2	(6.9)	60.0	(6.9)	29.4	(8.9)	22.0	(6.6)	**-37.3**	(9.2)
Israel	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Italy	95.9	(1.1)	19.8	(2.7)	97.3	(1.5)	96.6	(2.4)	98.4	(1.2)	91.1	(3.4)	-6.2	(3.7)
Japan	68.2	(1.0)	46.6	(0.4)	78.3	(5.2)	79.0	(5.3)	71.1	(6.6)	44.3	(5.6)	**-34.0**	(8.1)
Korea	65.3	(3.8)	47.6	(1.2)	70.9	(7.1)	70.5	(7.8)	65.5	(9.4)	54.4	(9.0)	-16.4	(11.7)
Latvia	98.0	(0.7)	13.9	(2.3)	100.0	(0.2)	98.5	(1.5)	98.1	(1.4)	95.5	(2.4)	-4.5	(2.4)
Luxembourg	84.4	(0.1)	36.3	(0.1)	84.4	(0.1)	82.4	(0.1)	92.3	(0.1)	78.3	(0.2)	**-6.1**	(0.2)
Mexico	87.5	(1.4)	33.0	(1.6)	96.5	(2.5)	96.3	(2.2)	95.7	(2.8)	61.7	(4.9)	**-34.8**	(5.5)
Netherlands	39.9	(4.6)	49.0	(1.0)	40.0	(10.9)	40.3	(10.2)	23.4	(8.4)	53.9	(9.3)	13.9	(13.3)
New Zealand	93.4	(1.2)	24.7	(2.2)	100.0	c	100.0	c	94.0	(3.5)	81.5	(4.4)	**-18.5**	(4.4)
Norway	98.1	(1.0)	13.5	(3.4)	96.8	(2.5)	100.0	(1.3)	98.2	(1.5)	97.6	(2.5)	0.7	(3.5)
Poland	96.5	(1.0)	18.3	(2.4)	98.2	(1.8)	100.0	c	100.0	(0.8)	87.6	(3.6)	**-10.6**	(4.1)
Portugal	94.5	(0.6)	22.8	(1.2)	97.4	(1.3)	98.8	(1.2)	97.5	(1.8)	84.5	(2.4)	**-12.8**	(2.7)
Slovak Republic	88.4	(2.1)	32.0	(2.5)	92.6	(3.3)	89.1	(4.3)	92.4	(3.5)	79.4	(5.6)	**-13.3**	(6.4)
Slovenia	97.4	(0.0)	15.8	(0.1)	100.0	c	100.0	c	97.5	(0.1)	92.3	(0.1)	**-7.7**	(0.1)
Spain	68.7	(1.2)	46.4	(0.5)	90.6	(4.1)	95.8	(3.1)	70.3	(5.5)	18.1	(6.0)	**-72.4**	(7.8)
Sweden	82.1	(1.0)	38.3	(0.8)	96.0	(2.5)	96.7	(3.6)	71.7	(6.1)	64.2	(6.4)	**-31.9**	(7.4)
Switzerland	93.9	(1.0)	23.9	(1.9)	99.8	(0.0)	100.0	c	88.0	(2.8)	87.5	(4.1)	**-12.3**	(4.1)
Turkey	95.2	(2.1)	21.3	(4.6)	100.0	c	93.4	(6.5)	100.0	c	87.5	(5.7)	**-12.5**	(5.7)
United Kingdom	93.7	(1.7)	24.3	(3.0)	100.0	c	96.7	(5.5)	98.3	(4.7)	79.8	(4.9)	**-20.2**	(4.9)
United States	92.3	(1.3)	26.6	(2.1)	100.0	c	95.5	(4.7)	97.3	(4.4)	76.6	(5.9)	**-23.4**	(5.9)
OECD average	82.4	(0.3)	31.1	(0.3)	90.8	(0.7)	88.1	(0.8)	81.6	(0.9)	69.0	(0.9)	**-21.8**	(1.1)
Partners														
Albania	88.4	(1.8)	32.1	(2.1)	90.1	(6.8)	87.9	(8.1)	81.7	(10.9)	93.0	(4.1)	3.0	(8.3)
Algeria	98.5	(1.0)	12.0	(4.4)	96.3	(3.6)	100.0	c	100.0	c	97.7	(2.2)	1.4	(4.2)
Brazil	85.5	(1.4)	35.2	(1.5)	99.6	(0.4)	99.8	(0.3)	97.2	(1.5)	48.8	(5.0)	**-50.8**	(5.0)
B-S-J-G (China)	89.4	(2.1)	30.8	(2.6)	91.7	(3.7)	85.6	(5.6)	95.8	(6.2)	84.3	(6.5)	-7.4	(7.4)
Bulgaria	98.8	(0.8)	10.9	(3.5)	100.0	c	100.0	c	100.0	c	95.1	(3.1)	-4.9	(3.1)
CABA (Argentina)	50.8	(4.7)	50.0	(0.2)	96.8	(9.5)	61.5	(16.4)	25.9	(13.1)	16.2	(12.2)	**-80.6**	(13.2)
Colombia	75.9	(1.8)	42.7	(1.1)	95.4	(3.0)	91.9	(3.8)	83.5	(5.4)	35.1	(5.1)	**-60.3**	(5.7)
Costa Rica	87.6	(2.3)	33.0	(2.7)	84.6	(4.9)	89.8	(5.0)	81.2	(5.5)	94.6	(3.3)	9.9	(5.7)
Croatia	97.7	(1.1)	15.0	(3.7)	100.0	(1.8)	96.0	(2.9)	100.0	c	94.7	(3.5)	-5.3	(4.0)
Cyprus*	84.0	(0.1)	36.7	(0.1)	93.9	(0.3)	100.0	c	92.0	(0.1)	50.1	(0.3)	**-43.8**	(0.4)
Dominican Republic	77.7	(1.8)	41.6	(1.2)	98.5	(1.5)	97.9	(1.4)	82.8	(6.8)	32.6	(6.4)	**-66.0**	(6.5)
FYROM	98.1	(0.0)	13.5	(0.1)	100.0	c	100.0	c	100.0	c	92.0	(0.1)	**-8.0**	(0.1)
Georgia	92.6	(0.8)	26.2	(1.3)	99.4	(0.4)	99.9	(0.0)	94.6	(2.2)	75.4	(3.7)	**-24.0**	(3.9)
Hong Kong (China)	6.5	(0.3)	24.7	(0.5)	6.4	(0.9)	4.8	(1.8)	5.0	(4.0)	9.9	(3.8)	3.5	(3.9)
Indonesia	59.2	(1.5)	49.2	(0.3)	48.2	(7.2)	63.9	(7.0)	72.6	(5.5)	51.8	(8.0)	3.6	(12.6)
Jordan	80.0	(1.1)	40.0	(0.8)	88.7	(3.2)	86.7	(3.9)	92.6	(3.7)	51.6	(4.3)	**-37.1**	(5.4)
Kosovo	97.5	(0.5)	15.5	(1.5)	100.0	c	100.0	c	98.7	(1.8)	91.4	(2.1)	**-8.6**	(2.1)
Lebanon	49.7	(1.6)	50.0	(0.0)	89.4	(3.6)	75.3	(5.3)	30.5	(6.6)	3.8	(2.4)	**-85.6**	(4.5)
Lithuania	97.7	(1.1)	15.0	(3.6)	100.0	c	100.0	c	100.0	(1.8)	90.7	(4.1)	**-9.3**	(4.1)
Macao (China)	2.7	(0.0)	16.3	(0.1)	9.3	(0.1)	0.0	c	0.6	(0.0)	1.0	(0.0)	**-8.3**	(0.1)
Malta	58.2	(0.1)	49.3	(0.0)	99.1	(0.2)	92.8	(0.1)	39.3	(0.3)	0.0	c	**-99.1**	(0.2)
Moldova	98.5	(0.9)	12.3	(3.5)	99.1	(1.3)	100.0	(0.1)	98.2	(1.8)	96.5	(2.6)	-2.6	(2.9)
Montenegro	99.4	(0.0)	7.6	(0.3)	97.7	(0.2)	100.0	c	100.0	c	100.0	c	**2.3**	(0.2)
Peru	68.6	(1.8)	46.4	(0.7)	96.7	(2.0)	92.4	(3.6)	67.7	(6.3)	18.6	(5.5)	**-78.1**	(6.2)
Qatar	58.2	(0.1)	49.3	(0.0)	73.0	(0.3)	54.0	(0.3)	75.7	(0.3)	29.1	(0.3)	**-43.9**	(0.4)
Romania	98.9	(0.8)	10.3	(3.9)	100.0	c	98.3	(1.7)	100.0	c	97.3	(2.7)	-2.7	(2.7)
Russia	99.0	(0.7)	10.1	(3.3)	100.0	c	100.0	c	98.1	(1.4)	97.8	(2.2)	-2.2	(2.2)
Singapore	91.6	(0.7)	27.7	(1.0)	100.0	c	94.1	(2.0)	97.3	(0.0)	75.3	(4.5)	**-24.7**	(4.5)
Chinese Taipei	66.2	(0.9)	47.3	(0.3)	48.8	(6.1)	76.5	(7.0)	72.5	(6.7)	67.2	(6.1)	**18.4**	(9.1)
Thailand	85.2	(0.7)	35.5	(0.7)	91.9	(3.8)	84.9	(4.1)	84.2	(4.7)	79.9	(3.7)	**-12.0**	(6.0)
Trinidad and Tobago	92.0	(0.1)	27.1	(0.2)	95.0	(0.3)	98.6	(0.1)	81.2	(0.6)	92.4	(0.5)	**-2.6**	(0.6)
Tunisia	97.9	(1.0)	14.4	(3.4)	98.7	(1.1)	100.0	c	100.0	c	92.6	(4.1)	-6.1	(4.2)
United Arab Emirates	42.6	(1.3)	49.4	(0.2)	58.2	(5.7)	62.3	(4.6)	38.9	(5.0)	9.6	(3.3)	**-48.6**	(6.7)
Uruguay	84.6	(0.8)	36.1	(0.7)	100.0	c	100.0	c	100.0	(2.5)	38.6	(3.4)	**-61.4**	(3.4)
Viet Nam	95.9	(1.0)	19.7	(2.3)	99.7	(0.3)	96.6	(5.3)	90.8	(5.5)	96.6	(3.1)	-3.2	(3.1)
Argentina**	78.5	(1.7)	41.1	(1.2)	91.9	(4.3)	94.6	(1.6)	75.5	(7.9)	50.8	(6.9)	**-41.2**	(8.6)
Kazakhstan**	96.0	(1.3)	19.7	(3.1)	97.8	(1.5)	95.0	(4.3)	94.8	(4.4)	96.2	(3.0)	-1.6	(3.6)
Malaysia**	94.4	(0.7)	23.0	(1.3)	100.0	c	97.5	(2.4)	95.4	(4.4)	84.6	(4.3)	**-15.4**	(4.3)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.4.10 Attendance at public schools, science performance and school characteristics

Results based on school principals' reports

		By school location								By education level					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	78.5	(7.1)	59.8	(3.0)	53.7	(1.4)	**-24.8**	(7.3)	55.4	(0.8)	60.8	(2.2)	**5.3**	(2.2)
	Austria	90.8	(5.6)	92.5	(2.5)	77.8	(5.5)	-13.0	(7.9)	95.3	(3.3)	87.2	(2.2)	**-8.0**	(3.4)
	Belgium	w	w	w	w	w	w	w	w	w	w	w	w	w	w
	Canada	99.9	(0.1)	92.4	(1.9)	87.5	(1.9)	**-12.4**	(1.9)	79.4	(2.6)	91.7	(0.9)	**12.3**	(2.3)
	Chile	81.5	(14.5)	48.4	(5.7)	29.7	(3.0)	**-51.8**	(15.0)	70.7	(5.7)	34.8	(1.6)	**-35.9**	(6.0)
	Czech Republic	97.0	(2.1)	94.3	(1.8)	82.7	(4.0)	**-14.3**	(4.3)	97.6	(0.8)	84.8	(2.8)	**-12.8**	(2.7)
	Denmark	60.2	(8.6)	83.4	(2.9)	65.9	(8.4)	5.7	(12.1)	76.7	(2.3)	m	m	m	m
	Estonia	97.6	(2.4)	95.0	(1.5)	95.3	(1.6)	-2.3	(2.9)	95.8	(1.0)	94.7	(4.0)	-1.1	(4.1)
	Finland	100.0	c	100.0	c	84.1	(5.1)	**-15.9**	(5.1)	95.5	(1.5)	m	m	m	m
	France	65.8	(13.4)	81.4	(2.2)	78.0	(4.3)	12.2	(13.6)	79.4	(2.9)	78.9	(1.3)	-0.5	(3.0)
	Germany	82.2	(10.0)	95.2	(1.5)	90.1	(3.9)	8.0	(10.7)	92.5	(1.7)	99.1	(0.8)	**6.6**	(1.5)
	Greece	95.8	(3.1)	96.3	(1.7)	94.1	(2.2)	-1.7	(3.8)	100.0	c	94.8	(0.7)	**-5.2**	(0.7)
	Hungary	89.6	(9.9)	85.2	(3.5)	77.9	(4.1)	-11.7	(11.2)	90.9	(3.6)	81.0	(2.5)	**-9.9**	(4.3)
	Iceland	100.0	c	100.0	c	98.0	(0.2)	**-2.0**	(0.2)	99.4	(0.1)	m	m	m	m
	Ireland	58.9	(8.0)	44.4	(4.0)	24.7	(6.1)	**-34.2**	(11.1)	43.4	(1.2)	41.4	(1.4)	-2.0	(1.7)
	Israel	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Italy	98.2	(1.3)	98.1	(0.8)	90.5	(3.6)	**-7.7**	(3.8)	100.0	c	95.9	(1.2)	**-4.1**	(1.2)
	Japan	m	m	85.6	(4.2)	61.5	(2.0)	m	m	m	m	68.2	(1.0)	m	m
	Korea	m	m	60.1	(12.9)	66.3	(4.1)	m	m	78.7	(6.1)	64.0	(4.2)	-14.7	(7.5)
	Latvia	100.0	c	97.5	(1.3)	97.4	(0.7)	**-2.6**	(0.7)	98.1	(0.7)	95.9	(4.0)	-2.2	(4.0)
	Luxembourg	m	m	93.1	(0.1)	72.8	(0.1)	m	m	87.2	(0.1)	80.7	(0.1)	**-6.5**	(0.2)
	Mexico	97.4	(2.5)	94.4	(1.9)	78.8	(2.3)	**-18.7**	(3.0)	90.1	(2.1)	85.9	(1.8)	-4.2	(2.8)
	Netherlands	m	m	37.6	(5.3)	45.2	(8.6)	m	m	40.4	(5.3)	38.4	(6.1)	-2.0	(6.8)
	New Zealand	82.8	(13.6)	96.1	(2.6)	92.0	(2.0)	9.1	(14.2)	92.2	(3.5)	93.5	(1.2)	1.4	(2.9)
	Norway	100.0	c	97.9	(1.2)	97.1	(3.0)	-2.9	(3.0)	98.1	(1.0)	m	m	m	m
	Poland	98.7	(1.2)	98.8	(1.2)	90.1	(3.0)	**-8.7**	(3.3)	96.5	(1.0)	m	m	m	m
	Portugal	100.0	(0.0)	97.8	(1.4)	80.4	(4.8)	**-19.6**	(4.8)	98.8	(0.9)	92.2	(0.7)	**-6.6**	(1.1)
	Slovak Republic	98.1	(1.6)	87.7	(2.5)	78.6	(7.6)	**-19.6**	(7.6)	92.9	(2.1)	84.4	(3.5)	**-8.5**	(3.9)
	Slovenia	85.5	(1.1)	99.1	(0.0)	94.7	(0.1)	**9.2**	(1.1)	100.0	c	97.3	(0.0)	**-2.7**	(0.0)
	Spain	96.2	(3.9)	79.1	(2.5)	46.7	(5.1)	**-49.5**	(6.7)	68.8	(1.2)	m	m	m	m
	Sweden	93.0	(5.4)	87.0	(2.3)	68.8	(4.4)	**-24.2**	(7.3)	81.8	(1.0)	100.0	c	**18.2**	(1.0)
	Switzerland	82.4	(8.0)	95.3	(1.4)	92.9	(5.4)	10.5	(11.2)	95.0	(1.0)	90.1	(1.9)	**-4.8**	(1.7)
	Turkey	100.0	c	98.4	(1.4)	93.2	(3.4)	**-6.8**	(3.4)	100.0	c	95.1	(2.2)	**-4.9**	(2.2)
	United Kingdom	86.5	(8.3)	95.4	(2.0)	90.5	(3.7)	4.0	(9.6)	100.0	c	93.7	(1.7)	**-6.3**	(1.7)
	United States	93.2	(6.0)	91.7	(2.8)	93.0	(3.8)	-0.3	(7.8)	94.1	(1.7)	92.2	(1.3)	-2.0	(1.3)
	OECD average	90.0	(1.2)	85.3	(0.6)	77.1	(0.7)	**-9.9**	(1.5)	86.4	(0.4)	80.7	(0.5)	**-4.6**	(0.7)
Partners	**Albania**	94.9	(0.9)	91.3	(2.2)	78.9	(7.0)	**-16.0**	(7.0)	94.1	(1.5)	85.0	(2.8)	**-9.1**	(3.5)
	Algeria	100.0	c	98.7	(1.3)	96.5	(3.3)	-3.5	(3.3)	98.8	(1.1)	97.5	(2.5)	-1.3	(2.7)
	Brazil	100.0	c	93.4	(1.6)	77.1	(3.1)	**-22.9**	(3.1)	92.5	(2.0)	83.9	(1.6)	**-8.6**	(2.3)
	B-S-J-G (China)	94.1	(8.6)	94.9	(2.3)	81.9	(4.4)	-12.1	(9.6)	88.2	(1.5)	91.2	(4.4)	3.0	(4.3)
	Bulgaria	100.0	c	98.9	(1.1)	98.6	(1.1)	-1.4	(1.1)	100.0	c	98.8	(0.8)	-1.2	(0.8)
	CABA (Argentina)	m	m	m	m	51.0	(5.1)	m	m	50.8	(4.5)	51.4	(18.8)	0.6	(18.1)
	Colombia	87.7	(6.5)	90.6	(2.8)	63.2	(3.1)	**-24.5**	(7.5)	81.1	(2.1)	72.6	(2.1)	**-8.5**	(2.5)
	Costa Rica	95.9	(2.9)	87.8	(2.6)	70.0	(9.2)	**-25.9**	(8.7)	86.6	(2.5)	88.7	(2.6)	2.1	(2.1)
	Croatia	m	m	99.9	(0.1)	95.8	(2.5)	m	m	m	m	97.7	(1.1)	m	m
	Cyprus*	77.4	(0.2)	85.9	(0.1)	81.2	(0.2)	**3.8**	(0.3)	95.0	(0.7)	83.3	(0.1)	**-11.7**	(0.7)
	Dominican Republic	94.9	(3.1)	80.3	(3.4)	59.2	(7.8)	**-35.7**	(8.2)	94.2	(1.6)	73.4	(2.1)	**-20.8**	(2.6)
	FYROM	100.0	c	98.9	(0.0)	96.7	(0.0)	**-3.3**	(0.0)	m	m	98.1	(0.0)	m	m
	Georgia	99.7	(0.2)	93.3	(1.6)	87.1	(1.9)	**-12.6**	(1.9)	96.1	(0.9)	91.5	(0.9)	**-4.6**	(0.8)
	Hong Kong (China)	m	m	m	m	6.5	(0.3)	m	m	6.4	(0.3)	6.6	(0.3)	0.2	(0.4)
	Indonesia	48.7	(5.0)	67.7	(3.3)	45.5	(7.5)	-3.2	(9.3)	63.7	(1.6)	54.1	(2.6)	**-9.6**	(3.2)
	Jordan	90.5	(5.9)	82.9	(2.6)	71.6	(4.4)	**-18.8**	(8.1)	80.0	(1.1)	m	m	m	m
	Kosovo	96.8	(0.2)	98.9	(0.3)	94.8	(1.6)	-2.0	(1.6)	99.6	(0.2)	96.8	(0.6)	**-2.8**	(0.6)
	Lebanon	61.4	(6.8)	50.9	(3.3)	37.4	(6.0)	**-24.0**	(9.8)	63.1	(3.2)	44.4	(1.7)	**-18.7**	(3.7)
	Lithuania	100.0	c	98.9	(0.9)	95.1	(2.7)	-4.9	(2.7)	97.7	(1.1)	m	m	m	m
	Macao (China)	m	m	m	m	2.7	(0.0)	m	m	3.2	(0.1)	2.3	(0.1)	**-0.9**	(0.1)
	Malta	60.0	(0.2)	57.5	(0.1)	m	m	m	m	m	m	58.1	(0.1)	m	m
	Moldova	99.1	(0.8)	100.0	c	93.9	(4.2)	-5.3	(4.2)	98.7	(0.8)	94.9	(5.1)	-3.8	(5.0)
	Montenegro	m	m	100.0	c	100.0	c	m	m	100.0	c	99.4	(0.0)	**-0.6**	(0.0)
	Peru	88.3	(3.7)	65.4	(3.1)	49.1	(7.7)	**-39.2**	(9.0)	81.4	(1.6)	64.4	(2.1)	**-17.1**	(2.2)
	Qatar	90.5	(0.3)	64.0	(0.2)	49.9	(0.1)	**-40.6**	(0.3)	62.0	(0.3)	57.2	(0.1)	**-4.8**	(0.3)
	Romania	100.0	c	99.3	(0.7)	97.8	(2.2)	-2.2	(2.2)	98.9	(0.8)	m	m	m	m
	Russia	100.0	c	100.0	c	98.0	(1.3)	-2.0	(1.3)	99.5	(0.5)	95.8	(2.5)	-3.6	(2.4)
	Singapore	m	m	m	m	91.8	(0.8)	m	m	87.7	(14.0)	91.8	(0.4)	4.2	(13.7)
	Chinese Taipei	m	m	66.6	(4.1)	65.5	(2.6)	m	m	89.3	(0.7)	53.7	(1.1)	**-35.6**	(1.4)
	Thailand	82.0	(4.2)	86.3	(1.7)	87.4	(5.7)	5.5	(8.5)	88.6	(1.8)	84.1	(0.8)	**-4.5**	(2.1)
	Trinidad and Tobago	96.9	(0.3)	91.1	(0.1)	m	m	m	m	92.0	(0.2)	92.1	(0.1)	0.1	(0.3)
	Tunisia	100.0	c	99.0	(0.6)	95.0	(3.2)	-5.0	(3.2)	97.4	(1.5)	98.2	(1.3)	0.8	(1.9)
	United Arab Emirates	93.9	(5.6)	66.5	(4.9)	26.8	(2.8)	**-67.1**	(6.4)	45.5	(3.8)	42.2	(1.6)	-3.4	(4.5)
	Uruguay	100.0	c	92.3	(1.5)	71.8	(2.5)	**-28.2**	(2.5)	96.3	(0.4)	77.5	(1.2)	**-18.8**	(1.3)
	Viet Nam	96.7	(1.8)	95.8	(2.7)	94.8	(2.8)	-2.0	(3.3)	98.5	(2.0)	95.7	(1.0)	-2.8	(1.9)
	Argentina**	93.3	(4.5)	82.0	(3.1)	71.3	(3.6)	**-22.0**	(5.8)	82.3	(1.8)	76.1	(2.3)	**-6.2**	(2.7)
	Kazakhstan**	100.0	c	99.8	(0.2)	90.7	(3.1)	**-9.3**	(3.1)	99.6	(0.5)	99.7	(0.2)	0.2	(0.3)
	Malaysia**	100.0	c	95.7	(2.6)	90.5	(2.2)	**-9.5**	(2.2)	96.8	(2.7)	94.3	(0.7)	-2.5	(2.7)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.4.10 Attendance at public schools, science performance and school characteristics

Results based on school principals' reports

		Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Change in science score when the student attends a public school		Explained variance in student performance (r-squared x 100)		Change in science score when the student attends a public school		Explained variance in student performance (r-squared x 100)	
		Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	**-43**	(3.5)	4.5	(0.7)	0	(4.0)	16.6	(1.1)
	Austria	-25	(15.6)	0.7	(0.9)	**20**	(8.9)	31.8	(1.8)
	Belgium	w	w	w	w	w	w	w	w
	Canada	**-37**	(7.4)	1.5	(0.6)	-10	(6.0)	11.6	(1.0)
	Chile	**-46**	(4.8)	6.5	(1.4)	-4	(5.8)	26.6	(1.6)
	Czech Republic	-7	(10.8)	0.0	(0.2)	**26**	(7.0)	33.7	(2.1)
	Denmark	-16	(9.0)	0.5	(0.6)	-2	(6.9)	11.7	(1.4)
	Estonia	-9	(14.2)	0.0	(0.2)	**21**	(9.7)	11.1	(1.3)
	Finland	**-42**	(16.0)	0.8	(0.7)	-17	(11.7)	10.9	(1.4)
	France	**-27**	(7.2)	1.2	(0.6)	**21**	(5.8)	38.8	(2.3)
	Germany	**-46**	(8.8)	1.5	(0.8)	-15	(11.0)	35.4	(2.3)
	Greece	**-68**	(11.3)	2.5	(0.7)	**37**	(10.7)	24.1	(2.7)
	Hungary	-19	(9.9)	0.6	(0.6)	**14**	(5.6)	44.2	(2.2)
	Iceland	c	c	0.0	(0.1)	c	c	5.1	(0.8)
	Ireland	**-26**	(4.6)	2.1	(0.7)	**-11**	(4.3)	15.2	(1.3)
	Israel	m	m	m	m	m	m	m	m
	Italy	7	(17.8)	0.0	(0.2)	**41**	(14.7)	25.1	(2.4)
	Japan	**16**	(5.9)	0.7	(0.5)	**50**	(5.2)	33.9	(2.2)
	Korea	**-20**	(8.3)	1.0	(0.9)	-7	(5.8)	18.0	(2.1)
	Latvia	-11	(18.2)	0.0	(0.1)	10	(14.8)	12.4	(1.4)
	Luxembourg	0	(2.9)	0.0	(0.0)	**16**	(2.9)	34.7	(1.0)
	Mexico	**-30**	(8.3)	2.0	(1.0)	**16**	(5.5)	17.7	(2.0)
	Netherlands	4	(13.0)	0.0	(0.4)	-5	(8.8)	36.0	(4.7)
	New Zealand	**-67**	(11.1)	2.7	(1.0)	-7	(15.2)	19.6	(1.9)
	Norway	1	(22.7)	0.0	(0.1)	1	(20.3)	8.7	(0.9)
	Poland	**-67**	(12.0)	1.9	(0.7)	**-18**	(6.7)	15.5	(1.5)
	Portugal	**-50**	(12.2)	1.6	(0.6)	8	(12.7)	20.0	(2.0)
	Slovak Republic	-22	(15.4)	0.5	(0.7)	2	(7.2)	30.4	(2.3)
	Slovenia	**-64**	(10.4)	1.1	(0.4)	8	(10.2)	35.5	(1.3)
	Spain	**-30**	(4.5)	2.4	(0.7)	8	(4.2)	14.4	(1.2)
	Sweden	-15	(8.1)	0.3	(0.3)	**15**	(7.2)	16.6	(1.7)
	Switzerland	-16	(13.3)	0.1	(0.3)	**31**	(15.6)	24.9	(2.0)
	Turkey	-4	(20.0)	0.0	(0.3)	**61**	(18.0)	28.9	(4.1)
	United Kingdom	**-65**	(10.7)	2.6	(0.9)	6	(5.9)	19.2	(1.8)
	United States	-17	(9.8)	0.2	(0.3)	26	(16.2)	14.6	(1.7)
	OECD average	**-28**	(2.1)	1.4	(0.1)	**10**	(1.8)	22.9	(0.4)
Partners	**Albania**	m	m	m	m	m	m	m	m
	Algeria	c	c	1.1	(1.8)	c	c	10.4	(3.3)
	Brazil	**-94**	(8.5)	13.8	(2.4)	**-25**	(9.9)	22.2	(2.2)
	B-S-J-G (China)	-6	(15.1)	0.0	(0.2)	9	(14.8)	34.7	(3.0)
	Bulgaria	c	c	0.1	(0.1)	c	c	39.2	(2.8)
	CABA (Argentina)	**-47**	(12.7)	7.4	(3.9)	17	(10.6)	33.6	(3.7)
	Colombia	**-53**	(7.2)	8.2	(2.1)	-4	(6.2)	20.3	(2.5)
	Costa Rica	6	(8.5)	0.1	(0.3)	-4	(5.3)	22.4	(2.1)
	Croatia	-17	(16.6)	0.1	(0.2)	-2	(11.8)	26.0	(2.0)
	Cyprus*	**-36**	(3.1)	2.1	(0.4)	**14**	(3.7)	17.4	(0.9)
	Dominican Republic	**-51**	(8.1)	8.6	(2.6)	13	(9.2)	26.4	(3.2)
	FYROM	**-59**	(5.6)	0.9	(0.2)	**-14**	(6.2)	14.2	(1.1)
	Georgia	**-56**	(5.9)	2.6	(0.6)	-12	(7.6)	15.0	(1.6)
	Hong Kong (China)	**16**	(6.5)	0.3	(0.2)	**16**	(6.0)	13.3	(1.8)
	Indonesia	**16**	(6.0)	1.3	(1.0)	**16**	(4.6)	24.7	(3.0)
	Jordan	**-30**	(6.0)	2.0	(0.8)	-3	(6.8)	12.6	(2.2)
	Kosovo	**-49**	(13.3)	1.1	(0.6)	17	(13.1)	14.3	(1.5)
	Lebanon	**-61**	(6.9)	11.2	(2.4)	**-17**	(7.1)	19.5	(3.2)
	Lithuania	**-72**	(31.8)	1.4	(1.5)	-10	(25.0)	21.4	(2.4)
	Macao (China)	c	c	1.0	(0.3)	c	c	2.9	(0.5)
	Malta	**-79**	(3.3)	11.4	(0.9)	**13**	(5.7)	22.5	(1.2)
	Moldova	c	c	0.5	(0.9)	c	c	14.2	(1.7)
	Montenegro	c	c	0.1	(0.1)	c	c	17.1	(0.9)
	Peru	**-59**	(5.3)	12.6	(2.1)	-3	(4.7)	29.9	(2.2)
	Qatar	**-74**	(1.5)	13.9	(0.5)	**-58**	(1.5)	21.9	(0.7)
	Romania	c	c	0.1	(0.2)	c	c	23.4	(2.9)
	Russia	c	c	0.1	(0.2)	c	c	9.7	(1.8)
	Singapore	-17	(9.5)	0.2	(0.2)	**60**	(8.5)	28.3	(1.2)
	Chinese Taipei	**47**	(5.3)	5.0	(1.0)	**41**	(3.5)	32.3	(2.4)
	Thailand	**28**	(9.5)	1.6	(1.1)	**41**	(5.9)	21.3	(3.0)
	Trinidad and Tobago	**-32**	(5.8)	0.9	(0.3)	**-14**	(5.4)	36.6	(1.2)
	Tunisia	8	(19.9)	0.0	(0.2)	**44**	(17.7)	19.3	(3.7)
	United Arab Emirates	**-76**	(5.2)	13.9	(1.8)	**-53**	(4.8)	21.2	(2.1)
	Uruguay	**-86**	(5.1)	12.8	(1.5)	**21**	(8.0)	26.6	(1.9)
	Viet Nam	**44**	(9.6)	1.3	(0.7)	**52**	(8.6)	21.1	(4.4)
	Argentina**	**-45**	(7.5)	5.3	(1.8)	**-13**	(5.7)	19.4	(2.2)
	Kazakhstan**	15	(15.4)	0.2	(0.3)	22	(12.5)	9.1	(2.4)
	Malaysia**	-37	(29.9)	1.2	(2.1)	6	(20.6)	18.2	(2.3)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.4.15 Criteria for choosing a school

Results based on parents' self-reports

		Percentage of students whose parents reported that, when choosing a school for their child, they consider "important" or "very important" the following:																					
		The school is a short distance from home		The school has a good reputation		The school offers particular courses or school subjects		The school adheres to a particular religious philosophy		The school has a particular approach to pedagogy		Other family members attended the school		Expenses are low (e.g. tuition, books, room and board)		The school has financial aid available, such as a school loan, scholarship or grant		The school has an active and pleasant school climate		The academic achievements of students in the school are high		There is a safe school environment	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Austria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Belgium (Fl. Comm.)	52.8	(1.4)	93.5	(0.4)	93.0	(0.4)	24.7	(1.0)	14.7	(0.7)	19.5	(0.8)	18.9	(0.6)	21.3	(0.7)	90.0	(0.6)	67.0	(1.1)	91.2	(0.5)
	Canada	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Chile	53.7	(1.4)	91.7	(0.5)	84.0	(0.7)	36.6	(1.5)	46.6	(0.9)	39.5	(1.0)	60.3	(0.8)	63.0	(0.8)	92.3	(0.5)	86.0	(0.7)	92.4	(0.5)
	Czech Republic	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Denmark	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Estonia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Finland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	France	61.8	(0.9)	90.6	(0.4)	67.8	(0.8)	9.5	(0.7)	12.8	(0.5)	24.5	(0.6)	41.4	(0.8)	m	m	86.5	(0.5)	86.4	(0.5)	94.0	(0.3)
	Germany	61.9	(1.1)	87.2	(0.7)	73.3	(1.0)	14.1	(0.9)	18.1	(0.8)	17.8	(0.7)	22.8	(0.8)	17.4	(0.7)	91.7	(0.6)	69.8	(0.8)	90.6	(0.5)
	Greece	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hungary	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Iceland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Ireland	46.2	(1.3)	97.1	(0.3)	84.9	(0.6)	29.4	(0.8)	83.0	(0.6)	40.1	(1.0)	41.9	(1.1)	28.9	(0.8)	92.7	(0.4)	92.7	(0.3)	98.3	(0.2)
	Israel	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Italy	27.2	(0.9)	80.8	(0.7)	73.3	(0.7)	21.2	(0.8)	29.8	(0.7)	20.7	(0.7)	29.6	(0.8)	m	m	81.1	(0.6)	61.0	(0.9)	89.6	(0.5)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	69.3	(0.9)	87.3	(0.6)	75.5	(0.7)	20.4	(0.7)	65.9	(0.8)	13.8	(0.6)	44.7	(0.8)	46.9	(0.9)	93.3	(0.4)	87.6	(0.6)	95.8	(0.4)
	Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Luxembourg	55.9	(0.9)	90.6	(0.5)	78.3	(0.8)	14.4	(0.5)	27.7	(0.7)	27.3	(0.7)	31.7	(0.8)	31.8	(0.7)	89.4	(0.5)	82.8	(0.6)	93.7	(0.4)
	Mexico	67.7	(1.0)	89.6	(0.5)	83.4	(0.6)	16.8	(0.6)	65.2	(0.7)	41.7	(1.0)	64.9	(0.8)	69.4	(0.8)	90.0	(0.5)	85.4	(0.5)	91.7	(0.4)
	Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Norway	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Poland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Portugal	72.9	(1.1)	93.8	(0.4)	91.7	(0.4)	24.1	(0.8)	37.7	(0.8)	39.0	(1.0)	63.6	(0.8)	59.5	(1.0)	94.0	(0.3)	88.8	(0.5)	96.7	(0.3)
	Scotland (UK)	45.5	(1.3)	95.0	(0.6)	76.9	(1.0)	15.9	(2.0)	19.7	(1.4)	39.1	(1.4)	29.8	(1.1)	17.8	(1.0)	87.0	(1.0)	90.2	(0.7)	98.0	(0.4)
	Slovak Republic	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Slovenia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Spain	69.1	(1.2)	92.2	(0.5)	84.4	(0.6)	28.0	(1.2)	69.0	(1.0)	43.2	(0.9)	57.2	(1.0)	57.9	(1.0)	94.8	(0.3)	88.7	(0.5)	95.9	(0.3)
	Sweden	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Switzerland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Turkey	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United States	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	OECD average	57.0	(0.3)	90.8	(0.2)	80.5	(0.2)	21.3	(0.3)	40.8	(0.2)	30.5	(0.3)	42.2	(0.2)	41.4	(0.3)	90.2	(0.2)	82.2	(0.2)	94.0	(0.1)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	B-S-J-G (China)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Costa Rica	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Croatia	49.9	(0.8)	78.7	(0.6)	86.7	(0.5)	36.3	(1.1)	m	m	10.9	(0.6)	38.1	(0.9)	36.5	(0.8)	83.9	(0.5)	76.9	(0.6)	92.1	(0.4)
	Cyprus*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Dominican Republic	77.8	(0.8)	94.3	(0.5)	84.1	(0.8)	59.8	(1.5)	57.6	(1.4)	68.7	(1.1)	69.4	(1.2)	60.8	(1.1)	92.7	(0.5)	91.5	(0.5)	94.3	(0.4)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	57.9	(1.0)	93.6	(0.4)	67.4	(1.1)	65.7	(1.0)	84.5	(0.7)	47.1	(1.1)	65.5	(0.9)	51.3	(1.1)	94.0	(0.4)	91.1	(0.5)	96.7	(0.3)
	Hong Kong (China)	50.1	(1.0)	94.7	(0.3)	71.1	(0.8)	37.6	(1.1)	61.0	(0.8)	17.4	(0.7)	31.9	(0.9)	33.1	(1.0)	89.8	(0.6)	81.8	(0.6)	96.2	(0.3)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Macao (China)	49.0	(0.7)	77.3	(0.6)	69.5	(0.6)	22.9	(0.6)	63.4	(0.8)	30.0	(0.7)	31.2	(0.7)	40.2	(0.7)	86.0	(0.5)	72.2	(0.7)	93.5	(0.4)
	Malta	35.5	(0.8)	97.6	(0.3)	91.2	(0.6)	64.7	(0.8)	m	m	21.2	(0.7)	50.5	(1.0)	m	m	93.5	(0.4)	94.1	(0.4)	97.0	(0.3)
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Peru	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Qatar	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Singapore	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Chinese Taipei	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Thailand	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Uruguay	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/2]

Table II.4.19 Student assessment

Results based on school principals' reports

		Percentage of students in schools that use the following methods for assessing students:																			
		Mandatory standardised tests										Non-mandatory standardised tests									
		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Austria	36.2	(3.5)	49.4	(3.8)	9.1	(2.1)	3.1	(1.1)	2.3	(0.9)	50.5	(3.4)	38.1	(3.7)	6.1	(1.5)	3.1	(1.5)	2.3	(0.8)
	Belgium	57.7	(2.7)	39.9	(2.9)	0.9	(0.5)	0.5	(0.5)	1.0	(0.6)	58.5	(3.2)	38.0	(3.2)	2.2	(1.0)	0.0	c	1.3	(0.7)
	Canada	15.6	(1.1)	77.3	(1.7)	6.8	(1.2)	0.1	(0.1)	0.3	(0.3)	68.6	(2.9)	23.5	(2.3)	5.1	(1.5)	1.8	(0.8)	1.0	(0.4)
	Chile	1.8	(1.1)	73.2	(3.5)	19.0	(3.2)	4.8	(1.6)	1.2	(0.8)	28.3	(3.6)	36.9	(3.5)	26.5	(3.8)	7.0	(2.0)	1.3	(0.3)
	Czech Republic	m	m	m	m	m	m	m	m	m	m	38.6	(2.9)	59.6	(2.8)	1.8	(0.9)	0.0	c	0.0	c
	Denmark	11.1	(2.4)	74.1	(3.5)	14.2	(2.6)	0.0	c	0.6	(0.4)	12.1	(2.4)	56.8	(3.7)	25.5	(3.3)	3.6	(1.4)	2.0	(1.1)
	Estonia	20.2	(2.4)	74.6	(2.4)	5.2	(1.3)	0.0	c	0.0	c	58.3	(3.0)	32.2	(2.9)	7.7	(0.9)	1.8	(0.9)	0.0	c
	Finland	23.4	(3.5)	66.2	(3.9)	10.1	(2.4)	0.3	(0.3)	0.0	c	10.8	(2.3)	72.8	(3.8)	16.4	(3.3)	0.0	c	0.0	c
	France	33.4	(3.1)	52.0	(3.2)	9.9	(2.1)	1.7	(0.9)	2.9	(1.2)	28.3	(3.3)	67.3	(3.4)	2.7	(1.2)	0.0	c	1.7	(1.0)
	Germany	57.9	(3.6)	39.7	(3.7)	2.4	(1.2)	0.0	c	0.0	c	68.0	(3.5)	29.7	(3.6)	2.2	(0.8)	0.0	c	0.0	c
	Greece	24.2	(2.9)	50.1	(3.7)	14.8	(2.6)	5.8	(1.8)	5.1	(2.2)	36.6	(3.3)	36.4	(3.7)	15.9	(2.7)	6.6	(1.8)	4.4	(1.7)
	Hungary	25.4	(3.0)	71.0	(3.0)	3.0	(1.3)	0.6	(0.6)	0.0	c	50.7	(3.8)	46.0	(3.5)	3.2	(1.3)	0.1	(0.1)	0.0	c
	Iceland	1.3	(0.1)	96.4	(0.1)	2.2	(0.1)	0.1	(0.0)	0.0	c	39.4	(0.3)	54.2	(0.3)	3.8	(0.1)	2.6	(0.1)	0.0	c
	Ireland	0.8	(0.8)	85.4	(3.1)	8.4	(2.3)	2.0	(1.1)	3.3	(1.5)	36.5	(3.7)	61.6	(3.8)	1.9	(1.1)	0.0	c	0.0	c
	Israel	21.0	(3.5)	55.2	(3.9)	13.0	(2.4)	5.3	(1.6)	5.5	(2.3)	12.1	(2.6)	31.9	(3.9)	37.3	(3.8)	12.5	(2.8)	6.2	(1.8)
	Italy	3.2	(1.2)	92.7	(1.8)	4.0	(1.4)	0.1	(0.1)	0.0	(0.0)	51.1	(4.1)	35.0	(3.7)	11.0	(2.2)	2.8	(1.7)	0.1	(0.1)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	30.2	(3.3)	69.5	(3.3)	0.3	(0.3)	0.0	c	0.0	c	16.6	(2.1)	30.4	(3.4)	52.4	(3.5)	0.6	(0.6)	0.0	c
	Latvia	0.3	(0.2)	76.9	(2.6)	14.8	(2.1)	5.8	(1.5)	2.2	(0.8)	7.1	(1.4)	34.2	(2.6)	25.2	(2.4)	19.7	(2.4)	13.8	(2.0)
	Luxembourg	5.1	(0.0)	91.8	(0.1)	3.1	(0.0)	0.0	c	0.0	c	15.0	(0.1)	79.4	(0.1)	5.6	(0.1)	0.0	c	0.0	c
	Mexico	41.6	(3.5)	48.6	(3.3)	5.0	(1.4)	3.1	(1.3)	1.8	(0.9)	68.1	(3.0)	29.8	(2.9)	0.8	(0.6)	1.2	(0.7)	0.1	(0.1)
	Netherlands	m	m	m	m	m	m	m	m	m	m	19.4	(4.3)	67.6	(5.1)	8.8	(2.6)	1.1	(1.0)	3.2	(1.8)
	New Zealand	m	m	m	m	m	m	m	m	m	m	6.1	(2.2)	45.1	(4.5)	22.6	(3.3)	8.6	(2.3)	17.6	(2.8)
	Norway	28.1	(2.9)	59.3	(3.6)	11.3	(2.1)	1.2	(0.8)	0.0	c	19.1	(3.0)	58.5	(3.5)	14.5	(2.6)	6.9	(2.1)	1.0	(0.7)
	Poland	2.1	(1.2)	74.3	(3.4)	18.5	(3.0)	4.6	(1.7)	0.5	(0.5)	3.2	(1.5)	69.1	(4.0)	25.6	(3.9)	2.1	(1.1)	0.0	c
	Portugal	48.3	(4.3)	43.2	(4.3)	4.5	(1.3)	2.5	(1.4)	1.5	(1.0)	27.9	(3.4)	65.3	(3.7)	3.3	(1.4)	1.2	(1.0)	2.3	(1.2)
	Slovak Republic	27.3	(2.8)	60.8	(3.2)	6.6	(1.7)	3.4	(1.2)	1.8	(0.9)	28.2	(3.4)	51.8	(3.7)	14.3	(2.3)	4.7	(1.4)	1.0	(0.5)
	Slovenia	55.7	(0.3)	34.2	(0.3)	7.0	(0.2)	2.2	(0.0)	0.8	(0.3)	m	m	m	m	m	m	m	m	m	m
	Spain	53.8	(3.2)	37.1	(3.2)	3.9	(1.5)	3.4	(1.4)	1.7	(1.0)	46.5	(3.7)	43.6	(3.9)	6.9	(1.5)	1.2	(0.1)	1.8	(1.0)
	Sweden	0.0	c	50.5	(3.6)	45.3	(3.7)	2.3	(1.1)	2.0	(1.0)	7.9	(1.7)	35.0	(3.3)	28.9	(3.8)	23.3	(3.4)	4.9	(1.6)
	Switzerland	38.2	(3.6)	58.3	(3.6)	2.6	(1.2)	0.0	c	0.8	(0.8)	59.8	(3.8)	34.9	(3.8)	4.6	(1.3)	0.6	(0.6)	0.0	c
	Turkey	41.5	(3.8)	46.0	(4.2)	8.5	(2.3)	3.3	(1.5)	0.8	(0.7)	12.0	(2.2)	40.1	(3.5)	35.0	(3.9)	9.9	(2.4)	3.0	(1.6)
	United Kingdom	0.0	c	73.5	(2.9)	19.4	(2.7)	5.2	(1.7)	1.9	(1.0)	34.0	(3.9)	56.9	(4.1)	7.2	(1.8)	1.8	(1.0)	0.0	(0.0)
	United States	8.0	(2.1)	64.8	(4.0)	24.1	(3.2)	1.4	(1.0)	1.6	(1.1)	4.0	(1.4)	68.8	(3.5)	24.9	(3.4)	1.2	(0.9)	1.0	(0.7)
	OECD average	23.8	(0.5)	62.9	(0.6)	9.9	(0.4)	2.1	(0.2)	1.3	(0.2)	32.0	(0.5)	47.8	(0.6)	14.1	(0.4)	3.9	(0.2)	2.2	(0.2)
Partners	**Albania**	4.9	(1.6)	49.1	(3.9)	30.6	(3.3)	13.7	(3.4)	1.7	(0.7)	3.5	(1.3)	74.6	(3.2)	17.3	(2.9)	4.0	(1.1)	0.5	(0.6)
	Algeria	1.7	(1.0)	8.5	(2.6)	81.0	(3.5)	4.6	(1.9)	4.2	(1.5)	13.0	(2.9)	16.9	(3.3)	32.8	(3.8)	27.9	(3.6)	9.4	(2.6)
	Brazil	36.0	(2.7)	52.8	(3.1)	9.5	(1.7)	0.4	(0.2)	1.3	(0.7)	19.8	(2.6)	63.0	(3.3)	13.5	(2.2)	2.1	(0.7)	1.6	(0.8)
	B-S-J-G (China)	5.7	(1.9)	45.2	(3.6)	43.5	(4.2)	5.0	(1.7)	0.6	(0.6)	11.8	(2.7)	18.6	(3.2)	24.6	(3.2)	42.8	(3.9)	2.2	(1.1)
	Bulgaria	34.6	(3.6)	34.5	(3.6)	25.6	(3.3)	2.9	(1.3)	2.5	(1.1)	5.6	(1.7)	25.3	(3.5)	45.9	(3.9)	15.3	(2.9)	8.0	(2.0)
	CABA (Argentina)	16.6	(4.2)	83.4	(4.2)	0.0	c	0.0	c	0.0	c	22.5	(5.7)	77.5	(5.7)	0.0	c	0.0	c	0.0	c
	Colombia	25.2	(3.0)	47.8	(3.7)	16.9	(2.5)	4.7	(1.4)	5.4	(1.8)	17.1	(2.3)	43.5	(3.8)	22.9	(3.0)	6.4	(2.0)	10.0	(2.1)
	Costa Rica	75.2	(3.3)	19.5	(2.8)	4.6	(1.9)	0.6	(0.4)	0.0	c	83.1	(2.9)	12.8	(2.5)	2.6	(1.4)	0.6	(0.0)	0.9	(0.7)
	Croatia	54.7	(4.0)	30.6	(3.6)	9.5	(1.7)	3.0	(1.1)	2.2	(1.2)	45.7	(3.9)	40.9	(3.7)	9.3	(2.4)	1.7	(1.1)	2.4	(1.3)
	Cyprus*	27.2	(0.1)	44.3	(0.1)	16.1	(0.1)	8.6	(0.1)	3.8	(0.1)	51.9	(0.2)	25.9	(0.2)	11.9	(0.1)	7.5	(0.1)	2.7	(0.0)
	Dominican Republic	69.6	(3.5)	21.3	(2.6)	6.6	(2.1)	1.8	(1.3)	0.7	(0.7)	77.1	(3.5)	13.6	(3.2)	3.4	(1.5)	4.4	(1.4)	1.5	(1.0)
	FYROM	2.4	(0.1)	86.8	(0.1)	6.6	(0.1)	3.2	(0.0)	0.9	(0.0)	24.0	(0.1)	18.2	(0.1)	33.8	(0.2)	15.5	(0.2)	8.6	(0.1)
	Georgia	25.9	(2.8)	35.2	(3.3)	15.4	(2.4)	12.7	(2.2)	10.8	(2.0)	48.4	(3.8)	35.4	(3.7)	11.1	(2.1)	3.2	(1.1)	2.0	(0.9)
	Hong Kong (China)	43.0	(4.5)	38.7	(4.4)	16.5	(3.0)	0.8	(0.8)	1.1	(0.8)	29.9	(4.0)	55.3	(4.7)	9.5	(2.2)	3.0	(1.5)	2.4	(1.2)
	Indonesia	6.6	(1.7)	65.2	(3.3)	20.6	(3.0)	4.2	(1.3)	3.4	(1.4)	79.9	(2.8)	13.5	(2.5)	5.2	(1.8)	0.5	(0.5)	0.9	(0.7)
	Jordan	10.7	(2.2)	78.2	(2.5)	5.4	(1.7)	2.1	(1.0)	3.5	(1.6)	54.4	(3.3)	31.5	(3.3)	6.7	(1.7)	4.2	(1.6)	3.2	(1.4)
	Kosovo	16.9	(0.6)	47.9	(1.3)	29.5	(1.3)	4.9	(0.6)	0.7	(0.4)	19.4	(0.9)	55.8	(1.4)	21.6	(1.3)	2.5	(0.6)	0.7	(0.4)
	Lebanon	21.9	(3.4)	23.5	(3.1)	25.9	(3.7)	13.4	(2.4)	15.2	(3.3)	49.2	(4.5)	27.9	(4.0)	8.1	(2.0)	7.1	(2.0)	7.7	(2.2)
	Lithuania	55.8	(2.9)	41.2	(2.9)	2.4	(0.7)	0.6	(0.0)	0.0	c	40.7	(2.6)	45.4	(2.5)	9.7	(1.7)	3.0	(0.8)	1.2	(0.6)
	Macao (China)	20.4	(0.0)	56.8	(0.1)	22.8	(0.1)	0.0	c	0.0	c	56.7	(0.1)	40.0	(0.1)	3.3	(0.0)	0.0	c	0.0	c
	Malta	1.1	(0.0)	85.0	(0.1)	9.0	(0.1)	4.9	(0.0)	0.0	c	6.7	(0.1)	81.2	(0.1)	5.3	(0.0)	5.2	(0.0)	1.6	(0.0)
	Moldova	1.4	(0.9)	67.7	(3.2)	26.4	(3.1)	2.9	(1.2)	1.5	(0.8)	10.9	(2.4)	35.3	(3.1)	27.0	(3.5)	19.0	(2.6)	7.9	(1.8)
	Montenegro	66.8	(0.2)	25.2	(0.4)	7.9	(0.4)	0.1	(0.1)	0.0	c	36.1	(0.4)	46.3	(0.4)	10.1	(0.1)	4.7	(0.2)	2.8	(0.1)
	Peru	35.5	(3.1)	48.9	(3.4)	12.9	(2.4)	2.3	(0.9)	0.4	(0.4)	44.2	(3.3)	42.5	(3.5)	8.1	(1.6)	3.8	(0.9)	1.4	(1.0)
	Qatar	6.8	(0.1)	62.1	(0.1)	25.6	(0.1)	2.3	(0.0)	3.2	(0.0)	31.9	(0.1)	50.8	(0.1)	11.0	(0.1)	4.4	(0.0)	1.9	(0.0)
	Romania	20.4	(2.9)	66.8	(3.5)	9.5	(2.1)	1.7	(0.9)	1.6	(1.0)	28.7	(3.3)	45.0	(3.8)	19.0	(3.2)	5.0	(1.7)	2.3	(1.1)
	Russia	0.8	(0.6)	28.2	(4.1)	38.8	(4.3)	22.2	(2.9)	10.0	(2.0)	10.3	(2.1)	37.3	(3.9)	30.2	(3.2)	14.3	(2.7)	7.8	(1.7)
	Singapore	2.1	(0.0)	74.7	(1.4)	19.1	(1.2)	0.6	(0.0)	3.6	(0.7)	30.1	(0.2)	53.1	(1.2)	11.4	(0.1)	3.8	(0.8)	1.7	(0.7)
	Chinese Taipei	14.2	(2.5)	61.4	(3.2)	15.9	(2.3)	7.8	(2.0)	0.7	(0.5)	15.0	(2.3)	56.4	(3.8)	25.1	(3.2)	1.6	(0.9)	1.9	(0.9)
	Thailand	11.3	(1.6)	76.9	(2.3)	7.3	(1.8)	2.9	(1.3)	1.5	(0.9)	51.9	(3.9)	42.6	(3.9)	3.6	(1.5)	2.0	(1.3)	0.0	(0.0)
	Trinidad and Tobago	52.7	(0.3)	29.6	(0.3)	9.0	(0.1)	7.6	(0.2)	1.1	(0.0)	28.7	(0.2)	7.7	(0.1)	35.0	(0.2)	22.1	(0.3)	6.5	(0.1)
	Tunisia	13.6	(3.2)	18.2	(3.0)	56.5	(4.8)	4.9	(1.9)	6.9	(2.6)	72.3	(4.0)	9.5	(2.6)	4.9	(1.8)	5.7	(2.1)	7.6	(2.4)
	United Arab Emirates	20.6	(2.4)	51.8	(2.8)	18.9	(2.6)	4.6	(1.2)	4.1	(1.1)	37.2	(2.7)	51.0	(2.8)	9.1	(1.5)	1.9	(0.3)	0.9	(0.5)
	Uruguay	63.1	(2.9)	26.9	(2.6)	3.9	(1.1)	5.4	(1.3)	0.7	(0.5)	84.3	(2.1)	11.6	(1.9)	2.0	(0.6)	1.0	(0.4)	1.1	(0.7)
	Viet Nam	41.7	(4.1)	35.0	(4.1)	11.6	(2.7)	9.2	(2.6)	2.7	(1.2)	76.7	(3.5)	19.4	(3.4)	1.7	(0.9)	1.8	(1.1)	0.4	(0.3)
	Argentina**	38.9	(3.8)	60.3	(3.9)	0.8	(0.6)	0.0	c	0.0	c	40.4	(3.4)	58.7	(3.4)	0.9	(0.6)	0.0	c	0.0	c
	Kazakhstan**	6.6	(1.7)	35.2	(3.4)	16.6	(2.1)	26.6	(2.9)	15.0	(2.6)	5.1	(1.6)	17.7	(2.8)	19.8	(2.8)	24.6	(3.1)	32.8	(3.3)
	Malaysia**	13.3	(2.6)	46.0	(4.1)	35.8	(4.0)	2.3	(1.0)	2.6	(1.4)	75.4	(3.3)	17.2	(2.9)	6.3	(2.0)	1.1	(0.7)	0.0	c

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/2]

Table II.4.19 Student assessment

Results based on school principals' reports

		Percentage of students in schools that use the following methods for assessing students:																			
		Teacher-developed tests										Teachers' judgemental ratings									
		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Austria	0.0	c	7.9	(1.8)	38.6	(3.6)	22.0	(3.1)	31.4	(3.1)	0.0	c	0.4	(0.3)	14.6	(2.7)	13.6	(2.8)	71.5	(3.6)
	Belgium	1.5	(0.9)	4.7	(1.5)	8.5	(2.0)	9.3	(1.5)	76.0	(2.7)	4.5	(1.4)	6.0	(1.6)	11.9	(2.1)	10.2	(1.9)	67.4	(3.3)
	Canada	0.5	(0.4)	1.1	(0.6)	2.9	(0.9)	21.7	(2.2)	73.8	(2.5)	25.5	(2.3)	5.5	(1.3)	13.1	(1.9)	8.7	(1.5)	47.2	(2.6)
	Chile	1.2	(1.0)	5.3	(1.7)	8.9	(2.4)	36.1	(4.1)	48.6	(3.8)	39.5	(4.0)	15.8	(2.8)	5.7	(1.8)	12.9	(2.6)	26.1	(3.6)
	Czech Republic	1.5	(1.0)	8.1	(1.8)	22.8	(2.6)	27.9	(2.5)	39.7	(3.0)	3.7	(1.1)	10.0	(1.7)	14.5	(2.2)	12.9	(2.1)	58.9	(3.0)
	Denmark	2.4	(1.5)	13.8	(2.4)	48.9	(3.2)	26.2	(3.4)	8.8	(2.1)	0.2	(0.2)	14.4	(2.4)	36.8	(3.4)	12.4	(2.5)	36.2	(3.7)
	Estonia	1.3	(0.7)	0.2	(0.2)	10.9	(1.9)	42.3	(2.4)	45.3	(2.6)	0.4	(0.2)	0.6	(0.6)	3.0	(0.9)	4.1	(0.6)	92.0	(1.3)
	Finland	0.0	c	0.7	(0.7)	28.1	(3.0)	48.5	(3.9)	22.7	(3.5)	0.6	(0.7)	2.6	(1.3)	4.5	(1.4)	14.5	(3.2)	77.8	(3.2)
	France	3.3	(1.2)	19.8	(3.0)	13.7	(2.4)	12.8	(2.2)	50.4	(3.4)	10.0	(2.1)	11.8	(2.1)	34.0	(3.3)	10.8	(2.2)	33.5	(3.4)
	Germany	1.7	(1.2)	13.4	(2.5)	28.0	(3.1)	19.6	(3.0)	37.2	(3.4)	0.2	(0.2)	7.3	(1.9)	13.0	(2.6)	14.3	(2.6)	65.1	(3.6)
	Greece	0.4	(0.4)	2.5	(1.3)	32.3	(3.7)	28.8	(3.7)	36.0	(3.5)	2.7	(1.1)	26.1	(3.4)	25.9	(3.5)	16.3	(3.2)	29.0	(3.4)
	Hungary	0.3	(0.3)	20.7	(2.9)	20.2	(2.8)	33.3	(3.6)	25.5	(2.9)	6.7	(1.9)	3.7	(1.5)	6.5	(2.0)	23.7	(3.1)	59.4	(3.7)
	Iceland	0.0	c	0.0	c	20.7	(0.2)	38.5	(0.2)	40.9	(0.2)	0.0	c	0.0	c	14.7	(0.2)	16.9	(0.2)	68.3	(0.3)
	Ireland	0.0	(0.0)	23.9	(3.3)	35.3	(4.1)	16.9	(3.2)	23.9	(3.9)	4.5	(1.9)	10.6	(2.6)	33.6	(4.1)	15.1	(2.9)	36.2	(4.2)
	Israel	0.6	(0.6)	4.7	(1.6)	30.6	(3.7)	26.4	(3.3)	37.8	(3.8)	0.6	(0.6)	57.2	(3.3)	39.5	(3.5)	0.5	(0.5)	2.2	(1.2)
	Italy	3.5	(1.5)	14.1	(2.9)	17.2	(3.1)	31.1	(3.3)	34.1	(3.4)	9.6	(2.1)	7.7	(2.4)	13.9	(3.3)	13.1	(2.4)	55.6	(4.1)
	Japan	0.0	c	0.0	c	80.0	(2.8)	11.2	(2.3)	8.8	(2.0)	5.6	(1.6)	5.9	(1.6)	60.4	(3.4)	6.5	(1.9)	21.6	(2.5)
	Korea	20.8	(3.0)	8.4	(2.3)	65.4	(3.8)	3.3	(1.4)	2.1	(1.0)	16.1	(2.9)	17.1	(3.2)	39.2	(3.5)	22.3	(3.4)	5.3	(1.7)
	Latvia	0.0	c	3.1	(1.0)	14.0	(2.1)	38.9	(3.0)	44.0	(3.0)	0.0	c	1.3	(0.7)	5.1	(1.4)	20.8	(2.4)	72.8	(2.8)
	Luxembourg	4.9	(0.0)	8.9	(0.1)	4.5	(0.1)	11.4	(0.1)	70.3	(0.1)	9.9	(0.0)	6.6	(0.1)	12.6	(0.1)	6.0	(0.1)	65.0	(0.1)
	Mexico	4.6	(1.5)	11.8	(2.2)	41.6	(3.5)	28.3	(2.6)	13.7	(2.1)	27.7	(3.2)	22.2	(2.7)	15.7	(2.6)	20.5	(2.5)	13.9	(2.1)
	Netherlands	3.1	(1.9)	0.0	c	10.3	(2.8)	33.6	(4.6)	53.0	(4.6)	11.3	(2.7)	8.3	(2.6)	39.0	(5.3)	21.9	(4.3)	19.4	(3.7)
	New Zealand	0.6	(0.6)	2.2	(1.1)	25.2	(3.8)	35.0	(4.0)	37.0	(4.0)	5.4	(2.0)	17.4	(3.5)	24.9	(3.5)	15.1	(3.0)	37.2	(3.8)
	Norway	0.0	c	2.1	(1.1)	16.2	(2.7)	33.8	(3.8)	47.8	(3.5)	1.8	(1.0)	11.9	(2.4)	9.6	(2.1)	19.5	(2.9)	57.1	(3.5)
	Poland	1.4	(0.9)	8.7	(2.4)	25.6	(3.5)	43.6	(4.2)	20.8	(3.2)	3.7	(1.6)	9.0	(2.4)	14.1	(2.7)	12.2	(2.7)	61.0	(4.3)
	Portugal	1.4	(0.6)	2.3	(1.3)	29.3	(3.8)	57.6	(3.9)	9.4	(1.9)	1.3	(0.6)	1.4	(1.0)	1.7	(0.9)	10.2	(2.7)	85.3	(3.0)
	Slovak Republic	0.0	(0.0)	3.0	(1.2)	16.5	(2.5)	35.8	(3.1)	44.6	(3.1)	0.0	(0.0)	0.4	(0.4)	5.3	(1.6)	7.6	(1.8)	86.6	(2.4)
	Slovenia	3.9	(0.0)	7.8	(0.1)	52.6	(0.6)	13.3	(0.5)	22.4	(0.4)	3.2	(0.0)	26.1	(0.2)	28.0	(0.5)	15.0	(0.6)	27.7	(0.5)
	Spain	0.0	c	0.8	(0.8)	7.5	(2.0)	34.3	(3.5)	57.5	(3.9)	6.8	(1.8)	1.5	(0.8)	10.8	(2.3)	8.5	(1.8)	72.5	(3.3)
	Sweden	0.0	c	0.5	(0.5)	21.2	(3.1)	47.2	(3.5)	31.1	(3.2)	0.3	(0.3)	1.2	(0.8)	3.9	(1.5)	18.7	(3.0)	75.9	(3.5)
	Switzerland	2.8	(1.5)	6.9	(1.7)	13.9	(2.6)	13.2	(2.6)	63.2	(3.6)	5.7	(1.8)	14.0	(2.9)	16.4	(2.9)	14.7	(3.2)	49.3	(3.3)
	Turkey	0.0	c	3.5	(1.7)	56.7	(3.5)	29.3	(3.6)	10.5	(2.6)	2.0	(0.9)	27.8	(3.5)	42.7	(4.1)	14.1	(3.0)	13.4	(2.4)
	United Kingdom	0.6	(0.6)	1.2	(0.6)	42.4	(3.9)	34.8	(3.8)	21.0	(3.3)	2.3	(1.1)	4.4	(1.4)	42.9	(3.8)	23.3	(3.2)	27.1	(3.6)
	United States	0.0	(0.0)	2.0	(1.0)	5.8	(1.8)	18.9	(3.5)	73.2	(3.9)	22.6	(3.6)	9.1	(2.7)	9.6	(2.7)	7.3	(1.9)	51.4	(4.5)
	OECD average	1.8	(0.2)	6.3	(0.3)	26.4	(0.5)	28.4	(0.5)	37.1	(0.5)	6.9	(0.3)	10.7	(0.4)	19.6	(0.5)	13.7	(0.4)	49.1	(0.5)
Partners	Albania	0.0	c	4.4	(1.9)	50.0	(4.0)	32.0	(3.6)	13.6	(3.0)	13.0	(2.8)	11.1	(2.9)	6.8	(2.2)	23.5	(3.3)	45.6	(3.5)
	Algeria	8.9	(2.2)	4.8	(2.4)	23.8	(3.5)	33.5	(4.1)	28.9	(4.0)	5.5	(2.0)	7.6	(2.5)	52.4	(4.1)	22.4	(3.2)	12.0	(2.9)
	Brazil	1.9	(0.5)	6.2	(1.5)	21.6	(2.1)	29.0	(2.7)	41.3	(2.5)	3.4	(0.8)	3.8	(0.6)	9.5	(1.4)	16.0	(2.1)	67.3	(2.5)
	B-S-J-G (China)	3.9	(1.3)	14.4	(2.8)	19.4	(2.8)	30.3	(4.1)	32.1	(4.3)	0.8	(0.5)	30.1	(3.9)	16.4	(2.7)	23.2	(3.6)	29.5	(4.1)
	Bulgaria	0.9	(0.7)	9.0	(2.3)	32.1	(3.8)	41.2	(4.2)	16.9	(2.3)	2.5	(1.2)	13.8	(2.8)	25.1	(3.8)	33.7	(4.2)	24.9	(3.3)
	CABA (Argentina)	1.5	(1.1)	4.2	(2.9)	1.5	(1.6)	26.1	(6.6)	66.8	(5.8)	3.9	(2.8)	0.0	c	85.7	(4.4)	5.2	(3.0)	5.2	(1.1)
	Colombia	1.1	(0.7)	5.2	(1.7)	30.9	(3.3)	13.5	(2.9)	49.3	(4.0)	7.2	(2.0)	7.7	(2.1)	30.4	(3.8)	14.8	(2.8)	39.9	(3.9)
	Costa Rica	3.6	(1.3)	2.9	(1.1)	39.3	(3.7)	43.2	(3.8)	11.0	(2.5)	25.6	(3.3)	7.4	(1.9)	18.8	(3.2)	15.4	(2.4)	32.8	(3.5)
	Croatia	0.0	c	8.1	(2.4)	41.0	(4.1)	26.4	(3.5)	24.5	(3.7)	1.9	(1.1)	3.2	(1.4)	24.3	(3.0)	27.3	(3.7)	43.3	(4.1)
	Cyprus*	0.1	(0.0)	2.2	(0.0)	37.5	(0.1)	23.0	(0.1)	37.3	(0.1)	0.2	(0.0)	25.0	(0.1)	23.6	(0.1)	9.0	(0.1)	42.2	(0.1)
	Dominican Republic	0.0	c	4.3	(2.2)	10.0	(2.3)	70.7	(4.2)	14.9	(3.2)	13.9	(2.7)	11.2	(2.9)	7.9	(2.3)	30.2	(3.3)	36.9	(4.1)
	FYROM	1.6	(0.1)	2.9	(0.1)	42.0	(0.2)	37.5	(0.2)	16.0	(0.1)	4.0	(0.1)	17.0	(0.1)	27.5	(0.2)	32.2	(0.2)	19.4	(0.1)
	Georgia	0.8	(0.6)	5.4	(1.7)	19.4	(2.5)	29.9	(2.9)	44.5	(3.1)	13.3	(1.8)	42.4	(3.1)	14.7	(2.1)	18.2	(2.5)	11.4	(1.9)
	Hong Kong (China)	1.1	(0.8)	1.9	(1.2)	42.0	(4.7)	24.4	(3.8)	30.6	(4.2)	6.7	(2.5)	19.4	(3.7)	30.4	(4.2)	13.0	(2.9)	30.4	(4.5)
	Indonesia	0.8	(0.6)	4.9	(1.4)	26.6	(3.4)	29.7	(2.9)	38.1	(3.8)	3.0	(1.3)	17.2	(2.7)	18.8	(2.6)	30.7	(3.4)	30.3	(3.2)
	Jordan	0.6	(0.6)	2.7	(1.2)	9.4	(1.7)	52.1	(3.6)	35.1	(3.6)	0.2	(0.1)	13.7	(2.6)	11.0	(2.1)	30.7	(3.1)	44.4	(3.4)
	Kosovo	0.0	c	9.0	(0.5)	62.5	(1.4)	25.4	(1.3)	3.1	(0.7)	7.9	(0.7)	16.9	(0.8)	20.4	(1.2)	28.6	(1.3)	26.3	(1.0)
	Lebanon	5.2	(1.4)	3.8	(1.0)	11.6	(2.7)	33.3	(3.5)	46.1	(3.6)	8.2	(2.3)	10.6	(2.3)	18.1	(3.1)	24.6	(3.5)	38.6	(3.9)
	Lithuania	0.8	(0.5)	13.0	(2.1)	24.5	(2.6)	36.9	(3.0)	24.8	(2.7)	2.0	(0.6)	8.5	(1.5)	9.1	(1.6)	19.6	(2.2)	60.8	(2.6)
	Macao (China)	5.3	(0.0)	3.2	(0.0)	22.6	(0.1)	42.7	(0.1)	26.2	(0.1)	30.6	(0.1)	19.7	(0.0)	27.3	(0.1)	8.8	(0.0)	13.5	(0.0)
	Malta	1.7	(0.0)	17.1	(0.0)	32.7	(0.1)	35.2	(0.1)	13.4	(0.1)	6.0	(0.1)	25.7	(0.1)	11.3	(0.1)	21.5	(0.1)	35.5	(0.1)
	Moldova	0.7	(0.6)	4.0	(1.4)	20.6	(2.7)	38.6	(3.3)	36.0	(3.4)	6.7	(1.8)	17.0	(2.3)	17.5	(2.5)	19.3	(2.9)	39.5	(3.4)
	Montenegro	0.0	c	5.4	(0.1)	49.0	(0.2)	18.2	(0.2)	27.3	(0.3)	0.0	c	0.8	(0.0)	25.1	(0.4)	36.4	(0.2)	37.8	(0.4)
	Peru	1.1	(0.6)	11.1	(2.1)	11.6	(1.9)	26.9	(2.5)	49.3	(2.5)	4.0	(1.3)	9.1	(2.1)	15.9	(2.4)	20.3	(2.4)	50.8	(2.9)
	Qatar	8.3	(0.0)	2.4	(0.0)	28.9	(0.1)	21.8	(0.1)	38.6	(0.1)	9.5	(0.1)	12.2	(0.1)	16.8	(0.1)	22.2	(0.1)	39.3	(0.1)
	Romania	0.7	(0.7)	0.0	c	13.5	(2.9)	38.6	(3.8)	47.2	(3.5)	2.0	(1.2)	4.7	(1.5)	9.8	(2.4)	34.3	(3.6)	49.1	(3.6)
	Russia	1.3	(0.9)	1.0	(0.9)	9.7	(2.1)	40.5	(4.1)	47.5	(4.0)	12.3	(2.0)	20.1	(3.1)	23.7	(3.2)	19.0	(2.2)	24.9	(3.4)
	Singapore	0.0	c	0.0	c	13.7	(0.9)	30.0	(0.3)	56.3	(0.8)	18.2	(0.5)	25.3	(0.2)	18.5	(1.2)	9.2	(0.5)	28.8	(1.0)
	Chinese Taipei	3.3	(1.1)	1.3	(0.8)	22.6	(3.2)	18.5	(2.9)	54.3	(3.6)	7.3	(1.7)	6.7	(1.7)	14.0	(2.7)	19.5	(3.1)	52.6	(3.5)
	Thailand	0.6	(0.4)	15.1	(2.5)	26.4	(3.2)	27.8	(3.6)	30.1	(3.2)	6.0	(1.7)	12.6	(2.0)	10.9	(2.3)	24.9	(3.6)	45.5	(4.3)
	Trinidad and Tobago	0.6	(0.0)	2.9	(0.1)	20.9	(0.2)	47.2	(0.3)	28.4	(0.3)	24.8	(0.3)	14.5	(0.2)	29.6	(0.2)	10.4	(0.2)	20.6	(0.2)
	Tunisia	6.7	(2.6)	7.2	(2.3)	42.9	(4.4)	16.8	(3.3)	26.4	(3.8)	14.6	(3.5)	13.9	(2.8)	40.1	(4.1)	8.6	(2.6)	22.8	(3.7)
	United Arab Emirates	2.6	(1.5)	1.8	(0.7)	14.9	(1.5)	31.7	(2.5)	48.9	(2.6)	6.1	(1.3)	8.3	(2.1)	15.7	(1.4)	23.1	(2.2)	46.8	(2.6)
	Uruguay	4.5	(1.3)	4.5	(1.4)	11.4	(1.7)	63.5	(2.8)	16.1	(2.3)	2.3	(0.9)	9.7	(1.9)	38.9	(3.1)	25.2	(2.9)	24.0	(3.0)
	Viet Nam	0.0	c	3.6	(1.3)	14.2	(2.5)	48.3	(4.3)	34.0	(3.5)	4.2	(1.5)	36.1	(3.9)	14.2	(2.8)	33.9	(4.0)	11.5	(1.7)
	Argentina**	1.0	(0.7)	1.0	(0.7)	7.0	(2.1)	30.1	(3.6)	60.9	(3.9)	3.4	(1.4)	1.8	(0.9)	86.0	(2.4)	6.9	(2.0)	2.0	(0.8)
	Kazakhstan**	0.5	(0.5)	2.7	(1.2)	7.5	(2.2)	34.1	(3.4)	55.3	(3.3)	14.4	(2.3)	13.4	(2.4)	21.3	(2.9)	25.2	(3.3)	25.8	(2.9)
	Malaysia**	1.1	(0.8)	16.4	(3.0)	60.9	(3.8)	15.3	(3.2)	6.4	(2.0)	3.8	(1.6)	35.2	(4.1)	35.0	(3.6)	12.9	(2.6)	13.2	(2.7)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/2]

Table II.4.24 Purposes of assessments

Results based on school principals' reports

		Percentage of students in schools whose principal reported that standardised tests are used to:																					
		Guide students' learning		Inform parents about their child's progress		Make decisions about students' retention or promotion		Group students for instructional purposes		Compare the school to district or national performance		Monitor the school's progress from year to year		Make judgements about teachers' effectiveness		Identify aspects of instruction or the curriculum that could be improved		Adapt teaching to students' needs		Compare the school with other schools		Award certificates to students	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	59.6	(2.1)	50.7	(2.0)	19.0	(1.7)	37.4	(1.8)	55.4	(2.2)	57.3	(2.1)	22.1	(1.8)	51.9	(1.9)	49.8	(2.1)	46.3	(2.2)	34.2	(1.9)
	Austria	36.8	(4.1)	32.0	(4.0)	11.5	(2.6)	6.5	(2.1)	20.8	(2.9)	28.2	(3.9)	15.3	(3.1)	21.7	(3.7)	27.4	(3.8)	17.6	(2.9)	15.9	(3.0)
	Belgium	35.7	(3.3)	28.3	(2.6)	26.8	(2.9)	12.9	(3.2)	42.3	(3.1)	36.8	(3.3)	14.6	(2.9)	38.5	(3.2)	41.8	(3.5)	31.5	(3.5)	25.7	(3.6)
	Canada	57.0	(2.9)	65.5	(2.7)	49.3	(2.5)	29.2	(2.8)	80.8	(1.9)	82.7	(1.7)	15.9	(2.0)	67.7	(2.5)	50.9	(2.9)	73.4	(2.4)	29.2	(2.7)
	Chile	82.3	(3.3)	73.0	(3.5)	37.3	(4.0)	24.3	(3.4)	59.7	(3.8)	87.5	(2.9)	42.0	(4.3)	82.2	(3.1)	61.2	(4.1)	52.1	(4.1)	21.9	(3.4)
	Czech Republic	27.9	(2.7)	30.4	(2.9)	3.4	(1.3)	7.5	(1.4)	68.7	(3.0)	57.2	(3.0)	26.1	(2.4)	33.6	(2.8)	17.4	(2.2)	65.3	(2.8)	28.3	(2.7)
	Denmark	87.1	(2.4)	87.1	(2.4)	13.5	(2.3)	46.9	(4.1)	72.1	(3.4)	75.3	(2.8)	23.5	(3.0)	71.1	(3.0)	80.2	(2.5)	62.1	(3.6)	89.8	(1.8)
	Estonia	61.8	(2.6)	54.6	(2.8)	34.0	(2.9)	15.6	(2.3)	77.8	(2.4)	72.7	(2.7)	49.9	(2.7)	60.5	(3.0)	44.5	(2.9)	62.2	(3.0)	67.7	(2.9)
	Finland	47.8	(4.4)	54.5	(4.1)	22.5	(3.4)	9.9	(2.6)	74.7	(3.3)	60.6	(4.3)	24.6	(3.8)	44.0	(4.4)	45.8	(3.9)	51.6	(4.2)	59.8	(3.8)
	France	58.3	(3.8)	68.3	(3.5)	50.7	(4.1)	34.2	(3.9)	49.5	(3.5)	59.1	(4.1)	21.7	(2.9)	50.3	(3.6)	53.2	(3.7)	41.7	(3.6)	52.4	(3.8)
	Germany	23.1	(3.7)	27.3	(3.4)	12.6	(2.5)	11.0	(2.6)	34.0	(3.8)	26.2	(3.0)	4.4	(1.5)	14.1	(2.5)	13.5	(2.7)	24.5	(3.3)	19.8	(3.8)
	Greece	68.7	(4.0)	64.6	(4.2)	60.6	(4.4)	24.2	(3.6)	18.8	(3.0)	46.6	(4.6)	16.4	(3.1)	48.3	(4.1)	61.9	(3.6)	14.2	(2.9)	26.6	(3.5)
	Hungary	55.3	(3.8)	51.1	(3.7)	16.9	(2.7)	21.1	(3.3)	74.9	(3.3)	77.0	(3.0)	40.1	(3.4)	57.6	(3.5)	38.5	(3.9)	71.8	(3.5)	18.0	(3.0)
	Iceland	85.3	(0.2)	91.4	(0.1)	8.6	(0.2)	18.7	(0.2)	94.8	(0.1)	95.3	(0.1)	33.4	(0.3)	85.7	(0.2)	70.7	(0.2)	89.7	(0.2)	26.8	(0.3)
	Ireland	74.3	(3.6)	75.5	(3.5)	53.7	(4.1)	56.8	(4.4)	84.7	(2.4)	83.0	(3.2)	47.7	(4.3)	62.5	(4.0)	63.0	(3.8)	49.5	(4.6)	70.7	(3.9)
	Israel	69.5	(4.6)	60.1	(4.1)	51.9	(4.4)	65.2	(4.3)	64.3	(3.9)	74.9	(4.3)	55.1	(4.5)	68.7	(3.9)	63.6	(4.4)	59.5	(4.3)	62.7	(4.3)
	Italy	68.1	(4.3)	40.7	(4.3)	20.0	(3.4)	31.4	(4.1)	81.7	(2.9)	84.8	(2.8)	20.0	(2.9)	83.6	(3.3)	52.7	(4.3)	71.7	(3.7)	27.0	(3.9)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	61.8	(3.8)	79.3	(2.8)	27.9	(3.4)	40.6	(4.1)	69.2	(3.4)	67.6	(3.3)	41.9	(4.1)	58.8	(3.5)	43.3	(3.6)	51.8	(4.3)	20.8	(3.5)
	Latvia	92.5	(1.4)	88.1	(1.8)	59.4	(3.1)	17.4	(2.6)	90.9	(1.5)	97.0	(1.0)	83.2	(2.2)	92.4	(1.3)	63.1	(3.0)	87.6	(1.7)	58.0	(2.8)
	Luxembourg	36.4	(0.1)	54.7	(0.1)	11.9	(0.1)	1.8	(0.0)	94.3	(0.1)	75.3	(0.1)	30.0	(0.1)	58.8	(0.1)	24.9	(0.1)	66.6	(0.1)	8.9	(0.1)
	Mexico	79.2	(3.4)	66.6	(3.4)	48.0	(4.3)	41.9	(4.9)	87.3	(2.1)	88.7	(2.5)	64.4	(4.2)	75.3	(3.6)	60.8	(4.8)	80.7	(2.8)	34.0	(4.3)
	Netherlands	68.9	(4.7)	74.0	(4.4)	32.5	(4.5)	44.1	(4.8)	63.4	(4.7)	69.8	(4.7)	25.7	(4.1)	41.6	(4.8)	45.3	(5.3)	61.0	(5.1)	31.8	(4.6)
	New Zealand	78.8	(3.5)	86.2	(2.6)	57.6	(3.6)	73.8	(3.5)	85.6	(2.9)	93.3	(2.4)	53.0	(4.1)	84.6	(2.7)	78.7	(3.1)	82.1	(3.1)	77.9	(3.1)
	Norway	59.5	(4.1)	62.7	(3.8)	5.0	(1.5)	37.5	(3.8)	68.1	(3.4)	76.4	(3.0)	19.5	(2.8)	54.0	(3.7)	68.9	(3.2)	52.8	(3.6)	50.9	(3.2)
	Poland	96.8	(1.4)	97.7	(1.2)	30.3	(3.6)	41.0	(4.3)	91.3	(2.3)	97.7	(1.2)	82.3	(2.8)	91.5	(2.4)	86.9	(2.6)	91.0	(2.4)	31.2	(3.8)
	Portugal	71.0	(3.7)	69.0	(4.3)	56.1	(4.8)	23.7	(3.9)	73.3	(3.9)	77.8	(3.6)	40.3	(4.3)	65.9	(4.0)	49.6	(4.7)	74.3	(3.6)	57.8	(5.1)
	Slovak Republic	59.7	(2.9)	47.6	(3.2)	23.1	(2.8)	20.4	(3.0)	63.9	(3.0)	46.6	(2.9)	32.8	(2.8)	37.4	(3.1)	35.0	(3.2)	56.3	(3.0)	24.0	(2.9)
	Slovenia	26.4	(0.7)	22.8	(0.7)	20.5	(0.5)	12.7	(0.4)	34.8	(0.4)	28.1	(0.8)	17.6	(0.7)	19.2	(0.7)	21.9	(0.8)	28.8	(0.6)	39.2	(0.6)
	Spain	37.7	(3.2)	37.9	(3.1)	19.6	(3.0)	17.5	(2.9)	46.7	(3.6)	41.5	(3.6)	28.1	(3.2)	46.4	(3.6)	33.6	(3.5)	38.4	(3.3)	22.1	(3.5)
	Sweden	79.2	(3.5)	71.2	(3.4)	19.3	(2.9)	11.4	(2.4)	88.3	(2.3)	90.1	(2.0)	35.9	(3.4)	74.7	(3.3)	59.2	(3.7)	84.8	(2.5)	19.1	(2.9)
	Switzerland	44.1	(3.9)	43.2	(4.0)	30.5	(3.3)	19.2	(3.0)	46.9	(4.1)	39.0	(3.8)	23.0	(3.4)	29.7	(4.0)	30.7	(3.7)	27.9	(3.7)	30.9	(3.6)
	Turkey	70.7	(4.0)	72.8	(3.9)	32.4	(4.4)	38.3	(4.0)	71.3	(4.5)	70.3	(4.0)	49.0	(5.0)	56.7	(4.8)	60.2	(4.5)	72.8	(3.8)	48.1	(4.8)
	United Kingdom	81.5	(3.3)	84.4	(2.9)	58.7	(3.5)	78.0	(3.0)	91.4	(1.6)	97.2	(1.1)	87.5	(1.9)	86.3	(2.5)	83.8	(3.1)	89.2	(2.4)	82.7	(2.6)
	United States	81.1	(3.3)	92.8	(2.1)	40.3	(3.9)	63.0	(4.0)	95.7	(1.2)	96.7	(1.6)	70.8	(3.3)	86.7	(2.7)	71.6	(3.8)	94.1	(1.8)	47.3	(3.6)
	OECD average	62.5	(0.6)	61.9	(0.5)	31.3	(0.6)	30.4	(0.6)	68.2	(0.5)	69.4	(0.5)	37.0	(0.5)	58.9	(0.6)	51.6	(0.6)	59.5	(0.6)	40.0	(0.6)
Partners	**Albania**	77.2	(3.2)	67.7	(4.9)	53.4	(4.8)	55.0	(5.2)	84.1	(2.1)	87.2	(2.5)	79.9	(3.1)	83.4	(2.8)	67.4	(4.3)	73.3	(3.2)	55.5	(3.9)
	Algeria	93.5	(2.2)	91.6	(2.3)	95.0	(2.0)	55.2	(4.4)	72.0	(3.5)	92.7	(2.3)	73.4	(4.1)	27.6	(3.9)	39.1	(4.4)	70.3	(3.8)	86.5	(2.8)
	Brazil	80.3	(2.4)	68.8	(2.8)	45.5	(3.1)	35.6	(2.7)	84.2	(2.1)	86.5	(1.9)	59.2	(2.8)	73.1	(2.8)	68.9	(2.9)	66.1	(3.0)	40.4	(3.2)
	B-S-J-G (China)	94.7	(2.4)	83.2	(3.3)	9.7	(1.9)	46.3	(4.5)	55.0	(4.5)	88.2	(2.3)	89.6	(2.2)	93.3	(2.6)	93.5	(2.7)	66.4	(4.1)	41.1	(4.2)
	Bulgaria	55.5	(4.0)	39.9	(4.4)	21.1	(3.2)	27.2	(3.6)	68.3	(3.4)	57.1	(3.2)	50.2	(3.7)	36.2	(3.3)	41.1	(3.7)	60.3	(3.8)	37.1	(4.2)
	CABA (Argentina)	36.7	(7.8)	15.2	(4.8)	21.5	(7.5)	9.8	(5.3)	61.8	(8.7)	53.4	(7.2)	12.7	(5.6)	53.3	(7.9)	29.3	(5.7)	46.7	(7.6)	12.7	(6.3)
	Colombia	80.8	(2.9)	64.4	(3.7)	32.6	(3.7)	29.9	(3.5)	80.7	(2.7)	87.8	(2.5)	47.5	(3.8)	85.7	(2.3)	71.1	(3.0)	76.0	(3.0)	68.5	(3.6)
	Costa Rica	20.0	(3.5)	14.1	(3.2)	12.4	(3.1)	8.7	(2.1)	32.7	(4.0)	28.8	(4.0)	18.1	(3.3)	27.2	(3.8)	16.3	(3.2)	24.2	(3.6)	21.7	(3.7)
	Croatia	33.7	(3.9)	35.5	(3.9)	24.6	(3.5)	23.9	(3.5)	44.0	(4.2)	34.1	(4.1)	23.9	(3.8)	31.0	(4.1)	29.2	(3.6)	31.7	(3.9)	28.1	(3.6)
	Cyprus*	63.6	(0.2)	60.8	(0.2)	53.1	(0.2)	25.5	(0.2)	17.6	(0.1)	46.6	(0.1)	28.6	(0.1)	40.8	(0.2)	52.8	(0.2)	15.7	(0.1)	35.4	(0.1)
	Dominican Republic	50.7	(5.7)	43.9	(5.4)	46.8	(4.7)	37.0	(5.9)	57.2	(5.5)	62.7	(4.7)	59.3	(5.0)	68.5	(4.9)	53.7	(5.5)	50.4	(5.2)	49.0	(5.6)
	FYROM	72.9	(0.2)	64.5	(0.2)	33.0	(0.2)	47.6	(0.2)	64.0	(0.2)	71.4	(0.2)	79.2	(0.1)	68.4	(0.1)	83.4	(0.1)	58.3	(0.2)	64.5	(0.2)
	Georgia	91.4	(2.5)	89.6	(2.7)	56.5	(4.3)	21.9	(3.4)	73.5	(3.8)	88.8	(2.6)	80.3	(3.1)	83.9	(3.0)	85.8	(3.0)	62.0	(3.6)	66.5	(4.0)
	Hong Kong (China)	63.7	(4.2)	41.7	(4.6)	29.6	(3.7)	41.5	(4.1)	57.1	(4.9)	62.4	(4.2)	45.8	(4.1)	62.4	(4.2)	61.9	(4.4)	52.4	(4.7)	44.7	(4.4)
	Indonesia	91.5	(2.3)	89.1	(2.2)	65.8	(4.3)	71.2	(3.6)	69.2	(3.4)	94.6	(1.8)	86.6	(2.6)	90.1	(2.3)	88.6	(2.8)	65.6	(3.1)	75.7	(3.4)
	Jordan	66.9	(5.0)	64.7	(5.4)	54.7	(5.6)	68.1	(5.2)	81.9	(3.7)	73.5	(4.7)	69.3	(4.1)	75.0	(4.2)	65.3	(5.2)	69.9	(3.9)	64.7	(4.5)
	Kosovo	53.5	(1.6)	56.9	(1.6)	54.7	(1.7)	52.4	(1.5)	50.0	(1.6)	62.9	(1.4)	54.3	(1.5)	60.5	(1.7)	59.0	(1.5)	53.9	(1.8)	55.4	(1.5)
	Lebanon	86.1	(3.7)	91.6	(2.8)	80.3	(4.7)	60.2	(5.1)	67.3	(4.1)	89.4	(3.2)	85.1	(3.4)	82.1	(3.2)	75.6	(4.3)	56.7	(4.9)	71.9	(4.4)
	Lithuania	62.2	(2.8)	63.6	(2.8)	13.9	(2.1)	32.2	(2.9)	68.9	(2.5)	62.2	(2.8)	40.4	(2.9)	60.6	(2.9)	53.1	(3.1)	62.3	(3.0)	18.5	(2.5)
	Macao (China)	65.5	(0.1)	58.0	(0.1)	61.2	(0.1)	38.0	(0.1)	29.5	(0.1)	66.1	(0.1)	57.0	(0.1)	72.7	(0.1)	58.4	(0.1)	24.2	(0.0)	57.2	(0.1)
	Malta	88.5	(0.1)	86.8	(0.1)	44.0	(0.1)	72.6	(0.1)	58.9	(0.1)	90.0	(0.1)	37.1	(0.1)	75.1	(0.1)	70.6	(0.1)	51.6	(0.1)	80.2	(0.1)
	Moldova	99.5	(0.5)	94.0	(1.4)	80.4	(2.8)	28.0	(3.3)	83.1	(2.6)	98.6	(0.9)	86.3	(2.5)	90.9	(2.2)	84.9	(2.9)	67.0	(3.2)	68.1	(3.2)
	Montenegro	29.1	(0.3)	27.5	(0.3)	26.7	(0.3)	30.6	(0.5)	45.5	(0.2)	37.8	(0.3)	39.9	(0.3)	36.9	(0.3)	38.4	(0.4)	40.2	(0.5)	38.2	(0.5)
	Peru	69.4	(3.3)	58.2	(3.2)	36.8	(3.4)	41.3	(3.7)	62.2	(3.5)	71.3	(3.1)	67.2	(3.3)	71.9	(3.2)	60.4	(3.7)	54.7	(3.4)	50.6	(4.3)
	Qatar	80.8	(0.1)	83.7	(0.1)	70.7	(0.1)	67.2	(0.1)	85.1	(0.1)	93.5	(0.0)	72.2	(0.1)	84.8	(0.1)	81.7	(0.1)	78.4	(0.1)	82.8	(0.1)
	Romania	92.2	(1.9)	88.3	(2.5)	51.0	(4.0)	47.9	(4.7)	80.6	(3.5)	84.7	(3.2)	72.3	(4.0)	80.1	(3.3)	79.1	(3.1)	75.4	(3.7)	69.1	(3.9)
	Russia	92.0	(1.7)	89.2	(2.1)	74.3	(3.5)	49.1	(3.9)	95.4	(1.7)	96.5	(1.3)	89.8	(1.8)	84.2	(2.6)	74.0	(3.6)	92.4	(1.7)	94.7	(2.7)
	Singapore	84.2	(0.2)	85.4	(0.8)	88.6	(1.0)	69.8	(0.9)	94.1	(1.1)	96.6	(0.4)	84.5	(0.8)	92.5	(0.4)	85.7	(0.5)	89.8	(0.7)	93.6	(0.8)
	Chinese Taipei	82.0	(2.9)	77.7	(3.1)	44.8	(3.5)	36.9	(3.5)	67.6	(3.3)	69.6	(3.6)	48.9	(3.3)	80.6	(2.9)	77.4	(3.1)	57.9	(3.8)	62.2	(3.2)
	Thailand	76.5	(3.8)	69.3	(3.8)	57.4	(3.6)	61.1	(3.8)	94.1	(1.8)	92.5	(2.3)	81.8	(3.3)	86.0	(2.7)	69.8	(3.8)	82.2	(2.9)	68.0	(3.4)
	Trinidad and Tobago	78.7	(0.3)	77.3	(0.3)	42.5	(0.3)	50.5	(0.3)	49.8	(0.3)	74.7	(0.3)	59.0	(0.3)	75.4	(0.3)	66.4	(0.3)	44.5	(0.3)	77.1	(0.2)
	Tunisia	57.0	(4.7)	49.5	(4.6)	75.3	(3.3)	55.5	(4.5)	49.5	(3.8)	72.5	(3.8)	63.4	(4.5)	55.0	(3.9)	45.8	(4.4)	52.3	(4.0)	81.0	(3.3)
	United Arab Emirates	81.6	(2.5)	86.0	(2.0)	73.8	(2.2)	67.7	(2.6)	86.7	(2.5)	91.2	(1.9)	80.9	(2.0)	87.7	(2.0)	81.4	(2.3)	84.8	(2.4)	83.6	(2.1)
	Uruguay	35.1	(3.2)	28.3	(3.3)	32.2	(3.2)	18.2	(3.0)	23.5	(3.3)	34.8	(3.7)	16.1	(3.1)	39.1	(3.3)	36.0	(3.5)	21.1	(3.2)	25.3	(2.9)
	Viet Nam	83.4	(3.4)	88.3	(3.0)	73.4	(4.1)	79.2	(3.9)	78.4	(4.0)	85.1	(3.3)	88.0	(3.1)	87.3	(3.3)	86.6	(3.4)	81.4	(4.0)	79.5	(3.4)
	Argentina**	49.2	(4.8)	25.7	(4.2)	20.8	(3.9)	16.1	(3.9)	61.1	(4.1)	57.3	(4.3)	28.1	(4.1)	59.2	(4.1)	40.1	(4.4)	36.2	(4.3)	15.8	(3.5)
	Kazakhstan**	85.6	(2.4)	86.1	(2.2)	76.8	(3.2)	62.2	(3.2)	87.1	(2.5)	95.1	(1.5)	89.4	(2.2)	84.9	(2.4)	85.1	(2.1)	85.9	(2.4)	66.6	(3.4)
	Malaysia**	88.6	(2.4)	89.8	(2.5)	66.1	(3.7)	78.7	(3.1)	82.9	(3.2)	90.5	(2.4)	82.3	(3.1)	84.3	(2.9)	78.3	(3.1)	75.9	(3.4)	89.2	(2.5)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436498

[Part 2/2]

Table II.4.24 Purposes of assessments

Results based on school principals' reports

		Percentage of students in schools whose principal reported that teacher-developed tests are used to:																					
		Guide students' learning		Inform parents about their child's progress		Make decisions about students' retention or promotion		Group students for instructional purposes		Compare the school to district or national performance		Monitor the school's progress from year to year		Make judgements about teachers' effectiveness		Identify aspects of instruction or the curriculum that could be improved		Adapt teaching to students' needs		Compare the school with other schools		Award certificates to students	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	97.9	(0.6)	98.5	(0.5)	56.3	(1.8)	80.2	(1.7)	21.7	(1.8)	63.3	(2.0)	42.8	(1.7)	87.3	(1.4)	93.0	(1.1)	20.1	(1.8)	80.0	(1.7)
	Austria	95.4	(1.5)	83.1	(2.5)	86.6	(2.2)	25.1	(2.3)	8.8	(2.2)	44.4	(3.5)	24.9	(3.3)	44.6	(3.7)	71.0	(3.2)	6.2	(2.0)	84.1	(2.7)
	Belgium	99.4	(0.5)	98.9	(1.0)	99.5	(0.4)	39.4	(3.3)	20.4	(2.3)	55.4	(3.2)	38.6	(3.0)	73.1	(3.0)	88.0	(2.4)	17.5	(2.6)	79.0	(2.5)
	Canada	97.9	(0.8)	99.0	(0.6)	92.6	(1.3)	66.7	(2.8)	22.4	(2.5)	53.8	(2.9)	27.9	(2.6)	81.6	(1.9)	95.3	(1.3)	15.3	(2.0)	63.0	(2.6)
	Chile	96.9	(1.6)	93.0	(2.3)	81.8	(3.6)	37.2	(3.9)	11.7	(2.6)	73.9	(3.7)	42.9	(4.4)	89.0	(2.6)	90.7	(2.3)	10.3	(2.3)	52.4	(4.0)
	Czech Republic	78.1	(2.5)	72.8	(2.9)	64.9	(2.9)	52.2	(2.9)	9.7	(1.9)	57.8	(3.0)	31.8	(2.7)	48.4	(3.5)	71.6	(3.1)	11.4	(1.9)	21.4	(2.5)
	Denmark	92.0	(2.2)	88.2	(2.5)	14.6	(2.6)	72.2	(3.8)	9.7	(2.2)	19.8	(3.0)	11.8	(2.3)	81.7	(2.7)	93.2	(1.8)	7.0	(1.9)	22.7	(3.3)
	Estonia	88.2	(1.9)	86.7	(1.7)	57.6	(2.9)	34.2	(2.8)	29.6	(2.6)	57.0	(2.4)	43.3	(2.6)	72.6	(2.3)	86.5	(1.8)	19.3	(2.4)	59.1	(2.8)
	Finland	91.6	(2.1)	96.6	(1.5)	86.2	(2.6)	20.8	(3.4)	17.9	(3.3)	46.5	(4.8)	20.5	(3.6)	46.2	(4.3)	91.8	(2.2)	9.9	(2.6)	90.6	(1.6)
	France	90.7	(1.9)	96.1	(1.2)	85.4	(2.4)	68.7	(3.0)	25.7	(3.1)	42.4	(3.5)	17.3	(2.6)	62.1	(3.2)	90.5	(2.0)	15.3	(2.3)	18.8	(3.0)
	Germany	94.1	(1.4)	90.8	(1.8)	75.0	(3.1)	45.3	(3.5)	15.4	(3.0)	54.0	(3.1)	14.6	(2.8)	50.6	(4.1)	64.9	(4.0)	10.7	(2.4)	86.6	(2.7)
	Greece	95.8	(1.6)	97.0	(1.2)	91.2	(1.9)	34.2	(3.7)	12.1	(2.6)	56.7	(3.7)	20.3	(3.0)	65.8	(3.2)	92.2	(2.1)	10.7	(2.3)	19.1	(2.9)
	Hungary	95.7	(1.4)	91.0	(2.2)	83.8	(2.8)	77.1	(2.9)	25.5	(3.3)	64.1	(3.4)	53.7	(3.7)	73.6	(3.2)	80.2	(2.9)	15.9	(2.7)	52.0	(3.8)
	Iceland	96.0	(0.1)	95.4	(0.1)	13.8	(0.2)	48.6	(0.2)	8.3	(0.1)	57.4	(0.3)	22.9	(0.2)	80.7	(0.2)	90.6	(0.1)	7.0	(0.2)	98.0	(0.1)
	Ireland	97.8	(1.3)	98.6	(1.0)	68.8	(4.1)	86.4	(3.0)	40.6	(4.3)	62.1	(3.8)	39.9	(4.7)	72.8	(3.5)	86.0	(2.9)	18.8	(3.3)	54.6	(4.2)
	Israel	94.8	(1.8)	97.2	(1.0)	84.3	(3.3)	94.3	(2.0)	41.2	(3.6)	74.4	(4.0)	62.6	(4.0)	85.7	(3.2)	87.7	(2.9)	31.4	(4.0)	96.0	(1.5)
	Italy	96.9	(1.2)	92.9	(2.3)	79.3	(3.2)	65.6	(4.0)	19.3	(3.0)	55.9	(3.5)	15.8	(2.4)	82.7	(3.5)	92.1	(1.9)	17.3	(3.1)	37.8	(3.7)
	Japan	99.5	(0.5)	90.6	(2.2)	96.4	(1.4)	61.6	(3.3)	10.6	(2.0)	44.8	(3.6)	76.2	(3.1)	81.9	(2.7)	75.5	(3.1)	8.1	(1.9)	24.5	(2.9)
	Korea	69.8	(3.2)	76.8	(2.9)	34.8	(3.8)	69.1	(3.7)	22.8	(3.4)	47.1	(4.1)	52.9	(3.9)	74.2	(3.3)	67.5	(3.4)	24.6	(3.5)	35.3	(3.7)
	Latvia	98.9	(0.5)	96.7	(0.9)	75.1	(2.5)	43.7	(3.2)	16.6	(2.4)	69.3	(2.4)	69.0	(2.3)	96.3	(0.9)	96.0	(1.2)	14.5	(2.3)	7.3	(1.4)
	Luxembourg	96.5	(0.0)	95.1	(0.1)	94.0	(0.1)	55.2	(0.1)	19.4	(0.1)	40.5	(0.1)	31.4	(0.1)	68.9	(0.1)	76.0	(0.1)	10.9	(0.1)	66.4	(0.1)
	Mexico	97.2	(1.1)	96.4	(1.1)	94.6	(1.4)	68.7	(3.0)	38.9	(3.5)	84.6	(2.7)	60.8	(3.5)	83.5	(2.3)	92.6	(1.8)	42.6	(4.1)	73.5	(3.1)
	Netherlands	91.3	(3.2)	94.9	(2.2)	90.8	(2.7)	61.7	(4.4)	16.1	(3.6)	62.1	(5.0)	43.7	(4.8)	68.8	(4.3)	74.9	(4.0)	9.7	(2.9)	26.0	(4.5)
	New Zealand	100.0	c	98.5	(1.1)	60.9	(3.9)	84.8	(2.6)	30.3	(4.1)	61.6	(3.8)	40.4	(4.0)	92.8	(2.1)	96.5	(1.6)	23.0	(3.4)	75.4	(3.0)
	Norway	97.0	(1.0)	96.9	(1.3)	6.7	(2.0)	56.2	(4.0)	8.0	(2.2)	28.5	(3.7)	9.5	(2.2)	71.5	(3.7)	92.6	(2.0)	6.0	(1.6)	68.1	(3.4)
	Poland	99.4	(0.6)	98.1	(1.1)	64.2	(4.1)	66.4	(3.6)	22.3	(3.3)	72.9	(3.3)	59.6	(3.7)	90.4	(2.4)	97.5	(1.3)	21.3	(3.3)	18.2	(3.4)
	Portugal	99.8	(0.0)	98.6	(1.2)	96.3	(1.9)	47.0	(4.1)	27.4	(3.6)	72.3	(4.0)	37.7	(4.0)	84.0	(3.0)	91.6	(2.0)	21.5	(3.5)	60.5	(3.9)
	Slovak Republic	91.5	(1.7)	86.4	(2.2)	79.8	(2.6)	53.5	(3.1)	12.0	(1.8)	58.8	(3.3)	50.2	(3.2)	62.0	(3.3)	80.4	(2.6)	15.3	(2.1)	59.1	(3.4)
	Slovenia	77.0	(0.8)	66.2	(0.7)	79.3	(0.7)	28.3	(0.6)	25.0	(0.3)	57.1	(0.7)	29.2	(0.4)	54.0	(0.5)	70.7	(0.6)	20.7	(0.3)	41.3	(0.6)
	Spain	98.6	(1.0)	97.4	(1.1)	95.8	(1.5)	46.1	(4.1)	19.8	(3.3)	64.0	(3.6)	32.3	(3.8)	74.4	(3.5)	91.6	(2.1)	17.4	(3.1)	64.8	(3.1)
	Sweden	97.0	(1.3)	85.3	(2.6)	20.0	(2.9)	19.2	(2.8)	11.3	(2.3)	42.6	(3.7)	13.4	(2.2)	66.6	(3.9)	89.3	(2.3)	10.7	(2.4)	19.4	(2.9)
	Switzerland	89.4	(2.5)	86.0	(2.8)	77.4	(3.1)	41.5	(4.1)	8.9	(2.2)	30.4	(3.9)	34.4	(3.3)	49.2	(3.9)	73.4	(3.5)	7.9	(1.9)	86.9	(2.2)
	Turkey	88.9	(2.5)	88.5	(2.0)	67.2	(3.9)	50.0	(4.1)	37.4	(3.6)	53.1	(3.7)	51.7	(3.7)	53.6	(4.2)	74.0	(3.5)	42.3	(4.2)	57.7	(4.8)
	United Kingdom	99.8	(0.1)	99.3	(0.6)	61.8	(3.6)	95.2	(1.2)	38.4	(3.8)	76.9	(3.1)	62.8	(3.3)	89.6	(1.9)	98.1	(0.9)	26.7	(3.4)	55.9	(3.8)
	United States	98.5	(0.9)	97.6	(1.2)	72.8	(3.5)	80.7	(3.0)	25.3	(3.3)	46.7	(3.5)	59.1	(4.2)	92.3	(2.0)	98.5	(0.9)	26.8	(3.0)	55.0	(3.9)
	OECD average	94.0	(0.3)	92.1	(0.3)	71.1	(0.5)	56.5	(0.5)	20.9	(0.5)	55.8	(0.6)	38.5	(0.5)	72.9	(0.5)	85.8	(0.4)	17.0	(0.5)	54.6	(0.5)
Partners	**Albania**	98.2	(0.9)	94.8	(1.7)	84.4	(2.7)	73.2	(3.3)	40.2	(5.0)	75.5	(3.9)	59.5	(4.3)	72.8	(4.3)	93.0	(2.6)	30.0	(4.7)	29.0	(4.6)
	Algeria	89.5	(2.8)	86.5	(3.2)	90.5	(3.1)	62.2	(4.8)	51.7	(4.7)	84.4	(3.5)	64.5	(4.6)	31.0	(5.0)	38.5	(5.0)	60.9	(4.6)	76.9	(4.2)
	Brazil	99.4	(0.4)	95.0	(1.2)	93.3	(1.3)	61.6	(2.6)	42.8	(2.1)	75.1	(2.5)	52.7	(2.8)	83.5	(2.1)	92.4	(1.7)	23.7	(2.2)	52.7	(2.8)
	B-S-J-G (China)	97.4	(1.3)	79.8	(3.5)	7.4	(2.2)	49.8	(4.6)	23.8	(3.4)	63.0	(4.4)	52.6	(4.8)	92.5	(2.2)	95.5	(1.7)	33.1	(3.6)	22.3	(3.5)
	Bulgaria	80.0	(3.4)	67.5	(3.8)	45.3	(4.0)	47.1	(3.7)	40.3	(3.7)	63.3	(3.6)	44.7	(4.0)	42.4	(3.5)	73.0	(3.5)	26.9	(3.8)	20.0	(3.5)
	CABA (Argentina)	96.3	(3.5)	97.1	(2.4)	97.2	(2.3)	41.6	(6.8)	12.8	(4.3)	67.1	(6.3)	40.9	(6.9)	90.1	(4.4)	96.2	(2.8)	4.3	(3.1)	77.8	(6.4)
	Colombia	98.9	(0.5)	96.8	(1.4)	90.0	(2.5)	52.8	(3.9)	34.8	(3.5)	80.9	(2.7)	44.7	(3.8)	88.5	(2.6)	87.4	(2.5)	30.6	(3.7)	69.9	(3.3)
	Costa Rica	96.9	(1.2)	96.3	(1.6)	96.9	(1.2)	47.0	(3.6)	37.3	(3.7)	69.1	(3.6)	43.8	(3.9)	74.0	(3.2)	88.6	(2.2)	21.7	(3.3)	77.0	(3.1)
	Croatia	82.1	(3.2)	84.1	(3.1)	74.7	(3.7)	55.3	(4.2)	35.5	(3.5)	66.7	(4.1)	32.3	(4.2)	56.2	(3.9)	81.9	(3.2)	16.0	(2.9)	47.4	(4.1)
	Cyprus*	95.3	(0.1)	100.0	c	95.3	(0.1)	40.1	(0.2)	19.2	(0.1)	73.3	(0.2)	38.1	(0.1)	61.5	(0.1)	85.7	(0.1)	13.3	(0.1)	52.4	(0.2)
	Dominican Republic	100.0	c	92.6	(2.4)	86.4	(3.2)	73.7	(4.1)	29.7	(4.7)	69.5	(4.8)	42.4	(4.6)	65.9	(4.0)	87.3	(2.9)	27.4	(4.0)	70.2	(4.3)
	FYROM	90.8	(0.1)	83.3	(0.1)	37.5	(0.1)	47.8	(0.2)	48.4	(0.2)	73.5	(0.1)	66.1	(0.2)	77.7	(0.1)	79.8	(0.1)	38.4	(0.2)	51.9	(0.2)
	Georgia	99.6	(0.4)	97.3	(1.0)	58.0	(3.7)	37.4	(2.9)	51.5	(3.6)	89.9	(2.2)	78.0	(2.7)	83.9	(2.6)	93.8	(1.5)	36.8	(3.3)	59.2	(3.8)
	Hong Kong (China)	99.2	(0.8)	94.7	(2.0)	93.9	(2.2)	82.2	(3.8)	30.7	(3.4)	92.1	(2.5)	72.7	(4.0)	95.4	(1.7)	98.8	(0.9)	24.3	(3.3)	75.1	(3.7)
	Indonesia	99.1	(0.7)	97.3	(1.2)	77.0	(3.4)	86.1	(2.8)	40.7	(3.9)	93.1	(2.3)	87.6	(3.0)	91.3	(2.6)	96.2	(1.5)	46.3	(4.1)	74.5	(3.4)
	Jordan	93.4	(2.1)	97.1	(1.3)	89.5	(2.5)	89.4	(2.5)	67.6	(4.3)	81.1	(3.3)	66.5	(4.4)	80.7	(3.5)	78.6	(3.4)	61.2	(4.5)	90.3	(2.4)
	Kosovo	95.8	(0.8)	83.8	(0.9)	77.9	(1.4)	72.6	(1.1)	38.3	(1.7)	55.2	(1.7)	47.4	(1.9)	60.4	(1.5)	87.5	(1.2)	37.4	(1.5)	50.7	(1.6)
	Lebanon	95.1	(1.9)	95.0	(1.6)	92.1	(2.4)	69.3	(3.7)	48.1	(4.8)	82.3	(3.7)	86.0	(2.9)	85.7	(3.4)	89.9	(2.6)	42.3	(4.5)	71.2	(4.2)
	Lithuania	99.4	(0.5)	99.1	(0.5)	44.9	(2.9)	61.5	(2.7)	24.9	(2.7)	81.1	(2.1)	51.2	(2.8)	85.8	(2.1)	96.6	(1.0)	19.6	(2.4)	14.4	(2.3)
	Macao (China)	98.0	(0.0)	95.2	(0.0)	93.8	(0.0)	72.1	(0.1)	21.4	(0.0)	86.9	(0.0)	85.2	(0.0)	96.2	(0.0)	95.2	(0.0)	20.1	(0.1)	84.7	(0.1)
	Malta	99.8	(0.0)	98.4	(0.0)	23.2	(0.1)	52.9	(0.1)	13.3	(0.1)	49.2	(0.1)	35.2	(0.1)	75.2	(0.1)	78.1	(0.1)	8.5	(0.1)	67.3	(0.1)
	Moldova	99.3	(0.6)	90.5	(1.8)	64.8	(3.8)	50.0	(4.0)	41.8	(3.6)	78.4	(3.7)	67.4	(3.9)	91.3	(2.2)	95.9	(1.4)	32.6	(3.4)	47.1	(3.7)
	Montenegro	89.4	(0.1)	77.4	(0.2)	52.4	(0.2)	75.5	(0.2)	43.1	(0.5)	55.3	(0.4)	57.9	(0.5)	55.8	(0.2)	80.1	(0.3)	43.1	(0.3)	39.6	(0.5)
	Peru	97.9	(1.0)	98.3	(0.8)	90.6	(2.0)	60.3	(3.1)	33.0	(3.0)	84.2	(2.4)	77.7	(2.8)	89.1	(2.2)	92.9	(1.8)	30.8	(2.9)	81.4	(2.8)
	Qatar	93.0	(0.0)	93.7	(0.0)	67.7	(0.1)	81.4	(0.1)	43.8	(0.1)	73.7	(0.1)	60.3	(0.1)	84.0	(0.1)	88.2	(0.1)	35.7	(0.1)	80.9	(0.1)
	Romania	99.0	(0.7)	96.6	(1.5)	84.5	(2.5)	70.8	(3.3)	58.5	(4.4)	85.6	(3.0)	61.4	(4.2)	82.5	(3.2)	91.3	(2.3)	52.4	(4.2)	47.2	(4.3)
	Russia	88.2	(2.3)	88.5	(2.6)	61.3	(3.6)	70.5	(4.1)	27.8	(3.7)	65.6	(2.7)	63.5	(3.9)	77.5	(2.8)	88.9	(2.2)	27.3	(2.7)	70.2	(3.5)
	Singapore	100.0	c	98.1	(0.0)	81.5	(0.6)	95.7	(0.9)	31.2	(1.2)	75.9	(0.9)	76.9	(1.0)	96.6	(0.0)	99.1	(0.0)	25.0	(1.4)	61.1	(1.3)
	Chinese Taipei	98.3	(0.9)	85.8	(2.5)	39.8	(3.3)	41.9	(3.6)	25.9	(3.4)	44.8	(3.5)	48.5	(3.7)	89.2	(2.4)	94.7	(1.7)	26.2	(3.6)	39.5	(3.2)
	Thailand	94.8	(2.1)	94.1	(1.9)	91.6	(2.3)	89.2	(2.2)	49.3	(4.1)	84.1	(3.2)	76.4	(3.6)	87.4	(2.6)	92.4	(2.1)	50.4	(4.0)	81.7	(2.7)
	Trinidad and Tobago	99.1	(0.0)	97.4	(0.1)	59.5	(0.2)	68.1	(0.3)	25.5	(0.3)	86.0	(0.2)	71.3	(0.3)	88.8	(0.2)	89.9	(0.2)	25.4	(0.3)	86.9	(0.2)
	Tunisia	88.4	(3.3)	66.9	(4.0)	86.1	(3.6)	81.3	(4.0)	45.1	(4.4)	67.7	(4.1)	61.0	(5.0)	53.0	(4.5)	55.3	(4.3)	48.1	(3.8)	78.1	(4.1)
	United Arab Emirates	95.5	(1.1)	98.8	(0.7)	80.0	(1.9)	89.9	(1.9)	57.2	(2.9)	83.2	(2.1)	75.1	(2.6)	88.0	(1.9)	93.9	(1.2)	57.2	(2.6)	83.2	(2.1)
	Uruguay	98.7	(0.8)	87.6	(2.1)	93.2	(1.6)	39.6	(3.5)	20.9	(2.7)	64.5	(3.4)	22.6	(3.1)	80.3	(2.6)	90.4	(1.7)	16.8	(2.0)	55.0	(3.1)
	Viet Nam	99.6	(0.3)	95.9	(1.5)	87.4	(2.5)	89.6	(2.7)	73.0	(3.5)	90.9	(2.3)	91.6	(2.6)	93.2	(1.9)	93.3	(2.3)	73.7	(3.4)	85.7	(2.5)
	Argentina**	99.7	(0.3)	97.6	(1.2)	92.0	(2.0)	39.9	(3.9)	15.6	(3.0)	62.4	(3.6)	37.3	(3.7)	87.3	(2.7)	93.6	(1.8)	10.1	(2.6)	68.7	(3.9)
	Kazakhstan**	88.5	(1.9)	95.1	(1.3)	72.7	(3.3)	72.7	(3.2)	60.9	(3.1)	83.3	(2.4)	83.1	(2.5)	88.8	(2.3)	92.4	(2.2)	60.9	(3.5)	44.7	(3.3)
	Malaysia**	99.4	(0.6)	91.6	(2.1)	58.6	(4.0)	90.0	(2.4)	51.6	(3.9)	79.6	(3.1)	79.2	(3.4)	90.7	(2.2)	91.3	(2.3)	43.4	(4.1)	68.6	(3.8)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.4.27 Use of achievement data for accountability purposes

Results based on school principals' reports

		Percentage of students in schools that use achievement data in the following ways:					
		Achievement data are posted publicly (e.g. in the media)		Achievement data are tracked over time by an administrative authority		Achievement data are provided directly to parents	
		%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	69.9	(1.7)	91.1	(1.2)	91.8	(1.1)
	Austria	5.9	(1.7)	63.5	(3.1)	38.9	(3.7)
	Belgium	2.6	(1.0)	58.6	(3.1)	74.0	(2.8)
	Canada	56.7	(2.4)	93.4	(1.2)	79.2	(2.6)
	Chile	52.9	(4.2)	86.3	(2.7)	98.4	(0.9)
	Czech Republic	29.0	(2.7)	50.1	(3.1)	97.3	(0.9)
	Denmark	45.1	(3.7)	74.6	(3.2)	88.6	(2.3)
	Estonia	22.9	(2.3)	68.8	(2.2)	83.8	(2.1)
	Finland	5.1	(1.9)	42.0	(3.6)	71.1	(3.8)
	France	59.2	(3.6)	76.2	(2.8)	90.4	(2.0)
	Germany	13.6	(2.5)	37.9	(3.0)	64.5	(3.9)
	Greece	32.1	(3.4)	76.3	(3.5)	97.5	(1.3)
	Hungary	34.5	(3.4)	54.6	(3.8)	89.8	(2.3)
	Iceland	29.8	(0.3)	80.6	(0.3)	98.1	(0.1)
	Ireland	33.2	(4.0)	58.3	(4.3)	72.1	(3.9)
	Israel	50.5	(3.6)	86.3	(2.9)	59.2	(3.9)
	Italy	40.4	(3.7)	28.3	(3.7)	88.7	(2.4)
	Japan	3.6	(1.1)	8.1	(2.1)	87.9	(2.5)
	Korea	50.2	(4.2)	83.6	(2.8)	86.7	(2.8)
	Latvia	31.6	(2.8)	65.0	(2.4)	90.0	(1.6)
	Luxembourg	35.0	(0.1)	46.1	(0.1)	80.3	(0.1)
	Mexico	30.6	(3.2)	93.0	(1.9)	96.4	(1.5)
	Netherlands	77.6	(3.9)	79.3	(3.7)	92.2	(2.6)
	New Zealand	79.4	(3.5)	94.3	(1.4)	93.7	(2.1)
	Norway	69.1	(3.6)	85.4	(2.4)	71.1	(3.7)
	Poland	50.1	(4.5)	80.5	(3.2)	97.8	(1.2)
	Portugal	63.6	(3.4)	92.6	(1.9)	96.2	(1.4)
	Slovak Republic	73.7	(3.1)	76.5	(2.9)	96.4	(1.2)
	Slovenia	64.5	(0.5)	50.9	(0.5)	73.7	(0.3)
	Spain	21.3	(2.9)	80.9	(2.9)	89.6	(2.4)
	Sweden	65.3	(3.2)	85.5	(2.4)	66.1	(3.5)
	Switzerland	7.7	(2.7)	44.3	(3.7)	66.3	(3.8)
	Turkey	59.2	(3.6)	98.8	(0.7)	82.1	(3.1)
	United Kingdom	91.3	(2.4)	88.9	(2.5)	95.0	(1.4)
	United States	92.5	(1.7)	98.6	(1.2)	92.5	(2.2)
	OECD average	44.3	(0.5)	70.8	(0.5)	83.9	(0.4)
Partners	**Albania**	42.3	(3.9)	85.2	(2.5)	94.8	(1.8)
	Algeria	15.5	(3.1)	58.6	(4.1)	77.8	(3.4)
	Brazil	47.1	(2.6)	87.3	(1.7)	92.3	(1.1)
	B-S-J-G (China)	7.6	(2.3)	52.2	(4.2)	57.0	(4.2)
	Bulgaria	54.8	(3.5)	89.6	(2.5)	79.5	(3.0)
	CABA (Argentina)	16.2	(4.4)	60.9	(6.7)	87.2	(5.1)
	Colombia	42.2	(3.8)	77.3	(3.4)	97.3	(1.1)
	Costa Rica	21.8	(3.3)	97.0	(1.3)	96.1	(1.3)
	Croatia	31.0	(4.1)	80.8	(3.3)	88.5	(2.7)
	Cyprus*	22.8	(0.1)	81.5	(0.1)	92.7	(0.1)
	Dominican Republic	19.1	(3.4)	90.4	(2.3)	91.2	(2.3)
	FYROM	34.5	(0.2)	92.1	(0.1)	90.9	(0.1)
	Georgia	7.8	(1.7)	37.3	(3.3)	98.7	(0.7)
	Hong Kong (China)	46.0	(3.9)	80.7	(3.7)	66.2	(4.5)
	Indonesia	29.9	(3.3)	94.1	(1.9)	92.5	(1.8)
	Jordan	24.0	(3.6)	91.8	(1.7)	97.8	(1.0)
	Kosovo	62.8	(1.5)	84.9	(1.0)	78.4	(1.0)
	Lebanon	19.5	(3.0)	73.9	(3.1)	91.2	(2.2)
	Lithuania	31.7	(2.9)	71.4	(2.8)	96.2	(0.9)
	Macao (China)	9.5	(0.0)	39.9	(0.1)	84.1	(0.1)
	Malta	7.2	(0.1)	67.5	(0.1)	71.3	(0.1)
	Moldova	27.6	(3.2)	89.3	(1.9)	87.0	(2.1)
	Montenegro	64.0	(0.4)	89.0	(0.1)	84.4	(0.3)
	Peru	10.1	(2.1)	60.9	(3.5)	84.7	(2.4)
	Qatar	45.6	(0.1)	95.1	(0.0)	93.2	(0.1)
	Romania	60.6	(4.0)	77.7	(3.4)	90.2	(2.5)
	Russia	73.9	(3.1)	100.0	c	98.7	(1.1)
	Singapore	24.2	(0.6)	97.8	(0.5)	76.8	(1.1)
	Chinese Taipei	26.0	(3.3)	56.1	(3.2)	85.8	(2.3)
	Thailand	69.0	(3.7)	97.4	(1.2)	95.8	(1.6)
	Trinidad and Tobago	20.9	(0.2)	90.3	(0.2)	73.9	(0.3)
	Tunisia	29.9	(4.3)	87.0	(2.7)	96.9	(1.6)
	United Arab Emirates	43.5	(2.7)	95.9	(1.0)	96.7	(1.4)
	Uruguay	13.9	(1.9)	82.1	(2.4)	82.7	(2.1)
	Viet Nam	87.9	(2.7)	82.7	(2.8)	94.4	(2.4)
	Argentina**	8.7	(2.1)	81.0	(3.1)	94.6	(1.5)
	Kazakhstan**	77.7	(2.7)	97.0	(1.1)	88.6	(2.5)
	Malaysia**	41.3	(3.8)	94.5	(1.8)	93.7	(2.5)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.4.29 Change between 2012 and 2015 in the use of achievement data for accountability purposes

Results based on school principals' reports

		Percentage of students in schools that use achievement data in the following ways:			
		Achievement data are posted publicly (e.g. in the media)		Achievement data are tracked over time by an administrative authority	
		% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	0.9	(2.6)	-0.5	(1.5)
	Austria	0.2	(2.6)	4.7	(5.0)
	Belgium	-0.5	(1.5)	7.3	(4.1)
	Canada	-4.4	(3.3)	0.7	(1.5)
	Chile	**-11.6**	(5.5)	1.4	(4.0)
	Czech Republic	**-15.1**	(3.9)	-7.4	(4.2)
	Denmark	5.4	(5.2)	4.7	(4.5)
	Estonia	**-11.9**	(3.6)	**-9.4**	(3.0)
	Finland	3.5	(2.1)	-5.6	(5.0)
	France	**13.4**	(5.2)	1.0	(4.1)
	Germany	3.2	(3.4)	1.6	(4.4)
	Greece	5.1	(4.8)	**19.0**	(5.9)
	Hungary	**-13.5**	(5.1)	-3.1	(5.5)
	Iceland	**-1.6**	(0.3)	**2.4**	(0.3)
	Ireland	**13.0**	(5.0)	9.9	(5.9)
	Israel	2.5	(5.3)	-6.4	(3.6)
	Italy	0.0	(4.2)	-1.7	(4.2)
	Japan	-1.8	(1.9)	1.1	(2.7)
	Korea	**-20.8**	(5.3)	-6.3	(3.8)
	Latvia	-0.9	(4.1)	7.3	(4.5)
	Luxembourg	**21.1**	(0.1)	**-22.1**	(0.1)
	Mexico	**-12.8**	(3.6)	0.3	(2.1)
	Netherlands	**-13.0**	(4.6)	-2.8	(4.9)
	New Zealand	-0.9	(4.9)	-1.1	(2.3)
	Norway	**15.4**	(5.2)	1.2	(3.6)
	Poland	2.3	(5.9)	2.5	(4.5)
	Portugal	**11.2**	(5.3)	3.9	(3.2)
	Slovak Republic	-3.4	(4.1)	-4.1	(4.1)
	Slovenia	**11.6**	(0.9)	**-12.5**	(0.8)
	Spain	**8.6**	(3.4)	-0.1	(3.6)
	Sweden	**-15.1**	(4.2)	**-8.2**	(3.0)
	Switzerland	1.9	(3.3)	-8.5	(5.0)
	Turkey	-7.9	(5.0)	3.3	(1.9)
	United Kingdom	4.2	(3.3)	-1.0	(3.2)
	United States	0.5	(2.5)	0.2	(1.4)
	OECD average	-0.3	(0.7)	-0.8	(0.6)
Partners	**Albania**	**17.6**	(4.9)	-1.3	(3.7)
	Algeria	m	m	m	m
	Brazil	6.7	(3.7)	-3.6	(2.1)
	B-S-J-G (China)	m	m	m	m
	Bulgaria	-0.6	(4.9)	0.4	(3.5)
	CABA (Argentina)	0.4	(7.6)	-5.2	(9.8)
	Colombia	-9.0	(5.6)	-6.5	(4.7)
	Costa Rica	**9.6**	(4.1)	0.9	(2.0)
	Croatia	5.7	(5.3)	-6.7	(4.2)
	Cyprus*	**6.1**	(0.1)	**1.7**	(0.1)
	Dominican Republic	m	m	m	m
	FYROM	m	m	m	m
	Georgia	m	m	m	m
	Hong Kong (China)	**13.3**	(5.5)	**14.3**	(5.8)
	Indonesia	8.6	(5.0)	**30.5**	(4.1)
	Jordan	3.6	(4.8)	**7.4**	(3.0)
	Kosovo	m	m	m	m
	Lebanon	m	m	m	m
	Lithuania	-0.1	(4.4)	-4.1	(3.9)
	Macao (China)	**1.1**	(0.0)	**-14.0**	(0.1)
	Malta	m	m	m	m
	Moldova	m	m	m	m
	Montenegro	**-16.0**	(0.4)	**-4.5**	(0.2)
	Peru	-0.3	(3.1)	-1.9	(4.8)
	Qatar	-2.9	(0.1)	-1.5	(0.1)
	Romania	-7.2	(5.7)	8.0	(4.9)
	Russia	-3.8	(4.3)	0.5	(0.5)
	Singapore	-26.6	(0.7)	-0.9	(0.8)
	Chinese Taipei	11.5	(4.3)	8.4	(5.2)
	Thailand	-7.4	(4.9)	-0.7	(1.6)
	Trinidad and Tobago	m	m	m	m
	Tunisia	13.0	(5.1)	10.6	(4.5)
	United Arab Emirates	-3.2	(3.9)	4.5	(2.1)
	Uruguay	4.0	(2.9)	9.6	(4.1)
	Viet Nam	12.6	(4.4)	0.7	(4.5)
	Argentina**	1.2	(2.8)	4.9	(4.4)
	Kazakhstan**	-2.2	(3.9)	-3.0	(1.1)
	Malaysia**	6.2	(5.2)	-2.4	(2.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.4.30 Achievement data posted publicly, science performance and school characteristics

Results based on school principals' reports

		Percentage of students in schools where achievement data are posted publicly													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	69.9	(1.7)	45.9	(0.7)	63.8	(3.7)	67.2	(3.8)	72.5	(4.9)	75.6	(3.1)	**11.8**	(4.9)
	Austria	5.9	(1.7)	23.5	(3.1)	11.7	(4.7)	5.6	(4.1)	3.6	(3.5)	2.5	(3.2)	-9.2	(5.9)
	Belgium	2.6	(1.0)	15.9	(3.2)	1.6	(1.4)	1.4	(1.4)	3.1	(2.9)	4.1	(3.0)	2.6	(3.3)
	Canada	56.7	(2.4)	49.6	(0.3)	53.3	(5.1)	52.5	(6.2)	63.2	(5.6)	58.7	(6.9)	5.4	(9.2)
	Chile	52.9	(4.2)	49.9	(0.2)	43.1	(8.4)	54.7	(9.6)	59.9	(8.9)	54.5	(7.7)	11.4	(11.2)
	Czech Republic	29.0	(2.7)	45.4	(1.2)	23.9	(5.7)	21.3	(6.5)	30.7	(6.6)	40.0	(5.3)	**16.1**	(7.2)
	Denmark	45.1	(3.7)	49.8	(0.4)	52.3	(6.4)	45.2	(7.4)	45.0	(7.6)	38.2	(8.3)	-14.1	(10.2)
	Estonia	22.9	(2.3)	42.0	(1.5)	16.9	(4.6)	16.4	(5.8)	28.6	(5.1)	29.5	(3.9)	**12.7**	(6.0)
	Finland	5.1	(1.9)	21.9	(4.1)	8.2	(5.6)	6.8	(6.4)	2.6	(2.7)	2.6	(2.4)	-5.5	(6.2)
	France	59.2	(3.6)	49.1	(0.7)	63.6	(6.2)	62.5	(6.7)	46.7	(9.3)	65.1	(8.7)	1.4	(10.0)
	Germany	13.6	(2.5)	34.3	(2.7)	7.5	(3.3)	8.9	(4.9)	12.9	(7.4)	25.2	(8.3)	17.7	(9.2)
	Greece	32.1	(3.4)	46.7	(1.3)	12.7	(6.1)	25.4	(7.7)	29.6	(7.6)	60.8	(8.3)	**48.1**	(9.9)
	Hungary	34.5	(3.4)	47.5	(1.1)	18.5	(5.2)	39.5	(7.2)	31.4	(7.6)	49.5	(8.3)	**31.0**	(9.4)
	Iceland	29.8	(0.3)	45.7	(0.1)	28.4	(0.9)	34.6	(1.1)	33.4	(0.6)	23.1	(0.3)	**-5.3**	(0.9)
	Ireland	33.2	(4.0)	47.1	(1.5)	20.3	(6.0)	29.6	(8.4)	39.6	(11.3)	43.9	(9.0)	**23.6**	(11.0)
	Israel	50.5	(3.6)	50.0	(0.1)	38.7	(8.3)	54.4	(8.8)	53.6	(8.5)	55.6	(7.9)	16.9	(11.8)
	Italy	40.4	(3.7)	49.1	(0.7)	43.9	(8.8)	28.2	(6.6)	31.0	(6.2)	58.9	(6.8)	15.1	(10.9)
	Japan	3.6	(1.1)	18.7	(2.7)	3.8	(2.7)	4.5	(3.2)	2.0	(2.0)	4.1	(2.5)	0.3	(3.7)
	Korea	50.2	(4.2)	50.0	(0.1)	39.5	(7.8)	43.1	(10.6)	64.9	(9.1)	53.4	(8.6)	13.8	(11.8)
	Latvia	31.6	(2.8)	46.5	(1.1)	26.1	(5.9)	23.0	(5.6)	43.1	(7.1)	34.3	(5.3)	8.2	(8.5)
	Luxembourg	35.0	(0.1)	47.7	(0.0)	22.7	(0.2)	25.8	(0.3)	45.7	(0.3)	46.1	(0.2)	**23.5**	(0.3)
	Mexico	30.6	(3.2)	46.1	(1.4)	21.2	(5.7)	26.6	(6.6)	43.7	(8.1)	30.9	(7.2)	9.8	(9.3)
	Netherlands	77.6	(3.9)	41.7	(2.6)	81.0	(8.5)	72.2	(11.1)	76.9	(9.5)	79.8	(7.3)	-1.2	(12.0)
	New Zealand	79.4	(3.5)	40.4	(2.6)	71.7	(8.4)	94.5	(7.0)	65.4	(10.2)	86.6	(5.5)	14.9	(9.4)
	Norway	69.1	(3.6)	46.2	(1.5)	59.3	(7.2)	62.4	(8.0)	78.4	(7.6)	75.8	(6.6)	16.5	(9.1)
	Poland	50.1	(4.5)	50.0	(0.2)	43.0	(9.3)	41.3	(9.1)	49.5	(9.4)	67.3	(8.0)	**24.4**	(12.4)
	Portugal	63.6	(3.4)	48.1	(0.9)	58.8	(7.7)	59.4	(7.6)	76.4	(6.3)	60.2	(8.4)	1.4	(11.1)
	Slovak Republic	73.7	(3.1)	44.0	(1.7)	65.6	(7.0)	82.7	(4.7)	74.9	(5.6)	71.5	(7.5)	5.9	(10.3)
	Slovenia	64.5	(0.5)	47.9	(0.2)	59.9	(2.2)	69.9	(1.8)	54.8	(1.4)	73.6	(0.7)	**13.7**	(2.4)
	Spain	21.3	(2.9)	41.0	(2.1)	25.0	(5.8)	7.9	(4.1)	23.5	(10.3)	29.0	(7.5)	4.0	(9.1)
	Sweden	65.3	(3.2)	47.6	(1.0)	55.6	(7.7)	68.5	(7.4)	71.2	(6.8)	65.7	(6.5)	10.1	(10.4)
	Switzerland	7.7	(2.7)	26.7	(4.3)	2.8	(2.7)	17.0	(9.2)	10.0	(6.1)	0.9	(0.0)	-1.9	(2.7)
	Turkey	59.2	(3.6)	49.1	(0.7)	44.3	(9.9)	57.3	(8.6)	66.1	(9.1)	69.1	(9.2)	24.7	(13.7)
	United Kingdom	91.3	(2.4)	28.3	(3.6)	88.9	(4.8)	92.9	(6.2)	89.5	(6.2)	93.8	(2.6)	5.0	(5.4)
	United States	92.5	(1.7)	26.3	(2.8)	93.5	(3.7)	95.5	(4.8)	93.3	(5.3)	87.6	(4.1)	-5.9	(5.9)
	OECD average	44.3	(0.5)	41.7	(0.3)	39.2	(1.0)	42.8	(1.1)	46.2	(1.2)	49.1	(1.1)	**9.9**	(1.5)
Partners	**Albania**	42.3	(3.9)	49.4	(0.7)	41.8	(8.0)	42.9	(8.5)	36.4	(10.9)	45.8	(8.2)	4.1	(11.8)
	Algeria	15.5	(3.1)	36.2	(3.0)	15.8	(7.4)	23.8	(8.9)	10.9	(7.3)	11.2	(5.6)	-4.6	(8.3)
	Brazil	47.1	(2.6)	49.9	(0.1)	44.9	(4.8)	56.6	(6.6)	48.6	(6.9)	38.5	(5.4)	-6.4	(7.1)
	B-S-J-G (China)	7.6	(2.3)	26.5	(3.7)	9.8	(4.8)	3.6	(3.2)	9.3	(5.7)	7.7	(4.4)	-2.1	(6.5)
	Bulgaria	54.8	(3.5)	49.8	(0.4)	46.9	(7.5)	56.1	(9.8)	64.5	(9.4)	51.5	(8.1)	4.6	(11.6)
	CABA (Argentina)	16.2	(4.4)	36.9	(4.0)	17.3	(6.4)	9.1	(9.1)	24.7	(13.7)	4.8	(5.0)	-12.6	(8.0)
	Colombia	42.2	(3.8)	49.4	(0.6)	37.6	(8.0)	46.5	(8.6)	48.1	(6.7)	35.7	(7.9)	-1.9	(11.2)
	Costa Rica	21.8	(3.3)	41.3	(2.3)	23.2	(6.1)	26.1	(7.4)	16.6	(7.3)	21.5	(6.9)	-1.6	(9.1)
	Croatia	31.0	(4.1)	46.3	(1.7)	23.1	(7.0)	32.8	(8.0)	29.5	(8.3)	38.8	(9.2)	15.7	(11.1)
	Cyprus*	22.8	(0.1)	41.9	(0.1)	25.3	(0.4)	19.8	(0.4)	7.8	(0.1)	38.1	(0.2)	**12.8**	(0.5)
	Dominican Republic	19.1	(3.4)	39.3	(2.7)	8.1	(6.4)	32.3	(10.4)	21.8	(7.8)	14.8	(6.4)	6.8	(9.6)
	FYROM	34.5	(0.2)	47.5	(0.1)	40.4	(0.4)	17.3	(0.3)	24.4	(0.6)	58.9	(0.4)	**18.5**	(0.6)
	Georgia	7.8	(1.7)	26.8	(2.7)	10.2	(3.3)	3.2	(2.6)	7.5	(3.9)	10.4	(4.4)	0.2	(5.4)
	Hong Kong (China)	46.0	(3.9)	49.8	(0.3)	41.4	(6.2)	32.9	(8.6)	56.5	(9.4)	53.5	(9.9)	12.0	(11.8)
	Indonesia	29.9	(3.3)	45.8	(1.5)	17.4	(5.5)	29.3	(7.4)	27.9	(6.3)	44.8	(8.2)	**27.4**	(9.9)
	Jordan	24.0	(3.6)	42.7	(2.2)	24.9	(6.6)	20.2	(6.0)	26.9	(8.0)	24.1	(7.3)	-0.8	(9.9)
	Kosovo	62.8	(1.5)	48.3	(0.4)	53.4	(4.2)	59.9	(3.0)	76.2	(3.0)	60.9	(2.6)	7.6	(4.8)
	Lebanon	19.5	(3.0)	39.6	(2.3)	23.6	(8.0)	27.2	(7.4)	21.3	(6.0)	6.4	(3.5)	-17.1	(9.1)
	Lithuania	31.7	(2.9)	46.5	(1.1)	24.5	(4.7)	29.5	(7.3)	34.2	(6.4)	38.4	(6.3)	13.8	(7.6)
	Macao (China)	9.5	(0.0)	29.3	(0.0)	1.1	(0.1)	0.0	c	10.5	(0.0)	26.5	(0.1)	**25.4**	(0.2)
	Malta	7.2	(0.1)	25.8	(0.1)	2.7	(0.0)	0.0	c	14.4	(0.3)	11.9	(0.4)	**9.2**	(0.4)
	Moldova	27.6	(3.2)	44.7	(1.6)	26.4	(6.1)	20.7	(5.7)	27.7	(7.3)	35.4	(6.9)	9.0	(9.0)
	Montenegro	64.0	(0.4)	48.0	(0.1)	52.4	(1.7)	73.9	(1.0)	86.4	(0.8)	43.1	(0.7)	**-9.3**	(1.9)
	Peru	10.1	(2.1)	30.1	(2.8)	10.0	(4.6)	12.4	(4.4)	6.2	(3.5)	11.9	(3.9)	1.9	(5.8)
	Qatar	45.6	(0.1)	49.8	(0.0)	47.5	(0.3)	52.3	(0.4)	34.6	(0.3)	48.0	(0.3)	0.5	(0.4)
	Romania	60.6	(4.0)	48.9	(0.8)	50.3	(9.6)	60.7	(9.5)	61.8	(10.0)	69.8	(8.2)	19.6	(12.3)
	Russia	73.9	(3.1)	43.9	(1.7)	75.8	(6.0)	71.7	(7.2)	71.9	(5.3)	76.1	(9.0)	0.3	(11.5)
	Singapore	24.2	(0.6)	42.8	(0.3)	14.4	(0.2)	30.6	(1.2)	26.5	(1.5)	25.3	(2.0)	**10.9**	(1.9)
	Chinese Taipei	26.0	(3.3)	43.9	(1.8)	20.6	(6.3)	30.6	(8.1)	21.2	(6.4)	31.8	(7.9)	11.2	(10.8)
	Thailand	69.0	(3.7)	46.3	(1.5)	66.9	(6.7)	55.3	(9.2)	78.6	(7.1)	75.3	(7.2)	8.4	(9.8)
	Trinidad and Tobago	20.9	(0.2)	40.7	(0.1)	5.7	(0.3)	9.7	(0.2)	40.3	(0.7)	29.6	(0.4)	**23.9**	(0.5)
	Tunisia	29.9	(4.3)	45.8	(1.9)	26.1	(8.2)	37.6	(9.6)	31.2	(8.7)	23.4	(7.0)	-2.7	(10.7)
	United Arab Emirates	43.5	(2.7)	49.6	(0.4)	33.0	(6.5)	50.1	(6.0)	47.6	(6.6)	41.9	(6.4)	8.9	(8.6)
	Uruguay	13.9	(1.9)	34.6	(1.9)	5.0	(3.8)	19.2	(5.7)	22.9	(5.4)	8.4	(3.7)	3.4	(5.3)
	Viet Nam	87.9	(2.7)	32.6	(3.1)	85.6	(7.0)	90.4	(4.7)	86.3	(5.6)	89.4	(5.0)	3.8	(8.9)
	Argentina**	8.7	(2.1)	28.2	(3.0)	5.5	(3.8)	8.3	(4.1)	12.3	(5.7)	7.9	(4.7)	2.4	(6.0)
	Kazakhstan**	77.7	(2.7)	41.7	(1.7)	82.3	(7.1)	76.5	(8.2)	75.8	(5.9)	76.0	(4.2)	-6.3	(8.7)
	Malaysia**	41.3	(3.8)	49.2	(0.6)	34.1	(8.9)	34.1	(9.6)	47.7	(8.9)	49.3	(8.3)	15.1	(11.7)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.4.30 Achievement data posted publicly, science performance and school characteristics

Results based on school principals' reports

		Percentage of students in schools where achievement data are posted publicly															
		By school location								By type of school							
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public			
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.		
OECD	Australia	71.7	(7.9)	63.5	(4.0)	72.3	(2.0)	0.5	(8.2)	67.5	(2.5)	73.0	(2.5)	5.5	(3.6)		
	Austria	8.6	(8.5)	3.8	(1.7)	8.6	(3.3)	0.0	(9.1)	6.3	(1.9)	3.2	(3.0)	-3.1	(3.6)		
	Belgium	0.0	c	3.1	(1.5)	1.8	(1.2)	1.8	(1.2)	w	w	w	w	w	w		
	Canada	47.6	(10.0)	58.8	(4.3)	56.3	(4.0)	8.7	(11.3)	57.8	(2.3)	44.8	(8.9)	-13.0	(8.8)		
	Chile	39.7	(21.9)	50.1	(7.6)	54.8	(5.1)	15.2	(22.9)	51.4	(7.2)	53.1	(4.8)	1.7	(8.3)		
	Czech Republic	32.8	(7.5)	27.1	(3.5)	31.2	(6.3)	-1.6	(10.3)	26.9	(2.6)	55.0	(11.1)	**28.2**	(11.3)		
	Denmark	64.2	(9.4)	43.7	(4.8)	32.5	(6.3)	**-31.7**	(11.7)	48.9	(4.4)	34.0	(7.1)	-14.9	(8.4)		
	Estonia	9.9	(3.5)	23.9	(3.8)	32.5	(3.8)	**22.6**	(5.2)	23.5	(2.4)	14.0	(9.3)	-9.4	(9.4)		
	Finland	0.0	c	8.7	(3.2)	0.0	c	0.0	c	5.3	(2.0)	0.0	c	**-5.3**	(2.0)		
	France	54.6	(14.2)	60.5	(4.4)	54.9	(6.8)	0.4	(16.0)	59.3	(4.1)	57.9	(7.3)	-1.5	(8.5)		
	Germany	19.2	(10.9)	11.8	(2.7)	16.3	(4.9)	-2.9	(11.4)	13.4	(2.6)	16.6	(9.8)	3.2	(10.3)		
	Greece	37.1	(12.2)	28.7	(4.2)	38.3	(6.1)	1.2	(13.3)	29.3	(3.5)	87.9	(9.0)	**58.6**	(9.9)		
	Hungary	17.8	(9.6)	30.5	(4.1)	40.4	(5.6)	**22.6**	(11.4)	32.7	(3.7)	42.2	(9.2)	9.5	(10.1)		
	Iceland	33.3	(0.7)	20.1	(0.3)	44.7	(0.5)	**11.3**	(0.8)	30.1	(0.3)	m	m	m	m		
	Ireland	29.1	(9.7)	30.0	(5.3)	42.2	(8.2)	13.1	(12.6)	21.6	(5.2)	41.3	(5.7)	**19.7**	(7.8)		
	Israel	42.2	(11.4)	59.0	(5.7)	42.0	(6.6)	-0.2	(13.5)	m	m	m	m	m	m		
	Italy	15.6	(13.4)	38.6	(4.4)	46.1	(6.5)	30.5	(16.0)	40.8	(3.7)	31.5	(14.3)	-9.3	(14.2)		
	Japan	m	m	0.0	c	5.0	(1.5)	m	m	2.4	(1.4)	6.2	(2.8)	3.7	(3.6)		
	Korea	m	m	36.3	(12.8)	52.3	(4.4)	m	m	50.4	(4.9)	49.7	(6.9)	-0.7	(8.1)		
	Latvia	31.1	(6.8)	39.0	(4.7)	20.8	(3.0)	-10.3	(7.5)	31.8	(2.8)	24.5	(20.6)	-7.3	(20.5)		
	Luxembourg	m	m	33.3	(0.1)	36.8	(0.1)	m	m	39.9	(0.1)	8.6	(0.2)	**-31.3**	(0.2)		
	Mexico	17.4	(6.0)	20.6	(4.4)	43.3	(5.2)	**25.9**	(8.0)	30.9	(3.5)	29.1	(8.6)	-1.8	(9.1)		
	Netherlands	m	m	79.9	(4.5)	69.9	(8.8)	m	m	80.3	(6.8)	75.6	(5.1)	-4.8	(9.0)		
	New Zealand	56.6	(18.3)	81.2	(4.5)	79.2	(4.6)	22.6	(19.1)	79.8	(3.5)	73.8	(13.8)	-5.9	(13.7)		
	Norway	47.2	(8.3)	71.0	(5.2)	86.5	(6.0)	**39.3**	(10.1)	70.1	(3.7)	0.0	c	**-70.1**	(3.7)		
	Poland	40.1	(7.1)	56.9	(7.3)	52.7	(8.4)	12.6	(11.0)	49.5	(4.5)	67.9	(20.0)	18.5	(20.5)		
	Portugal	52.3	(16.6)	63.6	(3.9)	67.4	(8.6)	15.1	(16.9)	64.7	(3.4)	51.9	(15.2)	-12.8	(15.5)		
	Slovak Republic	64.3	(5.7)	77.0	(3.8)	68.1	(9.5)	3.8	(11.3)	73.1	(3.2)	78.1	(8.2)	5.0	(8.5)		
	Slovenia	42.6	(4.4)	70.3	(0.7)	54.1	(0.5)	**11.5**	(4.5)	65.1	(0.5)	46.7	(0.8)	**-18.4**	(1.0)		
	Spain	30.2	(14.3)	15.2	(3.1)	31.6	(5.8)	1.3	(15.6)	21.9	(3.6)	20.1	(4.7)	-1.8	(5.9)		
	Sweden	59.7	(13.0)	63.2	(4.2)	71.3	(6.0)	11.6	(14.6)	65.9	(3.6)	62.5	(8.7)	-3.4	(9.7)		
	Switzerland	0.0	c	8.7	(3.5)	7.0	(5.5)	7.0	(5.5)	7.5	(2.8)	12.7	(8.5)	5.2	(8.6)		
	Turkey	8.3	(7.8)	64.5	(6.7)	56.8	(4.5)	**48.4**	(9.0)	60.4	(3.7)	31.5	(19.7)	-28.9	(20.6)		
	United Kingdom	97.4	(1.3)	93.5	(2.1)	83.5	(5.7)	**-13.9**	(5.8)	92.2	(1.9)	76.8	(14.1)	-15.3	(13.4)		
	United States	93.2	(6.0)	95.0	(2.0)	88.9	(4.4)	-4.3	(8.1)	96.6	(1.4)	43.2	(14.3)	**-53.4**	(14.4)		
	OECD average	37.5	(1.8)	43.7	(0.8)	45.4	(0.9)	**8.5**	(2.1)	44.0	(0.6)	39.8	(1.8)	**-4.7**	(1.8)		
Partners	Albania	28.6	(6.5)	42.6	(5.9)	54.6	(7.2)	**26.1**	(9.7)	40.7	(3.9)	54.1	(10.4)	13.4	(10.6)		
	Algeria	1.8	(1.9)	20.3	(4.3)	10.2	(6.8)	8.3	(7.0)	15.8	(3.2)	m	m	m	m		
	Brazil	40.2	(9.8)	46.1	(4.1)	49.7	(3.4)	9.5	(11.1)	50.6	(2.8)	26.6	(6.2)	**-24.0**	(6.9)		
	B-S-J-G (China)	0.0	c	9.4	(3.3)	6.7	(4.1)	6.7	(4.1)	7.3	(2.4)	10.2	(7.7)	2.9	(8.1)		
	Bulgaria	15.5	(8.5)	62.0	(5.3)	48.1	(5.9)	**32.5**	(9.4)	54.7	(3.5)	m	m	m	m		
	CABA (Argentina)	m	m	m	m	17.1	(4.7)	m	m	17.6	(6.9)	15.5	(5.4)	-2.1	(8.5)		
	Colombia	34.1	(8.6)	39.8	(6.7)	44.1	(4.9)	10.0	(9.8)	45.6	(4.1)	31.3	(8.8)	-14.3	(9.7)		
	Costa Rica	21.6	(7.1)	23.5	(4.3)	11.1	(6.1)	-10.5	(9.4)	22.4	(3.6)	18.2	(7.4)	-4.2	(7.8)		
	Croatia	m	m	31.9	(5.1)	29.1	(6.7)	m	m	31.1	(4.1)	25.9	(22.9)	-5.2	(23.1)		
	Cyprus*	32.0	(0.6)	21.5	(0.1)	24.1	(0.2)	**-7.9**	(0.6)	16.2	(0.1)	57.0	(0.4)	**40.7**	(0.4)		
	Dominican Republic	8.4	(6.2)	23.1	(4.9)	16.5	(6.1)	8.1	(8.6)	22.0	(4.1)	8.5	(5.2)	**-13.5**	(6.6)		
	FYROM	69.2	(0.4)	38.7	(0.2)	26.5	(0.2)	**-42.6**	(0.4)	34.8	(0.2)	27.5	(0.5)	**-7.4**	(0.5)		
	Georgia	6.5	(2.5)	8.4	(3.6)	7.7	(3.0)	1.3	(3.6)	6.8	(1.6)	12.1	(8.0)	5.3	(8.1)		
	Hong Kong (China)	m	m	m	m	46.0	(3.9)	m	m	77.8	(14.1)	44.4	(4.2)	**-33.4**	(14.7)		
	Indonesia	22.2	(5.5)	29.3	(5.0)	47.7	(9.6)	**25.5**	(12.1)	26.8	(4.2)	34.2	(4.5)	7.5	(5.7)		
	Jordan	12.2	(5.6)	23.0	(5.1)	30.8	(6.3)	**18.6**	(8.2)	23.8	(4.0)	26.2	(7.5)	2.4	(8.4)		
	Kosovo	61.2	(5.9)	59.1	(1.8)	72.5	(2.5)	11.3	(6.4)	63.8	(1.4)	23.0	(18.9)	**-40.8**	(18.8)		
	Lebanon	24.3	(8.7)	17.5	(3.5)	23.5	(6.3)	-0.7	(10.9)	23.8	(5.2)	15.6	(3.4)	-8.2	(6.4)		
	Lithuania	20.3	(4.8)	35.8	(4.3)	33.7	(4.6)	**13.3**	(6.3)	31.8	(3.0)	27.4	(19.8)	-4.4	(20.6)		
	Macao (China)	m	m	m	m	9.3	(0.0)	m	m	m	m	9.8	(0.0)	m	m		
	Malta	9.2	(0.2)	6.9	(0.1)	m	m	m	m	1.2	(0.0)	12.8	(0.1)	**11.6**	(0.1)		
	Moldova	25.6	(3.8)	18.2	(5.3)	46.5	(8.8)	**20.9**	(9.6)	27.5	(3.2)	m	m	m	m		
	Montenegro	m	m	67.9	(0.6)	56.8	(0.6)	m	m	64.3	(0.4)	m	m	m	m		
	Peru	8.1	(3.5)	11.4	(2.8)	9.1	(6.7)	1.1	(7.6)	10.4	(2.6)	8.3	(3.4)	-2.0	(4.2)		
	Qatar	12.7	(0.2)	45.7	(0.1)	48.2	(0.1)	**35.6**	(0.2)	42.0	(0.1)	51.7	(0.1)	**9.7**	(0.2)		
	Romania	41.2	(10.2)	63.0	(5.4)	63.2	(6.8)	22.0	(12.2)	61.3	(4.1)	m	m	m	m		
	Russia	73.6	(6.9)	68.7	(5.1)	77.3	(5.0)	3.8	(7.7)	74.1	(3.2)	m	m	m	m		
	Singapore	m	m	m	m	27.0	(0.7)	m	m	24.3	(0.1)	25.0	(6.7)	0.8	(6.7)		
	Chinese Taipei	m	m	27.0	(5.1)	25.8	(4.2)	m	m	20.4	(3.8)	37.5	(6.5)	**17.2**	(7.5)		
	Thailand	46.2	(9.1)	74.0	(4.6)	76.6	(7.4)	**30.4**	(11.8)	71.4	(3.7)	53.4	(12.6)	-17.9	(13.1)		
	Trinidad and Tobago	17.8	(0.6)	20.3	(0.2)	m	m	m	m	18.0	(0.2)	52.8	(0.6)	**34.8**	(0.6)		
	Tunisia	33.1	(18.7)	28.3	(5.4)	31.9	(8.2)	-1.3	(20.4)	29.1	(4.4)	38.1	(27.3)	9.0	(27.5)		
	United Arab Emirates	26.8	(7.4)	38.9	(5.5)	46.7	(3.6)	**19.9**	(8.9)	37.0	(3.2)	47.9	(3.7)	**10.9**	(4.6)		
	Uruguay	8.6	(8.0)	12.9	(2.5)	16.0	(3.4)	7.4	(8.5)	14.6	(2.1)	9.8	(3.9)	-4.8	(4.4)		
	Viet Nam	89.6	(3.6)	83.8	(5.5)	90.2	(4.7)	0.6	(5.8)	87.8	(2.7)	87.1	(14.7)	-0.7	(14.8)		
	Argentina**	7.8	(7.5)	4.7	(2.0)	14.0	(4.3)	6.2	(8.5)	7.6	(2.1)	13.0	(6.1)	5.4	(6.5)		
	Kazakhstan**	80.1	(4.3)	69.4	(6.8)	80.5	(3.6)	0.5	(5.6)	78.2	(2.8)	64.9	(16.3)	-13.3	(16.8)		
	Malaysia**	46.5	(9.4)	37.1	(5.9)	43.4	(6.0)	-3.0	(11.2)	38.3	(3.9)	92.6	(6.6)	**54.3**	(7.6)		

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.4.30 Achievement data posted publicly, science performance and school characteristics

Results based on school principals' reports

		Percentage of students in schools where achievement data are posted publicly													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 - ISCED 2		Change in science score when achievement data are posted publicly		Explained variance in student performance (r-squared x 100)		Change in science score when achievement data are posted publicly		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	68.7	(1.9)	77.5	(2.8)	**8.8**	(2.9)	5	(4.4)	0.1	(0.1)	-4	(3.8)	16.5	(1.1)
	Austria	0.0	c	6.0	(1.7)	**6.0**	(1.7)	**-34**	(16.9)	0.7	(0.7)	-6	(9.4)	31.0	(1.9)
	Belgium	1.0	(0.6)	2.7	(1.1)	1.8	(1.2)	**61**	(17.9)	1.0	(0.7)	**37**	(11.8)	36.2	(2.2)
	Canada	47.0	(4.1)	57.9	(2.5)	**10.8**	(4.2)	6	(4.7)	0.1	(0.2)	1	(3.1)	10.9	(1.0)
	Chile	55.7	(9.4)	52.7	(4.3)	-2.9	(9.6)	13	(7.5)	0.6	(0.6)	**13**	(5.4)	27.1	(1.7)
	Czech Republic	24.5	(3.6)	34.4	(3.9)	9.9	(5.2)	**25**	(7.2)	1.4	(0.9)	**9**	(4.2)	33.4	(2.1)
	Denmark	44.8	(3.7)	m	m	m	m	**-14**	(5.8)	0.6	(0.5)	-9	(5.0)	12.4	(1.4)
	Estonia	22.7	(2.3)	36.5	(10.2)	13.8	(10.3)	3	(5.2)	0.0	(0.1)	-2	(4.2)	11.0	(1.3)
	Finland	5.0	(1.9)	m	m	m	m	-3	(9.7)	0.0	(0.0)	3	(8.9)	10.9	(1.3)
	France	49.2	(5.6)	62.3	(4.1)	**13.1**	(6.5)	-8	(9.4)	0.1	(0.3)	-4	(5.1)	37.7	(2.3)
	Germany	14.1	(2.6)	2.2	(2.1)	**-11.9**	(3.3)	**45**	(13.1)	2.4	(1.5)	**17**	(7.8)	35.9	(2.3)
	Greece	0.0	c	33.7	(3.6)	**33.7**	(3.6)	**48**	(7.9)	5.9	(1.9)	**17**	(6.4)	24.1	(2.8)
	Hungary	24.4	(5.7)	35.7	(3.7)	11.3	(6.3)	**41**	(10.0)	4.0	(2.1)	9	(5.4)	43.8	(2.1)
	Iceland	29.8	(0.3)	m	m	m	m	-6	(3.3)	0.1	(0.1)	-3	(3.3)	4.9	(0.8)
	Ireland	33.0	(4.0)	33.7	(4.2)	0.7	(1.7)	**14**	(6.1)	0.6	(0.5)	3	(4.2)	15.5	(1.3)
	Israel	58.9	(7.1)	49.5	(3.7)	-9.4	(6.8)	**30**	(9.5)	2.0	(1.3)	**13**	(6.6)	23.7	(2.3)
	Italy	37.7	(16.3)	40.5	(3.7)	2.8	(16.7)	11	(9.5)	0.4	(0.7)	-2	(5.6)	24.4	(2.6)
	Japan	m	m	3.6	(1.1)	m	m	-17	(22.3)	0.1	(0.3)	-17	(16.6)	28.2	(2.4)
	Korea	47.4	(11.0)	50.5	(4.5)	3.1	(12.0)	8	(7.5)	0.2	(0.4)	-2	(4.9)	17.9	(2.1)
	Latvia	32.0	(2.8)	21.0	(4.3)	**-11.1**	(4.3)	3	(5.3)	0.0	(0.1)	-1	(3.7)	12.2	(1.5)
	Luxembourg	33.5	(0.2)	37.0	(0.1)	**3.5**	(0.2)	**22**	(2.0)	1.1	(0.2)	**11**	(2.1)	34.7	(1.0)
	Mexico	24.1	(4.9)	34.9	(4.0)	10.8	(6.0)	**13**	(5.4)	0.7	(0.6)	6	(4.3)	17.4	(2.0)
	Netherlands	77.7	(4.3)	77.3	(5.9)	-0.3	(6.3)	0	(17.6)	0.0	(0.5)	-11	(11.0)	38.4	(4.6)
	New Zealand	77.9	(5.1)	79.5	(3.5)	1.7	(3.5)	-6	(9.7)	0.1	(0.2)	-10	(6.7)	19.9	(2.0)
	Norway	69.1	(3.6)	m	m	m	m	3	(5.5)	0.0	(0.1)	0	(4.8)	9.1	(0.9)
	Poland	50.1	(4.5)	m	m	m	m	**16**	(6.2)	0.8	(0.7)	7	(4.4)	15.6	(1.6)
	Portugal	62.7	(4.5)	64.1	(3.7)	1.4	(4.6)	4	(7.6)	0.0	(0.2)	1	(4.7)	19.7	(2.0)
	Slovak Republic	65.8	(3.8)	80.9	(3.9)	**15.1**	(4.5)	12	(13.4)	0.3	(0.7)	4	(6.4)	30.4	(2.3)
	Slovenia	31.6	(9.4)	66.3	(0.1)	**34.8**	(9.4)	**15**	(3.2)	0.6	(0.2)	**9**	(2.9)	35.8	(1.3)
	Spain	21.3	(2.9)	m	m	m	m	3	(6.0)	0.0	(0.1)	-1	(4.7)	14.4	(1.2)
	Sweden	65.6	(3.3)	47.6	(19.5)	-18.1	(19.6)	8	(7.6)	0.1	(0.3)	3	(5.2)	16.4	(1.7)
	Switzerland	4.6	(2.9)	18.6	(5.1)	**14.0**	(5.7)	7	(17.6)	0.0	(0.2)	15	(16.7)	24.7	(2.1)
	Turkey	49.2	(14.5)	59.5	(3.7)	10.3	(14.9)	**21**	(9.4)	1.6	(1.5)	9	(6.5)	26.6	(4.1)
	United Kingdom	82.0	(12.4)	91.3	(2.4)	9.3	(12.2)	18	(9.9)	0.3	(0.3)	8	(6.5)	19.6	(1.8)
	United States	92.4	(2.6)	92.5	(1.8)	0.1	(2.2)	10	(14.7)	0.1	(0.3)	20	(14.8)	14.5	(1.6)
	OECD average	41.3	(1.1)	46.5	(1.0)	**5.8**	(1.5)	**11**	(1.7)	0.7	(0.1)	**4**	(1.3)	22.7	(0.3)
Partners	**Albania**	37.5	(5.4)	45.0	(4.8)	7.5	(6.7)	m	m	m	m	m	m	m	m
	Algeria	15.9	(3.5)	14.1	(6.0)	-1.8	(6.9)	-12	(10.2)	0.4	(0.8)	-11	(6.5)	10.2	(3.1)
	Brazil	43.7	(3.7)	47.9	(3.0)	4.2	(4.4)	-5	(6.5)	0.1	(0.2)	1	(4.3)	21.3	(2.2)
	B-S-J-G (China)	5.8	(2.2)	10.6	(3.9)	4.8	(3.9)	1	(27.5)	0.0	(0.4)	8	(18.3)	34.7	(3.0)
	Bulgaria	23.3	(9.4)	55.8	(3.6)	**32.5**	(10.2)	12	(12.8)	0.3	(0.8)	4	(6.1)	39.4	(2.8)
	CABA (Argentina)	16.8	(4.6)	6.9	(4.5)	**-9.9**	(4.7)	-19	(20.4)	0.6	(1.3)	-14	(10.7)	32.7	(3.6)
	Colombia	43.8	(3.9)	41.1	(4.0)	-2.7	(2.3)	-1	(8.0)	0.0	(0.2)	1	(5.2)	20.0	(2.6)
	Costa Rica	21.2	(3.2)	22.5	(3.9)	1.3	(2.6)	-3	(7.5)	0.0	(0.2)	0	(4.7)	22.6	(2.1)
	Croatia	m	m	31.1	(4.1)	m	m	16	(9.7)	0.6	(0.8)	8	(5.7)	26.2	(2.1)
	Cyprus*	21.3	(1.1)	22.9	(0.1)	1.5	(1.1)	**15**	(3.1)	0.5	(0.2)	-4	(3.2)	17.1	(0.9)
	Dominican Republic	18.7	(6.1)	19.2	(4.0)	0.5	(7.1)	6	(10.9)	0.1	(0.5)	5	(6.2)	26.6	(3.1)
	FYROM	m	m	34.5	(0.2)	m	m	**17**	(2.5)	0.9	(0.3)	**10**	(2.5)	14.1	(1.1)
	Georgia	7.5	(2.0)	7.9	(1.7)	0.4	(1.7)	-5	(12.7)	0.0	(0.2)	-10	(8.6)	15.0	(1.6)
	Hong Kong (China)	45.6	(3.9)	46.2	(4.1)	0.5	(1.9)	**14**	(6.5)	0.7	(0.7)	8	(5.7)	12.9	(1.9)
	Indonesia	22.9	(4.5)	37.5	(4.6)	**14.7**	(6.2)	**17**	(6.5)	1.3	(1.0)	0	(4.4)	23.5	(3.1)
	Jordan	24.0	(3.6)	m	m	m	m	4	(8.1)	0.1	(0.3)	1	(6.5)	12.6	(2.2)
	Kosovo	53.9	(5.0)	65.9	(0.8)	**12.0**	(5.0)	**13**	(2.9)	0.8	(0.3)	**11**	(2.8)	14.7	(1.5)
	Lebanon	16.6	(4.3)	20.5	(3.5)	3.9	(5.2)	-12	(11.3)	0.3	(0.6)	5	(9.4)	19.1	(3.2)
	Lithuania	31.7	(2.9)	m	m	m	m	9	(5.7)	0.2	(0.3)	3	(4.6)	21.4	(2.3)
	Macao (China)	7.7	(0.1)	11.0	(0.1)	**3.3**	(0.1)	**15**	(3.8)	0.3	(0.2)	0	(3.8)	2.2	(0.5)
	Malta	m	m	7.2	(0.1)	m	m	**30**	(6.1)	0.5	(0.2)	-8	(6.0)	24.8	(1.1)
	Moldova	28.2	(3.2)	19.6	(5.2)	-8.6	(4.6)	6	(7.6)	0.1	(0.3)	0	(5.6)	14.1	(1.7)
	Montenegro	80.0	(15.3)	63.5	(0.1)	-16.4	(15.3)	-1	(2.3)	0.0	(0.0)	-3	(2.3)	17.1	(0.9)
	Peru	8.7	(2.2)	10.6	(2.2)	1.9	(1.7)	-6	(8.7)	0.1	(0.2)	-6	(6.4)	30.1	(2.2)
	Qatar	45.9	(0.3)	45.5	(0.1)	-0.5	(0.3)	**20**	(2.0)	1.0	(0.2)	**23**	(2.0)	15.4	(0.6)
	Romania	60.6	(4.0)	m	m	m	m	**16**	(8.3)	1.0	(1.0)	8	(5.4)	23.4	(2.9)
	Russia	74.0	(3.2)	72.9	(5.5)	-1.2	(5.5)	6	(7.6)	0.1	(0.3)	6	(4.9)	9.8	(1.8)
	Singapore	19.8	(5.1)	24.3	(0.5)	4.4	(5.0)	**26**	(2.9)	1.2	(0.3)	**16**	(4.3)	26.6	(1.4)
	Chinese Taipei	10.7	(2.2)	34.4	(4.6)	**23.8**	(4.5)	8	(10.0)	0.1	(0.4)	1	(5.6)	28.4	(2.5)
	Thailand	69.4	(4.1)	68.8	(4.1)	-0.5	(4.5)	**17**	(7.9)	0.9	(0.9)	8	(5.7)	18.4	(3.1)
	Trinidad and Tobago	14.7	(0.4)	25.3	(0.2)	**10.6**	(0.5)	**52**	(3.2)	5.4	(0.6)	**21**	(3.1)	36.5	(1.2)
	Tunisia	33.1	(6.7)	28.2	(5.3)	-4.9	(8.3)	-13	(7.0)	0.9	(0.9)	-10	(5.2)	18.9	(3.8)
	United Arab Emirates	40.6	(4.2)	43.9	(2.9)	3.3	(4.5)	8	(6.4)	0.2	(0.3)	5	(6.5)	15.5	(2.1)
	Uruguay	15.0	(3.2)	13.2	(1.8)	-1.8	(3.3)	4	(9.7)	0.0	(0.2)	3	(4.9)	26.3	(1.8)
	Viet Nam	73.8	(13.6)	89.1	(2.5)	15.3	(13.6)	2	(14.4)	0.0	(0.3)	2	(9.2)	19.6	(4.2)
	Argentina**	8.5	(2.0)	8.8	(2.5)	0.2	(1.9)	3	(8.6)	0.0	(0.1)	-4	(6.3)	19.2	(2.2)
	Kazakhstan**	76.6	(2.7)	77.0	(4.0)	0.4	(3.2)	-1	(7.7)	0.0	(0.2)	2	(7.3)	8.7	(2.4)
	Malaysia**	20.4	(7.2)	42.0	(3.8)	**21.6**	(7.0)	11	(7.0)	0.5	(0.7)	2	(5.0)	18.2	(2.4)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.4.31 Achievement data tracked by an administrative authority, science performance and school characteristics

Results based on school principals' reports

		Percentage of students in schools where achievement data are tracked over time by an administrative authority													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	S.D.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	91.1	(1.2)	28.5	(1.8)	95.0	(1.7)	91.9	(2.7)	88.7	(3.2)	89.0	(2.8)	-6.0	(3.5)
	Austria	63.5	(3.1)	48.1	(0.8)	62.5	(7.0)	64.9	(7.1)	64.2	(7.2)	62.5	(7.1)	0.0	(10.1)
	Belgium	58.6	(3.1)	49.2	(0.5)	46.0	(7.7)	60.8	(7.2)	61.0	(9.3)	66.0	(5.4)	**19.9**	(9.3)
	Canada	93.4	(1.2)	24.8	(2.1)	95.3	(2.0)	93.7	(2.6)	93.8	(2.9)	90.7	(3.3)	-4.6	(3.9)
	Chile	86.3	(2.7)	34.4	(2.9)	88.5	(5.4)	91.6	(4.7)	85.4	(7.0)	80.3	(4.5)	-8.2	(6.6)
	Czech Republic	50.1	(3.1)	50.0	(0.1)	52.8	(6.9)	39.3	(6.9)	56.2	(6.6)	52.0	(6.4)	-0.8	(9.5)
	Denmark	74.6	(3.2)	43.5	(1.8)	81.7	(5.7)	73.5	(7.3)	79.9	(6.6)	63.5	(8.6)	-18.2	(11.1)
	Estonia	68.8	(2.2)	46.3	(0.9)	71.3	(6.9)	71.0	(6.1)	71.2	(4.8)	61.9	(4.1)	-9.4	(8.2)
	Finland	42.0	(3.6)	49.4	(0.6)	44.9	(8.4)	42.3	(8.5)	37.1	(7.4)	43.8	(8.2)	-1.1	(12.1)
	France	76.2	(2.8)	42.6	(1.7)	85.0	(4.7)	83.4	(5.7)	79.4	(8.6)	58.4	(8.0)	**-26.6**	(9.2)
	Germany	37.9	(3.0)	48.5	(0.7)	43.9	(7.9)	35.5	(8.4)	39.4	(7.2)	32.9	(6.6)	-10.9	(10.8)
	Greece	76.3	(3.5)	42.5	(2.2)	80.1	(8.2)	73.0	(7.5)	70.3	(6.5)	81.5	(6.8)	1.4	(9.7)
	Hungary	54.6	(3.8)	49.8	(0.3)	46.8	(6.6)	56.6	(6.4)	54.6	(8.0)	60.7	(9.8)	13.9	(12.1)
	Iceland	80.6	(0.3)	39.5	(0.2)	80.5	(0.7)	91.5	(0.3)	84.0	(0.5)	65.9	(0.6)	**-14.5**	(0.9)
	Ireland	58.3	(4.3)	49.3	(0.8)	67.9	(7.6)	64.2	(10.5)	58.1	(11.2)	43.6	(11.7)	-24.3	(15.2)
	Israel	86.3	(2.9)	34.4	(3.1)	83.6	(7.2)	90.3	(6.2)	87.1	(9.1)	84.4	(7.6)	0.8	(10.9)
	Italy	28.3	(3.7)	45.0	(1.8)	31.5	(8.6)	24.8	(7.4)	29.2	(7.2)	27.5	(7.1)	-4.0	(11.2)
	Japan	8.1	(2.1)	27.3	(3.2)	9.0	(4.6)	7.7	(4.3)	11.7	(4.8)	4.1	(2.5)	-4.8	(5.3)
	Korea	83.6	(2.8)	37.0	(2.6)	77.8	(6.3)	85.8	(6.5)	80.5	(6.7)	90.3	(5.2)	12.4	(8.7)
	Latvia	65.0	(2.4)	47.7	(0.8)	65.2	(6.1)	69.8	(5.6)	67.1	(6.6)	58.1	(5.1)	-7.1	(8.7)
	Luxembourg	46.1	(0.1)	49.8	(0.0)	34.6	(0.3)	34.3	(0.3)	45.3	(0.2)	70.2	(0.1)	**35.6**	(0.4)
	Mexico	93.0	(1.9)	25.6	(3.3)	85.1	(5.8)	92.5	(4.2)	97.9	(1.6)	96.3	(2.6)	11.2	(6.5)
	Netherlands	79.3	(3.7)	40.5	(2.7)	88.4	(7.9)	75.2	(10.8)	71.4	(9.4)	81.8	(8.5)	-6.6	(11.3)
	New Zealand	94.3	(1.4)	23.2	(2.7)	97.3	(2.4)	90.6	(3.7)	96.5	(3.6)	93.0	(2.4)	-4.3	(3.1)
	Norway	85.4	(2.4)	35.3	(2.4)	81.8	(5.7)	89.9	(5.9)	82.1	(6.0)	88.4	(4.8)	6.6	(7.3)
	Poland	80.5	(3.2)	39.6	(2.5)	73.2	(7.7)	81.9	(7.2)	90.9	(6.6)	76.0	(7.3)	2.8	(10.8)
	Portugal	92.6	(1.9)	26.2	(3.2)	92.8	(3.4)	88.1	(4.8)	97.1	(4.3)	92.4	(4.7)	-0.4	(5.6)
	Slovak Republic	76.5	(2.9)	42.4	(1.8)	79.6	(4.8)	79.3	(6.5)	68.3	(6.6)	78.6	(5.2)	-1.1	(7.2)
	Slovenia	50.9	(0.5)	50.0	(0.0)	57.3	(1.5)	60.8	(1.7)	50.1	(1.7)	35.6	(0.9)	**-21.7**	(1.6)
	Spain	80.9	(2.9)	39.3	(2.3)	80.5	(6.5)	75.3	(5.9)	85.8	(6.0)	81.9	(6.1)	1.4	(9.4)
	Sweden	85.5	(2.4)	35.2	(2.4)	79.5	(6.2)	88.5	(3.6)	80.6	(5.1)	93.3	(3.7)	13.7	(7.0)
	Switzerland	44.3	(3.7)	49.7	(0.4)	45.9	(7.4)	54.7	(10.7)	28.6	(9.0)	47.2	(7.3)	1.4	(11.1)
	Turkey	98.8	(0.7)	10.8	(3.3)	100.0	c	98.7	(1.4)	96.6	(2.5)	100.0	(0.0)	0.0	(0.0)
	United Kingdom	88.9	(2.5)	31.5	(3.1)	93.6	(3.9)	93.0	(4.2)	88.8	(5.3)	80.8	(5.7)	-12.8	(6.9)
	United States	98.6	(1.2)	11.7	(5.0)	100.0	c	95.5	(4.8)	100.0	(1.9)	99.1	(0.9)	-0.9	(0.9)
	OECD average	70.8	(0.5)	38.5	(0.4)	71.4	(1.0)	71.7	(1.1)	70.8	(1.1)	69.5	(1.0)	-1.9	(1.4)
Partners	Albania	85.2	(2.5)	35.5	(2.6)	85.2	(6.2)	89.2	(4.1)	85.1	(6.1)	81.1	(5.7)	-4.1	(8.4)
	Algeria	58.6	(4.1)	49.3	(0.7)	61.6	(10.9)	56.3	(8.8)	47.9	(9.7)	68.2	(9.2)	6.7	(13.5)
	Brazil	87.3	(1.7)	33.3	(1.9)	84.6	(3.5)	84.0	(4.4)	94.2	(2.2)	86.7	(3.3)	2.1	(5.0)
	B-S-J-G (China)	52.2	(4.2)	50.0	(0.3)	43.8	(7.9)	56.0	(10.7)	46.6	(10.4)	62.5	(8.2)	18.7	(10.7)
	Bulgaria	89.6	(2.5)	30.6	(3.2)	89.5	(5.4)	86.6	(5.5)	87.6	(6.0)	94.8	(3.4)	5.2	(6.4)
	CABA (Argentina)	60.9	(6.7)	48.8	(1.6)	94.2	(8.4)	82.0	(10.3)	56.1	(19.6)	16.0	(13.5)	**-78.2**	(14.8)
	Colombia	77.3	(3.4)	41.9	(2.2)	77.9	(8.1)	75.2	(7.8)	70.1	(6.7)	86.2	(5.5)	8.2	(9.6)
	Costa Rica	97.0	(1.3)	17.0	(3.6)	94.6	(3.5)	97.5	(2.8)	100.0	(2.0)	95.9	(2.9)	1.2	(4.6)
	Croatia	80.8	(3.3)	39.4	(2.6)	83.5	(7.3)	71.9	(8.2)	79.7	(6.6)	87.9	(5.9)	4.4	(9.5)
	Cyprus*	81.5	(0.1)	38.8	(0.1)	81.6	(0.4)	83.7	(0.5)	90.8	(0.2)	70.0	(0.2)	**-11.6**	(0.5)
	Dominican Republic	90.4	(2.3)	29.5	(3.2)	91.1	(5.1)	92.4	(5.4)	83.0	(6.7)	94.2	(3.9)	3.1	(6.8)
	FYROM	92.1	(0.1)	27.1	(0.1)	83.5	(0.2)	94.2	(0.2)	96.9	(0.1)	94.1	(0.1)	**10.5**	(0.2)
	Georgia	37.3	(3.3)	48.4	(0.9)	46.3	(5.4)	27.9	(6.2)	37.2	(8.1)	38.3	(8.3)	-8.0	(10.5)
	Hong Kong (China)	80.7	(3.7)	39.5	(2.9)	79.0	(8.2)	72.5	(8.7)	86.7	(6.9)	84.9	(6.9)	5.9	(10.7)
	Indonesia	94.1	(1.9)	23.5	(3.7)	90.0	(5.6)	97.3	(2.2)	94.8	(2.9)	94.4	(3.9)	4.4	(6.8)
	Jordan	91.8	(1.7)	27.5	(2.6)	96.5	(3.4)	89.1	(4.8)	91.9	(4.0)	89.7	(4.2)	-6.9	(5.4)
	Kosovo	84.9	(1.0)	35.8	(1.0)	84.2	(3.3)	82.1	(2.0)	91.1	(2.6)	82.3	(2.1)	-2.0	(3.7)
	Lebanon	73.9	(3.1)	43.9	(1.8)	70.3	(7.9)	74.8	(6.5)	73.0	(7.2)	77.7	(5.7)	7.4	(9.4)
	Lithuania	71.4	(2.8)	45.2	(1.3)	71.7	(5.7)	82.2	(5.8)	68.5	(7.0)	63.4	(6.3)	-8.3	(9.3)
	Macao (China)	39.9	(0.1)	49.0	(0.0)	11.9	(0.2)	12.5	(0.1)	69.9	(0.3)	59.3	(0.2)	**47.4**	(0.1)
	Malta	67.5	(0.1)	46.8	(0.1)	62.5	(0.2)	85.7	(0.2)	55.3	(0.4)	66.3	(0.3)	**3.8**	(0.3)
	Moldova	89.3	(1.9)	30.9	(2.4)	86.5	(4.4)	83.1	(3.6)	95.4	(3.3)	92.2	(4.2)	5.8	(6.0)
	Montenegro	89.0	(0.1)	31.2	(0.2)	74.9	(0.9)	97.9	(1.0)	83.3	(0.2)	100.0	c	**25.1**	(0.9)
	Peru	60.9	(3.5)	48.8	(0.8)	56.6	(6.5)	56.7	(7.2)	57.6	(7.5)	73.0	(7.0)	16.4	(10.0)
	Qatar	95.1	(0.0)	21.6	(0.1)	95.0	(0.1)	98.7	(0.1)	96.5	(0.1)	90.2	(0.1)	**-4.8**	(0.1)
	Romania	77.7	(3.4)	41.6	(2.3)	76.7	(8.1)	74.3	(9.2)	72.2	(7.6)	87.8	(6.5)	11.1	(10.9)
	Russia	100.0	c	0.0	c	100.0	c	100.0	c	100.0	c	100.0	c	0.0	c
	Singapore	97.8	(0.5)	14.6	(1.5)	98.4	(0.1)	96.4	(0.1)	97.6	(0.1)	98.9	(1.9)	0.6	(1.9)
	Chinese Taipei	56.1	(3.2)	49.6	(0.4)	52.0	(6.6)	57.4	(8.1)	56.3	(8.0)	58.5	(8.8)	6.4	(10.9)
	Thailand	97.4	(1.2)	15.8	(3.7)	99.5	(0.5)	94.7	(4.1)	98.4	(3.7)	97.1	(2.8)	-2.3	(2.9)
	Trinidad and Tobago	90.3	(0.2)	29.6	(0.3)	84.9	(1.0)	86.9	(1.2)	95.3	(0.2)	94.9	(0.3)	**10.0**	(1.0)
	Tunisia	87.0	(2.7)	33.6	(3.0)	82.3	(5.7)	83.3	(6.5)	94.1	(4.0)	88.7	(6.0)	6.4	(8.2)
	United Arab Emirates	95.9	(1.0)	19.8	(2.3)	99.4	(0.4)	94.6	(3.1)	97.5	(1.9)	92.1	(1.5)	**-7.4**	(1.5)
	Uruguay	82.1	(2.4)	38.3	(2.1)	84.7	(4.6)	90.9	(4.5)	77.5	(5.9)	75.3	(6.1)	-9.4	(7.8)
	Viet Nam	82.7	(2.8)	37.8	(2.4)	80.2	(7.4)	90.6	(7.1)	81.3	(7.9)	79.1	(6.4)	-1.2	(10.2)
	Argentina**	81.0	(3.1)	39.3	(2.5)	82.7	(7.2)	80.6	(7.1)	82.1	(6.5)	79.0	(5.4)	-3.7	(8.9)
	Kazakhstan**	97.0	(1.1)	17.0	(3.0)	94.8	(2.4)	94.3	(3.4)	99.0	(1.0)	100.0	c	**5.2**	(2.4)
	Malaysia**	94.5	(1.8)	22.8	(3.6)	97.5	(2.7)	92.8	(4.4)	91.2	(6.1)	96.4	(3.5)	-1.1	(4.2)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.4.31 Achievement data tracked by an administrative authority, science performance and school characteristics

Results based on school principals' reports

		Percentage of students in schools where achievement data are tracked over time by an administrative authority													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	98.3	(2.5)	89.6	(2.7)	91.3	(1.5)	**-7.0**	(2.9)	96.2	(1.0)	84.7	(2.5)	**-11.5**	(2.7)
	Austria	79.7	(7.5)	62.3	(4.1)	60.5	(6.5)	-19.1	(10.0)	65.2	(3.3)	49.0	(10.1)	-16.2	(10.9)
	Belgium	78.3	(14.2)	61.9	(3.6)	52.3	(5.9)	-26.0	(16.9)	w	w	w	w	w	w
	Canada	93.6	(2.0)	97.3	(1.1)	90.4	(2.0)	-3.1	(2.6)	93.6	(1.2)	92.3	(3.8)	-1.2	(4.0)
	Chile	89.6	(8.7)	83.8	(5.3)	87.5	(3.1)	-2.1	(9.2)	92.6	(3.9)	82.3	(3.7)	-10.3	(5.4)
	Czech Republic	42.4	(8.6)	51.0	(4.1)	51.2	(6.1)	8.8	(10.4)	46.4	(3.3)	92.6	(3.6)	**46.2**	(4.9)
	Denmark	65.7	(9.1)	80.3	(3.2)	60.9	(8.2)	-4.7	(12.4)	87.6	(2.8)	32.2	(7.7)	**-55.3**	(8.2)
	Estonia	66.3	(5.6)	67.6	(3.6)	71.8	(2.4)	5.5	(6.1)	69.7	(2.3)	63.5	(13.2)	-6.2	(13.5)
	Finland	28.4	(9.7)	45.6	(5.2)	41.1	(6.0)	12.6	(11.1)	40.9	(3.9)	56.8	(17.7)	15.9	(18.1)
	France	86.1	(8.4)	78.5	(3.8)	69.5	(5.6)	-16.6	(10.5)	79.9	(3.1)	62.5	(7.5)	**-17.4**	(8.2)
	Germany	46.7	(14.0)	34.5	(3.7)	42.5	(7.5)	-4.3	(17.5)	39.5	(3.1)	11.1	(10.2)	**-28.4**	(11.0)
	Greece	84.8	(8.8)	75.3	(5.0)	75.3	(5.4)	-9.5	(9.7)	76.3	(3.7)	73.2	(4.6)	-3.1	(5.9)
	Hungary	26.2	(10.7)	49.2	(5.1)	63.0	(5.7)	**36.8**	(12.0)	59.5	(3.9)	31.6	(9.5)	**-28.0**	(9.7)
	Iceland	74.9	(0.8)	86.5	(0.3)	74.8	(0.3)	-0.1	(0.9)	80.2	(0.3)	m	m	m	m
	Ireland	69.4	(10.9)	57.9	(5.7)	51.2	(8.3)	-18.1	(14.3)	59.2	(4.7)	57.6	(6.4)	-1.5	(7.9)
	Israel	92.3	(6.2)	88.0	(4.4)	81.7	(4.9)	-10.7	(8.0)	m	m	m	m	m	m
	Italy	3.8	(4.0)	27.1	(4.4)	32.4	(6.6)	**28.7**	(8.2)	27.1	(3.8)	54.7	(14.1)	27.6	(14.5)
	Japan	m	m	8.7	(3.8)	7.9	(2.4)	m	m	11.2	(2.9)	1.6	(1.2)	**-9.5**	(2.9)
	Korea	m	m	85.9	(8.2)	83.6	(3.3)	m	m	80.5	(3.6)	89.4	(4.3)	8.9	(5.5)
	Latvia	72.4	(5.9)	69.9	(3.9)	52.3	(4.5)	**-20.0**	(8.1)	66.2	(2.5)	11.9	(14.1)	**-54.3**	(14.7)
	Luxembourg	m	m	49.7	(0.1)	41.0	(0.2)	m	m	48.0	(0.1)	35.6	(0.2)	**-12.4**	(0.3)
	Mexico	85.4	(7.3)	91.2	(3.2)	96.9	(1.6)	11.5	(7.5)	93.5	(2.0)	88.8	(6.2)	-4.7	(6.6)
	Netherlands	m	m	84.2	(4.0)	65.3	(9.2)	m	m	70.5	(6.7)	84.1	(4.3)	13.5	(7.9)
	New Zealand	100.0	c	95.6	(1.4)	94.6	(2.4)	**-5.4**	(2.4)	94.5	(1.4)	90.9	(7.8)	-3.6	(8.1)
	Norway	76.9	(6.8)	85.5	(3.1)	94.8	(3.7)	**17.9**	(7.7)	86.8	(2.5)	62.9	(23.9)	-23.9	(24.1)
	Poland	77.9	(5.4)	82.8	(5.2)	80.2	(6.4)	2.3	(8.4)	81.6	(3.2)	51.4	(20.9)	-30.2	(21.2)
	Portugal	100.0	(0.0)	92.4	(2.1)	92.0	(4.5)	-8.0	(4.5)	94.1	(1.8)	65.6	(12.4)	**-28.5**	(12.5)
	Slovak Republic	80.6	(4.9)	74.4	(3.8)	83.1	(7.1)	2.5	(9.5)	75.2	(3.3)	86.1	(5.6)	10.9	(6.6)
	Slovenia	93.2	(4.9)	56.1	(0.5)	33.1	(0.5)	**-60.1**	(4.9)	50.7	(0.5)	55.7	(0.7)	**5.1**	(0.9)
	Spain	66.4	(19.3)	78.4	(4.0)	87.1	(4.4)	20.7	(19.9)	82.2	(3.4)	77.9	(5.4)	-4.3	(6.3)
	Sweden	76.8	(10.8)	85.4	(2.9)	88.1	(4.2)	11.3	(11.7)	88.0	(2.6)	73.8	(7.8)	-14.2	(8.5)
	Switzerland	48.8	(11.8)	46.9	(4.7)	33.7	(8.7)	-15.1	(15.1)	43.9	(3.9)	52.4	(10.7)	8.5	(11.7)
	Turkey	100.0	c	97.7	(1.7)	99.5	(0.6)	-0.5	(0.6)	98.8	(0.8)	100.0	c	1.2	(0.8)
	United Kingdom	87.5	(8.0)	88.3	(3.2)	90.7	(4.4)	3.2	(9.1)	90.9	(2.3)	57.2	(14.1)	**-33.7**	(13.9)
	United States	100.0	c	99.6	(0.4)	97.0	(3.0)	-3.0	(3.0)	100.0	c	81.7	(13.8)	-18.3	(13.8)
	OECD average	73.9	(1.5)	71.7	(0.7)	69.1	(0.9)	-2.3	(1.8)	71.0	(0.6)	62.1	(1.8)	**-8.6**	(1.9)
Partners	**Albania**	79.0	(4.9)	82.4	(5.2)	94.2	(2.9)	**15.2**	(5.9)	85.3	(2.8)	85.1	(5.6)	-0.2	(6.4)
	Algeria	54.1	(11.6)	55.0	(4.9)	73.3	(10.8)	19.1	(16.1)	57.6	(4.2)	m	m	m	m
	Brazil	80.3	(7.4)	84.1	(3.0)	90.3	(2.1)	10.0	(7.7)	87.5	(1.9)	87.7	(3.6)	0.2	(4.2)
	B-S-J-G (China)	45.7	(13.7)	49.6	(5.7)	57.5	(7.0)	11.7	(15.1)	51.6	(4.3)	54.0	(14.1)	2.4	(14.5)
	Bulgaria	95.5	(3.6)	88.4	(3.4)	90.7	(3.7)	-4.7	(5.1)	90.1	(2.4)	m	m	m	m
	CABA (Argentina)	m	m	m	m	61.0	(7.0)	m	m	84.7	(7.7)	38.6	(9.1)	**-46.2**	(11.0)
	Colombia	67.1	(10.7)	82.4	(5.9)	77.2	(4.2)	10.0	(11.3)	75.9	(4.1)	82.9	(5.4)	7.0	(6.8)
	Costa Rica	96.9	(3.0)	96.4	(1.7)	100.0	c	3.1	(3.0)	98.1	(1.1)	89.2	(6.9)	-8.9	(6.9)
	Croatia	m	m	74.6	(4.6)	89.4	(4.3)	m	m	80.4	(3.3)	96.7	(4.8)	**16.3**	(5.8)
	Cyprus*	98.9	(0.4)	78.4	(0.2)	85.6	(0.1)	**-13.3**	(0.4)	86.9	(0.1)	53.6	(0.4)	**-33.3**	(0.4)
	Dominican Republic	88.6	(6.8)	91.2	(2.6)	88.7	(5.4)	0.0	(8.7)	91.1	(2.6)	87.9	(5.0)	-3.2	(5.6)
	FYROM	100.0	c	87.3	(0.1)	98.3	(0.1)	**-1.7**	(0.1)	91.8	(0.1)	100.0	c	**8.2**	(0.1)
	Georgia	45.3	(4.2)	37.5	(6.7)	33.3	(6.0)	-12.0	(7.1)	37.0	(3.7)	44.2	(13.9)	7.2	(14.6)
	Hong Kong (China)	m	m	m	m	80.7	(3.7)	m	m	78.7	(15.5)	81.5	(3.7)	2.8	(15.9)
	Indonesia	93.2	(4.4)	94.3	(2.3)	95.3	(3.9)	2.2	(5.9)	93.6	(2.7)	94.9	(2.8)	1.2	(3.8)
	Jordan	92.5	(4.7)	90.7	(2.3)	92.8	(3.4)	0.2	(6.6)	92.0	(1.9)	90.2	(3.9)	-1.8	(4.4)
	Kosovo	76.4	(5.7)	83.1	(1.0)	93.3	(0.3)	**16.8**	(5.7)	85.2	(1.0)	76.0	(4.8)	-9.1	(4.9)
	Lebanon	68.0	(6.7)	76.2	(3.9)	72.5	(7.4)	4.5	(9.9)	68.6	(4.6)	78.8	(3.8)	10.2	(5.8)
	Lithuania	69.1	(6.9)	79.3	(4.3)	64.2	(4.4)	-4.9	(8.4)	71.5	(2.7)	69.6	(28.8)	-1.8	(28.8)
	Macao (China)	m	m	m	m	39.8	(0.1)	m	m	m	m	39.1	(0.1)	m	m
	Malta	24.4	(0.3)	75.3	(0.2)	m	m	m	m	67.6	(0.2)	64.8	(0.2)	**-2.7**	(0.3)
	Moldova	85.7	(2.5)	91.5	(3.9)	95.1	(4.0)	9.4	(4.9)	89.3	(1.9)	m	m	m	m
	Montenegro	m	m	96.1	(0.2)	75.7	(0.3)	m	m	89.5	(0.1)	m	m	m	m
	Peru	60.5	(5.5)	62.4	(4.8)	51.6	(8.8)	-8.9	(10.6)	59.6	(3.9)	65.0	(6.0)	5.4	(6.6)
	Qatar	92.3	(0.3)	98.2	(0.0)	92.5	(0.1)	0.2	(0.3)	98.0	(0.0)	91.0	(0.1)	**-7.0**	(0.1)
	Romania	73.1	(7.2)	77.7	(4.9)	79.4	(6.3)	6.3	(9.9)	78.6	(3.5)	m	m	m	m
	Russia	100.0	c	100.0	c	100.0	c	0.0	c	100.0	c	m	m	m	m
	Singapore	m	m	m	m	97.5	(0.5)	m	m	97.9	(0.0)	96.8	(5.7)	-1.1	(5.7)
	Chinese Taipei	m	m	53.3	(4.9)	58.1	(4.4)	m	m	59.4	(3.9)	49.7	(6.2)	-9.6	(7.6)
	Thailand	92.6	(5.0)	99.1	(0.6)	96.4	(3.6)	3.8	(6.1)	97.7	(1.3)	95.8	(4.3)	-1.9	(4.4)
	Trinidad and Tobago	94.9	(0.6)	89.4	(0.2)	m	m	m	m	90.5	(0.2)	83.4	(0.6)	**-7.1**	(0.6)
	Tunisia	68.0	(18.3)	89.6	(3.2)	83.3	(6.2)	15.3	(19.4)	86.8	(2.8)	91.7	(11.6)	4.9	(11.9)
	United Arab Emirates	97.9	(0.4)	96.6	(2.2)	95.3	(1.2)	-2.5	(1.3)	98.2	(0.9)	95.0	(1.4)	**-3.2**	(1.7)
	Uruguay	92.0	(4.3)	86.1	(3.0)	75.2	(3.9)	**-16.8**	(6.1)	85.6	(2.5)	63.0	(7.0)	**-22.6**	(7.4)
	Viet Nam	80.5	(4.4)	84.1	(5.9)	83.8	(4.6)	3.3	(6.8)	83.3	(2.9)	66.3	(20.0)	-17.0	(20.5)
	Argentina**	75.8	(13.4)	83.1	(4.0)	80.0	(4.9)	4.2	(14.2)	84.1	(3.5)	72.7	(6.1)	-11.4	(7.0)
	Kazakhstan**	94.8	(2.6)	94.8	(2.8)	100.0	c	**5.2**	(2.6)	96.9	(1.1)	100.0	c	**3.1**	(1.1)
	Malaysia**	95.0	(5.1)	93.9	(2.9)	94.8	(2.6)	-0.1	(5.8)	94.6	(1.9)	93.7	(6.4)	-0.9	(6.7)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.4.31 Achievement data tracked by an administrative authority, science performance and school characteristics

Results based on school principals' reports

		Percentage of students in schools where achievement data are tracked over time by an administrative authority													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in science score when achievement data are tracked over time by an administrative authority		Explained variance in student performance (r-squared x 100)		Change in science score when achievement data are tracked over time by an administrative authority		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	90.9	(1.3)	92.0	(2.1)	1.1	(2.2)	**-14**	(7.0)	0.2	(0.2)	-3	(5.0)	16.4	(1.1)
	Austria	54.4	(15.7)	63.7	(3.2)	9.3	(16.1)	11	(9.1)	0.3	(0.4)	8	(5.5)	31.4	(1.8)
	Belgium	38.3	(5.7)	60.4	(3.1)	**22.1**	(5.3)	**25**	(8.1)	1.5	(1.0)	**12**	(4.8)	36.6	(2.2)
	Canada	94.5	(2.2)	93.2	(1.2)	-1.3	(2.1)	-2	(6.5)	0.0	(0.0)	2	(5.5)	10.9	(1.0)
	Chile	88.4	(4.8)	86.2	(2.8)	-2.2	(5.2)	-5	(10.5)	0.0	(0.2)	7	(6.8)	26.8	(1.7)
	Czech Republic	42.3	(4.3)	59.4	(4.0)	**17.2**	(5.6)	3	(6.7)	0.0	(0.2)	0	(4.0)	33.2	(2.1)
	Denmark	74.5	(3.2)	m	m	m	m	-7	(7.1)	0.1	(0.2)	-2	(5.4)	12.1	(1.4)
	Estonia	68.8	(2.3)	73.2	(7.9)	4.4	(7.9)	-9	(5.6)	0.2	(0.3)	-4	(4.7)	11.0	(1.4)
	Finland	42.0	(3.7)	m	m	m	m	-8	(5.2)	0.2	(0.2)	-7	(4.0)	11.0	(1.3)
	France	81.3	(4.7)	74.7	(3.2)	-6.6	(5.2)	**-34**	(10.1)	2.1	(1.3)	-3	(5.8)	37.1	(2.2)
	Germany	36.6	(3.1)	68.1	(13.4)	**31.5**	(13.9)	1	(8.6)	0.0	(0.1)	9	(5.4)	35.8	(2.4)
	Greece	75.2	(10.8)	76.3	(3.7)	1.1	(11.3)	-4	(11.8)	0.0	(0.3)	-1	(7.0)	23.5	(2.7)
	Hungary	40.3	(7.2)	56.2	(4.3)	15.9	(8.7)	14	(10.0)	0.5	(0.8)	0	(5.4)	43.7	(2.2)
	Iceland	80.6	(0.3)	m	m	m	m	4	(4.4)	0.0	(0.1)	6	(4.4)	5.1	(0.8)
	Ireland	58.3	(4.3)	58.1	(4.5)	-0.2	(1.8)	-11	(5.7)	0.3	(0.4)	-2	(3.6)	15.5	(1.4)
	Israel	90.4	(4.6)	85.8	(3.0)	-4.6	(4.4)	13	(13.0)	0.2	(0.4)	5	(7.5)	23.3	(2.4)
	Italy	32.0	(16.5)	28.2	(3.7)	-3.8	(17.0)	-8	(12.3)	0.1	(0.6)	-7	(7.3)	24.6	(2.6)
	Japan	m	m	8.1	(2.1)	m	m	5	(12.8)	0.0	(0.2)	12	(10.6)	28.2	(2.4)
	Korea	80.2	(10.3)	83.9	(2.9)	3.8	(10.8)	10	(9.5)	0.1	(0.3)	1	(9.6)	17.9	(2.1)
	Latvia	65.4	(2.5)	56.5	(7.3)	-8.8	(7.2)	-8	(4.7)	0.2	(0.3)	-3	(3.5)	12.5	(1.5)
	Luxembourg	40.9	(0.2)	52.9	(0.1)	**12.0**	(0.2)	**28**	(1.9)	1.9	(0.3)	3	(2.0)	34.5	(1.0)
	Mexico	88.1	(4.0)	96.1	(1.5)	8.0	(4.1)	20	(11.1)	0.5	(0.6)	4	(5.4)	17.3	(2.0)
	Netherlands	78.7	(3.8)	80.7	(6.2)	1.9	(6.1)	10	(18.3)	0.2	(0.7)	5	(11.0)	38.3	(4.6)
	New Zealand	93.2	(2.2)	94.4	(1.4)	1.2	(1.8)	8	(11.5)	0.0	(0.1)	11	(9.8)	19.8	(2.0)
	Norway	85.4	(2.4)	m	m	m	m	-6	(8.1)	0.1	(0.2)	-7	(7.5)	9.1	(0.9)
	Poland	80.7	(3.2)	m	m	m	m	0	(9.4)	0.0	(0.2)	-1	(5.8)	15.4	(1.6)
	Portugal	92.3	(2.7)	92.8	(2.0)	0.5	(2.5)	17	(13.3)	0.2	(0.4)	**17**	(8.8)	20.0	(2.0)
	Slovak Republic	77.6	(3.5)	75.6	(4.3)	-2.0	(5.3)	-1	(8.6)	0.0	(0.1)	2	(4.4)	30.2	(2.3)
	Slovenia	61.4	(8.2)	50.3	(0.1)	-11.1	(8.2)	**-30**	(2.7)	2.5	(0.4)	**-10**	(2.6)	35.8	(1.3)
	Spain	80.8	(2.9)	m	m	m	m	-4	(6.3)	0.0	(0.1)	-7	(4.2)	14.5	(1.2)
	Sweden	85.4	(2.4)	89.1	(11.7)	3.7	(11.9)	**19**	(6.5)	0.5	(0.3)	3	(6.0)	16.3	(1.7)
	Switzerland	40.2	(4.3)	58.4	(7.5)	**18.3**	(9.0)	6	(8.4)	0.1	(0.3)	9	(6.3)	24.9	(2.0)
	Turkey	99.7	(0.3)	98.8	(0.7)	-0.9	(0.8)	c	c	0.1	(0.2)	c	c	26.3	(4.1)
	United Kingdom	97.1	(2.6)	88.8	(2.5)	**-8.3**	(3.7)	-20	(10.6)	0.4	(0.5)	7	(6.0)	19.6	(1.8)
	United States	99.1	(0.9)	98.6	(1.2)	-0.6	(0.4)	c	c	0.2	(0.3)	c	c	14.3	(1.6)
	OECD average	71.6	(1.0)	72.4	(0.9)	**3.6**	(1.5)	1	(1.6)	0.4	(0.1)	2	(1.1)	22.6	(0.3)
Partners	**Albania**	83.4	(3.8)	86.3	(3.3)	2.9	(5.0)	m	m	m	m	m	m	m	m
	Algeria	54.4	(4.5)	72.3	(8.3)	17.9	(9.3)	**14**	(6.4)	0.9	(0.8)	11	(5.5)	10.4	(3.0)
	Brazil	90.7	(2.1)	86.5	(1.9)	-4.1	(2.5)	2	(8.7)	0.0	(0.1)	-2	(5.9)	21.3	(2.1)
	B-S-J-G (China)	49.4	(5.2)	57.0	(6.0)	7.6	(7.3)	24	(12.7)	1.3	(1.4)	**14**	(6.9)	35.1	(2.9)
	Bulgaria	93.6	(4.4)	89.4	(2.5)	-4.1	(5.0)	19	(15.5)	0.3	(0.6)	10	(10.7)	39.4	(2.8)
	CABA (Argentina)	61.3	(6.8)	54.7	(19.0)	-6.6	(18.6)	**-64**	(11.9)	13.0	(4.8)	-16	(9.8)	33.0	(3.8)
	Colombia	76.2	(3.9)	78.1	(3.3)	1.9	(2.1)	4	(8.4)	0.0	(0.2)	0	(4.9)	20.1	(2.6)
	Costa Rica	96.7	(1.4)	97.4	(1.4)	0.7	(1.0)	22	(19.4)	0.3	(0.5)	14	(12.8)	22.6	(2.1)
	Croatia	m	m	80.9	(3.3)	m	m	-5	(11.7)	0.0	(0.3)	-13	(7.1)	26.3	(2.0)
	Cyprus*	83.6	(1.0)	81.4	(0.1)	**-2.2**	(1.1)	-5	(3.2)	0.0	(0.1)	**8**	(3.2)	17.2	(0.9)
	Dominican Republic	92.6	(4.1)	89.8	(2.7)	-2.8	(4.9)	0	(12.1)	0.0	(0.2)	-1	(8.6)	26.6	(3.2)
	FYROM	m	m	92.0	(0.1)	m	m	6	(4.2)	0.0	(0.1)	-4	(4.3)	14.6	(1.2)
	Georgia	37.4	(3.5)	37.3	(3.5)	-0.1	(2.6)	**-17**	(6.8)	0.8	(0.7)	**-13**	(4.3)	15.9	(1.7)
	Hong Kong (China)	81.7	(3.8)	80.2	(3.8)	-1.5	(2.1)	-3	(11.1)	0.0	(0.3)	-5	(8.8)	12.7	(1.9)
	Indonesia	94.1	(2.8)	94.2	(2.6)	0.1	(3.9)	11	(21.4)	0.2	(0.7)	2	(10.7)	23.6	(3.1)
	Jordan	91.8	(1.7)	m	m	m	m	-1	(12.7)	0.0	(0.2)	6	(11.1)	12.4	(2.2)
	Kosovo	81.5	(3.7)	86.1	(0.4)	4.6	(3.7)	4	(3.4)	0.0	(0.1)	2	(4.0)	14.2	(1.5)
	Lebanon	65.9	(5.4)	76.6	(3.9)	10.7	(6.9)	13	(10.5)	0.4	(0.6)	7	(9.2)	18.9	(3.3)
	Lithuania	71.4	(2.8)	m	m	m	m	**-15**	(7.5)	0.6	(0.5)	-6	(4.9)	21.4	(2.3)
	Macao (China)	36.6	(0.2)	42.7	(0.1)	**6.1**	(0.2)	**5**	(2.4)	0.1	(0.1)	**-7**	(2.6)	2.8	(0.5)
	Malta	m	m	67.5	(0.1)	m	m	-4	(3.7)	0.0	(0.1)	**8**	(3.5)	24.8	(1.1)
	Moldova	88.9	(1.9)	94.0	(5.1)	5.0	(5.1)	10	(6.8)	0.1	(0.2)	2	(5.8)	14.1	(1.7)
	Montenegro	95.4	(4.7)	88.9	(0.1)	-6.6	(4.7)	**28**	(3.4)	1.0	(0.3)	5	(3.6)	17.1	(0.9)
	Peru	53.5	(4.3)	63.5	(3.6)	**10.0**	(3.3)	**16**	(6.6)	1.0	(0.9)	3	(3.3)	29.7	(2.3)
	Qatar	95.4	(0.1)	95.0	(0.0)	**-0.3**	(0.1)	**-44**	(3.9)	0.9	(0.2)	**-28**	(3.8)	14.4	(0.6)
	Romania	77.7	(3.4)	m	m	m	m	11	(9.5)	0.3	(0.6)	6	(7.2)	23.5	(2.9)
	Russia	100.0	c	100.0	c	0.0	c	m	m	0.0	c	m	m	9.7	(1.8)
	Singapore	97.4	(1.6)	97.8	(0.5)	0.4	(1.6)	21	(10.9)	0.1	(0.1)	23	(15.1)	26.2	(1.7)
	Chinese Taipei	61.9	(4.2)	52.9	(4.2)	-9.0	(5.7)	5	(8.4)	0.1	(0.3)	3	(5.4)	28.5	(2.5)
	Thailand	97.6	(1.1)	97.4	(1.4)	-0.3	(1.1)	16	(26.4)	0.1	(0.4)	28	(14.5)	18.5	(3.2)
	Trinidad and Tobago	87.2	(0.4)	92.5	(0.2)	**5.3**	(0.5)	**44**	(5.3)	2.0	(0.5)	**19**	(5.1)	36.1	(1.1)
	Tunisia	82.5	(5.3)	89.4	(3.1)	6.8	(6.1)	-3	(16.2)	0.0	(0.6)	-9	(9.0)	18.7	(3.9)
	United Arab Emirates	96.3	(0.8)	95.9	(1.1)	-0.4	(1.0)	**-35**	(10.6)	0.5	(0.3)	-11	(12.3)	15.4	(2.0)
	Uruguay	90.6	(2.6)	76.9	(3.1)	**-13.7**	(3.4)	**-29**	(8.6)	1.6	(0.9)	-7	(5.0)	26.4	(1.8)
	Viet Nam	72.4	(13.2)	83.6	(2.7)	11.2	(13.1)	6	(9.5)	0.1	(0.3)	7	(6.7)	19.7	(4.3)
	Argentina**	78.3	(3.5)	82.6	(3.4)	4.3	(3.0)	-9	(8.5)	0.2	(0.3)	-2	(4.9)	19.2	(2.2)
	Kazakhstan**	97.3	(1.0)	94.5	(2.0)	**-2.7**	(1.3)	**47**	(9.4)	1.1	(0.6)	**32**	(9.1)	9.2	(2.3)
	Malaysia**	95.0	(3.3)	94.5	(1.8)	-0.5	(2.8)	-10	(10.5)	0.1	(0.2)	-6	(8.4)	18.2	(2.4)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.4.39 Monitoring teaching practices

Results based on school principals' reports

		Percentage of students in schools that use the following methods to monitor the practices of teachers:							
		Tests or assessments of student achievement		Teacher peer review		Observations of classes by principal or senior staff		Observation of classes by inspectors or other persons external to the school	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	86.0	(1.5)	93.4	(1.0)	91.1	(1.2)	19.9	(1.6)
	Austria	85.7	(2.2)	77.4	(2.9)	93.6	(1.5)	55.0	(3.2)
	Belgium	78.2	(2.3)	73.6	(2.9)	89.9	(2.2)	76.4	(2.6)
	Canada	75.2	(2.4)	54.6	(2.7)	95.1	(1.2)	24.6	(2.1)
	Chile	76.4	(3.6)	69.1	(3.7)	91.5	(2.4)	27.7	(3.4)
	Czech Republic	93.2	(1.4)	69.6	(3.2)	100.0	c	47.5	(2.8)
	Denmark	87.9	(2.4)	52.3	(3.5)	87.3	(2.3)	24.8	(2.5)
	Estonia	76.3	(2.2)	59.5	(2.3)	96.0	(1.0)	28.8	(2.3)
	Finland	43.8	(4.4)	13.8	(2.8)	41.8	(3.4)	4.8	(1.7)
	France	61.1	(3.6)	50.8	(3.6)	48.7	(3.2)	98.7	(0.8)
	Germany	80.0	(3.1)	44.7	(3.7)	88.3	(2.7)	31.6	(3.3)
	Greece	56.7	(3.7)	43.7	(3.6)	13.8	(2.8)	28.1	(3.1)
	Hungary	79.3	(3.1)	78.7	(3.3)	97.1	(1.0)	49.9	(3.5)
	Iceland	76.2	(0.3)	10.3	(0.2)	71.7	(0.3)	26.0	(0.2)
	Ireland	80.7	(3.2)	46.4	(4.0)	47.8	(3.9)	75.8	(3.5)
	Israel	96.6	(1.4)	62.2	(3.7)	89.9	(2.4)	41.6	(3.6)
	Italy	75.2	(3.2)	90.0	(2.1)	25.7	(3.5)	4.8	(1.9)
	Japan	61.8	(3.3)	54.6	(3.5)	89.4	(2.6)	40.5	(3.2)
	Korea	95.1	(1.7)	96.4	(1.2)	97.0	(1.4)	84.1	(2.7)
	Latvia	96.8	(1.0)	88.4	(1.7)	99.0	(0.5)	46.1	(2.6)
	Luxembourg	63.1	(0.1)	34.5	(0.1)	77.2	(0.1)	33.2	(0.1)
	Mexico	94.9	(1.5)	86.3	(2.4)	81.1	(2.3)	46.4	(2.9)
	Netherlands	96.7	(2.2)	79.7	(3.9)	99.1	(0.8)	63.5	(5.0)
	New Zealand	90.9	(2.4)	96.5	(1.8)	98.0	(0.1)	45.4	(4.1)
	Norway	82.5	(2.9)	80.1	(2.8)	74.5	(3.1)	31.4	(3.4)
	Poland	99.4	(0.6)	63.1	(4.0)	99.4	(0.7)	26.0	(3.4)
	Portugal	86.2	(3.1)	77.4	(3.3)	41.1	(3.5)	31.1	(3.7)
	Slovak Republic	81.3	(2.5)	88.4	(1.9)	98.9	(0.6)	25.4	(2.7)
	Slovenia	78.9	(0.5)	77.7	(0.5)	96.5	(0.1)	16.4	(0.5)
	Spain	70.8	(3.3)	27.5	(3.2)	31.7	(2.9)	38.9	(3.2)
	Sweden	73.3	(3.5)	74.3	(3.4)	94.6	(1.9)	32.8	(2.9)
	Switzerland	58.9	(3.8)	66.7	(4.1)	94.7	(1.4)	45.5	(3.8)
	Turkey	92.2	(2.2)	55.6	(4.4)	94.5	(2.2)	41.5	(3.8)
	United Kingdom	97.1	(0.6)	95.4	(1.6)	99.8	(0.1)	77.5	(3.2)
	United States	94.6	(1.8)	72.2	(3.7)	100.0	c	64.0	(4.1)
	OECD average	80.7	(0.4)	65.9	(0.5)	81.0	(0.4)	41.6	(0.5)
Partners	Albania	99.7	(0.3)	94.0	(1.9)	99.1	(0.2)	53.2	(3.8)
	Algeria	93.9	(2.2)	65.0	(4.1)	95.8	(1.6)	90.7	(2.6)
	Brazil	89.7	(1.5)	81.1	(2.2)	64.9	(2.3)	28.4	(2.4)
	B-S-J-G (China)	97.2	(1.2)	92.5	(2.7)	99.3	(0.6)	90.9	(2.9)
	Bulgaria	96.5	(1.5)	36.5	(3.6)	100.0	c	92.0	(2.1)
	CABA (Argentina)	81.6	(5.3)	74.6	(6.5)	98.1	(1.4)	45.7	(7.1)
	Colombia	89.0	(2.1)	64.6	(3.0)	59.2	(3.6)	20.8	(2.9)
	Costa Rica	94.6	(1.7)	93.1	(1.9)	91.2	(1.9)	65.3	(3.6)
	Croatia	75.7	(3.4)	74.3	(3.8)	100.0	c	73.8	(3.7)
	Cyprus*	92.4	(0.0)	60.2	(0.1)	97.9	(0.0)	86.9	(0.1)
	Dominican Republic	89.8	(2.4)	90.1	(2.4)	99.9	(0.1)	94.6	(1.3)
	FYROM	86.3	(0.1)	76.3	(0.1)	100.0	c	96.9	(0.0)
	Georgia	94.2	(1.7)	94.5	(1.5)	96.6	(1.2)	17.9	(2.7)
	Hong Kong (China)	97.9	(1.6)	93.0	(2.3)	99.4	(0.6)	52.8	(4.4)
	Indonesia	87.7	(2.3)	88.8	(2.4)	97.1	(1.1)	85.4	(3.1)
	Jordan	96.7	(1.2)	94.1	(1.5)	99.4	(0.6)	98.5	(0.9)
	Kosovo	87.1	(0.8)	90.2	(1.0)	98.3	(0.5)	68.3	(1.3)
	Lebanon	86.0	(2.4)	73.1	(3.5)	93.4	(1.6)	76.8	(2.8)
	Lithuania	96.9	(0.9)	88.0	(2.0)	99.5	(0.4)	54.8	(3.0)
	Macao (China)	93.5	(0.0)	100.0	c	97.8	(0.0)	56.1	(0.1)
	Malta	79.7	(0.1)	45.0	(0.1)	94.1	(0.1)	64.8	(0.1)
	Moldova	100.0	(0.0)	94.7	(1.5)	99.3	(0.5)	93.5	(1.7)
	Montenegro	68.8	(0.2)	90.6	(0.4)	100.0	c	60.7	(0.5)
	Peru	78.5	(2.5)	90.4	(2.2)	92.1	(1.8)	63.2	(3.0)
	Qatar	99.6	(0.0)	95.2	(0.0)	98.4	(0.0)	88.3	(0.1)
	Romania	96.6	(1.4)	86.9	(2.6)	99.3	(0.7)	90.3	(2.2)
	Russia	99.6	(0.3)	99.6	(0.3)	100.0	c	68.8	(3.7)
	Singapore	100.0	(0.0)	92.6	(0.7)	100.0	c	42.2	(1.0)
	Chinese Taipei	81.7	(2.7)	70.3	(3.5)	82.1	(2.8)	34.0	(3.4)
	Thailand	100.0	c	99.1	(0.5)	99.5	(0.4)	61.2	(3.9)
	Trinidad and Tobago	92.4	(0.2)	77.4	(0.2)	96.3	(0.1)	52.2	(0.3)
	Tunisia	81.4	(3.7)	62.5	(4.4)	70.7	(4.2)	95.0	(1.9)
	United Arab Emirates	97.5	(0.9)	90.2	(1.3)	100.0	c	92.9	(1.9)
	Uruguay	69.9	(2.7)	76.0	(2.8)	91.1	(1.8)	81.4	(2.1)
	Viet Nam	99.1	(0.6)	93.9	(1.5)	99.5	(0.5)	78.2	(3.3)
	Argentina**	92.8	(1.7)	74.1	(3.1)	94.7	(1.1)	33.8	(3.4)
	Kazakhstan**	97.8	(1.0)	98.9	(0.6)	100.0	c	81.8	(2.8)
	Malaysia**	98.8	(0.9)	89.8	(2.4)	99.4	(0.6)	89.5	(2.3)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.4.44 National/central assessments at the lower and upper secondary levels (2015)

General programmes

			Existence	
		Source	Lower secondary	Upper secondary
OECD	**Australia**	*a*	Yes	No
	Austria	*a*	Yes	No
	Belgium (Fl.)	*a*	Yes	Yes
	Belgium (Fr.)	*a*	Yes	Yes
	Canada	*a*	Yes	No
	Chile	*a*	Yes	Yes
	Czech Republic	*a*	Yes	Yes
	Denmark	*a*	Yes	No
	England (UK)	*a*	No	No
	Estonia	*a*	No	No
	Finland	*a*	Yes	No
	France	*a*	Yes	No
	Germany[1]	*a*	Yes	No
	Greece	*a*	No	No
	Hungary	*a*	Yes	Yes
	Iceland	*a*	Yes	No
	Ireland	*a*	No	No
	Israel	*a*	Yes	No
	Italy	*a*	Yes	Yes
	Japan	*a*	Yes	No
	Korea	*a*	Yes	Yes
	Latvia	*b*	Yes	No
	Luxembourg	*a*	Yes	No
	Mexico	*a*	Yes	Yes
	Netherlands	*a*	No	No
	New Zealand	*a*	Yes	Yes
	Norway	*a*	Yes	Yes
	Poland	*a*	No	No
	Portugal	*a*	No	No
	Scotland (UK)	*a*	No	No
	Slovak Republic	*a*	Yes	No
	Slovenia	*a*	Yes	No
	Spain	*a*	Yes	No
	Sweden	*a*	Yes	Yes
	Switzerland	*a*	No	No
	Turkey	*a*	No	No
	United States	*a*	Yes	Yes
Partners	**Albania**	*b*	m	m
	Algeria	*b*	m	m
	Argentina	*b*	Yes	Yes
	Brazil	*a*	Yes	Yes
	B-S-J-G (China)	*b*	m	m
	Bulgaria	*b*	Yes	No
	Colombia	*a*	Yes	No
	Costa Rica	*b*	Yes	No
	Croatia	*b*	No	Yes
	Cyprus*	*b*	No	Yes
	Dominican Republic	*b*	No	No
	FYROM	*b*	Yes	Yes
	Georgia	*b*	No	Yes
	Hong Kong (China)	*b*	Yes	No
	Indonesia	*b*	m	m
	Jordan	*b*	m	m
	Kazakhstan	*b*	Yes	Yes
	Kosovo	*b*	m	m
	Lebanon	*b*	m	m
	Lithuania	*b*	m	m
	Macao (China)	*b*	No	No
	Malaysia	*b*	m	m
	Malta	*b*	Yes	Yes
	Moldova	*b*	m	m
	Montenegro	*b*	Yes	No
	Peru	*b*	Yes	No
	Qatar	*b*	Yes	Yes
	Romania	*b*	m	m
	Russia	*a*	m	m
	Singapore	*b*	No	No
	Chinese Taipei	*b*	No	No
	Thailand	*b*	Yes	No
	Trinidad and Tobago	*b*	m	m
	Tunisia	*b*	m	m
	United Arab Emirates	*b*	Yes	Yes
	Uruguay	*b*	No	No
	Viet Nam	*b*	m	m

1. Refers to National Assessment Study (*Ländervergleich*). State-wide comparison tests (VERA: *Vergleichsarbeit*) also exist.
Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.
* See note at the beginning of this Annex.
Sources: *a. Education at a Glance 2015: OECD Indicators* (OECD, 2015).
b. PISA system-level data collection in 2016.

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[Part 1/2]

Table II.4.45 National/central examinations at the lower secondary level (2015)

General programmes

											Main purposes or uses								How results are shared					
		Source	Existence (1)	Compulsory for students (public schools)[1] (2)	Compulsory for students (government-dependent private schools)[1] (3)	Percentage of students taking them (public schools)[1] (4)	Percentage of students taking them (government-dependent private schools)[1] (5)	Level of government at which they are standardised (6)	Authority responsible for developing the exam (7)	Authority responsible for marking/grading the exam (8)	Student certification/graduation/grade completion (9)	Student promotion/entry to higher grade (10)	Student entry to upper secondary education (11)	Student access to selective upper secondary schools (12)	Student selection for programme/course/tracks at the upper secondary level (13)	Student expulsion from school (14)	Decisions about scholarships/financial assistance for students (15)	Other (16)	Shared with external audience in addition to education authorities (17)	Shared directly with school administrators (18)	Shared directly with classroom teachers (19)	Shared directly with parents (20)	Shared directly with students (21)	Shared directly with media (22)
OECD	**Australia**	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Austria	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Belgium (Fl.)	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Belgium (Fr.)	*a*	Yes	Yes	Yes	1	1	3	3	15	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Canada	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Chile	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Czech Republic	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Denmark	*a*	Yes	Yes	No	1	2	1	1	1	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	England (UK)	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Estonia[2]	*a*	Yes	Yes	Yes	1	1	1	2	8	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Finland	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	France[2]	*a*	Yes	Yes	No	1	m	1	1	1, 8, 9, 11	Yes	No	No	No	a	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Germany	*a*	Yes	Yes	Yes	1	1	3	3	8, 9, 10, 11	Yes	Yes	Yes	No	No	Yes	No	m	Yes	Yes	Yes	Yes	Yes	No
	Greece	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Hungary	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Iceland	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Ireland[2]	*a*	Yes	Yes	a	1	a	1	2	2	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Israel	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Italy	*a*	Yes	Yes	a	1	a	1	2, 15	8	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes
	Japan	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Korea	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Latvia	*a*	Yes	Yes	Yes	1	1	1	2	9, 10	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Luxembourg	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Mexico	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Netherlands	*a*	Yes	Yes	Yes	1	1	1	1	14	Yes	No	Yes	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes
	New Zealand	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Norway	*a*	Yes	Yes	No	1	2	1	1	1	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Poland	*a*	Yes	Yes	Yes	1	2	1	1, 5	1, 5	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Portugal	*a*	Yes	Yes	Yes	1	1	1	2	1, 2	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Scotland (UK)	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Slovak Republic	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Slovenia	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Spain	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Sweden	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Switzerland	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Turkey	*a*	Yes	Yes	a	1	a	1	1	1	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	United States	*a*	Yes	Yes	a	1	a	3	3	3	Yes	Yes	No	m	Yes	No	No	m	Yes	Yes	Yes	Yes	Yes	Yes

Locus of authority for standardising/developing/marking/grading examinations
(Column 6-8)
1: Central authority or government
2: Central agency responsible for assessment or certification
3: State education authorities or governments
4: State agency responsible for assessment or certification
5: Provincial/regional education authorities or governments
6: Subregional or intermunicipal authority or government
7: Local authority or government
8: School, school board or committee
9: The student's own teacher
10: Another teacher from within the school
11: A teacher from another school
12: Subject/discipline association
13: Private company
14: Depends on the subject
15: Other

Percentage of schools administering examinations/students taking them
(columns 4, 5)
1: All schools
2: Between 76% and 99% of schools
3: Between 51% and 75% of schools
4: Between 26% and 50% of schools
5: Between 11% and 25% of schools
6: 10% or less of schools

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1. Data reported for OECD countries, Brazil and Colombia refer to whether it is compulsory for all schools to administer the examinations (columns 2, 3) and the percentage of schools that administer them (columns 4, 5).
2. Shared upon request only: Estonia (column 20), France (column 19), Ireland (columns 19, 20).
3. Reference year 2013/2014.
4. Reference year 2015/16.
5. Reference year 2014.
6. Columns 4 and 5: All students in the grade levels at which the exams are administered.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.
* See note at the beginning of this Annex.

Sources: *a. Education at a Glance 2015: OECD Indicato*r (OECD, 2015).
b. PISA system-level data collection in 2016.

StatLink http://dx.doi.org/10.1787/888933436498

[Part 2/2]

Table II.4.45 National/central examinations at the lower secondary level (2015)

General programmes

											Main purposes or uses								How results are shared					
		Source	Existence (1)	Compulsory for students (public schools)[1] (2)	Compulsory for students (government-dependent private schools)[1] (3)	Percentage of students taking them (public schools)[1] (4)	Percentage of students taking them (government-dependent private schools)[1] (5)	Level of government at which they are standardised (6)	Authority responsible for developing the exam (7)	Authority responsible for marking/grading the exam (8)	Student certification/graduation/grade completion (9)	Student promotion/entry to higher grade (10)	Student entry to upper secondary education (11)	Student access to selective upper secondary schools (12)	Student selection for programme/course/tracks at the upper secondary level (13)	Student expulsion from school (14)	Decisions about scholarships/financial assistance for students (15)	Other (16)	Shared with external audience in addition to education authorities (17)	Shared directly with school administrators (18)	Shared directly with classroom teachers (19)	Shared directly with parents (20)	Shared directly with students (21)	Shared directly with media (22)
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Brazil	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	*b*	Yes	Yes	Yes	1	1	1	1	1	No	Yes	Yes	Yes	Yes	No	No	No	No	a	a	a	a	a
	Colombia	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Costa Rica	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Croatia	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Cyprus*[3]	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Dominican Republic[4]	*b*	Yes	Yes	Yes	1	1	1	1	1	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	FYROM	*b*	No	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Georgia	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Hong Kong (China)[4]	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan	*b*	Yes	Yes	Yes	1	1	1	1, 2, 7, 13, 15	1, 2, 7, 9, 15	Yes	Yes	Yes	Yes	No	No	No	No	No	a	a	a	a	a
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Macao (China)	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	*b*	Yes	Yes	Yes	1	1	1	2	10, 11	Yes	Yes	Yes	Yes	Yes	No	No	a	Yes	Yes	Yes	Yes	Yes	No
	Peru	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Qatar	*b*	Yes	Yes	a	1	a	1	1	1	Yes	No	Yes	No	No	No	No	No	Yes	Yes	No	No	No	No
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Singapore[5]	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Chinese Taipei	*b*	Yes	No	a	2	a	1	1	1	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No
	Thailand[6]	*b*	Yes	Yes	Yes	1	1	1	1, 2	1, 2	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	No
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	Yes	Yes	Yes	1	1	1	1	1	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	a	a	a	a	a
	Uruguay	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Locus of authority for standardising/developing/marking/grading examinations
(Column 6-8)
1: Central authority or government
2: Central agency responsible for assessment or certification
3: State education authorities or governments
4: State agency responsible for assessment or certification
5: Provincial/regional education authorities or governments
6: Subregional or intermunicipal authority or government
7: Local authority or government
8: School, school board or committee
9: The student's own teacher
10: Another teacher from within the school
11: A teacher from another school
12: Subject/discipline association
13: Private company
14: Depends on the subject
15: Other

Percentage of schools administering examinations/students taking them
(columns 4, 5)
1: All schools
2: Between 76% and 99% of schools
3: Between 51% and 75% of schools
4: Between 26% and 50% of schools
5: Between 11% and 25% of schools
6: 10% or less of schools

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1. Data reported for OECD countries, Brazil and Colombia refer to whether it is compulsory for all schools to administer the examinations (columns 2, 3) and the percentage of schools that administer them (columns 4, 5).
2. Shared upon request only: Estonia (column 20), France (column 19), Ireland (columns 19, 20).
3. Reference year 2013/2014.
4. Reference year 2015/16.
5. Reference year 2014.
6. Columns 4 and 5: All students in the grade levels at which the exams are administered.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.
* See note at the beginning of this Annex.

Sources: *a. Education at a Glance 2015: OECD Indicator* (OECD, 2015).
b. PISA system-level data collection in 2016.

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[Part 1/2]

Table II.4.46 National/central examinations at the upper secondary level (2015)

General programmes

		Source									Main purposes or uses								How results are shared					
			Existence (1)	Compulsory for students (public schools)[1] (2)	Compulsory for students (government-dependent private schools)1 (3)	Percentage of students taking them (public schools)[1] (4)	Percentage of students taking them (government-dependent private schools)[1] (5)	Level of government at which they are standardised (6)	Authority responsible for developing the exam (7)	Authority responsible for marking/grading the exam (8)	Student certification/graduation/grade completion (9)	Student promotion/entry to higher grade (10)	Student entry to tertiary education (11)	Student access to selective tertiary institution (12)	Student selection for programme/faculty/discipline at the tertiary level (13)	Student expulsion from school (14)	Decisions about scholarships/financial assistance for students (15)	Other (16)	Shared with external audience in addition to education authorities (17)	Shared directly with school administrators (18)	Shared directly with classroom teachers (19)	Shared directly with parents (20)	Shared directly with students (21)	Shared directly with media (22)
OECD	**Australia**	*a*	Yes	m	m	m	m	3	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Austria	*a*	Yes	Yes	Yes	1	1	1	2	9,15	Yes	No	Yes	No	No	No	No	No	Yes	Yes	Yes	No	Yes	No
	Belgium (Fl.)	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Belgium (Fr.)	*a*	Yes	Yes	Yes	1	1	3	3	15	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Canada	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Chile	*a*	Yes	No	No	m	m	1	15	15	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Czech Republic[2]	*a*	Yes	Yes	Yes	1	1	1	2	2,8	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Denmark	*a*	Yes	Yes	Yes	1	1	1	1	1	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	England (UK)	*a*	Yes	No	No	1	1	1	1, 2, 13	2, 13	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Estonia	*a*	Yes	Yes	Yes	1	1	1	2	2	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Finland	*a*	Yes	Yes	Yes	1	1	1	2	2, 9	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	France[2]	*a*	Yes	Yes	No	1	m	1	1	1, 11	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Germany	*a*	Yes	Yes	Yes	1	1	3	3	8, 9, 10, 11	Yes	Yes	Yes	No	Yes	Yes	No	m	Yes	Yes	Yes	Yes	Yes	No
	Greece	*a*	Yes	Yes	a	1	a	1	1	15	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No
	Hungary	*a*	Yes	Yes	Yes	1	1	1	1	1	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Iceland	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Ireland[2]	*a*	Yes	Yes	a	1	a	1	2	2	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Israel[2]	*a*	Yes	No	No	2	m	1	1	1, 11	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes
	Italy	*a*	Yes	Yes	a	1	a	1	1, 15	8, 11	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes
	Japan	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Korea	*a*	Yes	No	No	2	2	1	1, 2	1, 2	No	No	Yes	Yes	No	No	No	No	Yes	No	No	Yes	Yes	Yes
	Latvia	*a*	Yes	Yes	Yes	1	1	1	2	2	Yes	Yes	No	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes
	Luxembourg	*a*	Yes	Yes	Yes	1	1	1	1	9, 10	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	No	Yes	No
	Mexico	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Netherlands	*a*	Yes	Yes	Yes	1	1	1	1	14	Yes	No	Yes	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes
	New Zealand[2]	*a*	Yes	No	a	2	a	1	2	2, 8, 9, 10	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Norway	*a*	Yes	Yes	No	1	2	1	1	1	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Poland	*a*	Yes	Yes	Yes	2	2	1	1, 5	1, 5	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Portugal	*a*	Yes	Yes	Yes	1	1	1	2	1, 2	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Scotland (UK)	*a*	Yes	No	a	1	a	1	2	2, 8	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Slovak Republic[2]	*a*	Yes	Yes	Yes	1	1	1	1, 2	1, 8	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Slovenia	*a*	Yes	Yes	Yes	1	1	1	2	2	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes
	Spain	*a*	Yes	Yes	Yes	1	1	3	3	15	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	Yes
	Sweden	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Switzerland	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Turkey	*a*	Yes	No	a	2	a	1	2	2	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	United States	*a*	Yes	Yes	a	1	a	3	3	3	Yes	Yes	No	No	No	No	No	m	Yes	Yes	Yes	Yes	Yes	Yes

Locus of authority for standardising/developing/marking/grading examinations
(Column 6-8)
1: Central authority or government
2: Central agency responsible for assessment or certification
3: State education authorities or governments
4: State agency responsible for assessment or certification
5: Provincial/regional education authorities or governments
6: Subregional or intermunicipal authority or government
7: Local authority or government
8: School, school board or committee
9: The student's own teacher
10: Another teacher from within the school
11: A teacher from another school
12: Subject/discipline association
13: Private company
14: Depends on the subject
15: Other

Percentage of schools administering examinations/students taking them
(columns 4, 5)
1: All schools
2: Between 76% and 99% of schools
3: Between 51% and 75% of schools
4: Between 26% and 50% of schools
5: Between 11% and 25% of schools
6: 10% or less of schools

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1. Data reported for OECD countries, Brazil and Colombia refer to whether it is compulsory for all schools to administer the examinations (columns 2, 3) and the percentage of schools that administer them (columns 4, 5).
2. Shared upon request only: Czech Republic (column 19), France (column 19), Ireland (columns 19, 20), Israel (column 21), New Zealand (column 20), Slovak Republic (columns 19, 20, 22).
3. Reference year 2013/2014.
4. Reference year 2015/16.
5. Reference year 2014.
6. Columns 4 and 5: All students in the grade levels at which the exams are administered.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.
* See note at the beginning of this Annex.
Sources: *a. Education at a Glance 2015: OECD Indicator* (OECD, 2015).
b. PISA system-level data collection in 2016.

StatLink http://dx.doi.org/10.1787/888933436498

[Part 2/2]

Table II.4.46 National/central examinations at the upper secondary level (2015)

General programmes

											Main purposes or uses								How results are shared					
		Source	Existence	Compulsory for students (public schools)[1]	Compulsory for students (government-dependent private schools)1	Percentage of students taking them (public schools)[1]	Percentage of students taking them (government-dependent private schools)[1]	Level of government at which they are standardised	Authority responsible for developing the exam	Authority responsible for marking/grading the exam	Student certification/graduation/grade completion	Student promotion/entry to higher grade	Student entry to tertiary education	Student access to selective tertiary institution	Student selection for programme/faculty/discipline at the tertiary level	Student expulsion from school	Decisions about scholarships/financial assistance for students	Other	Shared with external audience in addition to education authorities	Shared directly with school administrators	Shared directly with classroom teachers	Shared directly with parents	Shared directly with students	Shared directly with media
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Brazil	*a*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	*b*	Yes	Yes	Yes	2	2	1	1	1	Yes	Yes	Yes	Yes	Yes	No	No	No	No	a	a	a	a	a
	Colombia	*a*	Yes	Yes	Yes	1	1	1	2	2	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Costa Rica	*b*	Yes	Yes	Yes	1	2	1	1	1	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes
	Croatia	*b*	Yes	Yes	Yes	2	2	1	2	2	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No	No	No	Yes	No
	Cyprus*[3]	*b*	Yes	Yes	No	1	m	1	1	1	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Dominican Republic[4]	*b*	Yes	Yes	Yes	1	1	1	1	1	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	FYROM	*b*	Yes	Yes	a	1	a	1	4	4	Yes	No	Yes	Yes	Yes	No	Yes	a	Yes	Yes	Yes	Yes	Yes	Yes
	Georgia	*b*	Yes	Yes	a	1	a	1	2	2	Yes	No	No	No	No	No	No	No	Yes	Yes	No	No	Yes	No
	Hong Kong (China)[4]	*b*	Yes	Yes	Yes	1	1	1	2	2	Yes	a	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan	*b*	Yes	Yes	Yes	1	1	1	1, 2, 7, 13, 15	1, 2, 7, 9, 15	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Macao (China)	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta	*b*	Yes	No	No	2	2	1	2	2	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	*b*	Yes	Yes	Yes	1	1	1	2	2	Yes	Yes	Yes	Yes	Yes	No	Yes	a	Yes	Yes	Yes	Yes	Yes	No
	Peru	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Qatar	*b*	Yes	Yes	a	1	a	1	1	1	Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Singapore[5]	*b*	Yes	No	a	2	a	1	2	2	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Chinese Taipei	*b*	Yes	No	a	2	a	1	1	1	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	No
	Thailand[6]	*b*	Yes	Yes	Yes	1	1	1	1, 2	1, 2	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	No
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	Yes	Yes	Yes	1	1	1	1	1	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	a	a	a	a	a
	Uruguay	*b*	No	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Locus of authority for standardising/developing/marking/grading examinations
(Column 6-8)
1: Central authority or government
2: Central agency responsible for assessment or certification
3: State education authorities or governments
4: State agency responsible for assessment or certification
5: Provincial/regional education authorities or governments
6: Subregional or intermunicipal authority or government
7: Local authority or government
8: School, school board or committee
9: The student's own teacher
10: Another teacher from within the school
11: A teacher from another school
12: Subject/discipline association
13: Private company
14: Depends on the subject
15: Other

Percentage of schools administering examinations/students taking them
(columns 4, 5)
1: All schools
2: Between 76% and 99% of schools
3: Between 51% and 75% of schools
4: Between 26% and 50% of schools
5: Between 11% and 25% of schools
6: 10% or less of schools

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1. Data reported for OECD countries, Brazil and Colombia refer to whether it is compulsory for all schools to administer the examinations (columns 2, 3) and the percentage of schools that administer them (columns 4, 5).
2. Shared upon request only: Czech Republic (column 19), France (column 19), Ireland (columns 19, 20), Israel (column 21), New Zealand (column 20), Slovak Republic (columns 19, 20, 22).
3. Reference year 2013/2014.
4. Reference year 2015/16.
5. Reference year 2014.
6. Columns 4 and 5: All students in the grade levels at which the exams are administered.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.
* See note at the beginning of this Annex.

Sources: a) *Education at a Glance 2015: OECD Indicator* (OECD, 2015).
b) PISA system-level data collection in 2016.

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[Part 1/2]

Table II.4.47 Teacher appraisal (2015)

By level of education

			Primary								Lower secondary (general)								Upper secondary (general)							
				Policy implementation or practice (if not legislated)		Types of teacher appraisal covered by policy framework						Policy implementation or practice (if not legislated)		Types of teacher appraisal covered by policy framework						Policy implementation or practice (if not legislated)		Types of teacher appraisal covered by policy framework				
		Source	Existence of teacher appraisal	Breadth	Percentage of teachers appraised	Completion of probation	Regular appraisal	Teacher registration	Appraisal for promotion	Reward schemes	Existence of teacher appraisal	Breadth	Percentage of teachers appraised	Completion of probation	Regular appraisal	Teacher registration	Appraisal for promotion	Reward schemes	Existence of teacher appraisal	Breadth	Percentage of teachers appraised	Completion of probation	Regular appraisal	Teacher registration	Appraisal for promotion	Reward schemes
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
OECD	**Australia**	*a*	L	Countrywide	m	Yes	Yes	Yes	m	No	L	Countrywide	m	Yes	Yes	Yes	m	No	L	Countrywide	m	Yes	Yes	Yes	m	No
	Austria	*a*	L	Countrywide	m	No	Yes	Yes	Yes	No	L	Countrywide	m	Yes	Yes	Yes	Yes	No	L	Countrywide	m	Yes	Yes	Yes	Yes	No
	Belgium (Fl.)	*a*	L	Countrywide	m	No	Yes	No	No	No	L	Countrywide	m	No	Yes	No	No	No	L	Countrywide	m	No	Yes	No	No	No
	Belgium (Fr.)	*a*	L	Countrywide	5	No	Yes	No	No	No	L	Countrywide	5	No	Yes	No	No	No	L	Countrywide	5	No	Yes	No	No	No
	Canada	*a*	L	Some states	m	m	m	m	m	m	L	Some states	m	m	m	m	m	m	L	Some states	m	m	m	m	m	m
	Chile	*a*	L	Countrywide	82.5	No	Yes	No	No	Yes	L	Countrywide	82.5	No	Yes	No	No	Yes	L	Countrywide	82.5	No	Yes	No	No	Yes
	Czech Republic	*a*	L	Countrywide	100	Yes	Yes	No	Yes	No	L	Countrywide	100	Yes	Yes	No	Yes	No	L	Countrywide	100	Yes	Yes	No	Yes	No
	Denmark	*a*	P	Countrywide	95	a	a	a	a	a	P	Countrywide	95	a	a	a	a	a	P	Countrywide	95	a	a	a	a	a
	England (UK)[1]	*a*	L	Some schools	90	Yes	Yes	No	No	No	L	Some schools	90	Yes	Yes	No	No	No	L	Some schools	90	Yes	Yes	No	No	No
	Estonia	*a*	P	Countrywide	80	a	a	a	a	a	P	Countrywide	80	a	a	a	a	a	P	Countrywide	80	a	a	a	a	a
	Finland	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	France	*a*	L	Countrywide	100	Yes	Yes	No	No	No	L	Countrywide	100	Yes	Yes	No	No	No	L	Countrywide	100	Yes	Yes	No	No	No
	Germany	*a*	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a
	Greece	*a*	L	Countrywide	100	Yes	Yes	Yes	Yes	No	L	Countrywide	100	Yes	Yes	Yes	Yes	No	L	Countrywide	100	Yes	Yes	Yes	Yes	No
	Hungary	*a*	L	Countrywide	15	Yes	Yes	No	Yes	Yes	L	Countrywide	15	Yes	Yes	No	Yes	Yes	L	Countrywide	15	Yes	Yes	No	Yes	Yes
	Iceland	*a*	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a
	Ireland	*a*	L	Countrywide	100	Yes	No	Yes	No	No	L	Countrywide	m	Yes	No	Yes	No	No	L	Countrywide	m	Yes	No	Yes	No	No
	Israel	*a*	L	Countrywide	22	Yes	No	Yes	Yes	No	L	Countrywide	25	Yes	No	Yes	Yes	No	L	Countrywide	30	Yes	No	Yes	Yes	No
	Italy	*a*	L	Countrywide	4	Yes	No	No	No	No	L	Countrywide	5	Yes	No	No	No	No	L	Countrywide	3.8	Yes	No	No	No	No
	Japan	*a*	L	Countrywide	m	No	Yes	No	No	No	L	Countrywide	m	No	Yes	No	No	No	L	Countrywide	m	No	Yes	No	No	No
	Korea	*a*	L	Countrywide	m	No	Yes	No	Yes	Yes	L	Countrywide	m	No	Yes	No	Yes	Yes	L	Countrywide	m	No	Yes	No	Yes	Yes
	Latvia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Luxembourg	*a*	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a
	Mexico	*a*	L	Countrywide	m	Yes	Yes	No	Yes	Yes	L	Countrywide	m	Yes	Yes	No	Yes	Yes	L	Countrywide	m	Yes	Yes	No	Yes	Yes
	Netherlands	*a*	L	Countrywide	79	Yes	Yes	Yes	Yes	Yes	L	Countrywide	68	Yes	Yes	Yes	Yes	Yes	L	Countrywide	68	Yes	Yes	Yes	Yes	Yes
	New Zealand	*a*	L	Countrywide	100	Yes	Yes	Yes	No	No	L	Countrywide	100	Yes	Yes	Yes	No	No	L	Countrywide	100	Yes	Yes	Yes	No	No
	Norway	*a*	P	m	m	a	a	a	a	a	P	m	m	a	a	a	a	a	P	m	m	a	a	a	a	a
	Poland	*a*	L	Countrywide	m	Yes	Yes	No	Yes	No	L	Countrywide	m	Yes	Yes	No	Yes	No	L	Countrywide	m	Yes	Yes	No	Yes	No
	Portugal	*a*	L	Countrywide	m	Yes	Yes	No	No	No	L	Countrywide	m	Yes	Yes	No	No	No	L	Countrywide	m	Yes	Yes	No	No	No
	Scotland (UK)	*a*	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a	N	a	a	a	a	a	a	a
	Slovak Republic	*a*	L	Countrywide	100	Yes	Yes	No	No	No	L	Countrywide	100	Yes	Yes	No	No	No	L	Countrywide	100	Yes	Yes	No	No	No
	Slovenia	*a*	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes
	Spain	*a*	L	Countrywide	71	No	No	Yes	No	No	L	Countrywide	74	No	No	Yes	No	No	L	Countrywide	70	No	No	Yes	No	No
	Sweden	*a*	L	Countrywide	100	No	Yes	Yes	No	Yes	L	Countrywide	100	No	Yes	Yes	No	Yes	L	Countrywide	100	No	Yes	Yes	No	Yes
	Switzerland	*a*	L	Countrywide	m	m	m	m	m	m	L	Countrywide	m	m	m	m	m	m	L	Countrywide	m	m	m	m	m	m
	Turkey	*a*	L	Countrywide	100	Yes	Yes	No	No	Yes	L	Countrywide	100	Yes	Yes	No	No	Yes	L	Countrywide	100	Yes	Yes	No	No	Yes
	United States	*a*	L	Some states	m	Yes	Yes	Yes	Yes	Yes	L	Some states	m	Yes	Yes	Yes	Yes	Yes	L	Some states	m	Yes	Yes	Yes	Yes	Yes

Existence of teacher appraisal (columns 1, 9, 17)
L: Legislated
P: No teacher appraisal, but have similar practices
N: No teacher appraisal or similar practices

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1. Teacher appraisal is legislated in public institutions, and not legislated (but widely practised) in private institutions.
2. The Education Bureau requires all schools to have a fair and open performance appraisal system for teachers. Schools should develop their own school-based appraisal system in consultation with teachers.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.
* See note at the beginning of this Annex.

Sources: *a. Education at a Glance 2015: OECD Indicator* (OECD, 2015).
b. PISA system-level data collection in 2016.

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[Part 2/2]

Table II.4.47 Teacher appraisal (2015)

By level of education

		Source	Primary								Lower secondary (general)								Upper secondary (general)							
				Policy implementation or practice (if not legislated)		Types of teacher appraisal covered by policy framework						Policy implementation or practice (if not legislated)		Types of teacher appraisal covered by policy framework						Policy implementation or practice (if not legislated)		Types of teacher appraisal covered by policy framework				
			Existence of teacher appraisal	Breadth	Percentage of teachers appraised	Completion of probation	Regular appraisal	Teacher registration	Appraisal for promotion	Reward schemes	Existence of teacher appraisal	Breadth	Percentage of teachers appraised	Completion of probation	Regular appraisal	Teacher registration	Appraisal for promotion	Reward schemes	Existence of teacher appraisal	Breadth	Percentage of teachers appraised	Completion of probation	Regular appraisal	Teacher registration	Appraisal for promotion	Reward schemes
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	*b*	P	a	a	a	a	a	a	a	P	a	a	a	a	a	a	a	P	a	a	a	a	a	a	a
	Brazil	*a*	L	m	m	Yes	Yes	No	m	m	L	m	m	Yes	Yes	No	m	m	L	m	m	Yes	Yes	No	m	m
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	*b*	P	a	a	a	a	a	a	a	P	a	a	a	a	a	a	a	P	a	a	a	a	a	a	a
	Colombia	*a*	L	Countrywide	41	Yes	Yes	No	Yes	No	L	Countrywide	48	Yes	Yes	No	Yes	No	L	Countrywide	48	Yes	Yes	No	Yes	No
	Costa Rica	*b*	L	m	m	m	m	m	m	m	L	m	m	m	m	m	m	m	L	m	m	m	m	m	m	m
	Croatia	*b*	L	Countrywide	m	Yes	Yes	Yes	Yes	No	L	Countrywide	m	Yes	Yes	Yes	Yes	No	L	Countrywide	m	Yes	Yes	Yes	Yes	No
	Cyprus*	*b*	L	Countrywide	43	Yes	Yes	No	No	No	L	Countrywide	42.5	Yes	Yes	No	No	No	L	Countrywide	42.5	Yes	Yes	No	No	No
	Dominican Republic	*b*	L	Countrywide	m	No	Yes	No	No	No	L	Countrywide	m	No	Yes	No	No	No	L	Countrywide	m	No	Yes	No	No	No
	FYROM	*b*	L	Countrywide	m	Yes	Yes	Yes	Yes	Yes	L	Countrywide	m	Yes	Yes	Yes	Yes	Yes	L	Countrywide	m	Yes	Yes	Yes	Yes	Yes
	Georgia	*b*	L	Countrywide	m	No	Yes	Yes	Yes	Yes	L	Countrywide	68	No	Yes	Yes	Yes	Yes	L	Countrywide	65	No	Yes	Yes	Yes	Yes
	Hong Kong (China)²	*b*	P	a	100	a	a	a	a	a	P	a	100	a	a	a	a	a	P	a	100	a	a	a	a	a
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan	*b*	L	Countrywide	87	No	No	No	Yes	No	L	Countrywide	71.5	No	No	No	Yes	No	L	Countrywide	74.8	No	No	No	Yes	No
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	*b*	L	Countrywide	m	No	Yes	No	Yes	Yes	L	Countrywide	m	No	Yes	No	Yes	Yes	L	Countrywide	m	No	Yes	No	Yes	Yes
	Macao (China)	*b*	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta	*b*	L	Countrywide	m	Yes	Yes	Yes	Yes	No	L	Countrywide	m	Yes	Yes	Yes	Yes	No	L	Countrywide	m	Yes	Yes	Yes	Yes	No
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	*b*	L	Countrywide	99	Yes	Yes	Yes	No	Yes	L	Countrywide	99	Yes	Yes	Yes	No	Yes	L	Countrywide	99	Yes	Yes	Yes	No	Yes
	Peru	*b*	L	Countrywide	66.9	No	Yes	Yes	Yes	Yes	L	Countrywide	66.9	No	Yes	Yes	Yes	Yes	L	Countrywide	66.9	No	Yes	Yes	Yes	Yes
	Qatar	*b*	L	Countrywide	m	Yes	Yes	Yes	No	No	L	Countrywide	m	Yes	Yes	Yes	No	No	L	Countrywide	m	Yes	Yes	Yes	No	No
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Singapore	*b*	L	Countrywide	100	Yes	Yes	a	Yes	Yes	L	Countrywide	100	Yes	Yes	a	Yes	Yes	L	Countrywide	100	Yes	Yes	a	Yes	Yes
	Chinese Taipei	*b*	P	a	a	a	a	a	a	a	P	a	a	a	a	a	a	a	P	a	a	a	a	a	a	a
	Thailand	*b*	L	Countrywide	m	Yes	Yes	m	m	m	L	Countrywide	m	Yes	Yes	m	m	m	L	Countrywide	m	Yes	Yes	m	m	m
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes	L	Countrywide	100	Yes	Yes	Yes	Yes	Yes
	Uruguay	*b*	L	Countrywide	100	No	Yes	Yes	Yes	Yes	L	Countrywide	100	No	Yes	Yes	Yes	Yes	L	Countrywide	100	No	Yes	Yes	Yes	Yes
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Existence of teacher appraisal (columns 1, 9, 17)
L: Legislated
P: No teacher appraisal, but have similar practices
N: No teacher appraisal or similar practices

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1. Teacher appraisal is legislated in public institutions, and not legislated (but widely practised) in private institutions.
2. The Education Bureau requires all schools to have a fair and open performance appraisal system for teachers. Schools should develop their own school-based appraisal system in consultation with teachers.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.

* See note at the beginning of this Annex.

Sources: a. *Education at a Glance 2015: OECD Indicator* (OECD, 2015).
b. PISA system-level data collection in 2016.

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[Part 1/1]

Table II.4.58 School leader appraisal (2015)

By level of education

		Source	Primary			Lower secondary (general)			Upper secondary (general)		
			Existence of school leader appraisal that is required by policy or regulations	Policy implementation or practice (if not legislated)		Existence of school leader appraisal that is required by policy or regulations	Policy implementation or practice (if not legislated)		Existence of school leader appraisal that is required by policy or regulations	Policy implementation or practice (if not legislated)	
				Breadth	Percentage of school leaders appraised		Breadth	Percentage of school leaders appraised		Breadth	Percentage of school leaders appraised
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	**Australia**	a	P	Countrywide	m	P	Countrywide	m	P	Countrywide	m
	Austria	a	N	a	a	N	a	a	N	a	a
	Belgium (Fl.)	a	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Belgium (Fr.)	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Canada	a	L	Some states	m	L	Some states	m	L	Some states	m
	Chile	a	N	a	a	N	a	a	N	a	a
	Czech Republic	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Denmark	a	P	Countrywide	100	P	Countrywide	100	P	Countrywide	100
	England (UK)[1]	a	L	Some schools	90	L	Some schools	90	L	Some schools	90
	Estonia	a	N	a	a	N	a	a	N	a	a
	Finland	a	m	m	m	m	m	m	m	m	m
	France	a	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Germany	a	N	a	a	N	a	a	N	a	a
	Greece	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Hungary	a	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Iceland	a	N	a	a	N	a	a	N	a	a
	Ireland	a	N	a	a	N	a	a	N	a	a
	Israel	a	L	Countrywide	100	L	Countrywide	100	P	m	m
	Italy	a	N	a	a	N	a	a	N	a	a
	Japan	a	N	a	a	N	a	a	N	a	a
	Korea	a	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Latvia	a	P	Countrywide	m	P	Countrywide	m	P	Countrywide	m
	Luxembourg	a	N	a	a	N	a	a	N	a	a
	Mexico	a	L	Countrywide	m	L	Countrywide	m	m	m	m
	Netherlands	a	L	Countrywide	100	P	m	m	P	m	m
	New Zealand	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Norway	a	N	a	a	N	a	a	N	a	a
	Poland	a	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Portugal	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Scotland (UK)	a	N	a	a	N	a	a	N	a	a
	Slovak Republic	a	L	Countrywide	99	L	Countrywide	99	L	Countrywide	100
	Slovenia	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Spain	a	L	Countrywide	70	L	Countrywide	70	L	Countrywide	70
	Sweden	a	N	a	a	N	a	a	N	a	a
	Switzerland	a	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Turkey	a	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	United States	a	L	Some states	m	L	Some states	m	L	Some states	m
Partners	**Albania**	b	m	m	m	m	m	m	m	m	m
	Algeria	b	m	m	m	m	m	m	m	m	m
	Argentina	b	N	a	a	N	a	a	N	a	a
	Brazil	a	m	m	m	m	m	m	m	m	m
	B-S-J-G (China)	b	m	m	m	m	m	m	m	m	m
	Bulgaria	b	N	a	a	N	a	a	N	a	a
	Colombia	a	L	Countrywide	14	L	Countrywide	20	L	Countrywide	20
	Costa Rica	b	m	m	m	m	m	m	m	m	m
	Croatia	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Cyprus*	b	L	Countrywide	38	L	Countrywide	45	L	Countrywide	45
	Dominican Republic	b	N	a	a	N	a	a	N	a	a
	FYROM	b	P	Some schools	m	P	Some schools	m	P	Some schools	m
	Georgia	b	N	a	a	N	a	a	N	a	a
	Hong Kong (China)	b	N	a	a	N	a	a	N	a	a
	Indonesia	b	m	m	m	m	m	m	m	m	m
	Jordan	b	m	m	m	m	m	m	m	m	m
	Kazakhstan	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Kosovo	b	m	m	m	m	m	m	m	m	m
	Lebanon	b	m	m	m	m	m	m	m	m	m
	Lithuania	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Macao (China)	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Malaysia	b	m	m	m	m	m	m	m	m	m
	Malta	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Moldova	b	m	m	m	m	m	m	m	m	m
	Montenegro	b	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Peru	b	N	a	a	N	a	a	N	a	a
	Qatar	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Romania	b	m	m	m	m	m	m	m	m	m
	Russia	a	m	m	m	m	m	m	m	m	m
	Singapore	b	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Chinese Taipei	b	N	a	a	N	a	a	N	a	a
	Thailand	b	L	Countrywide	m	L	Countrywide	m	L	Countrywide	m
	Trinidad and Tobago	b	m	m	m	m	m	m	m	m	m
	Tunisia	b	m	m	m	m	m	m	m	m	m
	United Arab Emirates	b	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Uruguay	b	L	Countrywide	100	L	Countrywide	100	L	Countrywide	100
	Viet Nam	b	m	m	m	m	m	m	m	m	m

Existence of school leader appraisal (columns 1, 4, 7)
L: Legislated
P: No school leader appraisal, but have similar practices
N: No school leader appraisal or similar practices

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1. Legislated in public institutions, and not legislated (but widely practised) in private institutions.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.

* See note at the beginning of this Annex.

Sources: a. *Education at a Glance 2015: OECD Indicator* (OECD, 2015).
b. PISA system-level data collection in 2016.

StatLink http://dx.doi.org/10.1787/888933436498

[Part 1/2]

Table II.5.3 Student grade level

Results based on students' self-reports

		Percentage of students in:													
		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12		Grade 13	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	0.0	(0.0)	0.1	(0.0)	11.2	(0.3)	74.6	(0.4)	14.0	(0.4)	0.1	(0.0)	0.0	c
	Austria	0.0	(0.0)	2.0	(0.6)	20.8	(0.9)	71.2	(1.0)	5.9	(0.3)	0.0	(0.0)	0.0	c
	Belgium	0.6	(0.1)	6.4	(0.5)	30.7	(0.7)	61.0	(0.9)	1.3	(0.1)	0.0	(0.0)	0.0	c
	Canada	0.1	(0.0)	0.7	(0.1)	10.8	(0.5)	87.6	(0.6)	0.8	(0.1)	0.0	(0.0)	0.0	c
	Chile	1.7	(0.3)	4.1	(0.6)	24.0	(0.7)	68.1	(1.0)	2.1	(0.2)	0.0	(0.0)	0.0	c
	Czech Republic	0.5	(0.1)	3.9	(0.3)	49.4	(1.2)	46.2	(1.2)	0.0	(0.0)	0.0	c	0.0	c
	Denmark	0.2	(0.1)	16.4	(0.6)	81.9	(0.7)	1.4	(0.5)	0.0	c	0.0	c	0.0	c
	Estonia	0.8	(0.2)	21.3	(0.6)	76.6	(0.6)	1.3	(0.3)	0.0	c	0.0	(0.0)	0.0	c
	Finland	0.5	(0.1)	13.6	(0.4)	85.7	(0.4)	0.0	(0.0)	0.2	(0.1)	0.0	c	0.0	c
	France	0.0	(0.0)	1.0	(0.2)	23.1	(0.6)	72.5	(0.7)	3.2	(0.2)	0.1	(0.1)	0.0	c
	Germany	0.5	(0.1)	7.7	(0.4)	47.3	(0.8)	43.1	(0.8)	1.5	(0.5)	0.0	(0.0)	0.0	c
	Greece	0.2	(0.1)	0.7	(0.2)	3.8	(0.8)	95.3	(0.9)	0.0	c	0.0	c	0.0	c
	Hungary	1.7	(0.3)	8.5	(0.5)	75.8	(0.7)	14.0	(0.5)	0.0	c	0.0	c	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c	100.0	c	0.0	c	0.0	c	0.0	c
	Ireland	0.0	(0.0)	1.8	(0.2)	60.6	(0.7)	26.5	(1.1)	11.1	(0.9)	0.0	c	0.0	c
	Israel	0.0	c	0.1	(0.0)	16.4	(0.9)	82.7	(0.9)	0.9	(0.3)	0.0	c	0.0	c
	Italy	0.1	(0.0)	1.0	(0.2)	15.2	(0.6)	77.2	(0.7)	6.6	(0.3)	0.0	c	0.0	c
	Japan	0.0	c	0.0	c	0.0	c	100.0	(0.0)	0.0	c	0.0	c	0.0	c
	Korea	0.0	c	0.0	c	9.1	(0.8)	90.4	(0.8)	0.5	(0.1)	0.0	c	0.0	c
	Latvia	0.9	(0.2)	11.7	(0.5)	84.4	(0.6)	2.9	(0.3)	0.0	(0.0)	0.0	c	0.0	c
	Luxembourg	0.3	(0.1)	7.9	(0.1)	50.9	(0.1)	40.3	(0.1)	0.6	(0.0)	0.0	c	0.0	c
	Mexico	2.3	(0.3)	4.8	(0.4)	31.9	(1.4)	60.3	(1.6)	0.5	(0.1)	0.2	(0.0)	0.0	c
	Netherlands	0.1	(0.0)	2.8	(0.3)	41.6	(0.6)	54.8	(0.6)	0.8	(0.2)	0.0	(0.0)	0.0	c
	New Zealand	0.0	c	0.0	c	0.0	(0.0)	6.2	(0.3)	88.8	(0.5)	4.9	(0.5)	0.0	(0.0)
	Norway	0.0	c	0.0	c	0.6	(0.1)	99.3	(0.2)	0.1	(0.1)	0.0	c	0.0	c
	Poland	0.6	(0.1)	4.9	(0.3)	93.8	(0.4)	0.6	(0.2)	0.0	c	0.0	c	0.0	c
	Portugal	3.2	(0.3)	8.4	(0.5)	22.9	(0.9)	65.1	(1.2)	0.4	(0.1)	0.0	c	0.0	c
	Slovak Republic	2.2	(0.4)	4.6	(0.4)	42.6	(1.3)	50.6	(1.2)	0.1	(0.0)	0.0	c	0.0	c
	Slovenia	0.0	c	0.3	(0.1)	4.8	(0.3)	94.6	(0.4)	0.3	(0.1)	0.0	c	0.0	c
	Spain	0.1	(0.0)	8.6	(0.5)	23.4	(0.6)	67.9	(0.9)	0.1	(0.1)	0.0	c	0.0	c
	Sweden	0.1	(0.1)	3.1	(0.4)	94.9	(0.8)	1.8	(0.7)	0.1	(0.1)	0.0	c	0.0	c
	Switzerland	0.5	(0.1)	11.8	(0.7)	61.3	(1.2)	25.9	(1.3)	0.5	(0.1)	0.0	(0.0)	0.0	c
	Turkey	0.6	(0.1)	2.6	(0.4)	20.7	(1.0)	72.9	(1.2)	3.0	(0.3)	0.1	(0.0)	0.0	c
	United Kingdom	0.0	c	0.0	c	0.0	c	1.6	(0.3)	97.4	(0.4)	1.0	(0.3)	0.0	(0.0)
	United States	0.0	(0.0)	0.5	(0.3)	9.6	(0.7)	72.4	(0.9)	17.3	(0.6)	0.1	(0.0)	0.0	c
	OECD average	0.5	(0.0)	4.6	(0.1)	35.0	(0.1)	52.3	(0.1)	7.4	(0.0)	0.2	(0.0)	0.0	(0.0)
Partners	**Albania**	0.2	(0.1)	1.0	(0.2)	35.8	(2.3)	61.7	(2.3)	1.2	(0.7)	0.0	(0.0)	0.0	c
	Algeria	18.8	(1.0)	23.5	(1.1)	35.1	(1.5)	19.4	(2.1)	3.2	(0.7)	0.0	c	0.0	c
	Brazil	3.5	(0.2)	6.4	(0.4)	12.5	(0.5)	35.9	(0.9)	39.2	(0.8)	2.5	(0.2)	0.0	c
	B-S-J-G (China)	1.1	(0.2)	9.2	(0.7)	52.7	(1.7)	34.6	(2.0)	2.2	(0.5)	0.1	(0.0)	0.0	c
	Bulgaria	0.5	(0.2)	3.0	(0.6)	92.2	(0.8)	4.3	(0.4)	0.0	c	0.0	c	0.0	c
	CABA (Argentina)	4.1	(1.0)	17.2	(2.2)	71.1	(3.3)	7.2	(2.0)	0.3	(0.3)	0.0	c	0.0	c
	Colombia	5.3	(0.4)	12.3	(0.6)	22.7	(0.6)	40.2	(0.7)	19.5	(0.6)	0.0	c	0.0	c
	Costa Rica	6.2	(0.7)	14.0	(0.7)	33.0	(1.2)	46.5	(1.6)	0.2	(0.1)	0.1	(0.1)	0.0	c
	Croatia	0.0	c	0.2	(0.2)	79.2	(0.5)	20.6	(0.4)	0.0	c	0.0	c	0.0	c
	Cyprus*	0.0	c	0.3	(0.0)	5.8	(0.1)	93.1	(0.1)	0.7	(0.1)	0.0	c	0.0	c
	Dominican Republic	7.1	(0.8)	13.8	(1.2)	20.6	(0.8)	41.9	(1.1)	14.2	(0.7)	2.4	(0.3)	0.0	c
	FYROM	0.1	(0.1)	0.1	(0.1)	70.2	(0.2)	29.7	(0.2)	0.0	c	0.0	c	0.0	c
	Georgia	0.1	(0.0)	0.8	(0.2)	22.0	(0.8)	76.0	(0.9)	1.1	(0.3)	0.0	c	0.0	c
	Hong Kong (China)	1.1	(0.1)	5.6	(0.4)	26.0	(0.7)	66.7	(0.7)	0.6	(0.5)	0.0	c	0.0	c
	Indonesia	2.1	(0.3)	8.1	(0.7)	42.1	(1.5)	45.5	(1.6)	2.3	(0.4)	0.0	(0.0)	0.0	c
	Jordan	0.2	(0.1)	0.6	(0.1)	6.6	(0.4)	92.6	(0.4)	0.0	c	0.0	c	0.0	c
	Kosovo	0.0	(0.1)	0.6	(0.1)	24.9	(0.8)	72.4	(0.9)	2.1	(0.2)	0.0	c	0.0	c
	Lebanon	3.7	(0.5)	8.3	(0.8)	16.6	(1.1)	62.3	(1.4)	9.0	(0.8)	0.1	(0.1)	0.0	c
	Lithuania	0.1	(0.0)	2.6	(0.2)	86.3	(0.4)	11.0	(0.4)	0.0	(0.0)	0.0	c	0.0	c
	Macao (China)	2.9	(0.1)	12.2	(0.2)	29.7	(0.2)	54.5	(0.1)	0.6	(0.1)	0.0	c	0.0	c
	Malta	0.0	c	0.0	c	0.3	(0.1)	6.1	(0.2)	93.6	(0.1)	0.1	(0.0)	0.0	c
	Moldova	0.2	(0.1)	7.6	(0.5)	84.5	(0.8)	7.5	(0.8)	0.0	(0.0)	0.0	c	0.0	c
	Montenegro	0.0	c	0.0	c	83.7	(0.1)	16.3	(0.1)	0.0	c	0.0	c	0.0	c
	Peru	2.5	(0.3)	6.6	(0.4)	15.9	(0.5)	50.2	(0.8)	24.8	(0.8)	0.0	c	0.0	c
	Qatar	0.9	(0.1)	3.5	(0.1)	16.3	(0.1)	60.7	(0.1)	18.0	(0.1)	0.6	(0.0)	0.0	c
	Romania	1.4	(0.3)	8.9	(0.5)	74.8	(0.9)	14.9	(0.7)	0.0	c	0.0	c	0.0	c
	Russia	0.2	(0.1)	6.6	(0.3)	79.7	(1.5)	13.4	(1.5)	0.1	(0.0)	0.0	c	0.0	c
	Singapore	0.0	(0.0)	1.9	(0.3)	7.9	(0.8)	90.0	(1.0)	0.1	(0.0)	0.1	(0.0)	0.0	c
	Chinese Taipei	0.0	c	0.0	c	35.4	(0.7)	64.6	(0.7)	0.0	c	0.0	c	0.0	c
	Thailand	0.2	(0.1)	0.6	(0.2)	23.8	(1.0)	72.9	(1.0)	2.4	(0.4)	0.0	c	0.0	c
	Trinidad and Tobago	3.3	(0.2)	10.8	(0.3)	27.3	(0.3)	56.5	(0.3)	2.2	(0.2)	0.0	c	0.0	c
	Tunisia	4.3	(0.3)	10.6	(0.8)	19.6	(1.3)	60.9	(1.7)	4.6	(0.4)	0.0	c	0.0	c
	United Arab Emirates	0.6	(0.1)	2.5	(0.3)	10.6	(0.7)	53.4	(0.8)	31.4	(0.8)	1.5	(0.1)	0.0	c
	Uruguay	7.5	(0.6)	9.7	(0.5)	20.7	(0.7)	61.3	(1.2)	0.8	(0.1)	0.0	c	0.0	c
	Viet Nam	0.3	(0.1)	1.7	(0.4)	7.7	(1.8)	90.4	(2.2)	0.0	(0.0)	0.0	c	0.0	c
	Argentina**	1.6	(0.4)	9.7	(0.8)	27.4	(1.2)	58.5	(1.6)	2.8	(0.3)	0.0	c	0.0	c
	Kazakhstan**	0.1	(0.1)	2.7	(0.3)	60.4	(1.7)	36.2	(1.8)	0.6	(0.1)	0.0	c	0.0	c
	Malaysia**	0.0	c	0.0	c	3.2	(0.6)	96.4	(0.7)	0.4	(0.3)	0.0	c	0.0	c

1. Probability (in %) that two students selected at random are enrolled in different grade levels (100 – Herfindahl index).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436509

[Part 2/2]

Table II.5.3 Student grade level

Results based on students' self-reports

		Variation in student grade level			Modal grade	Percentage of students in:						Percentage of students enrolled in:			
						Grades below the modal grade		The modal grade		Grades above the modal grade		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)	
		S.D.	S.E.	Diversity Index[1]		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.51	(0.00)	41.2	10	11.4	(0.3)	74.6	(0.4)	14.0	(0.4)	86.0	(0.4)	14.0	(0.4)
	Austria	0.56	(0.02)	44.5	10	22.8	(1.0)	71.2	(1.0)	6.0	(0.3)	2.0	(0.6)	97.9	(0.6)
	Belgium	0.66	(0.01)	53.0	10	37.7	(0.9)	61.0	(0.9)	1.3	(0.1)	9.3	(0.6)	90.7	(0.6)
	Canada	0.37	(0.01)	22.1	10	11.6	(0.6)	87.6	(0.6)	0.8	(0.1)	11.6	(0.6)	88.4	(0.6)
	Chile	0.67	(0.02)	47.7	10	29.8	(1.0)	68.1	(1.0)	2.1	(0.2)	5.8	(0.8)	94.2	(0.8)
	Czech Republic	0.59	(0.01)	54.1	10	53.8	(1.2)	46.2	(1.2)	0.0	(0.0)	54.4	(1.2)	45.6	(1.2)
	Denmark	0.40	(0.01)	30.2	9	16.6	(0.6)	81.9	(0.7)	1.4	(0.5)	99.3	(0.4)	0.7	(0.4)
	Estonia	0.46	(0.01)	36.7	9	22.1	(0.6)	76.6	(0.6)	1.3	(0.3)	98.7	(0.3)	1.3	(0.3)
	Finland	0.38	(0.01)	24.7	9	14.0	(0.4)	85.7	(0.4)	0.3	(0.1)	99.8	(0.1)	0.2	(0.1)
	France	0.51	(0.01)	41.9	10	24.1	(0.6)	72.5	(0.7)	3.3	(0.2)	24.1	(0.6)	75.9	(0.6)
	Germany	0.67	(0.01)	58.5	9	8.2	(0.5)	47.3	(0.8)	44.6	(0.9)	96.2	(0.8)	3.8	(0.8)
	Greece	0.29	(0.03)	9.1	10	4.7	(0.9)	95.3	(0.9)	0.0	c	4.7	(0.9)	95.3	(0.9)
	Hungary	0.54	(0.01)	39.8	9	10.2	(0.5)	75.8	(0.7)	14.0	(0.5)	10.2	(0.5)	89.8	(0.5)
	Iceland	0.00	(0.00)	0.0	10	0.0	c	100.0	c	0.0	c	100.0	c	0.0	c
	Ireland	0.71	(0.01)	55.0	9	1.8	(0.2)	60.6	(0.7)	37.6	(0.8)	62.4	(0.8)	37.6	(0.8)
	Israel	0.39	(0.01)	29.0	10	16.5	(0.9)	82.7	(0.9)	0.9	(0.3)	10.9	(1.0)	89.1	(1.0)
	Italy	0.50	(0.01)	37.7	10	16.2	(0.6)	77.2	(0.7)	6.6	(0.3)	1.1	(0.3)	98.9	(0.3)
	Japan	0.00	(0.00)	0.0	10	0.0	c	100.0	c	0.0	c	0.0	c	100.0	(0.0)
	Korea	0.30	(0.01)	17.4	10	9.1	(0.8)	90.4	(0.8)	0.5	(0.1)	9.1	(0.8)	90.9	(0.8)
	Latvia	0.42	(0.01)	27.3	9	12.7	(0.6)	84.4	(0.6)	2.9	(0.3)	96.3	(0.5)	3.7	(0.5)
	Luxembourg	0.64	(0.00)	57.2	9	8.2	(0.1)	50.9	(0.1)	40.9	(0.1)	56.5	(0.1)	43.5	(0.1)
	Mexico	0.71	(0.02)	53.2	10	39.0	(1.6)	60.3	(1.6)	0.7	(0.1)	39.0	(1.6)	61.0	(1.6)
	Netherlands	0.57	(0.01)	52.6	10	44.5	(0.6)	54.8	(0.6)	0.8	(0.2)	70.5	(0.6)	29.5	(0.6)
	New Zealand	0.34	(0.01)	20.5	11	6.2	(0.3)	88.8	(0.5)	5.0	(0.5)	6.2	(0.3)	93.8	(0.3)
	Norway	0.08	(0.01)	1.3	10	0.6	(0.1)	99.3	(0.2)	0.1	(0.1)	99.9	(0.1)	0.1	(0.1)
	Poland	0.28	(0.01)	11.7	9	5.5	(0.4)	93.8	(0.4)	0.6	(0.2)	99.4	(0.2)	0.6	(0.2)
	Portugal	0.78	(0.02)	51.5	10	34.4	(1.2)	65.1	(1.2)	0.4	(0.1)	34.7	(1.3)	65.3	(1.3)
	Slovak Republic	0.68	(0.02)	56.0	10	49.3	(1.2)	50.6	(1.2)	0.1	(0.0)	47.4	(1.1)	52.6	(1.1)
	Slovenia	0.25	(0.01)	10.3	10	5.1	(0.4)	94.6	(0.4)	0.3	(0.1)	5.1	(0.4)	94.9	(0.4)
	Spain	0.65	(0.01)	47.7	10	32.0	(1.0)	67.9	(0.9)	0.1	(0.1)	99.9	(0.1)	0.1	(0.1)
	Sweden	0.24	(0.02)	9.8	9	3.2	(0.4)	94.9	(0.8)	1.9	(0.7)	98.1	(0.7)	1.9	(0.7)
	Switzerland	0.63	(0.01)	54.3	9	12.3	(0.7)	61.3	(1.2)	26.4	(1.4)	77.0	(1.2)	23.0	(1.2)
	Turkey	0.58	(0.02)	42.4	10	24.0	(1.1)	72.9	(1.2)	3.1	(0.3)	3.2	(0.5)	96.8	(0.5)
	United Kingdom	0.16	(0.01)	5.1	11	1.6	(0.3)	97.4	(0.4)	1.0	(0.3)	0.2	(0.1)	99.8	(0.1)
	United States	0.54	(0.02)	43.7	10	10.2	(0.7)	72.4	(0.9)	17.4	(0.6)	10.2	(0.7)	89.8	(0.7)
	OECD average	0.46	(0.00)	33.9		17.1	(0.1)	76.1	(0.1)	6.8	(0.1)	46.5	(0.1)	53.5	(0.1)
Partners	Albania	0.54	(0.01)	49.0	10	37.0	(2.3)	61.7	(2.3)	1.3	(0.7)	37.0	(2.3)	63.0	(2.3)
	Algeria	1.09	(0.03)	74.8	9	42.3	(1.7)	35.1	(1.5)	22.6	(2.6)	76.9	(2.5)	23.1	(2.5)
	Brazil	1.09	(0.02)	69.6	10	22.3	(0.8)	35.9	(0.9)	41.8	(0.8)	22.3	(0.8)	77.7	(0.8)
	B-S-J-G (China)	0.71	(0.01)	59.3	9	10.3	(0.8)	52.7	(1.7)	37.0	(2.0)	63.0	(2.0)	37.0	(2.0)
	Bulgaria	0.30	(0.02)	14.7	9	3.5	(0.7)	92.2	(0.8)	4.3	(0.4)	3.1	(0.7)	96.9	(0.7)
	CABA (Argentina)	0.63	(0.04)	45.7	9	21.4	(2.7)	71.1	(3.3)	7.5	(2.3)	92.5	(2.3)	7.5	(2.3)
	Colombia	1.10	(0.01)	73.1	10	40.3	(1.0)	40.2	(0.7)	19.5	(0.6)	40.3	(1.0)	59.7	(1.0)
	Costa Rica	0.91	(0.02)	65.1	10	53.2	(1.6)	46.5	(1.6)	0.3	(0.1)	53.2	(1.6)	46.8	(1.6)
	Croatia	0.41	(0.00)	33.0	9	0.2	(0.2)	79.2	(0.5)	20.6	(0.4)	0.2	(0.2)	99.8	(0.2)
	Cyprus*	0.27	(0.00)	12.9	10	6.1	(0.1)	93.1	(0.1)	0.7	(0.1)	6.1	(0.1)	93.9	(0.1)
	Dominican Republic	1.17	(0.02)	73.7	10	41.5	(1.2)	41.9	(1.1)	16.6	(0.8)	20.9	(1.4)	79.1	(1.4)
	FYROM	0.46	(0.01)	42.0	9	0.2	(0.2)	70.2	(0.2)	29.7	(0.2)	0.2	(0.2)	99.8	(0.2)
	Georgia	0.47	(0.01)	37.4	10	22.9	(0.8)	76.0	(0.9)	1.1	(0.3)	22.5	(0.9)	77.5	(0.9)
	Hong Kong (China)	0.66	(0.01)	48.4	10	32.7	(0.9)	66.7	(0.7)	0.6	(0.5)	32.7	(0.9)	67.3	(0.9)
	Indonesia	0.75	(0.02)	60.9	10	52.2	(1.7)	45.5	(1.6)	2.3	(0.4)	52.2	(1.7)	47.8	(1.7)
	Jordan	0.31	(0.01)	13.7	10	7.4	(0.4)	92.6	(0.4)	0.0	c	100.0	c	0.0	c
	Kosovo	0.49	(0.01)	41.4	10	25.6	(0.8)	72.4	(0.9)	2.1	(0.2)	25.6	(0.8)	74.4	(0.8)
	Lebanon	0.90	(0.03)	56.8	10	28.6	(1.3)	62.3	(1.4)	9.1	(0.8)	28.6	(1.3)	71.4	(1.3)
	Lithuania	0.37	(0.01)	24.3	9	2.7	(0.2)	86.3	(0.4)	11.0	(0.4)	100.0	(0.0)	0.0	(0.0)
	Macao (China)	0.82	(0.00)	59.9	10	44.9	(0.1)	54.5	(0.1)	0.6	(0.1)	44.9	(0.1)	55.1	(0.1)
	Malta	0.26	(0.00)	12.1	11	6.4	(0.1)	93.6	(0.1)	0.1	(0.0)	0.3	(0.1)	99.7	(0.1)
	Moldova	0.40	(0.01)	27.4	9	7.9	(0.5)	84.5	(0.8)	7.6	(0.8)	92.4	(0.8)	7.6	(0.8)
	Montenegro	0.37	(0.00)	27.2	9	0.0	c	83.7	(0.1)	16.3	(0.1)	2.6	(0.4)	97.4	(0.4)
	Peru	0.94	(0.01)	65.6	10	25.0	(0.8)	50.2	(0.8)	24.8	(0.8)	25.3	(0.9)	74.7	(0.9)
	Qatar	0.76	(0.00)	57.1	10	20.7	(0.1)	60.7	(0.1)	18.6	(0.1)	20.7	(0.1)	79.3	(0.1)
	Romania	0.54	(0.01)	41.0	9	10.3	(0.7)	74.8	(0.9)	14.9	(0.7)	100.0	c	0.0	c
	Russia	0.45	(0.02)	34.2	9	6.8	(0.3)	79.7	(1.5)	13.5	(1.5)	86.5	(1.5)	13.5	(1.5)
	Singapore	0.39	(0.02)	18.4	10	9.8	(1.1)	90.0	(1.0)	0.2	(0.1)	2.0	(0.3)	97.9	(0.3)
	Chinese Taipei	0.48	(0.00)	45.7	10	35.4	(0.7)	64.6	(0.7)	0.0	c	35.4	(0.7)	64.6	(0.7)
	Thailand	0.50	(0.01)	41.1	10	24.6	(1.0)	72.9	(1.0)	2.4	(0.4)	24.6	(1.0)	75.4	(1.0)
	Trinidad and Tobago	0.84	(0.01)	59.3	10	41.3	(0.2)	56.5	(0.3)	2.2	(0.2)	41.3	(0.2)	58.7	(0.2)
	Tunisia	0.90	(0.01)	57.5	10	34.5	(1.9)	60.9	(1.7)	4.6	(0.4)	34.5	(1.9)	65.5	(1.9)
	United Arab Emirates	0.78	(0.01)	60.4	10	13.7	(0.9)	53.4	(0.8)	32.9	(0.8)	13.5	(0.9)	86.5	(0.9)
	Uruguay	0.95	(0.02)	56.7	10	37.9	(1.1)	61.3	(1.2)	0.8	(0.1)	37.9	(1.1)	62.1	(1.1)
	Viet Nam	0.39	(0.04)	17.7	10	9.6	(2.2)	90.4	(2.2)	0.0	(0.0)	9.1	(2.1)	90.9	(2.1)
	Argentina**	0.77	(0.02)	57.2	10	38.7	(1.6)	58.5	(1.6)	2.8	(0.3)	38.7	(1.6)	61.3	(1.6)
	Kazakhstan**	0.55	(0.01)	50.4	9	2.9	(0.3)	60.4	(1.7)	36.7	(1.8)	73.5	(1.1)	26.5	(1.1)
	Malaysia**	0.19	(0.02)	7.0	10	3.2	(0.6)	96.4	(0.7)	0.4	(0.3)	3.2	(0.6)	96.8	(0.6)

1. Probability (in %) that two students selected at random are enrolled in different grade levels (100 – Herfindahl index).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

StatLink http://dx.doi.org/10.1787/888933436509

[Part 1/1]

Table II.5.9 Grade repetition

Results based on students' self-reports

		Percentage of students who had repeated a grade in:																			
		Primary school						Lower secondary school						Upper secondary school						At least once in primary, lower secondary or upper secondary school[1]	
		Never		Once		Twice or more		Never		Once		Twice or more		Never		Once		Twice or more			
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	93.7	(0.3)	6.0	(0.3)	0.3	(0.1)	98.8	(0.1)	1.0	(0.1)	0.2	(0.0)	99.9	(0.0)	0.0	(0.0)	0.0	(0.0)	7.1	(0.3)
	Austria	94.0	(0.4)	5.9	(0.4)	0.1	(0.0)	95.6	(0.4)	4.2	(0.4)	0.3	(0.1)	93.6	(0.4)	6.2	(0.4)	0.2	(0.1)	15.2	(0.7)
	Belgium	80.5	(0.7)	17.5	(0.6)	2.0	(0.2)	85.4	(0.7)	13.8	(0.6)	0.9	(0.2)	91.6	(0.4)	8.2	(0.4)	0.2	(0.1)	34.0	(0.8)
	Canada	96.6	(0.3)	3.1	(0.2)	0.3	(0.1)	97.2	(0.2)	2.4	(0.2)	0.4	(0.1)	99.2	(0.1)	0.6	(0.1)	0.2	(0.0)	5.7	(0.4)
	Chile	85.5	(0.8)	12.0	(0.5)	2.5	(0.5)	93.2	(0.5)	5.6	(0.4)	1.2	(0.3)	92.5	(0.5)	7.4	(0.5)	0.1	(0.0)	24.6	(0.9)
	Czech Republic	97.7	(0.3)	1.9	(0.2)	0.4	(0.1)	97.0	(0.3)	2.8	(0.3)	0.3	(0.1)	m	m	m	m	m	m	4.8	(0.4)
	Denmark	97.1	(0.2)	2.7	(0.2)	0.3	(0.1)	99.3	(0.1)	0.5	(0.1)	0.2	(0.1)	100.0	c	0.0	c	0.0	c	3.4	(0.3)
	Estonia	97.1	(0.3)	2.3	(0.3)	0.6	(0.1)	98.3	(0.2)	1.3	(0.2)	0.4	(0.1)	m	m	m	m	m	m	4.0	(0.4)
	Finland	97.4	(0.2)	2.3	(0.2)	0.3	(0.1)	99.3	(0.1)	0.5	(0.1)	0.2	(0.1)	100.0	c	0.0	c	0.0	c	3.0	(0.2)
	France	87.2	(0.6)	12.3	(0.5)	0.4	(0.1)	89.3	(0.5)	10.1	(0.5)	0.6	(0.1)	99.4	(0.1)	0.5	(0.1)	0.1	(0.1)	22.1	(0.6)
	Germany	90.8	(0.6)	8.8	(0.6)	0.4	(0.1)	89.4	(0.6)	10.0	(0.6)	0.6	(0.1)	m	m	m	m	m	m	18.1	(0.8)
	Greece	98.0	(0.3)	1.2	(0.2)	0.8	(0.2)	95.9	(0.6)	2.8	(0.5)	1.3	(0.2)	m	m	m	m	m	m	5.0	(0.7)
	Hungary	95.1	(0.5)	4.2	(0.5)	0.7	(0.2)	95.0	(0.5)	4.5	(0.5)	0.5	(0.1)	97.7	(0.3)	2.0	(0.2)	0.3	(0.1)	9.5	(0.6)
	Iceland	99.2	(0.2)	0.4	(0.1)	0.4	(0.1)	99.2	(0.1)	0.3	(0.1)	0.4	(0.1)	m	m	m	m	m	m	1.1	(0.2)
	Ireland	93.6	(0.4)	6.3	(0.4)	0.1	(0.0)	99.1	(0.1)	0.9	(0.1)	0.0	(0.0)	99.9	(0.0)	0.1	(0.0)	0.0	c	7.2	(0.5)
	Israel	96.1	(0.4)	2.9	(0.3)	0.9	(0.1)	94.2	(0.4)	4.3	(0.3)	1.5	(0.2)	95.7	(0.4)	2.7	(0.3)	1.6	(0.2)	9.0	(0.6)
	Italy	98.5	(0.2)	1.2	(0.2)	0.4	(0.1)	94.2	(0.5)	4.9	(0.4)	0.9	(0.2)	90.5	(0.6)	9.1	(0.6)	0.4	(0.1)	15.1	(0.6)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	0.0	c
	Korea	95.7	(0.3)	2.6	(0.2)	1.7	(0.2)	95.9	(0.3)	2.6	(0.2)	1.5	(0.2)	97.0	(0.2)	2.1	(0.2)	0.8	(0.2)	4.7	(0.3)
	Latvia	96.5	(0.3)	2.9	(0.3)	0.6	(0.2)	98.0	(0.3)	1.7	(0.2)	0.4	(0.1)	100.0	(0.0)	0.0	c	0.0	c	5.0	(0.4)
	Luxembourg	83.8	(0.4)	14.6	(0.4)	1.6	(0.2)	81.3	(0.5)	17.5	(0.5)	1.2	(0.2)	99.4	(0.1)	0.3	(0.1)	0.3	(0.1)	30.9	(0.5)
	Mexico	87.8	(0.8)	10.9	(0.7)	1.3	(0.2)	95.8	(0.5)	3.9	(0.5)	0.3	(0.1)	99.4	(0.1)	0.5	(0.1)	0.0	(0.0)	15.8	(0.9)
	Netherlands	85.5	(0.5)	14.2	(0.5)	0.3	(0.1)	93.2	(0.4)	6.7	(0.4)	0.1	(0.1)	99.9	(0.0)	0.1	(0.0)	0.0	c	20.1	(0.5)
	New Zealand	96.2	(0.3)	3.6	(0.3)	0.3	(0.1)	98.2	(0.2)	1.5	(0.2)	0.3	(0.1)	99.6	(0.1)	0.3	(0.1)	0.1	(0.1)	4.9	(0.3)
	Norway	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	0.0	c
	Poland	97.8	(0.3)	1.8	(0.2)	0.4	(0.1)	96.4	(0.3)	3.3	(0.3)	0.2	(0.1)	m	m	m	m	m	m	5.3	(0.4)
	Portugal	83.2	(0.9)	11.4	(0.7)	5.4	(0.4)	78.5	(1.0)	16.9	(0.8)	4.6	(0.4)	99.8	(0.1)	0.1	(0.1)	0.1	(0.0)	31.2	(1.2)
	Slovak Republic	95.8	(0.4)	3.1	(0.3)	1.1	(0.2)	96.5	(0.3)	2.5	(0.3)	1.0	(0.2)	99.7	(0.1)	0.1	(0.0)	0.3	(0.1)	6.5	(0.5)
	Slovenia	m	m	m	m	m	m	98.3	(0.3)	1.5	(0.3)	0.2	(0.1)	99.6	(0.1)	0.2	(0.1)	0.2	(0.1)	1.9	(0.3)
	Spain	87.2	(0.6)	12.0	(0.6)	0.7	(0.1)	73.4	(1.0)	24.4	(0.8)	2.2	(0.3)	m	m	m	m	m	m	31.3	(1.0)
	Sweden	97.0	(0.3)	2.7	(0.3)	0.3	(0.1)	98.0	(0.2)	1.6	(0.2)	0.3	(0.1)	100.0	(0.0)	0.0	(0.0)	0.0	c	4.0	(0.4)
	Switzerland	86.2	(0.9)	13.2	(0.8)	0.6	(0.1)	91.9	(0.6)	7.6	(0.6)	0.4	(0.1)	99.8	(0.1)	0.2	(0.1)	0.0	(0.0)	20.0	(1.0)
	Turkey	96.7	(0.3)	3.0	(0.3)	0.3	(0.1)	98.5	(0.2)	1.2	(0.2)	0.3	(0.1)	92.1	(0.6)	7.7	(0.5)	0.2	(0.1)	10.9	(0.7)
	United Kingdom	97.9	(0.2)	1.8	(0.2)	0.3	(0.1)	99.2	(0.1)	0.6	(0.1)	0.2	(0.1)	99.2	(0.2)	0.6	(0.1)	0.3	(0.1)	2.8	(0.3)
	United States	91.1	(0.7)	8.6	(0.6)	0.3	(0.1)	96.8	(0.3)	2.9	(0.3)	0.4	(0.1)	98.7	(0.2)	1.1	(0.1)	0.1	(0.1)	11.0	(0.8)
	OECD average	93.0	(0.1)	6.2	(0.1)	0.8	(0.0)	94.2	(0.1)	5.0	(0.1)	0.7	(0.0)	97.9	(0.0)	1.9	(0.0)	0.2	(0.0)	11.3	(0.1)
Partners	Albania	98.7	(0.2)	1.0	(0.2)	0.4	(0.1)	98.4	(0.3)	1.3	(0.3)	0.3	(0.1)	99.4	(0.1)	0.3	(0.1)	0.3	(0.1)	2.6	(0.3)
	Algeria	64.5	(1.9)	28.1	(1.4)	7.4	(0.6)	37.5	(2.2)	42.7	(1.6)	19.8	(1.2)	98.4	(0.2)	1.5	(0.2)	0.2	(0.1)	68.5	(2.1)
	Brazil	79.7	(0.7)	15.9	(0.5)	4.5	(0.3)	79.9	(0.6)	14.9	(0.5)	5.2	(0.3)	93.5	(0.3)	6.2	(0.3)	0.3	(0.1)	36.4	(0.8)
	B-S-J-G (China)	80.5	(1.2)	17.7	(1.0)	1.8	(0.2)	97.7	(0.3)	2.0	(0.3)	0.3	(0.1)	100.0	(0.0)	0.0	(0.0)	0.0	c	20.8	(1.2)
	Bulgaria	98.1	(0.3)	1.1	(0.2)	0.9	(0.1)	96.5	(0.5)	2.8	(0.5)	0.8	(0.1)	98.5	(0.2)	0.6	(0.1)	0.9	(0.2)	4.8	(0.6)
	CABA (Argentina)	93.0	(1.1)	6.3	(1.0)	0.7	(0.2)	85.4	(2.1)	12.9	(1.8)	1.8	(0.7)	100.0	c	0.0	c	0.0	c	19.1	(2.7)
	Colombia	77.0	(0.9)	18.5	(0.8)	4.5	(0.3)	69.4	(0.9)	22.1	(0.6)	8.5	(0.5)	97.4	(0.3)	2.5	(0.3)	0.1	(0.0)	42.6	(1.0)
	Costa Rica	84.0	(0.9)	12.6	(0.8)	3.4	(0.3)	76.2	(1.4)	18.5	(1.0)	5.3	(0.6)	99.7	(0.1)	0.3	(0.1)	0.0	(0.0)	31.4	(1.4)
	Croatia	99.8	(0.1)	0.2	(0.1)	0.1	(0.0)	99.3	(0.2)	0.6	(0.2)	0.1	(0.0)	99.0	(0.2)	1.0	(0.1)	0.1	(0.0)	1.6	(0.2)
	Cyprus*	96.9	(0.2)	2.1	(0.2)	1.0	(0.1)	97.3	(0.2)	1.7	(0.2)	1.1	(0.1)	98.3	(0.2)	0.7	(0.1)	1.0	(0.1)	4.7	(0.3)
	Dominican Republic	73.0	(1.2)	21.1	(0.9)	5.9	(0.6)	87.2	(0.9)	10.4	(0.7)	2.4	(0.4)	93.9	(0.6)	5.3	(0.6)	0.8	(0.1)	33.9	(1.3)
	FYROM	98.8	(0.2)	1.0	(0.1)	0.2	(0.1)	97.9	(0.2)	1.7	(0.2)	0.4	(0.1)	97.9	(0.2)	1.0	(0.1)	1.1	(0.2)	3.1	(0.2)
	Georgia	99.1	(0.2)	0.7	(0.1)	0.2	(0.1)	99.2	(0.2)	0.7	(0.2)	0.2	(0.1)	99.2	(0.2)	0.5	(0.1)	0.3	(0.1)	1.5	(0.2)
	Hong Kong (China)	89.8	(0.6)	9.5	(0.6)	0.7	(0.1)	91.5	(0.5)	7.8	(0.5)	0.7	(0.1)	99.7	(0.1)	0.2	(0.1)	0.1	(0.1)	17.2	(0.7)
	Indonesia	84.5	(1.1)	13.6	(0.9)	1.9	(0.3)	96.8	(0.3)	2.8	(0.3)	0.4	(0.1)	98.8	(0.3)	1.2	(0.3)	0.1	(0.0)	16.2	(1.1)
	Jordan	95.2	(0.3)	3.9	(0.3)	0.8	(0.1)	93.9	(0.4)	5.0	(0.4)	1.1	(0.2)	m	m	m	m	m	m	7.6	(0.4)
	Kosovo	96.8	(0.4)	1.9	(0.3)	1.4	(0.2)	97.3	(0.4)	1.6	(0.3)	1.1	(0.2)	98.6	(0.2)	0.6	(0.1)	0.8	(0.2)	3.8	(0.4)
	Lebanon	86.0	(0.9)	11.8	(0.7)	2.2	(0.3)	82.8	(1.0)	14.8	(1.0)	2.4	(0.4)	96.0	(0.7)	2.5	(0.4)	1.5	(0.3)	26.5	(1.2)
	Lithuania	98.2	(0.2)	1.3	(0.2)	0.5	(0.1)	98.8	(0.2)	0.8	(0.1)	0.4	(0.1)	m	m	m	m	m	m	2.5	(0.2)
	Macao (China)	80.1	(0.5)	15.7	(0.5)	4.2	(0.2)	79.4	(0.4)	18.2	(0.5)	2.5	(0.2)	99.6	(0.1)	0.4	(0.1)	0.1	(0.0)	33.8	(0.4)
	Malta	94.8	(0.3)	4.7	(0.3)	0.5	(0.1)	98.3	(0.2)	1.5	(0.2)	0.3	(0.1)	98.6	(0.2)	0.9	(0.2)	0.5	(0.1)	7.0	(0.3)
	Moldova	97.9	(0.2)	1.7	(0.2)	0.4	(0.1)	98.2	(0.2)	1.1	(0.1)	0.7	(0.1)	99.9	(0.1)	0.0	(0.0)	0.1	(0.0)	3.0	(0.3)
	Montenegro	99.0	(0.1)	0.4	(0.1)	0.5	(0.1)	99.1	(0.1)	0.6	(0.1)	0.3	(0.1)	99.1	(0.1)	0.4	(0.1)	0.5	(0.1)	1.6	(0.2)
	Peru	84.1	(0.7)	13.6	(0.6)	2.4	(0.2)	86.1	(0.6)	11.3	(0.5)	2.6	(0.2)	99.0	(0.1)	0.9	(0.1)	0.1	(0.0)	25.6	(0.9)
	Qatar	90.6	(0.3)	7.3	(0.3)	2.1	(0.1)	87.8	(0.2)	9.3	(0.2)	2.8	(0.2)	96.1	(0.2)	2.4	(0.1)	1.6	(0.1)	17.4	(0.3)
	Romania	96.1	(0.4)	3.1	(0.4)	0.7	(0.1)	96.3	(0.4)	3.1	(0.3)	0.6	(0.1)	100.0	c	0.0	c	0.0	c	5.9	(0.5)
	Russia	99.0	(0.1)	0.8	(0.1)	0.2	(0.1)	99.2	(0.2)	0.6	(0.2)	0.2	(0.1)	m	m	m	m	m	m	1.5	(0.2)
	Singapore	97.4	(0.2)	2.3	(0.2)	0.3	(0.1)	98.5	(0.3)	1.2	(0.2)	0.3	(0.1)	98.1	(0.2)	1.7	(0.2)	0.2	(0.0)	5.4	(0.5)
	Chinese Taipei	99.6	(0.1)	0.3	(0.1)	0.1	(0.0)	99.8	(0.0)	0.1	(0.0)	0.1	(0.0)	99.9	(0.0)	0.1	(0.0)	0.0	(0.0)	0.6	(0.1)
	Thailand	95.5	(0.3)	4.2	(0.3)	0.3	(0.1)	95.9	(0.4)	3.8	(0.4)	0.3	(0.1)	97.8	(0.3)	2.1	(0.3)	0.1	(0.0)	6.0	(0.4)
	Trinidad and Tobago	68.3	(0.6)	27.7	(0.6)	4.0	(0.3)	95.3	(0.4)	3.8	(0.4)	0.8	(0.2)	99.5	(0.2)	0.4	(0.1)	0.1	(0.1)	33.4	(0.5)
	Tunisia	86.5	(1.0)	10.2	(0.8)	3.3	(0.3)	70.8	(1.5)	23.8	(1.3)	5.4	(0.5)	98.6	(0.2)	1.3	(0.2)	0.1	(0.0)	34.3	(1.7)
	United Arab Emirates	91.9	(0.4)	7.1	(0.3)	1.0	(0.1)	94.5	(0.4)	4.5	(0.3)	1.0	(0.1)	97.8	(0.2)	1.3	(0.2)	0.8	(0.1)	11.8	(0.5)
	Uruguay	80.1	(0.8)	16.2	(0.7)	3.6	(0.3)	74.7	(0.9)	18.7	(0.7)	6.6	(0.4)	99.8	(0.1)	0.2	(0.1)	0.0	c	35.3	(1.1)
	Viet Nam	96.0	(0.9)	3.5	(0.8)	0.5	(0.2)	96.0	(1.0)	3.6	(0.9)	0.4	(0.1)	99.7	(0.1)	0.3	(0.1)	0.1	(0.0)	7.2	(1.6)
	Argentina**	86.4	(1.0)	11.5	(0.8)	2.1	(0.4)	80.2	(1.0)	17.1	(0.9)	2.7	(0.3)	98.6	(0.2)	1.2	(0.2)	0.2	(0.1)	28.9	(1.3)
	Kazakhstan**	98.8	(0.2)	1.0	(0.2)	0.1	(0.0)	99.1	(0.2)	0.8	(0.2)	0.1	(0.1)	88.4	(3.8)	6.8	(2.9)	4.9	(2.3)	1.9	(0.3)
	Malaysia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. The questions on grade repetition were not administered in Japan and Norway. A value of zero has been set in agreement with countries since there is a policy of automatic grade progression.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.5.11 Change between 2009 and 2015 in grade repetition

Results based on students' self-reports

		Change between 2009 and 2015 (PISA 2015 – PISA 2009) in the percentage of students who reported that they had repeated a grade in:																			
		Primary school						Lower secondary school						Upper secondary school						At least once in primary, lower secondary or upper secondary school	
		Never		Once		Twice or more		Never		Once		Twice or more		Never		Once		Twice or more			
		% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	**1.0**	(0.4)	**-1.1**	(0.4)	0.1	(0.1)	0.2	(0.2)	-0.3	(0.2)	**0.1**	(0.1)	**0.1**	(0.0)	-0.1	(0.0)	0.0	(0.0)	**-2.4**	(0.5)
	Austria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Belgium	-1.1	(0.9)	1.2	(0.8)	-0.2	(0.3)	0.4	(0.9)	-0.1	(0.9)	-0.3	(0.2)	**1.5**	(0.6)	**-1.4**	(0.6)	-0.1	(0.1)	0.0	(1.1)
	Canada	**1.0**	(0.4)	**-1.1**	(0.4)	0.1	(0.1)	**1.5**	(0.3)	**-1.6**	(0.3)	0.0	(0.1)	-0.1	(0.1)	0.1	(0.1)	0.1	(0.1)	**-2.8**	(0.5)
	Chile	**-4.1**	(1.1)	**3.7**	(0.8)	0.5	(0.6)	0.5	(0.8)	-0.3	(0.6)	-0.2	(0.4)	**3.2**	(0.8)	**-2.9**	(0.7)	**-0.4**	(0.1)	0.7	(1.3)
	Czech Republic	-0.2	(0.4)	0.0	(0.3)	0.2	(0.1)	-0.7	(0.4)	0.7	(0.4)	0.0	(0.1)	m	m	m	m	m	m	0.9	(0.5)
	Denmark	0.7	(0.4)	**-0.9**	(0.4)	**0.2**	(0.1)	0.3	(0.2)	-0.3	(0.2)	0.1	(0.1)	**0.1**	(0.1)	0.0	(0.0)	**-0.1**	(0.1)	**-1.7**	(0.5)
	Estonia	1.0	(0.5)	-0.9	(0.5)	-0.1	(0.2)	0.8	(0.5)	**-1.0**	(0.5)	**0.2**	(0.1)	m	m	m	m	m	m	**-1.6**	(0.7)
	Finland	-0.2	(0.3)	-0.1	(0.3)	**0.2**	(0.1)	**-0.3**	(0.1)	0.1	(0.1)	**0.2**	(0.1)	0.0	c	0.0	c	0.0	c	0.1	(0.4)
	France	**5.0**	(1.1)	**-4.8**	(1.0)	-0.2	(0.2)	**12.8**	(1.3)	**-12.9**	(1.3)	0.1	(0.2)	**0.5**	(0.2)	**-0.5**	(0.2)	0.0	(0.1)	**-16.1**	(1.2)
	Germany	0.0	(0.8)	0.1	(0.8)	0.0	(0.1)	**3.7**	(0.9)	**-3.5**	(0.8)	-0.2	(0.2)	m	m	m	m	m	m	-1.1	(1.1)
	Greece	0.0	(0.5)	-0.7	(0.4)	**0.7**	(0.2)	0.1	(1.0)	-0.7	(1.0)	**0.6**	(0.3)	m	m	m	m	m	m	-0.9	(1.1)
	Hungary	1.3	(1.0)	-1.2	(0.9)	-0.1	(0.3)	0.8	(1.0)	-0.1	(0.8)	**-0.7**	(0.3)	0.1	(0.4)	0.0	(0.3)	-0.1	(0.1)	-1.8	(1.4)
	Iceland	-0.1	(0.2)	-0.1	(0.2)	0.2	(0.1)	-0.3	(0.2)	0.1	(0.1)	0.2	(0.1)	m	m	m	m	m	m	0.2	(0.2)
	Ireland	**4.7**	(0.7)	**-4.4**	(0.7)	**-0.2**	(0.1)	**0.8**	(0.3)	**-0.8**	(0.3)	0.0	(0.1)	0.1	(0.1)	-0.1	(0.1)	0.0	c	**-4.6**	(0.8)
	Israel	0.4	(0.5)	-0.6	(0.4)	0.2	(0.2)	-0.9	(0.6)	0.5	(0.5)	0.3	(0.2)	-0.6	(0.5)	0.1	(0.4)	**0.5**	(0.3)	1.1	(0.8)
	Italy	-0.5	(0.3)	0.3	(0.2)	**0.2**	(0.1)	**-1.2**	(0.6)	0.7	(0.5)	**0.4**	(0.2)	**2.2**	(0.7)	**-2.3**	(0.7)	0.2	(0.1)	-1.1	(0.8)
	Japan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Latvia	**2.5**	(0.7)	**-2.4**	(0.6)	-0.1	(0.2)	**4.0**	(0.9)	**-3.3**	(0.8)	**-0.7**	(0.3)	**1.5**	(0.3)	**-0.7**	(0.1)	**-0.8**	(0.3)	**-15.2**	(1.6)
	Luxembourg	**6.0**	(0.6)	**-4.4**	(0.6)	**-1.6**	(0.4)	**1.5**	(0.7)	**-1.9**	(0.7)	0.4	(0.2)	**1.4**	(0.2)	**-1.2**	(0.2)	-0.2	(0.1)	**-8.7**	(0.7)
	Mexico	**5.0**	(1.1)	**-4.4**	(1.0)	**-0.6**	(0.3)	**1.7**	(0.6)	**-1.5**	(0.6)	-0.1	(0.1)	**0.6**	(0.2)	**-0.4**	(0.2)	**-0.2**	(0.1)	**-10.8**	(1.3)
	Netherlands	**7.9**	(1.3)	**-7.4**	(1.3)	**-0.5**	(0.2)	**-1.5**	(0.6)	**1.4**	(0.6)	0.1	(0.1)	**0.5**	(0.1)	**-0.5**	(0.1)	0.0	c	**-7.2**	(1.3)
	New Zealand	0.1	(0.4)	0.0	(0.4)	-0.1	(0.1)	-0.1	(0.3)	0.0	(0.3)	0.1	(0.1)	**0.5**	(0.2)	**-0.4**	(0.2)	-0.1	(0.1)	-0.4	(0.4)
	Norway	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Poland	-0.3	(0.4)	0.2	(0.3)	0.1	(0.1)	0.3	(0.5)	-0.1	(0.5)	-0.3	(0.2)	m	m	m	m	m	m	0.0	(0.6)
	Portugal	**5.6**	(1.7)	**-5.8**	(1.4)	0.2	(0.6)	-0.6	(1.8)	-1.1	(1.5)	**1.7**	(0.5)	**1.7**	(0.3)	**-1.3**	(0.2)	**-0.4**	(0.1)	**-5.8**	(2.3)
	Slovak Republic	**-2.3**	(0.5)	**1.6**	(0.4)	**0.7**	(0.3)	**-1.5**	(0.5)	**0.9**	(0.4)	**0.6**	(0.2)	-0.1	(0.1)	-0.1	(0.1)	**0.2**	(0.1)	1.5	(0.8)
	Slovenia	m	m	m	m	m	m	-0.3	(0.5)	0.2	(0.5)	0.1	(0.1)	m	m	m	m	m	m	0.4	(0.5)
	Spain	-0.5	(0.7)	0.5	(0.7)	0.1	(0.1)	**5.3**	(1.2)	**-4.3**	(1.1)	**-1.0**	(0.4)	m	m	m	m	m	m	**-3.8**	(1.2)
	Sweden	0.8	(0.5)	**-1.0**	(0.4)	0.1	(0.1)	**-0.6**	(0.3)	**0.5**	(0.3)	0.0	(0.1)	**0.2**	(0.1)	0.0	(0.1)	**-0.2**	(0.1)	**-2.3**	(0.6)
	Switzerland	1.1	(1.1)	-1.2	(1.1)	0.1	(0.2)	1.2	(0.8)	-1.4	(0.8)	0.2	(0.1)	**1.1**	(0.2)	**-0.9**	(0.2)	**-0.2**	(0.1)	**-5.5**	(1.4)
	Turkey	0.4	(0.6)	-0.6	(0.6)	0.2	(0.1)	m	m	m	m	m	m	**2.7**	(1.0)	**-2.8**	(1.0)	0.1	(0.1)	-2.0	(1.1)
	United Kingdom	**-0.5**	(0.3)	0.4	(0.2)	0.1	(0.1)	0.0	(0.2)	0.0	(0.1)	0.0	(0.1)	-0.1	(0.2)	0.2	(0.2)	0.0	(0.1)	0.5	(0.3)
	United States	**2.3**	(1.0)	**-2.0**	(1.0)	-0.3	(0.2)	0.9	(0.5)	**-1.1**	(0.5)	0.2	(0.1)	0.3	(0.3)	-0.3	(0.2)	0.0	(0.1)	**-3.5**	(1.2)
	OECD average	**1.2**	(0.1)	**-1.2**	(0.1)	0.0	(0.0)	**1.0**	(0.1)	**-1.0**	(0.1)	0.1	(0.0)	**0.6**	(0.1)	**-0.6**	(0.1)	**-0.1**	(0.0)	**-2.8**	(0.2)
Partners	**Albania**	**1.6**	(0.5)	**-1.3**	(0.4)	-0.3	(0.2)	0.9	(0.5)	-0.7	(0.4)	-0.2	(0.1)	**1.7**	(0.4)	**-1.3**	(0.4)	-0.4	(0.2)	**-4.6**	(0.8)
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	0.7	(1.0)	-0.5	(0.8)	-0.2	(0.4)	**5.6**	(1.0)	**-3.7**	(0.8)	**-1.9**	(0.5)	**1.7**	(0.5)	**-1.5**	(0.5)	**-0.2**	(0.1)	**-5.9**	(1.2)
	B-S-J-G (China)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	**0.8**	(0.4)	**-1.0**	(0.3)	0.2	(0.2)	0.5	(0.7)	-0.5	(0.6)	-0.1	(0.2)	0.0	(0.3)	-0.3	(0.2)	0.3	(0.2)	-1.2	(0.8)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	-0.9	(1.4)	0.1	(1.2)	0.8	(0.5)	**-12.4**	(1.2)	**7.3**	(0.9)	**5.1**	(0.6)	0.4	(0.4)	0.0	(0.4)	**-0.4**	(0.1)	**4.8**	(1.6)
	Costa Rica	2.2	(1.4)	-1.1	(1.1)	-1.1	(0.6)	2.9	(1.9)	-2.8	(1.5)	-0.1	(0.7)	**1.2**	(0.3)	**-0.6**	(0.2)	**-0.6**	(0.2)	**-10.4**	(2.3)
	Croatia	**1.0**	(0.2)	**-1.0**	(0.2)	0.0	(0.0)	**0.7**	(0.2)	**-0.8**	(0.2)	0.0	(0.0)	**1.3**	(0.3)	**-1.3**	(0.3)	0.0	(0.0)	**-1.3**	(0.3)
	Cyprus*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Dominican Republic	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	**1.0**	(0.3)	**-0.6**	(0.2)	**-0.4**	(0.1)	0.0	(0.2)	0.0	(0.2)	0.0	(0.1)	**1.3**	(0.3)	**-0.6**	(0.2)	**-0.7**	(0.2)	**-2.2**	(0.4)
	Hong Kong (China)	0.2	(0.8)	0.0	(0.8)	-0.2	(0.2)	**-2.2**	(0.7)	**1.9**	(0.7)	**0.3**	(0.1)	-0.1	(0.1)	0.0	(0.1)	0.1	(0.1)	0.9	(1.0)
	Indonesia	0.9	(1.6)	-1.3	(1.4)	0.3	(0.4)	**2.9**	(0.7)	**-2.8**	(0.6)	-0.1	(0.2)	**3.5**	(0.8)	**-2.9**	(0.7)	**-0.6**	(0.2)	**-19.2**	(3.1)
	Jordan	-0.9	(0.5)	**0.9**	(0.4)	0.0	(0.2)	**-1.2**	(0.6)	**1.2**	(0.5)	0.0	(0.3)	m	m	m	m	m	m	1.2	(0.7)
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	0.2	(0.4)	-0.6	(0.3)	**0.3**	(0.1)	**1.0**	(0.3)	**-1.2**	(0.3)	0.2	(0.1)	m	m	m	m	m	m	**-1.3**	(0.5)
	Macao (China)	**3.3**	(0.7)	**-1.8**	(0.7)	**-1.5**	(0.3)	**11.7**	(0.7)	**-8.6**	(0.7)	**-3.1**	(0.3)	0.1	(0.1)	0.0	(0.1)	-0.1	(0.1)	**-12.8**	(0.6)
	Malta	**5.6**	(0.5)	**-5.6**	(0.5)	0.0	(0.2)	**2.5**	(0.4)	**-2.3**	(0.3)	-0.3	(0.2)	-0.2	(0.3)	0.3	(0.2)	0.0	(0.2)	**-12.7**	(0.6)
	Moldova	0.7	(0.4)	-0.2	(0.3)	**-0.5**	(0.2)	0.4	(0.3)	-0.3	(0.2)	-0.1	(0.2)	**1.2**	(0.2)	**-0.9**	(0.1)	**-0.3**	(0.1)	**-2.0**	(0.5)
	Montenegro	-0.4	(0.3)	-0.1	(0.2)	**0.4**	(0.1)	0.2	(0.4)	-0.5	(0.4)	**0.2**	(0.1)	**-0.4**	(0.2)	-0.1	(0.1)	**0.4**	(0.1)	-0.3	(0.6)
	Peru	**4.7**	(1.2)	**-3.5**	(1.0)	**-1.2**	(0.4)	**-2.3**	(1.0)	**2.4**	(0.9)	-0.1	(0.4)	**2.1**	(0.4)	**-1.0**	(0.3)	**-1.1**	(0.2)	**-4.3**	(1.6)
	Qatar	-0.7	(0.4)	-0.1	(0.3)	**0.8**	(0.2)	**-4.5**	(0.4)	**3.0**	(0.3)	**1.5**	(0.2)	0.2	(0.3)	-0.2	(0.2)	0.0	(0.2)	**1.9**	(0.4)
	Romania	**-1.5**	(0.6)	**1.3**	(0.5)	0.2	(0.2)	-1.0	(0.7)	0.8	(0.6)	0.2	(0.2)	m	m	m	m	m	m	**1.7**	(0.8)
	Russia	**1.3**	(0.3)	**-1.4**	(0.3)	0.1	(0.1)	0.5	(0.4)	**-0.7**	(0.3)	**0.2**	(0.1)	m	m	m	m	m	m	**-1.8**	(0.5)
	Singapore	-0.3	(0.3)	0.3	(0.3)	-0.1	(0.1)	0.2	(0.3)	-0.3	(0.3)	0.1	(0.1)	0.1	(0.3)	-0.2	(0.2)	0.1	(0.1)	0.0	(0.6)
	Chinese Taipei	**0.5**	(0.1)	**-0.4**	(0.1)	**-0.1**	(0.1)	**0.7**	(0.2)	**-0.4**	(0.1)	**-0.2**	(0.1)	**0.3**	(0.1)	-0.1	(0.1)	**-0.2**	(0.1)	**-1.4**	(0.3)
	Thailand	**-2.1**	(0.4)	**1.8**	(0.4)	**0.3**	(0.1)	**-2.8**	(0.4)	**2.5**	(0.4)	**0.3**	(0.1)	**-1.9**	(0.3)	**1.9**	(0.3)	0.0	(0.0)	0.9	(0.6)
	Trinidad and Tobago	**-4.3**	(0.8)	**3.5**	(0.9)	0.8	(0.4)	**-1.5**	(0.5)	**1.5**	(0.4)	0.1	(0.2)	**0.8**	(0.3)	**-0.5**	(0.2)	-0.3	(0.2)	**2.4**	(0.8)
	Tunisia	**9.7**	(1.5)	**-7.9**	(1.3)	**-1.7**	(0.5)	3.6	(1.9)	-1.8	(1.5)	**-1.7**	(0.7)	**1.9**	(0.4)	**-1.0**	(0.3)	**-0.9**	(0.2)	**-10.0**	(2.1)
	United Arab Emirates	-0.1	(0.6)	0.0	(0.5)	0.1	(0.2)	**1.3**	(0.6)	**-1.3**	(0.5)	-0.1	(0.2)	**-0.9**	(0.3)	0.3	(0.2)	**0.6**	(0.1)	**-2.5**	(0.9)
	Uruguay	1.4	(1.2)	-0.8	(1.0)	-0.6	(0.4)	0.5	(1.3)	-1.7	(1.0)	**1.3**	(0.6)	**0.6**	(0.1)	**-0.6**	(0.1)	0.0	c	-2.9	(1.5)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	2.3	(1.4)	0.2	(1.1)	**-2.5**	(0.6)	**4.2**	(1.9)	-1.3	(1.5)	**-2.9**	(0.8)	**3.5**	(0.5)	**-2.9**	(0.4)	**-0.6**	(0.2)	**-8.6**	(2.2)
	Kazakhstan**	0.3	(0.2)	-0.3	(0.2)	0.0	(0.1)	-0.2	(0.2)	0.2	(0.2)	0.0	(0.1)	m	m	m	m	m	m	0.2	(0.3)
	Malaysia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
For Costa Rica, Georgia, Malta and Moldova, the change between the PISA 2009 and PISA 2015 assessments represents change between 2010 and 2015 because these countries implemented the PISA 2009 assessment in 2010 as part of PISA 2009+.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/3]

Table II.5.12 Grade repetition, science performance and school characteristics

Results based on students' self-reports

		Had repeated grade at least once in primary, lower secondary or upper secondary school													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top - bottom quarter	
		%	S.E.	SD.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	7.1	(0.3)	25.7	(0.5)	10.0	(0.7)	6.6	(0.7)	5.6	(0.7)	6.2	(0.6)	**-3.8**	(0.8)
	Austria	15.2	(0.7)	35.9	(0.7)	22.1	(2.1)	14.6	(1.7)	14.6	(1.4)	9.6	(0.8)	**-12.6**	(2.2)
	Belgium	34.0	(0.8)	47.4	(0.3)	59.3	(2.3)	42.6	(2.3)	27.2	(1.8)	9.9	(1.4)	**-49.5**	(3.0)
	Canada	5.7	(0.4)	23.3	(0.7)	10.7	(1.2)	6.2	(0.7)	3.8	(0.9)	2.2	(0.9)	**-8.5**	(1.4)
	Chile	24.6	(0.9)	43.0	(0.6)	37.4	(2.4)	29.2	(2.7)	18.2	(2.4)	13.6	(2.1)	**-23.8**	(3.5)
	Czech Republic	4.8	(0.4)	21.4	(0.8)	10.4	(1.3)	5.1	(0.8)	2.6	(0.7)	1.5	(0.5)	**-8.9**	(1.4)
	Denmark	3.4	(0.3)	18.1	(0.7)	5.0	(0.7)	4.1	(0.5)	2.4	(0.4)	2.1	(0.5)	**-2.9**	(0.9)
	Estonia	4.0	(0.4)	19.6	(0.9)	7.0	(1.0)	4.3	(0.7)	2.0	(0.6)	2.6	(0.6)	**-4.4**	(1.2)
	Finland	3.0	(0.2)	16.9	(0.7)	3.9	(0.5)	3.3	(0.8)	2.3	(0.5)	2.3	(0.4)	**-1.6**	(0.7)
	France	22.1	(0.6)	41.5	(0.4)	56.3	(3.0)	25.3	(3.3)	5.1	(2.0)	2.9	(0.6)	**-53.3**	(3.1)
	Germany	18.1	(0.8)	38.5	(0.7)	30.7	(2.3)	22.6	(2.0)	11.0	(2.2)	9.7	(0.9)	**-21.0**	(2.6)
	Greece	5.0	(0.7)	21.7	(1.5)	13.7	(2.4)	3.8	(1.3)	1.3	(0.5)	1.1	(0.4)	**-12.5**	(2.5)
	Hungary	9.5	(0.6)	29.3	(0.8)	23.2	(2.4)	9.2	(2.0)	2.3	(1.5)	3.2	(0.9)	**-20.0**	(2.7)
	Iceland	1.1	(0.2)	10.4	(0.7)	1.6	(0.4)	1.0	(0.3)	0.8	(0.4)	1.1	(0.3)	-0.5	(0.5)
	Ireland	7.2	(0.5)	25.8	(0.8)	9.1	(1.0)	8.2	(1.5)	6.7	(0.9)	4.7	(0.6)	**-4.4**	(1.2)
	Israel	9.0	(0.6)	28.5	(0.9)	18.5	(3.1)	14.0	(3.0)	2.1	(1.9)	1.4	(0.4)	**-17.2**	(3.1)
	Italy	15.1	(0.6)	35.8	(0.6)	27.4	(1.7)	19.1	(1.5)	9.4	(1.3)	4.4	(0.7)	**-23.0**	(1.9)
	Japan	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Korea	4.7	(0.3)	21.1	(0.6)	5.7	(0.6)	4.1	(0.8)	4.3	(0.7)	4.7	(0.7)	-1.0	(1.0)
	Latvia	5.0	(0.4)	21.8	(0.9)	9.8	(1.3)	4.5	(0.9)	3.8	(0.7)	2.0	(0.7)	**-7.7**	(1.5)
	Luxembourg	30.9	(0.5)	46.2	(0.2)	45.5	(1.2)	39.2	(1.2)	27.3	(0.9)	11.7	(0.7)	**-33.9**	(1.4)
	Mexico	15.8	(0.9)	36.5	(0.8)	27.5	(3.4)	18.5	(3.9)	11.6	(2.6)	5.7	(1.7)	**-21.7**	(4.0)
	Netherlands	20.1	(0.5)	40.1	(0.4)	28.6	(1.6)	24.8	(1.7)	15.2	(1.4)	12.7	(0.9)	**-15.9**	(1.7)
	New Zealand	4.9	(0.3)	21.6	(0.7)	5.6	(0.7)	4.7	(0.7)	4.8	(0.6)	4.6	(0.7)	-1.1	(1.0)
	Norway	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Poland	5.3	(0.4)	22.3	(0.7)	6.7	(1.2)	6.3	(1.2)	5.0	(0.8)	3.1	(0.6)	**-3.6**	(1.3)
	Portugal	31.2	(1.2)	46.4	(0.5)	53.3	(3.8)	35.7	(4.0)	24.8	(4.0)	11.1	(1.6)	**-42.2**	(4.1)
	Slovak Republic	6.5	(0.5)	24.7	(0.9)	19.5	(2.2)	3.9	(0.7)	2.9	(0.6)	1.0	(0.4)	**-18.5**	(2.2)
	Slovenia	1.9	(0.3)	13.6	(1.1)	4.1	(1.0)	1.4	(0.5)	1.9	(1.0)	0.2	(0.2)	**-3.9**	(1.0)
	Spain	31.3	(1.0)	46.4	(0.4)	45.6	(2.2)	36.5	(1.9)	31.4	(2.2)	11.6	(1.6)	**-34.0**	(2.8)
	Sweden	4.0	(0.4)	19.7	(0.9)	6.0	(1.0)	4.1	(0.7)	3.6	(1.1)	2.5	(0.6)	**-3.4**	(1.1)
	Switzerland	20.0	(1.0)	40.0	(0.8)	25.0	(2.4)	21.5	(2.9)	21.6	(2.8)	11.9	(1.6)	**-13.1**	(3.0)
	Turkey	10.9	(0.7)	31.2	(0.9)	19.8	(1.5)	13.6	(2.1)	7.4	(1.3)	2.9	(0.9)	**-16.8**	(1.8)
	United Kingdom	2.8	(0.3)	16.4	(0.7)	4.5	(0.8)	2.5	(0.5)	2.4	(0.5)	1.6	(0.4)	**-2.9**	(0.9)
	United States	11.0	(0.8)	31.2	(0.9)	19.2	(2.7)	10.9	(1.0)	8.6	(1.2)	5.3	(0.6)	**-13.9**	(2.8)
	OECD average	11.3	(0.1)	27.5	(0.1)	19.2	(0.3)	12.9	(0.3)	8.4	(0.3)	4.9	(0.2)	**-14.3**	(0.4)
Partners	Albania	2.6	(0.3)	15.9	(1.0)	3.7	(1.0)	3.5	(0.9)	2.4	(0.9)	0.7	(0.4)	**-3.0**	(1.1)
	Algeria	68.5	(2.1)	46.4	(0.9)	82.6	(2.4)	81.5	(3.1)	76.9	(6.1)	33.0	(5.7)	**-49.6**	(6.1)
	Brazil	36.4	(0.8)	48.1	(0.2)	49.8	(1.9)	38.6	(2.5)	34.9	(1.7)	22.5	(1.5)	**-27.3**	(2.5)
	B-S-J-G (China)	20.8	(1.2)	40.6	(0.9)	32.1	(3.1)	27.9	(3.4)	15.0	(2.5)	8.0	(1.7)	**-24.1**	(3.6)
	Bulgaria	4.8	(0.6)	21.4	(1.3)	12.4	(2.1)	4.9	(1.5)	1.4	(0.4)	1.0	(0.4)	**-11.4**	(2.2)
	CABA (Argentina)	19.1	(2.7)	39.3	(2.1)	44.8	(5.4)	26.5	(5.5)	3.8	(6.0)	2.1	(1.2)	**-42.7**	(5.6)
	Colombia	42.6	(1.0)	49.4	(0.2)	47.7	(2.5)	48.4	(2.0)	42.3	(2.2)	31.7	(2.3)	**-16.0**	(3.4)
	Costa Rica	31.4	(1.4)	46.4	(0.6)	42.1	(3.0)	38.5	(3.2)	33.8	(3.0)	10.6	(1.5)	**-31.6**	(3.3)
	Croatia	1.6	(0.2)	12.4	(0.8)	2.7	(0.7)	2.0	(0.7)	1.2	(0.4)	0.3	(0.2)	**-2.4**	(0.7)
	Cyprus*	4.7	(0.3)	21.2	(0.6)	10.1	(0.7)	3.6	(0.5)	1.7	(0.3)	3.5	(0.5)	**-6.6**	(0.8)
	Dominican Republic	33.9	(1.3)	47.3	(0.4)	53.0	(3.7)	39.3	(3.2)	31.4	(3.7)	12.3	(1.8)	**-40.7**	(4.1)
	FYROM	3.1	(0.2)	17.3	(0.6)	5.8	(0.7)	2.3	(0.4)	2.4	(0.5)	1.8	(0.4)	**-4.0**	(0.8)
	Georgia	1.5	(0.2)	12.2	(0.9)	3.4	(0.6)	1.2	(0.4)	0.7	(0.4)	0.8	(0.2)	**-2.6**	(0.7)
	Hong Kong (China)	17.2	(0.7)	37.8	(0.6)	23.5	(1.7)	19.9	(1.4)	15.1	(2.7)	10.3	(1.4)	**-13.3**	(2.1)
	Indonesia	16.2	(1.1)	36.9	(1.0)	28.2	(3.2)	19.7	(3.4)	11.6	(2.9)	5.4	(1.9)	**-22.9**	(3.8)
	Jordan	7.6	(0.4)	26.6	(0.7)	11.0	(1.8)	7.7	(1.3)	7.1	(1.0)	4.8	(0.9)	**-6.2**	(2.1)
	Kosovo	3.8	(0.4)	19.1	(1.0)	7.1	(1.3)	4.4	(0.9)	2.0	(0.4)	1.7	(0.5)	**-5.4**	(1.5)
	Lebanon	26.5	(1.2)	44.1	(0.6)	40.1	(3.2)	30.8	(3.0)	22.1	(2.8)	13.3	(2.9)	**-26.8**	(4.2)
	Lithuania	2.5	(0.2)	15.6	(0.8)	5.4	(0.9)	2.5	(0.5)	1.5	(0.5)	0.6	(0.2)	**-4.8**	(0.9)
	Macao (China)	33.8	(0.4)	47.3	(0.1)	44.7	(0.8)	35.5	(0.9)	33.7	(0.8)	21.3	(0.8)	**-23.4**	(1.2)
	Malta	7.0	(0.3)	25.5	(0.5)	6.7	(0.7)	7.1	(0.6)	7.7	(0.7)	6.5	(0.6)	-0.2	(0.9)
	Moldova	3.0	(0.3)	17.0	(0.7)	4.4	(0.6)	4.0	(0.6)	1.9	(0.6)	1.7	(0.4)	**-2.7**	(0.8)
	Montenegro	1.6	(0.2)	12.7	(0.7)	2.6	(0.5)	1.2	(0.3)	1.8	(0.4)	1.0	(0.3)	**-1.5**	(0.6)
	Peru	25.6	(0.9)	43.6	(0.5)	36.4	(1.6)	33.5	(1.8)	23.9	(2.0)	8.5	(1.1)	**-27.9**	(1.9)
	Qatar	17.4	(0.3)	37.9	(0.3)	31.8	(0.8)	16.5	(0.6)	12.2	(0.6)	9.1	(0.6)	**-22.6**	(1.1)
	Romania	5.9	(0.5)	23.5	(1.0)	10.6	(1.6)	6.0	(1.3)	5.7	(1.3)	1.2	(0.8)	**-9.4**	(1.6)
	Russia	1.5	(0.2)	12.3	(0.9)	2.8	(0.8)	1.3	(0.4)	1.0	(0.4)	1.1	(0.3)	**-1.8**	(0.9)
	Singapore	5.4	(0.5)	22.5	(0.9)	8.3	(0.6)	4.9	(0.5)	3.3	(0.4)	5.0	(1.8)	-3.3	(1.8)
	Chinese Taipei	0.6	(0.1)	7.5	(0.5)	0.7	(0.2)	0.6	(0.2)	0.4	(0.2)	0.5	(0.2)	-0.2	(0.3)
	Thailand	6.0	(0.4)	23.8	(0.8)	10.1	(1.2)	6.1	(1.0)	4.7	(1.1)	3.2	(0.6)	**-6.9**	(1.4)
	Trinidad and Tobago	33.4	(0.5)	47.2	(0.2)	52.8	(1.3)	41.8	(1.3)	26.7	(1.2)	13.0	(0.8)	**-39.8**	(1.7)
	Tunisia	34.3	(1.7)	47.5	(0.5)	58.3	(5.3)	49.4	(6.7)	24.6	(7.2)	5.3	(2.5)	**-52.9**	(5.6)
	United Arab Emirates	11.8	(0.5)	32.2	(0.6)	20.6	(1.9)	11.1	(1.2)	7.6	(0.9)	8.0	(0.8)	**-12.5**	(2.2)
	Uruguay	35.3	(1.1)	47.8	(0.3)	62.9	(3.2)	57.3	(3.9)	15.1	(3.7)	6.2	(0.9)	**-56.8**	(3.5)
	Viet Nam	7.2	(1.6)	25.8	(2.6)	19.5	(5.7)	7.5	(3.5)	1.1	(1.9)	0.5	(0.3)	**-19.0**	(5.7)
	Argentina**	28.9	(1.3)	45.3	(0.6)	42.0	(3.1)	37.7	(2.6)	22.5	(3.4)	13.6	(2.3)	**-28.4**	(4.0)
	Kazakhstan**	1.9	(0.3)	13.8	(0.9)	3.2	(0.8)	2.1	(0.5)	1.3	(0.5)	1.1	(0.3)	**-2.1**	(0.8)
	Malaysia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

The questions on grade repetition were not administered in Japan and Norway. A value of zero has been set in agreement with countries since there is a policy of automatic grade progression.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.5.12 Grade repetition, science performance and school characteristics

Results based on students' self-reports

		Had repeated grade at least once in primary, lower secondary or upper secondary school													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	8.4	(1.5)	8.8	(0.6)	6.3	(0.4)	-2.1	(1.5)	7.7	(0.4)	6.1	(0.5)	**-1.6**	(0.7)
	Austria	14.2	(2.6)	15.0	(0.7)	15.9	(1.6)	1.7	(3.0)	15.6	(0.7)	11.4	(2.3)	-4.2	(2.5)
	Belgium	20.5	(7.1)	28.3	(1.3)	46.3	(3.1)	**25.8**	(8.0)	w	w	w	w	w	w
	Canada	7.8	(2.1)	6.7	(0.7)	4.3	(0.6)	-3.5	(2.1)	5.6	(0.4)	4.5	(1.2)	-1.1	(1.2)
	Chile	57.2	(12.3)	27.0	(2.0)	22.3	(1.2)	**-34.9**	(12.4)	32.4	(1.8)	19.9	(1.0)	**-12.5**	(2.0)
	Czech Republic	9.3	(1.4)	5.2	(0.5)	1.8	(0.5)	**-7.5**	(1.4)	5.1	(0.4)	1.5	(0.7)	**-3.5**	(0.9)
	Denmark	3.5	(0.7)	3.4	(0.4)	3.8	(0.6)	0.2	(0.9)	3.7	(0.3)	2.5	(0.5)	**-1.2**	(0.6)
	Estonia	6.1	(1.0)	3.5	(0.5)	2.9	(0.4)	**-3.2**	(1.1)	3.9	(0.4)	6.7	(2.4)	2.8	(2.5)
	Finland	3.4	(0.7)	3.2	(0.3)	2.2	(0.4)	-1.3	(0.8)	3.1	(0.3)	1.5	(0.8)	-1.5	(0.9)
	France	44.7	(11.5)	23.3	(1.6)	15.2	(2.6)	**-29.5**	(11.8)	21.3	(1.0)	23.0	(2.5)	1.6	(2.9)
	Germany	13.3	(2.2)	18.5	(1.4)	17.6	(2.0)	4.4	(2.9)	18.6	(1.1)	12.0	(3.3)	-6.6	(3.5)
	Greece	9.6	(3.6)	5.3	(1.0)	3.5	(1.1)	-6.2	(3.8)	5.2	(0.8)	0.4	(0.5)	**-4.8**	(0.9)
	Hungary	60.6	(9.5)	10.3	(1.5)	5.2	(0.8)	**-55.4**	(9.5)	10.7	(0.8)	4.6	(1.2)	**-6.1**	(1.5)
	Iceland	1.6	(0.6)	1.0	(0.2)	0.9	(0.3)	-0.7	(0.6)	1.1	(0.2)	m	m	m	m
	Ireland	10.8	(1.8)	6.8	(0.5)	5.5	(0.6)	**-5.3**	(1.9)	7.7	(0.7)	6.8	(0.6)	-0.9	(0.9)
	Israel	12.7	(3.5)	11.5	(1.3)	4.3	(0.9)	**-8.3**	(3.8)	m	m	m	m	m	m
	Italy	20.3	(4.7)	13.7	(0.9)	14.4	(1.7)	-5.9	(5.1)	13.8	(0.8)	15.4	(2.4)	1.6	(2.5)
	Japan	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Korea	m	m	5.1	(0.8)	4.6	(0.3)	m	m	4.7	(0.3)	4.7	(0.5)	0.0	(0.6)
	Latvia	9.7	(1.2)	3.9	(0.5)	3.3	(0.8)	**-6.4**	(1.4)	5.0	(0.5)	3.9	(2.1)	-1.1	(2.1)
	Luxembourg	m	m	36.0	(0.7)	24.4	(0.8)	m	m	30.9	(0.5)	30.9	(1.2)	0.0	(1.3)
	Mexico	30.2	(3.5)	16.5	(2.1)	10.3	(1.6)	**-19.9**	(3.7)	17.2	(0.9)	6.5	(3.0)	**-10.7**	(3.2)
	Netherlands	m	m	20.4	(0.9)	22.0	(1.9)	m	m	22.8	(1.6)	19.5	(1.0)	-3.3	(2.0)
	New Zealand	5.4	(1.6)	6.0	(0.5)	3.9	(0.4)	-1.5	(1.7)	4.8	(0.4)	7.2	(1.7)	2.5	(1.7)
	Norway	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Poland	6.4	(0.7)	4.4	(0.6)	5.0	(0.7)	-1.4	(1.0)	5.4	(0.4)	2.1	(1.2)	**-3.3**	(1.2)
	Portugal	56.4	(11.6)	34.4	(1.7)	17.1	(2.5)	**-39.3**	(11.4)	33.2	(1.3)	4.3	(2.3)	**-28.9**	(3.0)
	Slovak Republic	20.8	(2.7)	4.0	(0.7)	1.8	(0.8)	**-19.1**	(3.0)	6.8	(0.7)	4.3	(2.7)	-2.6	(3.1)
	Slovenia	5.1	(2.4)	2.2	(0.5)	0.7	(0.2)	-4.4	(2.4)	1.9	(0.3)	0.0	c	**-1.9**	(0.3)
	Spain	33.7	(3.6)	33.4	(1.3)	27.0	(1.9)	-6.7	(4.2)	37.7	(1.0)	17.1	(2.1)	**-20.6**	(2.4)
	Sweden	5.1	(1.5)	3.6	(0.4)	4.6	(1.1)	-0.4	(1.8)	3.9	(0.4)	4.5	(1.2)	0.5	(1.2)
	Switzerland	23.4	(3.4)	22.1	(1.3)	12.2	(2.2)	**-11.2**	(4.1)	20.1	(1.1)	22.6	(4.3)	2.5	(4.4)
	Turkey	42.7	(8.3)	10.5	(1.4)	10.4	(1.0)	**-32.2**	(8.3)	11.0	(0.7)	8.6	(4.5)	-2.4	(4.5)
	United Kingdom	1.5	(0.5)	2.3	(0.3)	3.9	(0.8)	**2.4**	(0.9)	2.7	(0.3)	3.1	(1.3)	0.4	(1.3)
	United States	12.3	(2.0)	9.1	(0.8)	13.0	(1.6)	0.7	(2.5)	11.1	(0.8)	6.4	(1.7)	**-4.7**	(1.9)
	OECD average	17.4	(0.8)	11.6	(0.2)	9.6	(0.2)	**-8.5**	(0.8)	11.4	(0.1)	8.2	(0.3)	**-3.5**	(0.3)
Partners	**Albania**	2.4	(0.6)	3.0	(0.7)	2.2	(0.5)	-0.3	(0.8)	2.7	(0.4)	1.7	(0.9)	-1.0	(1.0)
	Algeria	76.0	(6.6)	71.9	(2.7)	50.8	(6.9)	**-25.2**	(9.6)	68.6	(2.2)	m	m	m	m
	Brazil	54.6	(6.7)	34.6	(1.4)	32.7	(1.4)	**-21.9**	(7.2)	35.7	(1.2)	20.6	(2.2)	**-15.1**	(2.8)
	B-S-J-G (China)	31.5	(7.0)	22.8	(1.8)	13.6	(1.6)	**-17.9**	(7.2)	18.7	(1.2)	37.9	(5.8)	**19.2**	(6.3)
	Bulgaria	26.7	(7.2)	4.0	(0.6)	4.0	(1.2)	**-22.7**	(7.3)	4.9	(0.6)	m	m	m	m
	CABA (Argentina)	m	m	m	m	19.8	(2.9)	m	m	31.4	(4.5)	7.9	(3.2)	**-23.5**	(5.4)
	Colombia	48.4	(3.5)	41.9	(1.9)	40.1	(1.2)	**-8.3**	(3.5)	45.3	(1.1)	32.6	(2.7)	**-12.7**	(2.9)
	Costa Rica	38.4	(3.1)	28.8	(1.7)	34.5	(3.5)	-3.9	(4.5)	30.6	(1.4)	36.7	(5.0)	6.1	(5.1)
	Croatia	m	m	1.9	(0.3)	1.1	(0.2)	m	m	1.6	(0.2)	1.1	(1.6)	-0.5	(1.6)
	Cyprus*	11.3	(1.4)	3.8	(0.3)	5.0	(0.5)	**-6.4**	(1.4)	4.5	(0.3)	5.1	(0.7)	0.6	(0.8)
	Dominican Republic	43.0	(4.6)	36.6	(2.2)	20.3	(2.8)	**-22.7**	(5.2)	38.0	(1.5)	18.8	(2.4)	**-19.2**	(2.9)
	FYROM	4.7	(1.8)	2.9	(0.3)	2.9	(0.3)	-1.7	(1.8)	3.0	(0.2)	2.0	(0.9)	-1.0	(0.9)
	Georgia	2.4	(0.4)	1.8	(0.5)	0.7	(0.2)	**-1.6**	(0.5)	1.6	(0.2)	0.5	(0.3)	**-1.1**	(0.4)
	Hong Kong (China)	m	m	m	m	17.2	(0.7)	m	m	17.1	(1.6)	17.2	(0.7)	0.1	(1.8)
	Indonesia	24.0	(2.2)	14.2	(1.9)	7.5	(2.6)	**-16.5**	(3.6)	15.7	(1.2)	17.1	(1.9)	1.4	(2.2)
	Jordan	11.6	(1.2)	7.7	(0.7)	5.8	(0.7)	**-5.8**	(1.4)	7.8	(0.5)	6.8	(0.9)	-1.0	(1.0)
	Kosovo	8.3	(2.0)	3.6	(0.4)	2.0	(0.4)	**-6.3**	(2.0)	3.9	(0.4)	0.7	(0.8)	**-3.2**	(0.7)
	Lebanon	34.4	(5.2)	26.7	(2.0)	19.1	(3.1)	**-15.4**	(6.8)	35.0	(1.6)	17.9	(1.9)	**-17.0**	(2.6)
	Lithuania	3.7	(0.7)	2.6	(0.4)	1.8	(0.3)	**-1.9**	(0.8)	2.5	(0.3)	3.4	(2.0)	0.9	(2.0)
	Macao (China)	m	m	m	m	33.6	(0.4)	m	m	m	m	33.3	(0.4)	m	m
	Malta	7.3	(0.9)	6.9	(0.3)	m	m	m	m	7.5	(0.4)	6.1	(0.4)	**-1.4**	(0.6)
	Moldova	4.0	(0.4)	2.1	(0.5)	1.7	(0.4)	**-2.2**	(0.6)	3.0	(0.3)	m	m	m	m
	Montenegro	m	m	1.7	(0.3)	1.5	(0.3)	m	m	1.6	(0.2)	m	m	m	m
	Peru	31.8	(2.1)	24.8	(1.2)	17.5	(2.2)	**-14.3**	(3.3)	30.3	(0.9)	15.0	(1.3)	**-15.3**	(1.5)
	Qatar	17.3	(1.4)	20.6	(0.5)	14.5	(0.4)	-2.8	(1.5)	23.5	(0.4)	9.4	(0.5)	**-14.1**	(0.6)
	Romania	20.8	(2.6)	4.3	(0.7)	3.6	(0.9)	**-17.2**	(2.7)	5.9	(0.5)	m	m	m	m
	Russia	2.1	(0.6)	1.8	(0.5)	1.2	(0.2)	-0.9	(0.7)	1.6	(0.2)	m	m	m	m
	Singapore	m	m	m	m	5.3	(0.5)	m	m	5.0	(0.2)	9.7	(4.6)	4.7	(4.6)
	Chinese Taipei	m	m	0.6	(0.2)	0.5	(0.1)	m	m	0.6	(0.1)	0.5	(0.1)	0.0	(0.1)
	Thailand	10.4	(1.2)	5.5	(0.5)	3.8	(0.6)	**-6.6**	(1.3)	5.8	(0.5)	7.0	(1.3)	1.1	(1.4)
	Trinidad and Tobago	46.6	(1.5)	31.8	(0.7)	m	m	m	m	33.4	(0.7)	35.3	(2.6)	1.9	(2.7)
	Tunisia	71.8	(11.2)	37.1	(3.2)	25.2	(6.1)	**-46.6**	(12.9)	33.4	(2.2)	52.6	(23.5)	19.2	(23.8)
	United Arab Emirates	18.5	(4.3)	14.6	(1.6)	10.1	(0.6)	-8.4	(4.5)	16.7	(1.1)	8.3	(0.6)	**-8.5**	(1.3)
	Uruguay	42.3	(5.1)	37.0	(2.2)	32.1	(2.7)	-10.2	(5.8)	40.7	(1.2)	6.1	(0.8)	**-34.6**	(1.4)
	Viet Nam	8.9	(2.3)	9.6	(3.3)	1.4	(0.7)	**-7.4**	(2.4)	7.4	(1.6)	2.7	(1.7)	**-4.7**	(2.4)
	Argentina**	39.4	(6.0)	29.2	(2.1)	27.0	(2.0)	**-12.4**	(6.3)	32.8	(1.7)	16.4	(2.1)	**-16.4**	(2.7)
	Kazakhstan**	2.9	(0.7)	1.3	(0.3)	1.6	(0.3)	-1.4	(0.7)	1.9	(0.3)	2.2	(0.4)	0.2	(0.5)
	Malaysia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

The questions on grade repetition were not administered in Japan and Norway. A value of zero has been set in agreement with countries since there is a policy of automatic grade progression.

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[Part 3/3]

Table II.5.12 Grade repetition, science performance and school characteristics

Results based on students' self-reports

		Had repeated grade at least once in primary, lower secondary or upper secondary school													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score when the student had repeated a grade		Explained variance in student performance (r-squared x 100)		Change in the science score when the student had repeated a grade		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	Australia	8.0	(0.3)	1.7	(0.3)	**-6.3**	(0.4)	**-55**	(4.4)	2.0	(0.3)	**-45**	(4.1)	17.7	(1.1)
	Austria	89.4	(3.7)	13.9	(0.6)	**-75.5**	(3.6)	**-65**	(4.0)	5.9	(0.8)	**-43**	(4.2)	33.8	(1.7)
	Belgium	89.3	(1.7)	29.8	(0.7)	**-59.4**	(1.9)	**-106**	(2.8)	26.3	(1.1)	**-67**	(2.3)	43.8	(1.6)
	Canada	31.2	(2.5)	2.3	(0.2)	**-28.9**	(2.5)	**-89**	(4.3)	5.1	(0.6)	**-67**	(4.4)	14.7	(1.0)
	Chile	90.3	(2.0)	20.6	(0.7)	**-69.7**	(2.0)	**-76**	(3.3)	14.6	(1.1)	**-56**	(3.0)	33.8	(1.6)
	Czech Republic	7.6	(0.7)	1.7	(0.3)	**-5.9**	(0.7)	**-120**	(5.7)	7.4	(0.8)	**-81**	(4.6)	34.9	(1.9)
	Denmark	3.4	(0.3)	0.0	c	**-3.4**	(0.3)	**-82**	(7.3)	2.8	(0.5)	**-67**	(7.5)	13.4	(1.3)
	Estonia	4.0	(0.4)	2.0	(1.5)	-2.0	(1.5)	**-87**	(6.7)	3.7	(0.6)	**-70**	(6.9)	13.5	(1.4)
	Finland	3.0	(0.2)	m	m	m	m	**-113**	(8.2)	4.0	(0.7)	**-99**	(7.9)	13.2	(1.1)
	France	91.9	(0.7)	1.0	(0.2)	**-90.9**	(0.8)	**-122**	(4.2)	25.4	(1.4)	**-65**	(4.2)	43.4	(1.7)
	Germany	18.7	(0.8)	1.6	(0.6)	**-17.1**	(1.1)	**-73**	(4.9)	8.2	(1.1)	**-44**	(3.2)	35.9	(1.9)
	Greece	70.7	(6.8)	1.7	(0.2)	**-68.9**	(6.8)	**-104**	(7.5)	6.0	(1.2)	**-57**	(9.5)	25.1	(2.5)
	Hungary	59.3	(4.1)	4.0	(0.4)	**-55.3**	(4.1)	**-110**	(6.4)	11.2	(1.5)	**-50**	(7.3)	45.6	(1.8)
	Iceland	1.1	(0.2)	m	m	m	m	**-101**	(15.0)	1.3	(0.4)	**-92**	(14.6)	6.2	(0.9)
	Ireland	10.9	(0.6)	1.0	(0.3)	**-9.9**	(0.6)	**-51**	(5.7)	2.2	(0.5)	**-38**	(5.1)	16.1	(1.3)
	Israel	12.9	(2.4)	8.5	(0.6)	-4.5	(2.5)	**-108**	(5.5)	8.4	(0.9)	**-68**	(7.2)	26.5	(2.1)
	Italy	86.1	(2.7)	14.3	(0.6)	**-71.7**	(2.8)	**-71**	(4.7)	7.7	(0.9)	**-43**	(4.5)	26.2	(2.1)
	Japan	0.0	c	0.0	c	0.0	c	m	m	m	m	m	m	m	m
	Korea	6.5	(0.6)	4.5	(0.3)	**-2.0**	(0.7)	**-27**	(6.5)	0.4	(0.2)	**-25**	(5.8)	18.2	(2.1)
	Latvia	5.2	(0.5)	0.0	c	**-5.2**	(0.5)	**-98**	(4.8)	6.7	(0.9)	**-79**	(5.8)	16.8	(1.4)
	Luxembourg	52.6	(0.8)	2.9	(0.3)	**-49.7**	(1.0)	**-93**	(2.8)	18.2	(1.0)	**-59**	(2.7)	40.9	(1.0)
	Mexico	38.8	(2.3)	1.2	(0.2)	**-37.7**	(2.3)	**-60**	(3.9)	9.4	(1.1)	**-45**	(3.6)	22.4	(2.0)
	Netherlands	28.0	(0.7)	2.0	(0.4)	**-26.1**	(0.8)	**-57**	(3.5)	5.4	(0.7)	**-36**	(3.5)	37.5	(3.2)
	New Zealand	27.6	(2.6)	3.4	(0.3)	**-24.1**	(2.6)	**-59**	(8.7)	1.5	(0.5)	**-52**	(7.9)	19.8	(1.6)
	Norway	0.0	c	0.0	c	0.0	c	m	m	m	m	m	m	m	m
	Poland	5.3	(0.4)	m	m	m	m	**-113**	(6.8)	7.6	(1.0)	**-93**	(6.9)	20.6	(1.6)
	Portugal	89.5	(0.9)	0.7	(0.3)	**-88.8**	(0.9)	**-115**	(3.0)	33.6	(1.4)	**-95**	(3.0)	38.8	(1.6)
	Slovak Republic	12.2	(1.1)	1.7	(0.4)	**-10.5**	(1.2)	**-131**	(6.6)	11.3	(1.4)	**-61**	(8.2)	29.2	(2.0)
	Slovenia	28.4	(5.7)	0.5	(0.1)	**-27.9**	(5.7)	**-117**	(9.1)	2.9	(0.7)	**-67**	(13.5)	35.8	(1.3)
	Spain	31.3	(1.0)	m	m	m	m	**-99**	(2.8)	27.1	(1.3)	**-84**	(2.9)	30.9	(1.3)
	Sweden	4.1	(0.4)	2.2	(2.0)	-1.9	(2.0)	**-98**	(7.9)	3.5	(0.7)	**-76**	(7.3)	18.5	(1.7)
	Switzerland	25.1	(1.2)	1.3	(0.3)	**-23.8**	(1.2)	**-74**	(5.1)	8.7	(1.1)	**-55**	(4.5)	29.4	(1.8)
	Turkey	52.9	(4.2)	9.5	(0.6)	**-43.4**	(4.2)	**-77**	(5.2)	9.1	(1.0)	**-52**	(5.1)	30.4	(3.7)
	United Kingdom	15.2	(8.1)	2.7	(0.3)	-12.4	(8.1)	**-74**	(11.7)	1.4	(0.5)	**-58**	(9.5)	18.5	(1.7)
	United States	63.7	(2.8)	5.5	(0.5)	**-58.1**	(2.7)	**-96**	(5.0)	9.4	(1.1)	**-78**	(5.0)	20.3	(1.6)
	OECD average	33.3	(0.4)	4.6	(0.1)	**-31.6**	(0.5)	**-89**	(1.1)	9.0	(0.2)	**-63**	(1.1)	26.4	(0.3)
Partners	Albania	2.2	(0.6)	2.8	(0.4)	0.7	(0.7)	m	m	m	m	m	m	m	m
	Algeria	85.5	(1.2)	11.9	(2.5)	**-73.6**	(2.7)	**-54**	(4.2)	13.1	(1.7)	**-41**	(5.0)	15.9	(2.4)
	Brazil	89.4	(0.9)	21.9	(0.5)	**-67.5**	(1.0)	**-73**	(2.8)	15.5	(0.9)	**-56**	(1.9)	32.0	(1.9)
	B-S-J-G (China)	28.7	(1.6)	7.0	(1.0)	**-21.7**	(1.9)	**-67**	(6.6)	7.0	(1.2)	**-32**	(4.8)	36.1	(2.9)
	Bulgaria	71.5	(4.9)	2.7	(0.3)	**-68.8**	(4.9)	**-122**	(7.6)	6.6	(1.1)	**-44**	(10.5)	39.2	(2.8)
	CABA (Argentina)	20.6	(2.9)	0.7	(0.8)	**-19.9**	(2.9)	**-90**	(9.1)	17.0	(2.9)	**-45**	(6.1)	35.5	(3.5)
	Colombia	82.0	(1.1)	16.2	(0.8)	**-65.8**	(1.2)	**-53**	(2.8)	10.6	(1.0)	**-43**	(2.1)	28.2	(2.3)
	Costa Rica	59.5	(1.7)	1.0	(0.3)	**-58.4**	(1.8)	**-58**	(2.9)	14.1	(1.2)	**-40**	(2.4)	29.0	(2.0)
	Croatia	m	m	1.4	(0.2)	m	m	**-98**	(10.0)	1.9	(0.5)	**-72**	(9.9)	26.9	(2.0)
	Cyprus*	41.7	(2.5)	2.4	(0.2)	**-39.3**	(2.5)	**-87**	(5.6)	3.9	(0.5)	**-66**	(5.2)	19.4	(0.9)
	Dominican Republic	76.5	(2.3)	23.0	(1.1)	**-53.6**	(2.5)	**-57**	(3.2)	13.8	(1.2)	**-37**	(2.8)	30.6	(2.7)
	FYROM	m	m	3.0	(0.2)	m	m	**-73**	(7.9)	2.2	(0.5)	**-57**	(7.8)	17.2	(1.2)
	Georgia	3.2	(0.6)	1.0	(0.2)	**-2.2**	(0.6)	**-86**	(12.2)	1.3	(0.4)	**-64**	(11.7)	15.3	(1.6)
	Hong Kong (China)	50.6	(1.3)	1.0	(0.3)	**-49.6**	(1.4)	**-50**	(3.1)	5.5	(0.7)	**-40**	(3.0)	16.2	(1.7)
	Indonesia	27.9	(1.8)	3.6	(0.5)	**-24.3**	(1.9)	**-46**	(3.7)	6.2	(0.9)	**-27**	(2.8)	25.5	(3.0)
	Jordan	7.6	(0.4)	m	m	m	m	**-86**	(5.6)	7.4	(1.0)	**-76**	(5.3)	17.9	(2.1)
	Kosovo	7.9	(1.2)	2.4	(0.3)	**-5.4**	(1.2)	**-65**	(6.5)	3.0	(0.6)	**-49**	(6.5)	16.0	(1.5)
	Lebanon	69.4	(2.6)	9.7	(1.0)	**-59.7**	(2.8)	**-88**	(4.3)	18.4	(1.5)	**-68**	(5.1)	28.8	(2.4)
	Lithuania	2.5	(0.2)	m	m	m	m	**-116**	(8.0)	4.0	(0.7)	**-86**	(8.1)	23.6	(2.3)
	Macao (China)	73.3	(0.8)	1.7	(0.3)	**-71.7**	(0.9)	**-70**	(2.7)	16.7	(1.2)	**-68**	(2.8)	17.2	(1.2)
	Malta	m	m	6.7	(0.3)	m	m	**-89**	(7.8)	3.8	(0.6)	**-87**	(7.9)	27.7	(1.2)
	Moldova	3.1	(0.3)	1.0	(0.7)	**-2.1**	(0.7)	**-80**	(7.1)	2.5	(0.5)	**-67**	(6.9)	15.7	(1.7)
	Montenegro	7.6	(3.3)	1.5	(0.2)	-6.2	(3.3)	**-84**	(10.4)	1.6	(0.4)	**-74**	(9.8)	18.4	(0.9)
	Peru	75.9	(1.2)	8.9	(0.5)	**-67.0**	(1.3)	**-61**	(2.9)	11.9	(0.9)	**-39**	(2.4)	34.6	(2.0)
	Qatar	46.2	(0.9)	10.0	(0.3)	**-36.2**	(0.9)	**-83**	(2.5)	10.3	(0.6)	**-64**	(2.5)	19.9	(0.6)
	Romania	5.9	(0.5)	m	m	m	m	**-62**	(8.5)	3.4	(0.9)	**-35**	(10.3)	24.2	(2.8)
	Russia	1.8	(0.3)	0.0	c	**-1.8**	(0.3)	**-52**	(10.4)	0.6	(0.2)	**-39**	(11.1)	10.0	(1.8)
	Singapore	37.8	(4.7)	4.7	(0.4)	**-33.1**	(4.6)	**-84**	(6.9)	3.3	(0.5)	**-71**	(6.7)	28.5	(1.3)
	Chinese Taipei	1.0	(0.2)	0.3	(0.1)	**-0.7**	(0.2)	**-61**	(15.2)	0.2	(0.1)	**-48**	(14.8)	28.4	(2.5)
	Thailand	12.7	(1.1)	3.8	(0.4)	**-8.9**	(1.2)	**-56**	(4.9)	2.8	(0.5)	**-43**	(5.0)	19.7	(3.0)
	Trinidad and Tobago	71.5	(1.1)	7.4	(0.7)	**-64.1**	(1.3)	**-78**	(3.1)	15.5	(1.1)	**-45**	(2.9)	42.1	(1.2)
	Tunisia	94.2	(1.3)	3.2	(0.4)	**-91.0**	(1.3)	**-69**	(2.9)	25.0	(1.5)	**-53**	(3.1)	31.7	(2.1)
	United Arab Emirates	46.5	(2.5)	6.5	(0.3)	**-40.0**	(2.5)	**-82**	(3.9)	7.2	(0.7)	**-63**	(3.7)	18.6	(1.7)
	Uruguay	93.0	(0.6)	0.6	(0.1)	**-92.4**	(0.6)	**-94**	(3.3)	27.1	(1.4)	**-65**	(3.4)	36.5	(1.6)
	Viet Nam	65.4	(4.1)	1.4	(0.2)	**-64.0**	(4.1)	**-68**	(7.5)	5.2	(1.4)	**-39**	(7.3)	21.3	(4.1)
	Argentina**	67.6	(2.3)	5.0	(0.4)	**-62.6**	(2.4)	**-57**	(3.6)	10.5	(1.3)	**-39**	(3.1)	23.8	(2.1)
	Kazakhstan**	2.4	(0.3)	1.0	(0.3)	**-1.3**	(0.3)	**-38**	(11.2)	0.5	(0.3)	**-27**	(11.2)	9.0	(2.3)
	Malaysia**	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

The questions on grade repetition were not administered in Japan and Norway. A value of zero has been set in agreement with countries since there is a policy of automatic grade progression.

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.5.14 Programme orientation

Results based on students' self-reports

		Academic inclusion[1]		Percentage of students who are enrolled in a programme whose curriculum is:					
				General		Pre-vocational or vocational		Modular	
		% var.	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	78.9	(1.3)	87.0	(0.8)	13.0	(0.8)	0.0	c
	Austria	56.2	(2.1)	28.6	(0.9)	71.4	(0.9)	0.0	c
	Belgium	55.6	(2.1)	58.6	(1.3)	41.4	(1.3)	0.0	c
	Canada	84.7	(1.3)	0.0	c	0.0	c	100.0	c
	Chile	61.5	(2.4)	99.4	(0.1)	0.6	(0.1)	0.0	c
	Czech Republic	55.6	(2.6)	66.7	(1.3)	33.3	(1.3)	0.0	c
	Denmark	86.1	(1.7)	100.0	c	0.0	c	0.0	c
	Estonia	81.1	(2.3)	99.7	(0.1)	0.3	(0.1)	0.0	c
	Finland	92.1	(1.5)	100.0	c	0.0	c	0.0	c
	France	w	w	81.3	(0.9)	18.7	(0.9)	0.0	c
	Germany	56.3	(1.9)	97.3	(0.7)	2.7	(0.7)	0.0	c
	Greece	64.5	(3.1)	83.6	(2.6)	16.4	(2.6)	0.0	c
	Hungary	44.6	(2.2)	84.1	(0.6)	15.9	(0.6)	0.0	c
	Iceland	96.2	(1.7)	100.0	c	0.0	c	0.0	c
	Ireland	86.8	(1.7)	99.2	(0.2)	0.8	(0.2)	0.0	c
	Israel	63.1	(2.7)	100.0	c	0.0	c	0.0	c
	Italy	56.7	(2.2)	50.3	(1.2)	49.7	(1.2)	0.0	c
	Japan	56.1	(2.3)	75.6	(0.9)	24.4	(0.9)	0.0	c
	Korea	75.2	(2.5)	83.9	(0.4)	16.1	(0.4)	0.0	c
	Latvia	83.4	(2.0)	99.2	(0.4)	0.8	(0.4)	0.0	c
	Luxembourg	66.1	(4.0)	77.7	(0.2)	15.0	(0.1)	7.3	(0.2)
	Mexico	70.0	(2.5)	74.7	(1.1)	25.3	(1.1)	0.0	c
	Netherlands	42.3	(2.0)	73.9	(0.9)	26.1	(0.9)	0.0	c
	New Zealand	82.6	(2.2)	100.0	c	0.0	c	0.0	c
	Norway	92.1	(1.1)	100.0	c	0.0	c	0.0	c
	Poland	85.7	(2.2)	99.9	(0.1)	0.1	(0.1)	0.0	c
	Portugal	76.8	(2.1)	86.9	(1.1)	13.1	(1.1)	0.0	c
	Slovak Republic	55.6	(2.5)	67.4	(1.0)	5.7	(0.7)	26.9	(1.2)
	Slovenia	51.6	(2.5)	42.6	(0.2)	57.4	(0.2)	0.0	c
	Spain	86.6	(1.4)	99.1	(0.1)	0.9	(0.1)	0.0	c
	Sweden	84.5	(1.9)	99.9	(0.1)	0.1	(0.1)	0.0	c
	Switzerland	62.3	(2.7)	90.8	(1.1)	9.2	(1.1)	0.0	c
	Turkey	46.7	(2.7)	59.0	(1.9)	41.0	(1.9)	0.0	c
	United Kingdom	77.9	(1.8)	99.2	(0.2)	0.8	(0.2)	0.0	c
	United States	80.8	(2.0)	100.0	c	0.0	c	0.0	c
	OECD average	69.9	(0.4)	81.9	(0.1)	14.3	(0.1)	3.8	(0.0)
Partners	**Albania**	76.0	(2.4)	93.6	(1.5)	6.4	(1.5)	0.0	c
	Algeria	68.8	(2.9)	99.4	(0.6)	0.6	(0.6)	0.0	c
	Brazil	60.7	(2.3)	95.3	(1.0)	4.7	(1.0)	0.0	c
	B-S-J-G (China)	47.0	(2.6)	93.8	(1.1)	6.2	(1.1)	0.0	c
	Bulgaria	48.7	(2.6)	53.8	(2.0)	46.2	(2.0)	0.0	c
	CABA (Argentina)	64.7	(3.9)	87.0	(4.3)	13.0	(4.3)	0.0	c
	Colombia	67.4	(2.7)	79.2	(1.6)	20.8	(1.6)	0.0	c
	Costa Rica	71.3	(2.9)	87.7	(1.4)	12.3	(1.4)	0.0	c
	Croatia	62.6	(2.6)	32.7	(0.8)	67.3	(0.8)	0.0	c
	Cyprus*	75.9	(4.1)	88.1	(0.1)	11.9	(0.1)	0.0	c
	Dominican Republic	63.2	(3.8)	95.2	(0.5)	4.8	(0.5)	0.0	c
	FYROM	71.8	(3.9)	44.9	(0.3)	55.1	(0.3)	0.0	c
	Georgia	77.1	(2.7)	98.3	(0.8)	1.7	(0.8)	0.0	c
	Hong Kong (China)	69.2	(2.5)	100.0	c	0.0	c	0.0	c
	Indonesia	58.3	(3.2)	84.0	(1.3)	16.0	(1.3)	0.0	c
	Jordan	73.0	(2.4)	100.0	c	0.0	c	0.0	c
	Kosovo	70.4	(3.0)	64.7	(0.7)	35.3	(0.7)	0.0	c
	Lebanon	52.3	(2.8)	100.0	c	0.0	c	0.0	c
	Lithuania	66.4	(2.9)	98.5	(0.6)	1.5	(0.6)	0.0	c
	Macao (China)	76.7	(4.5)	98.8	(0.1)	1.2	(0.1)	0.0	c
	Malta	70.0	(4.3)	100.0	c	0.0	c	0.0	c
	Moldova	80.7	(2.1)	100.0	c	0.0	c	0.0	c
	Montenegro	74.5	(3.8)	34.0	(0.3)	66.0	(0.3)	0.0	c
	Peru	63.5	(2.3)	100.0	c	0.0	c	0.0	c
	Qatar	60.6	(3.4)	100.0	c	0.0	c	0.0	c
	Romania	61.3	(2.6)	100.0	c	0.0	c	0.0	c
	Russia	81.2	(2.0)	95.5	(1.5)	4.5	(1.5)	0.0	c
	Singapore	65.2	(3.0)	100.0	c	0.0	c	0.0	c
	Chinese Taipei	63.7	(2.8)	63.7	(1.3)	36.3	(1.3)	0.0	c
	Thailand	66.3	(2.8)	82.3	(0.8)	17.7	(0.8)	0.0	c
	Trinidad and Tobago	46.5	(2.5)	100.0	c	0.0	c	0.0	c
	Tunisia	62.4	(3.9)	100.0	c	0.0	c	0.0	c
	United Arab Emirates	58.3	(2.0)	96.1	(0.4)	3.9	(0.4)	0.0	c
	Uruguay	64.5	(2.4)	97.8	(0.4)	1.7	(0.3)	0.5	(0.3)
	Viet Nam	59.8	(3.9)	94.9	(2.0)	0.0	c	5.1	(2.0)
	Argentina**	70.2	(2.1)	83.4	(2.6)	16.6	(2.6)	0.0	c
	Kazakhstan**	54.4	(3.6)	86.0	(2.1)	14.0	(2.1)	0.0	c
	Malaysia**	72.6	(2.6)	89.5	(1.2)	10.5	(1.2)	0.0	c

1. Variation in science performance within schools divided by the total variation in science performance (%).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.5.16 Change between 2009 and 2015 in programme orientation

Results based on students' self-reports

		Change between 2009 and 2015 (PISA 2015 – PISA 2009)					
		Percentage of students who are enrolled in a programme whose curriculum is:					
		General		Pre-vocational or vocational		Modular	
		% dif.	S.E.	% dif.	S.E.	% dif.	S.E.
OECD	**Australia**	0.7	(1.3)	-0.7	(1.3)	0.0	c
	Austria	m	m	m	m	m	m
	Belgium	**6.4**	(1.9)	**-6.4**	(1.9)	0.0	c
	Canada	0.0	c	0.0	c	0.0	c
	Chile	**1.4**	(0.2)	**-1.4**	(0.2)	0.0	c
	Czech Republic	2.3	(1.7)	-2.3	(1.7)	0.0	c
	Denmark	0.0	c	0.0	c	0.0	c
	Estonia	0.1	(0.2)	-0.1	(0.2)	0.0	c
	Finland	0.1	(0.1)	-0.1	(0.1)	0.0	c
	France	**-8.6**	(1.5)	**8.6**	(1.5)	0.0	c
	Germany	1.2	(0.9)	-1.2	(0.9)	0.0	c
	Greece	-2.5	(3.5)	2.5	(3.5)	0.0	c
	Hungary	-2.1	(1.2)	2.1	(1.2)	0.0	c
	Iceland	0.0	c	0.0	c	0.0	c
	Ireland	**0.9**	(0.4)	**-0.9**	(0.4)	0.0	c
	Israel	0.0	c	0.0	c	0.0	c
	Italy	**5.0**	(1.4)	**-5.0**	(1.4)	0.0	c
	Japan	-0.5	(1.5)	0.5	(1.5)	0.0	c
	Korea	**8.2**	(1.8)	**-8.2**	(1.8)	0.0	c
	Latvia	0.0	(0.6)	0.0	(0.6)	0.0	c
	Luxembourg	**-3.1**	(0.3)	**1.2**	(0.2)	**1.9**	(0.2)
	Mexico	**-3.0**	(1.2)	**3.0**	(1.2)	0.0	c
	Netherlands	5.5	(3.0)	-5.5	(3.0)	0.0	c
	New Zealand	0.0	c	0.0	c	0.0	c
	Norway	0.0	c	0.0	c	0.0	c
	Poland	0.0	(0.1)	0.0	(0.1)	0.0	c
	Portugal	2.7	(2.0)	-2.7	(2.0)	0.0	c
	Slovak Republic	**8.0**	(1.6)	**-34.9**	(1.5)	**26.9**	(1.2)
	Slovenia	**-4.4**	(0.5)	**4.4**	(0.5)	0.0	c
	Spain	**-0.9**	(0.1)	**0.9**	(0.1)	0.0	c
	Sweden	0.4	(0.2)	-0.4	(0.2)	0.0	c
	Switzerland	-0.7	(1.9)	0.7	(1.9)	0.0	c
	Turkey	0.2	(2.0)	-0.2	(2.0)	0.0	c
	United Kingdom	**-0.8**	(0.2)	**0.8**	(0.2)	0.0	c
	United States	0.0	c	0.0	c	0.0	c
	OECD average	**0.5**	(0.2)	**-1.3**	(0.2)	**0.8**	(0.0)
Partners	**Albania**	-0.7	(1.6)	0.7	(1.6)	0.0	c
	Algeria	m	m	m	m	m	m
	Brazil	**-4.7**	(1.0)	**4.7**	(1.0)	0.0	c
	B-S-J-G (China)	m	m	m	m	m	m
	Bulgaria	**-8.5**	(3.2)	**8.5**	(3.2)	0.0	c
	CABA (Argentina)	m	m	m	m	m	m
	Colombia	-2.9	(2.7)	2.9	(2.7)	0.0	c
	Costa Rica	-2.9	(2.2)	2.9	(2.2)	0.0	c
	Croatia	**3.9**	(1.3)	**-3.9**	(1.3)	0.0	c
	Cyprus*	m	m	m	m	m	m
	Dominican Republic	m	m	m	m	m	m
	FYROM	m	m	m	m	m	m
	Georgia	**-1.7**	(0.8)	**1.7**	(0.8)	0.0	c
	Hong Kong (China)	0.0	c	0.0	c	0.0	c
	Indonesia	-0.9	(3.0)	0.9	(3.0)	0.0	c
	Jordan	0.0	c	0.0	c	0.0	c
	Kosovo	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m
	Lithuania	**-1.5**	(0.6)	**1.5**	(0.6)	0.0	c
	Macao (China)	**0.2**	(0.1)	**-0.2**	(0.1)	0.0	c
	Malta	0.0	c	0.0	c	0.0	c
	Moldova	0.0	c	0.0	c	0.0	c
	Montenegro	-0.7	(1.2)	0.7	(1.2)	0.0	c
	Peru	0.0	c	0.0	c	0.0	c
	Qatar	0.0	c	0.0	c	0.0	c
	Romania	**21.9**	(0.6)	**-21.9**	(0.6)	0.0	c
	Russia	0.5	(2.2)	-0.5	(2.2)	0.0	c
	Singapore	0.0	c	0.0	c	0.0	c
	Chinese Taipei	2.6	(1.9)	-2.6	(1.9)	0.0	c
	Thailand	**3.1**	(1.0)	**-3.1**	(1.0)	0.0	c
	Trinidad and Tobago	**12.5**	(0.2)	**-12.5**	(0.2)	0.0	c
	Tunisia	0.0	c	0.0	c	0.0	c
	United Arab Emirates	**-3.9**	(0.4)	**3.9**	(0.4)	0.0	c
	Uruguay	1.0	(0.8)	0.7	(0.4)	**-1.7**	(0.7)
	Viet Nam	m	m	m	m	m	m
	Argentina**	-3.6	(3.6)	3.6	(3.6)	0.0	c
	Kazakhstan**	**-6.0**	(3.0)	**6.0**	(3.0)	0.0	c
	Malaysia**	2.0	(1.8)	-2.0	(1.8)	0.0	c

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
For Costa Rica, Georgia, Malta and Moldova, the change between the PISA 2009 and PISA 2015 assessments represents change between 2010 and 2015 because these countries implemented the PISA 2009 assessment in 2010 as part of PISA 2009+.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.5.17 Enrolment in pre-vocational or vocational programme, science performance and school characteristics

Results based on students' self-reports

		Enrolled in a pre-vocational or vocational programme													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	SD.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	13.0	(0.8)	33.7	(0.9)	21.2	(2.1)	13.7	(2.0)	10.7	(2.0)	6.6	(1.4)	**-14.7**	(2.6)
	Austria	71.4	(0.9)	45.2	(0.4)	91.0	(4.0)	93.6	(3.8)	82.8	(4.7)	18.2	(4.5)	**-72.8**	(6.6)
	Belgium	41.4	(1.3)	49.3	(0.2)	66.3	(4.4)	63.5	(4.7)	29.5	(3.8)	6.3	(1.8)	**-60.0**	(5.1)
	Canada	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Chile	0.6	(0.1)	7.7	(0.7)	1.2	(0.3)	0.8	(0.2)	0.4	(0.2)	0.0	c	**-1.2**	(0.3)
	Czech Republic	33.3	(1.3)	47.1	(0.5)	33.7	(3.7)	30.5	(6.2)	53.9	(6.9)	14.8	(4.7)	**-18.9**	(6.0)
	Denmark	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Estonia	0.3	(0.1)	5.3	(1.0)	0.5	(0.5)	0.4	(0.6)	0.0	c	0.2	(0.2)	-0.3	(0.6)
	Finland	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	France	18.7	(0.9)	39.0	(0.7)	47.5	(4.5)	21.4	(4.2)	5.6	(2.8)	0.6	(0.3)	**-46.8**	(4.6)
	Germany	2.7	(0.7)	16.3	(1.9)	5.8	(2.7)	3.2	(2.0)	1.9	(1.4)	0.0	c	**-5.8**	(2.7)
	Greece	16.4	(2.6)	37.0	(2.3)	49.5	(9.1)	16.1	(6.0)	0.0	c	0.1	(0.1)	**-49.4**	(9.1)
	Hungary	15.9	(0.6)	36.6	(0.5)	52.1	(3.4)	9.2	(2.7)	2.5	(1.7)	0.0	c	**-52.1**	(3.4)
	Iceland	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Ireland	0.8	(0.2)	8.8	(1.4)	2.2	(1.0)	0.4	(0.2)	0.3	(0.1)	0.2	(0.2)	**-2.0**	(1.0)
	Israel	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Italy	49.7	(1.2)	50.0	(0.0)	90.1	(3.5)	75.9	(4.6)	29.7	(5.1)	2.1	(2.1)	**-88.0**	(4.2)
	Japan	24.4	(0.9)	43.0	(0.6)	52.4	(5.6)	37.3	(6.1)	6.1	(3.9)	2.0	(2.3)	**-50.4**	(6.3)
	Korea	16.1	(0.4)	36.8	(0.3)	48.0	(4.7)	11.9	(4.5)	1.8	(3.8)	2.7	(3.1)	**-45.3**	(6.3)
	Latvia	0.8	(0.4)	9.0	(2.3)	1.1	(1.2)	0.9	(0.9)	0.0	c	1.3	(0.8)	0.1	(1.4)
	Luxembourg	15.0	(0.1)	35.7	(0.1)	18.4	(0.1)	24.3	(0.3)	17.3	(0.2)	0.0	c	**-18.4**	(0.1)
	Mexico	25.3	(1.1)	43.5	(0.6)	11.8	(4.9)	32.3	(7.1)	37.7	(6.2)	19.4	(4.5)	7.7	(7.0)
	Netherlands	26.1	(0.9)	43.9	(0.5)	65.1	(3.4)	34.6	(4.0)	4.5	(2.3)	0.0	c	**-65.1**	(3.4)
	New Zealand	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Norway	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Poland	0.1	(0.1)	2.9	(1.1)	0.1	(0.1)	0.0	c	0.0	c	0.2	(0.2)	0.1	(0.2)
	Portugal	13.1	(1.1)	33.8	(1.2)	19.9	(1.8)	13.3	(1.7)	12.7	(3.5)	6.7	(1.7)	**-13.2**	(2.3)
	Slovak Republic	5.7	(0.7)	23.1	(1.3)	15.8	(2.5)	5.6	(1.2)	1.4	(1.2)	0.0	c	**-15.8**	(2.5)
	Slovenia	57.4	(0.2)	49.5	(0.0)	90.6	(1.9)	95.5	(1.7)	43.4	(2.2)	0.0	(0.0)	**-90.6**	(1.9)
	Spain	0.9	(0.1)	9.5	(0.7)	1.4	(0.4)	1.5	(0.5)	0.6	(0.3)	0.2	(0.2)	**-1.2**	(0.4)
	Sweden	0.1	(0.1)	3.7	(1.2)	0.0	c	0.0	c	0.0	(0.0)	0.6	(0.4)	0.6	(0.4)
	Switzerland	9.2	(1.1)	28.9	(1.6)	10.4	(3.8)	10.3	(3.9)	14.6	(3.4)	1.4	(1.0)	**-9.0**	(3.8)
	Turkey	41.0	(1.9)	49.2	(0.3)	39.4	(10.1)	78.1	(9.7)	37.3	(8.8)	9.4	(5.7)	**-30.0**	(12.3)
	United Kingdom	0.8	(0.2)	8.7	(1.4)	0.9	(0.5)	0.5	(0.3)	0.6	(0.4)	1.1	(0.6)	0.2	(0.8)
	United States	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	OECD average	14.3	(0.1)	22.8	(0.2)	23.9	(0.6)	19.3	(0.6)	11.3	(0.5)	2.7	(0.3)	**-21.2**	(0.7)
Partners	Albania	6.4	(1.5)	24.4	(2.7)	6.5	(3.8)	11.1	(4.9)	4.0	(3.4)	4.3	(3.0)	-2.1	(4.7)
	Algeria	0.6	(0.6)	8.0	(3.2)	1.8	(2.1)	0.0	(0.3)	0.3	(0.4)	0.5	(0.7)	-1.3	(2.2)
	Brazil	4.7	(1.0)	21.1	(2.0)	0.6	(0.3)	5.3	(2.0)	2.5	(0.9)	10.4	(2.9)	**9.8**	(2.9)
	B-S-J-G (China)	6.2	(1.1)	24.2	(2.0)	1.0	(0.9)	9.0	(4.3)	7.0	(2.9)	8.0	(2.2)	**7.0**	(2.4)
	Bulgaria	46.2	(2.0)	49.9	(0.2)	69.2	(6.1)	70.8	(7.4)	31.0	(7.7)	13.8	(5.8)	**-55.3**	(8.6)
	CABA (Argentina)	13.0	(4.3)	33.7	(4.8)	18.8	(12.2)	15.0	(11.7)	3.4	(12.2)	6.9	(8.5)	-11.9	(14.7)
	Colombia	20.8	(1.6)	40.6	(1.1)	13.2	(3.8)	34.1	(4.6)	22.1	(3.5)	13.7	(3.4)	0.5	(5.3)
	Costa Rica	12.3	(1.4)	32.8	(1.6)	6.2	(2.3)	15.3	(4.0)	12.9	(4.6)	14.6	(3.8)	8.4	(4.5)
	Croatia	67.3	(0.8)	46.9	(0.3)	94.7	(2.4)	91.6	(2.7)	70.0	(5.2)	13.1	(3.5)	**-81.5**	(4.4)
	Cyprus*	11.9	(0.1)	32.4	(0.1)	47.7	(0.4)	0.0	c	0.0	c	0.0	c	**-47.7**	(0.4)
	Dominican Republic	4.8	(0.5)	21.4	(1.1)	0.1	(0.1)	0.7	(0.5)	5.9	(4.0)	12.6	(4.1)	**12.5**	(4.1)
	FYROM	55.1	(0.3)	49.7	(0.0)	72.8	(0.7)	69.3	(0.9)	54.4	(0.8)	24.0	(0.5)	**-48.8**	(0.9)
	Georgia	1.7	(0.8)	13.0	(3.1)	3.7	(2.1)	3.1	(2.4)	0.0	c	0.0	c	-3.7	(2.1)
	Hong Kong (China)	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Indonesia	16.0	(1.3)	36.7	(1.2)	9.7	(4.1)	19.3	(5.4)	15.4	(4.8)	19.7	(5.7)	10.0	(7.2)
	Jordan	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Kosovo	35.3	(0.7)	47.8	(0.2)	44.9	(4.9)	44.1	(4.8)	34.3	(2.3)	17.8	(1.5)	**-27.1**	(4.9)
	Lebanon	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Lithuania	1.5	(0.6)	12.1	(2.6)	5.0	(2.2)	0.9	(1.3)	0.0	c	0.0	c	**-5.0**	(2.2)
	Macao (China)	1.2	(0.1)	10.7	(0.3)	2.4	(0.1)	0.4	(0.2)	1.0	(0.2)	0.8	(0.2)	**-1.6**	(0.2)
	Malta	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Moldova	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Montenegro	66.0	(0.3)	47.4	(0.1)	89.2	(1.0)	87.0	(1.6)	54.4	(0.8)	33.4	(0.7)	**-55.8**	(1.4)
	Peru	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Qatar	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Romania	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Russia	4.5	(1.5)	20.6	(3.4)	10.5	(5.2)	4.8	(2.7)	2.5	(1.6)	0.0	c	**-10.5**	(5.2)
	Singapore	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Chinese Taipei	36.3	(1.3)	48.1	(0.4)	61.7	(6.0)	47.4	(7.0)	23.3	(5.8)	13.0	(4.3)	**-48.6**	(7.8)
	Thailand	17.7	(0.8)	38.2	(0.7)	17.3	(3.9)	26.7	(6.9)	25.9	(6.5)	1.0	(1.2)	**-16.4**	(4.0)
	Trinidad and Tobago	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Tunisia	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	United Arab Emirates	3.9	(0.4)	19.3	(1.0)	0.1	(0.0)	2.5	(1.7)	8.5	(2.5)	3.9	(0.4)	**3.8**	(0.4)
	Uruguay	1.7	(0.3)	12.8	(1.2)	2.0	(0.8)	3.2	(1.1)	1.2	(0.6)	0.2	(0.3)	**-1.8**	(0.8)
	Viet Nam	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Argentina**	16.6	(2.6)	37.2	(2.3)	13.2	(6.3)	21.8	(6.6)	19.6	(5.6)	11.2	(4.8)	-2.0	(7.7)
	Kazakhstan**	14.0	(2.1)	34.7	(2.3)	15.9	(6.0)	10.6	(6.5)	17.0	(6.3)	12.5	(5.2)	-3.5	(8.0)
	Malaysia**	10.5	(1.2)	30.6	(1.6)	15.2	(2.9)	9.4	(3.2)	11.7	(3.3)	5.8	(2.4)	**-9.4**	(4.3)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.5.17 Enrolment in pre-vocational or vocational programme, science performance and school characteristics

Results based on students' self-reports

		Enrolled in a pre-vocational or vocational programme													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	21.0	(6.4)	13.7	(1.5)	12.3	(1.0)	-8.7	(6.5)	15.9	(1.2)	8.8	(1.3)	**-7.1**	(1.8)
	Austria	88.5	(6.3)	74.5	(2.6)	61.6	(4.4)	**-26.9**	(7.8)	74.3	(1.4)	47.5	(8.8)	**-26.8**	(9.7)
	Belgium	22.8	(8.4)	45.7	(2.2)	34.2	(3.8)	11.3	(10.0)	w	w	w	w	w	w
	Canada	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Chile	1.0	(0.8)	0.7	(0.2)	0.6	(0.1)	-0.4	(0.8)	1.0	(0.2)	0.4	(0.1)	**-0.6**	(0.3)
	Czech Republic	3.1	(2.5)	34.7	(2.4)	42.7	(5.0)	**39.6**	(5.7)	30.4	(1.8)	66.7	(7.6)	**36.4**	(8.5)
	Denmark	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Estonia	0.0	c	0.3	(0.2)	0.5	(0.2)	**0.5**	(0.2)	0.2	(0.1)	1.7	(1.2)	1.5	(1.3)
	Finland	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	France	8.4	(3.5)	20.0	(1.6)	16.7	(3.8)	8.2	(6.0)	19.0	(1.4)	12.8	(2.9)	-6.2	(3.7)
	Germany	0.0	c	4.1	(1.5)	0.0	c	0.0	c	2.9	(1.1)	0.0	c	**-2.9**	(1.1)
	Greece	8.4	(8.0)	21.6	(4.2)	8.1	(2.5)	-0.2	(8.2)	17.1	(2.7)	0.0	c	**-17.1**	(2.7)
	Hungary	19.4	(12.1)	16.3	(2.4)	15.2	(2.4)	-4.3	(12.7)	16.1	(1.4)	14.7	(3.3)	-1.4	(4.2)
	Iceland	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	m	m	m	m
	Ireland	0.6	(0.3)	0.7	(0.5)	1.1	(0.4)	0.6	(0.5)	1.1	(0.5)	0.5	(0.2)	-0.5	(0.6)
	Israel	0.0	c	0.0	c	0.0	c	0.0	c	m	m	m	m	m	m
	Italy	97.3	(2.7)	47.1	(3.3)	43.2	(5.8)	**-54.1**	(6.9)	46.2	(2.3)	56.2	(13.4)	10.0	(14.2)
	Japan	m	m	26.8	(4.6)	23.6	(2.0)	m	m	30.4	(0.6)	11.6	(2.9)	**-18.8**	(2.8)
	Korea	m	m	20.2	(6.3)	15.7	(0.9)	m	m	16.3	(2.1)	15.8	(3.8)	-0.5	(5.9)
	Latvia	1.0	(1.0)	0.6	(0.4)	1.0	(1.0)	0.0	(1.4)	0.8	(0.4)	0.0	c	-0.8	(0.4)
	Luxembourg	m	m	16.0	(0.1)	13.0	(0.1)	m	m	14.7	(0.1)	16.8	(0.2)	**2.2**	(0.2)
	Mexico	2.4	(2.3)	25.4	(3.9)	32.5	(3.0)	**30.2**	(3.9)	27.7	(1.3)	8.5	(4.4)	**-19.2**	(5.1)
	Netherlands	m	m	29.8	(2.6)	19.3	(5.2)	m	m	25.1	(4.4)	26.1	(2.9)	1.0	(6.1)
	New Zealand	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Norway	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Poland	0.0	c	0.1	(0.1)	0.1	(0.1)	0.1	(0.1)	0.1	(0.1)	0.0	c	-0.1	(0.1)
	Portugal	13.4	(4.3)	13.4	(1.0)	7.7	(2.1)	-5.8	(4.4)	12.0	(0.8)	17.3	(6.7)	5.4	(6.8)
	Slovak Republic	3.6	(2.0)	6.8	(0.9)	2.3	(1.8)	-1.3	(2.8)	4.6	(0.9)	14.1	(5.4)	9.5	(6.1)
	Slovenia	43.0	(3.2)	57.9	(0.4)	59.6	(0.4)	**16.6**	(3.2)	59.0	(0.3)	0.0	c	**-59.0**	(0.3)
	Spain	1.1	(1.3)	1.2	(0.2)	0.4	(0.2)	-0.7	(1.3)	1.2	(0.2)	0.2	(0.1)	**-1.1**	(0.2)
	Sweden	0.0	c	0.1	(0.1)	0.2	(0.2)	0.2	(0.2)	0.2	(0.1)	0.0	c	-0.2	(0.1)
	Switzerland	4.0	(3.3)	7.7	(1.9)	15.1	(3.9)	**11.1**	(5.1)	8.1	(1.3)	19.0	(3.6)	**10.9**	(4.0)
	Turkey	45.9	(28.0)	33.4	(5.7)	45.2	(3.5)	-0.6	(28.3)	40.5	(1.9)	45.1	(24.8)	4.5	(25.2)
	United Kingdom	2.3	(2.2)	0.8	(0.4)	0.5	(0.4)	-1.8	(2.2)	0.7	(0.3)	1.5	(2.5)	0.7	(2.5)
	United States	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	OECD average	12.5	(1.1)	14.9	(0.4)	13.5	(0.4)	0.4	(1.2)	14.7	(0.3)	12.3	(1.0)	**-2.8**	(1.1)
Partners	**Albania**	2.1	(2.1)	5.8	(2.4)	10.8	(4.0)	8.7	(5.1)	7.2	(1.6)	0.0	c	**-7.2**	(1.6)
	Algeria	0.0	c	1.0	(0.9)	0.0	c	0.0	c	0.7	(0.6)	m	m	m	m
	Brazil	2.7	(2.6)	6.1	(1.5)	2.3	(0.9)	-0.4	(2.7)	5.6	(1.4)	1.6	(1.1)	**-4.0**	(1.7)
	B-S-J-G (China)	0.2	(0.1)	2.9	(1.5)	12.7	(3.5)	**12.5**	(3.5)	6.8	(1.3)	2.2	(1.6)	-4.5	(2.3)
	Bulgaria	42.7	(14.9)	47.5	(3.4)	44.6	(3.9)	1.9	(15.8)	45.9	(2.0)	m	m	m	m
	CABA (Argentina)	m	m	m	m	12.7	(4.8)	m	m	21.4	(8.3)	5.3	(2.9)	-16.0	(8.8)
	Colombia	21.3	(5.6)	22.3	(3.2)	21.0	(2.5)	-0.3	(6.3)	25.0	(2.4)	12.1	(2.9)	**-12.9**	(4.0)
	Costa Rica	13.1	(3.9)	11.9	(2.0)	11.8	(4.4)	-1.4	(6.2)	13.6	(1.6)	2.5	(2.6)	**-11.1**	(3.3)
	Croatia	m	m	71.0	(1.8)	61.3	(2.5)	m	m	68.4	(1.0)	21.9	(19.3)	**-46.6**	(19.7)
	Cyprus*	7.6	(0.7)	12.4	(0.1)	11.7	(0.2)	**4.1**	(0.7)	12.4	(0.1)	9.5	(0.4)	**-2.9**	(0.4)
	Dominican Republic	1.3	(0.8)	3.9	(1.8)	10.5	(4.3)	**9.2**	(4.5)	5.4	(0.6)	3.5	(1.4)	-1.9	(1.6)
	FYROM	24.0	(0.3)	54.4	(0.4)	61.7	(0.5)	**37.6**	(0.6)	56.9	(0.3)	0.0	c	**-56.9**	(0.3)
	Georgia	0.0	c	5.5	(2.8)	0.5	(0.3)	0.5	(0.3)	1.7	(0.9)	2.1	(1.6)	0.4	(1.9)
	Hong Kong (China)	m	m	m	m	0.0	c	m	m	0.0	c	0.0	c	0.0	c
	Indonesia	12.0	(4.0)	17.5	(2.9)	19.7	(4.9)	7.7	(6.8)	10.3	(1.7)	24.3	(2.1)	**13.9**	(2.8)
	Jordan	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Kosovo	7.1	(0.4)	34.4	(1.2)	52.5	(1.9)	**45.3**	(2.0)	35.1	(0.5)	44.6	(17.3)	9.5	(17.2)
	Lebanon	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Lithuania	0.0	c	1.7	(0.4)	2.0	(1.6)	2.0	(1.6)	1.5	(0.7)	0.0	c	**-1.5**	(0.7)
	Macao (China)	m	m	m	m	1.2	(0.1)	m	m	m	m	0.7	(0.1)	m	m
	Malta	0.0	c	0.0	c	m	m	m	m	0.0	c	0.0	c	0.0	c
	Moldova	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	m	m	m	m
	Montenegro	m	m	58.3	(0.3)	81.5	(1.0)	m	m	65.8	(0.3)	m	m	m	m
	Peru	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Qatar	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Romania	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	m	m	m	m
	Russia	0.0	c	7.1	(3.8)	3.9	(1.5)	**3.9**	(1.5)	4.0	(1.5)	m	m	m	m
	Singapore	m	m	m	m	0.0	c	m	m	0.0	c	0.0	c	0.0	c
	Chinese Taipei	m	m	41.0	(3.7)	33.8	(2.5)	m	m	21.5	(0.9)	65.1	(3.2)	**43.7**	(3.3)
	Thailand	20.2	(7.1)	16.0	(1.8)	15.1	(5.7)	-5.2	(10.6)	14.3	(0.8)	38.2	(3.5)	**23.9**	(3.5)
	Trinidad and Tobago	0.0	c	0.0	c	m	m	m	m	0.0	c	0.0	c	0.0	c
	Tunisia	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	United Arab Emirates	0.3	(0.1)	3.8	(0.4)	1.8	(0.8)	1.5	(0.8)	4.5	(1.5)	0.7	(0.4)	**-3.8**	(1.8)
	Uruguay	0.0	c	2.0	(0.6)	1.4	(0.3)	**1.4**	(0.3)	2.0	(0.4)	0.0	c	**-2.0**	(0.4)
	Viet Nam	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Argentina**	8.2	(7.4)	18.3	(3.7)	15.9	(4.1)	7.8	(8.5)	21.0	(3.3)	1.5	(0.6)	**-19.5**	(3.4)
	Kazakhstan**	5.1	(2.4)	10.8	(4.6)	22.7	(4.4)	**17.6**	(4.9)	10.7	(2.0)	91.8	(9.7)	**81.1**	(10.1)
	Malaysia**	11.0	(2.9)	9.3	(2.1)	10.8	(1.9)	-0.2	(3.5)	11.1	(1.3)	0.0	c	**-11.1**	(1.3)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.5.17 Enrolment in pre-vocational or vocational programme, science performance and school characteristics

Results based on students' self-reports

		Enrolled in a pre-vocational or vocational programme													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in science score (reference: general/modular programmes)		Explained variance in student performance (r-squared x 100)		Change in science score (reference: general/modular programmes)		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	9.3	(0.8)	35.9	(1.8)	**26.6**	(1.9)	**-31**	(5.0)	1.1	(0.3)	**-12**	(4.1)	16.6	(1.1)
	Austria	6.8	(4.6)	72.7	(0.8)	**65.9**	(4.7)	**-72**	(5.6)	11.2	(1.6)	-4	(6.3)	31.3	(1.8)
	Belgium	29.9	(3.8)	42.6	(1.4)	**12.7**	(4.1)	**-88**	(3.8)	19.0	(1.6)	**-41**	(4.1)	40.0	(1.8)
	Canada	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	11.7	(1.0)
	Chile	0.0	c	0.6	(0.1)	**0.6**	(0.1)	-5	(13.9)	0.0	(0.0)	25	(13.1)	26.3	(1.6)
	Czech Republic	1.0	(0.6)	71.6	(1.2)	**70.6**	(1.4)	**-23**	(5.3)	1.4	(0.6)	-6	(4.2)	33.6	(2.1)
	Denmark	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	12.3	(1.3)
	Estonia	0.0	c	21.1	(7.4)	**21.1**	(7.4)	c	c	0.0	(0.1)	c	c	11.0	(1.3)
	Finland	0.0	c	m	m	m	m	m	m	0.0	c	m	m	11.0	(1.3)
	France	18.8	(2.4)	18.7	(0.9)	0.0	(2.6)	**-104**	(5.1)	15.9	(1.7)	**-43**	(6.3)	40.5	(1.7)
	Germany	0.4	(0.2)	61.2	(9.9)	**60.8**	(9.9)	**-47**	(13.4)	0.5	(0.3)	-2	(14.7)	34.0	(1.9)
	Greece	0.0	c	17.2	(2.7)	**17.2**	(2.7)	**-102**	(6.2)	16.9	(3.0)	**-62**	(6.0)	28.3	(2.8)
	Hungary	0.0	c	17.8	(0.6)	**17.8**	(0.6)	**-101**	(5.7)	14.5	(1.5)	**-26**	(7.3)	44.2	(1.9)
	Iceland	0.0	c	m	m	m	m	m	m	0.0	c	m	m	5.1	(0.8)
	Ireland	0.0	c	2.1	(0.7)	**2.1**	(0.7)	**-129**	(12.7)	1.6	(0.6)	**-97**	(11.6)	15.8	(1.4)
	Israel	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	23.1	(2.4)
	Italy	0.0	c	50.3	(1.2)	**50.3**	(1.2)	**-58**	(4.9)	10.1	(1.6)	-3	(6.3)	23.5	(2.2)
	Japan	m	m	24.4	(0.9)	m	m	**-43**	(6.1)	3.8	(1.2)	**15**	(5.8)	28.4	(2.4)
	Korea	0.0	c	17.7	(0.4)	**17.7**	(0.4)	**-76**	(9.5)	8.6	(2.0)	**-36**	(9.5)	19.3	(2.1)
	Latvia	0.0	c	22.1	(9.2)	**22.1**	(9.2)	c	c	0.0	(0.0)	c	c	12.5	(1.4)
	Luxembourg	0.0	c	34.5	(0.1)	**34.5**	(0.1)	-1	(2.9)	0.0	(0.0)	**35**	(2.9)	35.9	(1.0)
	Mexico	0.0	c	41.5	(1.4)	**41.5**	(1.4)	**23**	(4.9)	2.0	(0.9)	**20**	(4.2)	18.9	(1.9)
	Netherlands	36.9	(1.3)	0.0	c	**-36.9**	(1.3)	**-140**	(3.6)	37.2	(1.6)	**-91**	(6.3)	48.8	(2.0)
	New Zealand	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	18.7	(1.5)
	Norway	0.0	c	m	m	m	m	m	m	0.0	c	m	m	8.6	(1.0)
	Poland	0.0	c	m	m	m	m	c	c	0.0	(0.0)	c	c	15.6	(1.6)
	Portugal	13.8	(1.0)	12.8	(1.6)	-0.9	(1.9)	**-65**	(8.5)	5.7	(1.2)	**-43**	(6.5)	22.0	(1.9)
	Slovak Republic	0.0	c	10.8	(1.3)	**10.8**	(1.3)	**-97**	(6.4)	5.2	(0.9)	**-56**	(8.7)	31.9	(2.3)
	Slovenia	0.0	c	60.5	(0.1)	**60.5**	(0.1)	**-87**	(2.8)	20.5	(1.3)	**-10**	(4.8)	35.5	(1.2)
	Spain	0.9	(0.1)	m	m	m	m	**-93**	(12.1)	1.0	(0.3)	**-71**	(11.5)	14.9	(1.2)
	Sweden	0.0	c	7.4	(6.3)	7.4	(6.3)	c	c	0.2	(0.2)	c	c	16.4	(1.7)
	Switzerland	0.0	c	40.0	(4.6)	**40.0**	(4.6)	**38**	(6.5)	1.2	(0.4)	**56**	(8.4)	26.8	(1.9)
	Turkey	0.0	c	42.4	(2.0)	**42.4**	(2.0)	**-61**	(7.1)	14.1	(3.0)	**-42**	(6.0)	32.5	(4.0)
	United Kingdom	0.0	c	0.8	(0.2)	**0.8**	(0.2)	-9	(14.8)	0.0	(0.0)	-13	(8.2)	17.8	(1.6)
	United States	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	14.2	(1.5)
	OECD average	3.5	(0.2)	24.2	(0.6)	**20.2**	(0.7)	**-60**	(1.7)	5.5	(0.2)	**-22**	(1.6)	23.6	(0.3)
Partners	**Albania**	0.0	c	10.1	(2.4)	**10.1**	(2.4)	m	m	m	m	m	m	m	m
	Algeria	0.0	c	2.8	(2.6)	2.8	(2.6)	c	c	1.7	(1.5)	c	c	10.8	(3.0)
	Brazil	0.0	c	6.0	(1.2)	**6.0**	(1.2)	**74**	(10.7)	3.2	(1.1)	**58**	(8.2)	25.2	(2.1)
	B-S-J-G (China)	0.0	c	16.9	(2.8)	**16.9**	(2.8)	**-24**	(8.3)	0.3	(0.2)	**-42**	(6.5)	35.6	(3.0)
	Bulgaria	0.0	c	47.7	(2.0)	**47.7**	(2.0)	**-62**	(8.6)	9.2	(2.6)	-14	(7.6)	38.7	(2.8)
	CABA (Argentina)	12.0	(4.3)	26.1	(12.8)	14.1	(12.8)	-2	(18.1)	0.0	(0.4)	15	(8.7)	32.5	(3.5)
	Colombia	0.0	c	34.9	(2.7)	**34.9**	(2.7)	**21**	(5.4)	1.1	(0.6)	**27**	(4.1)	23.1	(2.5)
	Costa Rica	0.0	c	26.2	(2.4)	**26.2**	(2.4)	**24**	(6.2)	1.3	(0.7)	**22**	(4.2)	23.5	(2.1)
	Croatia	m	m	67.5	(0.8)	m	m	**-95**	(4.5)	24.9	(1.8)	**-55**	(4.9)	30.4	(2.0)
	Cyprus*	0.0	c	12.7	(0.1)	**12.7**	(0.1)	**-93**	(3.5)	10.5	(0.7)	**-50**	(3.8)	19.6	(0.9)
	Dominican Republic	0.0	c	6.1	(0.6)	**6.1**	(0.6)	**75**	(6.2)	4.9	(1.0)	**44**	(7.6)	27.1	(2.9)
	FYROM	m	m	55.2	(0.2)	m	m	**-44**	(2.6)	6.6	(0.7)	**-21**	(2.6)	17.3	(1.2)
	Georgia	0.0	c	2.2	(1.0)	**2.2**	(1.0)	**-90**	(11.0)	1.7	(0.9)	**-59**	(10.5)	15.6	(1.6)
	Hong Kong (China)	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	12.8	(1.8)
	Indonesia	0.0	c	33.6	(2.7)	**33.6**	(2.7)	6	(7.0)	0.1	(0.3)	5	(5.3)	23.5	(3.0)
	Jordan	0.0	c	m	m	m	m	m	m	0.0	c	m	m	12.4	(2.2)
	Kosovo	0.0	c	47.4	(0.8)	**47.4**	(0.8)	**-34**	(2.7)	5.1	(0.8)	**-25**	(3.0)	17.0	(1.4)
	Lebanon	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	18.9	(3.0)
	Lithuania	1.5	(0.6)	m	m	m	m	c	c	2.9	(1.4)	c	c	22.2	(2.4)
	Macao (China)	0.0	c	2.1	(0.1)	**2.1**	(0.1)	**-51**	(11.2)	0.5	(0.2)	**-45**	(11.4)	2.5	(0.5)
	Malta	m	m	0.0	c	m	m	m	m	0.0	c	m	m	24.4	(1.1)
	Moldova	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	14.1	(1.7)
	Montenegro	0.0	c	67.8	(0.1)	**67.8**	(0.1)	**-64**	(2.7)	12.6	(1.0)	**-35**	(3.3)	19.8	(1.0)
	Peru	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	30.0	(2.2)
	Qatar	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	13.9	(0.6)
	Romania	0.0	c	m	m	m	m	m	m	0.0	c	m	m	23.2	(2.9)
	Russia	0.0	c	33.1	(7.9)	**33.1**	(7.9)	**-24**	(11.6)	0.4	(0.4)	-3	(10.5)	9.7	(1.8)
	Singapore	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	26.1	(1.6)
	Chinese Taipei	0.0	c	56.3	(1.8)	**56.3**	(1.8)	**-72**	(5.4)	12.1	(1.5)	**-37**	(3.9)	31.1	(2.4)
	Thailand	0.0	c	23.5	(1.1)	**23.5**	(1.1)	**-51**	(4.6)	6.1	(1.0)	**-37**	(4.7)	21.1	(2.7)
	Trinidad and Tobago	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	37.5	(1.1)
	Tunisia	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	19.5	(3.0)
	United Arab Emirates	0.0	c	4.5	(0.5)	**4.5**	(0.5)	**-36**	(7.2)	0.5	(0.2)	**-53**	(8.0)	15.5	(1.9)
	Uruguay	0.0	c	2.7	(0.5)	**2.7**	(0.5)	-8	(8.8)	0.0	(0.0)	15	(9.5)	26.3	(1.8)
	Viet Nam	0.0	c	0.0	c	0.0	c	m	m	0.0	c	m	m	19.6	(4.3)
	Argentina**	16.4	(3.1)	16.8	(2.7)	0.4	(2.4)	1	(8.8)	0.0	(0.1)	6	(5.6)	19.3	(2.2)
	Kazakhstan**	0.0	c	0.0	c	0.0	c	**-44**	(9.3)	4.0	(1.6)	**-43**	(8.9)	12.5	(2.6)
	Malaysia**	0.0	c	10.8	(1.3)	**10.8**	(1.3)	**-15**	(6.7)	0.4	(0.3)	-6	(4.6)	18.3	(2.4)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/2]

Table II.5.18 School admissions policies

Results based on school principals' reports

		Percentage of students in schools where the following factors are "never", "sometimes" or "always" considered for admission to school:																	
		Student's record of academic performance (including placement tests)						Recommendation of feeder schools						Parents' endorsement of the instructional or religious philosophy of the school					
		Never		Sometimes		Always		Never		Sometimes		Always		Never		Sometimes		Always	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	25.7	(2.1)	40.4	(2.2)	34.0	(1.9)	18.3	(1.5)	46.8	(2.5)	34.9	(2.3)	45.5	(1.7)	22.3	(1.7)	32.3	(1.7)
	Austria	15.0	(1.6)	11.2	(2.4)	73.8	(2.5)	47.8	(3.0)	41.5	(3.3)	10.7	(2.5)	72.6	(3.1)	15.9	(2.2)	11.5	(2.2)
	Belgium	41.9	(3.2)	29.8	(3.0)	28.4	(2.8)	53.7	(3.1)	38.4	(3.4)	8.0	(1.7)	37.8	(2.9)	20.7	(2.7)	41.5	(2.9)
	Canada	36.7	(2.7)	32.8	(2.7)	30.5	(2.9)	28.1	(2.6)	42.5	(2.6)	29.4	(2.9)	57.3	(3.0)	24.9	(2.4)	17.9	(2.1)
	Chile	49.4	(3.0)	33.4	(3.4)	17.3	(2.8)	64.5	(3.5)	29.7	(3.0)	5.9	(1.8)	71.2	(3.5)	12.0	(2.5)	16.9	(3.1)
	Czech Republic	30.9	(1.9)	15.5	(2.1)	53.6	(1.6)	55.2	(3.2)	34.6	(3.1)	10.2	(1.9)	71.0	(2.5)	12.7	(2.0)	16.2	(2.2)
	Denmark	64.7	(3.5)	26.3	(3.3)	9.0	(2.1)	48.7	(3.3)	45.0	(3.3)	6.3	(1.4)	53.0	(3.3)	25.8	(3.1)	21.3	(2.9)
	Estonia	28.6	(2.5)	43.9	(2.5)	27.5	(1.8)	40.1	(2.5)	57.5	(2.5)	2.4	(0.8)	51.5	(2.8)	33.5	(2.7)	15.0	(2.0)
	Finland	78.5	(3.2)	16.0	(3.0)	5.5	(1.1)	75.8	(3.3)	19.7	(2.9)	4.5	(1.7)	79.7	(3.1)	13.2	(2.7)	7.1	(1.9)
	France	33.3	(3.3)	32.8	(2.7)	33.9	(3.1)	51.7	(3.1)	42.7	(3.2)	5.6	(1.5)	72.1	(2.1)	10.1	(1.9)	17.9	(1.9)
	Germany	21.7	(2.9)	30.5	(3.3)	47.8	(3.9)	20.8	(2.8)	45.1	(3.5)	34.1	(3.2)	66.3	(3.2)	20.6	(3.0)	13.2	(1.9)
	Greece	77.3	(2.8)	16.4	(2.7)	6.3	(1.7)	61.8	(3.4)	30.2	(3.0)	7.9	(1.9)	82.4	(2.3)	7.4	(1.7)	10.2	(2.1)
	Hungary	5.8	(0.8)	12.9	(2.1)	81.3	(2.2)	46.5	(3.0)	45.9	(3.1)	7.6	(1.9)	46.3	(3.1)	20.1	(2.7)	33.6	(3.0)
	Iceland	66.1	(0.3)	18.2	(0.2)	15.7	(0.2)	29.9	(0.3)	48.3	(0.3)	21.8	(0.2)	81.2	(0.2)	12.4	(0.2)	6.4	(0.1)
	Ireland	63.5	(4.1)	14.3	(2.8)	22.3	(3.3)	49.9	(4.2)	23.6	(3.5)	26.5	(3.6)	51.1	(3.8)	20.3	(3.5)	28.6	(3.8)
	Israel	17.7	(2.8)	30.3	(3.9)	52.0	(3.8)	12.1	(2.7)	50.5	(3.7)	37.3	(3.7)	37.7	(3.3)	21.7	(3.4)	40.7	(3.5)
	Italy	24.9	(2.8)	25.9	(3.4)	49.2	(3.7)	15.6	(2.4)	32.7	(3.1)	51.7	(3.3)	28.7	(2.8)	16.3	(2.7)	55.0	(3.5)
	Japan	0.5	(0.5)	7.2	(2.0)	92.3	(1.8)	36.6	(3.6)	29.7	(3.5)	33.7	(3.5)	72.7	(3.1)	16.8	(3.0)	10.5	(2.2)
	Korea	43.0	(3.4)	12.3	(2.6)	44.7	(3.3)	58.2	(3.9)	26.0	(3.5)	15.8	(2.9)	62.3	(4.0)	16.8	(3.1)	20.9	(3.1)
	Latvia	38.8	(2.9)	30.7	(2.8)	30.5	(2.3)	53.0	(3.0)	41.9	(2.8)	5.1	(1.2)	77.8	(2.0)	16.3	(1.9)	5.9	(1.1)
	Luxembourg	8.3	(0.1)	16.8	(0.1)	74.9	(0.1)	16.9	(0.1)	59.2	(0.1)	23.8	(0.1)	52.8	(0.1)	28.1	(0.1)	19.0	(0.1)
	Mexico	24.4	(3.0)	16.1	(2.5)	59.6	(3.3)	62.3	(3.2)	23.5	(2.8)	14.2	(2.3)	78.3	(3.0)	11.6	(2.1)	10.1	(2.1)
	Netherlands	6.3	(2.0)	19.1	(3.6)	74.5	(3.9)	2.7	(1.6)	9.8	(3.2)	87.5	(3.5)	41.6	(3.9)	35.4	(5.1)	23.0	(3.9)
	New Zealand	38.1	(3.6)	24.0	(2.9)	37.8	(4.0)	32.0	(3.3)	30.6	(3.3)	37.3	(3.9)	50.9	(3.9)	21.0	(3.5)	28.1	(3.6)
	Norway	91.7	(2.3)	2.8	(1.2)	5.6	(1.9)	81.7	(3.0)	13.3	(2.5)	5.0	(1.8)	97.9	(1.0)	0.0	c	2.1	(1.0)
	Poland	41.4	(3.6)	41.8	(4.3)	16.8	(3.1)	46.4	(3.9)	50.1	(4.1)	3.5	(1.4)	79.1	(3.2)	15.5	(3.0)	5.4	(1.6)
	Portugal	35.6	(3.7)	33.5	(3.6)	30.9	(3.5)	55.6	(3.7)	38.9	(3.6)	5.5	(1.6)	37.4	(3.6)	24.0	(3.1)	38.6	(3.4)
	Slovak Republic	30.7	(1.9)	12.4	(2.0)	57.0	(1.8)	48.2	(3.4)	41.6	(3.5)	10.2	(1.9)	64.1	(3.4)	14.1	(2.2)	21.8	(2.7)
	Slovenia	28.6	(0.4)	38.8	(0.3)	32.6	(0.3)	65.8	(0.6)	29.8	(0.6)	4.3	(0.2)	92.2	(0.2)	4.9	(0.2)	2.9	(0.0)
	Spain	80.9	(2.8)	13.8	(2.5)	5.3	(1.6)	81.8	(3.0)	11.6	(2.3)	6.6	(2.0)	77.1	(2.6)	9.0	(2.0)	13.9	(2.3)
	Sweden	87.5	(2.4)	6.4	(1.9)	6.0	(1.7)	75.4	(3.2)	19.4	(3.1)	5.1	(1.7)	82.2	(2.8)	10.4	(2.2)	7.4	(2.1)
	Switzerland	24.1	(3.8)	18.0	(3.2)	57.9	(4.1)	28.9	(3.8)	35.8	(3.7)	35.3	(3.3)	82.2	(3.0)	14.6	(3.0)	3.2	(0.9)
	Turkey	7.5	(1.9)	15.5	(3.3)	77.0	(3.4)	70.6	(3.6)	23.3	(3.3)	6.0	(1.7)	30.4	(3.9)	46.8	(4.2)	22.8	(3.3)
	United Kingdom	69.7	(3.5)	9.2	(2.3)	21.1	(2.8)	63.5	(4.0)	20.9	(3.4)	15.5	(2.6)	70.9	(3.6)	17.3	(2.7)	11.8	(2.6)
	United States	47.4	(4.2)	21.9	(3.3)	30.7	(3.5)	50.4	(3.8)	27.3	(3.8)	22.3	(3.1)	70.6	(3.7)	17.1	(3.2)	12.3	(2.8)
	OECD average	39.6	(0.5)	22.0	(0.5)	38.4	(0.5)	47.2	(0.5)	34.5	(0.5)	18.3	(0.4)	63.6	(0.5)	18.0	(0.5)	18.4	(0.4)
Partners	Albania	15.7	(2.6)	24.5	(2.9)	59.9	(3.2)	14.6	(2.6)	22.6	(3.5)	62.8	(3.6)	41.3	(3.9)	14.7	(2.2)	43.9	(4.0)
	Algeria	13.3	(2.9)	24.5	(3.7)	62.2	(4.1)	35.2	(4.6)	41.2	(4.2)	23.5	(3.6)	76.4	(3.7)	18.5	(3.3)	5.1	(1.9)
	Brazil	56.5	(2.8)	19.9	(2.2)	23.6	(2.3)	69.3	(2.6)	23.1	(2.3)	7.6	(1.3)	60.0	(2.7)	19.4	(2.2)	20.6	(1.9)
	B-S-J-G (China)	36.0	(3.1)	23.8	(3.1)	40.2	(3.4)	43.4	(4.0)	46.7	(4.3)	9.9	(2.3)	17.3	(2.9)	31.7	(4.3)	51.0	(4.6)
	Bulgaria	3.9	(1.1)	13.0	(2.4)	83.1	(2.4)	38.8	(3.6)	42.9	(4.0)	18.3	(2.9)	38.2	(3.7)	25.0	(3.6)	36.8	(3.7)
	CABA (Argentina)	33.4	(6.1)	34.4	(7.5)	32.2	(6.2)	41.7	(6.4)	53.7	(6.2)	4.6	(2.7)	40.4	(6.4)	16.6	(5.0)	43.0	(7.0)
	Colombia	24.2	(2.9)	25.8	(3.5)	49.9	(3.7)	49.2	(3.7)	33.5	(3.3)	17.3	(2.7)	63.9	(3.2)	13.4	(2.5)	22.7	(2.8)
	Costa Rica	19.0	(2.9)	33.2	(3.5)	47.8	(3.5)	34.4	(3.6)	41.5	(3.7)	24.1	(2.7)	55.4	(3.3)	25.4	(3.0)	19.3	(3.0)
	Croatia	2.5	(1.3)	2.1	(1.3)	95.4	(1.8)	57.1	(3.9)	32.4	(4.0)	10.5	(2.4)	65.9	(3.6)	13.3	(2.7)	20.8	(3.0)
	Cyprus*	59.5	(0.1)	17.7	(0.1)	22.8	(0.1)	70.1	(0.1)	19.4	(0.1)	10.5	(0.1)	85.2	(0.1)	4.8	(0.1)	10.0	(0.1)
	Dominican Republic	49.0	(3.5)	19.8	(2.7)	31.1	(3.3)	26.9	(3.5)	26.9	(3.8)	46.1	(4.3)	84.2	(2.7)	8.3	(2.1)	7.5	(2.0)
	FYROM	16.0	(0.1)	14.9	(0.1)	69.1	(0.2)	27.1	(0.2)	49.2	(0.2)	23.7	(0.1)	56.3	(0.2)	24.6	(0.1)	19.1	(0.1)
	Georgia	37.2	(3.0)	33.2	(3.5)	29.7	(3.0)	31.4	(3.0)	42.2	(3.7)	26.4	(2.9)	67.2	(3.2)	13.9	(2.5)	19.0	(2.6)
	Hong Kong (China)	0.0	c	6.3	(1.3)	93.7	(1.3)	6.5	(2.4)	52.5	(4.8)	40.9	(4.5)	20.0	(3.9)	52.6	(4.4)	27.4	(4.2)
	Indonesia	9.9	(2.0)	25.5	(3.2)	64.6	(3.3)	29.6	(2.9)	27.2	(3.0)	43.2	(3.0)	25.5	(3.2)	16.3	(2.5)	58.2	(3.2)
	Jordan	21.0	(2.7)	51.4	(3.6)	27.7	(3.5)	29.5	(3.3)	47.9	(3.6)	22.5	(3.2)	38.6	(3.3)	37.0	(3.2)	24.4	(2.9)
	Kosovo	5.0	(0.9)	17.3	(1.2)	77.8	(1.3)	27.2	(1.0)	33.2	(1.1)	39.6	(1.4)	52.4	(1.4)	33.8	(1.2)	13.8	(1.4)
	Lebanon	3.0	(1.2)	19.1	(2.3)	77.9	(2.6)	21.3	(2.9)	46.0	(2.8)	32.7	(2.6)	50.4	(3.4)	29.0	(3.4)	20.6	(2.7)
	Lithuania	40.1	(2.6)	32.8	(2.7)	27.1	(2.6)	43.9	(2.9)	51.9	(3.0)	4.3	(1.4)	32.9	(3.0)	24.7	(2.7)	42.3	(3.1)
	Macao (China)	2.3	(0.1)	18.3	(0.0)	79.3	(0.0)	2.7	(0.0)	63.2	(0.1)	34.2	(0.0)	14.3	(0.0)	68.0	(0.1)	17.7	(0.1)
	Malta	53.4	(0.1)	11.2	(0.1)	35.4	(0.1)	59.0	(0.1)	22.8	(0.1)	18.2	(0.1)	57.8	(0.1)	13.3	(0.1)	29.0	(0.1)
	Moldova	37.6	(3.3)	14.6	(2.7)	47.7	(3.7)	46.3	(3.1)	38.1	(3.1)	15.5	(2.4)	70.3	(3.3)	16.1	(3.0)	13.6	(2.1)
	Montenegro	21.3	(0.2)	18.6	(0.2)	60.0	(0.3)	43.8	(0.2)	35.5	(0.5)	20.7	(0.5)	49.8	(0.5)	38.5	(0.3)	11.7	(0.5)
	Peru	57.0	(3.2)	21.8	(2.7)	21.2	(2.7)	69.3	(2.6)	22.5	(2.5)	8.2	(1.6)	67.7	(2.9)	18.0	(2.0)	14.3	(2.2)
	Qatar	20.0	(0.1)	29.2	(0.1)	50.9	(0.1)	26.3	(0.1)	42.2	(0.1)	31.5	(0.1)	34.7	(0.1)	30.5	(0.1)	34.8	(0.1)
	Romania	23.7	(3.3)	23.3	(3.2)	53.0	(3.5)	49.4	(4.1)	40.6	(3.9)	10.1	(2.5)	47.0	(4.3)	19.0	(3.0)	34.0	(4.0)
	Russia	55.4	(4.1)	25.7	(3.3)	18.9	(3.4)	48.4	(4.0)	40.4	(3.9)	11.2	(2.5)	13.2	(2.4)	37.8	(4.6)	49.0	(4.4)
	Singapore	0.0	c	12.6	(0.1)	87.4	(0.1)	19.3	(0.2)	55.6	(1.5)	25.1	(1.3)	64.8	(1.3)	25.8	(1.0)	9.4	(1.1)
	Chinese Taipei	24.7	(2.1)	31.8	(3.1)	43.5	(3.1)	35.6	(3.3)	48.5	(3.4)	15.8	(2.6)	24.1	(2.8)	34.7	(3.4)	41.3	(3.6)
	Thailand	1.5	(0.9)	8.5	(2.0)	90.0	(2.1)	2.3	(1.3)	11.6	(2.3)	86.1	(2.4)	5.4	(1.6)	19.6	(2.8)	75.0	(3.0)
	Trinidad and Tobago	5.5	(0.2)	25.3	(0.3)	69.1	(0.3)	21.7	(0.3)	43.1	(0.3)	35.1	(0.3)	38.7	(0.3)	41.4	(0.3)	19.9	(0.2)
	Tunisia	6.6	(2.0)	31.3	(3.6)	62.1	(3.7)	29.5	(3.9)	45.5	(4.1)	25.0	(3.6)	74.3	(3.9)	22.0	(3.8)	3.7	(1.7)
	United Arab Emirates	7.8	(1.3)	24.6	(1.8)	67.6	(2.1)	17.8	(2.6)	51.9	(2.7)	30.3	(2.3)	34.6	(2.7)	30.9	(2.7)	34.5	(2.9)
	Uruguay	58.9	(2.5)	14.8	(2.1)	26.4	(2.8)	61.5	(2.9)	28.3	(2.8)	10.2	(2.1)	78.7	(1.9)	4.4	(1.5)	16.9	(1.5)
	Viet Nam	2.7	(1.1)	17.1	(3.2)	80.2	(3.4)	16.3	(2.8)	47.0	(4.3)	36.7	(4.4)	6.2	(1.9)	36.0	(3.9)	57.8	(4.0)
	Argentina**	71.1	(3.1)	19.6	(3.0)	9.3	(2.0)	58.2	(3.7)	39.5	(3.6)	2.3	(1.1)	55.1	(3.5)	15.0	(2.7)	29.9	(2.9)
	Kazakhstan**	30.3	(3.2)	19.0	(2.9)	50.7	(3.7)	27.9	(3.3)	39.7	(3.2)	32.4	(3.0)	55.4	(3.7)	20.0	(2.9)	24.6	(3.1)
	Malaysia**	15.1	(2.8)	22.3	(3.4)	62.6	(3.4)	24.6	(3.2)	39.4	(3.9)	36.0	(4.1)	24.1	(3.1)	36.3	(3.6)	39.6	(3.5)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/2]

Table II.5.18 School admissions policies

Results based on school principals' reports

		Percentage of students in schools where the following factors are "never", "sometimes" or "always" considered for admission to school:																	
		Whether the student requires or is interested in a special programme						Preference given to family members of current or former students						Residence in a particular area					
		Never		Sometimes		Always		Never		Sometimes		Always		Never		Sometimes		Always	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	19.3	(1.7)	54.4	(2.2)	26.4	(1.9)	21.2	(1.5)	34.5	(1.9)	44.2	(1.9)	30.8	(1.6)	21.2	(1.7)	48.0	(1.7)
	Austria	28.3	(2.9)	34.6	(3.3)	37.1	(3.3)	55.1	(3.2)	28.8	(3.5)	16.1	(2.6)	54.6	(3.1)	17.0	(2.3)	28.4	(3.1)
	Belgium	24.7	(2.2)	59.9	(3.0)	15.3	(2.5)	43.4	(3.2)	27.0	(3.3)	29.6	(2.9)	79.9	(2.4)	17.8	(2.4)	2.3	(0.8)
	Canada	17.2	(2.0)	49.6	(2.8)	33.3	(2.8)	51.3	(2.7)	30.9	(2.5)	17.8	(2.2)	14.5	(1.8)	17.0	(2.0)	68.5	(2.5)
	Chile	48.1	(3.8)	32.7	(3.5)	19.2	(3.0)	27.5	(3.6)	32.6	(4.1)	39.9	(3.7)	72.6	(3.4)	16.2	(3.1)	11.2	(2.5)
	Czech Republic	30.4	(2.9)	32.7	(2.8)	37.0	(3.3)	76.4	(2.7)	17.5	(2.5)	6.1	(1.6)	64.0	(2.5)	13.9	(2.1)	22.1	(2.1)
	Denmark	36.4	(3.5)	47.1	(3.3)	16.5	(2.6)	43.3	(3.3)	41.3	(3.5)	15.5	(2.6)	34.0	(2.6)	21.9	(2.4)	44.1	(2.8)
	Estonia	15.7	(2.1)	53.1	(2.8)	31.2	(2.6)	43.1	(2.4)	38.0	(2.4)	18.9	(2.1)	20.4	(2.2)	21.6	(2.3)	58.0	(2.9)
	Finland	56.3	(3.5)	37.5	(3.7)	6.2	(1.5)	65.5	(3.4)	27.4	(3.3)	7.1	(1.9)	19.9	(3.0)	13.6	(2.5)	66.5	(3.6)
	France	30.0	(3.1)	53.1	(3.4)	16.9	(2.6)	41.4	(3.3)	39.6	(3.3)	19.0	(2.6)	17.4	(1.9)	21.8	(2.6)	60.8	(2.3)
	Germany	15.3	(2.7)	41.6	(3.7)	43.1	(3.2)	43.3	(2.9)	36.4	(3.3)	20.3	(3.1)	13.2	(2.6)	32.7	(4.0)	54.0	(3.9)
	Greece	54.0	(3.7)	28.4	(3.3)	17.5	(2.6)	49.3	(3.2)	30.6	(3.1)	20.1	(2.7)	12.1	(2.4)	15.9	(3.0)	72.0	(3.3)
	Hungary	14.1	(2.3)	33.6	(3.6)	52.2	(3.4)	25.8	(3.0)	54.1	(3.5)	20.1	(3.0)	47.7	(3.8)	32.1	(3.4)	20.3	(2.7)
	Iceland	77.4	(0.2)	19.0	(0.2)	3.7	(0.0)	80.1	(0.2)	15.3	(0.2)	4.6	(0.1)	23.2	(0.2)	34.2	(0.3)	42.6	(0.3)
	Ireland	35.7	(3.5)	42.4	(4.0)	21.9	(3.3)	36.9	(4.0)	21.2	(3.5)	41.9	(4.1)	44.6	(3.8)	21.6	(3.5)	33.8	(4.0)
	Israel	13.2	(2.6)	48.7	(4.2)	38.1	(4.0)	55.1	(3.6)	37.7	(3.6)	7.2	(1.7)	32.8	(3.5)	24.3	(3.2)	42.9	(3.9)
	Italy	10.4	(1.9)	26.3	(3.3)	63.3	(3.5)	25.6	(3.8)	41.8	(3.6)	32.6	(3.5)	36.9	(4.1)	35.8	(4.1)	27.3	(4.0)
	Japan	26.7	(3.0)	41.9	(3.7)	31.4	(3.5)	84.7	(2.5)	13.6	(2.4)	1.7	(1.0)	62.7	(3.6)	23.9	(3.5)	13.4	(2.4)
	Korea	38.3	(3.7)	21.2	(3.3)	40.5	(3.7)	52.6	(4.1)	21.7	(3.8)	25.7	(3.3)	60.7	(3.6)	17.4	(3.0)	21.9	(3.4)
	Latvia	13.1	(1.8)	32.2	(2.6)	54.6	(2.8)	59.4	(2.1)	23.9	(2.1)	16.7	(1.8)	57.0	(2.6)	20.3	(2.7)	22.8	(1.9)
	Luxembourg	13.6	(0.1)	60.1	(0.1)	26.3	(0.1)	12.7	(0.1)	32.7	(0.1)	54.6	(0.1)	22.5	(0.1)	37.1	(0.1)	40.5	(0.1)
	Mexico	45.7	(3.3)	35.7	(3.6)	18.7	(2.8)	68.1	(3.1)	23.5	(2.7)	8.4	(2.0)	67.0	(3.2)	20.9	(2.7)	12.1	(2.5)
	Netherlands	10.3	(2.3)	69.2	(3.9)	20.6	(3.5)	63.4	(4.7)	22.6	(4.3)	13.9	(3.1)	64.1	(4.9)	23.0	(4.3)	12.9	(3.3)
	New Zealand	30.1	(3.4)	39.8	(3.8)	30.1	(3.8)	23.3	(3.5)	42.8	(4.0)	33.9	(3.9)	35.5	(3.2)	15.8	(3.1)	48.7	(3.3)
	Norway	80.0	(2.9)	18.3	(3.0)	1.6	(0.9)	75.1	(2.6)	17.9	(2.9)	6.9	(2.0)	15.2	(2.9)	14.6	(2.6)	70.3	(3.2)
	Poland	36.9	(3.5)	44.2	(4.0)	19.0	(3.0)	74.5	(3.4)	21.1	(3.2)	4.4	(1.7)	12.3	(2.5)	11.0	(2.2)	76.8	(3.0)
	Portugal	2.6	(1.1)	39.0	(3.9)	58.4	(4.0)	22.0	(3.1)	53.3	(3.5)	24.8	(2.5)	7.4	(2.2)	32.0	(3.4)	60.6	(3.7)
	Slovak Republic	34.0	(3.2)	33.8	(3.3)	32.2	(3.2)	87.2	(1.9)	10.6	(1.7)	2.2	(1.0)	65.5	(2.3)	17.0	(2.2)	17.6	(2.1)
	Slovenia	13.0	(0.7)	25.9	(0.6)	61.1	(0.4)	91.9	(0.5)	7.5	(0.5)	0.5	(0.3)	82.4	(0.6)	12.8	(0.3)	4.8	(0.6)
	Spain	53.5	(3.5)	28.0	(3.4)	18.4	(2.5)	30.8	(3.0)	22.4	(3.3)	46.8	(3.7)	26.2	(3.0)	13.3	(2.5)	60.5	(3.6)
	Sweden	66.4	(3.5)	22.0	(3.2)	11.6	(2.2)	59.1	(3.4)	23.2	(3.1)	17.7	(2.5)	43.1	(3.5)	12.9	(2.5)	44.0	(3.2)
	Switzerland	42.3	(3.5)	37.9	(4.1)	19.7	(3.1)	78.9	(3.3)	17.1	(3.0)	4.0	(1.6)	11.3	(2.1)	15.9	(2.8)	72.8	(3.2)
	Turkey	32.6	(3.8)	48.5	(4.5)	18.9	(3.3)	66.4	(4.2)	27.8	(4.1)	5.8	(1.9)	43.1	(3.9)	37.9	(4.3)	18.9	(3.1)
	United Kingdom	54.1	(4.6)	34.7	(3.9)	11.2	(2.3)	26.3	(3.0)	33.8	(3.4)	39.9	(3.4)	18.8	(2.7)	24.8	(3.6)	56.5	(3.8)
	United States	37.2	(3.5)	36.3	(3.8)	26.6	(3.5)	64.6	(4.1)	28.4	(3.9)	6.9	(2.4)	15.8	(2.5)	17.7	(3.3)	66.4	(3.8)
	OECD average	33.1	(0.5)	38.9	(0.6)	28.0	(0.5)	52.1	(0.5)	28.5	(0.5)	19.3	(0.4)	38.0	(0.5)	21.3	(0.5)	40.7	(0.5)
Partners	**Albania**	9.5	(1.7)	43.5	(4.0)	47.0	(4.0)	20.8	(2.9)	49.8	(3.6)	29.5	(3.5)	17.2	(3.4)	34.2	(3.2)	48.6	(3.8)
	Algeria	56.5	(4.3)	39.6	(4.2)	4.0	(1.7)	60.4	(4.0)	28.5	(3.4)	11.1	(3.0)	14.5	(3.1)	32.4	(3.8)	53.1	(4.3)
	Brazil	51.2	(3.4)	27.5	(2.6)	21.3	(2.6)	63.5	(2.7)	21.4	(2.5)	15.1	(1.7)	37.7	(2.5)	24.0	(2.7)	38.3	(2.8)
	B-S-J-G (China)	30.5	(3.9)	57.9	(4.2)	11.6	(2.3)	61.4	(4.0)	31.9	(4.0)	6.7	(1.8)	29.7	(3.9)	30.0	(4.0)	40.2	(3.7)
	Bulgaria	23.7	(3.5)	44.4	(3.4)	31.9	(3.5)	61.4	(3.4)	20.6	(3.1)	18.0	(2.8)	68.8	(2.9)	16.9	(2.8)	14.3	(2.2)
	CABA (Argentina)	27.2	(6.1)	57.5	(7.1)	15.3	(5.1)	16.9	(5.8)	34.3	(6.7)	48.8	(7.1)	56.2	(7.4)	26.5	(6.1)	17.3	(5.8)
	Colombia	36.1	(3.5)	41.0	(3.8)	22.9	(3.1)	50.6	(3.5)	30.3	(3.2)	19.1	(2.3)	54.4	(3.4)	27.2	(3.2)	18.4	(2.9)
	Costa Rica	33.1	(3.3)	37.3	(3.8)	29.6	(3.1)	73.8	(3.1)	15.4	(2.7)	10.9	(2.2)	22.9	(2.8)	22.9	(2.9)	54.2	(3.6)
	Croatia	30.5	(3.6)	46.7	(4.1)	22.8	(3.6)	90.4	(2.2)	8.9	(2.2)	0.7	(0.0)	65.4	(3.5)	25.6	(3.2)	9.0	(1.9)
	Cyprus*	29.1	(0.1)	33.9	(0.1)	37.0	(0.1)	62.6	(0.2)	26.2	(0.1)	11.2	(0.1)	34.0	(0.1)	8.4	(0.1)	57.5	(0.2)
	Dominican Republic	56.6	(3.9)	31.2	(3.5)	12.2	(2.7)	66.4	(3.8)	25.9	(3.5)	7.8	(2.0)	60.5	(3.9)	22.7	(3.3)	16.8	(2.7)
	FYROM	42.3	(0.2)	34.0	(0.2)	23.8	(0.1)	73.4	(0.1)	24.8	(0.1)	1.8	(0.0)	70.4	(0.2)	23.6	(0.1)	6.1	(0.2)
	Georgia	17.1	(2.6)	19.4	(2.4)	63.6	(3.0)	71.9	(2.9)	15.2	(2.3)	12.9	(2.4)	55.0	(3.4)	24.2	(2.9)	20.8	(2.5)
	Hong Kong (China)	23.4	(3.9)	56.5	(4.9)	20.1	(3.9)	16.4	(3.1)	68.6	(4.0)	15.0	(3.4)	52.4	(4.2)	37.4	(4.4)	10.1	(2.8)
	Indonesia	14.9	(2.2)	28.7	(3.6)	56.4	(3.7)	44.9	(3.2)	34.7	(3.2)	20.4	(2.5)	36.6	(3.5)	24.2	(3.1)	39.2	(3.0)
	Jordan	30.6	(3.3)	48.6	(3.8)	20.8	(2.9)	34.7	(3.6)	42.2	(3.5)	23.2	(3.0)	12.2	(2.3)	32.0	(3.4)	55.8	(3.6)
	Kosovo	22.0	(1.0)	57.8	(1.4)	20.2	(1.3)	59.2	(1.4)	25.4	(1.5)	15.3	(1.1)	34.0	(1.2)	40.0	(1.5)	25.9	(1.4)
	Lebanon	39.2	(3.2)	39.9	(3.3)	20.9	(2.9)	35.9	(2.8)	41.5	(3.1)	22.6	(2.5)	44.5	(3.4)	35.6	(3.1)	19.9	(3.2)
	Lithuania	13.3	(2.0)	35.4	(2.8)	51.3	(3.0)	39.9	(2.3)	26.7	(2.6)	33.4	(2.2)	31.1	(2.7)	23.3	(2.5)	45.5	(2.9)
	Macao (China)	8.6	(0.1)	75.5	(0.1)	15.9	(0.0)	7.2	(0.1)	46.6	(0.1)	46.2	(0.1)	71.2	(0.1)	24.4	(0.1)	4.3	(0.0)
	Malta	48.4	(0.1)	22.2	(0.1)	29.3	(0.1)	74.5	(0.1)	8.7	(0.0)	16.8	(0.1)	48.8	(0.1)	6.6	(0.0)	44.7	(0.1)
	Moldova	26.2	(2.9)	26.1	(3.1)	47.6	(3.8)	67.2	(3.4)	21.4	(3.4)	11.3	(2.3)	45.9	(4.0)	16.3	(2.9)	37.8	(3.0)
	Montenegro	16.2	(0.1)	24.5	(0.4)	59.3	(0.3)	76.1	(0.2)	23.4	(0.4)	0.5	(0.4)	72.6	(0.4)	12.5	(0.3)	14.9	(0.4)
	Peru	48.2	(2.7)	35.4	(2.7)	16.4	(2.3)	48.1	(3.2)	27.2	(2.8)	24.7	(2.5)	62.5	(2.8)	26.3	(2.7)	11.2	(2.2)
	Qatar	25.9	(0.1)	48.2	(0.1)	25.9	(0.1)	24.5	(0.1)	38.3	(0.1)	37.2	(0.1)	33.5	(0.1)	18.1	(0.1)	48.4	(0.1)
	Romania	18.6	(3.1)	37.5	(3.7)	43.9	(4.2)	47.8	(4.4)	36.2	(4.0)	16.0	(2.7)	49.9	(4.1)	34.0	(3.7)	16.1	(3.0)
	Russia	8.5	(1.7)	30.1	(4.2)	61.4	(4.1)	54.7	(3.8)	37.3	(3.9)	8.0	(2.5)	15.7	(2.2)	20.8	(3.1)	63.5	(3.6)
	Singapore	10.9	(0.7)	69.6	(1.2)	19.5	(1.0)	39.5	(0.3)	52.2	(0.9)	8.4	(1.1)	38.1	(0.6)	50.4	(1.2)	11.5	(0.6)
	Chinese Taipei	13.3	(2.2)	41.3	(3.6)	45.5	(3.4)	48.7	(3.1)	38.2	(3.4)	13.1	(2.3)	36.6	(3.8)	37.9	(3.8)	25.5	(2.9)
	Thailand	5.9	(1.6)	32.9	(3.7)	61.2	(4.0)	36.9	(3.9)	36.2	(3.9)	26.9	(3.3)	22.7	(2.8)	30.2	(3.3)	47.1	(3.0)
	Trinidad and Tobago	28.6	(0.3)	53.3	(0.3)	18.1	(0.2)	25.5	(0.3)	66.9	(0.3)	7.6	(0.1)	10.8	(0.1)	69.0	(0.3)	20.2	(0.3)
	Tunisia	57.0	(4.5)	35.7	(4.3)	7.3	(2.2)	49.6	(4.8)	39.1	(4.5)	11.3	(3.0)	11.6	(2.5)	31.3	(3.7)	57.0	(3.7)
	United Arab Emirates	21.0	(2.5)	45.1	(2.7)	33.9	(2.4)	16.1	(1.7)	33.0	(2.4)	50.9	(2.6)	24.5	(2.2)	25.6	(2.3)	49.9	(2.4)
	Uruguay	44.6	(3.2)	36.7	(3.0)	18.7	(2.6)	63.9	(2.8)	20.3	(2.1)	15.8	(2.1)	48.4	(2.4)	23.1	(2.9)	28.5	(2.6)
	Viet Nam	38.4	(3.8)	28.8	(3.9)	32.8	(4.3)	60.7	(3.6)	30.0	(3.8)	9.3	(2.1)	32.6	(3.8)	23.9	(3.5)	43.5	(3.9)
	Argentina**	30.5	(3.7)	39.5	(4.0)	30.0	(3.5)	31.9	(3.0)	21.2	(2.9)	46.8	(3.8)	55.6	(3.6)	26.7	(3.4)	17.7	(2.7)
	Kazakhstan**	16.9	(2.8)	47.7	(3.5)	35.4	(3.4)	18.9	(2.9)	44.4	(3.2)	36.6	(3.4)	29.1	(2.9)	24.3	(2.8)	46.7	(3.4)
	Malaysia**	10.7	(2.5)	51.7	(3.8)	37.6	(3.9)	43.8	(3.9)	43.1	(4.2)	13.1	(2.7)	27.2	(3.9)	35.5	(3.8)	37.3	(4.0)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/2]

Table II.5.21 School admissions policies and science performance

Results based on school principals' reports

		Change in science score when the principal reported that the following factors are considered for admission to school "sometimes" or "always"											
		Student's record of academic performance (including placement tests)				Recommendation of feeder schools				Parents' endorsement of the instructional or religious philosophy of the school			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	9	(5.3)	6	(3.4)	-4	(5.6)	-5	(4.2)	**21**	(3.8)	-3	(3.3)
	Austria	**91**	(5.9)	**36**	(6.2)	**32**	(8.5)	6	(5.5)	3	(9.9)	-11	(6.1)
	Belgium	7	(9.1)	5	(4.3)	12	(9.0)	7	(4.2)	-4	(8.2)	-7	(4.7)
	Canada	**12**	(4.1)	**8**	(3.3)	0	(4.6)	3	(3.5)	3	(4.6)	-2	(3.5)
	Chile	**43**	(5.9)	**15**	(5.2)	**19**	(9.3)	10	(6.2)	**31**	(8.3)	**15**	(5.4)
	Czech Republic	**40**	(5.1)	3	(4.8)	-15	(8.1)	-7	(4.9)	**-20**	(6.9)	**-13**	(5.1)
	Denmark	3	(5.7)	0	(5.4)	0	(5.5)	-4	(4.8)	9	(5.5)	-1	(4.5)
	Estonia	**18**	(6.0)	-2	(5.2)	0	(5.0)	-7	(4.0)	**-11**	(4.9)	-6	(4.5)
	Finland	3	(7.0)	1	(5.6)	5	(6.8)	-2	(5.7)	10	(7.4)	2	(5.8)
	France	**47**	(9.2)	4	(5.8)	**25**	(9.2)	1	(5.1)	18	(9.3)	**-21**	(5.7)
	Germany	**38**	(14.3)	3	(8.1)	22	(13.5)	5	(8.1)	17	(10.0)	**10**	(4.6)
	Greece	**37**	(8.0)	1	(6.7)	**20**	(8.4)	4	(6.0)	**20**	(7.7)	3	(6.4)
	Hungary	**108**	(13.7)	**29**	(9.8)	-8	(9.2)	**-13**	(4.4)	**-21**	(9.0)	**-19**	(4.6)
	Iceland	-2	(3.6)	-1	(3.5)	6	(3.8)	1	(3.8)	-3	(4.3)	-1	(4.3)
	Ireland	-10	(6.3)	-7	(4.5)	**-15**	(6.1)	**-8**	(3.9)	5	(6.0)	-4	(4.6)
	Israel	-7	(14.5)	-10	(7.7)	17	(15.9)	5	(9.7)	-14	(10.6)	**-13**	(6.6)
	Italy	1	(9.5)	-5	(7.8)	15	(9.9)	12	(7.7)	0	(8.2)	**-14**	(5.4)
	Japan	c	c	c	c	-18	(10.5)	**-20**	(5.2)	-11	(11.0)	**-26**	(7.1)
	Korea	**-24**	(6.3)	3	(5.5)	-4	(8.5)	1	(4.5)	12	(6.7)	8	(4.7)
	Latvia	**32**	(4.3)	9	(4.7)	**12**	(3.8)	2	(3.1)	2	(6.0)	-1	(4.4)
	Luxembourg	c	c	c	c	**6**	(2.6)	**19**	(2.6)	-4	(2.1)	**-11**	(2.2)
	Mexico	**19**	(6.1)	4	(5.6)	-3	(4.5)	-6	(3.6)	10	(6.4)	2	(4.1)
	Netherlands	-38	(25.6)	-15	(11.4)	c	c	c	c	**-30**	(13.6)	-8	(9.6)
	New Zealand	-8	(7.1)	-2	(5.3)	**-19**	(6.8)	-5	(5.5)	-4	(7.7)	**-12**	(4.9)
	Norway	10	(10.1)	10	(8.2)	2	(7.2)	3	(6.2)	2	(18.6)	3	(16.4)
	Poland	**29**	(4.8)	7	(4.3)	**14**	(6.6)	6	(4.3)	15	(8.4)	-2	(5.3)
	Portugal	12	(7.9)	2	(4.7)	0	(7.7)	-8	(4.8)	**17**	(6.8)	-2	(5.1)
	Slovak Republic	**53**	(5.8)	7	(5.0)	0	(9.5)	-5	(5.3)	8	(10.5)	0	(5.7)
	Slovenia	**39**	(3.1)	**6**	(2.7)	**-17**	(3.5)	**-14**	(2.9)	10	(5.4)	6	(5.0)
	Spain	12	(6.2)	-3	(4.6)	11	(6.0)	2	(4.5)	**23**	(4.6)	-3	(4.3)
	Sweden	**26**	(12.3)	14	(8.0)	-3	(8.7)	-5	(5.7)	-9	(7.5)	-6	(6.1)
	Switzerland	17	(9.8)	5	(8.2)	-14	(9.0)	-10	(6.8)	-18	(12.0)	**-17**	(8.2)
	Turkey	**59**	(9.5)	**30**	(8.0)	**-23**	(11.3)	**-16**	(7.5)	-4	(13.3)	-8	(8.2)
	United Kingdom	**23**	(8.5)	5	(5.0)	6	(8.1)	1	(4.7)	3	(8.3)	-3	(4.2)
	United States	6	(7.5)	-1	(5.2)	2	(8.2)	-1	(5.8)	-7	(8.8)	-11	(6.7)
	OECD average	**21**	(1.6)	**5**	(1.1)	3	(1.4)	-1	(0.9)	2	(1.5)	**-5**	(1.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	10	(7.4)	2	(7.8)	-14	(8.9)	-12	(6.6)	-5	(7.9)	-1	(7.0)
	Brazil	**14**	(6.4)	3	(4.6)	-8	(5.6)	-2	(4.3)	**18**	(6.5)	5	(4.8)
	B-S-J-G (China)	**60**	(10.2)	**22**	(8.3)	**31**	(12.8)	3	(9.0)	15	(14.1)	1	(8.8)
	Bulgaria	**91**	(20.8)	-3	(19.3)	**-21**	(10.6)	-11	(5.8)	**-41**	(11.8)	**-15**	(6.5)
	CABA (Argentina)	**49**	(13.6)	-13	(10.0)	1	(14.2)	-8	(7.7)	22	(15.0)	-4	(8.6)
	Colombia	**13**	(6.4)	-5	(5.6)	-1	(7.5)	**-12**	(4.6)	**29**	(6.7)	1	(4.9)
	Costa Rica	-12	(8.9)	-4	(4.5)	2	(6.8)	1	(3.5)	-3	(6.4)	4	(3.8)
	Croatia	9	(34.1)	14	(16.2)	-9	(9.0)	-3	(5.1)	-4	(8.8)	-4	(5.9)
	Cyprus*	**9**	(2.3)	**-7**	(2.3)	0	(3.0)	**-12**	(2.9)	**8**	(3.3)	**-8**	(3.2)
	Dominican Republic	**36**	(6.4)	8	(5.1)	6	(10.2)	0	(6.1)	20	(11.8)	4	(6.5)
	FYROM	6	(3.5)	-6	(3.3)	-4	(3.0)	**-7**	(2.9)	**-11**	(3.0)	**-9**	(3.0)
	Georgia	**17**	(5.1)	1	(4.6)	7	(5.9)	4	(5.1)	-2	(7.1)	-5	(5.2)
	Hong Kong (China)	m	m	m	m	-13	(16.6)	-2	(16.5)	**-21**	(10.4)	-13	(10.0)
	Indonesia	18	(9.7)	-4	(8.0)	-2	(6.9)	1	(4.5)	-6	(9.8)	-3	(6.2)
	Jordan	5	(9.1)	-7	(7.5)	-4	(7.5)	-7	(6.1)	**14**	(6.7)	4	(5.9)
	Kosovo	**16**	(6.5)	12	(7.1)	**-12**	(3.1)	-4	(3.2)	-2	(2.7)	**-6**	(3.0)
	Lebanon	5	(10.7)	-7	(13.0)	19	(11.0)	4	(8.9)	**27**	(7.8)	7	(8.0)
	Lithuania	**40**	(6.5)	6	(5.8)	5	(6.1)	0	(4.7)	-10	(5.8)	**-12**	(5.1)
	Macao (China)	c	c	c	c	c	c	c	c	**12**	(3.0)	**10**	(2.9)
	Malta	**-9**	(3.3)	**-15**	(3.3)	3	(3.4)	**-17**	(3.5)	**43**	(3.0)	**-8**	(3.9)
	Moldova	**14**	(5.7)	5	(4.5)	**18**	(4.8)	**11**	(3.5)	**16**	(7.9)	6	(5.6)
	Montenegro	-3	(2.6)	**-6**	(2.5)	0	(2.2)	**-5**	(2.1)	**-8**	(2.3)	**-6**	(2.3)
	Peru	**24**	(6.2)	1	(3.8)	**13**	(6.7)	-7	(3.8)	**35**	(6.6)	5	(3.5)
	Qatar	**43**	(1.9)	**21**	(2.0)	**22**	(1.9)	-3	(2.0)	**-5**	(1.8)	**-9**	(1.8)
	Romania	0	(8.1)	-2	(6.1)	-1	(7.7)	-2	(5.6)	-3	(7.9)	0	(5.6)
	Russia	**11**	(5.0)	-1	(3.7)	**-11**	(5.0)	-9	(4.4)	1	(6.8)	-10	(6.2)
	Singapore	m	m	m	m	**25**	(3.1)	**8**	(2.9)	2	(3.3)	**-10**	(4.1)
	Chinese Taipei	**29**	(6.5)	7	(4.6)	-18	(9.8)	**-10**	(4.5)	-7	(10.1)	**-12**	(4.5)
	Thailand	36	(23.3)	2	(24.5)	-4	(35.8)	1	(17.3)	2	(17.3)	-2	(9.9)
	Trinidad and Tobago	**34**	(6.3)	6	(6.3)	**34**	(3.4)	**19**	(3.2)	**36**	(3.0)	2	(3.1)
	Tunisia	**36**	(11.8)	**20**	(7.2)	-8	(9.1)	-2	(6.3)	**-16**	(6.9)	-7	(5.6)
	United Arab Emirates	**43**	(11.6)	**34**	(15.1)	**28**	(11.2)	14	(10.9)	-15	(7.9)	**-18**	(5.8)
	Uruguay	**20**	(5.4)	-7	(4.3)	11	(7.5)	-5	(4.6)	**49**	(9.3)	**-26**	(5.0)
	Viet Nam	**25**	(11.5)	7	(11.7)	4	(10.0)	2	(7.1)	**19**	(7.6)	7	(8.3)
	Argentina**	**28**	(7.3)	-1	(5.6)	**16**	(6.8)	-8	(5.2)	**17**	(6.5)	-5	(4.9)
	Kazakhstan**	-1	(7.9)	-7	(8.1)	-4	(7.8)	-2	(7.4)	-2	(8.2)	2	(6.7)
	Malaysia**	**14**	(5.8)	7	(4.4)	-6	(7.7)	-4	(5.1)	-8	(9.2)	-4	(6.0)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/2]

Table II.5.21 School admissions policies and science performance

Results based on school principals' reports

		Change in science score when the principal reported that the following factors are considered for admission to school "sometimes" or "always"											
		Whether the student requires or is interested in a special programme				Preference given to family members of current or former students				Residence in a particular area			
		Before accounting for students' and schools' socio-economic profile[1]		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile		Before accounting for students' and schools' socio-economic profile		After accounting for students' and schools' socio-economic profile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	**Australia**	2	(6.9)	-2	(4.4)	**19**	(5.4)	-6	(4.8)	**-37**	(3.8)	**-11**	(3.0)
	Austria	**20**	(9.5)	5	(6.4)	**39**	(7.5)	3	(5.7)	**-27**	(9.1)	-9	(5.4)
	Belgium	**-20**	(9.5)	-6	(5.0)	**19**	(7.5)	-3	(4.8)	-2	(10.7)	-5	(6.6)
	Canada	8	(5.8)	3	(4.5)	**18**	(4.9)	5	(3.6)	2	(7.8)	3	(4.7)
	Chile	-13	(7.1)	-6	(4.7)	**54**	(6.8)	**14**	(5.8)	-13	(7.8)	-8	(5.4)
	Czech Republic	-8	(6.1)	-3	(4.3)	**-19**	(7.1)	**-14**	(4.7)	**-41**	(5.3)	**-18**	(4.7)
	Denmark	-2	(5.0)	-2	(4.7)	8	(6.0)	2	(5.2)	-6	(6.6)	-2	(5.6)
	Estonia	-4	(8.7)	-1	(7.7)	10	(5.1)	**-14**	(4.6)	-1	(8.0)	**-12**	(6.1)
	Finland	**17**	(4.9)	2	(4.6)	9	(5.3)	-5	(5.2)	12	(7.9)	1	(5.8)
	France	**22**	(10.1)	2	(5.9)	16	(10.0)	-9	(5.3)	9	(10.4)	**27**	(6.6)
	Germany	17	(15.4)	-10	(8.5)	**28**	(10.4)	-8	(5.5)	**-37**	(15.6)	-14	(8.3)
	Greece	0	(8.6)	-2	(5.8)	**22**	(7.4)	2	(5.7)	-7	(15.5)	**18**	(7.3)
	Hungary	29	(17.6)	-8	(7.3)	13	(10.7)	-8	(5.6)	-14	(10.3)	-6	(5.2)
	Iceland	2	(4.1)	0	(3.9)	-2	(4.1)	-5	(4.0)	-6	(4.6)	-5	(4.5)
	Ireland	**-18**	(5.4)	**-10**	(4.2)	**21**	(5.9)	-2	(4.6)	-5	(6.6)	-6	(4.3)
	Israel	-16	(17.7)	-13	(8.7)	12	(10.1)	2	(6.8)	-6	(10.2)	-10	(6.7)
	Italy	4	(9.7)	13	(10.7)	2	(13.1)	-6	(8.3)	0	(10.2)	1	(6.9)
	Japan	**-19**	(9.3)	-8	(5.9)	-24	(12.6)	**-46**	(6.1)	11	(10.3)	5	(6.1)
	Korea	**-17**	(6.6)	-3	(4.9)	4	(7.4)	8	(4.5)	13	(7.0)	6	(4.4)
	Latvia	-3	(5.6)	0	(4.8)	**28**	(4.3)	7	(3.7)	**16**	(4.1)	-1	(3.8)
	Luxembourg	**11**	(2.9)	**11**	(2.8)	-4	(2.9)	**13**	(3.0)	**-7**	(2.3)	4	(2.3)
	Mexico	**11**	(5.4)	2	(3.9)	8	(4.9)	-3	(3.8)	6	(5.2)	1	(4.1)
	Netherlands	-24	(16.2)	-15	(11.1)	18	(15.3)	2	(11.1)	2	(15.1)	4	(9.7)
	New Zealand	**-19**	(7.6)	-7	(6.0)	**41**	(8.0)	10	(7.3)	3	(7.9)	-2	(5.5)
	Norway	9	(6.3)	6	(5.6)	9	(6.4)	-3	(6.0)	7	(6.8)	4	(5.7)
	Poland	**24**	(5.5)	8	(4.8)	**17**	(6.4)	0	(5.5)	**-28**	(12.4)	-11	(6.7)
	Portugal	25	(22.4)	23	(14.1)	**21**	(8.3)	-3	(6.5)	-6	(17.1)	-7	(10.9)
	Slovak Republic	15	(7.8)	-5	(4.2)	3	(9.1)	-11	(6.7)	**-29**	(6.1)	**-18**	(5.4)
	Slovenia	-11	(5.8)	-2	(4.7)	-5	(5.8)	**-20**	(6.6)	**-23**	(4.5)	**-21**	(4.6)
	Spain	8	(5.7)	-1	(3.7)	**11**	(5.1)	-4	(3.6)	2	(5.5)	-1	(3.8)
	Sweden	3	(7.5)	-4	(5.2)	12	(6.9)	-6	(5.2)	-12	(6.1)	-5	(4.4)
	Switzerland	10	(8.8)	0	(6.7)	-10	(11.9)	-13	(8.7)	-23	(14.7)	5	(12.0)
	Turkey	-14	(12.3)	-12	(7.8)	-14	(11.7)	-11	(8.3)	**-48**	(9.5)	**-32**	(7.1)
	United Kingdom	-2	(7.0)	-4	(4.2)	14	(7.2)	7	(4.4)	-8	(10.4)	2	(5.4)
	United States	0	(7.6)	0	(5.3)	9	(9.0)	3	(6.3)	-9	(11.7)	9	(10.0)
	OECD average	1	(1.6)	-1	(1.1)	**12**	(1.4)	**-3**	(1.0)	**-9**	(1.6)	**-3**	(1.1)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	5	(8.0)	2	(6.4)	0	(6.8)	-2	(5.2)	-8	(12.9)	-1	(8.9)
	Brazil	0	(6.3)	2	(4.0)	**13**	(5.9)	5	(4.1)	**-25**	(6.9)	-4	(4.5)
	B-S-J-G (China)	**26**	(12.8)	-3	(8.6)	5	(13.0)	**-18**	(8.7)	-9	(14.7)	-14	(9.6)
	Bulgaria	**-52**	(14.8)	**-24**	(8.3)	**-28**	(11.7)	-12	(7.4)	**-25**	(12.4)	**-14**	(6.7)
	CABA (Argentina)	24	(15.9)	2	(10.4)	1	(24.7)	1	(13.9)	**-34**	(14.0)	1	(7.8)
	Colombia	3	(6.6)	-4	(4.4)	**30**	(6.1)	5	(4.6)	3	(5.6)	1	(4.4)
	Costa Rica	1	(6.7)	1	(3.4)	-8	(6.1)	2	(4.1)	**12**	(5.6)	**7**	(3.7)
	Croatia	-16	(9.3)	-3	(6.3)	18	(11.8)	12	(9.1)	2	(8.4)	1	(4.8)
	Cyprus*	**-23**	(2.6)	**-13**	(2.5)	5	(2.5)	**-6**	(2.5)	**-12**	(2.6)	**19**	(2.9)
	Dominican Republic	**27**	(6.6)	6	(5.2)	**35**	(8.3)	4	(5.0)	9	(7.6)	7	(4.7)
	FYROM	**-11**	(2.4)	**-7**	(2.5)	-5	(3.2)	**-15**	(3.2)	**-7**	(3.2)	**-8**	(3.2)
	Georgia	13	(7.4)	3	(6.3)	**14**	(6.4)	0	(4.8)	1	(6.6)	-2	(5.0)
	Hong Kong (China)	-15	(9.1)	-14	(7.3)	**-20**	(9.8)	**-18**	(8.1)	**-30**	(7.7)	**-16**	(6.9)
	Indonesia	**18**	(9.1)	1	(6.3)	-7	(6.8)	-4	(4.6)	**-17**	(7.9)	-4	(5.5)
	Jordan	**18**	(8.3)	4	(7.1)	11	(6.4)	-2	(5.9)	-3	(9.3)	8	(8.4)
	Kosovo	-6	(3.8)	-7	(3.5)	**-21**	(2.6)	**-20**	(2.7)	**-10**	(3.4)	**-11**	(3.2)
	Lebanon	13	(8.7)	-3	(7.5)	**25**	(8.1)	0	(7.5)	-8	(9.2)	5	(7.2)
	Lithuania	**-28**	(8.6)	**-30**	(5.6)	**26**	(5.4)	-3	(5.0)	-4	(6.7)	-1	(5.3)
	Macao (China)	**17**	(3.4)	**20**	(3.3)	**56**	(4.1)	**55**	(4.2)	-4	(2.3)	2	(2.3)
	Malta	6	(3.4)	-3	(3.4)	**51**	(3.8)	**12**	(4.4)	**-81**	(2.9)	4	(5.5)
	Moldova	9	(6.2)	-1	(4.7)	**23**	(7.7)	**12**	(5.5)	0	(6.4)	-4	(4.8)
	Montenegro	**-7**	(3.2)	-5	(3.1)	**23**	(3.0)	**9**	(2.8)	**33**	(3.2)	**11**	(3.1)
	Peru	**14**	(5.8)	0	(3.6)	**24**	(5.8)	3	(3.4)	5	(5.7)	3	(3.3)
	Qatar	1	(2.0)	**-12**	(2.0)	**30**	(1.8)	4	(2.0)	**-56**	(1.7)	**-44**	(1.7)
	Romania	10	(11.4)	7	(6.0)	-10	(7.3)	-8	(4.7)	-6	(7.4)	1	(4.8)
	Russia	25	(12.7)	1	(11.8)	**16**	(5.7)	-1	(4.6)	**23**	(8.0)	-4	(8.2)
	Singapore	**24**	(4.4)	14	(8.6)	-1	(2.9)	**-12**	(3.0)	**-70**	(2.7)	**-22**	(4.3)
	Chinese Taipei	-12	(13.5)	-6	(5.5)	**-31**	(7.8)	**-23**	(4.4)	-2	(11.0)	-1	(5.9)
	Thailand	**38**	(11.7)	7	(12.5)	8	(7.3)	-4	(5.4)	**24**	(8.7)	8	(6.0)
	Trinidad and Tobago	**19**	(3.0)	0	(3.0)	**52**	(3.1)	6	(3.3)	**-45**	(3.9)	6	(4.3)
	Tunisia	2	(7.7)	4	(5.8)	-3	(8.1)	-7	(5.5)	-13	(15.6)	-9	(10.0)
	United Arab Emirates	7	(8.7)	-5	(7.4)	**39**	(5.9)	**21**	(8.2)	**-54**	(6.9)	**-24**	(7.3)
	Uruguay	2	(7.1)	-5	(4.1)	**18**	(7.5)	-8	(4.5)	**-21**	(5.7)	-4	(3.8)
	Viet Nam	6	(8.0)	10	(6.1)	13	(7.7)	-2	(5.5)	5	(9.2)	1	(6.4)
	Argentina**	**18**	(7.8)	-1	(6.2)	**20**	(6.3)	-7	(5.0)	-12	(6.8)	**-13**	(4.8)
	Kazakhstan**	-13	(10.3)	-15	(10.0)	**-43**	(10.6)	**-36**	(10.0)	12	(8.6)	14	(7.6)
	Malaysia**	4	(11.3)	-4	(8.0)	-5	(7.1)	-9	(4.8)	**-24**	(8.0)	-10	(5.7)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.5.22 Ability grouping between and within classes

Results based on school principals' reports

		Percentage of students in schools where students are grouped by ability into different classes						Percentage of students in schools where students are grouped by ability within their classes					
		For all subjects		For some subjects		Not for any subject		For all subjects		For some subjects		Not for any subject	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	1.6	(0.5)	86.6	(1.3)	11.9	(1.1)	4.7	(0.9)	65.5	(2.1)	29.8	(1.9)
	Austria	4.0	(1.5)	12.4	(1.9)	83.6	(2.4)	2.3	(0.9)	31.8	(2.7)	65.9	(2.9)
	Belgium	13.1	(2.0)	15.3	(2.0)	71.6	(3.0)	1.6	(0.8)	31.3	(2.6)	67.1	(2.6)
	Canada	6.8	(1.6)	80.0	(2.2)	13.2	(1.6)	3.8	(1.1)	50.1	(3.0)	46.2	(3.2)
	Chile	5.6	(1.9)	21.5	(3.3)	72.9	(3.5)	3.2	(1.4)	38.3	(4.0)	58.5	(4.1)
	Czech Republic	3.5	(1.5)	25.4	(2.7)	71.1	(2.5)	0.2	(0.2)	59.0	(3.0)	40.8	(3.0)
	Denmark	0.2	(0.2)	25.0	(3.2)	74.8	(3.2)	14.6	(2.9)	73.7	(3.7)	11.7	(2.6)
	Estonia	6.6	(1.4)	31.6	(2.6)	61.9	(2.6)	3.3	(1.1)	43.9	(2.8)	52.8	(2.8)
	Finland	2.3	(1.2)	50.9	(4.1)	46.8	(4.2)	4.8	(1.8)	53.1	(3.9)	42.1	(4.0)
	France	3.4	(1.1)	20.9	(2.8)	75.7	(2.9)	1.2	(0.7)	46.3	(3.4)	52.6	(3.5)
	Germany	8.0	(1.8)	22.0	(2.7)	70.0	(3.2)	5.8	(1.8)	39.7	(3.9)	54.5	(3.8)
	Greece	0.3	(0.3)	11.3	(2.3)	88.4	(2.3)	1.9	(1.0)	22.0	(3.4)	76.1	(3.4)
	Hungary	0.0	c	35.1	(3.5)	64.9	(3.5)	0.2	(0.2)	74.6	(3.0)	25.3	(3.0)
	Iceland	0.0	c	22.6	(0.2)	77.4	(0.2)	0.0	c	58.7	(0.2)	41.3	(0.2)
	Ireland	2.0	(1.1)	93.9	(1.6)	4.1	(1.5)	2.2	(1.1)	54.5	(4.0)	43.3	(4.0)
	Israel	9.3	(1.7)	88.4	(2.1)	2.2	(1.3)	6.2	(2.2)	72.1	(3.7)	21.7	(3.4)
	Italy	7.6	(2.3)	5.5	(1.7)	86.9	(2.5)	18.4	(2.9)	15.8	(2.5)	65.8	(3.2)
	Japan	10.1	(2.1)	43.5	(3.5)	46.4	(3.6)	0.5	(0.5)	48.9	(3.5)	50.5	(3.4)
	Korea	4.7	(1.6)	53.1	(4.1)	42.2	(4.0)	1.6	(0.9)	54.1	(3.5)	44.3	(3.6)
	Latvia	5.4	(1.2)	13.3	(1.7)	81.3	(2.0)	1.6	(0.5)	44.4	(2.9)	54.0	(3.0)
	Luxembourg	33.0	(0.1)	38.9	(0.1)	28.2	(0.1)	1.0	(0.0)	53.4	(0.1)	45.5	(0.1)
	Mexico	10.0	(2.5)	36.9	(3.6)	53.1	(3.7)	10.1	(1.9)	49.8	(3.2)	40.1	(3.1)
	Netherlands	56.1	(5.2)	14.8	(3.6)	29.2	(4.7)	6.0	(2.7)	71.4	(4.6)	22.6	(4.0)
	New Zealand	3.2	(1.5)	86.7	(2.9)	10.1	(2.3)	10.8	(2.7)	76.6	(3.5)	12.6	(2.5)
	Norway	0.5	(0.5)	15.2	(2.8)	84.3	(2.8)	3.0	(1.3)	52.9	(3.4)	44.0	(3.4)
	Poland	2.7	(1.3)	35.3	(3.9)	62.0	(4.0)	3.1	(1.4)	78.7	(3.0)	18.2	(2.8)
	Portugal	4.3	(1.6)	7.3	(2.2)	88.4	(2.7)	4.8	(1.7)	16.5	(2.8)	78.7	(3.3)
	Slovak Republic	12.9	(2.1)	21.7	(3.0)	65.4	(3.0)	1.8	(0.8)	57.1	(3.0)	41.1	(2.9)
	Slovenia	0.2	(0.0)	34.5	(0.5)	65.3	(0.5)	10.7	(0.5)	40.6	(0.6)	48.7	(0.4)
	Spain	6.0	(1.6)	34.3	(3.6)	59.7	(3.6)	3.6	(1.5)	33.4	(3.4)	63.0	(3.5)
	Sweden	0.6	(0.5)	20.8	(2.8)	78.6	(2.8)	3.7	(1.3)	43.3	(4.1)	53.0	(4.0)
	Switzerland	29.2	(3.6)	33.2	(3.7)	37.7	(3.4)	3.4	(1.5)	51.8	(3.8)	44.8	(3.8)
	Turkey	4.2	(1.7)	26.3	(3.5)	69.5	(3.5)	1.8	(1.0)	30.4	(4.3)	67.7	(4.2)
	United Kingdom	8.5	(2.2)	91.3	(2.2)	0.2	(0.1)	7.5	(2.3)	71.8	(3.9)	20.7	(3.3)
	United States	7.1	(1.7)	75.5	(3.3)	17.4	(3.2)	8.8	(2.1)	61.8	(3.7)	29.3	(3.6)
	OECD average	7.8	(0.3)	38.0	(0.5)	54.2	(0.5)	4.5	(0.3)	50.5	(0.6)	45.0	(0.5)
Partners	**Albania**	3.4	(1.4)	40.6	(4.2)	56.0	(4.1)	16.0	(2.7)	41.1	(4.7)	42.8	(4.3)
	Algeria	40.3	(4.2)	25.9	(3.6)	33.8	(3.7)	33.1	(3.9)	24.9	(3.5)	42.1	(4.2)
	Brazil	7.4	(1.3)	2.8	(0.9)	89.8	(1.5)	11.2	(2.0)	8.0	(1.4)	80.8	(2.2)
	B-S-J-G (China)	17.6	(3.1)	19.0	(3.1)	63.4	(3.4)	33.4	(3.7)	43.7	(4.1)	22.9	(3.2)
	Bulgaria	7.6	(1.9)	18.7	(2.6)	73.7	(3.0)	14.5	(3.1)	35.2	(3.4)	50.3	(3.7)
	CABA (Argentina)	0.0	c	33.4	(6.8)	66.6	(6.8)	2.8	(2.2)	27.6	(7.0)	69.6	(7.1)
	Colombia	13.6	(2.5)	23.7	(3.3)	62.7	(3.9)	14.6	(2.5)	23.6	(3.2)	61.7	(3.6)
	Costa Rica	21.4	(3.6)	22.1	(3.7)	56.5	(4.3)	54.2	(3.8)	20.0	(3.2)	25.7	(3.0)
	Croatia	11.7	(2.7)	11.2	(2.2)	77.1	(3.2)	3.0	(1.2)	34.6	(3.5)	62.5	(3.7)
	Cyprus*	6.5	(0.1)	20.5	(0.1)	73.0	(0.1)	5.0	(0.1)	39.8	(0.1)	55.2	(0.2)
	Dominican Republic	12.8	(3.1)	23.8	(3.7)	63.3	(4.4)	21.8	(3.9)	30.2	(4.3)	48.0	(4.3)
	FYROM	21.4	(0.1)	20.9	(0.1)	57.7	(0.1)	27.2	(0.1)	28.6	(0.1)	44.2	(0.2)
	Georgia	1.9	(0.8)	7.2	(1.7)	90.9	(1.9)	1.1	(0.6)	16.5	(2.9)	82.3	(2.9)
	Hong Kong (China)	15.9	(3.1)	74.8	(3.8)	9.4	(2.2)	3.7	(1.5)	70.6	(3.4)	25.7	(3.2)
	Indonesia	21.9	(2.9)	16.3	(2.7)	61.8	(3.3)	17.4	(2.8)	20.1	(3.1)	62.5	(3.4)
	Jordan	31.9	(3.2)	18.4	(2.6)	49.7	(3.7)	35.5	(3.1)	22.6	(2.8)	41.9	(3.4)
	Kosovo	11.2	(0.9)	33.1	(1.3)	55.7	(1.4)	15.7	(1.1)	33.7	(1.4)	50.6	(1.5)
	Lebanon	15.1	(2.6)	17.5	(3.3)	67.4	(3.8)	15.2	(2.8)	29.8	(4.1)	55.0	(4.2)
	Lithuania	14.5	(1.9)	36.5	(2.7)	49.0	(2.8)	1.1	(0.5)	58.8	(2.6)	40.1	(2.6)
	Macao (China)	12.5	(0.0)	38.8	(0.1)	48.7	(0.1)	3.9	(0.0)	52.8	(0.1)	43.2	(0.1)
	Malta	6.8	(0.0)	68.7	(0.1)	24.5	(0.1)	3.9	(0.0)	47.7	(0.1)	48.4	(0.1)
	Moldova	2.9	(1.3)	3.1	(1.3)	94.0	(1.5)	8.4	(1.6)	34.9	(3.1)	56.7	(3.4)
	Montenegro	34.2	(0.5)	13.3	(0.1)	52.5	(0.5)	25.2	(0.3)	27.5	(0.2)	47.3	(0.2)
	Peru	7.5	(1.4)	17.5	(2.6)	75.0	(2.9)	8.8	(1.8)	42.6	(3.2)	48.6	(3.4)
	Qatar	22.1	(0.1)	42.4	(0.1)	35.5	(0.1)	33.6	(0.1)	47.0	(0.1)	19.3	(0.1)
	Romania	18.7	(2.9)	27.5	(3.7)	53.8	(3.9)	8.1	(2.3)	44.2	(4.3)	47.7	(4.4)
	Russia	14.6	(3.4)	14.1	(2.6)	71.3	(3.8)	15.2	(2.7)	40.0	(3.9)	44.9	(4.1)
	Singapore	12.2	(0.6)	81.3	(0.9)	6.5	(0.7)	2.3	(0.5)	77.4	(1.0)	20.4	(0.8)
	Chinese Taipei	5.2	(1.7)	22.9	(3.1)	71.9	(3.0)	1.9	(0.9)	46.0	(3.6)	52.1	(3.5)
	Thailand	32.7	(3.8)	43.6	(4.0)	23.7	(3.4)	13.0	(2.8)	53.8	(4.1)	33.1	(3.7)
	Trinidad and Tobago	8.5	(0.1)	56.6	(0.3)	34.9	(0.3)	2.7	(0.1)	29.1	(0.3)	68.2	(0.3)
	Tunisia	52.1	(4.3)	8.8	(2.6)	39.1	(4.2)	35.4	(4.3)	14.1	(3.3)	50.5	(4.3)
	United Arab Emirates	9.6	(1.6)	32.8	(2.3)	57.6	(2.2)	46.1	(2.6)	30.2	(2.3)	23.7	(2.8)
	Uruguay	6.7	(1.6)	8.7	(2.1)	84.6	(2.6)	5.3	(1.5)	10.6	(2.0)	84.1	(2.4)
	Viet Nam	17.8	(2.7)	64.9	(3.5)	17.3	(3.3)	24.8	(2.5)	48.3	(3.7)	26.8	(3.6)
	Argentina**	1.9	(1.0)	21.8	(3.1)	76.3	(3.3)	4.7	(1.6)	39.2	(4.2)	56.1	(4.4)
	Kazakhstan**	15.9	(2.7)	35.4	(3.1)	48.7	(3.5)	26.8	(2.7)	59.7	(3.7)	13.5	(2.4)
	Malaysia**	43.6	(3.5)	45.8	(3.7)	10.6	(2.5)	32.0	(3.7)	44.0	(4.0)	23.9	(3.1)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.5.25 Ability grouping between classes, science performance and school characteristics

Results based on school principals' reports

		Students in schools whose principal reported that students are grouped by ability into different classes for some or all subjects													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		%	S.E.	SD.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	88.1	(1.1)	32.3	(1.4)	90.1	(2.5)	87.8	(2.8)	86.7	(2.7)	87.9	(3.2)	-2.2	(4.1)
	Austria	16.4	(2.4)	37.0	(2.2)	32.2	(5.9)	14.7	(4.6)	7.4	(3.7)	12.0	(5.2)	**-20.2**	(7.3)
	Belgium	28.4	(3.0)	45.1	(1.4)	30.5	(6.5)	26.6	(6.1)	28.2	(6.3)	28.3	(5.9)	-2.2	(8.8)
	Canada	86.8	(1.6)	33.8	(1.8)	88.6	(2.1)	85.0	(3.8)	88.6	(3.5)	84.8	(4.6)	-3.7	(5.1)
	Chile	27.1	(3.5)	44.4	(1.8)	33.6	(7.4)	21.4	(7.6)	19.2	(6.1)	33.0	(5.8)	-0.6	(9.5)
	Czech Republic	28.9	(2.5)	45.3	(1.2)	25.7	(5.1)	32.2	(6.1)	29.3	(5.8)	28.2	(5.9)	2.5	(7.5)
	Denmark	25.2	(3.2)	43.4	(1.8)	28.2	(7.3)	30.8	(8.0)	24.3	(8.3)	18.1	(7.5)	-10.1	(11.3)
	Estonia	38.1	(2.6)	48.6	(0.6)	41.8	(6.6)	38.4	(6.9)	54.1	(5.4)	18.7	(3.3)	**-23.1**	(7.1)
	Finland	53.2	(4.2)	49.9	(0.3)	52.2	(7.7)	69.4	(9.6)	49.1	(10.2)	41.7	(8.1)	-10.6	(11.6)
	France	24.3	(2.9)	42.9	(1.8)	25.2	(6.2)	18.1	(6.4)	19.1	(5.7)	34.9	(7.0)	9.7	(9.4)
	Germany	30.0	(3.2)	45.8	(1.4)	42.8	(6.5)	43.8	(6.9)	23.1	(6.8)	10.6	(4.4)	**-32.2**	(8.0)
	Greece	11.6	(2.3)	32.0	(2.7)	13.4	(4.9)	5.4	(2.8)	7.7	(6.3)	19.9	(6.5)	6.4	(8.1)
	Hungary	35.1	(3.5)	47.7	(1.1)	10.1	(4.4)	29.9	(6.5)	43.0	(7.2)	56.7	(8.2)	**46.6**	(8.8)
	Iceland	22.6	(0.2)	41.8	(0.1)	16.7	(0.5)	37.7	(0.9)	15.7	(1.1)	19.8	(0.2)	**3.1**	(0.6)
	Ireland	95.9	(1.5)	19.8	(3.6)	92.1	(3.7)	100.0	c	100.0	c	92.0	(4.5)	-0.1	(5.9)
	Israel	97.8	(1.3)	14.8	(4.3)	92.3	(5.1)	100.0	(1.0)	100.0	c	98.7	(1.3)	6.4	(5.3)
	Italy	13.1	(2.5)	33.8	(2.7)	22.4	(5.9)	8.7	(5.3)	5.8	(3.5)	15.9	(7.2)	-6.6	(9.3)
	Japan	53.6	(3.6)	49.9	(0.3)	42.0	(6.7)	57.6	(8.1)	52.6	(7.9)	62.1	(7.2)	**20.2**	(9.1)
	Korea	57.8	(4.0)	49.4	(0.7)	39.9	(7.7)	67.3	(8.4)	61.8	(7.6)	62.3	(8.3)	**22.4**	(11.0)
	Latvia	18.7	(2.0)	39.0	(1.6)	12.6	(4.9)	13.6	(4.6)	18.6	(5.0)	29.8	(3.6)	**17.2**	(6.1)
	Luxembourg	71.8	(0.1)	45.0	(0.0)	83.2	(0.3)	54.5	(0.4)	81.6	(0.1)	67.6	(0.3)	**-15.6**	(0.4)
	Mexico	46.9	(3.7)	49.9	(0.2)	50.2	(6.4)	50.8	(7.5)	44.2	(8.0)	42.5	(7.0)	-7.6	(8.8)
	Netherlands	70.8	(4.7)	45.4	(2.3)	82.2	(10.1)	77.7	(9.4)	62.7	(12.2)	62.3	(10.3)	-20.0	(14.0)
	New Zealand	89.9	(2.3)	30.1	(3.0)	84.7	(4.9)	91.9	(4.5)	93.7	(3.8)	88.6	(5.7)	3.9	(7.8)
	Norway	15.7	(2.8)	36.4	(2.7)	13.8	(6.2)	21.7	(9.0)	9.6	(4.7)	17.9	(5.3)	4.1	(8.0)
	Poland	38.0	(4.0)	48.5	(1.0)	33.1	(7.3)	33.6	(7.9)	36.9	(9.2)	49.2	(9.2)	16.1	(11.4)
	Portugal	11.6	(2.7)	32.1	(3.2)	14.7	(6.4)	22.1	(7.8)	7.9	(6.7)	2.9	(2.9)	-11.8	(7.1)
	Slovak Republic	34.6	(3.0)	47.6	(0.9)	25.6	(6.0)	31.5	(7.0)	32.9	(6.8)	48.8	(7.8)	**23.1**	(10.1)
	Slovenia	34.7	(0.5)	47.6	(0.2)	33.1	(1.5)	21.3	(1.7)	35.3	(2.6)	48.9	(0.6)	**15.8**	(1.4)
	Spain	40.3	(3.6)	49.0	(0.8)	29.2	(7.1)	43.4	(8.2)	41.0	(8.0)	47.3	(6.5)	18.1	(9.9)
	Sweden	21.4	(2.8)	41.0	(2.0)	21.5	(6.7)	28.5	(7.3)	8.9	(4.6)	26.9	(7.6)	5.5	(9.8)
	Switzerland	62.3	(3.4)	48.5	(0.9)	69.8	(5.9)	81.3	(5.9)	70.2	(6.3)	27.5	(8.1)	**-42.3**	(10.3)
	Turkey	30.5	(3.5)	46.1	(1.4)	26.8	(9.1)	24.0	(8.3)	24.1	(8.2)	47.1	(8.0)	20.3	(14.2)
	United Kingdom	99.8	(0.1)	4.8	(1.4)	100.0	c	100.0	c	99.7	(0.1)	99.4	(0.5)	-0.6	(0.5)
	United States	82.6	(3.2)	37.9	(2.7)	76.5	(7.6)	85.6	(7.5)	81.7	(6.2)	86.6	(5.7)	10.1	(9.3)
	OECD average	45.8	(0.5)	40.2	(0.3)	45.0	(1.0)	47.3	(1.1)	44.7	(1.0)	46.3	(1.0)	1.2	(1.5)
Partners	**Albania**	44.0	(4.1)	49.6	(0.5)	55.6	(7.7)	40.3	(8.2)	40.5	(9.5)	41.8	(7.8)	-13.7	(10.5)
	Algeria	66.2	(3.7)	47.3	(1.3)	60.1	(8.4)	72.6	(8.3)	62.8	(9.6)	69.1	(6.9)	9.0	(12.1)
	Brazil	10.2	(1.5)	30.3	(2.0)	15.9	(4.4)	9.4	(3.6)	8.1	(3.2)	8.7	(2.8)	-7.2	(5.9)
	B-S-J-G (China)	36.6	(3.4)	48.2	(0.9)	12.0	(6.0)	41.6	(8.1)	36.8	(10.5)	56.1	(7.6)	**44.0**	(9.4)
	Bulgaria	26.3	(3.0)	44.0	(1.7)	24.2	(7.0)	24.9	(8.9)	34.3	(7.6)	21.4	(8.1)	-2.8	(11.3)
	CABA (Argentina)	33.4	(6.8)	47.1	(2.5)	17.8	(9.3)	11.4	(17.2)	74.7	(15.3)	29.0	(20.3)	11.3	(23.5)
	Colombia	37.3	(3.9)	48.4	(1.0)	21.7	(7.1)	48.4	(8.1)	27.3	(7.4)	48.1	(8.0)	**26.4**	(10.6)
	Costa Rica	43.5	(4.3)	49.6	(0.7)	34.1	(8.3)	51.8	(8.1)	34.8	(8.0)	52.9	(8.3)	18.8	(11.1)
	Croatia	22.9	(3.2)	42.0	(2.1)	21.8	(7.2)	18.1	(7.9)	24.6	(8.7)	27.0	(7.1)	5.3	(10.5)
	Cyprus*	27.0	(0.1)	44.4	(0.1)	30.5	(0.5)	7.9	(0.5)	37.0	(0.4)	32.6	(0.2)	**2.1**	(0.5)
	Dominican Republic	36.7	(4.4)	48.2	(1.2)	47.1	(11.6)	33.5	(10.4)	21.8	(8.1)	45.3	(9.5)	-1.9	(14.7)
	FYROM	42.3	(0.1)	49.4	(0.0)	42.2	(0.6)	29.9	(0.6)	44.9	(0.7)	53.3	(0.5)	**11.1**	(0.7)
	Georgia	9.1	(1.9)	28.8	(2.7)	7.7	(3.4)	7.5	(3.6)	1.7	(2.3)	19.4	(6.1)	11.7	(7.0)
	Hong Kong (China)	90.6	(2.2)	29.1	(3.1)	100.0	c	90.4	(4.7)	82.0	(7.3)	90.5	(4.1)	**-9.5**	(4.1)
	Indonesia	38.2	(3.3)	48.6	(0.8)	24.8	(7.4)	47.9	(7.1)	34.8	(7.7)	44.7	(7.0)	19.9	(10.4)
	Jordan	50.3	(3.7)	50.0	(0.1)	37.3	(7.4)	49.4	(9.2)	48.8	(10.2)	65.9	(7.5)	**28.5**	(10.8)
	Kosovo	44.3	(1.4)	49.7	(0.2)	51.1	(3.9)	40.3	(3.3)	52.2	(3.2)	33.0	(3.1)	**-18.1**	(5.0)
	Lebanon	32.6	(3.8)	46.9	(1.4)	28.9	(9.9)	27.9	(9.2)	33.9	(7.3)	38.5	(8.2)	9.6	(12.8)
	Lithuania	51.0	(2.8)	50.0	(0.1)	34.2	(7.1)	50.3	(6.5)	60.8	(6.5)	58.5	(5.0)	**24.3**	(8.4)
	Macao (China)	51.3	(0.1)	50.0	(0.0)	20.6	(0.2)	72.6	(0.1)	44.2	(0.3)	67.7	(0.1)	**47.1**	(0.3)
	Malta	75.5	(0.1)	43.0	(0.1)	100.0	c	71.3	(0.2)	71.7	(0.3)	58.4	(0.3)	**-41.6**	(0.3)
	Moldova	6.0	(1.5)	23.8	(2.8)	0.8	(0.8)	7.1	(3.6)	7.3	(4.1)	9.0	(2.2)	**8.2**	(2.3)
	Montenegro	47.5	(0.5)	49.9	(0.0)	36.0	(1.5)	49.4	(0.9)	37.2	(0.8)	67.5	(0.2)	**31.5**	(1.5)
	Peru	25.0	(2.9)	43.3	(1.7)	21.6	(5.1)	26.3	(6.8)	22.6	(6.1)	29.7	(5.6)	8.1	(7.7)
	Qatar	64.5	(0.1)	47.8	(0.0)	67.6	(0.3)	85.5	(0.2)	43.2	(0.3)	61.9	(0.3)	**-5.7**	(0.3)
	Romania	46.2	(3.9)	49.9	(0.3)	35.2	(6.8)	48.4	(10.4)	47.0	(9.0)	54.2	(10.0)	18.9	(12.6)
	Russia	28.7	(3.8)	45.2	(1.8)	12.9	(4.1)	17.3	(9.2)	34.1	(10.6)	50.6	(9.5)	**37.7**	(10.7)
	Singapore	93.5	(0.7)	24.6	(1.2)	97.1	(0.1)	100.0	c	89.8	(2.8)	87.2	(4.0)	**-9.9**	(4.0)
	Chinese Taipei	28.1	(3.0)	44.9	(1.5)	26.8	(6.3)	17.3	(5.9)	39.1	(7.3)	28.7	(7.6)	1.9	(9.9)
	Thailand	76.3	(3.4)	42.6	(2.1)	68.3	(6.8)	73.9	(7.6)	77.6	(7.7)	85.4	(7.5)	17.1	(9.3)
	Trinidad and Tobago	65.1	(0.3)	47.7	(0.1)	65.6	(1.0)	69.3	(1.3)	72.1	(0.6)	52.6	(0.3)	**-13.0**	(1.0)
	Tunisia	60.9	(4.2)	48.8	(0.9)	53.8	(8.0)	69.7	(9.2)	62.7	(9.9)	56.3	(9.7)	2.5	(12.5)
	United Arab Emirates	42.4	(2.2)	49.4	(0.3)	28.8	(6.4)	40.3	(5.6)	40.5	(5.8)	59.4	(4.0)	**30.6**	(7.6)
	Uruguay	15.4	(2.6)	36.1	(2.5)	14.4	(4.9)	8.4	(5.0)	15.6	(5.5)	22.9	(6.7)	8.6	(8.3)
	Viet Nam	82.7	(3.3)	37.8	(2.9)	76.7	(8.1)	77.9	(7.4)	80.3	(8.7)	95.6	(3.4)	**18.9**	(8.9)
	Argentina**	23.7	(3.3)	42.5	(2.1)	32.5	(7.9)	11.7	(5.3)	19.7	(8.8)	30.5	(8.1)	-2.0	(11.4)
	Kazakhstan**	51.3	(3.5)	50.0	(0.1)	43.4	(7.6)	48.2	(8.5)	54.2	(9.6)	59.5	(7.4)	16.1	(11.2)
	Malaysia**	89.4	(2.5)	30.7	(3.2)	90.0	(5.0)	89.5	(5.3)	85.0	(5.7)	93.2	(4.2)	3.2	(6.1)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Notes: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/3]

Table II.5.25 Ability grouping between classes, science performance and school characteristics

Results based on school principals' reports

		Students in schools whose principal reported that students are grouped by ability into different classes for some or all subjects													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	**Australia**	71.8	(10.2)	88.0	(2.5)	89.1	(1.3)	17.3	(10.2)	85.8	(1.5)	91.2	(1.8)	**5.4**	(2.4)
	Austria	16.5	(8.5)	16.7	(3.2)	16.1	(4.3)	-0.4	(9.5)	16.1	(2.4)	19.7	(9.2)	3.6	(9.3)
	Belgium	36.4	(19.8)	31.3	(4.1)	19.2	(4.6)	-17.2	(20.1)	w	w	w	w	w	w
	Canada	71.7	(7.2)	87.6	(2.2)	88.4	(2.4)	**16.7**	(7.6)	87.4	(1.7)	81.5	(6.8)	-5.9	(7.1)
	Chile	29.0	(21.8)	30.0	(6.9)	25.6	(4.4)	-3.4	(22.3)	41.4	(7.5)	19.1	(3.5)	**-22.4**	(8.3)
	Czech Republic	16.2	(6.1)	30.5	(3.7)	31.7	(4.9)	15.4	(8.1)	27.2	(2.8)	50.4	(8.1)	**23.3**	(8.9)
	Denmark	45.3	(9.6)	23.2	(3.5)	14.2	(5.2)	**-31.1**	(10.8)	19.8	(3.3)	43.0	(8.1)	**23.3**	(8.8)
	Estonia	19.6	(5.3)	50.9	(3.9)	30.7	(3.8)	11.1	(6.5)	37.9	(2.7)	30.1	(9.2)	-7.9	(9.6)
	Finland	39.6	(11.2)	59.8	(5.8)	46.5	(7.0)	6.9	(12.6)	53.4	(4.2)	41.5	(17.6)	-12.0	(18.1)
	France	0.0	c	23.7	(3.9)	27.8	(6.1)	**27.8**	(6.1)	21.3	(3.4)	33.3	(6.5)	12.0	(7.4)
	Germany	56.6	(14.4)	30.7	(3.8)	19.7	(7.2)	**-36.9**	(17.1)	30.6	(3.3)	20.6	(9.9)	-10.0	(10.2)
	Greece	3.8	(2.3)	12.5	(3.4)	9.1	(3.8)	5.3	(4.5)	9.7	(2.2)	44.4	(14.0)	**34.7**	(14.1)
	Hungary	15.0	(10.4)	31.3	(4.6)	40.8	(5.6)	**25.8**	(11.1)	33.5	(3.8)	41.4	(8.2)	7.9	(8.9)
	Iceland	11.8	(0.5)	36.8	(0.4)	4.4	(0.3)	**-7.4**	(0.6)	23.0	(0.2)	m	m	m	m
	Ireland	96.0	(3.9)	97.0	(1.8)	94.4	(3.2)	-1.5	(5.0)	93.4	(2.8)	97.6	(1.7)	4.2	(3.3)
	Israel	100.0	c	98.0	(1.5)	96.5	(2.9)	-3.5	(2.9)	m	m	m	m	m	m
	Italy	27.7	(24.6)	11.9	(2.9)	15.0	(5.0)	-12.6	(24.2)	13.3	(2.5)	8.2	(8.6)	-5.2	(8.8)
	Japan	m	m	60.3	(6.5)	50.9	(4.2)	m	m	49.2	(3.7)	63.1	(7.1)	13.9	(7.7)
	Korea	m	m	47.8	(11.2)	59.6	(4.2)	m	m	56.0	(4.8)	61.2	(6.9)	5.3	(8.3)
	Latvia	3.7	(2.6)	20.8	(3.4)	26.3	(2.9)	**22.6**	(4.1)	18.7	(2.0)	18.7	(19.6)	0.0	(19.7)
	Luxembourg	m	m	77.7	(0.1)	64.0	(0.2)	m	m	75.8	(0.1)	50.7	(0.3)	**-25.2**	(0.3)
	Mexico	57.9	(8.7)	43.5	(7.3)	44.7	(4.7)	-13.3	(10.1)	44.9	(4.0)	61.1	(8.0)	16.2	(8.9)
	Netherlands	m	m	73.0	(5.7)	63.0	(9.3)	m	m	62.7	(8.7)	74.9	(5.7)	12.1	(10.5)
	New Zealand	57.1	(15.6)	89.7	(3.9)	92.2	(3.1)	**35.0**	(16.0)	91.6	(2.1)	68.5	(16.4)	-23.1	(16.5)
	Norway	9.2	(4.5)	17.2	(3.8)	17.9	(7.2)	8.7	(7.5)	15.1	(2.9)	52.6	(25.9)	37.5	(26.4)
	Poland	35.4	(5.9)	37.0	(7.4)	44.3	(8.8)	8.9	(10.6)	37.9	(4.1)	39.7	(19.1)	1.8	(19.8)
	Portugal	16.3	(14.0)	14.2	(3.5)	2.6	(3.0)	-13.7	(14.5)	12.5	(2.9)	0.2	(0.0)	**-12.3**	(2.9)
	Slovak Republic	16.5	(5.2)	37.9	(4.1)	42.0	(9.3)	**25.5**	(10.8)	35.6	(3.1)	27.0	(8.0)	-8.6	(8.2)
	Slovenia	43.0	(6.8)	37.2	(0.7)	29.7	(0.5)	-13.3	(6.8)	34.1	(0.5)	53.3	(0.8)	**19.2**	(0.9)
	Spain	13.7	(12.7)	39.6	(4.6)	44.6	(6.3)	**30.8**	(14.4)	40.2	(4.6)	40.5	(5.9)	0.3	(7.5)
	Sweden	40.6	(11.6)	15.2	(3.3)	28.8	(6.8)	-11.8	(13.4)	19.2	(3.1)	31.5	(9.0)	12.3	(10.0)
	Switzerland	43.8	(12.0)	65.7	(4.0)	58.7	(8.7)	14.9	(15.1)	64.6	(3.6)	21.9	(13.3)	**-42.8**	(13.9)
	Turkey	0.0	c	30.0	(5.9)	31.8	(5.0)	**31.8**	(5.0)	30.0	(3.6)	44.4	(23.3)	14.5	(23.6)
	United Kingdom	99.2	(0.6)	99.7	(0.2)	100.0	c	0.8	(0.6)	99.8	(0.1)	99.2	(0.2)	**-0.6**	(0.3)
	United States	64.5	(13.7)	82.2	(4.3)	87.9	(4.0)	23.4	(14.2)	81.1	(3.4)	100.0	c	**18.9**	(3.4)
	OECD average	37.4	(1.9)	47.1	(0.8)	44.5	(0.9)	**5.2**	(2.1)	43.7	(0.6)	46.7	(1.9)	2.4	(2.0)
Partners	**Albania**	31.3	(6.8)	43.2	(6.1)	56.5	(7.4)	**25.2**	(10.1)	42.0	(3.6)	58.2	(14.4)	16.2	(14.1)
	Algeria	64.2	(9.3)	64.7	(4.7)	69.4	(11.4)	5.2	(14.8)	66.1	(3.8)	m	m	m	m
	Brazil	22.5	(11.0)	10.6	(2.4)	9.7	(2.3)	-12.8	(11.1)	9.8	(1.8)	13.3	(4.8)	3.5	(5.6)
	B-S-J-G (China)	13.6	(11.0)	30.9	(5.4)	49.7	(5.7)	**36.1**	(12.5)	34.6	(3.8)	48.9	(13.2)	14.3	(14.6)
	Bulgaria	14.1	(12.7)	30.1	(4.6)	21.9	(5.2)	7.8	(13.6)	26.1	(3.1)	m	m	m	m
	CABA (Argentina)	m	m	m	m	33.0	(7.4)	m	m	17.4	(6.7)	50.8	(12.0)	**33.4**	(12.4)
	Colombia	22.8	(8.6)	41.8	(7.8)	39.1	(4.7)	16.3	(9.3)	37.6	(4.3)	31.6	(7.5)	-6.0	(8.3)
	Costa Rica	47.3	(8.5)	43.0	(5.6)	38.4	(9.3)	-8.9	(11.9)	45.4	(4.6)	30.2	(9.0)	-15.2	(9.3)
	Croatia	m	m	27.3	(4.5)	17.1	(4.4)	m	m	23.4	(3.2)	0.0	c	**-23.4**	(3.2)
	Cyprus*	25.6	(0.4)	28.9	(0.2)	23.4	(0.2)	**-2.2**	(0.4)	22.9	(0.1)	48.1	(0.3)	**25.2**	(0.4)
	Dominican Republic	50.6	(14.4)	36.6	(5.5)	31.2	(10.1)	-19.5	(17.8)	32.7	(5.0)	49.6	(9.7)	16.9	(10.9)
	FYROM	63.1	(0.4)	44.7	(0.2)	39.0	(0.2)	**-24.1**	(0.5)	41.3	(0.1)	78.3	(0.8)	**37.0**	(0.8)
	Georgia	5.5	(2.6)	11.0	(3.2)	11.1	(3.7)	5.6	(4.4)	7.3	(1.8)	24.6	(11.2)	17.3	(11.4)
	Hong Kong (China)	m	m	m	m	90.6	(2.2)	m	m	100.0	c	90.0	(2.3)	**-10.0**	(2.3)
	Indonesia	31.9	(6.4)	40.6	(5.0)	40.6	(9.5)	8.7	(12.7)	38.3	(4.3)	38.1	(5.6)	-0.2	(7.3)
	Jordan	52.8	(10.2)	44.3	(4.9)	55.8	(6.6)	3.0	(12.5)	48.9	(4.3)	52.5	(7.8)	3.6	(9.1)
	Kosovo	41.1	(4.3)	46.5	(1.6)	40.7	(2.8)	-0.4	(5.2)	43.7	(1.4)	71.0	(13.2)	**27.2**	(13.4)
	Lebanon	20.8	(7.7)	35.2	(5.1)	31.7	(7.9)	10.9	(11.1)	27.0	(4.9)	38.0	(5.2)	11.0	(6.8)
	Lithuania	26.2	(6.2)	52.5	(5.5)	63.1	(3.2)	**36.9**	(7.0)	51.0	(2.8)	49.5	(24.7)	-1.5	(24.9)
	Macao (China)	m	m	m	m	51.5	(0.1)	m	m	m	m	52.7	(0.1)	m	m
	Malta	86.7	(0.2)	73.4	(0.1)	m	m	m	m	88.3	(0.1)	55.1	(0.2)	**-33.1**	(0.2)
	Moldova	4.0	(1.9)	7.5	(3.7)	9.4	(1.6)	**5.4**	(2.5)	5.9	(1.6)	m	m	m	m
	Montenegro	m	m	51.1	(0.6)	39.0	(0.3)	m	m	47.2	(0.5)	m	m	m	m
	Peru	28.4	(5.4)	21.0	(3.5)	38.3	(9.0)	9.8	(10.8)	21.9	(3.5)	31.9	(5.0)	10.0	(6.0)
	Qatar	56.3	(0.4)	69.2	(0.1)	61.0	(0.2)	**4.7**	(0.4)	63.7	(0.1)	64.9	(0.2)	**1.2**	(0.2)
	Romania	16.6	(8.2)	52.5	(5.1)	44.7	(5.9)	**28.0**	(10.5)	46.0	(3.9)	m	m	m	m
	Russia	1.6	(1.5)	22.0	(5.5)	40.3	(5.7)	**38.8**	(5.9)	28.8	(3.9)	m	m	m	m
	Singapore	m	m	m	m	93.6	(0.8)	m	m	94.5	(0.1)	82.2	(8.1)	-12.4	(8.1)
	Chinese Taipei	m	m	22.4	(5.0)	31.3	(4.1)	m	m	17.7	(3.2)	48.4	(6.1)	**30.8**	(6.9)
	Thailand	51.4	(8.6)	79.6	(4.2)	85.3	(6.2)	**33.8**	(11.5)	78.6	(3.8)	62.7	(8.7)	-15.9	(9.5)
	Trinidad and Tobago	47.9	(0.8)	67.5	(0.3)	m	m	m	m	64.6	(0.3)	84.2	(0.4)	**19.6**	(0.5)
	Tunisia	100.0	c	61.4	(5.0)	50.5	(9.0)	**-49.5**	(9.0)	60.4	(4.3)	68.5	(20.3)	8.0	(21.1)
	United Arab Emirates	29.5	(8.2)	49.2	(5.6)	41.2	(2.6)	11.7	(8.7)	41.6	(3.9)	43.4	(2.9)	1.8	(5.1)
	Uruguay	11.0	(8.2)	13.3	(3.1)	19.0	(4.8)	8.0	(9.4)	12.1	(2.4)	34.0	(10.2)	**21.9**	(10.5)
	Viet Nam	80.8	(5.0)	80.3	(7.3)	88.3	(4.4)	7.5	(7.0)	84.4	(3.3)	41.6	(14.4)	**-42.7**	(14.6)
	Argentina**	17.7	(10.0)	20.7	(4.6)	28.8	(4.9)	11.1	(11.2)	22.0	(3.8)	30.6	(6.5)	8.5	(7.6)
	Kazakhstan**	47.9	(5.1)	60.4	(7.2)	48.8	(5.8)	0.8	(8.0)	51.1	(3.6)	56.9	(16.9)	5.8	(17.3)
	Malaysia**	93.3	(4.8)	85.2	(4.3)	93.1	(3.0)	-0.3	(5.6)	89.5	(2.5)	88.0	(11.3)	-1.6	(11.5)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.5.25 Ability grouping between classes, science performance and school characteristics

Results based on school principals' reports

		Students in schools whose principal reported that students are grouped by ability into different classes for some or all subjects													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in science score (referece: not for any subject)		Explained variance in student performance (r-squared x 100)		Change in science score (referece: not for any subject)		Explained variance in student performance (r-squared x 100)	
		%	S.E.	%	S.E.	% dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	Australia	88.0	(1.2)	89.1	(3.1)	1.1	(3.2)	3	(6.0)	0.0	(0.0)	3	(5.1)	16.7	(1.1)
	Austria	24.1	(11.9)	16.2	(2.5)	-7.8	(12.2)	**-42**	(8.6)	2.6	(1.1)	**-14**	(6.5)	31.0	(1.9)
	Belgium	35.7	(5.9)	27.7	(3.0)	-8.0	(5.5)	-2	(8.6)	0.0	(0.1)	3	(4.6)	35.6	(2.2)
	Canada	82.1	(3.2)	87.5	(1.6)	5.3	(2.9)	2	(6.5)	0.0	(0.1)	2	(4.8)	11.1	(1.0)
	Chile	15.5	(6.2)	27.8	(3.6)	12.3	(6.5)	2	(9.3)	0.0	(0.2)	-1	(6.4)	26.3	(1.7)
	Czech Republic	29.4	(3.8)	28.3	(3.3)	-1.0	(5.2)	-3	(7.9)	0.0	(0.1)	**-9**	(4.1)	33.5	(2.1)
	Denmark	25.2	(3.2)	m	m	m	m	-11	(6.4)	0.3	(0.3)	-4	(5.9)	12.3	(1.4)
	Estonia	38.0	(2.6)	52.4	(12.5)	14.5	(12.5)	**-11**	(4.4)	0.4	(0.3)	-5	(3.8)	11.2	(1.3)
	Finland	53.3	(4.2)	m	m	m	m	**-10**	(4.9)	0.3	(0.3)	-4	(3.9)	11.0	(1.4)
	France	19.9	(5.3)	25.5	(3.5)	5.7	(6.3)	7	(11.6)	0.1	(0.3)	-4	(7.0)	37.2	(2.3)
	Germany	30.1	(3.3)	27.1	(15.1)	-3.0	(15.4)	**-55**	(8.7)	6.2	(2.0)	**-17**	(6.5)	35.9	(2.3)
	Greece	49.0	(10.2)	9.8	(2.3)	**-39.2**	(10.6)	-10	(15.3)	0.1	(0.4)	**-22**	(6.9)	23.9	(2.8)
	Hungary	19.0	(5.8)	36.8	(3.7)	**17.8**	(6.6)	**59**	(9.7)	8.6	(2.9)	10	(5.9)	43.4	(2.2)
	Iceland	22.6	(0.2)	m	m	m	m	4	(4.2)	0.0	(0.1)	5	(4.2)	5.2	(0.8)
	Ireland	96.1	(1.4)	95.5	(1.8)	-0.6	(0.8)	14	(20.8)	0.1	(0.3)	17	(9.8)	15.6	(1.3)
	Israel	100.0	c	97.5	(1.5)	-2.5	(1.5)	c	c	1.1	(0.8)	c	c	23.7	(2.4)
	Italy	25.7	(15.0)	13.0	(2.5)	-12.7	(15.3)	-12	(14.7)	0.2	(0.5)	-7	(7.9)	24.7	(2.6)
	Japan	m	m	53.6	(3.6)	m	m	-1	(9.0)	0.0	(0.2)	**-12**	(5.7)	28.5	(2.3)
	Korea	45.5	(11.1)	59.0	(4.1)	13.5	(11.4)	**15**	(7.6)	0.6	(0.6)	7	(5.2)	17.5	(2.0)
	Latvia	18.8	(2.1)	16.4	(4.0)	-2.4	(4.1)	**11**	(4.4)	0.3	(0.2)	0	(4.0)	12.0	(1.4)
	Luxembourg	72.5	(0.1)	71.0	(0.1)	**-1.5**	(0.2)	**-10**	(2.4)	0.2	(0.1)	**-8**	(2.4)	34.6	(1.0)
	Mexico	54.3	(6.0)	42.4	(4.4)	-11.9	(7.1)	-4	(6.2)	0.1	(0.3)	-2	(4.6)	17.5	(2.0)
	Netherlands	74.6	(5.1)	62.2	(7.2)	-12.4	(7.4)	**-44**	(15.9)	3.8	(2.6)	-11	(9.1)	38.8	(4.7)
	New Zealand	89.0	(4.1)	90.0	(2.3)	1.0	(3.4)	8	(16.9)	0.1	(0.3)	4	(11.3)	18.9	(1.9)
	Norway	15.7	(2.8)	m	m	m	m	-8	(6.1)	0.1	(0.1)	-7	(5.7)	8.6	(0.8)
	Poland	38.0	(4.0)	m	m	m	m	4	(6.4)	0.0	(0.2)	-2	(4.5)	15.1	(1.6)
	Portugal	14.1	(3.5)	10.7	(2.7)	-3.4	(2.6)	**-18**	(9.0)	0.4	(0.4)	-3	(5.7)	17.3	(2.2)
	Slovak Republic	31.0	(3.8)	37.9	(4.3)	6.9	(5.6)	**21**	(9.3)	1.0	(1.0)	4	(5.1)	30.1	(2.4)
	Slovenia	76.6	(8.7)	32.3	(0.1)	**-44.3**	(8.7)	**24**	(3.0)	1.5	(0.4)	4	(2.7)	35.5	(1.3)
	Spain	40.2	(3.6)	m	m	m	m	5	(5.3)	0.1	(0.2)	-1	(3.7)	14.3	(1.2)
	Sweden	21.8	(2.8)	3.1	(3.8)	**-18.7**	(4.8)	3	(8.1)	0.0	(0.1)	2	(5.4)	16.3	(1.7)
	Switzerland	71.0	(3.5)	30.2	(7.2)	**-40.9**	(7.5)	**-54**	(8.6)	6.9	(2.2)	**-25**	(6.7)	25.7	(2.0)
	Turkey	8.8	(10.7)	31.2	(3.6)	**22.4**	(11.2)	**25**	(12.4)	2.1	(2.1)	8	(10.0)	26.5	(4.0)
	United Kingdom	93.2	(6.9)	99.8	(0.1)	6.6	(6.8)	**-46**	(7.8)	0.1	(0.0)	8	(11.6)	19.5	(1.8)
	United States	79.6	(4.5)	82.9	(3.2)	3.3	(3.1)	-2	(11.6)	0.0	(0.2)	**-15**	(7.6)	14.6	(1.7)
	OECD average	47.0	(1.0)	46.8	(0.9)	**-3.6**	(1.5)	**-4**	(1.7)	1.1	(0.2)	**-3**	(1.1)	22.6	(0.3)
Partners	Albania	23.9	(4.9)	56.0	(5.3)	**32.1**	(6.9)	m	m	m	m	m	m	m	m
	Algeria	64.1	(4.3)	73.5	(6.5)	9.4	(7.8)	11	(6.2)	0.6	(0.6)	8	(5.6)	9.5	(2.9)
	Brazil	13.9	(2.9)	9.7	(1.5)	-4.1	(2.7)	3	(12.2)	0.0	(0.2)	6	(7.0)	20.6	(2.1)
	B-S-J-G (China)	18.8	(3.5)	67.4	(6.3)	**48.6**	(7.0)	**63**	(12.0)	8.4	(3.1)	**23**	(8.8)	35.8	(3.0)
	Bulgaria	5.2	(2.5)	26.8	(3.1)	**21.6**	(3.7)	11	(13.0)	0.2	(0.6)	0	(7.7)	39.7	(2.8)
	CABA (Argentina)	34.1	(6.8)	21.7	(11.9)	-12.4	(10.4)	19	(13.3)	1.1	(1.6)	-7	(8.3)	32.2	(3.5)
	Colombia	37.2	(4.0)	37.3	(4.0)	0.1	(2.1)	8	(7.6)	0.2	(0.5)	0	(4.8)	20.0	(2.6)
	Costa Rica	44.0	(4.6)	43.0	(4.6)	-1.0	(3.1)	2	(6.2)	0.0	(0.2)	**-7**	(3.3)	22.4	(2.1)
	Croatia	m	m	22.8	(3.2)	m	m	13	(10.6)	0.4	(0.7)	5	(6.3)	26.1	(2.0)
	Cyprus*	32.5	(1.2)	26.7	(0.1)	**-5.8**	(1.2)	2	(2.8)	0.0	(0.0)	**-7**	(2.9)	17.0	(0.9)
	Dominican Republic	26.8	(8.8)	38.2	(4.9)	11.3	(10.2)	3	(10.0)	0.0	(0.4)	-1	(6.2)	24.0	(3.4)
	FYROM	m	m	42.3	(0.1)	m	m	3	(2.6)	0.0	(0.1)	**-5**	(2.6)	14.4	(1.2)
	Georgia	8.3	(2.2)	9.4	(2.0)	1.1	(1.7)	0	(16.0)	0.0	(0.2)	-15	(9.2)	14.9	(1.7)
	Hong Kong (China)	92.9	(1.7)	89.5	(2.5)	**-3.3**	(1.2)	**-44**	(7.1)	2.5	(0.9)	**-30**	(9.3)	13.9	(2.0)
	Indonesia	29.4	(4.6)	47.8	(5.2)	**18.3**	(7.3)	8	(7.7)	0.3	(0.6)	0	(4.7)	24.1	(3.0)
	Jordan	50.3	(3.7)	m	m	m	m	6	(6.5)	0.2	(0.3)	-2	(5.8)	12.0	(2.2)
	Kosovo	45.2	(4.6)	44.0	(0.9)	-1.2	(4.6)	-4	(3.2)	0.1	(0.1)	-1	(3.1)	12.2	(1.5)
	Lebanon	48.2	(6.3)	30.3	(4.0)	**-17.8**	(6.6)	-12	(11.8)	0.4	(0.8)	-19	(10.8)	20.2	(3.1)
	Lithuania	51.0	(2.8)	m	m	m	m	**22**	(5.9)	1.5	(0.8)	8	(4.7)	21.5	(2.3)
	Macao (China)	50.2	(0.2)	52.1	(0.1)	**2.0**	(0.2)	1	(1.7)	0.0	(0.0)	-3	(1.8)	2.2	(0.5)
	Malta	m	m	75.5	(0.1)	m	m	**-44**	(3.7)	2.7	(0.5)	-3	(4.1)	25.4	(1.2)
	Moldova	6.3	(1.6)	2.5	(0.8)	**-3.8**	(1.4)	11	(12.3)	0.1	(0.2)	-3	(9.9)	14.1	(1.7)
	Montenegro	65.5	(19.4)	47.1	(0.1)	-18.4	(19.4)	3	(2.2)	0.0	(0.1)	-2	(2.2)	17.2	(0.9)
	Peru	24.8	(3.5)	25.1	(3.0)	0.3	(2.7)	0	(7.0)	0.0	(0.1)	-6	(3.4)	29.6	(2.2)
	Qatar	69.6	(0.3)	63.3	(0.1)	**-6.3**	(0.4)	**-13**	(1.8)	0.4	(0.1)	**-4**	(1.8)	13.9	(0.6)
	Romania	46.2	(3.9)	m	m	m	m	**19**	(8.6)	1.4	(1.3)	6	(5.3)	23.5	(2.9)
	Russia	29.2	(3.8)	25.4	(5.0)	-3.9	(4.3)	**28**	(6.2)	2.3	(1.0)	**13**	(5.0)	10.3	(1.8)
	Singapore	93.1	(2.5)	93.6	(0.7)	0.5	(2.3)	**-21**	(5.9)	0.3	(0.1)	14	(12.0)	26.2	(1.5)
	Chinese Taipei	16.8	(2.9)	34.2	(4.0)	**17.4**	(4.5)	-5	(8.6)	0.1	(0.2)	**-12**	(5.2)	28.9	(2.5)
	Thailand	71.6	(3.8)	77.8	(3.9)	6.2	(4.5)	**19**	(8.4)	1.1	(1.0)	7	(6.2)	18.4	(3.2)
	Trinidad and Tobago	62.1	(0.6)	67.3	(0.3)	**5.2**	(0.7)	1	(3.0)	0.0	(0.0)	**12**	(2.9)	36.3	(1.1)
	Tunisia	75.5	(6.2)	53.3	(5.1)	**-22.2**	(7.9)	**-25**	(6.7)	3.6	(1.9)	**-20**	(5.2)	21.0	(3.9)
	United Arab Emirates	48.6	(4.4)	41.6	(2.3)	-7.0	(4.4)	6	(7.6)	0.1	(0.3)	-9	(6.6)	13.7	(1.8)
	Uruguay	14.6	(3.2)	15.9	(3.2)	1.3	(4.0)	15	(12.8)	0.4	(0.7)	-6	(7.3)	26.3	(1.9)
	Viet Nam	61.0	(11.2)	84.6	(3.5)	**23.6**	(11.4)	**49**	(7.9)	5.9	(1.9)	**29**	(7.5)	21.8	(4.3)
	Argentina**	24.3	(3.5)	23.3	(4.0)	-1.0	(3.9)	-2	(8.6)	0.0	(0.2)	-2	(4.8)	19.1	(2.2)
	Kazakhstan**	52.2	(4.2)	51.3	(4.6)	-0.9	(3.8)	12	(7.5)	0.6	(0.8)	5	(6.1)	8.8	(2.4)
	Malaysia**	87.6	(7.9)	89.5	(2.4)	1.9	(7.5)	-4	(11.0)	0.0	(0.2)	-6	(8.0)	18.3	(2.5)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.5.27 Selecting students for different programmes (2015)

		Source	Number of school types or distinct education programmes available to 15-year-old students	First age at selection in the education system
OECD	Australia	*a*	1	16
	Austria	*a*	4	10
	Belgium	*a*	4	12
	Canada	*a*	1	16
	Chile[1]	*a*	3	16
	Czech Republic	*a*	6	11
	Denmark	*a*	1	16
	Estonia	*a*	1	16
	Finland	*a*	1	16
	France	*a*	3	15
	Germany	*a*	4	10
	Greece	*a*	2	15
	Hungary	*a*	3	11
	Iceland	*a*	1	16
	Ireland	*a*	4	15
	Israel	*a*	2	15
	Italy	*a*	4	14
	Japan	*a*	2	15
	Korea	*a*	3	15
	Latvia	*a*	5	16
	Luxembourg	*a*	4	13
	Mexico	*a*	3	15
	Netherlands	*a*	7	12
	New Zealand	*a*	1	16
	Norway	*a*	1	16
	Poland	*a*	1	16
	Portugal	*a*	3	15
	Slovak Republic	*a*	5	11
	Slovenia	*a*	3	14
	Spain	*a*	1	16
	Sweden	*a*	1	16
	Switzerland	*a*	4	12
	Turkey	*a*	3	11
	United Kingdom[2]	*a*	1	16
	United States	*a*	1	16
	OECD average		2.7	14.3
Partners	Albania	*a*	3	15
	Algeria	*b*	m	m
	Argentina	*b*	3	14
	Brazil	*a*	2	15
	B-S-J-G (China)	*b*	4	15
	Bulgaria[3]	*b*	3	13
	Colombia	*a*	2	15
	Costa Rica	*b*	3	15
	Croatia	*b*	1	14
	Cyprus*	*b*	2	15
	Dominican Republic[4]	*b*	3	16
	FYROM	*b*	5	15
	Georgia	*b*	2	15
	Hong Kong (China)	*b*	5	15
	Indonesia	*a*	1	15
	Jordan	*a*	1	16
	Kazakhstan	*b*	8	15
	Kosovo	*b*	m	m
	Lebanon	*b*	m	m
	Lithuania	*b*	5	16
	Macao (China)	*b*	2	15
	Malaysia	*a*	5	15
	Malta[5]	*b*	3	16
	Moldova	*b*	m	m
	Montenegro	*b*	4	15
	Peru	*b*	3	16
	Qatar	*b*	3	16
	Romania	*a*	2	14
	Russia[6]	*a*	3	16
	Singapore	*b*	4	12
	Chinese Taipei	*b*	3	15
	Thailand	*b*	2	15
	Trinidad and Tobago	*b*	m	m
	Tunisia	*b*	m	m
	United Arab Emirates	*b*	5	15
	Uruguay	*b*	2	15
	Viet Nam	*a*	4	15

1. Fifteen-year-old students can be enrolled in three types of school according to the study programme they offer: only general studies, only vocational studies, or both. At the modal grade for 15-year-olds (grade 10), a common curriculum or education programme is offered in these three types of school. Vocational studies begin only at grade 11.
2. Although only one programme is available to 15-year-old students (ISCED 3) in the United Kingdom, there are four distinct education programmes, one in each country. Students work towards a General Certificate of Secondary Education (Key Stage 4) in England, Wales and Northern Ireland; students in Scotland work towards Standard Grades (National 5). Each of these four programmes provides general education, but vocational qualifications/modules are also available.
3. Starting age at some vocational schools is 14. Admission to profile high schools is at grade 7 (i.e. upper secondary stage).
4. Reference year 2015/16.
5. The number of programmes listed include general and vocational (post-compulsory) education, available to 16-year-old students. The great majority of 15-year-old students are enrolled in a general education programme (compulsory).
6. According to a new classification introduced by law in 2013, there are two types of education programmes in the country: general education and professional education (which include vocational first-stage and vocational second-stage programmes). Students after grade 9 (15.5 years of age) may choose between the following programmes: upper secondary general, vocational first stage or vocational second stage. They may also enter the short track in the vocational second stage after completion of the first stage.
* See note at the beginning of this Annex.

Sources: *a)* OECD (2013), *PISA 2012 Results: What Makes Schools Successful*, Table IV.2.5.
b) PISA system-level data collection in 2016.

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[Part 1/2]

Table II.6.1 Shortage of educational material

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the school's capacity to provide instruction is hindered by															
		A lack of educational material (e.g. textbooks, IT equipment, library or laboratory material)								Inadequate or poor quality educational material (e.g. textbooks, IT equipment, library or laboratory material)							
		Not at all		Very little		To some extent		A lot		Not at all		Very little		To some extent		A lot	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	61.0	(2.0)	28.1	(2.0)	10.1	(1.2)	0.8	(0.4)	62.1	(2.1)	27.7	(2.0)	9.6	(1.1)	0.6	(0.3)
	Austria	38.1	(3.4)	36.1	(3.3)	20.3	(3.0)	5.4	(1.9)	42.4	(3.5)	37.1	(3.2)	16.1	(2.7)	4.4	(1.7)
	Belgium	30.9	(2.8)	37.1	(3.1)	27.0	(2.7)	5.0	(1.5)	34.6	(3.0)	44.9	(2.9)	16.7	(2.1)	3.8	(1.3)
	Canada	44.5	(2.9)	39.0	(2.6)	14.8	(1.9)	1.8	(0.8)	46.5	(3.0)	40.4	(2.7)	12.1	(1.9)	1.0	(0.6)
	Chile	46.0	(3.8)	37.6	(4.1)	15.1	(3.0)	1.4	(0.9)	49.5	(3.6)	36.6	(3.7)	12.2	(2.6)	1.7	(1.2)
	Czech Republic	25.0	(2.6)	46.4	(3.1)	25.9	(2.6)	2.7	(1.0)	28.5	(2.9)	48.9	(3.0)	20.7	(2.2)	1.8	(0.6)
	Denmark	44.1	(3.4)	36.9	(3.7)	16.6	(2.5)	2.5	(1.3)	42.5	(3.4)	40.8	(3.4)	14.3	(1.9)	2.5	(1.3)
	Estonia	16.6	(1.9)	34.9	(2.9)	41.8	(2.9)	6.6	(1.5)	20.4	(1.9)	40.1	(2.8)	36.4	(2.7)	3.1	(1.2)
	Finland	18.5	(2.9)	40.3	(3.7)	38.7	(4.1)	2.5	(1.3)	17.5	(3.0)	42.6	(3.6)	37.2	(3.8)	2.6	(1.3)
	France	44.0	(3.3)	28.7	(2.9)	24.4	(2.8)	2.8	(1.1)	44.4	(3.7)	36.3	(3.3)	17.7	(2.6)	1.6	(0.8)
	Germany	28.6	(3.7)	35.4	(3.7)	27.6	(3.2)	8.3	(2.3)	26.5	(3.3)	38.8	(3.7)	29.6	(3.4)	5.1	(1.8)
	Greece	13.4	(2.4)	32.7	(3.6)	37.3	(3.7)	16.6	(3.1)	15.2	(2.6)	35.8	(3.5)	35.8	(3.4)	13.2	(2.4)
	Hungary	6.9	(1.3)	22.1	(2.7)	49.8	(3.4)	21.2	(2.6)	6.7	(1.3)	32.3	(3.1)	41.9	(3.4)	19.2	(2.6)
	Iceland	31.0	(0.2)	31.5	(0.2)	30.2	(0.3)	7.3	(0.1)	28.4	(0.2)	40.1	(0.3)	27.8	(0.3)	3.7	(0.1)
	Ireland	39.3	(4.2)	25.0	(3.6)	25.5	(3.8)	10.2	(2.4)	34.9	(3.5)	33.7	(4.2)	23.7	(3.5)	7.6	(2.2)
	Israel	26.4	(3.3)	36.2	(3.9)	23.4	(3.7)	14.0	(3.0)	32.9	(3.4)	34.6	(3.3)	23.7	(3.0)	8.8	(2.7)
	Italy	25.5	(3.1)	32.4	(3.0)	37.8	(3.1)	4.3	(1.5)	23.1	(2.9)	39.2	(3.4)	31.6	(3.6)	6.1	(1.8)
	Japan	5.7	(1.6)	29.0	(3.5)	50.4	(3.9)	14.9	(2.5)	7.6	(1.8)	35.7	(4.0)	46.9	(3.6)	9.8	(2.0)
	Korea	14.7	(2.9)	35.0	(3.9)	44.5	(3.9)	5.8	(1.9)	13.9	(2.8)	42.6	(4.0)	35.1	(3.6)	8.4	(2.3)
	Latvia	22.6	(2.8)	41.3	(3.0)	32.3	(2.7)	3.8	(1.1)	25.7	(2.6)	49.0	(3.1)	23.0	(2.7)	2.2	(0.8)
	Luxembourg	40.3	(0.1)	56.4	(0.1)	3.3	(0.0)	0.0	c	47.6	(0.1)	46.0	(0.1)	6.5	(0.0)	0.0	c
	Mexico	18.4	(2.4)	22.4	(2.9)	35.0	(3.5)	24.2	(2.9)	23.6	(2.4)	30.8	(3.5)	30.0	(2.9)	15.5	(2.3)
	Netherlands	33.8	(3.7)	36.2	(4.7)	27.3	(4.3)	2.7	(1.4)	35.9	(4.1)	41.9	(4.5)	20.4	(3.6)	1.9	(1.2)
	New Zealand	44.5	(4.1)	42.7	(4.4)	12.5	(2.7)	0.3	(0.4)	48.8	(3.8)	40.2	(3.9)	10.2	(2.4)	0.9	(0.7)
	Norway	20.8	(3.0)	43.6	(3.4)	32.7	(3.1)	2.9	(1.3)	13.9	(2.3)	49.4	(3.5)	32.4	(3.5)	4.4	(1.6)
	Poland	41.1	(4.2)	25.8	(3.7)	30.6	(3.9)	2.5	(1.2)	30.5	(4.1)	34.5	(4.4)	30.1	(4.0)	4.9	(1.7)
	Portugal	30.0	(3.4)	45.2	(3.8)	20.5	(3.1)	4.2	(1.5)	27.1	(3.2)	53.7	(3.7)	15.2	(2.7)	3.9	(1.5)
	Slovak Republic	18.9	(2.7)	27.9	(2.7)	43.1	(3.2)	10.1	(1.9)	14.7	(2.2)	32.1	(3.1)	46.4	(3.4)	6.7	(1.5)
	Slovenia	43.4	(0.3)	32.8	(0.6)	21.4	(0.6)	2.4	(0.1)	41.3	(0.5)	33.0	(0.4)	24.0	(0.5)	1.8	(0.1)
	Spain	26.9	(3.0)	26.7	(2.8)	33.4	(3.1)	13.0	(2.5)	27.6	(2.9)	29.4	(3.3)	32.8	(3.4)	10.2	(2.2)
	Sweden	40.8	(3.2)	38.8	(3.1)	19.0	(2.7)	1.4	(1.0)	38.3	(3.5)	38.0	(3.2)	21.3	(3.0)	2.5	(1.2)
	Switzerland	55.4	(3.9)	28.2	(3.7)	15.6	(2.5)	0.8	(0.6)	52.7	(4.1)	31.9	(3.8)	14.9	(2.5)	0.5	(0.5)
	Turkey	26.5	(3.5)	24.4	(3.6)	33.3	(4.0)	15.8	(3.0)	27.4	(4.0)	27.0	(3.5)	30.0	(3.4)	15.6	(3.0)
	United Kingdom	35.6	(3.2)	35.3	(3.3)	25.4	(3.4)	3.7	(1.4)	37.6	(3.2)	36.7	(3.3)	22.0	(3.0)	3.6	(1.3)
	United States	40.7	(3.8)	41.7	(3.8)	14.6	(2.9)	3.0	(1.3)	43.1	(3.9)	40.0	(3.7)	14.0	(2.7)	2.9	(1.3)
	OECD average	31.4	(0.5)	34.7	(0.6)	27.5	(0.5)	6.4	(0.3)	31.8	(0.5)	38.3	(0.6)	24.6	(0.5)	5.2	(0.3)
Partners	Albania	15.1	(2.7)	13.2	(2.3)	53.5	(3.7)	18.2	(3.0)	17.1	(2.8)	23.3	(3.1)	48.7	(4.0)	11.0	(2.6)
	Algeria	49.2	(4.1)	24.8	(4.0)	16.2	(3.3)	9.9	(2.5)	52.2	(4.4)	26.1	(3.9)	12.2	(3.0)	9.4	(2.6)
	Brazil	40.4	(2.6)	30.3	(2.2)	22.1	(2.3)	7.1	(1.0)	47.6	(2.6)	29.5	(2.3)	17.8	(2.1)	5.1	(1.0)
	B-S-J-G (China)	27.8	(3.3)	27.3	(3.6)	26.9	(3.4)	17.9	(3.0)	27.8	(3.3)	29.3	(4.2)	26.8	(3.4)	16.2	(3.3)
	Bulgaria	40.9	(3.5)	25.8	(3.4)	27.0	(3.8)	6.3	(2.0)	44.1	(3.5)	35.1	(3.7)	16.2	(3.1)	4.6	(1.5)
	CABA (Argentina)	51.6	(6.3)	24.0	(4.6)	20.5	(5.7)	3.9	(2.8)	58.6	(7.0)	23.0	(4.9)	13.6	(4.9)	4.8	(2.9)
	Colombia	17.2	(2.5)	22.4	(3.2)	34.4	(3.4)	25.9	(2.8)	30.7	(3.0)	23.9	(2.8)	29.2	(2.9)	16.2	(2.9)
	Costa Rica	14.0	(1.8)	17.1	(2.6)	31.2	(3.2)	37.8	(2.8)	18.5	(2.3)	22.0	(2.8)	30.7	(3.6)	28.7	(3.2)
	Croatia	11.4	(2.7)	21.5	(3.2)	43.0	(3.6)	24.1	(3.4)	11.4	(2.7)	23.7	(3.4)	49.2	(4.1)	15.7	(3.3)
	Cyprus*	24.7	(0.1)	42.7	(0.1)	24.1	(0.1)	8.6	(0.1)	26.5	(0.1)	50.9	(0.1)	14.1	(0.1)	8.5	(0.1)
	Dominican Republic	18.6	(3.1)	25.0	(3.7)	33.3	(3.7)	23.0	(3.6)	23.7	(3.4)	27.1	(3.9)	34.5	(4.5)	14.7	(3.2)
	FYROM	20.5	(0.2)	21.2	(0.1)	52.6	(0.2)	5.7	(0.1)	18.6	(0.2)	39.5	(0.2)	33.5	(0.2)	8.4	(0.1)
	Georgia	36.4	(3.0)	29.0	(2.6)	26.1	(2.8)	8.6	(1.6)	28.3	(2.9)	32.1	(2.9)	34.5	(3.5)	5.1	(1.3)
	Hong Kong (China)	40.1	(4.2)	45.1	(4.3)	14.1	(3.0)	0.7	(0.7)	37.7	(4.1)	42.4	(4.0)	20.0	(3.6)	0.0	c
	Indonesia	11.6	(2.2)	19.7	(2.7)	35.9	(3.9)	32.8	(2.9)	9.2	(1.9)	28.2	(3.0)	37.6	(3.8)	25.0	(3.0)
	Jordan	27.0	(3.0)	28.0	(3.4)	19.1	(3.1)	25.9	(3.3)	23.4	(3.0)	30.6	(3.1)	27.4	(3.2)	18.6	(2.8)
	Kosovo	5.4	(0.6)	8.9	(1.1)	42.7	(1.3)	43.0	(1.2)	6.5	(0.9)	21.4	(1.5)	48.7	(1.4)	23.4	(1.0)
	Lebanon	36.8	(3.1)	27.5	(3.3)	23.1	(3.1)	12.6	(1.9)	40.4	(3.2)	23.0	(2.4)	27.6	(2.9)	9.0	(2.2)
	Lithuania	17.1	(2.3)	28.0	(2.3)	42.9	(2.8)	12.0	(1.6)	17.2	(2.0)	30.0	(2.7)	45.2	(3.0)	7.6	(1.6)
	Macao (China)	42.4	(0.1)	29.8	(0.1)	19.9	(0.1)	7.9	(0.0)	34.0	(0.1)	34.6	(0.1)	20.7	(0.1)	10.7	(0.0)
	Malta	65.0	(0.1)	27.7	(0.1)	7.3	(0.1)	0.0	c	68.9	(0.1)	17.5	(0.1)	8.2	(0.1)	5.4	(0.1)
	Moldova	7.4	(2.0)	15.3	(2.4)	64.2	(3.5)	13.2	(2.0)	10.0	(2.1)	22.9	(2.8)	56.8	(3.4)	10.4	(2.3)
	Montenegro	8.2	(0.4)	32.2	(0.3)	45.5	(0.4)	14.0	(0.1)	8.4	(0.4)	34.2	(0.5)	44.3	(0.3)	13.0	(0.1)
	Peru	14.6	(1.7)	18.5	(2.5)	33.9	(2.9)	33.0	(2.8)	16.3	(2.3)	26.2	(3.1)	31.2	(3.1)	26.4	(2.7)
	Qatar	81.3	(0.1)	7.3	(0.1)	9.8	(0.1)	1.6	(0.0)	84.2	(0.1)	6.9	(0.1)	6.9	(0.1)	2.0	(0.0)
	Romania	22.9	(3.6)	31.3	(3.9)	40.9	(4.0)	5.0	(1.7)	15.0	(3.1)	35.7	(4.1)	44.9	(4.1)	4.4	(1.5)
	Russia	22.5	(3.7)	26.2	(2.9)	33.4	(3.4)	17.8	(3.0)	21.7	(3.8)	31.5	(3.2)	32.2	(3.9)	14.6	(2.8)
	Singapore	85.4	(1.1)	14.6	(1.1)	0.0	c	0.0	c	84.8	(0.8)	15.2	(0.8)	0.0	c	0.0	c
	Chinese Taipei	37.8	(3.7)	47.6	(3.7)	13.9	(2.5)	0.7	(0.4)	35.6	(3.6)	52.8	(3.8)	11.6	(2.3)	0.0	c
	Thailand	18.3	(2.9)	26.2	(3.9)	38.7	(3.5)	16.8	(2.5)	21.5	(2.6)	31.7	(3.7)	35.5	(3.9)	11.3	(2.1)
	Trinidad and Tobago	14.0	(0.2)	36.0	(0.3)	37.1	(0.3)	12.8	(0.2)	14.8	(0.2)	39.2	(0.3)	32.4	(0.3)	13.6	(0.2)
	Tunisia	3.3	(1.5)	8.8	(2.4)	43.9	(4.4)	43.9	(4.3)	8.1	(2.4)	8.4	(2.5)	52.8	(4.2)	30.6	(4.1)
	United Arab Emirates	49.7	(2.8)	20.9	(2.5)	13.8	(1.7)	15.6	(2.0)	51.3	(2.7)	23.0	(2.4)	14.3	(1.5)	11.4	(1.9)
	Uruguay	36.4	(3.0)	35.1	(3.0)	23.6	(2.3)	4.9	(1.2)	38.8	(3.1)	31.6	(2.6)	23.4	(2.3)	6.3	(1.5)
	Viet Nam	28.6	(3.9)	24.7	(3.4)	34.5	(4.0)	12.3	(2.7)	25.9	(3.9)	32.8	(3.9)	30.9	(4.1)	10.5	(2.2)
	Argentina**	36.3	(3.3)	28.1	(3.5)	23.9	(3.3)	11.7	(2.4)	49.3	(3.8)	20.5	(2.9)	22.7	(3.0)	7.5	(2.1)
	Kazakhstan**	27.3	(3.2)	24.7	(3.3)	40.9	(4.0)	7.0	(2.0)	19.0	(3.0)	26.1	(3.0)	47.2	(3.7)	7.6	(1.9)
	Malaysia**	38.0	(3.6)	42.8	(3.7)	17.2	(3.0)	1.9	(1.1)	32.5	(3.8)	41.3	(4.0)	24.9	(3.7)	1.3	(0.9)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/2]

Table II.6.1 Shortage of educational material

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the school's capacity to provide instruction is hindered by															
		A lack of physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems)								Inadequate or poor quality physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems)							
		Not at all		Very little		To some extent		A lot		Not at all		Very little		To some extent		A lot	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	42.8	(1.9)	33.0	(1.9)	20.6	(1.6)	3.6	(0.8)	44.0	(2.1)	30.7	(2.0)	20.7	(1.7)	4.7	(0.9)
	Austria	49.1	(3.5)	25.2	(3.1)	19.2	(2.5)	6.5	(1.8)	45.7	(3.2)	28.4	(3.0)	20.5	(2.6)	5.4	(1.5)
	Belgium	24.9	(3.1)	30.6	(2.8)	32.8	(2.9)	11.7	(2.0)	25.0	(3.0)	32.7	(3.1)	30.4	(2.8)	11.9	(2.1)
	Canada	50.6	(3.1)	32.5	(2.6)	14.0	(1.7)	2.8	(0.9)	51.1	(3.1)	31.3	(2.8)	15.1	(1.9)	2.5	(1.0)
	Chile	43.0	(3.7)	33.7	(4.0)	16.4	(3.0)	6.9	(2.1)	43.1	(3.9)	34.3	(4.3)	16.5	(3.2)	6.0	(2.2)
	Czech Republic	38.8	(3.1)	31.3	(3.2)	22.9	(2.5)	7.0	(1.7)	33.1	(3.0)	38.6	(2.8)	23.7	(2.5)	4.6	(1.3)
	Denmark	42.7	(3.5)	29.8	(3.3)	20.7	(3.0)	6.8	(1.8)	39.2	(3.8)	33.8	(3.4)	20.0	(2.8)	7.0	(1.9)
	Estonia	33.4	(2.5)	32.7	(2.6)	27.4	(2.1)	6.6	(1.4)	28.5	(2.4)	34.6	(2.7)	28.9	(2.3)	7.9	(1.6)
	Finland	30.4	(3.5)	31.3	(3.6)	29.8	(3.7)	8.4	(2.2)	26.2	(3.1)	32.4	(3.5)	31.3	(3.8)	10.1	(2.4)
	France	36.8	(3.2)	30.7	(3.4)	24.7	(2.7)	7.9	(1.9)	37.8	(3.6)	33.3	(3.0)	19.0	(2.8)	10.0	(2.3)
	Germany	33.3	(3.5)	27.5	(3.5)	29.3	(3.1)	9.9	(2.2)	29.7	(3.2)	30.4	(3.0)	30.4	(3.7)	9.4	(2.0)
	Greece	21.9	(3.2)	33.2	(3.8)	26.3	(3.8)	18.7	(3.1)	25.2	(3.1)	36.2	(3.6)	21.9	(3.1)	16.6	(2.6)
	Hungary	17.1	(2.6)	30.5	(3.3)	35.3	(3.2)	17.1	(2.4)	22.9	(2.7)	33.2	(3.1)	28.7	(3.0)	15.1	(2.4)
	Iceland	52.9	(0.3)	29.9	(0.2)	17.0	(0.2)	0.2	(0.0)	56.3	(0.3)	25.4	(0.2)	16.8	(0.2)	1.5	(0.1)
	Ireland	33.3	(3.7)	13.6	(2.9)	30.5	(3.5)	22.6	(3.2)	31.8	(3.6)	22.9	(3.4)	24.5	(3.2)	20.8	(3.0)
	Israel	19.8	(3.3)	21.9	(3.1)	33.8	(4.1)	24.4	(3.7)	22.5	(3.4)	20.9	(3.0)	39.5	(3.7)	17.1	(3.3)
	Italy	17.3	(3.0)	24.6	(3.3)	28.2	(3.4)	29.9	(3.5)	14.9	(2.5)	25.3	(2.9)	32.7	(3.7)	27.2	(3.6)
	Japan	3.9	(1.5)	27.0	(3.0)	53.1	(3.6)	16.0	(2.6)	6.3	(1.7)	36.2	(3.5)	43.3	(3.6)	14.2	(2.5)
	Korea	16.9	(2.8)	25.1	(3.4)	45.7	(4.4)	12.4	(2.9)	14.5	(3.1)	32.8	(3.8)	39.5	(4.2)	13.2	(2.9)
	Latvia	41.8	(2.7)	36.9	(2.5)	16.5	(1.9)	4.8	(1.0)	35.8	(2.6)	40.4	(2.7)	19.2	(2.2)	4.6	(1.0)
	Luxembourg	26.2	(0.1)	40.2	(0.1)	19.0	(0.1)	14.6	(0.1)	30.9	(0.1)	49.6	(0.1)	12.0	(0.1)	7.6	(0.1)
	Mexico	19.5	(2.0)	23.4	(2.8)	32.2	(3.3)	24.9	(2.7)	23.8	(2.6)	32.2	(3.2)	29.2	(2.8)	14.9	(2.4)
	Netherlands	46.5	(4.9)	27.0	(4.0)	17.3	(3.7)	9.2	(2.9)	42.5	(4.8)	31.3	(4.6)	18.3	(3.8)	7.9	(2.5)
	New Zealand	28.5	(4.0)	32.1	(3.7)	32.9	(3.8)	6.6	(1.6)	30.9	(4.2)	32.8	(4.1)	28.5	(3.6)	7.8	(1.8)
	Norway	32.0	(3.4)	37.9	(3.4)	23.7	(3.1)	6.5	(1.7)	27.9	(3.6)	35.5	(3.9)	29.5	(3.2)	7.1	(1.9)
	Poland	61.0	(3.6)	17.7	(3.1)	16.3	(2.8)	5.0	(1.8)	54.4	(3.9)	21.6	(3.4)	19.1	(2.9)	4.9	(1.7)
	Portugal	31.3	(3.2)	30.7	(3.1)	22.7	(2.7)	15.4	(2.6)	26.0	(3.2)	29.6	(3.1)	30.0	(2.8)	14.4	(2.5)
	Slovak Republic	37.1	(3.4)	30.5	(3.1)	24.4	(2.7)	8.0	(1.7)	36.7	(3.3)	30.1	(3.1)	23.2	(2.5)	10.1	(2.1)
	Slovenia	42.8	(0.5)	30.9	(0.5)	20.5	(0.4)	5.8	(0.4)	48.7	(0.5)	33.3	(0.4)	15.0	(0.3)	3.0	(0.1)
	Spain	31.9	(3.2)	24.8	(3.1)	28.2	(3.6)	15.0	(2.6)	32.0	(3.4)	19.8	(3.0)	34.8	(3.7)	13.4	(2.2)
	Sweden	46.5	(3.3)	31.9	(3.3)	18.4	(2.8)	3.3	(1.4)	42.2	(3.4)	30.1	(3.7)	22.4	(3.5)	5.3	(1.7)
	Switzerland	42.8	(3.9)	30.6	(3.6)	22.7	(2.8)	3.9	(1.5)	48.6	(4.0)	31.1	(4.1)	17.2	(2.8)	3.1	(1.2)
	Turkey	36.8	(4.2)	27.9	(4.0)	23.1	(3.3)	12.2	(2.7)	36.6	(4.2)	28.0	(4.1)	24.3	(4.0)	11.1	(2.5)
	United Kingdom	36.7	(3.0)	17.8	(2.8)	31.6	(3.4)	13.9	(2.6)	40.1	(3.0)	16.0	(2.6)	28.2	(2.7)	15.8	(2.7)
	United States	44.2	(3.6)	31.3	(2.8)	22.4	(3.1)	2.0	(0.9)	41.9	(3.5)	37.0	(3.7)	17.9	(3.2)	3.2	(1.2)
	OECD average	34.7	(0.5)	29.0	(0.5)	25.7	(0.5)	10.6	(0.4)	34.2	(0.5)	31.2	(0.5)	24.9	(0.5)	9.7	(0.4)
Partners	**Albania**	21.3	(2.9)	13.3	(2.1)	39.4	(3.5)	26.1	(3.6)	18.5	(2.5)	17.6	(2.8)	40.4	(3.8)	23.5	(3.4)
	Algeria	24.7	(3.3)	28.0	(4.0)	32.4	(4.0)	14.9	(3.1)	23.8	(3.6)	30.2	(4.1)	29.5	(4.0)	16.5	(3.2)
	Brazil	40.5	(2.6)	26.4	(2.8)	16.9	(1.9)	16.2	(2.0)	37.8	(2.8)	29.2	(2.7)	16.2	(1.8)	16.9	(2.2)
	B-S-J-G (China)	23.3	(3.1)	35.1	(3.3)	28.7	(3.0)	12.9	(3.2)	26.0	(3.1)	34.3	(4.2)	25.6	(3.6)	14.2	(3.2)
	Bulgaria	46.3	(4.3)	25.7	(3.3)	19.8	(3.1)	8.2	(2.3)	43.0	(4.3)	34.3	(3.5)	19.9	(3.0)	2.8	(0.8)
	CABA (Argentina)	49.6	(6.1)	10.9	(4.5)	19.1	(5.1)	20.4	(4.3)	50.0	(6.3)	15.4	(4.5)	20.0	(5.4)	14.7	(4.4)
	Colombia	20.7	(3.0)	21.7	(3.4)	22.6	(3.0)	35.0	(3.1)	25.7	(2.8)	22.9	(3.0)	24.7	(3.0)	26.7	(3.2)
	Costa Rica	17.5	(2.5)	20.5	(3.1)	22.9	(3.2)	39.1	(3.5)	17.9	(2.8)	20.9	(2.8)	22.2	(3.2)	39.0	(3.6)
	Croatia	13.1	(2.5)	13.3	(2.8)	37.8	(3.8)	35.8	(3.8)	8.6	(2.3)	23.8	(3.8)	42.7	(4.0)	24.8	(3.7)
	Cyprus*	34.6	(0.2)	34.1	(0.1)	24.2	(0.2)	7.2	(0.1)	30.9	(0.1)	46.2	(0.1)	15.8	(0.1)	7.1	(0.1)
	Dominican Republic	41.9	(4.0)	19.5	(3.3)	24.5	(3.6)	14.1	(2.5)	44.3	(3.9)	20.7	(3.0)	23.1	(3.2)	11.8	(2.5)
	FYROM	42.6	(0.2)	31.9	(0.1)	16.3	(0.1)	9.2	(0.1)	38.4	(0.2)	40.8	(0.2)	13.4	(0.1)	7.4	(0.1)
	Georgia	22.0	(2.5)	19.7	(2.7)	37.8	(3.4)	20.5	(2.7)	22.6	(2.7)	23.8	(3.2)	33.3	(3.3)	20.3	(2.7)
	Hong Kong (China)	37.0	(4.8)	41.3	(4.7)	16.9	(3.1)	4.8	(1.7)	32.4	(4.0)	45.4	(4.4)	17.3	(3.0)	5.0	(2.1)
	Indonesia	15.3	(2.2)	22.4	(3.3)	35.6	(3.7)	26.7	(3.0)	15.7	(2.0)	25.2	(3.1)	35.8	(3.7)	23.3	(3.0)
	Jordan	18.2	(2.4)	21.2	(2.8)	32.2	(3.7)	28.4	(3.2)	16.2	(2.3)	18.6	(2.8)	42.6	(3.1)	22.5	(2.7)
	Kosovo	27.4	(1.0)	21.8	(0.9)	32.3	(1.1)	18.4	(1.0)	22.9	(1.0)	26.9	(1.3)	33.1	(1.2)	17.1	(1.0)
	Lebanon	38.2	(3.0)	20.3	(2.4)	25.7	(3.3)	15.8	(2.8)	43.2	(3.0)	20.1	(2.9)	26.5	(3.4)	10.3	(2.3)
	Lithuania	27.2	(2.4)	24.6	(2.6)	32.3	(2.6)	15.9	(1.9)	28.4	(2.3)	26.6	(2.6)	30.6	(2.7)	14.4	(2.0)
	Macao (China)	37.1	(0.1)	21.9	(0.1)	17.3	(0.1)	23.7	(0.0)	34.0	(0.1)	21.8	(0.0)	20.5	(0.1)	23.7	(0.0)
	Malta	33.5	(0.1)	32.0	(0.1)	23.6	(0.1)	10.9	(0.1)	41.0	(0.1)	27.6	(0.1)	24.5	(0.1)	6.9	(0.1)
	Moldova	34.5	(4.0)	31.0	(3.9)	26.5	(3.2)	8.0	(1.8)	26.8	(3.8)	35.5	(3.9)	30.6	(3.5)	7.2	(1.7)
	Montenegro	28.3	(0.2)	24.4	(0.5)	41.4	(0.5)	5.9	(0.4)	22.6	(0.5)	21.1	(0.1)	48.4	(0.4)	7.9	(0.2)
	Peru	31.1	(2.7)	22.5	(2.2)	23.6	(2.9)	22.8	(2.6)	30.4	(2.6)	22.2	(2.5)	23.9	(2.9)	23.5	(2.6)
	Qatar	59.4	(0.1)	23.2	(0.1)	12.8	(0.1)	4.6	(0.1)	62.2	(0.1)	22.1	(0.1)	11.6	(0.1)	4.1	(0.1)
	Romania	35.9	(4.1)	31.2	(4.1)	28.3	(3.9)	4.5	(1.7)	36.9	(4.3)	34.0	(4.2)	23.4	(3.5)	5.8	(1.8)
	Russia	31.8	(3.7)	18.7	(2.5)	32.8	(3.8)	16.7	(3.3)	29.9	(3.6)	19.9	(3.5)	40.8	(3.5)	9.4	(2.3)
	Singapore	57.6	(1.1)	31.0	(1.2)	11.0	(0.1)	0.4	(0.0)	58.5	(0.9)	30.9	(0.9)	9.8	(0.1)	0.7	(0.0)
	Chinese Taipei	23.6	(3.0)	41.1	(3.9)	29.9	(3.2)	5.4	(1.9)	22.6	(2.8)	51.9	(3.7)	22.7	(3.1)	2.8	(1.2)
	Thailand	21.5	(2.7)	22.9	(2.8)	42.5	(4.0)	13.1	(2.8)	23.2	(3.0)	32.4	(3.6)	36.0	(3.6)	8.3	(2.4)
	Trinidad and Tobago	5.7	(0.1)	23.1	(0.2)	39.8	(0.3)	31.4	(0.3)	9.1	(0.2)	21.5	(0.2)	38.9	(0.3)	30.5	(0.3)
	Tunisia	1.9	(1.1)	5.5	(2.0)	38.2	(4.6)	54.4	(4.7)	3.8	(1.6)	9.0	(2.5)	37.8	(4.2)	49.4	(4.5)
	United Arab Emirates	45.0	(2.4)	19.4	(1.9)	21.2	(2.1)	14.4	(1.7)	48.2	(2.5)	17.9	(2.0)	20.7	(2.0)	13.2	(1.9)
	Uruguay	31.1	(2.9)	15.5	(2.2)	31.6	(2.8)	21.8	(2.4)	30.1	(3.0)	20.9	(2.5)	26.9	(2.7)	22.1	(2.2)
	Viet Nam	18.4	(2.9)	20.4	(3.3)	45.1	(4.5)	16.1	(3.1)	22.9	(3.3)	24.5	(3.5)	41.9	(4.0)	10.8	(2.4)
	Argentina**	25.8	(3.1)	17.4	(3.0)	27.4	(3.6)	29.5	(3.5)	32.1	(3.4)	16.8	(2.7)	24.4	(3.4)	26.8	(3.1)
	Kazakhstan**	31.3	(3.7)	19.6	(3.2)	36.6	(3.7)	12.5	(2.3)	36.1	(3.5)	21.5	(2.9)	31.6	(3.5)	10.8	(2.4)
	Malaysia**	27.1	(3.5)	44.2	(4.1)	20.0	(3.5)	8.6	(2.1)	20.9	(3.3)	44.3	(4.1)	27.2	(4.2)	7.7	(1.7)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.6.2 Index of shortage of educational material[1], science performance and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[2]									
		Average		Variability in this index		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	Australia	-0.39	(0.03)	0.82	(0.03)	-0.13	(0.07)	-0.21	(0.07)	-0.40	(0.07)	-0.77	(0.06)	**-0.64**	(0.09)
	Austria	-0.27	(0.06)	0.88	(0.08)	-0.23	(0.13)	-0.30	(0.15)	-0.33	(0.14)	-0.21	(0.16)	0.02	(0.20)
	Belgium	0.11	(0.06)	0.90	(0.04)	0.24	(0.13)	0.34	(0.15)	-0.06	(0.13)	-0.05	(0.11)	-0.29	(0.17)
	Canada	-0.46	(0.04)	0.74	(0.03)	-0.46	(0.07)	-0.47	(0.09)	-0.33	(0.12)	-0.61	(0.08)	-0.15	(0.11)
	Chile	-0.32	(0.06)	0.81	(0.04)	-0.04	(0.13)	-0.14	(0.13)	-0.44	(0.13)	-0.65	(0.08)	**-0.62**	(0.16)
	Czech Republic	-0.13	(0.05)	0.78	(0.04)	-0.10	(0.09)	-0.07	(0.10)	-0.01	(0.11)	-0.33	(0.09)	-0.24	(0.12)
	Denmark	-0.21	(0.08)	0.99	(0.10)	-0.05	(0.22)	-0.25	(0.14)	-0.17	(0.13)	-0.38	(0.11)	-0.33	(0.26)
	Estonia	0.05	(0.05)	0.85	(0.06)	-0.03	(0.14)	-0.07	(0.11)	0.09	(0.12)	0.22	(0.08)	0.25	(0.17)
	Finland	0.09	(0.07)	0.84	(0.04)	0.09	(0.16)	0.14	(0.13)	0.11	(0.13)	0.03	(0.14)	-0.06	(0.20)
	France	-0.17	(0.06)	0.86	(0.04)	-0.11	(0.12)	-0.15	(0.13)	-0.25	(0.12)	-0.15	(0.13)	-0.04	(0.17)
	Germany	0.06	(0.07)	0.90	(0.06)	0.09	(0.13)	0.10	(0.16)	0.00	(0.12)	0.04	(0.13)	-0.05	(0.17)
	Greece	0.39	(0.09)	1.19	(0.07)	0.33	(0.28)	0.68	(0.19)	0.45	(0.22)	0.12	(0.11)	-0.21	(0.30)
	Hungary	0.51	(0.07)	1.14	(0.06)	0.61	(0.12)	0.59	(0.24)	0.53	(0.19)	0.34	(0.19)	-0.27	(0.22)
	Iceland	-0.40	(0.00)	0.74	(0.00)	-0.57	(0.01)	-0.33	(0.01)	-0.42	(0.01)	-0.28	(0.01)	**0.29**	(0.01)
	Ireland	0.25	(0.09)	1.20	(0.08)	0.48	(0.22)	0.20	(0.20)	0.22	(0.23)	0.10	(0.25)	-0.38	(0.33)
	Israel	0.44	(0.10)	1.12	(0.10)	0.73	(0.26)	0.42	(0.17)	0.21	(0.15)	0.39	(0.20)	-0.34	(0.34)
	Italy	0.56	(0.08)	1.07	(0.07)	0.66	(0.20)	0.65	(0.23)	0.68	(0.14)	0.24	(0.16)	-0.43	(0.26)
	Japan	0.72	(0.07)	1.00	(0.07)	0.98	(0.17)	0.86	(0.18)	0.69	(0.15)	0.36	(0.12)	**-0.62**	(0.21)
	Korea	0.42	(0.08)	0.93	(0.07)	0.43	(0.18)	0.48	(0.17)	0.41	(0.12)	0.35	(0.13)	-0.08	(0.20)
	Latvia	-0.19	(0.04)	0.78	(0.02)	-0.34	(0.07)	-0.27	(0.09)	-0.27	(0.10)	0.13	(0.08)	**0.47**	(0.11)
	Luxembourg	-0.16	(0.00)	0.81	(0.00)	0.06	(0.01)	-0.21	(0.00)	0.03	(0.00)	-0.53	(0.00)	**-0.59**	(0.01)
	Mexico	0.46	(0.07)	1.20	(0.06)	1.28	(0.14)	0.45	(0.13)	0.51	(0.16)	-0.39	(0.12)	**-1.67**	(0.19)
	Netherlands	-0.20	(0.08)	0.87	(0.07)	-0.20	(0.21)	-0.18	(0.14)	-0.11	(0.17)	-0.30	(0.17)	-0.10	(0.26)
	New Zealand	-0.09	(0.06)	0.82	(0.04)	0.11	(0.17)	-0.13	(0.12)	-0.03	(0.16)	-0.29	(0.11)	-0.39	(0.21)
	Norway	0.00	(0.06)	0.78	(0.04)	0.15	(0.12)	-0.01	(0.13)	0.04	(0.12)	-0.20	(0.11)	**-0.35**	(0.16)
	Poland	-0.35	(0.07)	0.93	(0.09)	-0.43	(0.12)	-0.27	(0.11)	-0.39	(0.16)	-0.31	(0.17)	0.12	(0.20)
	Portugal	0.11	(0.07)	1.02	(0.07)	0.24	(0.19)	0.41	(0.16)	0.08	(0.22)	-0.30	(0.19)	**-0.54**	(0.25)
	Slovak Republic	0.05	(0.06)	0.94	(0.06)	0.02	(0.09)	-0.14	(0.16)	0.09	(0.13)	0.25	(0.12)	0.23	(0.14)
	Slovenia	-0.30	(0.01)	0.87	(0.01)	-0.22	(0.04)	-0.02	(0.03)	-0.47	(0.03)	-0.50	(0.01)	**-0.27**	(0.04)
	Spain	0.23	(0.08)	1.21	(0.08)	0.53	(0.18)	0.49	(0.18)	0.30	(0.20)	-0.39	(0.13)	**-0.92**	(0.23)
	Sweden	-0.28	(0.06)	0.81	(0.08)	-0.16	(0.17)	0.01	(0.16)	-0.49	(0.14)	-0.49	(0.13)	-0.33	(0.22)
	Switzerland	-0.38	(0.05)	0.75	(0.04)	-0.23	(0.14)	-0.53	(0.12)	-0.48	(0.12)	-0.28	(0.10)	-0.06	(0.17)
	Turkey	0.14	(0.10)	1.26	(0.10)	0.57	(0.21)	0.37	(0.20)	-0.01	(0.26)	-0.39	(0.24)	**-0.96**	(0.33)
	United Kingdom	0.04	(0.07)	1.09	(0.06)	-0.24	(0.14)	-0.05	(0.21)	0.29	(0.17)	0.16	(0.15)	0.40	(0.21)
	United States	-0.33	(0.06)	0.79	(0.05)	-0.01	(0.14)	-0.41	(0.13)	-0.56	(0.13)	-0.33	(0.11)	-0.32	(0.17)
	OECD average	0.00	(0.01)	0.93	(0.01)	0.12	(0.03)	0.06	(0.02)	-0.01	(0.03)	-0.15	(0.02)	**-0.27**	(0.03)
Partners	Albania	0.64	(0.09)	1.12	(0.07)	0.54	(0.23)	0.73	(0.29)	0.61	(0.30)	0.70	(0.12)	0.16	(0.27)
	Algeria	0.20	(0.09)	1.07	(0.09)	0.45	(0.22)	0.05	(0.18)	0.22	(0.19)	0.09	(0.17)	-0.37	(0.28)
	Brazil	-0.05	(0.05)	1.09	(0.04)	0.42	(0.12)	0.27	(0.12)	-0.24	(0.11)	-0.59	(0.10)	**-1.01**	(0.16)
	B-S-J-G (China)	0.26	(0.09)	1.17	(0.08)	0.64	(0.19)	0.50	(0.16)	-0.03	(0.23)	-0.08	(0.16)	**-0.71**	(0.23)
	Bulgaria	-0.26	(0.07)	0.81	(0.06)	-0.28	(0.10)	-0.31	(0.12)	-0.37	(0.15)	-0.08	(0.18)	0.19	(0.21)
	CABA (Argentina)	-0.12	(0.15)	1.24	(0.16)	0.87	(0.34)	0.07	(0.33)	-0.70	(0.21)	-1.04	(0.20)	**-1.91**	(0.40)
	Colombia	0.64	(0.09)	1.34	(0.07)	0.89	(0.18)	1.00	(0.23)	0.84	(0.23)	-0.16	(0.13)	**-1.05**	(0.22)
	Costa Rica	1.03	(0.11)	1.51	(0.07)	0.99	(0.28)	0.80	(0.21)	0.95	(0.22)	1.36	(0.21)	0.36	(0.36)
	Croatia	0.87	(0.09)	1.06	(0.08)	1.12	(0.21)	0.87	(0.18)	0.75	(0.19)	0.74	(0.16)	-0.38	(0.26)
	Cyprus*	-0.06	(0.00)	0.97	(0.00)	-0.10	(0.01)	0.30	(0.01)	-0.26	(0.01)	-0.21	(0.00)	**-0.11**	(0.01)
	Dominican Republic	0.11	(0.09)	1.13	(0.08)	0.41	(0.21)	0.11	(0.22)	0.34	(0.23)	-0.41	(0.13)	**-0.82**	(0.25)
	FYROM	-0.09	(0.00)	0.94	(0.00)	-0.15	(0.01)	-0.01	(0.01)	-0.09	(0.01)	-0.10	(0.01)	**0.05**	(0.01)
	Georgia	0.35	(0.06)	1.02	(0.04)	0.72	(0.15)	0.30	(0.12)	0.46	(0.11)	-0.05	(0.14)	**-0.77**	(0.20)
	Hong Kong (China)	-0.24	(0.07)	0.78	(0.05)	-0.15	(0.17)	-0.41	(0.13)	-0.23	(0.16)	-0.19	(0.15)	-0.04	(0.22)
	Indonesia	0.87	(0.08)	1.36	(0.07)	1.43	(0.24)	0.87	(0.20)	0.73	(0.14)	0.44	(0.17)	**-0.99**	(0.32)
	Jordan	0.70	(0.09)	1.31	(0.07)	1.25	(0.20)	0.60	(0.13)	0.84	(0.21)	0.12	(0.15)	**-1.13**	(0.24)
	Kosovo	0.54	(0.03)	1.06	(0.03)	0.44	(0.08)	0.86	(0.05)	0.54	(0.06)	0.32	(0.06)	-0.12	(0.10)
	Lebanon	0.02	(0.08)	1.15	(0.08)	0.67	(0.22)	0.25	(0.13)	-0.23	(0.14)	-0.58	(0.12)	**-1.25**	(0.26)
	Lithuania	0.29	(0.05)	1.02	(0.05)	0.26	(0.15)	0.16	(0.12)	0.24	(0.11)	0.51	(0.16)	0.25	(0.20)
	Macao (China)	0.20	(0.00)	1.30	(0.00)	1.11	(0.00)	0.31	(0.00)	-0.11	(0.00)	-0.52	(0.00)	**-1.63**	(0.00)
	Malta	-0.24	(0.00)	0.87	(0.00)	0.03	(0.01)	-0.34	(0.01)	-0.19	(0.01)	-0.48	(0.00)	**-0.52**	(0.01)
	Moldova	0.17	(0.06)	0.85	(0.04)	0.34	(0.12)	0.17	(0.14)	0.14	(0.11)	0.04	(0.11)	-0.30	(0.16)
	Montenegro	0.35	(0.01)	1.00	(0.00)	0.37	(0.02)	-0.16	(0.03)	0.94	(0.01)	0.25	(0.01)	**-0.12**	(0.03)
	Peru	0.51	(0.08)	1.37	(0.07)	1.10	(0.16)	1.11	(0.16)	0.41	(0.18)	-0.55	(0.17)	**-1.65**	(0.23)
	Qatar	-0.65	(0.00)	0.83	(0.00)	-0.56	(0.01)	-0.51	(0.01)	-0.86	(0.00)	-0.68	(0.00)	**-0.12**	(0.01)
	Romania	-0.03	(0.07)	0.86	(0.08)	-0.04	(0.15)	-0.04	(0.15)	0.14	(0.21)	-0.18	(0.13)	-0.14	(0.20)
	Russia	0.31	(0.10)	1.17	(0.08)	0.54	(0.18)	0.48	(0.23)	0.25	(0.19)	-0.03	(0.27)	-0.57	(0.33)
	Singapore	-0.73	(0.01)	0.60	(0.00)	-0.62	(0.01)	-0.66	(0.02)	-0.81	(0.01)	-0.85	(0.03)	**-0.23**	(0.03)
	Chinese Taipei	-0.11	(0.05)	0.71	(0.03)	-0.03	(0.12)	0.09	(0.11)	-0.22	(0.12)	-0.29	(0.10)	-0.26	(0.15)
	Thailand	0.34	(0.08)	1.04	(0.07)	0.65	(0.17)	0.47	(0.17)	0.33	(0.13)	-0.10	(0.15)	**-0.75**	(0.23)
	Trinidad and Tobago	0.85	(0.01)	1.08	(0.01)	0.73	(0.01)	1.05	(0.02)	1.09	(0.01)	0.57	(0.01)	**-0.16**	(0.01)
	Tunisia	1.59	(0.11)	1.16	(0.07)	1.53	(0.14)	1.70	(0.26)	1.78	(0.22)	1.32	(0.21)	-0.21	(0.26)
	United Arab Emirates	-0.05	(0.07)	1.34	(0.07)	0.58	(0.26)	0.10	(0.20)	-0.20	(0.11)	-0.69	(0.08)	**-1.26**	(0.28)
	Uruguay	0.25	(0.07)	1.14	(0.05)	0.49	(0.13)	0.45	(0.14)	0.34	(0.13)	-0.28	(0.14)	**-0.77**	(0.18)
	Viet Nam	0.39	(0.08)	1.05	(0.08)	0.37	(0.14)	0.45	(0.21)	0.61	(0.16)	0.12	(0.17)	-0.24	(0.22)
	Argentina**	0.35	(0.09)	1.20	(0.06)	0.68	(0.19)	0.63	(0.18)	0.34	(0.24)	-0.26	(0.18)	**-0.94**	(0.25)
	Kazakhstan**	0.19	(0.08)	1.05	(0.08)	0.33	(0.19)	0.17	(0.15)	0.04	(0.14)	0.21	(0.19)	-0.12	(0.26)
	Malaysia**	-0.02	(0.06)	0.83	(0.06)	0.15	(0.17)	0.08	(0.16)	-0.27	(0.12)	-0.04	(0.15)	-0.20	(0.22)

1. Higher values in the index indicate greater shortage of educational material.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.6.2 Index of shortage of educational material¹, science performance and school characteristics

Results based on school principals' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	-0.19	(0.18)	-0.27	(0.06)	-0.45	(0.04)	-0.25	(0.19)	-0.14	(0.04)	-0.70	(0.04)	**-0.56**	(0.05)
	Austria	0.07	(0.26)	-0.31	(0.07)	-0.31	(0.13)	-0.38	(0.29)	-0.27	(0.07)	-0.16	(0.19)	0.11	(0.20)
	Belgium	-0.09	(0.24)	0.04	(0.07)	0.27	(0.11)	0.36	(0.29)	w	w	w	w	w	w
	Canada	-0.30	(0.14)	-0.51	(0.07)	-0.45	(0.06)	-0.14	(0.16)	-0.43	(0.04)	-0.80	(0.15)	**-0.37**	(0.15)
	Chile	0.42	(0.53)	-0.25	(0.13)	-0.38	(0.07)	-0.80	(0.54)	0.13	(0.09)	-0.60	(0.07)	**-0.73**	(0.11)
	Czech Republic	-0.05	(0.11)	-0.08	(0.06)	-0.28	(0.09)	-0.23	(0.14)	-0.12	(0.05)	-0.15	(0.16)	-0.02	(0.17)
	Denmark	-0.49	(0.12)	-0.19	(0.11)	-0.06	(0.14)	**0.44**	(0.18)	-0.17	(0.09)	-0.35	(0.11)	-0.18	(0.13)
	Estonia	0.02	(0.12)	0.14	(0.07)	-0.08	(0.08)	-0.11	(0.14)	0.06	(0.05)	-0.20	(0.27)	-0.26	(0.28)
	Finland	-0.07	(0.17)	0.12	(0.08)	0.10	(0.13)	0.17	(0.22)	0.13	(0.07)	-0.70	(0.25)	**-0.83**	(0.26)
	France	0.26	(0.20)	-0.15	(0.08)	-0.25	(0.10)	**-0.52**	(0.23)	-0.22	(0.08)	0.00	(0.11)	0.21	(0.14)
	Germany	-0.03	(0.35)	-0.04	(0.08)	0.28	(0.12)	0.32	(0.36)	0.09	(0.07)	-0.41	(0.16)	**-0.50**	(0.18)
	Greece	0.80	(0.41)	0.43	(0.11)	0.25	(0.14)	-0.55	(0.44)	0.46	(0.09)	-0.94	(0.13)	**-1.40**	(0.16)
	Hungary	-0.02	(0.15)	0.51	(0.11)	0.55	(0.13)	**0.57**	(0.20)	0.64	(0.08)	-0.09	(0.12)	**-0.73**	(0.13)
	Iceland	-0.48	(0.01)	-0.44	(0.00)	-0.29	(0.01)	**0.19**	(0.01)	-0.41	(0.00)	c	c	c	c
	Ireland	0.69	(0.26)	0.25	(0.14)	-0.03	(0.16)	**-0.72**	(0.30)	0.24	(0.14)	0.25	(0.12)	0.01	(0.18)
	Israel	0.34	(0.18)	0.50	(0.15)	0.39	(0.18)	0.06	(0.25)	m	m	m	m	m	m
	Italy	0.45	(0.26)	0.63	(0.10)	0.39	(0.14)	-0.06	(0.29)	0.60	(0.08)	-0.51	(0.21)	**-1.12**	(0.22)
	Japan	c	c	0.82	(0.12)	0.68	(0.08)	c	c	0.84	(0.09)	0.47	(0.10)	**-0.36**	(0.14)
	Korea	c	c	0.37	(0.23)	0.42	(0.08)	c	c	0.49	(0.11)	0.28	(0.11)	-0.21	(0.15)
	Latvia	-0.33	(0.05)	-0.24	(0.07)	0.01	(0.07)	**0.34**	(0.09)	-0.19	(0.04)	-0.40	(0.27)	-0.22	(0.28)
	Luxembourg	m	m	-0.22	(0.00)	-0.09	(0.00)	m	m	-0.11	(0.00)	-0.45	(0.00)	**-0.34**	(0.00)
	Mexico	1.26	(0.17)	0.57	(0.13)	0.08	(0.09)	**-1.19**	(0.20)	0.62	(0.07)	-0.64	(0.12)	**-1.25**	(0.14)
	Netherlands	c	c	-0.25	(0.11)	-0.07	(0.15)	c	c	-0.25	(0.13)	-0.19	(0.11)	0.06	(0.18)
	New Zealand	0.17	(0.48)	-0.14	(0.11)	-0.07	(0.08)	-0.24	(0.49)	-0.05	(0.06)	-0.59	(0.23)	**-0.54**	(0.23)
	Norway	0.02	(0.13)	0.09	(0.08)	-0.29	(0.11)	-0.32	(0.17)	0.00	(0.06)	-0.10	(0.14)	-0.10	(0.14)
	Poland	-0.34	(0.10)	-0.50	(0.11)	-0.16	(0.17)	0.18	(0.20)	-0.35	(0.07)	-0.33	(0.16)	0.02	(0.18)
	Portugal	0.51	(0.35)	0.10	(0.08)	0.06	(0.19)	-0.45	(0.41)	0.17	(0.07)	-0.89	(0.20)	**-1.06**	(0.22)
	Slovak Republic	0.08	(0.10)	0.01	(0.07)	0.25	(0.25)	0.17	(0.26)	0.03	(0.07)	0.22	(0.13)	0.19	(0.14)
	Slovenia	-0.49	(0.08)	-0.30	(0.01)	-0.29	(0.01)	**0.20**	(0.08)	-0.29	(0.01)	-0.88	(0.00)	**-0.59**	(0.01)
	Spain	0.62	(0.48)	0.28	(0.12)	0.10	(0.13)	-0.51	(0.49)	0.55	(0.11)	-0.46	(0.10)	**-1.00**	(0.15)
	Sweden	-0.18	(0.37)	-0.25	(0.08)	-0.37	(0.08)	-0.19	(0.38)	-0.20	(0.07)	-0.65	(0.10)	**-0.45**	(0.13)
	Switzerland	-0.31	(0.15)	-0.41	(0.06)	-0.25	(0.12)	0.07	(0.20)	-0.39	(0.06)	-0.31	(0.19)	0.08	(0.21)
	Turkey	0.69	(0.48)	0.25	(0.17)	0.05	(0.14)	-0.64	(0.51)	0.20	(0.11)	-1.08	(0.13)	**-1.27**	(0.16)
	United Kingdom	0.45	(0.16)	0.08	(0.09)	-0.17	(0.14)	**-0.62**	(0.23)	0.09	(0.08)	-0.64	(0.18)	**-0.74**	(0.20)
	United States	-0.61	(0.17)	-0.39	(0.07)	-0.18	(0.11)	**0.43**	(0.21)	-0.35	(0.06)	-0.14	(0.22)	0.21	(0.23)
	OECD average	0.09	(0.05)	0.01	(0.02)	-0.02	(0.02)	**-0.14**	(0.05)	0.05	(0.01)	-0.36	(0.03)	**-0.43**	(0.03)
Partners	**Albania**	0.81	(0.17)	0.75	(0.10)	0.35	(0.19)	-0.46	(0.26)	0.88	(0.09)	-1.18	(0.04)	**-2.06**	(0.09)
	Algeria	0.90	(0.30)	0.16	(0.11)	-0.06	(0.15)	**-0.96**	(0.33)	0.18	(0.09)	c	c	c	c
	Brazil	0.54	(0.25)	0.20	(0.08)	-0.32	(0.08)	**-0.86**	(0.27)	0.12	(0.06)	-1.10	(0.05)	**-1.22**	(0.08)
	B-S-J-G (China)	0.93	(0.35)	0.34	(0.12)	0.02	(0.14)	**-0.91**	(0.37)	0.22	(0.09)	0.36	(0.32)	0.14	(0.33)
	Bulgaria	-0.08	(0.25)	-0.22	(0.08)	-0.33	(0.13)	-0.26	(0.28)	-0.25	(0.07)	c	c	c	c
	CABA (Argentina)	m	m	c	c	-0.09	(0.16)	m	m	0.45	(0.28)	-0.68	(0.16)	**-1.14**	(0.33)
	Colombia	0.93	(0.23)	0.84	(0.19)	0.41	(0.10)	**-0.52**	(0.25)	1.03	(0.11)	-0.59	(0.08)	**-1.62**	(0.14)
	Costa Rica	0.46	(0.23)	1.35	(0.14)	0.37	(0.32)	-0.09	(0.42)	1.09	(0.10)	0.57	(0.40)	-0.52	(0.40)
	Croatia	c	c	0.88	(0.11)	0.89	(0.15)	c	c	0.89	(0.09)	c	c	c	c
	Cyprus*	0.08	(0.03)	-0.12	(0.00)	0.02	(0.00)	**-0.07**	(0.03)	0.06	(0.00)	-0.73	(0.01)	**-0.79**	(0.01)
	Dominican Republic	0.60	(0.25)	0.11	(0.10)	-0.27	(0.17)	**-0.87**	(0.31)	0.26	(0.10)	-0.42	(0.16)	**-0.69**	(0.18)
	FYROM	0.60	(0.01)	-0.19	(0.00)	0.04	(0.01)	**-0.56**	(0.01)	-0.07	(0.00)	-1.09	(0.00)	**-1.02**	(0.01)
	Georgia	0.70	(0.10)	0.34	(0.12)	0.12	(0.10)	**-0.58**	(0.13)	0.45	(0.06)	-0.71	(0.18)	**-1.17**	(0.18)
	Hong Kong (China)	m	m	m	m	-0.24	(0.07)	m	m	-0.03	(0.30)	-0.26	(0.07)	-0.23	(0.30)
	Indonesia	1.23	(0.18)	0.81	(0.11)	0.38	(0.16)	**-0.85**	(0.24)	0.80	(0.10)	0.97	(0.14)	0.17	(0.19)
	Jordan	1.19	(0.29)	0.86	(0.13)	0.27	(0.13)	**-0.91**	(0.33)	0.83	(0.10)	0.17	(0.19)	**-0.66**	(0.22)
	Kosovo	0.58	(0.10)	0.58	(0.04)	0.45	(0.05)	-0.13	(0.12)	0.57	(0.03)	-0.70	(0.17)	**-1.27**	(0.18)
	Lebanon	0.46	(0.30)	0.03	(0.10)	-0.23	(0.11)	**-0.69**	(0.33)	0.60	(0.14)	-0.53	(0.07)	**-1.13**	(0.15)
	Lithuania	0.40	(0.14)	0.21	(0.07)	0.32	(0.07)	-0.08	(0.15)	0.28	(0.05)	0.73	(0.42)	0.44	(0.42)
	Macao (China)	c	c	c	c	0.20	(0.00)	c	c	c	c	0.18	(0.00)	c	c
	Malta	-0.36	(0.00)	-0.23	(0.00)	m	m	m	m	-0.25	(0.00)	-0.23	(0.00)	**0.01**	(0.00)
	Moldova	0.30	(0.08)	0.03	(0.10)	0.04	(0.14)	-0.27	(0.17)	0.19	(0.06)	c	c	c	c
	Montenegro	c	c	0.50	(0.01)	0.05	(0.02)	c	c	0.36	(0.01)	c	c	c	c
	Peru	0.98	(0.16)	0.43	(0.11)	-0.04	(0.21)	**-1.02**	(0.28)	1.03	(0.10)	-0.62	(0.09)	**-1.66**	(0.13)
	Qatar	-0.43	(0.01)	-0.64	(0.00)	-0.68	(0.00)	**-0.25**	(0.01)	-0.63	(0.00)	-0.69	(0.00)	**-0.06**	(0.00)
	Romania	0.25	(0.18)	0.01	(0.10)	-0.21	(0.12)	**-0.47**	(0.20)	-0.02	(0.07)	c	c	c	c
	Russia	0.58	(0.17)	0.26	(0.13)	0.26	(0.16)	-0.32	(0.21)	0.31	(0.10)	c	c	c	c
	Singapore	m	m	m	m	-0.74	(0.01)	m	m	-0.75	(0.00)	-0.51	(0.07)	**0.25**	(0.07)
	Chinese Taipei	c	c	-0.04	(0.09)	-0.18	(0.06)	c	c	0.04	(0.06)	-0.41	(0.09)	**-0.45**	(0.11)
	Thailand	0.65	(0.19)	0.36	(0.10)	0.09	(0.19)	**-0.56**	(0.27)	0.45	(0.09)	-0.32	(0.10)	**-0.77**	(0.13)
	Trinidad and Tobago	0.84	(0.01)	0.86	(0.01)	m	m	m	m	0.87	(0.01)	0.47	(0.01)	**-0.39**	(0.01)
	Tunisia	1.67	(0.41)	1.74	(0.13)	1.20	(0.20)	-0.48	(0.45)	1.64	(0.10)	-0.54	(0.35)	**-2.18**	(0.35)
	United Arab Emirates	1.14	(0.30)	0.08	(0.12)	-0.25	(0.09)	**-1.38**	(0.32)	0.48	(0.14)	-0.44	(0.08)	**-0.92**	(0.15)
	Uruguay	-0.04	(0.30)	0.46	(0.09)	-0.02	(0.12)	0.02	(0.31)	0.42	(0.08)	-0.69	(0.15)	**-1.11**	(0.17)
	Viet Nam	0.47	(0.14)	0.42	(0.13)	0.21	(0.18)	-0.26	(0.23)	0.39	(0.08)	0.10	(0.25)	-0.30	(0.25)
	Argentina**	0.29	(0.28)	0.42	(0.14)	0.24	(0.13)	-0.06	(0.31)	0.54	(0.11)	-0.25	(0.17)	**-0.79**	(0.20)
	Kazakhstan**	0.34	(0.16)	0.13	(0.12)	0.10	(0.12)	-0.24	(0.20)	0.19	(0.08)	0.04	(0.45)	-0.16	(0.45)
	Malaysia**	0.16	(0.16)	0.04	(0.11)	-0.16	(0.10)	-0.32	(0.19)	-0.01	(0.07)	-0.16	(0.30)	-0.15	(0.31)

1. Higher values in the index indicate greater shortage of educational material.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.6.2 Index of shortage of educational material[1], science performance and school characteristics

Results based on school principals' reports

		By education level						Before accounting for students' and schools' socio-economic profile[2]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per unit increase on the index of shortage of educational material		Explained variance in student performance (r-squared x 100)		Change in the science score per unit increase on the index of shortage of educational material		Explained variance in student performance (r-squared x 100)	
		Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	-0.37	(0.03)	-0.47	(0.06)	-0.10	(0.06)	**-18**	(2.8)	2.0	(0.6)	**-5**	(2.3)	16.7	(1.1)
	Austria	-0.19	(0.33)	-0.27	(0.06)	-0.07	(0.33)	-2	(5.0)	0.0	(0.2)	-1	(4.3)	31.1	(1.8)
	Belgium	0.28	(0.09)	0.10	(0.06)	**-0.18**	(0.08)	**-13**	(4.5)	1.4	(0.9)	-2	(3.3)	36.0	(2.2)
	Canada	-0.56	(0.07)	-0.45	(0.04)	0.12	(0.07)	-3	(2.4)	0.1	(0.1)	-1	(2.3)	11.0	(1.0)
	Chile	0.17	(0.21)	-0.35	(0.06)	**-0.52**	(0.21)	**-20**	(4.3)	3.7	(1.6)	-3	(3.7)	26.6	(1.6)
	Czech Republic	-0.17	(0.05)	-0.07	(0.07)	0.10	(0.08)	**-9**	(4.6)	0.6	(0.7)	-2	(2.7)	33.2	(2.1)
	Denmark	-0.21	(0.08)	c	c	c	c	-3	(2.4)	0.1	(0.2)	-2	(2.2)	12.1	(1.4)
	Estonia	0.05	(0.05)	-0.18	(0.13)	-0.24	(0.12)	5	(2.9)	0.3	(0.3)	2	(2.6)	11.0	(1.3)
	Finland	0.09	(0.07)	c	c	c	c	0	(3.0)	0.0	(0.1)	0	(2.6)	10.9	(1.3)
	France	-0.02	(0.10)	-0.21	(0.07)	-0.19	(0.12)	-7	(5.7)	0.3	(0.5)	-4	(2.7)	37.6	(2.3)
	Germany	0.07	(0.07)	-0.24	(0.27)	-0.30	(0.28)	-4	(5.5)	0.2	(0.5)	-3	(2.6)	35.3	(2.4)
	Greece	0.05	(0.22)	0.41	(0.09)	0.36	(0.24)	0	(3.6)	0.0	(0.2)	5	(2.5)	23.7	(2.8)
	Hungary	0.17	(0.11)	0.55	(0.08)	**0.38**	(0.14)	-3	(3.9)	0.1	(0.3)	3	(2.1)	43.7	(2.2)
	Iceland	-0.40	(0.00)	m	m	m	m	-2	(2.4)	0.0	(0.1)	-3	(2.4)	5.0	(0.8)
	Ireland	0.24	(0.09)	0.26	(0.10)	0.02	(0.04)	**-6**	(2.3)	0.7	(0.5)	-3	(1.8)	15.5	(1.4)
	Israel	0.59	(0.10)	0.42	(0.11)	-0.17	(0.11)	-10	(6.5)	1.1	(1.5)	-7	(4.1)	24.0	(2.3)
	Italy	0.79	(0.18)	0.56	(0.08)	-0.24	(0.22)	-4	(3.6)	0.2	(0.4)	2	(2.4)	24.3	(2.5)
	Japan	m	m	0.72	(0.07)	m	m	**-11**	(4.6)	1.5	(1.2)	1	(2.4)	28.1	(2.4)
	Korea	0.66	(0.18)	0.39	(0.08)	-0.27	(0.19)	-5	(3.9)	0.3	(0.4)	-3	(2.6)	18.0	(2.1)
	Latvia	-0.19	(0.04)	-0.04	(0.09)	0.16	(0.08)	**12**	(2.0)	1.2	(0.4)	**5**	(2.2)	12.6	(1.4)
	Luxembourg	-0.11	(0.00)	-0.22	(0.00)	**-0.11**	(0.00)	**-10**	(1.3)	0.7	(0.2)	**3**	(1.3)	34.5	(1.0)
	Mexico	0.83	(0.12)	0.22	(0.08)	**-0.61**	(0.15)	**-15**	(1.8)	6.5	(1.4)	**-3**	(1.7)	17.6	(2.0)
	Netherlands	-0.20	(0.09)	-0.19	(0.13)	0.01	(0.14)	-2	(8.7)	0.0	(0.4)	0	(5.0)	35.6	(4.7)
	New Zealand	-0.12	(0.08)	-0.09	(0.06)	0.03	(0.05)	-3	(5.2)	0.1	(0.2)	6	(3.0)	20.2	(2.0)
	Norway	0.00	(0.06)	c	c	c	c	**-6**	(2.7)	0.3	(0.2)	-3	(2.5)	8.8	(0.9)
	Poland	-0.35	(0.07)	c	c	c	c	2	(3.1)	0.0	(0.1)	0	(2.2)	15.1	(1.6)
	Portugal	0.40	(0.10)	-0.05	(0.08)	**-0.44**	(0.10)	**-12**	(4.0)	1.8	(1.3)	-5	(2.4)	20.0	(2.1)
	Slovak Republic	0.02	(0.08)	0.08	(0.10)	0.07	(0.12)	4	(4.6)	0.1	(0.4)	1	(3.1)	30.3	(2.3)
	Slovenia	-0.23	(0.15)	-0.31	(0.00)	-0.07	(0.15)	**-10**	(1.6)	0.8	(0.3)	2	(1.5)	35.5	(1.3)
	Spain	0.23	(0.08)	c	c	c	c	**-7**	(1.8)	0.9	(0.4)	0	(1.5)	14.4	(1.2)
	Sweden	-0.28	(0.06)	-0.56	(0.15)	-0.29	(0.16)	-4	(4.3)	0.1	(0.2)	3	(3.2)	16.4	(1.7)
	Switzerland	-0.39	(0.06)	-0.35	(0.09)	0.04	(0.11)	-6	(6.5)	0.2	(0.4)	-5	(4.7)	24.5	(2.1)
	Turkey	0.98	(0.33)	0.11	(0.10)	**-0.87**	(0.35)	**-16**	(3.2)	6.4	(2.5)	**-6**	(2.8)	27.1	(4.1)
	United Kingdom	-0.42	(0.21)	0.04	(0.07)	**0.47**	(0.23)	5	(3.5)	0.3	(0.4)	2	(1.8)	19.6	(1.8)
	United States	-0.25	(0.11)	-0.34	(0.06)	-0.09	(0.09)	**-12**	(4.4)	1.0	(0.7)	**-10**	(3.5)	14.8	(1.6)
	OECD average	0.03	(0.02)	-0.02	(0.02)	**-0.11**	(0.03)	**-6**	(0.7)	0.9	(0.1)	**-1**	(0.5)	22.6	(0.3)
Partners	**Albania**	0.80	(0.12)	0.55	(0.11)	-0.25	(0.15)	m	m	m	m	m	m	m	m
	Algeria	0.17	(0.11)	0.33	(0.16)	0.17	(0.19)	1	(2.9)	0.0	(0.3)	3	(2.5)	9.9	(3.0)
	Brazil	0.21	(0.10)	-0.11	(0.06)	**-0.31**	(0.10)	**-18**	(2.6)	5.0	(1.3)	**-5**	(1.9)	22.1	(2.3)
	B-S-J-G (China)	0.35	(0.12)	0.11	(0.14)	-0.24	(0.17)	**-21**	(5.3)	5.8	(2.9)	-9	(4.4)	35.5	(2.9)
	Bulgaria	-0.14	(0.24)	-0.26	(0.07)	-0.12	(0.25)	16	(8.6)	1.7	(1.9)	**10**	(3.5)	39.0	(2.9)
	CABA (Argentina)	-0.07	(0.16)	-0.63	(0.21)	**-0.56**	(0.24)	**-26**	(4.2)	11.6	(4.2)	3	(4.5)	32.5	(3.5)
	Colombia	0.80	(0.10)	0.53	(0.09)	**-0.28**	(0.07)	**-13**	(2.1)	5.1	(1.4)	**-5**	(1.5)	20.6	(2.6)
	Costa Rica	0.96	(0.11)	1.10	(0.12)	0.14	(0.07)	**3**	(1.6)	0.5	(0.5)	1	(1.0)	22.6	(2.2)
	Croatia	c	c	0.87	(0.09)	c	c	-4	(4.1)	0.3	(0.5)	-1	(2.7)	26.0	(2.0)
	Cyprus*	0.58	(0.03)	-0.11	(0.00)	**-0.68**	(0.03)	-2	(1.4)	0.1	(0.1)	2	(1.3)	17.2	(0.9)
	Dominican Republic	0.26	(0.15)	0.07	(0.11)	-0.19	(0.18)	**-10**	(2.5)	2.4	(1.2)	-2	(2.0)	26.0	(3.2)
	FYROM	c	c	-0.08	(0.00)	c	c	**-11**	(1.4)	1.6	(0.4)	**-10**	(1.4)	15.4	(1.2)
	Georgia	0.39	(0.07)	0.34	(0.07)	-0.05	(0.06)	**-11**	(2.8)	1.6	(0.8)	-3	(2.3)	15.4	(1.6)
	Hong Kong (China)	-0.26	(0.08)	-0.23	(0.07)	0.03	(0.06)	10	(6.1)	1.0	(1.2)	**8**	(3.7)	13.5	(1.9)
	Indonesia	1.23	(0.12)	0.47	(0.11)	**-0.76**	(0.17)	**-11**	(2.1)	4.9	(1.8)	**-5**	(1.8)	24.2	(2.9)
	Jordan	0.70	(0.09)	m	m	m	m	**-6**	(3.0)	1.0	(0.9)	0	(2.1)	12.4	(2.2)
	Kosovo	0.66	(0.10)	0.50	(0.01)	-0.16	(0.10)	**-8**	(1.7)	1.4	(0.6)	**-5**	(1.3)	14.7	(1.5)
	Lebanon	0.15	(0.12)	-0.03	(0.10)	-0.18	(0.15)	**-15**	(3.2)	3.6	(1.7)	-2	(3.0)	19.3	(3.1)
	Lithuania	0.29	(0.05)	c	c	c	c	4	(2.6)	0.2	(0.2)	1	(2.0)	21.3	(2.3)
	Macao (China)	0.36	(0.00)	0.06	(0.00)	**-0.30**	(0.00)	1	(0.8)	0.0	(0.0)	**6**	(0.8)	2.9	(0.5)
	Malta	c	c	-0.25	(0.00)	c	c	**-20**	(1.7)	2.2	(0.4)	**-9**	(1.8)	24.9	(1.1)
	Moldova	0.18	(0.06)	0.03	(0.18)	-0.15	(0.18)	-4	(3.7)	0.2	(0.3)	1	(2.7)	14.1	(1.7)
	Montenegro	0.32	(0.30)	0.35	(0.00)	0.03	(0.30)	-1	(1.1)	0.0	(0.0)	**-4**	(1.2)	17.3	(0.9)
	Peru	0.78	(0.09)	0.42	(0.08)	**-0.36**	(0.07)	**-14**	(2.1)	6.5	(1.8)	0	(1.4)	29.7	(2.2)
	Qatar	-0.65	(0.01)	-0.65	(0.00)	0.00	(0.01)	**-8**	(1.1)	0.4	(0.1)	**-3**	(1.1)	14.1	(0.6)
	Romania	-0.03	(0.07)	m	m	m	m	-6	(4.3)	0.4	(0.6)	0	(3.4)	23.2	(2.9)
	Russia	0.30	(0.10)	0.36	(0.15)	0.06	(0.12)	**-6**	(2.9)	0.8	(0.7)	-3	(2.0)	10.0	(1.8)
	Singapore	-0.70	(0.08)	-0.74	(0.01)	-0.04	(0.07)	**-13**	(2.1)	0.6	(0.2)	-4	(2.5)	26.1	(1.6)
	Chinese Taipei	-0.02	(0.06)	-0.16	(0.07)	-0.14	(0.09)	-3	(5.5)	0.1	(0.2)	**8**	(3.2)	28.7	(2.5)
	Thailand	0.47	(0.09)	0.29	(0.09)	**-0.18**	(0.09)	**-10**	(3.1)	1.7	(1.1)	0	(2.8)	18.6	(3.2)
	Trinidad and Tobago	0.85	(0.01)	0.86	(0.01)	0.00	(0.02)	-2	(1.2)	0.1	(0.1)	1	(1.1)	36.0	(1.1)
	Tunisia	1.69	(0.15)	1.54	(0.14)	-0.16	(0.20)	-3	(2.6)	0.3	(0.5)	-1	(2.4)	18.3	(3.6)
	United Arab Emirates	0.13	(0.10)	-0.08	(0.08)	**-0.21**	(0.11)	**-16**	(2.1)	4.4	(1.1)	**-7**	(1.9)	16.3	(2.0)
	Uruguay	0.47	(0.08)	0.12	(0.08)	**-0.35**	(0.10)	**-13**	(2.8)	3.0	(1.2)	-2	(2.0)	26.3	(1.8)
	Viet Nam	0.54	(0.13)	0.37	(0.09)	-0.17	(0.16)	-6	(3.6)	0.6	(0.8)	-3	(2.7)	19.8	(4.3)
	Argentina**	0.42	(0.10)	0.31	(0.11)	-0.12	(0.10)	**-17**	(2.4)	6.2	(1.7)	**-8**	(2.1)	20.4	(2.1)
	Kazakhstan**	0.25	(0.09)	0.25	(0.11)	0.00	(0.08)	3	(4.5)	0.1	(0.5)	4	(3.5)	9.0	(2.4)
	Malaysia**	0.03	(0.16)	-0.02	(0.06)	-0.05	(0.15)	**-9**	(3.6)	1.0	(0.8)	**-5**	(2.6)	18.5	(2.3)

1. Higher values in the index indicate greater shortage of educational material.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.6.4 Computers at school

Results based on school principals' reports

		Number of computers per student		Percentage of computers connected to the Internet	
		Mean ratio	S.E.	%	S.E.
OECD	Australia	1.52	(0.05)	99.1	(0.2)
	Austria	1.10	(0.05)	98.7	(0.5)
	Belgium	0.90	(0.04)	97.1	(0.9)
	Canada	1.05	(0.04)	99.2	(0.3)
	Chile	0.65	(0.04)	93.3	(1.7)
	Czech Republic	1.02	(0.04)	99.0	(0.5)
	Denmark	0.94	(0.04)	99.9	(0.1)
	Estonia	0.78	(0.03)	99.0	(0.5)
	Finland	0.79	(0.05)	80.4	(2.4)
	France	0.81	(0.05)	97.7	(0.5)
	Germany	0.55	(0.03)	96.4	(0.9)
	Greece	0.25	(0.01)	98.1	(0.5)
	Hungary	0.75	(0.05)	98.2	(0.7)
	Iceland	1.49	(0.01)	95.8	(0.1)
	Ireland	0.66	(0.03)	98.0	(0.6)
	Israel	0.43	(0.03)	85.4	(2.6)
	Italy	0.50	(0.03)	95.8	(1.5)
	Japan	0.51	(0.03)	94.0	(1.3)
	Korea	0.37	(0.02)	98.4	(0.6)
	Latvia	0.90	(0.02)	98.9	(0.3)
	Luxembourg	0.87	(0.00)	98.6	(0.0)
	Mexico	0.29	(0.02)	79.2	(2.5)
	Netherlands	0.63	(0.03)	99.2	(0.4)
	New Zealand	1.12	(0.06)	99.5	(0.2)
	Norway	0.86	(0.03)	99.7	(0.2)
	Poland	0.46	(0.02)	99.3	(0.4)
	Portugal	0.43	(0.03)	97.9	(0.7)
	Slovak Republic	0.91	(0.03)	97.6	(0.6)
	Slovenia	0.59	(0.00)	99.3	(0.0)
	Spain	0.74	(0.04)	98.8	(0.6)
	Sweden	0.91	(0.03)	99.1	(0.6)
	Switzerland	0.72	(0.07)	99.1	(0.3)
	Turkey	0.16	(0.02)	89.3	(2.4)
	United Kingdom	1.03	(0.05)	98.4	(0.5)
	United States	1.22	(0.14)	98.0	(0.8)
	OECD average	0.77	(0.01)	96.4	(0.2)
Partners	Albania	0.15	(0.03)	65.7	(2.9)
	Algeria	0.10	(0.01)	66.8	(4.0)
	Brazil	0.20	(0.02)	93.5	(1.2)
	B-S-J-G (China)	0.35	(0.03)	96.1	(1.0)
	Bulgaria	0.58	(0.02)	97.8	(0.7)
	CABA (Argentina)	0.70	(0.04)	84.5	(4.2)
	Colombia	0.95	(0.06)	65.0	(2.8)
	Costa Rica	0.45	(0.04)	84.5	(2.5)
	Croatia	0.31	(0.01)	97.5	(0.8)
	Cyprus*	0.68	(0.00)	94.3	(0.0)
	Dominican Republic	0.20	(0.02)	70.4	(4.3)
	FYROM	0.63	(0.00)	94.5	(0.1)
	Georgia	0.30	(0.03)	95.6	(0.9)
	Hong Kong (China)	0.87	(0.03)	99.3	(0.4)
	Indonesia	0.14	(0.01)	65.8	(3.2)
	Jordan	0.44	(0.03)	77.7	(2.3)
	Kosovo	0.14	(0.01)	29.2	(1.2)
	Lebanon	0.41	(0.04)	53.8	(3.7)
	Lithuania	0.88	(0.06)	97.8	(0.7)
	Macao (China)	1.20	(0.00)	99.0	(0.0)
	Malta	0.56	(0.00)	100.0	(0.0)
	Moldova	0.50	(0.02)	70.8	(2.4)
	Montenegro	0.20	(0.00)	87.3	(0.3)
	Peru	0.41	(0.03)	60.3	(2.7)
	Qatar	0.71	(0.00)	91.3	(0.0)
	Romania	0.56	(0.04)	96.4	(0.9)
	Russia	0.64	(0.03)	88.9	(2.0)
	Singapore	0.97	(0.01)	99.6	(0.0)
	Chinese Taipei	0.47	(0.03)	96.4	(0.9)
	Thailand	0.40	(0.03)	95.1	(0.8)
	Trinidad and Tobago	0.56	(0.00)	74.3	(0.2)
	Tunisia	0.16	(0.03)	66.3	(3.8)
	United Arab Emirates	0.71	(0.04)	90.7	(2.0)
	Uruguay	0.28	(0.02)	93.2	(1.2)
	Viet Nam	0.26	(0.04)	80.4	(2.8)
	Argentina**	0.81	(0.04)	53.4	(3.3)
	Kazakhstan**	0.68	(0.04)	65.4	(3.0)
	Malaysia**	0.41	(0.02)	83.0	(2.6)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/3]

Table II.6.7 Students per school (school size), science performance and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean	S.E.	S.D.	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Dif.	S.E.
OECD	Australia	1 034	(14.1)	461	(16.2)	895	(29.2)	936	(37.7)	1 078	(38.7)	1 220	(35.0)	**324**	(43.8)
	Austria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Belgium	734	(20.3)	341	(18.2)	532	(29.5)	728	(47.7)	736	(47.8)	919	(43.6)	**387**	(52.4)
	Canada	952	(18.5)	466	(12.5)	737	(48.4)	947	(73.3)	1 049	(51.1)	1 045	(40.7)	**308**	(68.1)
	Chile	1 005	(47.8)	636	(69.4)	698	(92.3)	1 001	(74.4)	1 147	(125.1)	1 183	(111.5)	**485**	(148.6)
	Czech Republic	466	(14.4)	237	(11.7)	414	(29.5)	513	(32.3)	442	(41.5)	497	(18.5)	**83**	(34.5)
	Denmark	557	(14.7)	307	(12.0)	529	(38.4)	569	(46.6)	614	(39.5)	516	(39.3)	-13	(53.8)
	Estonia	569	(11.5)	337	(5.3)	258	(31.9)	507	(29.8)	682	(32.3)	811	(27.0)	**553**	(40.4)
	Finland	437	(13.9)	204	(11.2)	334	(33.2)	485	(30.9)	428	(30.2)	501	(37.1)	**167**	(47.9)
	France	879	(20.0)	493	(18.6)	508	(44.0)	818	(75.5)	1 063	(66.2)	1 108	(47.8)	**600**	(62.0)
	Germany	748	(25.2)	485	(71.1)	540	(64.6)	702	(81.0)	853	(76.9)	896	(29.2)	**357**	(70.4)
	Greece	267	(7.7)	127	(5.7)	264	(30.7)	255	(26.6)	281	(18.5)	269	(16.3)	5	(36.1)
	Hungary	466	(18.3)	266	(15.9)	361	(36.8)	436	(39.1)	532	(39.6)	527	(37.0)	**166**	(51.4)
	Iceland	413	(0.9)	181	(0.5)	298	(1.8)	455	(4.1)	495	(4.7)	410	(1.3)	**111**	(2.3)
	Ireland	624	(14.3)	266	(12.0)	443	(22.8)	613	(53.6)	715	(47.5)	727	(49.3)	**284**	(54.1)
	Israel	731	(19.7)	502	(16.2)	614	(49.6)	637	(68.6)	716	(96.7)	963	(70.0)	**349**	(83.5)
	Italy	871	(25.5)	408	(17.3)	796	(57.8)	776	(76.1)	902	(59.1)	993	(37.7)	**198**	(73.1)
	Japan	760	(19.1)	392	(23.5)	582	(69.5)	693	(39.1)	824	(61.5)	940	(46.6)	**357**	(80.9)
	Korea	944	(14.3)	352	(10.3)	808	(51.3)	852	(42.9)	1 029	(47.7)	1 086	(47.5)	**279**	(67.6)
	Latvia	513	(7.2)	328	(4.4)	243	(23.7)	481	(26.0)	580	(26.5)	731	(24.2)	**488**	(34.9)
	Luxembourg	1 380	(1.0)	552	(0.6)	1 481	(3.3)	1 509	(2.1)	1 241	(2.2)	1 288	(1.9)	**-193**	(4.0)
	Mexico	931	(38.1)	1 128	(92.0)	262	(21.7)	654	(80.7)	1 324	(174.0)	1 479	(154.7)	**1 218**	(160.9)
	Netherlands	1 068	(46.3)	594	(44.3)	841	(122.4)	983	(150.5)	1 147	(131.2)	1 311	(94.2)	**469**	(163.4)
	New Zealand	1 178	(21.1)	675	(12.0)	727	(56.9)	1 100	(75.9)	1 367	(72.4)	1 458	(62.9)	**731**	(88.1)
	Norway	348	(10.4)	147	(8.3)	310	(20.0)	294	(22.8)	367	(34.0)	423	(17.6)	**113**	(29.4)
	Poland	280	(8.9)	158	(8.3)	210	(20.6)	237	(22.3)	296	(19.9)	379	(23.7)	**170**	(32.5)
	Portugal	1 758	(57.9)	878	(33.8)	1 432	(133.0)	1 709	(139.1)	1 859	(143.7)	2 051	(133.2)	**618**	(204.9)
	Slovak Republic	418	(12.7)	210	(10.9)	333	(25.4)	411	(26.0)	441	(27.9)	493	(33.2)	**160**	(40.8)
	Slovenia	500	(2.7)	285	(4.3)	427	(16.7)	544	(7.1)	419	(10.5)	609	(2.0)	**182**	(16.7)
	Spain	750	(24.1)	426	(33.0)	554	(46.4)	599	(62.0)	814	(69.1)	1 061	(70.9)	**507**	(86.1)
	Sweden	396	(13.6)	218	(14.1)	357	(24.4)	374	(32.1)	371	(34.5)	484	(41.4)	**127**	(46.6)
	Switzerland	713	(52.9)	853	(197.2)	512	(78.7)	800	(139.5)	811	(262.0)	730	(66.2)	**218**	(104.1)
	Turkey	822	(36.4)	540	(33.9)	696	(87.2)	1 055	(95.1)	843	(90.3)	693	(64.3)	-3	(104.2)
	United Kingdom	1 071	(31.4)	405	(24.8)	963	(66.2)	1 003	(87.2)	1 096	(75.2)	1 208	(66.6)	**245**	(97.2)
	United States	1 325	(61.6)	879	(50.9)	1 385	(170.7)	1 448	(136.5)	1 092	(122.9)	1 359	(132.2)	-26	(214.9)
	OECD average	762	(4.6)	434	(7.8)	598	(10.5)	739	(12.0)	813	(14.4)	893	(10.7)	**295**	(15.4)
Partners	Albania	271	(32.7)	344	(16.5)	209	(58.9)	296	(71.3)	317	(88.1)	286	(56.5)	78	(81.8)
	Algeria	637	(25.7)	285	(30.5)	517	(28.9)	561	(39.6)	636	(45.0)	831	(81.2)	**313**	(83.7)
	Brazil	919	(31.9)	602	(52.0)	785	(46.1)	814	(54.7)	1 096	(75.4)	970	(93.2)	185	(102.6)
	B-S-J-G (China)	2 590	(161.9)	2 209	(203.2)	1 679	(184.9)	3 099	(479.3)	3 189	(396.6)	2 393	(311.1)	**714**	(359.4)
	Bulgaria	615	(23.4)	353	(23.3)	345	(25.8)	493	(39.9)	779	(60.5)	860	(57.5)	**514**	(62.7)
	CABA (Argentina)	775	(80.4)	667	(94.5)	659	(60.5)	736	(159.8)	998	(469.2)	743	(353.3)	84	(353.3)
	Colombia	1 275	(61.3)	1 021	(76.4)	772	(97.8)	1 239	(100.0)	1 825	(180.9)	1 199	(156.0)	**427**	(184.6)
	Costa Rica	770	(23.3)	484	(16.0)	742	(74.6)	595	(70.4)	738	(53.3)	1 007	(56.9)	**265**	(87.9)
	Croatia	599	(14.3)	238	(10.7)	587	(32.2)	576	(39.8)	594	(31.5)	639	(36.0)	52	(47.9)
	Cyprus*	538	(0.6)	196	(0.4)	461	(1.5)	494	(1.6)	524	(2.1)	671	(1.6)	**210**	(2.1)
	Dominican Republic	620	(29.8)	433	(45.3)	509	(47.4)	630	(89.8)	715	(67.9)	635	(65.1)	126	(81.9)
	FYROM	1 011	(1.9)	633	(0.9)	791	(11.7)	897	(12.0)	1 442	(15.3)	979	(2.3)	**188**	(12.1)
	Georgia	613	(22.4)	499	(31.9)	287	(23.5)	499	(49.4)	669	(54.9)	1 020	(68.5)	**733**	(69.0)
	Hong Kong (China)	841	(20.5)	224	(44.2)	714	(29.9)	800	(30.4)	837	(23.4)	1 015	(68.5)	**302**	(74.2)
	Indonesia	650	(110.3)	1 415	(656.5)	341	(101.3)	497	(57.7)	603	(64.9)	1 126	(402.5)	785	(411.5)
	Jordan	657	(18.3)	340	(14.6)	557	(49.7)	644	(52.1)	732	(57.3)	689	(49.6)	132	(69.4)
	Kosovo	1 018	(9.6)	571	(7.9)	760	(23.7)	995	(39.9)	1 014	(39.0)	1 301	(48.8)	**542**	(60.5)
	Lebanon	669	(36.0)	668	(49.6)	371	(38.3)	452	(63.3)	794	(78.6)	1 103	(115.8)	**732**	(121.7)
	Lithuania	533	(11.0)	260	(13.2)	301	(16.1)	522	(25.4)	598	(25.3)	712	(33.6)	**411**	(34.5)
	Macao (China)	1 807	(1.5)	956	(0.7)	1 497	(2.3)	2 318	(3.6)	1 802	(3.6)	1 609	(2.0)	**112**	(2.9)
	Malta	462	(0.4)	207	(0.3)	388	(1.0)	555	(1.7)	446	(1.7)	460	(0.5)	**72**	(1.0)
	Moldova	431	(15.0)	331	(19.3)	214	(21.0)	298	(23.8)	440	(33.3)	777	(48.5)	**564**	(53.7)
	Montenegro	832	(3.4)	390	(2.0)	744	(10.0)	810	(7.1)	750	(5.9)	1 026	(5.2)	**282**	(11.8)
	Peru	725	(34.7)	617	(40.5)	300	(42.3)	754	(81.3)	1 028	(120.4)	820	(86.3)	**520**	(91.3)
	Qatar	1 632	(4.7)	2 107	(6.1)	1 391	(25.0)	2 589	(25.3)	1 346	(8.0)	1 181	(8.6)	**-210**	(27.9)
	Romania	838	(31.6)	423	(25.0)	684	(62.5)	840	(85.4)	878	(57.8)	948	(54.7)	**264**	(80.9)
	Russia	752	(40.9)	474	(46.6)	328	(45.1)	734	(52.9)	798	(66.7)	1 159	(122.6)	**831**	(123.3)
	Singapore	1 232	(16.6)	480	(21.9)	992	(1.5)	1 125	(6.6)	1 218	(10.3)	1 583	(66.4)	**591**	(67.1)
	Chinese Taipei	2 291	(61.7)	1 571	(87.2)	2 017	(243.7)	2 301	(200.6)	2 457	(167.9)	2 391	(167.2)	374	(286.0)
	Thailand	1 862	(110.7)	1 463	(169.5)	737	(94.1)	1 493	(205.8)	2 236	(385.5)	2 956	(204.6)	**2 218**	(218.8)
	Trinidad and Tobago	655	(1.0)	214	(0.9)	548	(3.4)	683	(2.3)	658	(1.9)	745	(1.3)	**197**	(3.7)
	Tunisia	780	(32.1)	383	(28.5)	558	(37.2)	751	(68.8)	766	(56.0)	1 057	(95.5)	**498**	(100.9)
	United Arab Emirates	1 672	(75.0)	1 786	(94.9)	1 368	(274.5)	1 212	(155.9)	2 235	(216.9)	1 914	(131.0)	546	(309.8)
	Uruguay	888	(20.5)	673	(12.6)	753	(59.5)	875	(58.3)	1 233	(74.1)	692	(44.0)	-61	(74.3)
	Viet Nam	1 055	(39.9)	592	(45.7)	712	(70.2)	1 009	(78.1)	1 034	(100.7)	1 465	(105.4)	**753**	(129.8)
	Argentina**	597	(22.7)	437	(28.8)	507	(62.1)	508	(46.6)	715	(71.6)	665	(66.0)	157	(88.7)
	Kazakhstan**	847	(39.2)	646	(59.6)	496	(72.1)	789	(88.9)	987	(76.6)	1 095	(118.7)	**599**	(149.7)
	Malaysia**	1 211	(27.7)	660	(21.4)	1 058	(71.0)	1 362	(137.3)	999	(118.2)	1 432	(113.6)	**374**	(141.0)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.6.7 Students per school (school size), science performance and school characteristics

Results based on school principals' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Mean	S.E.	Mean	S.E.	Mean	S.E.	Dif.	S.E.	Mean	S.E.	Mean	S.E.	Dif.	S.E.
OECD	**Australia**	476	(44.9)	852	(26.0)	1 146	(19.9)	**669**	(48.3)	1 031	(17.9)	1 045	(25.3)	14	(32.4)
	Austria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Belgium	827	(98.6)	726	(23.5)	750	(51.0)	-77	(106.9)	w	w	w	w	w	w
	Canada	412	(72.3)	833	(31.7)	1 113	(25.9)	**701**	(73.3)	961	(19.6)	857	(50.7)	-104	(54.3)
	Chile	326	(97.9)	696	(53.6)	1 181	(63.2)	**855**	(117.0)	860	(89.8)	1 084	(55.4)	**224**	(106.1)
	Czech Republic	204	(11.4)	480	(18.3)	547	(31.0)	**342**	(31.7)	478	(14.6)	335	(54.4)	**-143**	(56.4)
	Denmark	284	(34.0)	612	(19.8)	589	(40.9)	**305**	(53.2)	632	(17.1)	303	(25.9)	**-329**	(33.1)
	Estonia	182	(20.2)	627	(20.4)	797	(17.8)	**614**	(26.9)	560	(11.7)	649	(86.8)	90	(87.9)
	Finland	206	(18.8)	452	(16.9)	515	(30.0)	**309**	(34.6)	434	(14.5)	533	(94.7)	99	(96.9)
	France	671	(145.9)	830	(23.4)	1 020	(67.9)	**349**	(167.0)	933	(24.5)	678	(51.8)	**-255**	(59.9)
	Germany	542	(76.3)	746	(40.1)	808	(39.5)	**265**	(88.8)	759	(27.7)	570	(36.5)	**-189**	(46.1)
	Greece	96	(11.5)	275	(10.4)	299	(9.8)	**203**	(16.2)	271	(7.8)	183	(39.0)	**-88**	(39.9)
	Hungary	144	(16.7)	437	(22.2)	521	(27.2)	**377**	(33.6)	489	(21.1)	357	(30.4)	**-132**	(36.5)
	Iceland	201	(1.7)	477	(1.3)	443	(1.4)	**242**	(2.2)	415	(0.9)	c	c	c	c
	Ireland	428	(34.3)	660	(25.6)	666	(33.9)	**238**	(48.8)	634	(26.5)	617	(16.8)	-17	(32.2)
	Israel	549	(103.2)	794	(44.0)	709	(61.0)	160	(123.9)	m	m	m	m	m	m
	Italy	666	(224.5)	825	(30.8)	998	(62.6)	332	(233.5)	896	(26.5)	311	(84.6)	**-585**	(90.3)
	Japan	c	c	558	(42.5)	838	(27.3)	c	c	672	(12.6)	949	(47.7)	**277**	(49.1)
	Korea	c	c	634	(52.3)	1 006	(16.2)	c	c	948	(27.6)	938	(42.4)	-10	(63.7)
	Latvia	146	(9.0)	523	(10.9)	780	(16.5)	**634**	(19.9)	521	(7.2)	177	(19.8)	**-343**	(20.8)
	Luxembourg	m	m	1 374	(1.4)	1 388	(1.9)	m	m	1 439	(1.1)	1 059	(2.0)	**-380**	(2.3)
	Mexico	133	(15.3)	688	(64.5)	1 412	(103.8)	**1 279**	(101.8)	1 001	(43.5)	423	(46.6)	**-578**	(68.0)
	Netherlands	c	c	1 150	(64.9)	897	(80.4)	c	c	973	(69.1)	1 084	(67.0)	111	(101.3)
	New Zealand	473	(108.1)	875	(51.0)	1 454	(36.5)	**981**	(111.2)	1 194	(21.4)	786	(169.3)	**-407**	(170.6)
	Norway	217	(16.4)	350	(14.7)	478	(21.1)	**260**	(29.0)	351	(11.0)	274	(101.9)	-76	(104.2)
	Poland	191	(12.5)	308	(17.3)	363	(15.1)	**172**	(19.4)	286	(9.1)	110	(31.8)	**-175**	(33.2)
	Portugal	752	(125.3)	1 697	(65.7)	2 162	(144.0)	**1 409**	(201.9)	1 796	(58.3)	1 140	(182.1)	**-656**	(187.1)
	Slovak Republic	259	(16.7)	448	(15.9)	479	(43.6)	**220**	(48.3)	436	(13.0)	283	(25.0)	**-153**	(28.6)
	Slovenia	222	(9.3)	475	(3.4)	597	(5.5)	**376**	(10.8)	503	(2.8)	449	(2.4)	**-53**	(3.7)
	Spain	241	(47.3)	687	(29.4)	922	(55.1)	**682**	(72.7)	685	(26.9)	900	(51.4)	**215**	(58.6)
	Sweden	245	(25.1)	353	(13.3)	530	(30.6)	**285**	(40.2)	401	(14.5)	373	(40.8)	-27	(43.7)
	Switzerland	371	(145.5)	660	(54.4)	1 040	(321.2)	670	(351.9)	737	(58.7)	407	(212.6)	-330	(233.4)
	Turkey	213	(79.3)	577	(43.7)	988	(48.4)	**775**	(93.2)	826	(36.6)	744	(303.6)	-82	(308.7)
	United Kingdom	972	(160.4)	1 036	(36.2)	1 197	(62.4)	225	(171.6)	1 085	(28.9)	819	(221.3)	-266	(221.2)
	United States	432	(59.2)	1 282	(75.8)	1 623	(142.2)	**1 191**	(160.7)	1 402	(65.4)	365	(47.0)	**-1 037**	(88.5)
	OECD average	369	(15.1)	706	(6.3)	890	(13.3)	**501**	(21.4)	767	(5.9)	615	(17.7)	**-162**	(19.0)
Partners	**Albania**	252	(101.2)	298	(47.4)	249	(60.6)	-3	(117.2)	291	(35.0)	141	(61.2)	**-151**	(67.2)
	Algeria	501	(48.5)	607	(23.2)	835	(94.7)	**334**	(106.8)	638	(26.2)	c	c	c	c
	Brazil	299	(34.3)	772	(33.2)	1 102	(58.3)	**803**	(67.0)	927	(32.8)	877	(125.2)	-51	(130.8)
	B-S-J-G (China)	1 275	(202.3)	2 419	(209.1)	3 184	(354.0)	**1 910**	(408.6)	2 519	(162.7)	3 335	(561.1)	816	(559.0)
	Bulgaria	175	(25.6)	520	(25.4)	798	(46.1)	**623**	(53.5)	621	(23.0)	c	c	c	c
	CABA (Argentina)	m	m	c	c	773	(82.8)	m	m	1 009	(120.6)	545	(95.7)	**-464**	(157.2)
	Colombia	434	(73.5)	1 300	(113.3)	1 529	(101.9)	**1 095**	(129.6)	1 416	(71.6)	887	(139.2)	**-530**	(159.9)
	Costa Rica	347	(39.9)	880	(27.8)	866	(99.5)	**519**	(113.6)	827	(28.3)	370	(74.0)	**-458**	(81.3)
	Croatia	c	c	582	(18.6)	638	(25.3)	c	c	605	(14.5)	c	c	c	c
	Cyprus*	290	(1.6)	547	(0.8)	550	(0.9)	**260**	(2.0)	530	(0.6)	578	(1.9)	**48**	(2.0)
	Dominican Republic	327	(50.7)	626	(42.5)	758	(62.7)	**431**	(83.3)	650	(34.4)	522	(69.0)	-129	(77.7)
	FYROM	161	(1.7)	951	(1.7)	1 152	(4.4)	**991**	(4.6)	1 039	(2.0)	180	(1.2)	**-859**	(2.2)
	Georgia	221	(23.1)	579	(49.9)	948	(48.9)	**727**	(53.1)	637	(24.5)	336	(80.4)	**-300**	(84.3)
	Hong Kong (China)	m	m	m	m	841	(20.5)	m	m	797	(20.5)	845	(22.0)	47	(30.0)
	Indonesia	378	(80.4)	613	(39.3)	1 358	(732.2)	980	(740.3)	683	(48.3)	603	(255.6)	-81	(257.5)
	Jordan	416	(58.2)	638	(34.6)	780	(34.3)	**364**	(69.8)	624	(21.0)	792	(44.9)	**168**	(51.0)
	Kosovo	562	(22.9)	1 045	(12.2)	1 192	(42.0)	**631**	(50.0)	1 037	(10.3)	251	(25.8)	**-786**	(30.2)
	Lebanon	363	(41.2)	631	(38.3)	1 009	(128.1)	**646**	(137.0)	395	(24.9)	956	(63.1)	**561**	(66.7)
	Lithuania	245	(16.5)	565	(12.0)	658	(23.6)	**413**	(29.7)	534	(11.9)	483	(57.0)	-51	(62.8)
	Macao (China)	c	c	c	c	1 814	(1.3)	c	c	c	c	1 843	(1.6)	c	c
	Malta	437	(0.9)	470	(0.5)	m	m	m	m	461	(0.6)	448	(0.6)	**-13**	(0.8)
	Moldova	235	(12.2)	515	(23.3)	830	(62.8)	**595**	(64.0)	426	(13.6)	c	c	c	c
	Montenegro	c	c	663	(3.3)	1 198	(4.0)	c	c	836	(3.3)	c	c	c	c
	Peru	337	(53.4)	809	(45.4)	1 062	(125.7)	**725**	(139.8)	755	(45.1)	662	(58.1)	-94	(75.2)
	Qatar	570	(2.0)	2 027	(8.9)	1 355	(3.5)	**785**	(3.8)	716	(2.1)	2 950	(8.5)	**2 235**	(8.7)
	Romania	570	(65.6)	845	(42.2)	917	(56.9)	**347**	(85.1)	845	(31.7)	c	c	c	c
	Russia	222	(29.3)	624	(35.6)	991	(64.3)	**769**	(74.7)	757	(41.1)	c	c	c	c
	Singapore	m	m	m	m	1 241	(19.1)	m	m	1 219	(0.5)	1 365	(205.3)	146	(205.3)
	Chinese Taipei	c	c	1 830	(137.5)	2 622	(96.8)	c	c	1 746	(45.1)	3 308	(159.7)	**1 562**	(165.5)
	Thailand	520	(100.5)	1 957	(153.5)	2 708	(205.8)	**2 189**	(237.9)	1 809	(84.3)	2 144	(566.8)	336	(572.2)
	Trinidad and Tobago	466	(3.7)	685	(1.0)	m	m	m	m	660	(1.1)	557	(5.0)	**-103**	(5.2)
	Tunisia	530	(44.1)	752	(42.9)	885	(64.3)	**355**	(78.5)	795	(32.8)	204	(17.0)	**-591**	(37.2)
	United Arab Emirates	482	(50.5)	943	(71.9)	2 169	(123.1)	**1 686**	(136.2)	562	(31.5)	2 565	(119.9)	**2 003**	(121.8)
	Uruguay	182	(25.2)	929	(32.4)	920	(45.7)	**738**	(51.0)	978	(21.9)	394	(51.8)	**-584**	(55.6)
	Viet Nam	961	(57.0)	1 012	(77.8)	1 255	(103.6)	**295**	(119.9)	1 069	(41.7)	569	(162.5)	**-500**	(165.2)
	Argentina**	117	(16.2)	574	(36.2)	714	(48.7)	**598**	(50.4)	641	(27.7)	430	(45.0)	**-211**	(56.8)
	Kazakhstan**	467	(54.4)	753	(58.0)	1 179	(80.7)	**712**	(94.0)	838	(39.6)	1 043	(171.9)	205	(168.4)
	Malaysia**	870	(74.8)	1 262	(59.9)	1 303	(61.5)	**433**	(96.2)	1 235	(27.2)	808	(198.0)	**-428**	(200.1)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436513

[Part 3/3]

Table II.6.7 Students per school (school size), science performance and school characteristics

Results based on school principals' reports

		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per additional student enrolled in the school		Explained variance in student performance (r-squared x 100)		Change in the science score per additional student enrolled in the school		Explained variance in student performance (r-squared x 100)	
		Mean	S.E.	Mean	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	1 017	(14.7)	1 147	(30.8)	**130**	(31.0)	**0.03**	(0.00)	1.7	(0.4)	**0.01**	(0.00)	16.4	(1.1)
	Austria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Belgium	527	(32.6)	753	(20.5)	**226**	(31.1)	**0.08**	(0.01)	7.1	(1.8)	0.01	(0.01)	36.9	(1.9)
	Canada	854	(37.6)	964	(18.7)	**110**	(35.9)	**0.02**	(0.00)	1.4	(0.5)	**0.01**	(0.00)	11.6	(1.0)
	Chile	558	(74.6)	1 032	(48.6)	**473**	(78.2)	**0.03**	(0.01)	5.5	(2.3)	**0.01**	(0.01)	27.5	(1.9)
	Czech Republic	437	(13.5)	501	(27.9)	**64**	(31.8)	**0.04**	(0.01)	0.9	(0.6)	0.01	(0.01)	33.0	(2.1)
	Denmark	552	(15.5)	c	c	c	c	0.00	(0.01)	0.0	(0.1)	0.00	(0.01)	11.6	(1.4)
	Estonia	569	(11.5)	636	(69.1)	68	(69.2)	**0.04**	(0.01)	2.5	(0.9)	-0.01	(0.01)	11.2	(1.4)
	Finland	437	(13.9)	c	c	c	c	0.02	(0.01)	0.2	(0.3)	0.00	(0.01)	10.9	(1.3)
	France	514	(19.2)	994	(23.9)	**480**	(25.6)	**0.07**	(0.01)	13.2	(1.8)	**0.02**	(0.01)	39.1	(2.1)
	Germany	717	(20.8)	1 479	(261.6)	**762**	(264.3)	**0.06**	(0.01)	6.5	(1.7)	**0.01**	(0.01)	36.3	(2.3)
	Greece	233	(22.5)	269	(8.2)	36	(24.8)	-0.02	(0.04)	0.1	(0.4)	-0.03	(0.02)	23.4	(2.9)
	Hungary	356	(33.1)	477	(19.6)	**121**	(36.9)	**0.10**	(0.02)	7.3	(2.8)	**0.04**	(0.01)	44.7	(2.2)
	Iceland	413	(0.9)	m	m	m	m	-0.01	(0.01)	0.0	(0.0)	**-0.02**	(0.01)	5.2	(0.8)
	Ireland	622	(13.9)	628	(16.5)	6	(8.5)	**0.04**	(0.01)	1.8	(0.8)	0.01	(0.01)	15.2	(1.3)
	Israel	791	(45.4)	724	(21.3)	-67	(50.2)	**0.05**	(0.01)	4.8	(1.4)	**0.02**	(0.01)	24.5	(2.4)
	Italy	506	(96.6)	874	(25.8)	**368**	(104.3)	**0.03**	(0.01)	2.4	(1.3)	**0.02**	(0.01)	24.1	(2.3)
	Japan	m	m	760	(19.1)	m	m	**0.04**	(0.02)	3.5	(2.1)	0.00	(0.01)	28.1	(2.4)
	Korea	742	(78.5)	965	(13.2)	**223**	(78.1)	**0.05**	(0.01)	3.0	(1.2)	**0.01**	(0.01)	18.2	(2.1)
	Latvia	509	(7.2)	609	(50.0)	**100**	(50.6)	**0.06**	(0.01)	4.9	(1.0)	**0.02**	(0.01)	12.6	(1.5)
	Luxembourg	1 410	(1.8)	1 341	(1.6)	**-69**	(2.8)	**-0.02**	(0.00)	0.7	(0.2)	**0.01**	(0.00)	34.5	(1.0)
	Mexico	459	(39.4)	1 239	(64.5)	**781**	(79.3)	**0.02**	(0.00)	6.6	(1.6)	**0.01**	(0.00)	18.1	(2.2)
	Netherlands	967	(54.6)	1 336	(68.0)	**369**	(81.0)	**0.05**	(0.01)	7.7	(3.3)	**0.02**	(0.01)	37.7	(4.7)
	New Zealand	1 165	(49.8)	1 179	(20.7)	14	(43.9)	**0.02**	(0.00)	2.5	(0.8)	0.00	(0.00)	19.7	(1.8)
	Norway	348	(10.4)	c	c	c	c	0.02	(0.02)	0.1	(0.1)	0.00	(0.01)	8.7	(0.9)
	Poland	278	(8.9)	c	c	c	c	**0.07**	(0.01)	1.7	(0.7)	0.02	(0.01)	15.5	(1.6)
	Portugal	1 648	(69.6)	1 818	(67.0)	**169**	(73.5)	**0.01**	(0.00)	1.1	(0.6)	0.00	(0.00)	20.4	(2.1)
	Slovak Republic	383	(16.4)	450	(18.1)	**67**	(23.6)	**0.08**	(0.02)	2.7	(1.5)	0.01	(0.01)	30.3	(2.3)
	Slovenia	505	(52.3)	500	(0.6)	-5	(52.4)	**0.08**	(0.01)	6.3	(0.9)	**0.03**	(0.00)	36.2	(1.3)
	Spain	750	(24.1)	c	c	c	c	**0.02**	(0.01)	0.8	(0.4)	**-0.01**	(0.00)	14.2	(1.2)
	Sweden	395	(13.9)	471	(127.2)	77	(128.4)	**0.05**	(0.02)	1.2	(0.8)	0.02	(0.01)	16.7	(1.8)
	Switzerland	510	(27.6)	1 405	(200.1)	**895**	(196.5)	**0.02**	(0.01)	4.3	(1.7)	**0.02**	(0.01)	26.8	(2.1)
	Turkey	888	(112.9)	820	(37.4)	-69	(118.0)	**-0.02**	(0.01)	1.2	(1.1)	**-0.01**	(0.01)	27.3	(4.0)
	United Kingdom	752	(121.8)	1 072	(31.5)	**320**	(127.2)	0.01	(0.01)	0.3	(0.5)	0.00	(0.01)	19.1	(1.8)
	United States	1 220	(79.7)	1 336	(62.2)	116	(60.4)	0.00	(0.00)	0.0	(0.1)	0.00	(0.00)	13.9	(1.6)
	OECD average	668	(8.6)	921	(14.3)	**213**	(17.5)	**0.03**	(0.00)	3.1	(0.2)	**0.01**	(0.00)	22.6	(0.4)
Partners	**Albania**	220	(38.2)	307	(44.9)	87	(55.3)	m	m	m	m	m	m	m	m
	Algeria	562	(15.9)	875	(83.6)	**313**	(85.4)	**0.06**	(0.01)	5.7	(2.5)	**0.03**	(0.01)	10.8	(3.1)
	Brazil	791	(32.5)	949	(36.3)	**158**	(40.8)	0.01	(0.01)	0.6	(0.6)	0.00	(0.00)	22.3	(2.4)
	B-S-J-G (China)	2 031	(139.1)	3 544	(293.6)	**1 514**	(277.7)	**0.01**	(0.00)	1.4	(1.2)	0.00	(0.00)	35.3	(2.8)
	Bulgaria	380	(52.2)	623	(23.7)	**242**	(55.4)	**0.12**	(0.01)	18.2	(3.0)	**0.03**	(0.01)	37.6	(3.0)
	CABA (Argentina)	727	(77.7)	1 319	(254.3)	**592**	(261.6)	0.02	(0.01)	2.7	(3.1)	**0.01**	(0.01)	36.3	(3.8)
	Colombia	1 173	(55.4)	1 341	(73.1)	**167**	(56.4)	0.00	(0.00)	0.3	(0.4)	0.00	(0.00)	19.8	(2.6)
	Costa Rica	729	(27.7)	818	(26.3)	**89**	(27.2)	**0.02**	(0.00)	2.2	(1.0)	0.00	(0.00)	22.4	(2.1)
	Croatia	c	c	598	(14.3)	c	c	**0.04**	(0.01)	1.3	(0.9)	0.02	(0.01)	26.0	(2.1)
	Cyprus*	400	(4.6)	546	(0.6)	**146**	(4.8)	**0.12**	(0.01)	6.4	(0.6)	**0.04**	(0.01)	17.6	(0.9)
	Dominican Republic	676	(88.5)	604	(29.2)	-71	(92.9)	0.01	(0.01)	0.5	(0.9)	0.00	(0.01)	26.4	(3.2)
	FYROM	c	c	1 012	(1.3)	c	c	0.00	(0.00)	0.0	(0.0)	**-0.01**	(0.00)	14.6	(1.1)
	Georgia	628	(25.1)	609	(24.8)	-19	(25.5)	**0.03**	(0.01)	3.1	(1.0)	0.00	(0.01)	15.3	(1.6)
	Hong Kong (China)	798	(14.6)	863	(23.5)	**65**	(13.5)	**0.11**	(0.04)	10.2	(2.5)	0.07	(0.03)	15.3	(2.1)
	Indonesia	482	(50.9)	834	(220.2)	352	(223.6)	0.01	(0.00)	2.3	(0.8)	0.00	(0.00)	24.7	(3.1)
	Jordan	657	(18.3)	m	m	m	m	**0.04**	(0.01)	2.2	(0.9)	**0.02**	(0.01)	13.3	(2.3)
	Kosovo	788	(37.7)	1 097	(7.7)	**309**	(40.0)	**0.03**	(0.00)	6.3	(1.1)	**0.02**	(0.00)	15.8	(1.4)
	Lebanon	468	(50.4)	747	(42.8)	**279**	(62.7)	**0.05**	(0.00)	13.4	(2.7)	**0.03**	(0.00)	21.5	(3.2)
	Lithuania	533	(11.0)	c	c	c	c	**0.09**	(0.01)	6.6	(1.4)	0.00	(0.01)	21.4	(2.3)
	Macao (China)	1 671	(3.1)	1 917	(2.1)	**246**	(4.5)	**0.02**	(0.00)	8.1	(0.6)	**0.02**	(0.00)	10.6	(0.7)
	Malta	c	c	463	(0.5)	c	c	**0.08**	(0.01)	1.7	(0.4)	**0.06**	(0.01)	25.5	(1.2)
	Moldova	422	(15.0)	546	(34.9)	**125**	(32.8)	**0.05**	(0.01)	4.3	(1.5)	0.00	(0.01)	13.6	(1.8)
	Montenegro	854	(131.1)	832	(0.5)	-22	(131.2)	**0.03**	(0.00)	1.4	(0.4)	0.00	(0.00)	17.2	(0.9)
	Peru	577	(31.7)	775	(38.3)	**198**	(30.1)	**0.03**	(0.00)	5.2	(1.4)	0.01	(0.00)	30.2	(2.2)
	Qatar	1 636	(12.7)	1 631	(5.6)	-5	(14.9)	**0.01**	(0.00)	6.0	(0.4)	**0.01**	(0.00)	21.7	(0.6)
	Romania	838	(31.6)	m	m	m	m	**0.03**	(0.01)	2.2	(1.1)	0.01	(0.01)	23.3	(2.9)
	Russia	754	(41.9)	735	(61.6)	-19	(55.3)	**0.03**	(0.01)	2.9	(1.0)	0.00	(0.01)	9.6	(1.8)
	Singapore	1 102	(70.9)	1 234	(16.1)	132	(68.7)	**0.07**	(0.01)	10.8	(1.1)	**0.03**	(0.01)	27.7	(1.6)
	Chinese Taipei	1 657	(41.9)	2 639	(83.4)	**982**	(78.0)	0.00	(0.00)	0.0	(0.2)	**-0.01**	(0.00)	29.3	(2.5)
	Thailand	1 249	(73.3)	2 060	(136.6)	**811**	(140.0)	**0.02**	(0.00)	8.9	(3.4)	0.00	(0.00)	18.7	(3.0)
	Trinidad and Tobago	589	(2.2)	701	(1.3)	**112**	(2.7)	**0.11**	(0.01)	6.7	(0.8)	**0.02**	(0.01)	35.7	(1.1)
	Tunisia	606	(36.0)	865	(44.9)	**259**	(58.4)	**0.04**	(0.01)	6.5	(1.8)	**0.02**	(0.01)	19.0	(3.5)
	United Arab Emirates	1 225	(83.2)	1 741	(80.6)	**516**	(88.7)	**0.02**	(0.00)	10.8	(1.5)	**0.01**	(0.00)	23.2	(1.9)
	Uruguay	741	(26.8)	978	(26.6)	**236**	(35.9)	**0.01**	(0.00)	0.3	(0.3)	**0.01**	(0.00)	27.2	(1.8)
	Viet Nam	695	(109.0)	1 091	(43.4)	**395**	(112.0)	**0.04**	(0.01)	9.3	(2.3)	**0.02**	(0.01)	20.8	(3.9)
	Argentina**	592	(29.5)	600	(26.5)	8	(32.6)	**0.02**	(0.01)	1.6	(0.9)	0.01	(0.00)	19.0	(2.3)
	Kazakhstan**	803	(46.6)	795	(48.4)	-8	(39.9)	0.00	(0.01)	0.0	(0.3)	**-0.01**	(0.01)	9.4	(2.6)
	Malaysia**	1 487	(171.5)	1 201	(27.7)	-285	(172.8)	0.00	(0.00)	0.2	(0.3)	**-0.01**	(0.00)	18.7	(2.5)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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In schools attended by 15-year-olds, percentage of teachers

[Part 1/1]

Table II.6.9 Composition and qualifications of teaching staff

Results based on school principals' reports

		In schools attended by 15-year-olds, percentage of teachers					
		Working full-time		Working part-time		Fully certified by the appropriate authority	
		%	S.E.	%	S.E.	%	S.E.
OECD	Australia	83.2	(0.5)	16.8	(0.5)	95.4	(0.6)
	Austria	72.0	(1.0)	28.0	(1.0)	84.0	(2.0)
	Belgium	67.0	(1.1)	33.0	(1.1)	84.9	(1.8)
	Canada	90.7	(0.6)	9.3	(0.6)	94.7	(1.2)
	Chile	78.7	(2.0)	21.3	(2.0)	21.0	(2.5)
	Czech Republic	82.9	(0.8)	17.1	(0.8)	92.6	(0.9)
	Denmark	87.8	(0.9)	12.2	(0.9)	m	m
	Estonia	69.8	(1.0)	30.2	(1.0)	89.1	(1.2)
	Finland	91.3	(0.9)	8.7	(0.9)	92.6	(1.3)
	France	87.5	(0.8)	12.5	(0.8)	77.6	(1.3)
	Germany	67.9	(1.0)	32.1	(1.0)	88.4	(2.3)
	Greece	77.2	(1.1)	22.8	(1.1)	86.9	(2.7)
	Hungary	90.0	(0.7)	10.0	(0.7)	m	m
	Iceland	84.2	(0.1)	15.8	(0.1)	86.4	(0.1)
	Ireland	87.5	(1.0)	12.5	(1.0)	98.5	(0.3)
	Israel	65.2	(1.5)	34.8	(1.5)	73.6	(3.4)
	Italy	82.6	(1.1)	17.4	(1.1)	88.0	(0.9)
	Japan	82.8	(0.9)	17.2	(0.9)	97.1	(0.6)
	Korea	91.6	(0.7)	8.4	(0.7)	95.5	(1.6)
	Latvia	78.3	(0.8)	21.7	(0.8)	64.8	(2.3)
	Luxembourg	81.1	(0.0)	18.9	(0.0)	71.6	(0.0)
	Mexico	49.0	(2.3)	51.0	(2.3)	35.3	(2.7)
	Netherlands	40.0	(2.2)	60.0	(2.2)	81.3	(3.1)
	New Zealand	82.8	(1.0)	17.2	(1.0)	90.3	(0.7)
	Norway	80.5	(1.0)	19.5	(1.0)	83.9	(2.4)
	Poland	76.0	(1.7)	24.0	(1.7)	95.3	(1.6)
	Portugal	93.4	(0.6)	6.6	(0.6)	91.5	(1.9)
	Slovak Republic	85.1	(0.7)	14.9	(0.7)	92.1	(1.1)
	Slovenia	90.7	(0.1)	9.3	(0.1)	97.1	(0.1)
	Spain	88.9	(0.5)	11.1	(0.5)	88.5	(2.1)
	Sweden	78.8	(1.1)	21.2	(1.1)	85.9	(1.7)
	Switzerland	39.5	(1.5)	60.5	(1.5)	80.9	(2.8)
	Turkey	95.7	(0.6)	4.3	(0.6)	92.1	(2.0)
	United Kingdom	84.6	(0.7)	15.4	(0.7)	92.1	(1.6)
	United States	96.3	(0.4)	3.7	(0.4)	91.6	(1.7)
	OECD average	79.5	(0.2)	20.5	(0.2)	84.3	(0.3)
Partners	Albania	93.4	(0.6)	6.6	(0.6)	82.5	(2.0)
	Algeria	93.7	(0.6)	6.3	(0.6)	82.3	(2.0)
	Brazil	51.0	(2.3)	49.0	(2.3)	87.4	(1.1)
	B-S-J-G (China)	97.2	(1.0)	2.8	(1.0)	98.5	(0.2)
	Bulgaria	96.6	(0.5)	3.4	(0.5)	96.9	(0.8)
	CABA (Argentina)	28.3	(5.1)	71.7	(5.1)	86.6	(4.6)
	Colombia	96.1	(0.8)	3.9	(0.8)	9.8	(1.4)
	Costa Rica	63.4	(1.3)	36.6	(1.3)	88.4	(1.2)
	Croatia	79.9	(1.0)	20.1	(1.0)	94.8	(1.3)
	Cyprus*	71.4	(0.0)	28.6	(0.0)	98.0	(0.0)
	Dominican Republic	77.2	(2.6)	22.8	(2.6)	m	m
	FYROM	88.3	(0.0)	11.7	(0.0)	77.5	(0.1)
	Georgia	62.7	(2.0)	37.3	(2.0)	33.1	(1.1)
	Hong Kong (China)	96.8	(0.4)	3.2	(0.4)	94.2	(1.4)
	Indonesia	84.0	(1.5)	16.0	(1.5)	62.7	(1.9)
	Jordan	96.0	(1.0)	4.0	(1.0)	74.1	(3.0)
	Kosovo	89.6	(0.3)	10.4	(0.3)	70.7	(0.9)
	Lebanon	63.9	(1.7)	36.1	(1.7)	69.4	(2.7)
	Lithuania	78.2	(0.9)	21.8	(0.9)	99.3	(0.2)
	Macao (China)	96.6	(0.0)	3.4	(0.0)	99.9	(0.0)
	Malta	95.1	(0.0)	4.9	(0.0)	87.7	(0.0)
	Moldova	73.9	(1.2)	26.1	(1.2)	71.3	(1.6)
	Montenegro	88.1	(0.1)	11.9	(0.1)	98.7	(0.0)
	Peru	77.0	(1.9)	23.0	(1.9)	86.7	(1.4)
	Qatar	99.4	(0.0)	0.6	(0.0)	76.4	(0.1)
	Romania	79.6	(1.1)	20.4	(1.1)	95.9	(1.3)
	Russia	94.4	(0.4)	5.6	(0.4)	88.6	(2.5)
	Singapore	94.9	(0.1)	5.1	(0.1)	89.6	(1.5)
	Chinese Taipei	87.9	(0.6)	12.1	(0.6)	90.5	(1.0)
	Thailand	89.9	(1.0)	10.1	(1.0)	94.7	(0.6)
	Trinidad and Tobago	98.7	(0.0)	1.3	(0.0)	50.8	(0.2)
	Tunisia	94.9	(0.9)	5.1	(0.9)	82.3	(3.6)
	United Arab Emirates	99.2	(0.1)	0.8	(0.1)	38.2	(1.1)
	Uruguay	16.1	(1.4)	83.9	(1.4)	60.4	(1.3)
	Viet Nam	95.0	(0.8)	5.0	(0.8)	85.6	(3.2)
	Argentina**	37.2	(2.6)	62.8	(2.6)	91.2	(1.9)
	Kazakhstan**	93.8	(0.7)	6.2	(0.7)	77.5	(2.6)
	Malaysia**	99.5	(0.1)	0.5	(0.1)	95.9	(1.1)

Note: In Chile the question about the certification of teachers was adapted as "authorised or enabled by the Ministry of Education".
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/2]

Table II.6.14 Shortage of education staff

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the school's capacity to provide instruction is hindered by															
		A lack of teaching staff								Inadequate or poorly qualified teaching staff							
		Not at all		Very little		To some extent		A lot		Not at all		Very little		To some extent		A lot	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	53.2	(1.9)	26.3	(1.7)	19.4	(1.4)	1.1	(0.4)	41.7	(1.9)	40.8	(2.0)	16.0	(1.5)	1.6	(0.5)
	Austria	48.9	(3.3)	31.9	(3.2)	16.3	(2.8)	2.8	(1.3)	44.8	(3.3)	41.4	(3.4)	12.9	(2.5)	0.9	(0.5)
	Belgium	23.9	(2.8)	42.3	(3.0)	31.0	(2.9)	2.8	(1.1)	20.4	(2.4)	49.3	(3.1)	28.2	(2.8)	2.1	(1.1)
	Canada	56.4	(2.7)	24.8	(2.2)	17.8	(2.1)	1.1	(0.4)	44.7	(2.6)	42.1	(2.6)	11.4	(1.9)	1.8	(0.8)
	Chile	50.9	(3.7)	31.8	(3.5)	12.9	(2.8)	4.4	(1.4)	42.7	(4.1)	38.1	(4.3)	16.3	(3.2)	2.9	(1.3)
	Czech Republic	62.5	(3.3)	24.3	(3.2)	12.7	(1.7)	0.5	(0.4)	43.8	(2.7)	38.8	(2.8)	16.5	(2.2)	0.9	(0.5)
	Denmark	61.1	(3.6)	32.9	(3.5)	5.7	(1.5)	0.4	(0.3)	63.3	(3.1)	31.8	(3.1)	4.9	(1.4)	0.0	c
	Estonia	25.1	(2.4)	40.3	(2.9)	31.2	(2.8)	3.3	(0.9)	30.1	(2.5)	42.6	(2.5)	26.4	(2.6)	0.9	(0.5)
	Finland	60.5	(4.4)	36.7	(4.4)	2.8	(1.2)	0.0	c	51.5	(4.1)	44.7	(4.0)	3.8	(1.6)	0.0	c
	France	26.2	(3.0)	39.1	(3.0)	32.5	(2.9)	2.3	(1.1)	22.4	(2.7)	57.2	(3.3)	20.1	(2.8)	0.3	(0.6)
	Germany	12.8	(2.6)	32.1	(3.8)	43.0	(3.4)	12.1	(2.3)	22.8	(3.1)	53.7	(3.6)	23.0	(3.2)	0.5	(0.5)
	Greece	27.3	(3.1)	28.4	(3.4)	23.6	(3.0)	20.7	(2.8)	39.9	(4.0)	39.1	(3.5)	10.4	(2.3)	10.7	(2.4)
	Hungary	35.8	(2.9)	30.3	(3.0)	32.0	(3.1)	1.8	(0.8)	33.7	(3.2)	47.7	(3.1)	15.5	(2.5)	3.1	(1.2)
	Iceland	50.6	(0.3)	36.2	(0.3)	13.1	(0.2)	0.2	(0.0)	44.6	(0.3)	40.6	(0.3)	14.8	(0.2)	0.0	c
	Ireland	18.8	(3.3)	25.7	(3.7)	48.0	(4.1)	7.5	(2.2)	55.8	(4.3)	31.0	(3.9)	13.3	(3.1)	0.0	c
	Israel	31.7	(3.6)	27.2	(3.7)	33.4	(3.6)	7.7	(2.5)	13.4	(2.4)	45.9	(4.1)	32.8	(3.7)	7.8	(2.7)
	Italy	35.9	(3.9)	32.6	(3.7)	26.3	(3.8)	5.2	(1.8)	26.4	(3.3)	32.6	(3.5)	35.9	(3.4)	5.1	(1.7)
	Japan	7.9	(1.9)	37.0	(3.3)	45.8	(3.4)	9.3	(2.2)	4.6	(1.5)	51.7	(3.5)	40.6	(3.5)	3.1	(1.3)
	Korea	26.8	(3.5)	34.4	(3.8)	35.1	(3.8)	3.7	(1.6)	51.5	(3.9)	37.0	(4.0)	11.4	(2.4)	0.0	c
	Latvia	40.4	(3.0)	38.0	(2.7)	17.5	(1.9)	4.1	(1.1)	49.7	(2.9)	35.3	(2.3)	12.9	(2.0)	2.1	(0.7)
	Luxembourg	9.1	(0.0)	31.9	(0.1)	54.2	(0.1)	4.8	(0.1)	16.4	(0.1)	63.0	(0.1)	18.4	(0.1)	2.2	(0.0)
	Mexico	33.7	(3.0)	37.2	(3.7)	22.5	(2.9)	6.6	(1.7)	37.8	(2.9)	47.8	(3.3)	13.8	(2.3)	0.6	(0.3)
	Netherlands	32.2	(4.0)	40.7	(4.0)	24.9	(4.0)	2.1	(1.5)	9.6	(2.6)	54.9	(4.5)	31.6	(4.3)	4.0	(1.9)
	New Zealand	52.2	(3.8)	26.9	(3.0)	20.3	(3.1)	0.7	(0.5)	46.4	(4.2)	37.8	(4.0)	13.0	(2.7)	2.8	(1.5)
	Norway	40.6	(3.5)	37.9	(3.5)	20.9	(3.0)	0.6	(0.6)	32.7	(3.3)	49.7	(3.6)	17.5	(2.4)	0.0	c
	Poland	86.0	(3.0)	13.8	(3.0)	0.2	(0.2)	0.0	c	89.5	(2.6)	9.9	(2.5)	0.6	(0.6)	0.0	c
	Portugal	26.1	(3.0)	34.2	(3.1)	33.9	(3.4)	5.8	(1.8)	23.4	(2.9)	45.7	(4.0)	27.1	(3.2)	3.8	(1.5)
	Slovak Republic	76.3	(2.6)	13.8	(2.0)	8.5	(1.8)	1.3	(0.6)	75.1	(2.7)	18.6	(2.4)	5.8	(1.2)	0.5	(0.4)
	Slovenia	48.5	(0.4)	32.6	(0.5)	15.4	(0.5)	3.5	(0.1)	58.8	(0.6)	30.8	(0.6)	10.4	(0.6)	0.0	c
	Spain	26.7	(2.9)	17.8	(2.5)	39.4	(3.5)	16.1	(2.9)	38.5	(3.5)	33.4	(3.6)	24.0	(3.3)	4.1	(1.7)
	Sweden	30.3	(3.1)	30.5	(3.8)	36.0	(3.7)	3.1	(1.3)	24.1	(3.6)	37.8	(3.9)	34.7	(3.5)	3.4	(1.3)
	Switzerland	38.3	(3.2)	37.9	(3.2)	22.5	(3.0)	1.2	(0.7)	43.1	(3.8)	41.6	(3.9)	14.3	(2.8)	1.0	(0.7)
	Turkey	30.8	(3.8)	39.8	(4.2)	25.2	(3.4)	4.1	(1.5)	27.6	(3.2)	46.0	(4.1)	23.7	(3.2)	2.7	(1.2)
	United Kingdom	29.2	(3.6)	28.0	(3.1)	35.6	(3.7)	7.2	(2.0)	39.5	(4.1)	40.5	(4.0)	18.1	(3.3)	1.9	(0.9)
	United States	42.2	(3.8)	34.1	(3.9)	21.0	(3.1)	2.7	(1.0)	51.3	(4.0)	34.5	(3.9)	13.3	(2.9)	0.9	(0.6)
	OECD average	38.8	(0.5)	31.7	(0.5)	25.2	(0.5)	4.3	(0.2)	38.9	(0.5)	40.9	(0.6)	18.1	(0.4)	2.0	(0.2)
Partners	**Albania**	61.6	(3.6)	24.7	(2.9)	10.3	(2.4)	3.4	(1.7)	55.4	(3.8)	27.9	(3.8)	13.1	(2.7)	3.7	(1.5)
	Algeria	46.7	(4.8)	29.7	(4.5)	16.4	(2.8)	7.3	(2.3)	32.0	(3.6)	32.3	(4.2)	27.2	(3.5)	8.6	(2.3)
	Brazil	48.6	(2.2)	25.4	(2.1)	20.2	(2.3)	5.7	(1.4)	53.4	(2.5)	26.7	(2.6)	17.1	(2.4)	2.8	(0.8)
	B-S-J-G (China)	12.8	(2.9)	23.5	(3.6)	43.4	(4.1)	20.3	(3.3)	12.3	(2.6)	28.2	(4.4)	35.9	(4.2)	23.6	(3.7)
	Bulgaria	77.5	(3.2)	15.7	(2.9)	5.9	(1.7)	0.9	(0.7)	72.1	(3.6)	20.7	(3.2)	6.4	(2.0)	0.8	(0.7)
	CABA (Argentina)	39.2	(6.5)	31.8	(6.9)	20.0	(5.7)	8.9	(4.1)	39.2	(4.7)	37.7	(5.7)	21.1	(5.8)	2.1	(2.2)
	Colombia	36.0	(3.1)	22.7	(3.3)	29.9	(3.2)	11.5	(2.4)	37.5	(3.4)	35.8	(3.8)	22.5	(2.7)	4.3	(1.4)
	Costa Rica	29.2	(3.4)	24.0	(3.0)	23.5	(2.9)	23.3	(3.5)	22.6	(3.3)	32.4	(3.2)	28.7	(3.4)	16.3	(2.8)
	Croatia	46.5	(3.7)	33.0	(3.6)	17.4	(2.9)	3.1	(1.3)	47.8	(4.1)	31.7	(3.8)	17.7	(3.3)	2.8	(1.3)
	Cyprus*	45.7	(0.1)	35.1	(0.2)	11.1	(0.1)	8.1	(0.1)	23.0	(0.1)	45.1	(0.1)	18.6	(0.1)	13.3	(0.1)
	Dominican Republic	48.9	(3.3)	21.4	(3.0)	22.4	(3.1)	7.2	(2.2)	47.9	(3.5)	30.6	(3.5)	17.6	(3.0)	3.9	(1.5)
	FYROM	88.5	(0.1)	7.4	(0.1)	4.1	(0.1)	0.0	c	84.8	(0.1)	9.1	(0.1)	6.1	(0.1)	0.0	c
	Georgia	83.5	(2.4)	10.5	(2.0)	4.1	(1.3)	1.9	(0.6)	42.4	(3.1)	36.9	(3.6)	17.3	(2.8)	3.4	(1.1)
	Hong Kong (China)	41.1	(4.3)	36.7	(4.0)	18.9	(3.3)	3.4	(1.5)	41.5	(4.3)	47.1	(4.6)	9.2	(2.5)	2.3	(1.3)
	Indonesia	53.1	(3.2)	14.7	(2.5)	23.7	(2.9)	8.5	(2.0)	47.7	(3.2)	30.3	(3.2)	19.8	(2.8)	2.2	(1.1)
	Jordan	18.6	(2.8)	25.1	(3.0)	25.3	(3.0)	31.0	(3.4)	12.8	(2.2)	30.2	(3.9)	34.6	(3.5)	22.5	(3.4)
	Kosovo	49.0	(1.3)	31.1	(1.2)	13.2	(0.6)	6.7	(0.8)	45.6	(1.3)	39.4	(1.1)	8.1	(0.7)	6.9	(0.7)
	Lebanon	56.6	(3.5)	20.6	(3.2)	19.7	(2.9)	3.0	(1.3)	40.2	(3.2)	41.2	(3.1)	15.3	(2.3)	3.3	(1.4)
	Lithuania	70.1	(2.7)	18.6	(2.3)	10.8	(1.8)	0.5	(0.4)	48.4	(3.0)	36.1	(2.6)	12.8	(2.1)	2.7	(1.1)
	Macao (China)	47.0	(0.1)	19.2	(0.0)	19.4	(0.1)	14.4	(0.0)	18.5	(0.0)	35.8	(0.1)	33.1	(0.1)	12.6	(0.0)
	Malta	68.9	(0.1)	19.1	(0.1)	12.1	(0.1)	0.0	c	61.1	(0.1)	28.3	(0.1)	5.2	(0.1)	5.4	(0.1)
	Moldova	47.1	(3.9)	27.2	(3.1)	23.6	(3.1)	2.1	(1.0)	33.8	(3.3)	41.1	(3.7)	21.4	(2.8)	3.8	(1.4)
	Montenegro	72.5	(0.4)	26.4	(0.2)	1.1	(0.3)	0.0	c	65.4	(0.4)	34.2	(0.2)	0.4	(0.3)	0.0	c
	Peru	28.6	(2.5)	46.4	(2.9)	14.2	(2.2)	10.7	(1.7)	28.6	(2.6)	46.8	(3.0)	20.1	(2.4)	4.4	(1.3)
	Qatar	60.0	(0.1)	22.8	(0.1)	12.6	(0.1)	4.6	(0.0)	70.0	(0.1)	21.6	(0.1)	6.8	(0.1)	1.6	(0.0)
	Romania	81.7	(3.2)	12.9	(2.9)	5.4	(1.5)	0.0	c	79.6	(3.2)	17.4	(3.1)	3.0	(1.0)	0.0	c
	Russia	34.3	(4.7)	24.2	(4.0)	34.0	(3.4)	7.5	(1.9)	27.5	(3.6)	29.6	(3.2)	32.5	(3.2)	10.4	(2.0)
	Singapore	45.9	(1.2)	43.4	(1.2)	10.7	(0.1)	0.0	c	48.7	(0.8)	38.8	(0.7)	12.2	(0.1)	0.3	(0.0)
	Chinese Taipei	24.1	(3.1)	36.5	(3.3)	33.4	(3.1)	6.0	(1.8)	17.3	(2.6)	64.0	(3.1)	18.2	(2.5)	0.5	(0.4)
	Thailand	17.4	(3.0)	29.6	(3.9)	41.3	(3.9)	11.7	(2.9)	40.0	(3.8)	30.6	(3.3)	26.8	(3.5)	2.6	(1.0)
	Trinidad and Tobago	14.0	(0.2)	35.7	(0.3)	42.0	(0.3)	8.3	(0.1)	27.6	(0.2)	30.4	(0.2)	39.7	(0.3)	2.2	(0.1)
	Tunisia	9.7	(2.7)	18.9	(3.2)	42.3	(4.0)	29.1	(4.2)	12.6	(2.8)	30.9	(4.0)	36.7	(4.2)	19.8	(3.7)
	United Arab Emirates	35.8	(2.0)	25.9	(2.0)	19.4	(1.9)	18.8	(1.8)	39.5	(2.7)	27.6	(2.3)	21.0	(2.1)	11.9	(1.5)
	Uruguay	32.0	(2.7)	23.1	(2.8)	38.4	(3.3)	6.6	(1.6)	40.0	(3.0)	30.1	(3.0)	27.1	(2.5)	2.8	(0.9)
	Viet Nam	48.6	(4.3)	22.8	(2.8)	24.7	(4.0)	3.9	(1.5)	34.4	(3.5)	44.5	(4.0)	15.0	(2.6)	6.1	(1.8)
	Argentina**	35.2	(3.0)	20.2	(2.5)	32.5	(3.3)	12.1	(2.4)	35.7	(3.5)	40.4	(3.7)	21.0	(3.0)	2.9	(1.4)
	Kazakhstan**	44.6	(4.2)	22.6	(3.2)	28.1	(3.6)	4.7	(1.5)	41.6	(3.2)	30.7	(3.4)	22.6	(3.2)	5.1	(1.8)
	Malaysia**	31.5	(3.5)	58.4	(3.7)	9.3	(2.0)	0.8	(0.8)	27.6	(3.7)	55.4	(4.2)	16.3	(3.1)	0.7	(0.7)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436513

[Part 2/2]

Table II.6.14 Shortage of education staff

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the school's capacity to provide instruction is hindered by															
		A lack of assisting staff								Inadequate or poorly qualified assisting staff							
		Not at all		Very little		To some extent		A lot		Not at all		Very little		To some extent		A lot	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	47.7	(2.1)	34.1	(2.0)	16.1	(1.5)	2.1	(0.7)	56.3	(1.8)	30.8	(1.8)	11.7	(1.4)	1.1	(0.5)
	Austria	18.4	(2.3)	20.9	(3.5)	34.8	(3.3)	25.9	(3.1)	55.8	(3.8)	16.6	(3.0)	16.1	(2.8)	11.6	(2.5)
	Belgium	28.9	(3.1)	33.6	(3.0)	29.7	(3.1)	7.7	(1.7)	34.7	(3.3)	45.8	(3.5)	18.5	(2.5)	1.0	(0.8)
	Canada	34.4	(2.6)	33.2	(2.7)	28.2	(2.5)	4.2	(1.3)	47.1	(2.8)	37.8	(2.9)	12.7	(2.1)	2.4	(1.0)
	Chile	46.7	(4.1)	36.1	(3.7)	12.5	(2.5)	4.7	(1.8)	49.2	(4.1)	36.5	(4.4)	12.8	(2.7)	1.5	(0.9)
	Czech Republic	55.5	(3.2)	17.5	(2.4)	22.2	(3.0)	4.8	(1.3)	71.3	(3.0)	19.2	(2.4)	7.5	(1.8)	2.0	(0.9)
	Denmark	59.8	(3.5)	18.9	(2.8)	16.6	(2.8)	4.7	(1.4)	76.2	(3.0)	15.5	(2.7)	6.2	(1.7)	2.1	(1.0)
	Estonia	37.2	(2.7)	25.1	(2.5)	26.8	(2.3)	10.8	(1.5)	52.7	(2.7)	31.2	(2.6)	14.4	(2.0)	1.7	(0.7)
	Finland	14.5	(2.4)	39.4	(3.9)	40.6	(3.8)	5.5	(1.7)	34.5	(3.8)	40.8	(4.3)	23.3	(3.5)	1.4	(1.0)
	France	29.4	(3.2)	36.3	(3.0)	29.4	(2.8)	4.9	(1.4)	37.8	(3.4)	44.6	(3.1)	15.9	(2.4)	1.8	(0.8)
	Germany	18.7	(3.0)	27.9	(3.5)	37.1	(3.4)	16.3	(2.8)	46.4	(3.1)	35.9	(3.2)	15.2	(2.4)	2.6	(1.1)
	Greece	8.9	(2.1)	18.3	(2.9)	32.7	(3.8)	40.1	(3.5)	42.7	(3.6)	24.5	(3.2)	17.7	(2.6)	15.0	(2.8)
	Hungary	16.3	(2.8)	28.8	(3.3)	35.6	(3.6)	19.3	(2.9)	72.0	(3.0)	21.1	(2.9)	4.4	(1.1)	2.6	(1.2)
	Iceland	45.5	(0.3)	26.7	(0.3)	26.4	(0.2)	1.3	(0.1)	45.4	(0.3)	43.7	(0.3)	10.9	(0.1)	0.0	c
	Ireland	29.8	(3.4)	29.6	(3.8)	34.8	(3.7)	5.8	(2.1)	52.8	(4.2)	23.3	(3.7)	17.9	(3.3)	6.0	(2.1)
	Israel	33.0	(3.5)	33.7	(3.6)	25.8	(3.5)	7.4	(2.6)	36.9	(3.6)	36.5	(3.7)	21.0	(3.3)	5.6	(2.2)
	Italy	22.3	(3.5)	32.3	(3.7)	34.7	(3.4)	10.7	(2.5)	30.9	(4.2)	37.0	(3.8)	25.7	(3.5)	6.4	(2.0)
	Japan	22.8	(2.9)	41.2	(3.3)	30.7	(3.5)	5.4	(1.5)	25.7	(3.0)	56.1	(3.5)	18.1	(2.8)	0.0	c
	Korea	7.5	(2.0)	19.9	(3.0)	63.1	(3.3)	9.6	(2.3)	51.0	(4.0)	35.8	(3.9)	11.9	(2.4)	1.3	(0.9)
	Latvia	45.2	(2.7)	27.4	(2.4)	20.3	(2.3)	7.1	(1.5)	63.7	(3.0)	21.9	(2.4)	10.2	(1.8)	4.2	(1.1)
	Luxembourg	24.6	(0.1)	32.2	(0.1)	28.3	(0.1)	14.8	(0.1)	36.7	(0.1)	45.3	(0.1)	17.9	(0.1)	0.0	c
	Mexico	28.0	(2.9)	25.3	(2.9)	26.3	(3.0)	20.4	(2.6)	46.8	(2.9)	33.6	(2.7)	16.7	(2.2)	3.0	(1.0)
	Netherlands	60.8	(4.0)	29.3	(4.3)	10.0	(2.9)	0.0	c	48.4	(4.8)	36.7	(4.5)	10.8	(2.8)	4.1	(2.3)
	New Zealand	47.1	(4.3)	33.8	(4.1)	18.5	(3.4)	0.7	(0.5)	66.4	(3.6)	25.8	(3.4)	7.9	(2.3)	0.0	c
	Norway	48.0	(3.5)	39.6	(3.6)	11.9	(2.4)	0.6	(0.6)	37.3	(3.3)	43.1	(3.4)	17.6	(2.6)	2.0	(1.0)
	Poland	73.6	(3.4)	9.4	(2.5)	13.6	(2.8)	3.4	(1.2)	78.6	(3.1)	9.0	(2.4)	10.3	(2.3)	2.1	(1.2)
	Portugal	7.4	(1.5)	19.0	(2.5)	32.8	(3.4)	40.8	(3.5)	7.4	(1.7)	24.6	(2.9)	53.3	(3.7)	14.7	(2.8)
	Slovak Republic	65.0	(3.0)	10.1	(2.0)	16.6	(2.4)	8.3	(1.5)	82.7	(2.5)	8.7	(1.8)	6.1	(1.4)	2.5	(1.1)
	Slovenia	51.6	(0.6)	32.0	(0.4)	14.9	(0.6)	1.5	(0.0)	66.4	(0.6)	25.8	(0.6)	7.8	(0.4)	0.0	c
	Spain	21.0	(2.6)	19.0	(2.9)	35.4	(3.6)	24.6	(2.9)	57.9	(3.6)	30.1	(3.2)	7.7	(1.6)	4.3	(1.5)
	Sweden	23.3	(3.3)	34.1	(3.6)	37.5	(3.5)	5.1	(1.5)	32.3	(3.5)	32.2	(3.5)	30.1	(3.7)	5.3	(1.5)
	Switzerland	57.0	(4.1)	26.2	(3.9)	16.0	(2.6)	0.8	(0.8)	76.2	(3.1)	19.0	(2.8)	4.8	(1.7)	0.0	c
	Turkey	22.8	(3.1)	24.0	(3.3)	27.9	(3.8)	25.3	(3.4)	24.1	(3.4)	24.9	(3.7)	34.1	(3.5)	16.8	(2.3)
	United Kingdom	42.7	(4.0)	38.2	(3.7)	18.0	(2.5)	1.1	(0.7)	52.8	(4.0)	35.1	(3.6)	12.0	(2.5)	0.0	c
	United States	42.1	(3.9)	33.7	(3.9)	22.2	(3.5)	1.9	(1.0)	54.4	(4.0)	33.8	(3.6)	10.2	(2.2)	1.6	(0.9)
	OECD average	35.4	(0.5)	28.2	(0.5)	26.5	(0.5)	9.9	(0.3)	50.0	(0.6)	30.9	(0.5)	15.4	(0.4)	3.6	(0.2)
Partners	**Albania**	36.1	(3.6)	25.7	(3.3)	22.3	(2.8)	15.9	(3.0)	46.1	(3.9)	23.2	(3.5)	20.7	(2.9)	10.1	(2.3)
	Algeria	19.7	(3.4)	33.7	(4.0)	28.3	(3.4)	18.3	(3.3)	33.0	(4.2)	29.2	(3.5)	26.4	(3.4)	11.5	(2.6)
	Brazil	35.9	(2.6)	26.8	(2.6)	20.9	(2.1)	16.4	(1.8)	52.4	(2.8)	22.0	(2.3)	17.7	(2.5)	8.0	(1.4)
	B-S-J-G (China)	21.9	(3.7)	29.3	(3.9)	40.1	(3.8)	8.6	(2.1)	19.8	(3.2)	31.5	(4.0)	37.3	(3.2)	11.3	(3.1)
	Bulgaria	91.8	(1.9)	5.6	(1.9)	2.0	(0.6)	0.7	(0.7)	90.0	(2.2)	6.7	(2.0)	2.1	(1.1)	1.2	(0.8)
	CABA (Argentina)	44.1	(7.8)	31.2	(6.6)	21.2	(6.3)	3.5	(2.0)	59.4	(7.2)	21.8	(6.0)	17.3	(4.4)	1.5	(1.5)
	Colombia	17.4	(2.2)	12.9	(2.7)	33.4	(3.5)	36.3	(3.4)	49.7	(3.5)	18.8	(3.0)	15.0	(2.5)	16.5	(2.7)
	Costa Rica	22.2	(3.3)	18.9	(2.8)	25.0	(2.9)	33.9	(3.3)	29.9	(3.4)	20.0	(3.3)	21.0	(3.0)	29.2	(3.5)
	Croatia	32.1	(3.9)	24.9	(3.5)	26.9	(3.6)	16.1	(2.9)	54.1	(4.1)	27.0	(3.6)	15.8	(2.9)	3.1	(1.4)
	Cyprus*	44.5	(0.2)	25.5	(0.1)	21.0	(0.1)	9.1	(0.1)	47.0	(0.1)	32.4	(0.2)	16.4	(0.1)	4.2	(0.1)
	Dominican Republic	46.9	(3.8)	23.6	(3.4)	17.8	(3.6)	11.7	(2.5)	60.5	(3.6)	24.7	(3.0)	12.3	(2.6)	2.5	(1.5)
	FYROM	64.8	(0.2)	12.0	(0.1)	16.6	(0.2)	6.6	(0.1)	75.0	(0.1)	9.6	(0.1)	11.6	(0.1)	3.8	(0.1)
	Georgia	44.7	(2.9)	27.5	(3.0)	23.2	(2.9)	4.5	(1.5)	57.9	(3.0)	24.5	(3.1)	14.3	(2.2)	3.3	(1.3)
	Hong Kong (China)	37.2	(3.9)	37.9	(4.1)	21.6	(3.4)	3.3	(1.5)	45.9	(4.6)	46.7	(4.8)	7.4	(2.4)	0.0	c
	Indonesia	38.4	(3.1)	30.8	(3.4)	23.7	(2.8)	7.1	(1.9)	47.0	(3.0)	32.1	(3.5)	18.3	(2.8)	2.6	(1.1)
	Jordan	27.1	(2.9)	24.3	(3.2)	28.7	(3.2)	19.8	(2.7)	25.5	(3.4)	31.2	(3.6)	26.5	(3.4)	16.9	(2.6)
	Kosovo	47.7	(1.2)	19.1	(1.0)	23.6	(1.1)	9.6	(0.9)	59.5	(1.3)	20.5	(1.0)	13.9	(1.0)	6.1	(0.7)
	Lebanon	40.6	(3.2)	29.1	(3.1)	19.8	(2.9)	10.5	(2.4)	52.8	(3.5)	31.3	(3.9)	8.9	(1.7)	7.0	(1.9)
	Lithuania	58.4	(2.9)	20.4	(2.3)	17.9	(2.4)	3.2	(0.9)	63.4	(3.0)	24.3	(2.6)	11.7	(2.1)	0.5	(0.5)
	Macao (China)	35.0	(0.1)	38.8	(0.1)	24.4	(0.1)	1.9	(0.0)	26.9	(0.1)	50.6	(0.1)	18.2	(0.1)	4.3	(0.0)
	Malta	35.9	(0.1)	15.6	(0.1)	37.4	(0.1)	11.1	(0.1)	46.0	(0.1)	29.9	(0.1)	18.2	(0.1)	5.9	(0.1)
	Moldova	75.5	(3.2)	11.9	(2.4)	10.8	(2.1)	1.8	(1.0)	62.9	(3.7)	21.8	(2.8)	12.9	(2.7)	2.4	(1.2)
	Montenegro	79.1	(0.4)	18.4	(0.2)	1.8	(0.3)	0.6	(0.2)	85.5	(0.3)	8.7	(0.2)	2.9	(0.2)	2.8	(0.0)
	Peru	28.8	(2.8)	29.4	(3.1)	19.3	(2.7)	22.6	(2.5)	34.5	(3.1)	34.2	(3.2)	18.0	(2.6)	13.3	(2.1)
	Qatar	59.4	(0.1)	29.4	(0.1)	8.0	(0.1)	3.2	(0.0)	69.5	(0.1)	21.0	(0.1)	8.3	(0.1)	1.2	(0.0)
	Romania	45.7	(3.7)	24.5	(3.3)	25.6	(3.4)	4.2	(1.7)	41.6	(3.9)	28.4	(3.9)	25.3	(3.6)	4.7	(1.7)
	Russia	41.8	(4.9)	28.9	(3.5)	22.9	(3.6)	6.3	(1.8)	56.9	(3.9)	23.5	(3.2)	16.7	(3.5)	2.9	(1.0)
	Singapore	47.3	(1.2)	40.0	(1.0)	12.7	(0.7)	0.0	c	57.6	(0.7)	34.6	(0.3)	7.8	(0.7)	0.0	c
	Chinese Taipei	32.9	(3.1)	34.5	(3.5)	28.7	(3.4)	3.9	(1.3)	25.2	(2.7)	63.3	(3.3)	11.2	(2.5)	0.4	(0.4)
	Thailand	34.1	(4.0)	18.0	(3.1)	25.5	(3.6)	22.4	(3.7)	52.8	(4.0)	21.6	(3.1)	14.3	(2.9)	11.2	(2.4)
	Trinidad and Tobago	8.4	(0.2)	30.1	(0.3)	44.8	(0.3)	16.8	(0.2)	22.0	(0.2)	43.9	(0.3)	27.6	(0.3)	6.5	(0.1)
	Tunisia	3.9	(1.7)	14.7	(3.2)	45.6	(4.6)	35.8	(4.5)	8.9	(2.6)	24.0	(3.6)	41.5	(4.7)	25.5	(4.4)
	United Arab Emirates	39.0	(2.4)	24.4	(2.5)	25.9	(2.2)	10.7	(1.3)	45.6	(2.5)	26.5	(2.2)	20.3	(1.9)	7.6	(1.2)
	Uruguay	28.5	(2.6)	16.4	(2.3)	36.6	(3.1)	18.5	(2.5)	37.8	(3.3)	22.8	(2.6)	27.7	(2.4)	11.7	(2.0)
	Viet Nam	43.8	(4.0)	21.4	(3.2)	25.8	(3.4)	9.0	(1.8)	47.2	(4.7)	25.3	(3.9)	20.7	(3.4)	6.8	(1.9)
	Argentina**	33.1	(3.5)	22.5	(3.4)	30.2	(3.7)	14.2	(2.8)	56.8	(4.2)	21.5	(3.3)	15.8	(2.9)	6.0	(1.8)
	Kazakhstan**	55.7	(3.5)	18.0	(2.7)	24.0	(3.1)	2.3	(1.3)	59.2	(3.3)	21.0	(2.1)	16.0	(2.7)	3.9	(1.5)
	Malaysia**	32.9	(3.5)	49.0	(4.1)	16.0	(2.9)	2.0	(1.2)	31.9	(3.5)	54.8	(4.1)	12.6	(2.8)	0.7	(0.7)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.6.15 Index of shortage of education staff[1], science performance and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[2]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean score	S.E.	Dif.	S.E.
OECD	**Australia**	-0.35	(0.03)	1.00	(0.02)	0.13	(0.08)	-0.11	(0.07)	-0.44	(0.09)	-0.92	(0.08)	**-1.06**	(0.11)
	Austria	0.18	(0.07)	0.96	(0.04)	0.23	(0.16)	-0.02	(0.11)	0.17	(0.16)	0.35	(0.14)	0.12	(0.22)
	Belgium	0.23	(0.06)	0.80	(0.04)	0.35	(0.13)	0.31	(0.11)	0.14	(0.13)	0.15	(0.11)	-0.20	(0.16)
	Canada	-0.20	(0.06)	0.99	(0.04)	-0.05	(0.09)	-0.15	(0.12)	-0.17	(0.13)	-0.41	(0.15)	**-0.36**	(0.18)
	Chile	-0.23	(0.08)	1.00	(0.06)	-0.21	(0.17)	0.30	(0.16)	-0.25	(0.19)	-0.69	(0.12)	**-0.48**	(0.19)
	Czech Republic	-0.44	(0.06)	0.90	(0.03)	-0.21	(0.10)	-0.25	(0.13)	-0.52	(0.13)	-0.77	(0.13)	**-0.56**	(0.18)
	Denmark	-0.70	(0.06)	0.94	(0.04)	-0.35	(0.16)	-0.70	(0.14)	-0.86	(0.12)	-0.90	(0.15)	**-0.55**	(0.21)
	Estonia	0.07	(0.05)	0.92	(0.03)	0.18	(0.15)	-0.12	(0.14)	-0.06	(0.11)	0.29	(0.08)	0.11	(0.16)
	Finland	0.00	(0.06)	0.76	(0.04)	0.00	(0.14)	0.20	(0.14)	-0.18	(0.12)	-0.03	(0.13)	-0.04	(0.19)
	France	0.17	(0.05)	0.80	(0.04)	0.20	(0.15)	0.07	(0.12)	0.11	(0.11)	0.29	(0.10)	0.09	(0.18)
	Germany	0.41	(0.06)	0.82	(0.05)	0.64	(0.09)	0.43	(0.12)	0.18	(0.15)	0.39	(0.13)	-0.25	(0.15)
	Greece	0.61	(0.07)	1.01	(0.07)	0.69	(0.17)	0.63	(0.13)	0.60	(0.15)	0.52	(0.17)	-0.17	(0.24)
	Hungary	0.09	(0.05)	0.72	(0.04)	0.26	(0.09)	0.15	(0.11)	0.09	(0.09)	-0.13	(0.12)	**-0.39**	(0.15)
	Iceland	-0.26	(0.01)	0.89	(0.00)	-0.33	(0.01)	0.05	(0.01)	-0.40	(0.01)	-0.35	(0.01)	-0.02	(0.01)
	Ireland	0.12	(0.07)	0.93	(0.06)	0.18	(0.15)	0.14	(0.16)	0.21	(0.17)	-0.03	(0.20)	-0.21	(0.25)
	Israel	0.34	(0.09)	1.05	(0.10)	0.74	(0.27)	0.27	(0.17)	0.19	(0.16)	0.14	(0.19)	-0.59	(0.35)
	Italy	0.35	(0.08)	0.97	(0.06)	0.49	(0.14)	0.27	(0.14)	0.37	(0.20)	0.26	(0.14)	-0.23	(0.20)
	Japan	0.49	(0.05)	0.68	(0.04)	0.57	(0.09)	0.41	(0.13)	0.55	(0.12)	0.44	(0.09)	-0.13	(0.13)
	Korea	0.19	(0.06)	0.76	(0.05)	0.11	(0.13)	0.06	(0.13)	0.26	(0.13)	0.35	(0.14)	0.24	(0.18)
	Latvia	-0.21	(0.06)	1.03	(0.06)	-0.11	(0.11)	-0.39	(0.19)	-0.25	(0.13)	-0.10	(0.10)	0.01	(0.16)
	Luxembourg	0.39	(0.00)	0.71	(0.00)	0.30	(0.01)	0.55	(0.00)	0.84	(0.00)	-0.11	(0.00)	**-0.40**	(0.01)
	Mexico	0.10	(0.05)	0.95	(0.04)	0.27	(0.12)	0.20	(0.14)	0.44	(0.13)	-0.51	(0.11)	**-0.79**	(0.18)
	Netherlands	0.01	(0.07)	0.76	(0.05)	0.21	(0.22)	-0.06	(0.17)	0.08	(0.15)	-0.16	(0.15)	-0.37	(0.26)
	New Zealand	-0.42	(0.08)	0.92	(0.04)	-0.06	(0.18)	-0.17	(0.20)	-0.65	(0.14)	-0.70	(0.09)	**-0.64**	(0.21)
	Norway	-0.11	(0.06)	0.83	(0.04)	0.07	(0.11)	-0.13	(0.12)	-0.05	(0.12)	-0.36	(0.12)	**-0.43**	(0.16)
	Poland	-1.09	(0.06)	0.89	(0.05)	-1.13	(0.10)	-0.86	(0.18)	-1.18	(0.13)	-1.17	(0.16)	-0.03	(0.19)
	Portugal	0.93	(0.05)	0.82	(0.06)	1.04	(0.10)	1.18	(0.14)	0.83	(0.13)	0.68	(0.08)	**-0.35**	(0.14)
	Slovak Republic	-0.81	(0.06)	0.94	(0.04)	-0.63	(0.12)	-0.80	(0.15)	-0.81	(0.13)	-1.00	(0.12)	**-0.38**	(0.18)
	Slovenia	-0.52	(0.01)	0.94	(0.01)	-0.52	(0.04)	-0.21	(0.03)	-0.71	(0.02)	-0.63	(0.01)	**-0.12**	(0.04)
	Spain	0.27	(0.06)	0.99	(0.05)	0.51	(0.12)	0.58	(0.14)	0.33	(0.15)	-0.33	(0.12)	**-0.84**	(0.17)
	Sweden	0.35	(0.08)	1.04	(0.06)	0.76	(0.13)	0.46	(0.18)	0.17	(0.17)	0.00	(0.19)	**-0.75**	(0.24)
	Switzerland	-0.43	(0.06)	0.83	(0.04)	-0.29	(0.14)	-0.49	(0.14)	-0.38	(0.12)	-0.55	(0.12)	-0.26	(0.19)
	Turkey	0.53	(0.08)	1.11	(0.06)	0.83	(0.13)	0.96	(0.15)	0.33	(0.21)	0.00	(0.19)	**-0.83**	(0.23)
	United Kingdom	-0.12	(0.08)	0.90	(0.04)	0.01	(0.11)	-0.08	(0.19)	-0.03	(0.19)	-0.34	(0.11)	**-0.36**	(0.16)
	United States	-0.29	(0.08)	1.04	(0.06)	0.22	(0.17)	-0.32	(0.18)	-0.42	(0.17)	-0.62	(0.16)	**-0.84**	(0.22)
	OECD average	-0.01	(0.01)	0.90	(0.01)	0.15	(0.02)	0.07	(0.02)	-0.04	(0.02)	-0.20	(0.02)	**-0.34**	(0.03)
Partners	**Albania**	-0.07	(0.09)	1.11	(0.06)	-0.09	(0.17)	-0.34	(0.17)	0.24	(0.28)	-0.09	(0.16)	0.00	(0.23)
	Algeria	0.41	(0.09)	1.03	(0.07)	0.57	(0.22)	0.36	(0.17)	0.26	(0.22)	0.43	(0.18)	-0.14	(0.28)
	Brazil	-0.07	(0.06)	1.17	(0.05)	0.07	(0.13)	0.29	(0.11)	-0.04	(0.14)	-0.58	(0.13)	**-0.64**	(0.19)
	B-S-J-G (China)	0.87	(0.08)	1.16	(0.08)	1.39	(0.18)	1.13	(0.15)	0.59	(0.19)	0.38	(0.13)	**-1.02**	(0.22)
	Bulgaria	-1.14	(0.06)	0.73	(0.04)	-1.05	(0.10)	-1.03	(0.14)	-1.27	(0.11)	-1.23	(0.10)	-0.18	(0.13)
	CABA (Argentina)	-0.16	(0.13)	1.03	(0.08)	0.26	(0.26)	0.23	(0.37)	-0.15	(0.27)	-1.14	(0.26)	**-1.39**	(0.35)
	Colombia	0.47	(0.07)	1.20	(0.05)	0.80	(0.14)	0.71	(0.16)	0.52	(0.16)	-0.13	(0.16)	**-0.93**	(0.21)
	Costa Rica	0.91	(0.11)	1.41	(0.06)	0.93	(0.23)	1.03	(0.21)	0.53	(0.21)	1.17	(0.23)	0.24	(0.32)
	Croatia	-0.02	(0.08)	0.93	(0.05)	0.03	(0.18)	0.06	(0.18)	-0.03	(0.17)	-0.13	(0.14)	-0.15	(0.22)
	Cyprus*	0.06	(0.00)	1.11	(0.00)	0.04	(0.01)	0.81	(0.01)	-0.27	(0.01)	-0.34	(0.00)	**-0.38**	(0.01)
	Dominican Republic	-0.22	(0.08)	1.10	(0.06)	0.13	(0.17)	-0.02	(0.19)	-0.20	(0.24)	-0.79	(0.15)	**-0.93**	(0.22)
	FYROM	-0.90	(0.00)	0.99	(0.00)	-1.37	(0.01)	-0.76	(0.01)	-0.57	(0.01)	-0.86	(0.01)	**0.51**	(0.01)
	Georgia	-0.34	(0.06)	1.02	(0.05)	-0.25	(0.15)	-0.36	(0.12)	-0.42	(0.16)	-0.33	(0.13)	-0.07	(0.19)
	Hong Kong (China)	-0.20	(0.08)	0.94	(0.05)	-0.11	(0.22)	-0.28	(0.17)	-0.33	(0.18)	-0.10	(0.19)	0.01	(0.28)
	Indonesia	-0.12	(0.06)	1.09	(0.04)	0.07	(0.16)	0.06	(0.16)	-0.18	(0.17)	-0.44	(0.13)	**-0.51**	(0.20)
	Jordan	0.88	(0.10)	1.31	(0.07)	1.40	(0.23)	0.38	(0.19)	1.34	(0.18)	0.43	(0.17)	**-0.98**	(0.26)
	Kosovo	-0.16	(0.03)	1.05	(0.03)	-0.07	(0.07)	-0.13	(0.07)	-0.20	(0.04)	-0.23	(0.06)	-0.16	(0.09)
	Lebanon	-0.14	(0.07)	1.06	(0.05)	0.33	(0.15)	-0.17	(0.19)	-0.23	(0.18)	-0.48	(0.14)	**-0.81**	(0.22)
	Lithuania	-0.48	(0.05)	0.90	(0.03)	-0.42	(0.10)	-0.71	(0.11)	-0.47	(0.13)	-0.31	(0.10)	0.10	(0.15)
	Macao (China)	0.23	(0.00)	1.19	(0.00)	0.75	(0.00)	0.27	(0.00)	0.22	(0.00)	-0.30	(0.00)	**-1.05**	(0.00)
	Malta	-0.20	(0.00)	1.09	(0.00)	0.37	(0.01)	-0.62	(0.01)	-0.31	(0.01)	-0.22	(0.01)	**-0.59**	(0.01)
	Moldova	-0.35	(0.07)	0.96	(0.04)	-0.26	(0.11)	-0.30	(0.14)	-0.50	(0.15)	-0.34	(0.20)	-0.08	(0.23)
	Montenegro	-1.01	(0.01)	0.76	(0.01)	-0.73	(0.03)	-1.17	(0.02)	-1.18	(0.01)	-0.97	(0.01)	**-0.24**	(0.03)
	Peru	0.34	(0.07)	1.12	(0.06)	0.79	(0.11)	0.75	(0.15)	0.27	(0.11)	-0.46	(0.16)	**-1.26**	(0.19)
	Qatar	-0.71	(0.00)	1.06	(0.00)	-0.71	(0.00)	-0.72	(0.00)	-0.48	(0.00)	-0.95	(0.01)	**-0.24**	(0.01)
	Romania	-0.42	(0.07)	0.98	(0.04)	-0.38	(0.15)	-0.37	(0.23)	-0.65	(0.21)	-0.26	(0.20)	0.13	(0.26)
	Russia	0.08	(0.10)	1.08	(0.04)	0.29	(0.19)	0.05	(0.15)	0.01	(0.21)	-0.04	(0.25)	-0.33	(0.31)
	Singapore	-0.48	(0.02)	0.95	(0.01)	-0.45	(0.01)	-0.43	(0.04)	-0.41	(0.02)	-0.61	(0.11)	-0.16	(0.11)
	Chinese Taipei	0.21	(0.05)	0.75	(0.05)	0.23	(0.12)	0.39	(0.15)	0.18	(0.12)	0.04	(0.10)	-0.19	(0.16)
	Thailand	0.27	(0.09)	1.14	(0.06)	0.46	(0.18)	0.31	(0.23)	0.20	(0.20)	0.12	(0.16)	-0.33	(0.23)
	Trinidad and Tobago	0.63	(0.01)	0.92	(0.01)	0.66	(0.01)	0.56	(0.01)	0.80	(0.01)	0.50	(0.01)	**-0.16**	(0.02)
	Tunisia	1.36	(0.10)	1.03	(0.09)	1.36	(0.12)	1.36	(0.22)	1.34	(0.21)	1.38	(0.23)	0.02	(0.26)
	United Arab Emirates	0.16	(0.06)	1.39	(0.04)	0.88	(0.19)	0.22	(0.14)	0.03	(0.14)	-0.50	(0.12)	**-1.38**	(0.25)
	Uruguay	0.34	(0.07)	1.20	(0.05)	0.65	(0.13)	0.45	(0.18)	0.61	(0.14)	-0.34	(0.15)	**-0.99**	(0.19)
	Viet Nam	0.05	(0.09)	1.05	(0.06)	0.00	(0.15)	0.26	(0.22)	-0.07	(0.18)	0.02	(0.18)	0.02	(0.21)
	Argentina**	0.14	(0.08)	1.06	(0.05)	0.18	(0.15)	0.25	(0.16)	0.13	(0.20)	-0.01	(0.17)	-0.19	(0.22)
	Kazakhstan**	-0.17	(0.09)	1.12	(0.08)	0.14	(0.19)	-0.36	(0.18)	-0.29	(0.16)	-0.16	(0.21)	-0.31	(0.28)
	Malaysia**	-0.03	(0.06)	0.83	(0.05)	-0.02	(0.13)	0.23	(0.16)	-0.23	(0.15)	-0.09	(0.12)	-0.08	(0.18)

1. Higher values in the index indicate a greater shortage of educational staff.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.6.15 Index of shortage of education staff[1], science performance and school characteristics

Results based on school principals' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Mean index	S.E.	Mean index	S.E.	Dif.	S.E.
OECD	**Australia**	0.02	(0.26)	-0.06	(0.08)	-0.49	(0.05)	-0.50	(0.27)	-0.05	(0.05)	-0.73	(0.06)	**-0.69**	(0.08)
	Austria	0.43	(0.25)	0.08	(0.10)	0.27	(0.11)	-0.16	(0.28)	0.18	(0.08)	0.11	(0.14)	-0.07	(0.16)
	Belgium	-0.42	(0.32)	0.18	(0.07)	0.38	(0.10)	**0.79**	(0.35)	w	w	w	w	w	w
	Canada	0.38	(0.11)	-0.25	(0.10)	-0.24	(0.08)	**-0.61**	(0.13)	-0.15	(0.06)	-0.73	(0.15)	**-0.58**	(0.17)
	Chile	0.30	(0.32)	-0.08	(0.13)	-0.33	(0.11)	-0.62	(0.34)	0.37	(0.11)	-0.58	(0.10)	**-0.95**	(0.15)
	Czech Republic	-0.18	(0.14)	-0.46	(0.07)	-0.50	(0.12)	-0.32	(0.19)	-0.40	(0.06)	-0.82	(0.15)	**-0.42**	(0.16)
	Denmark	-0.70	(0.14)	-0.69	(0.08)	-0.76	(0.16)	-0.06	(0.21)	-0.55	(0.08)	-1.21	(0.10)	**-0.66**	(0.13)
	Estonia	0.26	(0.15)	-0.04	(0.06)	0.11	(0.08)	-0.15	(0.17)	0.07	(0.05)	0.11	(0.24)	0.05	(0.24)
	Finland	-0.16	(0.16)	0.08	(0.07)	-0.11	(0.12)	0.04	(0.18)	0.04	(0.06)	-0.96	(0.34)	**-1.00**	(0.35)
	France	-0.16	(0.23)	0.21	(0.06)	0.11	(0.13)	0.27	(0.27)	0.10	(0.07)	0.38	(0.09)	**0.28**	(0.12)
	Germany	0.25	(0.30)	0.37	(0.08)	0.52	(0.10)	0.28	(0.33)	0.48	(0.06)	-0.43	(0.24)	**-0.91**	(0.25)
	Greece	0.50	(0.30)	0.52	(0.09)	0.76	(0.13)	0.26	(0.33)	0.70	(0.08)	-1.14	(0.21)	**-1.85**	(0.22)
	Hungary	0.04	(0.18)	0.09	(0.07)	0.10	(0.08)	0.06	(0.19)	0.21	(0.05)	-0.42	(0.10)	**-0.63**	(0.11)
	Iceland	-0.48	(0.02)	-0.15	(0.01)	-0.31	(0.01)	**0.17**	(0.02)	-0.27	(0.01)	c	c	c	c
	Ireland	0.10	(0.20)	0.20	(0.10)	-0.02	(0.16)	-0.13	(0.26)	0.13	(0.11)	0.12	(0.10)	-0.01	(0.15)
	Israel	0.55	(0.16)	0.39	(0.15)	0.19	(0.14)	-0.37	(0.22)	m	m	m	m	m	m
	Italy	0.11	(0.35)	0.37	(0.11)	0.32	(0.12)	0.21	(0.36)	0.41	(0.08)	-0.93	(0.22)	**-1.33**	(0.24)
	Japan	c	c	0.49	(0.08)	0.49	(0.06)	c	c	0.49	(0.05)	0.50	(0.10)	0.02	(0.11)
	Korea	c	c	0.14	(0.10)	0.19	(0.07)	c	c	0.22	(0.07)	0.15	(0.11)	-0.07	(0.13)
	Latvia	0.01	(0.10)	-0.31	(0.10)	-0.20	(0.10)	-0.21	(0.14)	-0.21	(0.07)	-0.45	(0.23)	-0.24	(0.24)
	Luxembourg	m	m	0.56	(0.00)	0.17	(0.00)	m	m	0.54	(0.00)	-0.40	(0.00)	**-0.94**	(0.00)
	Mexico	0.02	(0.12)	0.28	(0.10)	-0.01	(0.08)	-0.04	(0.16)	0.24	(0.05)	-0.87	(0.08)	**-1.11**	(0.10)
	Netherlands	c	c	0.00	(0.08)	0.09	(0.15)	c	c	-0.01	(0.13)	0.03	(0.07)	0.04	(0.15)
	New Zealand	-0.05	(0.31)	-0.25	(0.12)	-0.58	(0.11)	-0.53	(0.33)	-0.37	(0.08)	-1.02	(0.21)	**-0.65**	(0.23)
	Norway	-0.03	(0.14)	-0.06	(0.07)	-0.31	(0.16)	-0.28	(0.23)	-0.10	(0.06)	-0.72	(0.44)	-0.62	(0.44)
	Poland	-0.99	(0.10)	-1.21	(0.11)	-1.01	(0.15)	-0.02	(0.18)	-1.08	(0.07)	-1.12	(0.28)	-0.04	(0.29)
	Portugal	0.95	(0.18)	0.99	(0.07)	0.72	(0.11)	-0.23	(0.21)	1.02	(0.05)	-0.60	(0.15)	**-1.62**	(0.16)
	Slovak Republic	-0.36	(0.09)	-0.89	(0.08)	-1.01	(0.15)	**-0.65**	(0.17)	-0.78	(0.06)	-1.04	(0.14)	-0.26	(0.14)
	Slovenia	-0.64	(0.11)	-0.57	(0.01)	-0.40	(0.01)	**0.24**	(0.11)	-0.52	(0.01)	-0.57	(0.01)	**-0.05**	(0.01)
	Spain	-0.11	(0.39)	0.39	(0.07)	0.10	(0.12)	0.21	(0.40)	0.57	(0.08)	-0.37	(0.10)	**-0.94**	(0.13)
	Sweden	0.53	(0.26)	0.37	(0.09)	0.25	(0.16)	-0.29	(0.31)	0.40	(0.08)	0.12	(0.17)	-0.28	(0.17)
	Switzerland	-0.20	(0.19)	-0.48	(0.07)	-0.32	(0.17)	-0.12	(0.25)	-0.41	(0.06)	-0.65	(0.22)	-0.24	(0.23)
	Turkey	0.60	(0.55)	0.74	(0.14)	0.38	(0.11)	-0.21	(0.56)	0.57	(0.08)	-0.54	(0.41)	**-1.12**	(0.41)
	United Kingdom	-0.13	(0.23)	-0.17	(0.09)	0.04	(0.13)	0.18	(0.27)	-0.05	(0.07)	-1.04	(0.20)	**-1.00**	(0.19)
	United States	-0.30	(0.32)	-0.39	(0.11)	-0.15	(0.15)	0.15	(0.36)	-0.23	(0.09)	-0.92	(0.21)	**-0.69**	(0.22)
	OECD average	0.00	(0.04)	0.01	(0.02)	-0.04	(0.02)	-0.09	(0.05)	0.07	(0.01)	-0.50	(0.03)	**-0.58**	(0.04)
Partners	**Albania**	0.11	(0.21)	-0.05	(0.14)	-0.26	(0.14)	-0.37	(0.27)	0.04	(0.10)	-0.93	(0.26)	**-0.97**	(0.29)
	Algeria	0.62	(0.26)	0.35	(0.11)	0.41	(0.21)	-0.21	(0.34)	0.38	(0.09)	c	c	c	c
	Brazil	-0.37	(0.21)	0.07	(0.10)	-0.21	(0.10)	0.16	(0.23)	0.14	(0.06)	-1.40	(0.09)	**-1.54**	(0.11)
	B-S-J-G (China)	1.57	(0.32)	1.01	(0.10)	0.52	(0.15)	**-1.05**	(0.33)	0.88	(0.09)	0.67	(0.30)	-0.20	(0.32)
	Bulgaria	-0.72	(0.26)	-1.14	(0.06)	-1.19	(0.09)	-0.47	(0.28)	-1.14	(0.06)	c	c	c	c
	CABA (Argentina)	m	m	c	c	-0.16	(0.14)	m	m	0.33	(0.21)	-0.67	(0.15)	**-1.00**	(0.26)
	Colombia	0.68	(0.20)	0.47	(0.15)	0.39	(0.09)	-0.28	(0.23)	0.87	(0.08)	-0.73	(0.11)	**-1.59**	(0.14)
	Costa Rica	0.65	(0.18)	1.05	(0.13)	0.71	(0.34)	0.05	(0.38)	0.90	(0.11)	0.99	(0.29)	0.09	(0.30)
	Croatia	c	c	-0.11	(0.10)	0.11	(0.13)	c	c	0.00	(0.08)	c	c	c	c
	Cyprus*	-0.25	(0.01)	0.23	(0.00)	-0.21	(0.00)	**0.04**	(0.02)	0.24	(0.00)	-0.88	(0.01)	**-1.13**	(0.01)
	Dominican Republic	0.04	(0.21)	-0.09	(0.11)	-0.76	(0.17)	**-0.80**	(0.27)	-0.08	(0.10)	-0.74	(0.16)	**-0.65**	(0.18)
	FYROM	-0.22	(0.01)	-1.06	(0.00)	-0.74	(0.00)	**-0.52**	(0.01)	-0.89	(0.00)	-1.59	(0.00)	**-0.71**	(0.00)
	Georgia	-0.38	(0.09)	-0.42	(0.13)	-0.23	(0.12)	0.15	(0.15)	-0.28	(0.07)	-0.86	(0.22)	**-0.58**	(0.22)
	Hong Kong (China)	m	m	m	m	-0.20	(0.08)	m	m	0.43	(0.15)	-0.25	(0.08)	**-0.68**	(0.17)
	Indonesia	0.15	(0.13)	-0.18	(0.11)	-0.51	(0.15)	**-0.66**	(0.20)	-0.05	(0.08)	-0.23	(0.11)	-0.17	(0.15)
	Jordan	0.94	(0.25)	1.09	(0.15)	0.57	(0.14)	-0.37	(0.28)	0.96	(0.11)	0.64	(0.20)	-0.32	(0.23)
	Kosovo	-0.27	(0.12)	-0.14	(0.04)	-0.15	(0.04)	0.12	(0.13)	-0.13	(0.03)	-1.35	(0.20)	**-1.22**	(0.20)
	Lebanon	0.07	(0.21)	-0.18	(0.09)	-0.14	(0.13)	-0.21	(0.25)	0.17	(0.12)	-0.43	(0.09)	**-0.60**	(0.15)
	Lithuania	-0.41	(0.10)	-0.58	(0.09)	-0.40	(0.08)	0.01	(0.13)	-0.48	(0.05)	-0.47	(0.49)	0.01	(0.50)
	Macao (China)	c	c	c	c	0.23	(0.00)	c	c	c	c	0.21	(0.00)	c	c
	Malta	-0.64	(0.00)	-0.12	(0.00)	m	m	m	m	-0.23	(0.00)	-0.23	(0.00)	0.00	(0.01)
	Moldova	-0.34	(0.10)	-0.28	(0.12)	-0.56	(0.21)	-0.22	(0.23)	-0.32	(0.07)	c	c	c	c
	Montenegro	c	c	-0.96	(0.01)	-1.10	(0.01)	c	c	-1.01	(0.01)	c	c	c	c
	Peru	0.61	(0.12)	0.29	(0.09)	-0.04	(0.19)	**-0.65**	(0.23)	0.71	(0.08)	-0.49	(0.11)	**-1.20**	(0.14)
	Qatar	-0.04	(0.01)	-0.54	(0.00)	-0.93	(0.00)	**-0.90**	(0.01)	-0.66	(0.00)	-0.76	(0.00)	**-0.09**	(0.00)
	Romania	-0.74	(0.16)	-0.34	(0.09)	-0.44	(0.16)	0.30	(0.22)	-0.40	(0.07)	c	c	c	c
	Russia	0.33	(0.16)	0.07	(0.17)	0.01	(0.16)	-0.32	(0.21)	0.07	(0.10)	c	c	c	c
	Singapore	m	m	m	m	-0.49	(0.03)	m	m	-0.47	(0.00)	-0.58	(0.25)	-0.11	(0.25)
	Chinese Taipei	c	c	0.25	(0.09)	0.17	(0.06)	c	c	0.23	(0.06)	0.17	(0.10)	-0.06	(0.11)
	Thailand	0.28	(0.24)	0.26	(0.12)	0.33	(0.19)	0.05	(0.33)	0.34	(0.10)	-0.06	(0.15)	**-0.40**	(0.18)
	Trinidad and Tobago	0.70	(0.02)	0.61	(0.01)	m	m	m	m	0.66	(0.01)	0.11	(0.02)	**-0.55**	(0.02)
	Tunisia	1.28	(0.25)	1.37	(0.11)	1.33	(0.25)	0.06	(0.36)	1.41	(0.10)	-0.54	(0.41)	**-1.94**	(0.42)
	United Arab Emirates	1.15	(0.23)	0.35	(0.12)	-0.05	(0.08)	**-1.20**	(0.25)	0.86	(0.10)	-0.34	(0.07)	**-1.20**	(0.12)
	Uruguay	0.30	(0.26)	0.50	(0.09)	0.12	(0.13)	-0.17	(0.29)	0.57	(0.08)	-0.90	(0.19)	**-1.47**	(0.21)
	Viet Nam	0.09	(0.12)	0.11	(0.14)	-0.08	(0.20)	-0.17	(0.23)	0.07	(0.09)	-0.47	(0.32)	-0.53	(0.33)
	Argentina**	0.03	(0.18)	0.19	(0.11)	0.08	(0.12)	0.05	(0.20)	0.41	(0.09)	-0.79	(0.13)	**-1.21**	(0.15)
	Kazakhstan**	0.01	(0.17)	-0.36	(0.14)	-0.20	(0.13)	-0.21	(0.20)	-0.18	(0.09)	0.00	(0.55)	0.17	(0.55)
	Malaysia**	0.01	(0.16)	0.03	(0.10)	-0.10	(0.10)	-0.12	(0.19)	-0.02	(0.06)	-0.07	(0.14)	-0.05	(0.16)

1. Higher values in the index indicate a greater shortage of educational staff.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.6.15 Index of shortage of education staff[1], science performance and school characteristics

Results based on school principals' reports

		By education level						Before accounting for students' and schools' socio-economic profile[2]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per unit increase on the index of shortage of education staff		Explained variance in student performance (r-squared x 100)		Change in the science score per unit increase on the index of shortage of education staff		Explained variance in student performance (r-squared x 100)	
		Mean index	S.E.	Mean index	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	Australia	-0.37	(0.04)	-0.25	(0.07)	0.11	(0.07)	**-18**	(2.1)	3.1	(0.7)	-3	(1.9)	16.6	(1.1)
	Austria	0.51	(0.12)	0.18	(0.07)	**-0.34**	(0.13)	0	(5.3)	0.0	(0.2)	-2	(3.7)	31.2	(1.9)
	Belgium	0.34	(0.10)	0.23	(0.06)	-0.11	(0.10)	**-14**	(5.3)	1.2	(1.0)	-5	(2.8)	35.9	(2.1)
	Canada	-0.15	(0.07)	-0.20	(0.06)	-0.05	(0.07)	**-6**	(2.1)	0.4	(0.3)	-2	(1.7)	11.0	(1.1)
	Chile	0.05	(0.17)	-0.25	(0.08)	-0.30	(0.17)	**-15**	(3.1)	3.1	(1.2)	-4	(2.6)	26.8	(1.6)
	Czech Republic	-0.30	(0.07)	-0.60	(0.08)	**-0.31**	(0.10)	**-17**	(5.6)	2.7	(1.6)	-4	(2.8)	33.5	(2.1)
	Denmark	-0.70	(0.06)	c	c	c	c	**-7**	(3.2)	0.6	(0.5)	-3	(2.6)	12.0	(1.4)
	Estonia	0.08	(0.05)	-0.19	(0.20)	-0.26	(0.20)	3	(2.6)	0.1	(0.2)	3	(2.4)	10.9	(1.3)
	Finland	0.00	(0.06)	c	c	c	c	**-7**	(3.0)	0.3	(0.2)	**-4**	(2.1)	11.0	(1.3)
	France	0.13	(0.12)	0.18	(0.06)	0.04	(0.12)	1	(6.7)	0.0	(0.2)	0	(2.7)	37.4	(2.3)
	Germany	0.40	(0.06)	0.61	(0.18)	0.21	(0.18)	**-15**	(5.2)	1.5	(1.0)	-4	(3.9)	35.1	(2.4)
	Greece	0.89	(0.17)	0.60	(0.08)	-0.30	(0.19)	-3	(4.1)	0.1	(0.3)	5	(3.0)	23.6	(2.8)
	Hungary	0.13	(0.12)	0.09	(0.05)	-0.04	(0.13)	**-20**	(6.1)	2.2	(1.4)	-2	(4.0)	43.7	(2.2)
	Iceland	-0.26	(0.01)	m	m	m	m	-1	(1.9)	0.0	(0.0)	0	(1.9)	5.0	(0.8)
	Ireland	0.11	(0.07)	0.14	(0.08)	0.02	(0.03)	-6	(3.3)	0.4	(0.4)	-2	(2.1)	15.5	(1.4)
	Israel	0.59	(0.08)	0.31	(0.10)	**-0.28**	(0.11)	-6	(5.8)	0.4	(0.8)	1	(3.4)	23.2	(2.4)
	Italy	0.74	(0.31)	0.35	(0.08)	-0.39	(0.33)	1	(4.6)	0.0	(0.3)	4	(3.6)	24.5	(2.5)
	Japan	m	m	0.49	(0.05)	m	m	-7	(6.9)	0.3	(0.6)	0	(4.2)	28.1	(2.4)
	Korea	0.40	(0.10)	0.17	(0.07)	-0.22	(0.12)	1	(4.9)	0.0	(0.1)	-3	(3.4)	17.9	(2.1)
	Latvia	-0.21	(0.07)	-0.40	(0.10)	**-0.19**	(0.10)	3	(2.1)	0.1	(0.2)	3	(1.9)	12.5	(1.4)
	Luxembourg	0.47	(0.00)	0.29	(0.00)	**-0.18**	(0.00)	**-15**	(1.6)	1.1	(0.2)	**4**	(1.5)	34.5	(1.0)
	Mexico	0.17	(0.09)	0.05	(0.07)	-0.12	(0.12)	**-10**	(2.6)	1.7	(0.9)	1	(2.1)	17.2	(2.0)
	Netherlands	0.05	(0.08)	-0.07	(0.09)	-0.12	(0.10)	-14	(8.6)	1.2	(1.6)	-8	(5.9)	35.9	(4.5)
	New Zealand	-0.40	(0.11)	-0.42	(0.08)	-0.02	(0.07)	**-11**	(4.8)	1.0	(0.9)	0	(3.7)	20.0	(2.0)
	Norway	-0.11	(0.06)	c	c	c	c	**-10**	(2.6)	0.7	(0.4)	**-7**	(2.6)	9.1	(1.0)
	Poland	-1.08	(0.07)	c	c	c	c	-2	(3.4)	0.1	(0.2)	-1	(2.7)	15.2	(1.6)
	Portugal	1.08	(0.06)	0.85	(0.06)	**-0.23**	(0.06)	**-12**	(3.5)	1.1	(0.6)	-3	(2.8)	19.8	(2.0)
	Slovak Republic	-0.47	(0.07)	-1.12	(0.08)	**-0.65**	(0.09)	**-12**	(4.2)	1.3	(0.9)	**-6**	(2.7)	30.4	(2.3)
	Slovenia	-0.15	(0.15)	-0.54	(0.00)	**-0.39**	(0.15)	**-9**	(1.6)	0.8	(0.3)	-1	(1.5)	35.5	(1.3)
	Spain	0.27	(0.06)	c	c	c	c	**-8**	(2.1)	0.8	(0.4)	2	(1.9)	14.4	(1.2)
	Sweden	0.35	(0.08)	-0.07	(0.25)	-0.42	(0.26)	**-7**	(3.0)	0.5	(0.4)	1	(1.9)	16.4	(1.7)
	Switzerland	-0.42	(0.07)	-0.47	(0.14)	-0.05	(0.16)	-9	(5.9)	0.6	(0.8)	-2	(4.0)	24.3	(2.0)
	Turkey	1.34	(0.15)	0.50	(0.08)	**-0.84**	(0.17)	**-18**	(3.8)	6.3	(2.7)	-6	(3.3)	26.9	(4.0)
	United Kingdom	-0.23	(0.34)	-0.11	(0.08)	0.12	(0.34)	-9	(4.4)	0.6	(0.6)	-1	(2.5)	19.6	(1.7)
	United States	-0.05	(0.11)	-0.31	(0.08)	**-0.26**	(0.10)	**-14**	(3.3)	2.1	(1.0)	**-7**	(2.4)	14.8	(1.7)
	OECD average	0.09	(0.02)	0.00	(0.02)	**-0.20**	(0.03)	**-8**	(0.7)	1.0	(0.1)	**-2**	(0.5)	22.5	(0.3)
Partners	Albania	-0.04	(0.14)	-0.09	(0.11)	-0.05	(0.16)	m	m	m	m	m	m	m	m
	Algeria	0.32	(0.11)	0.70	(0.15)	**0.37**	(0.19)	**7**	(2.9)	1.0	(0.9)	**7**	(2.8)	11.4	(3.1)
	Brazil	-0.17	(0.07)	-0.05	(0.07)	0.11	(0.08)	**-13**	(2.5)	3.0	(1.1)	-3	(2.1)	22.0	(2.3)
	B-S-J-G (China)	0.99	(0.11)	0.67	(0.10)	**-0.32**	(0.15)	**-24**	(4.2)	7.4	(2.5)	-6	(3.8)	35.1	(2.9)
	Bulgaria	-0.92	(0.22)	-1.15	(0.06)	-0.24	(0.22)	-13	(7.3)	0.9	(1.0)	-4	(4.8)	38.4	(3.0)
	CABA (Argentina)	-0.11	(0.14)	-0.82	(0.29)	**-0.72**	(0.30)	**-20**	(6.7)	5.2	(3.5)	2	(4.6)	32.5	(3.5)
	Colombia	0.58	(0.07)	0.39	(0.07)	**-0.19**	(0.06)	**-13**	(2.4)	3.8	(1.4)	**-3**	(1.5)	20.3	(2.5)
	Costa Rica	0.86	(0.13)	0.96	(0.12)	0.10	(0.13)	2	(1.9)	0.2	(0.4)	1	(1.5)	22.6	(2.2)
	Croatia	c	c	-0.02	(0.08)	c	c	0	(4.8)	0.0	(0.2)	2	(2.9)	26.1	(2.1)
	Cyprus*	0.55	(0.03)	0.03	(0.00)	**-0.52**	(0.03)	**-11**	(1.2)	1.7	(0.3)	-1	(1.1)	17.2	(0.9)
	Dominican Republic	-0.16	(0.15)	-0.23	(0.10)	-0.07	(0.17)	**-10**	(3.5)	2.2	(1.5)	0	(2.3)	26.0	(3.2)
	FYROM	c	c	-0.90	(0.00)	c	c	**-5**	(1.3)	0.3	(0.2)	**-9**	(1.3)	14.9	(1.2)
	Georgia	-0.32	(0.08)	-0.34	(0.07)	-0.03	(0.06)	0	(3.5)	0.0	(0.1)	1	(3.0)	15.4	(1.6)
	Hong Kong (China)	-0.22	(0.09)	-0.20	(0.08)	0.02	(0.05)	5	(3.7)	0.3	(0.5)	3	(2.7)	12.9	(1.9)
	Indonesia	-0.16	(0.08)	-0.08	(0.11)	0.08	(0.14)	**-9**	(2.7)	2.2	(1.2)	-4	(1.9)	23.7	(3.2)
	Jordan	0.88	(0.10)	m	m	m	m	-5	(2.8)	0.6	(0.6)	-1	(2.4)	12.4	(2.2)
	Kosovo	-0.04	(0.12)	-0.19	(0.01)	-0.15	(0.12)	**-4**	(1.6)	0.4	(0.3)	-1	(1.3)	14.2	(1.5)
	Lebanon	0.03	(0.11)	-0.21	(0.08)	-0.24	(0.13)	**-12**	(3.7)	1.9	(1.2)	-3	(3.2)	18.9	(3.1)
	Lithuania	-0.48	(0.05)	c	c	c	c	5	(3.2)	0.3	(0.4)	2	(2.4)	21.4	(2.3)
	Macao (China)	0.38	(0.00)	0.11	(0.00)	**-0.27**	(0.01)	**-5**	(0.8)	0.6	(0.2)	**-2**	(0.9)	2.3	(0.5)
	Malta	c	c	-0.20	(0.00)	c	c	**-7**	(1.4)	0.5	(0.2)	-3	(1.5)	24.5	(1.1)
	Moldova	-0.34	(0.07)	-0.46	(0.12)	-0.12	(0.10)	-1	(3.6)	0.0	(0.2)	1	(2.5)	14.1	(1.7)
	Montenegro	-0.72	(0.38)	-1.02	(0.00)	-0.30	(0.38)	0	(1.8)	0.0	(0.0)	-1	(1.7)	17.1	(0.9)
	Peru	0.52	(0.07)	0.28	(0.07)	**-0.24**	(0.07)	**-14**	(2.5)	4.5	(1.6)	1	(1.7)	29.6	(2.2)
	Qatar	-0.86	(0.01)	-0.68	(0.00)	**0.19**	(0.01)	**-4**	(0.8)	0.2	(0.1)	-1	(0.8)	14.0	(0.6)
	Romania	-0.42	(0.07)	m	m	m	m	2	(3.9)	0.1	(0.3)	2	(2.8)	23.3	(2.9)
	Russia	0.04	(0.11)	0.31	(0.13)	**0.27**	(0.13)	-4	(2.4)	0.3	(0.3)	-1	(1.9)	9.9	(1.8)
	Singapore	-0.55	(0.20)	-0.47	(0.02)	0.08	(0.19)	0	(1.4)	0.0	(0.0)	3	(2.2)	26.2	(1.6)
	Chinese Taipei	0.17	(0.07)	0.23	(0.06)	0.07	(0.09)	**-13**	(6.2)	0.9	(0.9)	-1	(3.4)	28.4	(2.6)
	Thailand	0.45	(0.11)	0.22	(0.10)	**-0.23**	(0.10)	-2	(3.1)	0.1	(0.2)	2	(2.6)	18.6	(3.2)
	Trinidad and Tobago	0.56	(0.01)	0.69	(0.01)	**0.13**	(0.01)	-1	(1.5)	0.0	(0.0)	1	(1.5)	35.8	(1.1)
	Tunisia	1.44	(0.14)	1.32	(0.13)	-0.12	(0.19)	0	(3.8)	0.0	(0.3)	0	(3.3)	18.3	(3.7)
	United Arab Emirates	0.42	(0.13)	0.12	(0.06)	**-0.31**	(0.13)	**-24**	(2.0)	10.7	(1.8)	**-16**	(1.8)	19.6	(2.0)
	Uruguay	0.54	(0.11)	0.22	(0.08)	**-0.32**	(0.12)	**-14**	(2.7)	3.5	(1.3)	-1	(1.9)	26.3	(1.8)
	Viet Nam	0.24	(0.24)	0.03	(0.09)	-0.21	(0.25)	-1	(3.6)	0.0	(0.3)	0	(2.7)	19.6	(4.3)
	Argentina**	0.20	(0.09)	0.10	(0.09)	-0.09	(0.09)	**-6**	(3.0)	0.7	(0.7)	-3	(2.3)	19.4	(2.2)
	Kazakhstan**	-0.19	(0.09)	-0.06	(0.15)	0.13	(0.11)	0	(3.7)	0.0	(0.3)	1	(3.3)	8.7	(2.3)
	Malaysia**	0.13	(0.15)	-0.03	(0.06)	-0.16	(0.16)	**-9**	(3.4)	1.0	(0.8)	**-6**	(2.8)	18.6	(2.4)

1. Higher values in the index indicate a greater shortage of educational staff.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.6.17 Participation in professional development activities

Results based on school principals' reports

		Percentage of teachers who attended a programme of professional development in the previous three months			
		All teachers		Science teachers	
		%	S.E.	%	S.E.
OECD	**Australia**	84.4	(1.0)	83.4	(1.2)
	Austria	47.6	(1.8)	46.2	(2.6)
	Belgium	51.9	(2.0)	52.1	(2.4)
	Canada	71.2	(1.8)	73.7	(1.9)
	Chile	43.5	(3.1)	46.5	(3.5)
	Czech Republic	42.6	(1.9)	37.8	(2.0)
	Denmark	41.2	(2.5)	39.9	(3.1)
	Estonia	56.6	(1.9)	59.2	(2.2)
	Finland	51.6	(2.5)	58.6	(3.1)
	France	31.9	(1.5)	31.6	(2.0)
	Germany	40.1	(2.0)	41.3	(2.4)
	Greece	36.7	(2.6)	48.4	(3.0)
	Hungary	26.5	(2.0)	28.7	(2.4)
	Iceland	66.8	(0.2)	70.0	(0.2)
	Ireland	44.6	(2.7)	51.0	(3.5)
	Israel	65.4	(2.4)	64.0	(2.8)
	Italy	33.4	(2.1)	31.4	(2.3)
	Japan	34.8	(2.4)	34.6	(2.6)
	Korea	69.1	(2.1)	66.2	(2.7)
	Latvia	49.7	(1.9)	51.0	(2.3)
	Luxembourg	51.2	(0.1)	52.6	(0.1)
	Mexico	38.9	(2.5)	30.9	(2.5)
	Netherlands	55.5	(3.5)	59.1	(3.9)
	New Zealand	78.2	(2.4)	79.4	(2.5)
	Norway	22.9	(2.4)	24.2	(3.2)
	Poland	55.9	(3.0)	61.5	(3.2)
	Portugal	36.5	(2.3)	37.1	(2.7)
	Slovak Republic	38.9	(1.8)	35.7	(2.4)
	Slovenia	46.8	(0.3)	47.7	(0.5)
	Spain	49.9	(2.3)	47.2	(2.8)
	Sweden	71.8	(2.9)	73.2	(3.2)
	Switzerland	51.5	(2.5)	48.4	(3.5)
	Turkey	24.0	(2.8)	20.1	(2.9)
	United Kingdom	80.6	(2.4)	79.6	(2.5)
	United States	87.6	(1.7)	88.6	(2.0)
	OECD average	50.9	(0.4)	51.5	(0.4)
Partners	**Albania**	57.9	(2.3)	54.8	(2.8)
	Algeria	30.9	(3.2)	25.0	(3.5)
	Brazil	55.1	(1.6)	53.2	(2.0)
	B-S-J-G (China)	72.1	(2.4)	69.0	(2.6)
	Bulgaria	47.9	(3.0)	48.7	(2.9)
	CABA (Argentina)	35.6	(3.7)	29.4	(4.4)
	Colombia	42.3	(2.5)	36.9	(3.0)
	Costa Rica	34.8	(2.7)	40.3	(3.4)
	Croatia	54.9	(2.1)	56.0	(2.5)
	Cyprus*	57.9	(0.1)	60.6	(0.1)
	Dominican Republic	50.3	(2.7)	47.0	(3.4)
	FYROM	16.3	(0.1)	11.9	(0.1)
	Georgia	19.5	(1.4)	14.4	(1.8)
	Hong Kong (China)	56.7	(3.5)	53.2	(3.8)
	Indonesia	29.8	(2.6)	20.9	(2.6)
	Jordan	25.0	(2.2)	21.8	(2.3)
	Kosovo	29.0	(0.7)	16.2	(0.8)
	Lebanon	46.6	(2.5)	45.6	(2.5)
	Lithuania	66.4	(1.8)	63.4	(2.2)
	Macao (China)	74.6	(0.0)	74.1	(0.1)
	Malta	48.3	(0.1)	33.5	(0.1)
	Moldova	32.6	(2.1)	25.1	(2.4)
	Montenegro	41.4	(0.3)	45.7	(0.3)
	Peru	47.0	(1.8)	44.1	(2.0)
	Qatar	74.3	(0.1)	74.8	(0.1)
	Romania	63.2	(2.8)	55.1	(3.5)
	Russia	28.7	(2.1)	30.5	(3.1)
	Singapore	82.6	(0.7)	81.5	(0.6)
	Chinese Taipei	69.2	(2.0)	65.3	(2.7)
	Thailand	73.0	(2.3)	71.6	(2.6)
	Trinidad and Tobago	39.0	(0.2)	32.7	(0.2)
	Tunisia	51.3	(3.1)	50.5	(3.6)
	United Arab Emirates	84.7	(1.5)	79.0	(2.2)
	Uruguay	26.0	(1.5)	21.5	(1.6)
	Viet Nam	60.4	(3.3)	62.3	(3.4)
	Argentina**	55.4	(2.8)	39.9	(2.9)
	Kazakhstan**	24.2	(1.8)	15.9	(1.9)
	Malaysia**	67.2	(2.6)	62.7	(3.0)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.6.20 In-house professional development

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the following types of in-house professional development activities exist at the school							
		The teachers in our school co-operate by exchanging ideas or material when teaching specific units or series of lessons		Our school invites specialists to conduct in-service training for teachers		Our school organises in-service workshops that deal with specific issues that our school faces		Our school organises in-service workshops for specific groups of teachers	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	99.4	(0.3)	91.6	(1.2)	98.1	(0.5)	96.7	(0.7)
	Austria	99.4	(0.4)	93.2	(1.5)	83.5	(2.8)	74.6	(3.2)
	Belgium	96.5	(1.0)	76.3	(2.8)	74.7	(2.6)	72.4	(2.7)
	Canada	99.8	(0.1)	88.9	(1.9)	94.7	(1.2)	88.2	(1.8)
	Chile	89.4	(2.4)	73.0	(3.5)	79.2	(3.3)	57.2	(4.1)
	Czech Republic	97.9	(0.9)	81.5	(2.7)	57.0	(2.6)	37.7	(3.3)
	Denmark	98.9	(0.8)	77.3	(3.0)	60.8	(4.0)	56.2	(3.6)
	Estonia	97.2	(1.1)	97.0	(1.0)	91.9	(1.5)	70.4	(2.7)
	Finland	100.0	c	72.0	(3.6)	62.5	(4.1)	50.6	(4.1)
	France	92.9	(1.8)	58.3	(3.5)	64.3	(3.1)	59.1	(3.2)
	Germany	98.2	(1.0)	91.5	(1.8)	95.5	(1.8)	78.4	(3.2)
	Greece	97.0	(1.3)	58.6	(3.6)	89.9	(2.4)	36.7	(3.9)
	Hungary	99.2	(0.5)	59.3	(3.2)	39.9	(4.0)	47.1	(4.0)
	Iceland	97.9	(0.1)	89.1	(0.1)	95.1	(0.1)	86.6	(0.2)
	Ireland	100.0	c	93.2	(2.1)	93.8	(2.0)	76.9	(3.5)
	Israel	96.4	(1.7)	87.6	(2.9)	93.3	(1.8)	79.5	(3.5)
	Italy	92.8	(2.0)	70.6	(3.7)	68.2	(3.4)	51.9	(4.4)
	Japan	70.8	(3.4)	79.5	(2.8)	83.7	(2.7)	84.7	(2.6)
	Korea	94.6	(1.8)	89.8	(2.4)	95.6	(1.7)	88.5	(2.6)
	Latvia	97.4	(0.9)	87.5	(1.8)	74.3	(2.5)	65.0	(2.6)
	Luxembourg	96.3	(0.0)	83.8	(0.1)	75.5	(0.1)	71.8	(0.1)
	Mexico	93.9	(1.6)	55.8	(3.3)	68.3	(3.3)	49.5	(3.1)
	Netherlands	94.5	(2.2)	93.7	(2.3)	92.9	(2.5)	94.8	(2.1)
	New Zealand	100.0	c	93.0	(2.2)	98.6	(0.9)	98.5	(0.9)
	Norway	98.1	(1.0)	51.2	(4.0)	70.7	(3.7)	62.0	(3.4)
	Poland	100.0	c	95.0	(1.7)	96.9	(1.4)	61.8	(3.8)
	Portugal	98.0	(1.0)	89.7	(2.2)	90.4	(2.0)	71.0	(3.0)
	Slovak Republic	97.7	(1.2)	73.8	(2.8)	51.4	(3.3)	45.3	(3.1)
	Slovenia	98.7	(0.5)	78.5	(0.5)	83.0	(0.6)	52.4	(0.5)
	Spain	92.4	(1.9)	69.5	(3.1)	71.9	(3.3)	58.3	(3.5)
	Sweden	98.7	(0.8)	65.5	(3.5)	79.4	(3.2)	55.0	(3.3)
	Switzerland	97.6	(1.3)	81.8	(3.5)	85.5	(3.6)	83.3	(2.6)
	Turkey	94.3	(2.0)	52.9	(4.1)	29.6	(3.4)	44.8	(4.5)
	United Kingdom	100.0	c	93.5	(2.1)	99.7	(0.2)	97.8	(0.6)
	United States	99.3	(0.7)	91.5	(1.9)	98.2	(1.0)	97.3	(1.1)
	OECD average	96.4	(0.2)	79.6	(0.5)	79.7	(0.4)	68.6	(0.5)
Partners	**Albania**	100.0	c	69.3	(3.0)	87.6	(2.3)	90.4	(2.2)
	Algeria	93.1	(2.1)	14.3	(2.8)	33.6	(4.2)	53.5	(4.4)
	Brazil	97.3	(0.9)	60.3	(2.5)	49.0	(2.6)	32.3	(2.3)
	B-S-J-G (China)	99.5	(0.5)	89.7	(2.4)	98.4	(1.0)	93.6	(2.0)
	Bulgaria	98.5	(0.9)	79.2	(2.8)	79.4	(3.1)	59.5	(3.9)
	CABA (Argentina)	96.4	(3.4)	79.4	(4.9)	92.5	(3.2)	71.2	(7.3)
	Colombia	89.1	(2.3)	57.5	(3.5)	73.1	(3.8)	53.7	(3.5)
	Costa Rica	93.7	(1.7)	78.9	(3.0)	81.8	(2.9)	48.3	(3.6)
	Croatia	96.8	(1.5)	72.6	(3.4)	77.3	(2.9)	61.8	(3.6)
	Cyprus*	100.0	c	90.6	(0.1)	90.5	(0.1)	62.7	(0.1)
	Dominican Republic	94.6	(1.3)	82.7	(3.3)	90.5	(2.2)	67.8	(3.9)
	FYROM	95.4	(0.1)	52.7	(0.2)	77.7	(0.2)	75.3	(0.1)
	Georgia	100.0	c	48.9	(3.1)	72.5	(3.0)	62.5	(3.6)
	Hong Kong (China)	99.2	(0.8)	87.3	(3.1)	89.3	(2.7)	78.0	(3.9)
	Indonesia	95.8	(1.4)	74.1	(3.2)	55.3	(3.4)	37.9	(3.3)
	Jordan	93.9	(1.7)	75.1	(3.0)	83.4	(2.6)	80.0	(2.6)
	Kosovo	98.8	(0.4)	43.8	(1.5)	51.9	(1.4)	41.8	(1.3)
	Lebanon	94.7	(1.5)	67.9	(3.5)	62.2	(3.8)	63.0	(3.3)
	Lithuania	96.3	(1.1)	94.2	(1.2)	83.1	(2.1)	44.8	(2.8)
	Macao (China)	100.0	c	94.9	(0.1)	84.4	(0.0)	92.9	(0.0)
	Malta	100.0	c	93.4	(0.1)	89.7	(0.1)	51.1	(0.1)
	Moldova	98.6	(0.7)	42.6	(3.7)	98.6	(0.6)	89.7	(2.0)
	Montenegro	98.8	(0.0)	76.9	(0.3)	80.2	(0.2)	83.1	(0.3)
	Peru	90.5	(1.9)	70.3	(2.7)	78.3	(2.2)	44.1	(3.0)
	Qatar	100.0	c	87.9	(0.1)	96.9	(0.0)	97.5	(0.0)
	Romania	99.2	(0.7)	72.2	(3.8)	83.3	(3.0)	78.0	(3.6)
	Russia	98.6	(0.5)	67.7	(3.7)	97.9	(0.9)	89.5	(2.4)
	Singapore	100.0	c	90.4	(0.1)	98.2	(0.0)	96.3	(0.1)
	Chinese Taipei	94.3	(1.5)	92.3	(2.1)	90.6	(2.1)	90.8	(2.2)
	Thailand	90.3	(2.2)	87.9	(2.4)	88.3	(2.3)	64.4	(3.1)
	Trinidad and Tobago	94.2	(0.2)	87.1	(0.2)	91.5	(0.1)	65.9	(0.3)
	Tunisia	72.3	(4.3)	21.2	(4.1)	25.4	(3.8)	38.3	(4.1)
	United Arab Emirates	100.0	(0.0)	90.8	(1.5)	97.9	(0.7)	96.5	(0.6)
	Uruguay	93.9	(1.9)	77.9	(2.4)	80.3	(2.4)	42.8	(2.8)
	Viet Nam	99.9	(0.1)	27.2	(3.7)	92.1	(2.4)	88.9	(2.1)
	Argentina**	93.2	(1.7)	58.7	(4.0)	85.2	(2.8)	47.0	(3.4)
	Kazakhstan**	99.7	(0.3)	44.4	(3.5)	72.8	(3.0)	69.0	(3.2)
	Malaysia**	98.1	(1.1)	90.6	(1.7)	92.3	(2.3)	91.1	(2.0)

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.6.26 Student-teacher ratio and class size in language-of-instruction class

Results based on school principals' reports

		Class size in language-of-instruction class		Student-teacher ratio in the school	
		Mean	S.E.	Mean ratio	S.E.
OECD	**Australia**	25.1	(0.13)	13.1	(0.13)
	Austria	24.2	(0.48)	11.7	(0.24)
	Belgium	19.7	(0.26)	9.1	(0.16)
	Canada	26.4	(0.21)	15.9	(0.20)
	Chile	33.8	(0.43)	20.7	(0.56)
	Czech Republic	24.0	(0.22)	13.3	(0.17)
	Denmark	21.6	(0.26)	12.7	(0.18)
	Estonia	25.1	(0.43)	11.9	(0.17)
	Finland	19.1	(0.18)	10.3	(0.15)
	France	29.3	(0.28)	12.3	(0.33)
	Germany	25.0	(0.31)	14.7	(0.25)
	Greece	23.5	(0.46)	9.6	(0.20)
	Hungary	28.2	(0.57)	9.9	(0.29)
	Iceland	20.3	(0.03)	9.9	(0.02)
	Ireland	24.6	(0.26)	14.4	(0.67)
	Israel	29.6	(0.41)	11.6	(0.35)
	Italy	23.3	(0.45)	10.5	(0.19)
	Japan	36.1	(0.32)	11.5	(0.20)
	Korea	31.0	(0.29)	15.1	(0.18)
	Latvia	21.3	(0.32)	10.1	(0.13)
	Luxembourg	21.4	(0.01)	9.7	(0.00)
	Mexico	39.1	(0.60)	28.5	(0.77)
	Netherlands	25.7	(0.34)	20.4	(1.62)
	New Zealand	25.3	(0.22)	14.6	(0.19)
	Norway	23.9	(0.32)	10.2	(0.15)
	Poland	24.4	(0.53)	8.7	(0.17)
	Portugal	25.7	(0.27)	11.0	(0.24)
	Slovak Republic	22.1	(0.27)	12.6	(0.20)
	Slovenia	25.9	(0.04)	10.8	(0.02)
	Spain	26.9	(0.48)	12.5	(0.22)
	Sweden	23.3	(0.32)	11.5	(0.23)
	Switzerland	20.1	(0.52)	12.2	(0.28)
	Turkey	47.2	(0.96)	15.2	(0.34)
	United Kingdom	24.4	(0.30)	14.7	(0.25)
	United States	25.8	(0.38)	16.0	(0.34)
	OECD average	26.1	(0.06)	13.1	(0.07)
Partners	**Albania**	27.4	(0.47)	8.3	(0.83)
	Algeria	29.4	(0.72)	17.3	(0.30)
	Brazil	36.4	(0.40)	29.1	(0.78)
	B-S-J-G (China)	45.6	(0.51)	13.8	(0.44)
	Bulgaria	25.0	(0.39)	12.1	(0.21)
	CABA (Argentina)	40.5	(2.04)	10.3	(1.03)
	Colombia	36.0	(0.63)	28.5	(0.90)
	Costa Rica	27.7	(0.44)	16.9	(0.81)
	Croatia	24.8	(0.24)	11.5	(0.20)
	Cyprus*	23.5	(0.03)	7.5	(0.00)
	Dominican Republic	36.0	(0.98)	29.7	(0.95)
	FYROM	26.4	(0.02)	13.8	(0.04)
	Georgia	39.1	(0.86)	14.0	(0.34)
	Hong Kong (China)	30.7	(0.37)	13.5	(0.17)
	Indonesia	30.9	(0.69)	15.7	(0.92)
	Jordan	32.7	(0.55)	17.0	(0.57)
	Kosovo	28.1	(0.12)	19.1	(0.28)
	Lebanon	28.5	(0.61)	11.6	(0.38)
	Lithuania	24.1	(0.21)	10.4	(0.17)
	Macao (China)	35.3	(0.01)	14.7	(0.01)
	Malta	20.1	(0.01)	7.2	(0.01)
	Moldova	24.6	(0.56)	12.9	(0.32)
	Montenegro	28.2	(0.04)	13.8	(0.03)
	Peru	27.7	(0.44)	18.6	(0.62)
	Qatar	29.3	(0.02)	11.5	(0.01)
	Romania	27.0	(0.48)	15.4	(0.42)
	Russia	22.8	(0.36)	14.9	(0.51)
	Singapore	34.4	(0.25)	12.1	(0.08)
	Chinese Taipei	36.8	(0.30)	16.4	(0.27)
	Thailand	37.1	(0.49)	19.8	(0.62)
	Trinidad and Tobago	29.3	(0.03)	13.2	(0.02)
	Tunisia	27.8	(0.58)	11.4	(0.72)
	United Arab Emirates	30.1	(0.61)	14.0	(0.26)
	Uruguay	27.2	(0.34)	13.7	(0.69)
	Viet Nam	40.1	(0.67)	16.2	(0.38)
	Argentina**	36.6	(0.98)	10.1	(0.88)
	Kazakhstan**	30.3	(0.93)	12.8	(1.08)
	Malaysia**	32.5	(0.44)	12.6	(0.22)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.6.28 Change between 2006 and 2015 in student-teacher ratio and class size in language-of-instruction class

Results based on school principals' reports

		Change between 2006 and 2015 (PISA 2015 – 2006)			
		Class size in language-of-instruction class		Student-teacher ratio in the school	
		Dif.	S.E.	Dif.	S.E.
OECD	**Australia**	0.1	(0.21)	-0.3	(0.19)
	Austria	0.8	(0.60)	0.4	(0.46)
	Belgium	-0.3	(0.35)	0.0	(0.20)
	Canada	**-0.8**	(0.25)	**-0.8**	(0.24)
	Chile	**-4.8**	(0.63)	**-4.2**	(0.88)
	Czech Republic	**-0.9**	(0.34)	-0.3	(0.33)
	Denmark	**1.5**	(0.36)	**1.0**	(0.24)
	Estonia	**-3.9**	(0.71)	**-3.4**	(0.23)
	Finland	**-1.9**	(0.53)	**-1.0**	(0.21)
	France	m	m	m	m
	Germany	-0.7	(0.38)	**-2.6**	(0.36)
	Greece	**-11.2**	(1.22)	**0.7**	(0.28)
	Hungary	-1.1	(0.79)	**-2.3**	(0.45)
	Iceland	**-2.4**	(0.04)	**-1.0**	(0.02)
	Ireland	**1.1**	(0.35)	1.1	(0.68)
	Israel	**-2.9**	(0.65)	**-1.1**	(0.55)
	Italy	**-1.7**	(0.67)	**1.3**	(0.22)
	Japan	-0.2	(0.55)	**-1.3**	(0.36)
	Korea	**-2.3**	(0.40)	**-1.3**	(0.24)
	Latvia	**-9.8**	(1.12)	**-1.6**	(0.38)
	Luxembourg	**-1.2**	(0.01)	**0.2**	(0.00)
	Mexico	1.2	(0.95)	1.4	(1.00)
	Netherlands	**1.5**	(0.46)	**4.4**	(1.65)
	New Zealand	-0.2	(0.30)	**-1.2**	(0.28)
	Norway	**-2.1**	(0.71)	**-0.5**	(0.20)
	Poland	**-1.2**	(0.59)	**-2.6**	(0.22)
	Portugal	**1.7**	(0.52)	**2.1**	(0.31)
	Slovak Republic	**-4.1**	(0.50)	**-2.4**	(0.35)
	Slovenia	**-2.3**	(0.06)	**-3.5**	(0.03)
	Spain	-0.8	(0.72)	0.2	(0.27)
	Sweden	0.1	(0.42)	**-0.9**	(0.30)
	Switzerland	0.7	(0.54)	0.3	(0.32)
	Turkey	**13.3**	(1.21)	**-3.3**	(0.72)
	United Kingdom	-0.4	(0.36)	**-0.6**	(0.29)
	United States	0.3	(0.59)	0.7	(0.53)
	OECD average	**-1.0**	(0.10)	**-0.7**	(0.08)
Partners	**Albania**	m	m	m	m
	Algeria	m	m	m	m
	Brazil	-1.1	(0.59)	-2.4	(1.23)
	B-S-J-G (China)	m	m	m	m
	Bulgaria	0.6	(0.54)	0.4	(0.31)
	CABA (Argentina)	m	m	m	m
	Colombia	**-4.4**	(0.98)	**4.6**	(1.58)
	Costa Rica	m	m	m	m
	Croatia	**-2.8**	(0.39)	**-2.3**	(0.30)
	Cyprus*	m	m	m	m
	Dominican Republic	m	m	m	m
	FYROM	m	m	m	m
	Georgia	m	m	m	m
	Hong Kong (China)	**-7.5**	(0.55)	**-4.5**	(0.22)
	Indonesia	**-6.7**	(0.81)	**-2.8**	(1.05)
	Jordan	-0.5	(0.76)	-1.3	(0.67)
	Kosovo	m	m	m	m
	Lebanon	m	m	m	m
	Lithuania	-0.1	(0.33)	**-1.7**	(0.24)
	Macao (China)	**-10.8**	(0.02)	**-6.7**	(0.01)
	Malta	m	m	m	m
	Moldova	m	m	m	m
	Montenegro	**-4.1**	(0.06)	**-2.8**	(0.03)
	Peru	m	m	m	m
	Qatar	**-1.9**	(0.03)	**0.9**	(0.02)
	Romania	0.7	(0.57)	**-1.2**	(0.55)
	Russia	0.4	(0.48)	**2.0**	(0.63)
	Singapore	m	m	m	m
	Chinese Taipei	**-3.9**	(0.45)	**-1.3**	(0.46)
	Thailand	**-2.3**	(0.61)	**-3.2**	(0.77)
	Trinidad and Tobago	m	m	m	m
	Tunisia	**-3.8**	(0.69)	**-4.2**	(0.74)
	United Arab Emirates	m	m	m	m
	Uruguay	**-6.0**	(0.68)	**-2.2**	(0.76)
	Viet Nam	m	m	m	m
	Argentina**	**5.1**	(1.32)	-1.3	(1.09)
	Kazakhstan**	m	m	m	m
	Malaysia**	m	m	m	m

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/3]

Table II.6.29 Student-teacher ratio, science performance and school characteristics

Results based on school principals' reports

		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Mean ratio	S.E.	S.D.	S.E.	Mean ratio	S.E.	Mean ratio	S.E.	Mean ratio	S.E.	Mean ratio	S.E.	Dif.	S.E.
OECD	**Australia**	13.1	(0.1)	3.7	(0.3)	13.1	(0.3)	13.2	(0.3)	13.8	(0.3)	12.4	(0.2)	-0.7	(0.4)
	Austria	11.7	(0.2)	6.4	(0.3)	13.8	(1.0)	13.5	(1.3)	9.5	(0.4)	10.3	(0.2)	**-3.5**	(1.0)
	Belgium	9.1	(0.2)	2.8	(0.2)	7.2	(0.2)	8.0	(0.3)	9.5	(0.3)	11.4	(0.3)	**4.3**	(0.4)
	Canada	15.9	(0.2)	4.8	(1.2)	14.8	(0.6)	15.6	(0.5)	16.5	(0.3)	16.8	(0.3)	**1.9**	(0.7)
	Chile	20.7	(0.6)	6.8	(0.4)	19.7	(1.5)	20.5	(1.1)	22.9	(1.1)	20.0	(0.8)	0.3	(1.6)
	Czech Republic	13.3	(0.2)	3.6	(0.2)	13.1	(0.6)	14.6	(0.6)	12.7	(0.4)	12.9	(0.4)	-0.2	(0.7)
	Denmark	12.7	(0.2)	3.1	(0.1)	11.8	(0.4)	12.8	(0.5)	13.2	(0.5)	13.1	(0.6)	1.4	(0.8)
	Estonia	11.9	(0.2)	3.5	(0.1)	8.8	(0.3)	11.2	(0.4)	13.6	(0.4)	13.5	(0.4)	**4.7**	(0.5)
	Finland	10.3	(0.1)	2.0	(0.1)	9.6	(0.4)	10.5	(0.4)	10.4	(0.3)	10.7	(0.3)	**1.1**	(0.5)
	France	12.3	(0.3)	4.6	(0.6)	11.9	(0.5)	12.3	(1.0)	11.7	(0.5)	13.5	(0.7)	**1.6**	(0.8)
	Germany	14.7	(0.2)	4.5	(0.8)	14.1	(0.7)	15.2	(0.9)	15.3	(0.7)	14.2	(0.3)	0.1	(0.8)
	Greece	9.6	(0.2)	2.8	(0.2)	8.4	(0.4)	9.8	(0.5)	10.7	(0.6)	9.5	(0.5)	1.1	(0.7)
	Hungary	9.9	(0.3)	4.0	(0.3)	8.8	(0.9)	9.9	(0.7)	10.4	(0.5)	10.3	(0.5)	1.5	(1.0)
	Iceland	9.9	(0.0)	3.0	(0.0)	9.8	(0.1)	10.0	(0.0)	10.3	(0.0)	9.6	(0.0)	**-0.2**	(0.1)
	Ireland	14.4	(0.7)	8.0	(3.6)	12.4	(0.4)	14.0	(0.3)	17.3	(2.7)	14.2	(0.3)	**1.8**	(0.5)
	Israel	11.6	(0.4)	4.2	(0.5)	12.4	(1.0)	10.3	(0.8)	11.4	(1.0)	12.1	(0.7)	-0.3	(1.3)
	Italy	10.5	(0.2)	3.2	(0.1)	8.3	(0.3)	9.5	(0.3)	10.8	(0.5)	13.1	(0.3)	**4.8**	(0.5)
	Japan	11.5	(0.2)	4.1	(0.2)	10.0	(0.5)	11.0	(0.6)	12.6	(0.5)	12.5	(0.5)	**2.5**	(0.7)
	Korea	15.1	(0.2)	2.9	(0.2)	13.2	(0.5)	14.8	(0.4)	16.0	(0.4)	16.4	(0.4)	**3.2**	(0.7)
	Latvia	10.1	(0.1)	2.8	(0.1)	7.6	(0.2)	10.7	(0.3)	10.5	(0.3)	11.4	(0.3)	**3.7**	(0.4)
	Luxembourg	9.7	(0.0)	2.2	(0.0)	9.4	(0.0)	9.4	(0.0)	9.4	(0.0)	10.4	(0.0)	**1.0**	(0.0)
	Mexico	28.5	(0.8)	13.2	(1.0)	26.0	(1.6)	27.8	(1.6)	32.7	(2.0)	27.4	(2.4)	1.4	(2.7)
	Netherlands	20.4	(1.6)	15.7	(4.0)	15.2	(1.8)	24.3	(5.0)	21.6	(4.8)	20.2	(1.1)	**5.0**	(2.3)
	New Zealand	14.6	(0.2)	2.7	(0.3)	13.1	(0.3)	15.1	(0.5)	15.5	(0.3)	14.5	(0.5)	**1.4**	(0.6)
	Norway	10.2	(0.1)	2.1	(0.1)	9.7	(0.2)	9.7	(0.4)	10.0	(0.5)	11.4	(0.3)	**1.7**	(0.4)
	Poland	8.7	(0.2)	2.5	(0.2)	8.7	(0.3)	8.0	(0.4)	8.6	(0.4)	9.5	(0.4)	0.8	(0.5)
	Portugal	11.0	(0.2)	3.4	(0.7)	10.6	(0.6)	10.5	(0.6)	11.2	(0.4)	11.8	(0.3)	1.2	(0.7)
	Slovak Republic	12.6	(0.2)	3.1	(0.3)	12.0	(0.4)	13.0	(0.4)	12.8	(0.5)	12.8	(0.3)	0.7	(0.4)
	Slovenia	10.8	(0.0)	4.4	(0.0)	10.3	(0.1)	11.7	(0.1)	9.7	(0.1)	11.4	(0.0)	**1.1**	(0.1)
	Spain	12.5	(0.2)	4.0	(0.5)	11.2	(0.4)	10.2	(0.6)	13.9	(0.7)	15.2	(0.4)	**4.0**	(0.6)
	Sweden	11.5	(0.2)	3.2	(0.2)	10.7	(0.5)	10.9	(0.5)	11.5	(0.5)	12.8	(0.6)	**2.1**	(0.8)
	Switzerland	12.2	(0.3)	4.6	(0.5)	12.0	(0.7)	13.2	(1.0)	12.3	(0.7)	11.3	(0.5)	-0.7	(0.9)
	Turkey	15.2	(0.3)	5.0	(0.4)	15.6	(0.7)	15.3	(0.9)	14.7	(0.6)	15.0	(0.8)	-0.6	(1.1)
	United Kingdom	14.7	(0.3)	2.9	(0.2)	13.6	(0.4)	14.2	(0.6)	15.6	(0.8)	15.0	(0.4)	**1.5**	(0.6)
	United States	16.0	(0.3)	4.8	(0.2)	16.3	(1.0)	15.6	(0.7)	15.9	(1.0)	16.3	(0.8)	0.0	(1.3)
	OECD average	13.1	(0.1)	4.4	(0.2)	12.1	(0.1)	13.0	(0.2)	13.6	(0.2)	13.5	(0.1)	**1.4**	(0.2)
Partners	**Albania**	8.3	(0.8)	8.2	(0.3)	7.7	(1.6)	8.0	(1.6)	9.5	(2.2)	8.9	(1.4)	1.3	(2.1)
	Algeria	17.3	(0.3)	4.0	(0.4)	17.5	(0.8)	17.8	(0.6)	17.3	(0.8)	16.6	(0.5)	-0.9	(0.9)
	Brazil	29.1	(0.8)	16.1	(1.0)	31.7	(1.4)	28.3	(1.7)	29.2	(2.0)	27.1	(1.7)	**-4.6**	(2.1)
	B-S-J-G (China)	13.8	(0.4)	7.4	(1.8)	15.4	(1.7)	14.0	(1.4)	13.3	(0.7)	12.7	(1.0)	-2.7	(1.9)
	Bulgaria	12.1	(0.2)	3.2	(0.3)	11.6	(0.5)	11.3	(0.5)	12.3	(0.4)	13.5	(0.6)	**1.9**	(0.8)
	CABA (Argentina)	10.3	(1.0)	6.1	(1.3)	9.2	(1.7)	11.9	(2.3)	12.6	(3.6)	9.5	(1.1)	0.3	(2.1)
	Colombia	28.5	(0.9)	13.9	(1.3)	29.7	(2.7)	29.4	(2.3)	30.9	(1.5)	24.2	(1.9)	-5.5	(3.3)
	Costa Rica	16.9	(0.8)	11.0	(2.5)	18.9	(2.1)	14.8	(1.3)	16.0	(1.1)	18.0	(2.0)	-0.9	(2.8)
	Croatia	11.5	(0.2)	2.5	(0.2)	10.7	(0.4)	11.4	(0.5)	11.5	(0.3)	12.7	(0.5)	**2.0**	(0.6)
	Cyprus*	7.5	(0.0)	1.9	(0.0)	6.4	(0.0)	7.2	(0.0)	7.3	(0.0)	9.3	(0.0)	**2.8**	(0.0)
	Dominican Republic	29.7	(0.9)	17.4	(1.0)	35.3	(2.7)	31.0	(2.4)	31.0	(2.5)	21.8	(1.9)	**-13.5**	(3.4)
	FYROM	13.8	(0.0)	8.8	(0.1)	14.0	(0.1)	11.9	(0.0)	14.1	(0.0)	15.0	(0.1)	**1.0**	(0.2)
	Georgia	14.0	(0.3)	6.2	(0.5)	11.3	(1.0)	13.8	(0.7)	15.3	(0.7)	15.6	(0.8)	**4.3**	(1.2)
	Hong Kong (China)	13.5	(0.2)	2.2	(0.3)	12.3	(0.4)	13.1	(0.5)	14.5	(0.4)	14.1	(0.3)	**1.9**	(0.6)
	Indonesia	15.7	(0.9)	11.6	(2.8)	15.4	(2.6)	15.4	(1.0)	14.8	(1.0)	17.3	(2.2)	1.8	(3.4)
	Jordan	17.0	(0.6)	9.0	(1.7)	16.7	(1.1)	18.8	(2.2)	18.1	(1.7)	14.4	(0.8)	-2.3	(1.3)
	Kosovo	19.1	(0.3)	11.3	(0.8)	21.4	(1.1)	16.6	(0.4)	19.2	(0.5)	19.5	(0.6)	-1.9	(1.2)
	Lebanon	11.6	(0.4)	6.4	(0.6)	10.2	(1.0)	11.6	(0.9)	12.5	(0.6)	12.1	(0.7)	1.9	(1.2)
	Lithuania	10.4	(0.2)	3.9	(1.2)	8.4	(0.2)	10.5	(0.6)	10.8	(0.2)	11.9	(0.2)	**3.4**	(0.3)
	Macao (China)	14.7	(0.0)	4.9	(0.0)	16.4	(0.0)	14.2	(0.0)	15.0	(0.0)	13.1	(0.0)	**-3.3**	(0.0)
	Malta	7.2	(0.0)	3.6	(0.0)	4.9	(0.0)	6.6	(0.0)	7.7	(0.0)	9.3	(0.0)	**4.5**	(0.0)
	Moldova	12.9	(0.3)	4.9	(0.5)	12.3	(0.5)	13.4	(0.9)	12.5	(0.8)	13.3	(0.6)	1.1	(0.7)
	Montenegro	13.8	(0.0)	4.0	(0.0)	12.5	(0.1)	13.6	(0.1)	13.6	(0.0)	15.4	(0.0)	**2.8**	(0.1)
	Peru	18.6	(0.6)	10.3	(1.3)	17.0	(1.5)	17.3	(0.9)	20.5	(1.4)	19.6	(1.6)	2.5	(2.2)
	Qatar	11.5	(0.0)	5.0	(0.0)	10.3	(0.0)	13.2	(0.1)	10.9	(0.1)	11.7	(0.0)	**1.3**	(0.0)
	Romania	15.4	(0.4)	5.2	(0.4)	14.7	(0.8)	13.7	(1.1)	17.0	(0.8)	16.3	(0.6)	1.6	(1.1)
	Russia	14.9	(0.5)	6.1	(0.6)	11.6	(0.9)	16.0	(0.9)	16.1	(0.8)	15.9	(1.3)	**4.3**	(1.5)
	Singapore	12.1	(0.1)	2.4	(0.0)	11.6	(0.0)	12.6	(0.1)	12.6	(0.1)	11.7	(0.3)	0.1	(0.3)
	Chinese Taipei	16.4	(0.3)	6.2	(0.7)	16.5	(0.9)	15.2	(0.8)	16.2	(0.8)	17.8	(0.8)	1.3	(1.1)
	Thailand	19.8	(0.6)	9.5	(2.0)	19.7	(2.2)	19.1	(1.6)	19.9	(1.4)	20.3	(0.9)	0.6	(2.4)
	Trinidad and Tobago	13.2	(0.0)	3.6	(0.0)	10.8	(0.0)	12.4	(0.1)	14.9	(0.1)	14.9	(0.0)	**4.1**	(0.1)
	Tunisia	11.4	(0.7)	8.1	(3.9)	12.9	(2.7)	11.3	(0.6)	10.9	(0.5)	10.7	(0.5)	-2.2	(2.8)
	United Arab Emirates	14.0	(0.3)	6.8	(0.4)	14.2	(0.6)	13.0	(0.6)	15.1	(0.9)	13.9	(0.7)	-0.2	(0.9)
	Uruguay	13.7	(0.7)	10.4	(2.7)	13.1	(1.4)	13.0	(0.8)	14.3	(0.7)	14.3	(2.4)	1.2	(2.7)
	Viet Nam	16.2	(0.4)	5.0	(0.3)	15.4	(0.7)	16.9	(1.0)	16.1	(1.1)	16.5	(0.8)	1.1	(1.1)
	Argentina**	10.1	(0.9)	10.8	(3.2)	8.8	(0.7)	10.9	(2.9)	10.1	(1.7)	10.5	(1.1)	1.7	(1.3)
	Kazakhstan**	12.8	(1.1)	14.6	(2.9)	14.4	(4.0)	13.3	(2.7)	11.1	(0.6)	12.5	(0.5)	-1.8	(4.0)
	Malaysia**	12.6	(0.2)	3.2	(0.1)	12.1	(0.4)	13.5	(0.6)	11.8	(0.5)	13.1	(0.7)	1.0	(0.8)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 2/3]

Table II.6.29 Student-teacher ratio, science performance and school characteristics

Results based on school principals' reports

		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Mean ratio	S.E.	Mean ratio	S.E.	Mean ratio	S.E.	Dif.	S.E.	Mean ratio	S.E.	Mean ratio	S.E.	Dif.	S.E.
OECD	**Australia**	12.1	(0.6)	13.0	(0.3)	13.2	(0.1)	1.1	(0.6)	13.5	(0.2)	12.5	(0.2)	**-1.0**	(0.2)
	Austria	13.6	(1.7)	11.0	(0.3)	12.5	(0.5)	-1.1	(1.7)	12.0	(0.3)	10.0	(0.4)	**-2.0**	(0.5)
	Belgium	9.1	(0.7)	9.3	(0.2)	8.6	(0.4)	-0.4	(0.9)	w	w	w	w	w	w
	Canada	13.1	(0.4)	15.6	(0.4)	16.6	(0.2)	**3.5**	(0.5)	15.8	(0.2)	17.4	(0.7)	**1.6**	(0.7)
	Chile	11.7	(1.4)	19.3	(1.0)	21.7	(0.6)	**10.0**	(1.5)	18.1	(0.7)	22.1	(0.8)	**4.0**	(1.1)
	Czech Republic	13.1	(0.4)	13.5	(0.2)	13.1	(0.4)	0.0	(0.6)	13.5	(0.2)	11.4	(0.6)	**-2.1**	(0.6)
	Denmark	10.3	(0.6)	13.1	(0.2)	13.6	(0.4)	**3.3**	(0.7)	13.1	(0.2)	11.5	(0.5)	**-1.6**	(0.5)
	Estonia	8.5	(0.3)	12.4	(0.2)	13.9	(0.3)	**5.5**	(0.5)	11.9	(0.2)	10.3	(0.9)	-1.5	(0.9)
	Finland	8.4	(0.6)	10.6	(0.2)	10.5	(0.2)	**2.1**	(0.6)	10.3	(0.2)	10.5	(0.5)	0.2	(0.5)
	France	14.7	(1.2)	12.3	(0.4)	12.2	(0.7)	-2.6	(1.3)	11.9	(0.2)	14.1	(1.4)	2.2	(1.4)
	Germany	13.6	(1.1)	14.7	(0.4)	14.9	(0.5)	1.2	(1.2)	14.6	(0.3)	15.3	(1.1)	0.6	(1.1)
	Greece	7.0	(0.6)	9.4	(0.3)	10.7	(0.3)	**3.7**	(0.7)	9.8	(0.2)	5.9	(0.9)	**-3.9**	(0.9)
	Hungary	9.7	(0.5)	9.4	(0.4)	10.4	(0.4)	0.7	(0.6)	9.8	(0.3)	10.1	(1.0)	0.3	(1.0)
	Iceland	8.7	(0.0)	10.4	(0.0)	9.9	(0.0)	**1.2**	(0.1)	9.9	(0.0)	c	c	c	c
	Ireland	12.8	(0.5)	14.2	(0.2)	15.9	(2.2)	3.1	(2.2)	13.1	(0.3)	15.4	(1.1)	2.2	(1.2)
	Israel	11.2	(0.8)	12.6	(0.6)	10.3	(0.5)	-0.8	(0.9)	m	m	m	m	m	m
	Italy	10.2	(0.7)	10.2	(0.3)	11.1	(0.4)	1.0	(0.8)	10.5	(0.2)	11.0	(1.6)	0.5	(1.7)
	Japan	c	c	10.4	(0.5)	11.9	(0.3)	c	c	11.4	(0.2)	11.7	(0.4)	0.3	(0.5)
	Korea	c	c	13.4	(0.5)	15.5	(0.2)	c	c	15.0	(0.2)	15.2	(0.4)	0.2	(0.5)
	Latvia	7.3	(0.3)	10.3	(0.2)	11.9	(0.2)	**4.6**	(0.3)	10.1	(0.1)	7.5	(0.8)	**-2.6**	(0.8)
	Luxembourg	m	m	9.3	(0.0)	10.1	(0.0)	m	m	9.5	(0.0)	10.2	(0.0)	**0.7**	(0.0)
	Mexico	23.1	(1.2)	29.8	(1.6)	29.4	(1.1)	**6.3**	(1.7)	29.4	(0.8)	21.3	(3.4)	**-8.2**	(3.5)
	Netherlands	c	c	21.3	(2.3)	18.2	(0.7)	c	c	21.2	(2.8)	19.9	(2.0)	-1.3	(3.4)
	New Zealand	12.2	(1.1)	14.1	(0.3)	15.2	(0.3)	**3.0**	(1.1)	14.8	(0.2)	11.7	(1.7)	-3.1	(1.7)
	Norway	8.9	(0.3)	10.3	(0.2)	11.3	(0.3)	**2.4**	(0.5)	10.2	(0.1)	9.6	(1.2)	-0.6	(1.2)
	Poland	8.2	(0.2)	9.0	(0.3)	8.8	(0.4)	0.6	(0.4)	8.8	(0.2)	5.7	(0.7)	**-3.1**	(0.7)
	Portugal	9.1	(0.8)	10.8	(0.3)	12.2	(0.4)	**3.1**	(0.9)	10.9	(0.2)	13.0	(1.1)	2.1	(1.1)
	Slovak Republic	11.9	(0.3)	12.7	(0.3)	12.9	(0.4)	**1.0**	(0.5)	12.9	(0.2)	10.7	(0.4)	**-2.2**	(0.4)
	Slovenia	9.9	(0.2)	10.7	(0.0)	11.2	(0.0)	**1.3**	(0.2)	10.7	(0.0)	12.6	(0.0)	**1.8**	(0.0)
	Spain	7.4	(1.0)	11.7	(0.3)	14.6	(0.3)	**7.2**	(1.0)	11.2	(0.2)	15.7	(0.5)	**4.5**	(0.6)
	Sweden	11.5	(0.5)	10.9	(0.3)	12.6	(0.5)	1.2	(0.7)	11.3	(0.3)	12.3	(0.6)	1.1	(0.7)
	Switzerland	10.4	(0.9)	12.4	(0.4)	12.3	(0.6)	1.9	(1.1)	12.4	(0.3)	9.0	(0.9)	**-3.5**	(1.0)
	Turkey	15.9	(4.9)	14.9	(0.5)	15.3	(0.5)	-0.6	(5.0)	15.3	(0.3)	12.7	(2.4)	-2.5	(2.4)
	United Kingdom	14.2	(1.3)	14.9	(0.3)	14.2	(0.4)	0.1	(1.4)	15.1	(0.2)	9.6	(1.0)	**-5.5**	(0.9)
	United States	11.8	(1.0)	15.9	(0.5)	17.5	(0.7)	**5.7**	(1.3)	16.4	(0.3)	11.0	(0.9)	**-5.4**	(0.9)
	OECD average	11.3	(0.2)	13.0	(0.1)	13.6	(0.1)	**2.2**	(0.2)	13.0	(0.1)	12.3	(0.2)	**-0.8**	(0.2)
Partners	**Albania**	9.7	(2.2)	9.2	(1.2)	6.9	(1.4)	-2.8	(2.6)	8.8	(0.9)	5.6	(1.8)	-3.2	(1.9)
	Algeria	18.0	(0.9)	17.1	(0.4)	17.1	(0.7)	-0.8	(1.1)	17.4	(0.3)	c	c	c	c
	Brazil	24.0	(3.7)	28.5	(1.0)	29.9	(1.1)	5.9	(3.8)	29.1	(0.8)	28.5	(2.4)	-0.5	(2.5)
	B-S-J-G (China)	13.1	(1.5)	13.0	(0.5)	15.2	(1.0)	2.1	(1.8)	12.7	(0.3)	23.6	(3.3)	**10.9**	(3.3)
	Bulgaria	9.7	(0.7)	11.9	(0.3)	12.8	(0.4)	**3.1**	(0.8)	12.2	(0.2)	c	c	c	c
	CABA (Argentina)	m	m	c	c	10.1	(1.1)	m	m	9.7	(2.0)	10.4	(0.9)	0.7	(2.1)
	Colombia	24.3	(2.6)	31.0	(2.1)	28.0	(1.0)	3.7	(2.8)	29.7	(1.1)	24.1	(1.5)	**-5.7**	(1.8)
	Costa Rica	13.1	(0.9)	18.5	(1.1)	15.3	(1.4)	2.2	(1.7)	17.8	(0.9)	11.1	(1.2)	**-6.7**	(1.5)
	Croatia	c	c	11.1	(0.2)	12.4	(0.3)	c	c	11.6	(0.2)	c	c	c	c
	Cyprus*	5.9	(0.0)	7.4	(0.0)	7.9	(0.0)	**1.9**	(0.0)	7.2	(0.0)	9.2	(0.0)	**2.0**	(0.0)
	Dominican Republic	24.2	(3.0)	31.2	(1.5)	28.4	(2.5)	4.1	(4.0)	31.4	(1.1)	23.9	(2.0)	**-7.5**	(2.3)
	FYROM	3.7	(0.0)	14.4	(0.1)	13.7	(0.0)	**9.9**	(0.0)	13.9	(0.0)	6.8	(0.1)	**-7.1**	(0.1)
	Georgia	9.9	(0.6)	15.1	(0.9)	16.2	(0.4)	**6.3**	(0.7)	14.4	(0.4)	8.2	(0.6)	**-6.2**	(0.7)
	Hong Kong (China)	m	m	m	m	13.5	(0.2)	m	m	14.9	(0.2)	13.4	(0.2)	**-1.5**	(0.3)
	Indonesia	15.7	(2.1)	14.9	(0.7)	18.9	(3.8)	3.2	(4.4)	16.9	(1.1)	13.9	(1.5)	-3.0	(1.8)
	Jordan	12.8	(1.0)	17.7	(1.0)	17.8	(0.8)	**5.0**	(1.3)	16.1	(0.5)	21.0	(2.0)	**4.9**	(2.1)
	Kosovo	23.2	(1.6)	18.3	(0.2)	18.8	(0.6)	**-4.4**	(1.7)	19.4	(0.3)	8.6	(1.1)	**-10.8**	(1.2)
	Lebanon	10.2	(0.9)	12.2	(0.6)	10.6	(0.7)	0.4	(1.2)	9.8	(0.6)	13.3	(0.5)	**3.5**	(0.8)
	Lithuania	8.3	(0.6)	10.6	(0.2)	11.3	(0.2)	**3.0**	(0.7)	10.4	(0.2)	11.7	(0.8)	1.4	(0.8)
	Macao (China)	c	c	c	c	14.7	(0.0)	c	c	c	c	14.9	(0.0)	c	c
	Malta	7.3	(0.0)	7.3	(0.0)	m	m	m	m	5.1	(0.0)	9.7	(0.0)	**4.6**	(0.0)
	Moldova	12.2	(0.3)	12.7	(0.5)	15.1	(0.9)	**2.9**	(0.9)	12.9	(0.3)	c	c	c	c
	Montenegro	c	c	13.1	(0.0)	15.3	(0.0)	c	c	13.8	(0.0)	c	c	c	c
	Peru	15.8	(1.0)	19.7	(1.0)	18.9	(1.8)	3.0	(2.1)	17.8	(0.6)	20.5	(1.7)	2.7	(1.9)
	Qatar	9.0	(0.1)	11.1	(0.0)	12.1	(0.0)	**3.1**	(0.1)	8.8	(0.0)	15.5	(0.0)	**6.7**	(0.0)
	Romania	15.5	(0.8)	15.0	(0.5)	16.1	(0.8)	0.5	(1.1)	15.5	(0.4)	c	c	c	c
	Russia	8.4	(0.5)	15.9	(0.7)	16.1	(0.8)	**7.7**	(0.8)	14.9	(0.5)	c	c	c	c
	Singapore	m	m	m	m	12.2	(0.1)	m	m	12.2	(0.0)	11.8	(1.0)	-0.4	(1.0)
	Chinese Taipei	c	c	15.2	(0.5)	17.3	(0.4)	c	c	13.7	(0.3)	21.7	(0.6)	**8.0**	(0.7)
	Thailand	15.0	(1.3)	20.9	(0.9)	19.0	(1.4)	**4.0**	(2.0)	20.3	(0.7)	16.3	(1.6)	**-4.0**	(1.7)
	Trinidad and Tobago	10.6	(0.1)	13.6	(0.0)	m	m	m	m	12.8	(0.0)	16.9	(0.1)	**4.1**	(0.1)
	Tunisia	10.1	(1.5)	11.9	(1.1)	10.6	(0.3)	0.5	(1.5)	11.5	(0.7)	9.6	(1.7)	-1.9	(1.8)
	United Arab Emirates	9.1	(0.6)	12.8	(0.6)	15.3	(0.3)	**6.2**	(0.6)	10.6	(0.2)	16.8	(0.4)	**6.2**	(0.5)
	Uruguay	9.4	(1.1)	13.9	(1.1)	13.8	(0.7)	**4.4**	(1.3)	14.2	(0.8)	10.6	(0.6)	**-3.6**	(1.0)
	Viet Nam	16.7	(0.6)	16.4	(0.6)	15.1	(0.9)	-1.6	(1.1)	16.2	(0.4)	16.5	(2.4)	0.4	(2.5)
	Argentina**	5.1	(0.8)	10.3	(1.4)	10.7	(1.2)	**5.6**	(1.4)	9.9	(1.1)	10.6	(0.7)	0.8	(1.3)
	Kazakhstan**	10.5	(2.1)	13.4	(2.4)	14.1	(1.2)	3.7	(2.4)	12.6	(1.1)	16.6	(2.0)	4.0	(2.3)
	Malaysia**	11.6	(0.3)	13.1	(0.3)	12.4	(0.5)	0.8	(0.6)	12.7	(0.2)	11.8	(2.4)	-0.8	(2.4)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 3/3]

Table II.6.29 Student-teacher ratio, science performance and school characteristics

Results based on school principals' reports

		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per unit increase in the student-teacher ratio		Explained variance in student performance (r-squared x 100)		Change in the science score per unit increase in the student-teacher ratio		Explained variance in student performance (r-squared x 100)	
		Mean ratio	S.E.	Mean ratio	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	13.1	(0.1)	13.4	(0.2)	0.3	(0.2)	-0.2	(0.5)	0.0	(0.0)	0.5	(0.4)	16.3	(1.2)
	Austria	8.4	(0.4)	11.8	(0.2)	**3.4**	(0.4)	**-2.7**	(0.3)	3.2	(0.8)	**-0.9**	(0.3)	31.6	(1.8)
	Belgium	7.7	(0.3)	9.2	(0.2)	**1.6**	(0.4)	**14.8**	(1.9)	17.4	(3.2)	**3.8**	(1.3)	36.7	(1.9)
	Canada	16.1	(0.3)	15.9	(0.2)	-0.2	(0.3)	1.5	(1.2)	0.6	(0.8)	0.9	(0.6)	11.2	(1.1)
	Chile	17.1	(1.0)	21.0	(0.6)	**3.9**	(1.1)	0.8	(0.6)	0.4	(0.6)	**0.9**	(0.4)	26.8	(1.7)
	Czech Republic	15.1	(0.2)	11.2	(0.2)	**-3.9**	(0.3)	-0.8	(1.0)	0.1	(0.3)	0.0	(0.6)	32.9	(2.1)
	Denmark	12.7	(0.2)	c	c	c	c	**2.7**	(1.2)	0.8	(0.8)	1.1	(1.0)	12.1	(1.4)
	Estonia	11.9	(0.2)	12.2	(1.2)	0.3	(1.2)	**2.4**	(0.8)	0.9	(0.6)	-1.3	(0.8)	11.0	(1.4)
	Finland	10.3	(0.1)	c	c	c	c	0.4	(1.3)	0.0	(0.1)	-1.0	(1.1)	11.0	(1.3)
	France	13.7	(0.4)	11.9	(0.4)	**-1.7**	(0.4)	1.4	(0.7)	0.4	(0.4)	-0.1	(0.6)	38.1	(2.2)
	Germany	14.4	(0.2)	20.5	(2.5)	**6.0**	(2.5)	**2.0**	(0.9)	0.7	(0.7)	**1.5**	(0.5)	36.2	(2.4)
	Greece	9.9	(0.3)	9.6	(0.2)	-0.4	(0.4)	**5.2**	(1.6)	2.4	(1.3)	**2.9**	(0.9)	23.9	(2.9)
	Hungary	10.4	(0.4)	9.8	(0.3)	-0.6	(0.5)	3.4	(1.8)	1.9	(1.9)	1.3	(0.7)	43.5	(2.2)
	Iceland	9.9	(0.0)	m	m	m	m	**-2.1**	(0.6)	0.5	(0.3)	**-1.9**	(0.6)	5.3	(0.8)
	Ireland	14.4	(0.7)	14.5	(0.6)	0.1	(0.2)	0.6	(0.4)	0.3	(0.2)	**0.3**	(0.2)	15.8	(1.3)
	Israel	12.2	(0.6)	11.5	(0.4)	-0.7	(0.5)	1.0	(1.3)	0.2	(0.5)	0.2	(0.8)	23.1	(2.6)
	Italy	10.0	(0.9)	10.5	(0.2)	0.5	(0.9)	**8.3**	(1.5)	8.6	(2.7)	2.3	(1.2)	23.9	(2.6)
	Japan	m	m	11.5	(0.2)	m	m	**3.6**	(0.9)	2.5	(1.3)	0.8	(0.7)	28.2	(2.4)
	Korea	16.3	(0.9)	15.0	(0.2)	-1.4	(0.9)	**6.6**	(1.3)	4.1	(1.5)	1.4	(1.1)	18.1	(2.1)
	Latvia	10.1	(0.1)	9.9	(0.6)	-0.2	(0.6)	**4.2**	(0.7)	2.1	(0.6)	0.1	(0.7)	12.1	(1.5)
	Luxembourg	9.4	(0.0)	10.0	(0.0)	**0.6**	(0.0)	**4.8**	(0.5)	1.1	(0.2)	0.1	(0.5)	34.2	(1.0)
	Mexico	24.8	(0.8)	30.9	(1.2)	**6.0**	(1.4)	0.2	(0.2)	0.2	(0.4)	0.3	(0.2)	17.0	(2.1)
	Netherlands	19.8	(1.9)	21.9	(2.6)	2.1	(2.9)	0.5	(0.5)	0.7	(1.1)	0.3	(0.2)	38.7	(5.3)
	New Zealand	14.7	(0.3)	14.6	(0.2)	-0.1	(0.2)	1.8	(2.2)	0.2	(0.6)	-0.2	(1.1)	19.3	(2.0)
	Norway	10.2	(0.1)	c	c	c	c	1.6	(1.2)	0.1	(0.2)	-0.8	(1.1)	8.9	(0.9)
	Poland	8.7	(0.2)	c	c	c	c	1.8	(1.4)	0.3	(0.4)	0.3	(0.9)	15.5	(1.6)
	Portugal	10.8	(0.4)	11.1	(0.2)	0.4	(0.4)	1.6	(1.8)	0.3	(0.7)	-0.1	(0.6)	19.8	(1.9)
	Slovak Republic	13.1	(0.2)	12.2	(0.3)	**-0.9**	(0.4)	1.0	(1.2)	0.1	(0.3)	-0.5	(0.6)	30.2	(2.4)
	Slovenia	9.4	(0.3)	10.8	(0.0)	**1.5**	(0.3)	**2.9**	(0.2)	1.8	(0.3)	**1.3**	(0.2)	35.7	(1.3)
	Spain	12.5	(0.2)	c	c	c	c	**2.2**	(0.8)	1.0	(0.6)	-0.6	(0.4)	14.0	(1.2)
	Sweden	11.5	(0.2)	12.5	(1.9)	1.0	(2.0)	**3.7**	(1.0)	1.4	(0.7)	**1.5**	(0.7)	16.5	(1.8)
	Switzerland	11.4	(0.2)	15.0	(0.9)	**3.6**	(0.9)	**2.5**	(0.6)	1.3	(0.7)	**3.5**	(0.6)	26.7	(1.9)
	Turkey	20.3	(2.1)	15.0	(0.4)	**-5.3**	(2.2)	0.5	(0.9)	0.1	(0.4)	**1.4**	(0.5)	27.2	(4.1)
	United Kingdom	12.0	(0.4)	14.7	(0.3)	**2.6**	(0.5)	1.7	(1.4)	0.3	(0.5)	-0.1	(0.7)	20.1	(1.9)
	United States	15.1	(0.5)	16.1	(0.3)	**1.0**	(0.3)	0.3	(0.7)	0.0	(0.2)	0.7	(0.6)	14.3	(1.8)
	OECD average	12.9	(0.1)	13.9	(0.2)	**0.7**	(0.2)	**2.3**	(0.2)	1.6	(0.2)	**0.6**	(0.1)	22.7	(0.4)
Partners	**Albania**	6.8	(1.0)	9.4	(1.2)	2.6	(1.4)	m	m	m	m	m	m	m	m
	Algeria	17.9	(0.4)	15.5	(0.4)	**-2.3**	(0.5)	**-3.0**	(0.8)	2.9	(1.5)	**-2.2**	(0.8)	11.2	(2.9)
	Brazil	30.0	(1.0)	28.8	(0.9)	-1.2	(1.3)	**-0.5**	(0.2)	0.7	(0.5)	**-0.3**	(0.1)	21.7	(2.4)
	B-S-J-G (China)	13.7	(0.6)	14.0	(0.7)	0.3	(0.9)	**-1.7**	(0.8)	1.4	(1.0)	-0.5	(0.4)	34.8	(3.1)
	Bulgaria	11.8	(0.7)	12.2	(0.2)	0.3	(0.7)	**7.2**	(2.6)	5.2	(3.0)	**3.0**	(1.1)	37.5	(3.1)
	CABA (Argentina)	10.1	(1.1)	12.1	(1.5)	2.0	(1.8)	0.3	(1.2)	0.1	(0.6)	0.4	(0.6)	36.3	(3.8)
	Colombia	29.1	(1.2)	28.1	(0.9)	-1.0	(0.9)	**-0.6**	(0.2)	1.2	(0.9)	0.0	(0.2)	19.8	(2.6)
	Costa Rica	16.8	(0.8)	17.0	(0.9)	0.2	(0.6)	-0.1	(0.2)	0.0	(0.1)	-0.1	(0.1)	22.4	(2.1)
	Croatia	c	c	11.5	(0.2)	c	c	**6.7**	(2.5)	3.6	(2.5)	0.7	(1.6)	26.1	(2.1)
	Cyprus*	7.5	(0.0)	7.5	(0.0)	0.0	(0.0)	**15.8**	(0.6)	10.0	(0.7)	**6.0**	(0.8)	17.8	(0.9)
	Dominican Republic	38.0	(2.5)	27.5	(1.0)	**-10.5**	(2.7)	**-0.9**	(0.2)	4.2	(1.7)	-0.2	(0.1)	26.5	(3.3)
	FYROM	c	c	13.8	(0.0)	c	c	**0.6**	(0.1)	0.4	(0.2)	**0.4**	(0.1)	14.9	(1.1)
	Georgia	14.7	(0.4)	13.7	(0.4)	**-0.9**	(0.3)	0.8	(0.5)	0.3	(0.4)	-0.3	(0.3)	15.2	(1.6)
	Hong Kong (China)	13.2	(0.2)	13.6	(0.2)	**0.4**	(0.1)	**11.3**	(2.7)	9.7	(2.5)	**8.7**	(2.4)	18.7	(2.5)
	Indonesia	16.5	(1.3)	14.9	(1.2)	-1.7	(1.8)	0.3	(0.4)	0.3	(0.8)	0.1	(0.2)	25.8	(3.2)
	Jordan	17.0	(0.6)	m	m	m	m	0.3	(0.2)	0.1	(0.2)	**0.6**	(0.2)	12.3	(2.3)
	Kosovo	20.7	(1.1)	18.6	(0.1)	-2.1	(1.1)	**0.4**	(0.1)	0.3	(0.2)	**0.5**	(0.1)	14.7	(1.5)
	Lebanon	12.9	(0.9)	11.1	(0.3)	**-1.9**	(0.9)	0.8	(0.9)	0.4	(0.8)	0.1	(0.6)	16.2	(3.6)
	Lithuania	10.4	(0.2)	c	c	c	c	3.2	(2.7)	1.9	(1.9)	0.0	(0.5)	21.4	(2.3)
	Macao (China)	14.4	(0.0)	14.9	(0.0)	**0.6**	(0.0)	**3.3**	(0.2)	3.8	(0.6)	**4.1**	(0.2)	7.7	(0.7)
	Malta	c	c	7.3	(0.0)	c	c	**8.7**	(0.5)	7.2	(0.7)	**2.2**	(0.5)	22.6	(1.2)
	Moldova	12.6	(0.3)	16.3	(2.0)	3.7	(2.0)	-0.7	(0.4)	0.1	(0.2)	**-0.9**	(0.4)	13.9	(1.7)
	Montenegro	15.3	(1.2)	13.7	(0.0)	-1.6	(1.2)	**2.1**	(0.3)	0.9	(0.3)	-0.5	(0.3)	17.2	(0.9)
	Peru	18.8	(1.4)	18.5	(0.6)	-0.2	(1.4)	0.4	(0.4)	0.2	(0.5)	0.0	(0.2)	30.0	(2.2)
	Qatar	12.0	(0.0)	11.4	(0.0)	**-0.6**	(0.0)	**5.2**	(0.1)	7.0	(0.4)	**4.8**	(0.1)	20.0	(0.6)
	Romania	15.4	(0.4)	m	m	m	m	1.3	(0.7)	0.7	(0.7)	0.2	(0.5)	23.2	(2.9)
	Russia	14.7	(0.5)	16.3	(1.0)	1.6	(0.9)	0.8	(0.5)	0.4	(0.4)	-0.3	(0.5)	9.8	(1.8)
	Singapore	11.4	(0.4)	12.1	(0.1)	**0.7**	(0.3)	**2.6**	(0.7)	0.4	(0.2)	**2.4**	(1.0)	27.2	(1.5)
	Chinese Taipei	13.5	(0.2)	18.0	(0.4)	**4.6**	(0.4)	-0.9	(0.6)	0.3	(0.4)	**-2.1**	(0.3)	30.0	(2.5)
	Thailand	17.0	(0.4)	20.7	(0.8)	**3.7**	(0.8)	0.0	(0.3)	0.0	(0.1)	-0.2	(0.2)	18.9	(3.2)
	Trinidad and Tobago	11.9	(0.0)	14.1	(0.0)	**2.2**	(0.0)	**9.9**	(0.4)	14.8	(1.0)	**4.1**	(0.4)	38.4	(1.2)
	Tunisia	11.2	(0.4)	11.6	(1.1)	0.3	(1.1)	0.0	(0.3)	0.0	(0.1)	0.1	(0.3)	18.5	(3.8)
	United Arab Emirates	13.9	(0.5)	14.1	(0.3)	0.1	(0.5)	**3.0**	(0.4)	4.2	(0.9)	**2.8**	(0.3)	20.2	(1.9)
	Uruguay	12.5	(0.7)	14.4	(0.9)	1.8	(1.0)	0.1	(0.3)	0.0	(0.1)	0.2	(0.3)	26.3	(1.8)
	Viet Nam	16.9	(0.8)	16.1	(0.4)	-0.7	(0.9)	-0.1	(0.9)	0.0	(0.3)	-0.2	(0.7)	19.6	(4.3)
	Argentina**	10.1	(1.4)	10.0	(0.8)	0.0	(1.3)	0.1	(0.4)	0.0	(0.2)	0.0	(0.2)	19.2	(2.3)
	Kazakhstan**	11.9	(1.0)	11.8	(1.4)	-0.1	(1.0)	-0.2	(0.2)	0.1	(0.3)	-0.2	(0.2)	8.7	(2.4)
	Malaysia**	13.8	(0.6)	12.6	(0.2)	-1.3	(0.7)	**-2.4**	(0.9)	1.0	(0.7)	**-2.4**	(0.7)	19.0	(2.3)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.6.32 Average time per week spent learning in regular lessons

Results based on students' reports

		Average time per week spent learning, in hours							
		Regular science lessons		Regular language-of-instruction lessons		Regular mathematics lessons		Total learning time in regular lessons[1]	
		Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.
OECD	Australia	3.5	(0.0)	3.9	(0.0)	4.0	(0.0)	25.7	(0.1)
	Austria	4.9	(0.1)	2.4	(0.0)	2.4	(0.0)	28.8	(0.2)
	Belgium	2.9	(0.0)	3.5	(0.0)	3.4	(0.0)	27.7	(0.1)
	Canada	4.8	(0.1)	5.2	(0.1)	5.0	(0.1)	27.1	(0.1)
	Chile	5.8	(0.1)	6.7	(0.1)	7.2	(0.1)	31.9	(0.2)
	Czech Republic	4.1	(0.0)	3.1	(0.0)	3.1	(0.0)	25.1	(0.1)
	Denmark	3.4	(0.0)	5.5	(0.1)	4.2	(0.0)	27.3	(0.2)
	Estonia	3.6	(0.0)	3.2	(0.0)	3.5	(0.0)	25.4	(0.1)
	Finland	2.8	(0.0)	2.5	(0.0)	2.9	(0.0)	24.2	(0.2)
	France	3.0	(0.0)	3.8	(0.0)	3.6	(0.0)	27.2	(0.1)
	Germany	3.7	(0.1)	3.3	(0.0)	3.2	(0.0)	25.5	(0.1)
	Greece	3.8	(0.0)	2.7	(0.0)	3.4	(0.0)	27.0	(0.1)
	Hungary	3.1	(0.1)	2.7	(0.0)	2.6	(0.0)	26.2	(0.1)
	Iceland	2.3	(0.0)	4.0	(0.0)	3.9	(0.0)	26.3	(0.1)
	Ireland	2.4	(0.0)	3.0	(0.0)	3.2	(0.0)	28.4	(0.1)
	Israel	3.4	(0.1)	3.2	(0.0)	3.9	(0.1)	28.4	(0.2)
	Italy	2.6	(0.1)	4.6	(0.0)	3.8	(0.0)	28.6	(0.1)
	Japan	2.9	(0.1)	3.7	(0.0)	4.0	(0.0)	27.5	(0.1)
	Korea	2.8	(0.0)	3.3	(0.0)	3.5	(0.0)	30.3	(0.2)
	Latvia	4.3	(0.0)	2.6	(0.0)	3.8	(0.0)	25.2	(0.1)
	Luxembourg	3.2	(0.0)	3.3	(0.0)	3.4	(0.0)	26.6	(0.1)
	Mexico	3.9	(0.1)	3.9	(0.0)	4.0	(0.0)	27.8	(0.2)
	Netherlands	4.4	(0.1)	2.9	(0.0)	2.6	(0.0)	26.8	(0.1)
	New Zealand	4.2	(0.0)	4.1	(0.0)	4.1	(0.0)	25.3	(0.1)
	Norway	2.4	(0.0)	3.7	(0.0)	3.3	(0.0)	25.0	(0.2)
	Poland	3.0	(0.0)	3.8	(0.0)	3.5	(0.0)	27.8	(0.1)
	Portugal	3.7	(0.1)	4.0	(0.0)	4.4	(0.1)	28.2	(0.2)
	Slovak Republic	3.1	(0.1)	3.2	(0.0)	3.1	(0.0)	24.5	(0.1)
	Slovenia	3.5	(0.0)	2.9	(0.0)	2.7	(0.0)	27.1	(0.1)
	Spain	3.3	(0.0)	3.4	(0.0)	3.6	(0.0)	28.3	(0.1)
	Sweden	3.0	(0.1)	3.1	(0.0)	3.2	(0.0)	25.9	(0.2)
	Switzerland	2.5	(0.1)	3.4	(0.0)	3.5	(0.0)	25.1	(0.2)
	Turkey	3.4	(0.1)	2.9	(0.0)	3.7	(0.0)	25.9	(0.1)
	United Kingdom	4.7	(0.0)	4.0	(0.0)	3.9	(0.0)	26.5	(0.1)
	United States	4.0	(0.1)	4.3	(0.1)	4.1	(0.1)	27.7	(0.2)
	OECD average	3.5	(0.0)	3.6	(0.0)	3.6	(0.0)	26.9	(0.0)
Partners	Albania	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m
	Brazil	2.8	(0.1)	3.6	(0.0)	3.6	(0.0)	24.9	(0.2)
	B-S-J-G (China)	5.6	(0.1)	4.7	(0.1)	4.9	(0.1)	30.1	(0.2)
	Bulgaria	4.3	(0.1)	2.5	(0.0)	2.4	(0.1)	24.3	(0.2)
	CABA (Argentina)	m	m	m	m	m	m	m	m
	Colombia	3.4	(0.1)	3.5	(0.0)	3.8	(0.1)	26.6	(0.2)
	Costa Rica	3.8	(0.0)	3.2	(0.0)	3.4	(0.0)	31.5	(0.3)
	Croatia	3.2	(0.1)	2.8	(0.0)	2.5	(0.0)	26.1	(0.1)
	Cyprus*	3.1	(0.0)	3.4	(0.0)	3.1	(0.0)	26.8	(0.1)
	Dominican Republic	3.5	(0.1)	3.6	(0.1)	3.7	(0.1)	25.1	(0.3)
	FYROM	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.8	(0.1)	5.1	(0.1)	4.8	(0.1)	28.8	(0.2)
	Indonesia	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m
	Lithuania	4.3	(0.0)	3.4	(0.0)	2.9	(0.0)	24.7	(0.1)
	Macao (China)	3.7	(0.0)	4.4	(0.0)	4.6	(0.0)	28.3	(0.1)
	Malta	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m
	Montenegro	1.7	(0.0)	2.6	(0.0)	2.4	(0.0)	26.0	(0.1)
	Peru	4.0	(0.1)	4.8	(0.1)	5.4	(0.1)	29.1	(0.2)
	Qatar	5.1	(0.0)	4.2	(0.0)	4.6	(0.0)	28.7	(0.1)
	Romania	m	m	m	m	m	m	m	m
	Russia	5.2	(0.1)	2.3	(0.0)	4.0	(0.1)	25.9	(0.2)
	Singapore	5.5	(0.0)	4.3	(0.0)	5.1	(0.0)	28.6	(0.1)
	Chinese Taipei	3.0	(0.0)	4.1	(0.0)	3.8	(0.0)	31.8	(0.1)
	Thailand	4.4	(0.1)	2.6	(0.0)	3.6	(0.1)	31.8	(0.2)
	Trinidad and Tobago	m	m	m	m	m	m	m	m
	Tunisia	2.6	(0.0)	4.5	(0.0)	4.0	(0.0)	30.1	(0.2)
	United Arab Emirates	5.3	(0.1)	4.6	(0.0)	5.0	(0.0)	28.8	(0.1)
	Uruguay	3.4	(0.1)	2.5	(0.0)	2.8	(0.0)	23.1	(0.2)
	Viet Nam	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m
	Malaysia**	4	(0.1)	4	(0.0)	4	(0.1)	29	(0.2)

1. Total learning time includes all school subjects.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.6.33 Average time per week in regular science lessons, science performance and school characteristics

Results based on students' reports

		Average time per week spent learning in regular science lessons, in hours													
		All students				By school socio-economic profile[1]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Hours	S.E.	S.D.	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.	Dif.	S.E.
OECD	**Australia**	3.5	(0.0)	1.9	(0.0)	3.3	(0.1)	3.5	(0.1)	3.5	(0.1)	3.8	(0.1)	**0.5**	(0.1)
	Austria	4.9	(0.1)	4.2	(0.1)	4.5	(0.3)	4.9	(0.3)	5.2	(0.3)	4.9	(0.2)	0.4	(0.3)
	Belgium	2.9	(0.0)	2.2	(0.1)	2.2	(0.1)	2.5	(0.1)	3.3	(0.1)	3.6	(0.1)	**1.4**	(0.1)
	Canada	4.8	(0.1)	2.9	(0.1)	4.6	(0.1)	4.9	(0.1)	5.0	(0.1)	4.9	(0.1)	**0.3**	(0.2)
	Chile	5.8	(0.1)	3.8	(0.1)	5.3	(0.2)	5.5	(0.3)	5.8	(0.3)	6.6	(0.2)	**1.3**	(0.3)
	Czech Republic	4.1	(0.0)	2.3	(0.1)	3.5	(0.1)	4.0	(0.1)	3.8	(0.2)	5.2	(0.1)	**1.7**	(0.1)
	Denmark	3.4	(0.0)	1.5	(0.1)	3.3	(0.1)	3.4	(0.1)	3.4	(0.1)	3.6	(0.1)	**0.3**	(0.1)
	Estonia	3.6	(0.0)	1.8	(0.0)	3.7	(0.1)	3.6	(0.1)	3.6	(0.1)	3.7	(0.1)	-0.1	(0.1)
	Finland	2.8	(0.0)	1.5	(0.1)	2.6	(0.1)	2.8	(0.1)	3.0	(0.1)	2.9	(0.1)	**0.3**	(0.1)
	France	3.0	(0.0)	2.0	(0.1)	1.9	(0.1)	2.9	(0.1)	3.4	(0.1)	3.8	(0.1)	**1.9**	(0.1)
	Germany	3.7	(0.1)	2.2	(0.1)	2.5	(0.1)	3.1	(0.1)	4.1	(0.2)	4.9	(0.1)	**2.5**	(0.2)
	Greece	3.8	(0.0)	2.1	(0.1)	3.2	(0.1)	3.7	(0.1)	4.1	(0.1)	4.3	(0.1)	**1.1**	(0.2)
	Hungary	3.1	(0.1)	1.9	(0.1)	3.2	(0.1)	3.2	(0.1)	3.0	(0.1)	3.0	(0.2)	-0.2	(0.2)
	Iceland	2.3	(0.0)	1.0	(0.1)	2.3	(0.0)	2.4	(0.0)	2.2	(0.0)	2.2	(0.0)	**-0.1**	(0.0)
	Ireland	2.4	(0.0)	1.2	(0.0)	2.2	(0.1)	2.4	(0.1)	2.4	(0.1)	2.5	(0.1)	**0.3**	(0.1)
	Israel	3.4	(0.1)	2.5	(0.1)	3.8	(0.2)	3.2	(0.2)	3.1	(0.3)	3.4	(0.2)	-0.4	(0.3)
	Italy	2.6	(0.1)	2.0	(0.1)	2.6	(0.1)	2.7	(0.1)	2.6	(0.1)	2.4	(0.1)	-0.2	(0.1)
	Japan	2.9	(0.1)	1.2	(0.0)	2.2	(0.1)	2.4	(0.1)	3.2	(0.1)	3.6	(0.1)	**1.4**	(0.2)
	Korea	2.8	(0.0)	1.2	(0.1)	2.4	(0.1)	2.9	(0.1)	2.9	(0.1)	3.2	(0.1)	**0.8**	(0.1)
	Latvia	4.3	(0.0)	1.9	(0.1)	4.1	(0.1)	4.2	(0.1)	4.5	(0.1)	4.4	(0.1)	0.2	(0.1)
	Luxembourg	3.2	(0.0)	2.6	(0.1)	3.2	(0.1)	3.3	(0.1)	3.0	(0.0)	3.4	(0.0)	**0.3**	(0.1)
	Mexico	3.9	(0.1)	2.2	(0.1)	3.7	(0.1)	4.0	(0.1)	3.9	(0.1)	3.9	(0.1)	0.2	(0.2)
	Netherlands	4.4	(0.1)	3.4	(0.1)	3.9	(0.2)	4.2	(0.2)	4.6	(0.2)	4.8	(0.2)	**0.9**	(0.3)
	New Zealand	4.2	(0.0)	2.0	(0.1)	3.8	(0.1)	4.0	(0.1)	4.2	(0.1)	4.7	(0.1)	**0.9**	(0.2)
	Norway	2.4	(0.0)	1.1	(0.1)	2.4	(0.0)	2.3	(0.1)	2.4	(0.1)	2.4	(0.1)	0.0	(0.1)
	Poland	3.0	(0.0)	1.2	(0.1)	3.0	(0.1)	2.9	(0.1)	3.0	(0.1)	3.2	(0.1)	0.1	(0.2)
	Portugal	3.7	(0.1)	4.1	(0.1)	3.3	(0.2)	3.7	(0.2)	3.7	(0.2)	4.2	(0.2)	**0.9**	(0.3)
	Slovak Republic	3.1	(0.1)	2.6	(0.1)	2.5	(0.1)	2.4	(0.2)	2.8	(0.2)	4.5	(0.2)	**1.9**	(0.2)
	Slovenia	3.5	(0.0)	1.8	(0.0)	2.9	(0.1)	3.0	(0.1)	3.8	(0.1)	4.3	(0.0)	**1.4**	(0.1)
	Spain	3.3	(0.0)	2.1	(0.0)	3.1	(0.1)	3.0	(0.1)	3.3	(0.1)	3.6	(0.1)	**0.6**	(0.1)
	Sweden	3.0	(0.1)	1.3	(0.1)	2.9	(0.1)	3.1	(0.1)	2.9	(0.1)	3.2	(0.2)	0.3	(0.2)
	Switzerland	2.5	(0.1)	2.1	(0.1)	2.2	(0.1)	2.1	(0.1)	2.2	(0.1)	3.4	(0.1)	**1.2**	(0.2)
	Turkey	3.4	(0.1)	1.8	(0.0)	2.9	(0.1)	3.1	(0.2)	3.6	(0.1)	3.9	(0.1)	**1.0**	(0.2)
	United Kingdom	4.7	(0.0)	1.9	(0.1)	4.5	(0.1)	4.7	(0.1)	4.9	(0.1)	4.9	(0.1)	**0.4**	(0.1)
	United States	4.0	(0.1)	2.3	(0.1)	3.6	(0.1)	3.9	(0.1)	4.0	(0.1)	4.3	(0.1)	**0.6**	(0.2)
	OECD average	3.5	(0.0)	2.1	(0.0)	3.2	(0.0)	3.4	(0.0)	3.6	(0.0)	3.9	(0.0)	**0.7**	(0.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	2.8	(0.1)	2.4	(0.1)	2.4	(0.1)	2.3	(0.1)	2.5	(0.1)	4.0	(0.2)	**1.6**	(0.2)
	B-S-J-G (China)	5.6	(0.1)	3.4	(0.1)	5.3	(0.2)	5.3	(0.3)	5.7	(0.3)	5.9	(0.2)	**0.5**	(0.3)
	Bulgaria	4.3	(0.1)	2.0	(0.1)	4.9	(0.1)	4.5	(0.1)	4.0	(0.1)	3.9	(0.1)	**-1.0**	(0.2)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	3.4	(0.1)	2.3	(0.1)	3.5	(0.1)	3.2	(0.1)	3.3	(0.1)	3.8	(0.1)	0.3	(0.2)
	Costa Rica	3.8	(0.0)	1.8	(0.0)	3.4	(0.1)	3.5	(0.1)	3.7	(0.1)	4.5	(0.1)	**1.0**	(0.1)
	Croatia	3.2	(0.1)	2.0	(0.0)	2.3	(0.2)	2.9	(0.3)	3.0	(0.2)	4.5	(0.1)	**2.2**	(0.2)
	Cyprus*	3.1	(0.0)	2.2	(0.1)	2.6	(0.1)	2.8	(0.0)	2.8	(0.1)	4.2	(0.1)	**1.6**	(0.1)
	Dominican Republic	3.5	(0.1)	2.9	(0.2)	3.6	(0.2)	3.5	(0.2)	3.5	(0.2)	3.4	(0.1)	-0.3	(0.2)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.8	(0.1)	3.2	(0.1)	3.4	(0.2)	3.8	(0.1)	3.8	(0.2)	4.3	(0.1)	**1.0**	(0.2)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	4.3	(0.0)	0.5	(0.0)	4.3	(0.0)	4.3	(0.0)	4.3	(0.0)	4.4	(0.0)	**0.1**	(0.0)
	Macao (China)	3.7	(0.0)	2.9	(0.1)	3.3	(0.1)	4.0	(0.1)	3.6	(0.1)	4.1	(0.1)	**0.8**	(0.1)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	1.7	(0.0)	1.2	(0.1)	1.6	(0.0)	1.7	(0.0)	1.6	(0.0)	1.7	(0.0)	0.0	(0.0)
	Peru	4.0	(0.1)	2.3	(0.1)	3.9	(0.1)	3.5	(0.1)	3.7	(0.2)	4.7	(0.2)	**0.8**	(0.2)
	Qatar	5.1	(0.0)	3.4	(0.1)	4.8	(0.1)	5.1	(0.1)	5.4	(0.1)	4.9	(0.1)	0.1	(0.1)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	5.2	(0.1)	3.5	(0.1)	5.1	(0.2)	5.0	(0.1)	5.3	(0.1)	5.5	(0.2)	0.4	(0.3)
	Singapore	5.5	(0.0)	2.8	(0.1)	4.8	(0.1)	5.2	(0.1)	5.6	(0.1)	6.2	(0.1)	**1.3**	(0.1)
	Chinese Taipei	3.0	(0.0)	1.9	(0.0)	2.3	(0.1)	2.8	(0.1)	3.2	(0.2)	3.8	(0.2)	**1.6**	(0.2)
	Thailand	4.4	(0.1)	3.4	(0.1)	4.0	(0.2)	4.1	(0.2)	4.2	(0.3)	5.1	(0.2)	**1.1**	(0.3)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	2.6	(0.0)	1.9	(0.1)	2.4	(0.1)	2.5	(0.1)	2.8	(0.1)	2.7	(0.1)	**0.3**	(0.1)
	United Arab Emirates	5.3	(0.1)	3.6	(0.1)	4.8	(0.2)	5.1	(0.1)	5.5	(0.1)	5.7	(0.2)	**1.0**	(0.2)
	Uruguay	3.4	(0.1)	2.8	(0.1)	2.9	(0.2)	3.0	(0.2)	3.5	(0.2)	4.0	(0.2)	**1.1**	(0.2)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	4.5	(0.1)	2.9	(0.1)	4.2	(0.1)	4.1	(0.2)	4.5	(0.2)	5.0	(0.2)	**0.8**	(0.2)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.6.33 Average time per week in regular science lessons, science performance and school characteristics

Results based on students' reports

		Average time per week spent learning in regular science lessons, in hours													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Hours	S.E.	Hours	S.E.	Hours	S.E.	Dif.	S.E.	Hours	S.E.	Hours	S.E.	Dif.	S.E.
OECD	**Australia**	3.6	(0.1)	3.5	(0.1)	3.5	(0.0)	-0.1	(0.1)	3.5	(0.0)	3.6	(0.0)	0.1	(0.1)
	Austria	5.3	(0.5)	4.9	(0.2)	4.8	(0.2)	-0.4	(0.5)	4.9	(0.1)	4.8	(0.3)	-0.1	(0.4)
	Belgium	3.3	(0.1)	3.0	(0.1)	2.8	(0.1)	**-0.4**	(0.2)	w	w	w	w	w	w
	Canada	4.2	(0.2)	4.9	(0.1)	4.9	(0.1)	**0.7**	(0.2)	4.8	(0.1)	4.7	(0.2)	-0.2	(0.2)
	Chile	5.6	(0.7)	5.8	(0.2)	5.8	(0.1)	0.2	(0.8)	5.5	(0.2)	6.0	(0.1)	**0.5**	(0.2)
	Czech Republic	4.4	(0.1)	4.1	(0.1)	4.2	(0.1)	-0.1	(0.2)	4.1	(0.1)	3.8	(0.2)	-0.4	(0.2)
	Denmark	3.3	(0.1)	3.5	(0.1)	3.4	(0.1)	0.1	(0.2)	3.4	(0.1)	3.6	(0.1)	0.2	(0.1)
	Estonia	3.9	(0.1)	3.6	(0.1)	3.6	(0.0)	**-0.3**	(0.1)	3.6	(0.0)	3.7	(0.3)	0.1	(0.3)
	Finland	2.8	(0.1)	2.8	(0.1)	2.9	(0.1)	0.1	(0.2)	2.8	(0.1)	3.0	(0.1)	0.2	(0.1)
	France	3.3	(0.2)	2.9	(0.1)	3.2	(0.1)	-0.1	(0.2)	3.0	(0.0)	3.3	(0.1)	0.3	(0.1)
	Germany	4.1	(0.4)	3.7	(0.1)	3.9	(0.2)	-0.2	(0.4)	3.8	(0.1)	3.8	(0.3)	0.0	(0.3)
	Greece	3.8	(0.1)	3.7	(0.1)	4.1	(0.1)	0.3	(0.2)	3.8	(0.0)	4.4	(0.1)	**0.6**	(0.1)
	Hungary	3.9	(0.4)	3.2	(0.1)	2.9	(0.1)	**-1.0**	(0.4)	3.1	(0.1)	3.0	(0.2)	-0.1	(0.2)
	Iceland	2.3	(0.0)	2.3	(0.0)	2.3	(0.0)	0.0	(0.0)	2.3	(0.0)	c	c	c	c
	Ireland	2.5	(0.1)	2.5	(0.0)	2.2	(0.1)	**-0.2**	(0.1)	2.4	(0.0)	2.4	(0.0)	0.0	(0.1)
	Israel	3.1	(0.3)	3.7	(0.1)	3.1	(0.1)	-0.1	(0.3)	m	m	m	m	m	m
	Italy	3.0	(0.1)	2.6	(0.1)	2.6	(0.1)	**-0.4**	(0.2)	2.6	(0.1)	2.5	(0.3)	0.0	(0.3)
	Japan	c	c	2.7	(0.1)	3.0	(0.1)	c	c	2.7	(0.1)	3.3	(0.1)	**0.6**	(0.1)
	Korea	c	c	2.7	(0.1)	2.9	(0.0)	c	c	2.8	(0.1)	2.9	(0.1)	0.0	(0.1)
	Latvia	4.4	(0.1)	4.3	(0.1)	4.2	(0.1)	-0.2	(0.1)	4.3	(0.0)	4.1	(0.4)	-0.2	(0.4)
	Luxembourg	m	m	3.1	(0.0)	3.2	(0.0)	m	m	3.1	(0.0)	3.6	(0.1)	**0.4**	(0.1)
	Mexico	3.5	(0.2)	4.0	(0.1)	3.9	(0.1)	0.3	(0.2)	3.9	(0.1)	3.7	(0.1)	-0.2	(0.1)
	Netherlands	c	c	4.3	(0.1)	4.9	(0.2)	c	c	4.5	(0.2)	4.4	(0.1)	-0.1	(0.2)
	New Zealand	4.1	(0.3)	4.0	(0.1)	4.3	(0.1)	0.2	(0.3)	4.1	(0.0)	5.6	(0.5)	**1.5**	(0.5)
	Norway	2.3	(0.1)	2.4	(0.0)	2.4	(0.1)	0.0	(0.1)	2.4	(0.0)	2.2	(0.2)	-0.2	(0.2)
	Poland	3.0	(0.1)	3.0	(0.1)	3.1	(0.1)	0.2	(0.1)	3.0	(0.0)	3.5	(0.3)	0.5	(0.4)
	Portugal	4.6	(0.7)	3.8	(0.1)	3.6	(0.2)	-1.0	(0.7)	3.7	(0.1)	4.1	(0.9)	0.4	(0.9)
	Slovak Republic	3.4	(0.1)	2.9	(0.1)	3.5	(0.2)	0.1	(0.3)	3.1	(0.1)	3.2	(0.4)	0.1	(0.4)
	Slovenia	3.6	(0.1)	3.5	(0.0)	3.6	(0.1)	0.0	(0.1)	3.5	(0.0)	3.6	(0.1)	0.1	(0.1)
	Spain	3.3	(0.3)	3.1	(0.0)	3.5	(0.1)	0.2	(0.3)	3.1	(0.0)	3.6	(0.1)	**0.4**	(0.1)
	Sweden	2.8	(0.1)	3.0	(0.1)	3.1	(0.1)	0.3	(0.2)	3.1	(0.1)	2.7	(0.1)	**-0.4**	(0.1)
	Switzerland	2.1	(0.1)	2.5	(0.1)	2.5	(0.1)	**0.5**	(0.2)	2.5	(0.1)	2.2	(0.2)	-0.3	(0.2)
	Turkey	2.5	(0.4)	3.3	(0.1)	3.4	(0.1)	**1.0**	(0.4)	3.3	(0.1)	3.9	(0.2)	**0.5**	(0.2)
	United Kingdom	4.9	(0.3)	4.9	(0.1)	4.5	(0.1)	-0.4	(0.3)	4.8	(0.1)	4.8	(0.2)	0.1	(0.2)
	United States	3.9	(0.1)	4.1	(0.1)	3.8	(0.1)	-0.1	(0.2)	4.0	(0.1)	3.8	(0.1)	-0.1	(0.1)
	OECD average	3.6	(0.0)	3.5	(0.0)	3.5	(0.0)	0.0	(0.1)	3.5	(0.0)	3.7	(0.0)	**0.1**	(0.0)
Partners	**Albania**	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Algeria	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Brazil	2.4	(0.1)	2.6	(0.1)	3.0	(0.1)	**0.6**	(0.2)	2.5	(0.0)	4.5	(0.2)	**2.0**	(0.2)
	B-S-J-G (China)	5.4	(0.3)	5.7	(0.2)	5.3	(0.2)	0.0	(0.4)	5.5	(0.1)	6.2	(0.3)	**0.7**	(0.4)
	Bulgaria	5.3	(0.3)	4.3	(0.1)	4.2	(0.1)	**-1.1**	(0.4)	4.3	(0.1)	c	c	c	c
	CABA (Argentina)	m	m	c	c	c	c	m	m	c	c	c	c	c	c
	Colombia	3.6	(0.2)	3.3	(0.1)	3.6	(0.1)	0.0	(0.2)	3.4	(0.1)	3.7	(0.2)	0.3	(0.2)
	Costa Rica	3.6	(0.1)	3.9	(0.0)	3.7	(0.1)	0.0	(0.2)	3.8	(0.0)	3.5	(0.1)	**-0.3**	(0.1)
	Croatia	c	c	3.0	(0.1)	3.6	(0.1)	c	c	3.2	(0.1)	4.6	(0.1)	**1.4**	(0.1)
	Cyprus*	3.0	(0.1)	3.0	(0.0)	3.4	(0.1)	**0.4**	(0.1)	2.9	(0.0)	4.3	(0.1)	**1.5**	(0.1)
	Dominican Republic	3.3	(0.2)	3.5	(0.1)	3.7	(0.2)	0.3	(0.3)	3.5	(0.1)	3.5	(0.2)	0.0	(0.2)
	FYROM	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Georgia	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Hong Kong (China)	m	m	m	m	3.8	(0.1)	m	m	3.9	(0.3)	3.8	(0.1)	-0.1	(0.3)
	Indonesia	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Jordan	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Kosovo	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lebanon	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lithuania	4.3	(0.0)	4.3	(0.0)	4.3	(0.0)	0.0	(0.0)	4.3	(0.0)	4.5	(0.1)	0.2	(0.1)
	Macao (China)	c	c	c	c	3.7	(0.0)	c	c	c	c	3.8	(0.0)	c	c
	Malta	c	c	c	c	m	m	m	m	c	c	c	c	c	c
	Moldova	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Montenegro	c	c	1.7	(0.0)	1.6	(0.0)	c	c	1.7	(0.0)	c	c	c	c
	Peru	4.0	(0.1)	3.9	(0.1)	4.2	(0.3)	0.2	(0.3)	3.6	(0.1)	4.6	(0.2)	**1.0**	(0.2)
	Qatar	4.4	(0.1)	5.2	(0.0)	5.0	(0.0)	**0.6**	(0.1)	4.8	(0.0)	5.4	(0.1)	**0.6**	(0.1)
	Romania	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Russia	5.2	(0.2)	5.1	(0.1)	5.3	(0.1)	0.1	(0.2)	5.2	(0.1)	c	c	c	c
	Singapore	m	m	m	m	5.4	(0.0)	m	m	5.5	(0.0)	5.5	(0.3)	0.0	(0.3)
	Chinese Taipei	c	c	3.0	(0.1)	3.1	(0.1)	c	c	3.3	(0.0)	2.5	(0.1)	**-0.8**	(0.1)
	Thailand	3.9	(0.3)	4.4	(0.1)	4.9	(0.3)	**1.0**	(0.4)	4.5	(0.1)	3.2	(0.2)	**-1.3**	(0.3)
	Trinidad and Tobago	c	c	c	c	m	m	m	m	c	c	c	c	c	c
	Tunisia	2.3	(0.2)	2.6	(0.1)	2.7	(0.1)	0.3	(0.2)	2.6	(0.0)	3.1	(0.6)	0.5	(0.6)
	United Arab Emirates	4.8	(0.2)	5.1	(0.2)	5.5	(0.1)	**0.7**	(0.2)	4.8	(0.1)	5.7	(0.1)	**1.0**	(0.1)
	Uruguay	3.1	(0.3)	3.4	(0.1)	3.5	(0.1)	0.4	(0.3)	3.2	(0.1)	4.2	(0.2)	**0.9**	(0.2)
	Viet Nam	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Argentina**	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Kazakhstan**	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Malaysia**	4.4	(0.2)	4.4	(0.1)	4.5	(0.1)	0.1	(0.2)	4.5	(0.1)	4.1	(0.7)	-0.4	(0.7)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.6.33 Average time per week in regular science lessons, science performance and school characteristics

Results based on students' reports

		Average time per week spent learning in regular science lessons, in hours													
		By education level						Before accounting for students' and schools' socio-economic profile[1]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per hour increase in the time per week spent learning in regular science lessons		Explained variance in student performance (r-squared x 100)		Change in the science score per hour increase in the time per week spent learning in regular science lessons		Explained variance in student performance (r-squared x 100)	
		Hours	S.E.	Hours	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	3.6	(0.0)	2.9	(0.1)	**-0.7**	(0.1)	**9**	(0.8)	2.7	(0.4)	**7**	(0.7)	17.3	(1.1)
	Austria	5.5	(0.4)	4.9	(0.1)	-0.7	(0.4)	**2**	(0.5)	0.6	(0.3)	**1**	(0.3)	30.5	(1.8)
	Belgium	2.4	(0.1)	3.0	(0.0)	**0.6**	(0.1)	**15**	(0.9)	12.4	(1.0)	**9**	(0.6)	38.4	(1.9)
	Canada	4.4	(0.1)	4.9	(0.1)	**0.5**	(0.1)	**3**	(0.5)	1.0	(0.3)	**2**	(0.4)	12.0	(1.0)
	Chile	4.3	(0.3)	5.9	(0.1)	**1.6**	(0.3)	**3**	(0.5)	1.8	(0.5)	**1**	(0.4)	26.0	(1.6)
	Czech Republic	4.3	(0.1)	3.9	(0.1)	**-0.3**	(0.1)	**11**	(1.2)	8.2	(1.3)	**6**	(0.8)	33.7	(1.9)
	Denmark	3.4	(0.0)	3.5	(0.6)	0.0	(0.6)	2	(1.1)	0.1	(0.1)	1	(1.0)	11.5	(1.3)
	Estonia	3.7	(0.0)	3.0	(0.3)	**-0.7**	(0.3)	**7**	(0.9)	1.9	(0.5)	**7**	(0.9)	12.8	(1.3)
	Finland	2.8	(0.0)	c	c	c	c	**15**	(1.6)	5.4	(0.9)	**12**	(1.4)	13.6	(1.3)
	France	2.2	(0.1)	3.3	(0.1)	**1.1**	(0.1)	**17**	(1.4)	12.6	(1.4)	**8**	(1.0)	38.0	(1.8)
	Germany	3.7	(0.1)	3.4	(0.4)	-0.3	(0.4)	**16**	(1.0)	14.6	(1.4)	**8**	(0.9)	34.5	(1.8)
	Greece	3.0	(0.3)	3.9	(0.0)	**0.9**	(0.3)	**7**	(1.4)	3.1	(0.9)	**4**	(1.1)	23.8	(2.6)
	Hungary	4.2	(0.1)	3.0	(0.1)	**-1.2**	(0.1)	-2	(1.3)	0.2	(0.2)	-1	(0.8)	43.3	(2.0)
	Iceland	2.3	(0.0)	m	m	m	m	1	(1.8)	0.0	(0.1)	1	(1.7)	5.3	(0.8)
	Ireland	2.5	(0.0)	2.2	(0.1)	**-0.3**	(0.1)	**11**	(1.5)	2.4	(0.6)	**8**	(1.3)	15.6	(1.3)
	Israel	3.4	(0.1)	3.4	(0.1)	0.0	(0.1)	**6**	(1.2)	2.4	(0.9)	**6**	(0.8)	25.3	(2.1)
	Italy	2.1	(0.3)	2.6	(0.1)	0.5	(0.3)	**4**	(1.0)	0.7	(0.3)	**4**	(1.0)	23.6	(2.0)
	Japan	m	m	2.9	(0.1)	m	m	**20**	(2.2)	7.6	(1.6)	3	(1.9)	27.6	(2.3)
	Korea	2.8	(0.0)	2.9	(0.0)	0.1	(0.1)	**14**	(3.5)	3.2	(1.1)	**7**	(2.0)	18.2	(2.0)
	Latvia	4.3	(0.0)	3.7	(0.3)	-0.6	(0.3)	**8**	(1.4)	3.4	(0.9)	**7**	(1.2)	15.3	(1.6)
	Luxembourg	2.6	(0.0)	3.9	(0.1)	**1.3**	(0.1)	**2**	(0.5)	0.4	(0.2)	**1**	(0.4)	33.8	(1.0)
	Mexico	3.9	(0.1)	3.8	(0.1)	-0.1	(0.1)	0	(0.8)	0.0	(0.1)	0	(0.6)	16.4	(1.9)
	Netherlands	4.3	(0.1)	4.6	(0.1)	0.3	(0.2)	**4**	(0.8)	2.4	(0.8)	**3**	(0.6)	35.8	(3.2)
	New Zealand	3.5	(0.1)	4.2	(0.1)	**0.7**	(0.1)	**12**	(1.4)	6.2	(1.2)	**9**	(1.2)	20.9	(1.4)
	Norway	2.4	(0.0)	c	c	c	c	**-5**	(1.4)	0.4	(0.2)	**-5**	(1.3)	8.4	(1.0)
	Poland	3.0	(0.0)	c	c	c	c	**9**	(3.0)	1.4	(0.9)	**6**	(2.1)	16.5	(1.7)
	Portugal	2.8	(0.0)	4.2	(0.1)	**1.4**	(0.1)	**8**	(0.4)	11.7	(1.0)	**6**	(0.3)	27.8	(1.8)
	Slovak Republic	3.3	(0.1)	2.9	(0.1)	**-0.5**	(0.1)	**10**	(0.9)	8.1	(1.1)	**6**	(0.8)	29.3	(1.8)
	Slovenia	3.7	(0.2)	3.5	(0.0)	-0.2	(0.2)	**14**	(1.1)	7.2	(0.9)	**4**	(0.8)	36.0	(1.2)
	Spain	3.3	(0.0)	c	c	c	c	**10**	(0.7)	5.9	(0.8)	**8**	(0.6)	17.8	(1.2)
	Sweden	3.0	(0.0)	5.6	(1.1)	**2.7**	(1.1)	3	(2.8)	0.1	(0.3)	0	(1.9)	16.3	(1.7)
	Switzerland	2.4	(0.0)	2.9	(0.1)	**0.5**	(0.2)	**4**	(1.6)	0.7	(0.5)	-1	(1.0)	24.8	(1.9)
	Turkey	2.8	(0.1)	3.4	(0.1)	**0.6**	(0.1)	**14**	(1.4)	9.9	(1.7)	**10**	(1.1)	30.9	(3.9)
	United Kingdom	3.5	(0.2)	4.7	(0.0)	**1.2**	(0.2)	**9**	(1.0)	3.3	(0.7)	**7**	(0.9)	19.2	(1.5)
	United States	3.2	(0.1)	4.0	(0.1)	**0.9**	(0.1)	**9**	(0.9)	4.3	(0.8)	**7**	(0.8)	16.1	(1.5)
	OECD average	3.3	(0.0)	3.7	(0.0)	**0.3**	(0.1)	**8**	(0.2)	4.2	(0.1)	**5**	(0.2)	23.3	(0.3)
Partners	**Albania**	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Algeria	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Brazil	2.6	(0.1)	2.9	(0.1)	**0.2**	(0.1)	**11**	(0.8)	8.2	(1.3)	**5**	(0.5)	24.6	(2.1)
	B-S-J-G (China)	6.1	(0.1)	4.7	(0.2)	**-1.4**	(0.3)	**5**	(0.7)	3.1	(0.8)	**4**	(0.6)	36.3	(2.8)
	Bulgaria	4.3	(0.5)	4.3	(0.1)	0.0	(0.4)	**-9**	(1.4)	3.3	(0.9)	**-4**	(0.7)	37.4	(2.7)
	CABA (Argentina)	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Colombia	3.3	(0.1)	3.6	(0.1)	**0.3**	(0.1)	**6**	(0.8)	3.6	(0.9)	**5**	(0.5)	22.9	(2.4)
	Costa Rica	3.1	(0.0)	4.5	(0.1)	**1.4**	(0.1)	**10**	(0.8)	5.9	(1.0)	**5**	(0.7)	23.6	(1.9)
	Croatia	c	c	3.2	(0.1)	c	c	**17**	(1.1)	15.8	(1.7)	**10**	(1.1)	29.5	(2.0)
	Cyprus*	2.9	(0.1)	3.1	(0.0)	**0.3**	(0.1)	**8**	(1.1)	3.6	(0.8)	**3**	(0.9)	16.7	(1.0)
	Dominican Republic	3.3	(0.2)	3.6	(0.1)	0.3	(0.2)	0	(0.5)	0.0	(0.1)	0	(0.4)	25.0	(3.0)
	FYROM	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Georgia	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.9	(0.1)	3.8	(0.1)	-0.1	(0.1)	**5**	(0.6)	3.9	(0.8)	**4**	(0.5)	15.5	(1.9)
	Indonesia	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Jordan	c	c	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Lebanon	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Lithuania	4.3	(0.0)	c	c	c	c	6	(4.7)	0.1	(0.2)	-1	(3.6)	21.2	(2.3)
	Macao (China)	3.2	(0.0)	4.2	(0.0)	**0.9**	(0.1)	**8**	(0.6)	9.1	(0.9)	**8**	(0.6)	10.3	(1.0)
	Malta	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Moldova	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Montenegro	1.9	(0.1)	1.7	(0.0)	**-0.2**	(0.1)	**-2**	(1.2)	0.1	(0.1)	**-2**	(1.1)	16.4	(0.9)
	Peru	3.7	(0.1)	4.0	(0.1)	**0.4**	(0.1)	**3**	(0.9)	1.1	(0.6)	1	(0.6)	28.2	(2.2)
	Qatar	4.9	(0.1)	5.1	(0.0)	**0.2**	(0.1)	**5**	(0.3)	2.7	(0.4)	**4**	(0.3)	16.4	(0.7)
	Romania	c	c	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	5.2	(0.1)	5.0	(0.2)	-0.2	(0.2)	**2**	(0.5)	1.0	(0.4)	**2**	(0.4)	10.5	(1.8)
	Singapore	3.6	(0.2)	5.5	(0.0)	**1.9**	(0.2)	**10**	(0.6)	8.0	(0.7)	**7**	(0.6)	29.7	(1.4)
	Chinese Taipei	4.1	(0.1)	2.4	(0.1)	**-1.7**	(0.1)	**17**	(1.1)	9.8	(1.1)	**8**	(0.9)	30.5	(2.3)
	Thailand	3.2	(0.1)	4.8	(0.1)	**1.5**	(0.1)	**8**	(0.5)	12.2	(1.2)	**7**	(0.4)	26.3	(2.8)
	Trinidad and Tobago	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Tunisia	2.2	(0.1)	2.8	(0.1)	**0.6**	(0.1)	**3**	(0.7)	0.8	(0.3)	**2**	(0.7)	19.2	(3.2)
	United Arab Emirates	4.0	(0.1)	5.5	(0.1)	**1.4**	(0.1)	**6**	(0.5)	5.0	(0.7)	**5**	(0.4)	17.1	(1.6)
	Uruguay	2.7	(0.1)	3.8	(0.1)	**1.1**	(0.1)	**5**	(0.7)	2.7	(0.6)	**2**	(0.4)	25.6	(1.8)
	Viet Nam	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Argentina**	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Kazakhstan**	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Malaysia**	3.8	(0.3)	4.5	(0.1)	**0.7**	(0.3)	**7**	(0.8)	6.8	(1.3)	**5**	(0.7)	22.6	(2.3)

1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.6.37 After-school study time[1]

Results based on students' self-reports

		Average time per week spent studying after school (e.g. homework, additional instruction, private study), in hours									
		Science		Mathematics		Language of instruction		Foreign language		Other subjects	
		Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.
OECD	**Australia**	3.4	(0.0)	4.1	(0.0)	3.7	(0.0)	1.0	(0.0)	4.6	(0.1)
	Austria	3.7	(0.1)	3.2	(0.1)	1.9	(0.0)	3.1	(0.1)	4.1	(0.1)
	Belgium	2.8	(0.0)	3.6	(0.0)	2.3	(0.0)	3.1	(0.1)	3.5	(0.1)
	Canada	4.4	(0.1)	4.4	(0.0)	3.5	(0.0)	1.7	(0.0)	4.1	(0.1)
	Chile	3.7	(0.1)	4.5	(0.1)	4.0	(0.1)	2.8	(0.1)	3.3	(0.1)
	Czech Republic	2.6	(0.1)	3.0	(0.0)	2.7	(0.1)	3.4	(0.1)	4.3	(0.1)
	Denmark	4.4	(0.1)	3.6	(0.1)	4.6	(0.1)	3.7	(0.1)	2.5	(0.1)
	Estonia	3.3	(0.0)	4.0	(0.1)	2.8	(0.1)	3.5	(0.1)	3.7	(0.1)
	Finland	2.0	(0.0)	2.2	(0.0)	1.9	(0.0)	2.3	(0.0)	3.4	(0.1)
	France	2.5	(0.0)	3.3	(0.0)	3.0	(0.0)	3.1	(0.1)	3.5	(0.1)
	Germany	1.7	(0.0)	2.7	(0.1)	1.8	(0.0)	2.5	(0.0)	2.4	(0.1)
	Greece	4.7	(0.1)	4.9	(0.1)	3.6	(0.1)	3.4	(0.1)	4.7	(0.1)
	Hungary	2.9	(0.1)	3.2	(0.1)	3.3	(0.1)	4.6	(0.1)	3.7	(0.1)
	Iceland	1.9	(0.0)	3.5	(0.0)	3.2	(0.1)	3.2	(0.1)	3.2	(0.1)
	Ireland	2.7	(0.0)	3.6	(0.0)	3.1	(0.1)	2.3	(0.0)	4.1	(0.1)
	Israel	2.7	(0.1)	4.7	(0.1)	2.4	(0.1)	3.2	(0.1)	4.1	(0.1)
	Italy	4.1	(0.1)	4.1	(0.1)	4.4	(0.1)	4.0	(0.1)	4.6	(0.1)
	Japan	2.0	(0.0)	3.9	(0.1)	2.1	(0.1)	3.5	(0.1)	2.2	(0.1)
	Korea	2.5	(0.1)	6.5	(0.2)	3.0	(0.1)	5.1	(0.1)	3.2	(0.1)
	Latvia	3.4	(0.1)	4.1	(0.1)	2.8	(0.1)	3.6	(0.1)	4.3	(0.1)
	Luxembourg	2.9	(0.0)	3.7	(0.1)	2.5	(0.0)	3.8	(0.1)	2.7	(0.1)
	Mexico	4.4	(0.1)	4.6	(0.1)	4.2	(0.1)	3.5	(0.1)	3.4	(0.1)
	Netherlands	1.7	(0.0)	2.6	(0.0)	2.3	(0.0)	2.7	(0.1)	4.9	(0.1)
	New Zealand	3.6	(0.1)	3.5	(0.1)	3.3	(0.1)	0.7	(0.0)	5.6	(0.1)
	Norway	3.0	(0.0)	3.8	(0.1)	3.5	(0.1)	2.4	(0.0)	5.3	(0.1)
	Poland	3.1	(0.1)	3.4	(0.1)	3.0	(0.1)	4.9	(0.1)	4.0	(0.1)
	Portugal	3.2	(0.1)	4.2	(0.1)	3.4	(0.1)	2.7	(0.1)	3.7	(0.1)
	Slovak Republic	3.0	(0.1)	3.4	(0.1)	3.5	(0.1)	4.1	(0.1)	4.4	(0.1)
	Slovenia	3.0	(0.1)	4.1	(0.1)	2.8	(0.1)	2.9	(0.1)	4.5	(0.1)
	Spain	3.4	(0.1)	4.0	(0.1)	3.4	(0.1)	3.2	(0.0)	4.2	(0.1)
	Sweden	2.6	(0.0)	2.6	(0.0)	2.3	(0.1)	2.2	(0.1)	4.1	(0.1)
	Switzerland	2.1	(0.0)	3.0	(0.1)	2.5	(0.1)	3.1	(0.1)	2.6	(0.1)
	Turkey	4.7	(0.1)	5.8	(0.1)	4.4	(0.1)	3.8	(0.1)	5.8	(0.1)
	United Kingdom	3.7	(0.1)	3.6	(0.0)	3.1	(0.0)	1.5	(0.0)	5.0	(0.1)
	United States	4.5	(0.1)	4.6	(0.1)	4.3	(0.1)	2.8	(0.1)	4.2	(0.1)
	OECD average	3.2	(0.0)	3.8	(0.0)	3.1	(0.0)	3.1	(0.0)	3.9	(0.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m
	Brazil	4.3	(0.1)	5.2	(0.1)	5.0	(0.1)	3.0	(0.1)	4.3	(0.1)
	B-S-J-G (China)	4.4	(0.1)	6.6	(0.1)	5.6	(0.1)	5.2	(0.1)	5.2	(0.1)
	Bulgaria	3.8	(0.1)	3.6	(0.1)	3.5	(0.1)	4.8	(0.1)	3.6	(0.1)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m
	Colombia	3.7	(0.1)	4.2	(0.1)	4.0	(0.1)	3.4	(0.1)	4.3	(0.1)
	Costa Rica	4.0	(0.1)	4.1	(0.1)	3.3	(0.1)	3.5	(0.1)	3.2	(0.1)
	Croatia	5.9	(0.2)	4.0	(0.1)	3.3	(0.1)	2.9	(0.1)	3.8	(0.1)
	Cyprus*	3.3	(0.0)	4.3	(0.1)	3.5	(0.1)	3.4	(0.0)	4.7	(0.1)
	Dominican Republic	5.3	(0.1)	5.7	(0.1)	5.4	(0.1)	4.2	(0.1)	4.5	(0.1)
	FYROM	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.0	(0.1)	4.0	(0.1)	3.0	(0.1)	4.5	(0.1)	3.2	(0.1)
	Indonesia	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m
	Lithuania	3.4	(0.1)	3.7	(0.0)	3.7	(0.1)	3.7	(0.1)	3.9	(0.1)
	Macao (China)	2.8	(0.1)	3.9	(0.1)	3.0	(0.0)	2.7	(0.0)	3.8	(0.1)
	Malta	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m
	Montenegro	5.0	(0.1)	4.9	(0.1)	4.4	(0.1)	4.0	(0.1)	5.9	(0.1)
	Peru	4.0	(0.1)	5.2	(0.1)	4.6	(0.1)	3.1	(0.1)	4.0	(0.1)
	Qatar	6.0	(0.1)	6.3	(0.1)	4.1	(0.0)	4.5	(0.1)	4.9	(0.1)
	Romania	m	m	m	m	m	m	m	m	m	m
	Russia	4.7	(0.1)	5.6	(0.1)	4.1	(0.1)	2.9	(0.1)	5.3	(0.2)
	Singapore	5.6	(0.1)	6.2	(0.1)	3.8	(0.0)	1.8	(0.0)	4.7	(0.1)
	Chinese Taipei	3.1	(0.1)	3.6	(0.1)	3.1	(0.1)	2.9	(0.1)	3.7	(0.1)
	Thailand	5.4	(0.1)	4.8	(0.1)	3.7	(0.1)	4.4	(0.1)	5.1	(0.1)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m
	Tunisia	4.3	(0.1)	5.7	(0.1)	5.1	(0.1)	4.8	(0.1)	5.8	(0.1)
	United Arab Emirates	7.2	(0.1)	7.0	(0.1)	5.4	(0.1)	4.5	(0.1)	5.6	(0.1)
	Uruguay	3.3	(0.1)	3.6	(0.1)	3.2	(0.1)	2.8	(0.1)	3.5	(0.1)
	Viet Nam	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m
	Malaysia**	5.8	(0.1)	5.7	(0.1)	5.4	(0.1)	1.9	(0.1)	3.5	(0.1)

1. Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/3]

Table II.6.38 Time per week studying science after school[1], science performance and school characteristics

Results based on students' self-reports

		Average time per week spent studying science after school (e.g. homework, additional instruction, private study), in hours													
		All students				By school socio-economic profile[2]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Hours	S.E.	S.D.	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.	Dif.	S.E.
OECD	**Australia**	3.4	(0.0)	2.9	(0.1)	3.7	(0.1)	3.3	(0.1)	3.3	(0.1)	3.4	(0.1)	**-0.3**	(0.1)
	Austria	3.7	(0.1)	5.1	(0.2)	4.1	(0.3)	3.8	(0.3)	3.6	(0.2)	3.1	(0.1)	**-1.1**	(0.4)
	Belgium	2.8	(0.0)	2.5	(0.1)	2.8	(0.1)	2.8	(0.1)	2.8	(0.1)	2.8	(0.1)	0.0	(0.2)
	Canada	4.4	(0.1)	3.9	(0.1)	4.3	(0.1)	4.4	(0.1)	4.5	(0.1)	4.3	(0.1)	0.0	(0.2)
	Chile	3.7	(0.1)	3.2	(0.1)	4.1	(0.2)	3.8	(0.1)	3.5	(0.1)	3.4	(0.1)	**-0.8**	(0.2)
	Czech Republic	2.6	(0.1)	2.9	(0.1)	2.8	(0.1)	2.6	(0.1)	2.3	(0.2)	2.7	(0.1)	-0.1	(0.2)
	Denmark	4.4	(0.1)	4.5	(0.1)	4.4	(0.2)	4.4	(0.2)	4.4	(0.2)	4.4	(0.2)	0.0	(0.3)
	Estonia	3.3	(0.0)	3.1	(0.1)	3.7	(0.1)	3.2	(0.1)	3.3	(0.1)	3.1	(0.1)	**-0.6**	(0.2)
	Finland	2.0	(0.0)	2.2	(0.1)	2.0	(0.1)	2.0	(0.1)	2.1	(0.1)	2.1	(0.1)	0.1	(0.1)
	France	2.5	(0.0)	2.6	(0.1)	2.3	(0.1)	2.4	(0.1)	2.5	(0.1)	2.7	(0.1)	**0.4**	(0.1)
	Germany	1.7	(0.0)	2.1	(0.1)	1.6	(0.1)	1.6	(0.1)	1.8	(0.1)	1.7	(0.1)	0.2	(0.1)
	Greece	4.7	(0.1)	3.8	(0.1)	4.3	(0.2)	4.6	(0.1)	5.0	(0.2)	4.9	(0.1)	**0.6**	(0.2)
	Hungary	2.9	(0.1)	3.2	(0.1)	3.2	(0.2)	2.9	(0.1)	2.8	(0.1)	2.9	(0.2)	-0.4	(0.2)
	Iceland	1.9	(0.0)	2.1	(0.1)	2.0	(0.1)	1.9	(0.1)	1.9	(0.1)	1.8	(0.1)	-0.2	(0.1)
	Ireland	2.7	(0.0)	2.8	(0.1)	2.6	(0.1)	2.8	(0.1)	2.8	(0.1)	2.7	(0.1)	0.1	(0.2)
	Israel	2.7	(0.1)	3.5	(0.1)	3.9	(0.3)	3.0	(0.3)	2.1	(0.2)	2.0	(0.2)	**-1.9**	(0.4)
	Italy	4.1	(0.1)	3.4	(0.1)	3.5	(0.2)	3.7	(0.1)	4.4	(0.2)	4.7	(0.2)	**1.2**	(0.3)
	Japan	2.0	(0.0)	2.4	(0.1)	1.9	(0.1)	2.0	(0.1)	2.0	(0.1)	2.0	(0.1)	0.1	(0.1)
	Korea	2.5	(0.1)	2.8	(0.1)	2.2	(0.1)	2.4	(0.1)	2.5	(0.1)	3.0	(0.2)	**0.8**	(0.2)
	Latvia	3.4	(0.1)	3.2	(0.1)	3.5	(0.1)	3.5	(0.1)	3.5	(0.1)	3.2	(0.1)	-0.3	(0.2)
	Luxembourg	2.9	(0.0)	3.4	(0.1)	3.2	(0.1)	3.1	(0.1)	2.7	(0.1)	2.8	(0.1)	**-0.4**	(0.1)
	Mexico	4.4	(0.1)	3.7	(0.1)	4.8	(0.2)	4.6	(0.2)	4.3	(0.2)	4.0	(0.1)	**-0.9**	(0.2)
	Netherlands	1.7	(0.0)	2.5	(0.1)	1.3	(0.1)	1.5	(0.1)	1.9	(0.1)	2.2	(0.1)	**0.9**	(0.2)
	New Zealand	3.6	(0.1)	3.0	(0.1)	3.8	(0.1)	3.4	(0.1)	3.4	(0.1)	3.8	(0.2)	0.0	(0.2)
	Norway	3.0	(0.0)	2.7	(0.1)	3.1	(0.1)	2.9	(0.1)	2.8	(0.1)	3.0	(0.1)	-0.1	(0.1)
	Poland	3.1	(0.1)	2.7	(0.1)	3.1	(0.1)	3.0	(0.1)	3.1	(0.1)	3.3	(0.1)	0.2	(0.1)
	Portugal	3.2	(0.1)	4.0	(0.1)	2.9	(0.2)	3.3	(0.2)	3.0	(0.2)	3.5	(0.2)	0.6	(0.3)
	Slovak Republic	3.0	(0.1)	3.5	(0.1)	3.2	(0.2)	2.5	(0.2)	2.6	(0.2)	3.7	(0.2)	**0.5**	(0.2)
	Slovenia	3.0	(0.1)	3.1	(0.1)	2.8	(0.1)	2.6	(0.1)	3.2	(0.1)	3.3	(0.1)	**0.5**	(0.1)
	Spain	3.4	(0.1)	3.3	(0.1)	3.2	(0.1)	3.4	(0.2)	3.5	(0.1)	3.6	(0.1)	**0.3**	(0.2)
	Sweden	2.6	(0.0)	2.7	(0.1)	2.7	(0.1)	2.6	(0.1)	2.4	(0.1)	2.7	(0.1)	0.0	(0.2)
	Switzerland	2.1	(0.0)	2.5	(0.1)	2.2	(0.1)	1.9	(0.1)	2.0	(0.1)	2.4	(0.1)	0.2	(0.2)
	Turkey	4.7	(0.1)	3.6	(0.1)	4.5	(0.2)	4.3	(0.2)	4.6	(0.2)	5.1	(0.2)	**0.6**	(0.3)
	United Kingdom	3.7	(0.1)	3.1	(0.1)	3.8	(0.1)	3.7	(0.1)	3.6	(0.1)	3.8	(0.1)	0.0	(0.2)
	United States	4.5	(0.1)	3.7	(0.1)	4.7	(0.2)	4.5	(0.2)	4.3	(0.2)	4.4	(0.2)	-0.3	(0.2)
	OECD average	3.2	(0.0)	3.1	(0.0)	3.2	(0.0)	3.1	(0.0)	3.1	(0.0)	3.2	(0.0)	0.0	(0.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	4.3	(0.1)	4.2	(0.1)	4.5	(0.1)	4.3	(0.1)	4.1	(0.1)	4.3	(0.1)	-0.2	(0.1)
	B-S-J-G (China)	4.4	(0.1)	4.8	(0.1)	4.2	(0.1)	4.1	(0.1)	4.1	(0.2)	5.2	(0.3)	**1.1**	(0.3)
	Bulgaria	3.8	(0.1)	3.8	(0.1)	4.5	(0.2)	3.7	(0.1)	3.8	(0.2)	3.5	(0.1)	**-1.0**	(0.2)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	3.7	(0.1)	3.6	(0.1)	4.2	(0.2)	3.9	(0.2)	3.6	(0.1)	3.3	(0.1)	**-0.9**	(0.2)
	Costa Rica	4.0	(0.1)	3.9	(0.1)	4.1	(0.1)	3.8	(0.1)	3.7	(0.2)	4.2	(0.2)	0.2	(0.2)
	Croatia	5.9	(0.2)	6.5	(0.1)	3.9	(0.4)	5.2	(0.5)	5.8	(0.4)	8.4	(0.3)	**4.5**	(0.5)
	Cyprus*	3.3	(0.0)	3.5	(0.1)	3.2	(0.1)	3.1	(0.1)	3.1	(0.1)	3.8	(0.1)	**0.5**	(0.2)
	Dominican Republic	5.3	(0.1)	4.5	(0.1)	5.6	(0.3)	5.5	(0.2)	5.6	(0.2)	4.6	(0.2)	**-0.9**	(0.3)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.0	(0.1)	3.9	(0.1)	2.4	(0.2)	2.7	(0.2)	3.1	(0.2)	3.6	(0.2)	**1.2**	(0.2)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	3.4	(0.1)	3.5	(0.1)	3.6	(0.1)	3.3	(0.1)	3.2	(0.1)	3.6	(0.1)	0.0	(0.2)
	Macao (China)	2.8	(0.1)	3.7	(0.1)	2.2	(0.1)	3.1	(0.1)	2.5	(0.1)	3.4	(0.1)	**1.2**	(0.1)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	5.0	(0.1)	4.9	(0.1)	4.6	(0.1)	5.2	(0.1)	4.6	(0.1)	5.4	(0.2)	**0.9**	(0.2)
	Peru	4.0	(0.1)	3.0	(0.1)	4.4	(0.1)	4.0	(0.1)	3.8	(0.2)	3.9	(0.2)	**-0.5**	(0.2)
	Qatar	6.0	(0.1)	5.2	(0.1)	6.0	(0.1)	6.1	(0.1)	5.9	(0.1)	5.9	(0.1)	-0.1	(0.2)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	4.7	(0.1)	4.2	(0.1)	4.8	(0.2)	4.9	(0.2)	4.6	(0.2)	4.6	(0.2)	-0.1	(0.3)
	Singapore	5.6	(0.1)	4.1	(0.1)	5.0	(0.1)	5.4	(0.1)	5.7	(0.1)	6.2	(0.2)	**1.2**	(0.2)
	Chinese Taipei	3.1	(0.1)	4.1	(0.1)	2.3	(0.2)	2.9	(0.1)	3.0	(0.2)	4.1	(0.1)	**1.9**	(0.2)
	Thailand	5.4	(0.1)	4.5	(0.1)	5.3	(0.2)	5.7	(0.2)	5.2	(0.2)	5.5	(0.2)	0.1	(0.2)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	4.3	(0.1)	4.2	(0.1)	4.5	(0.3)	4.2	(0.4)	4.4	(0.2)	4.1	(0.1)	-0.4	(0.4)
	United Arab Emirates	7.2	(0.1)	5.3	(0.1)	6.9	(0.2)	7.1	(0.2)	7.8	(0.2)	6.9	(0.2)	-0.1	(0.3)
	Uruguay	3.3	(0.1)	3.5	(0.1)	3.4	(0.2)	3.4	(0.2)	3.2	(0.1)	3.2	(0.1)	-0.1	(0.2)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	5.8	(0.1)	4.5	(0.1)	5.8	(0.2)	5.7	(0.2)	5.6	(0.2)	6.2	(0.2)	0.4	(0.3)

1. Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 2/3]

Table II.6.38 Time per week studying science after school[1], science performance and school characteristics

Results based on students' self-reports

		Average time per week spent studying science after school (e.g. homework, additional instruction, private study), in hours													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Hours	S.E.	Hours	S.E.	Hours	S.E.	Dif.	S.E.	Hours	S.E.	Hours	S.E.	Dif.	S.E.
OECD	**Australia**	3.4	(0.2)	3.2	(0.1)	3.4	(0.1)	0.0	(0.2)	3.4	(0.1)	3.3	(0.1)	-0.1	(0.1)
	Austria	4.5	(0.5)	3.5	(0.1)	3.6	(0.2)	-0.8	(0.6)	3.6	(0.1)	3.7	(0.3)	0.1	(0.3)
	Belgium	2.9	(0.2)	2.7	(0.1)	3.0	(0.1)	0.0	(0.2)	w	w	w	w	w	w
	Canada	4.2	(0.2)	4.3	(0.1)	4.5	(0.1)	0.3	(0.2)	4.4	(0.1)	3.9	(0.2)	**-0.6**	(0.2)
	Chile	4.2	(0.4)	3.9	(0.1)	3.5	(0.1)	-0.7	(0.4)	3.9	(0.1)	3.5	(0.1)	**-0.3**	(0.1)
	Czech Republic	3.2	(0.2)	2.6	(0.1)	2.4	(0.1)	**-0.8**	(0.2)	2.6	(0.1)	2.4	(0.1)	-0.2	(0.1)
	Denmark	4.3	(0.3)	4.4	(0.1)	4.8	(0.2)	0.5	(0.4)	4.5	(0.1)	4.4	(0.2)	-0.1	(0.2)
	Estonia	3.6	(0.1)	3.3	(0.1)	3.1	(0.1)	**-0.5**	(0.2)	3.4	(0.1)	3.3	(0.3)	-0.1	(0.3)
	Finland	1.9	(0.1)	2.0	(0.0)	2.1	(0.1)	0.2	(0.1)	2.0	(0.0)	2.2	(0.2)	0.2	(0.2)
	France	2.7	(0.2)	2.4	(0.1)	2.6	(0.1)	0.0	(0.2)	2.4	(0.0)	2.7	(0.1)	**0.3**	(0.1)
	Germany	2.0	(0.2)	1.7	(0.1)	1.6	(0.1)	**-0.4**	(0.2)	1.7	(0.0)	1.7	(0.2)	0.0	(0.2)
	Greece	4.4	(0.3)	4.7	(0.1)	4.9	(0.1)	0.4	(0.3)	4.7	(0.1)	4.5	(0.3)	-0.2	(0.3)
	Hungary	4.7	(0.9)	3.1	(0.1)	2.6	(0.1)	**-2.1**	(0.9)	2.9	(0.1)	3.0	(0.2)	0.1	(0.2)
	Iceland	2.0	(0.1)	1.9	(0.1)	1.9	(0.1)	-0.1	(0.1)	1.9	(0.0)	c	c	c	c
	Ireland	2.7	(0.1)	2.8	(0.1)	2.6	(0.1)	-0.2	(0.2)	2.7	(0.1)	2.7	(0.1)	0.0	(0.1)
	Israel	2.6	(0.4)	3.2	(0.1)	2.2	(0.2)	-0.5	(0.4)	m	m	m	m	m	m
	Italy	3.5	(0.3)	4.1	(0.1)	4.2	(0.1)	**0.7**	(0.3)	4.2	(0.1)	3.2	(0.3)	**-0.9**	(0.3)
	Japan	c	c	1.9	(0.1)	2.0	(0.0)	c	c	1.9	(0.1)	2.2	(0.1)	**0.3**	(0.1)
	Korea	c	c	2.6	(0.2)	2.5	(0.1)	c	c	2.4	(0.1)	2.7	(0.1)	0.2	(0.1)
	Latvia	3.5	(0.1)	3.4	(0.1)	3.4	(0.1)	0.0	(0.2)	3.4	(0.1)	4.0	(0.5)	0.6	(0.5)
	Luxembourg	m	m	3.0	(0.1)	2.8	(0.1)	m	m	2.9	(0.0)	3.3	(0.1)	**0.5**	(0.1)
	Mexico	4.9	(0.3)	4.5	(0.1)	4.2	(0.1)	**-0.7**	(0.3)	4.5	(0.1)	3.9	(0.2)	**-0.6**	(0.2)
	Netherlands	c	c	1.7	(0.1)	2.1	(0.1)	c	c	2.0	(0.1)	1.7	(0.1)	**-0.3**	(0.1)
	New Zealand	3.6	(0.6)	3.5	(0.1)	3.6	(0.1)	0.0	(0.6)	3.4	(0.1)	4.4	(0.4)	**1.0**	(0.4)
	Norway	3.0	(0.1)	2.9	(0.1)	2.9	(0.1)	-0.1	(0.2)	2.9	(0.0)	3.0	(0.4)	0.1	(0.5)
	Poland	3.1	(0.1)	3.1	(0.1)	3.2	(0.1)	0.1	(0.1)	3.1	(0.1)	3.2	(0.2)	0.1	(0.2)
	Portugal	3.6	(0.2)	3.2	(0.1)	3.1	(0.2)	-0.5	(0.3)	3.2	(0.1)	3.3	(0.7)	0.1	(0.7)
	Slovak Republic	3.6	(0.2)	2.9	(0.1)	3.1	(0.3)	**-0.6**	(0.3)	3.0	(0.1)	3.1	(0.3)	0.1	(0.3)
	Slovenia	3.0	(0.4)	3.0	(0.1)	3.0	(0.1)	-0.1	(0.4)	3.0	(0.1)	3.4	(0.3)	0.3	(0.3)
	Spain	3.6	(0.8)	3.4	(0.1)	3.6	(0.1)	0.0	(0.8)	3.4	(0.1)	3.5	(0.1)	0.1	(0.1)
	Sweden	2.6	(0.2)	2.5	(0.1)	2.8	(0.1)	0.1	(0.2)	2.6	(0.0)	2.6	(0.2)	0.0	(0.2)
	Switzerland	1.6	(0.1)	2.1	(0.1)	2.1	(0.1)	**0.6**	(0.2)	2.1	(0.1)	2.2	(0.1)	0.1	(0.1)
	Turkey	3.7	(0.3)	4.7	(0.2)	4.7	(0.1)	**1.0**	(0.3)	4.6	(0.1)	5.1	(0.3)	0.5	(0.3)
	United Kingdom	3.8	(0.3)	3.7	(0.1)	3.9	(0.2)	0.0	(0.3)	3.7	(0.1)	4.1	(0.2)	0.4	(0.2)
	United States	4.3	(0.3)	4.4	(0.1)	4.6	(0.1)	0.2	(0.3)	4.5	(0.1)	4.6	(0.3)	0.2	(0.3)
	OECD average	3.4	(0.1)	3.1	(0.0)	3.2	(0.0)	-0.1	(0.1)	3.2	(0.0)	3.3	(0.0)	0.1	(0.0)
Partners	**Albania**	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Algeria	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Brazil	4.4	(0.4)	4.3	(0.1)	4.2	(0.1)	-0.1	(0.4)	4.1	(0.1)	4.6	(0.2)	**0.5**	(0.2)
	B-S-J-G (China)	4.0	(0.2)	4.4	(0.1)	4.6	(0.2)	**0.6**	(0.3)	4.4	(0.1)	4.4	(0.3)	0.0	(0.4)
	Bulgaria	4.7	(0.3)	3.9	(0.1)	3.7	(0.1)	**-1.0**	(0.3)	3.9	(0.1)	c	c	c	c
	CABA (Argentina)	m	m	c	c	c	c	m	m	c	c	c	c	c	c
	Colombia	3.9	(0.2)	3.8	(0.2)	3.6	(0.1)	-0.4	(0.2)	3.8	(0.1)	3.4	(0.2)	-0.3	(0.2)
	Costa Rica	4.2	(0.2)	3.9	(0.1)	3.7	(0.2)	**-0.5**	(0.2)	3.9	(0.1)	4.0	(0.2)	0.0	(0.2)
	Croatia	c	c	5.5	(0.2)	6.4	(0.3)	c	c	5.8	(0.2)	8.9	(0.8)	**3.1**	(0.8)
	Cyprus*	4.0	(0.2)	3.2	(0.1)	3.4	(0.1)	**-0.5**	(0.2)	3.1	(0.0)	4.3	(0.2)	**1.2**	(0.2)
	Dominican Republic	5.1	(0.3)	5.3	(0.2)	5.1	(0.2)	0.0	(0.4)	5.3	(0.1)	4.9	(0.2)	-0.4	(0.2)
	FYROM	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Georgia	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Hong Kong (China)	m	m	m	m	3.0	(0.1)	m	m	3.0	(0.2)	3.0	(0.1)	-0.1	(0.3)
	Indonesia	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Jordan	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Kosovo	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lebanon	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Lithuania	3.5	(0.1)	3.4	(0.1)	3.4	(0.1)	-0.2	(0.1)	3.4	(0.1)	3.8	(0.5)	0.4	(0.5)
	Macao (China)	c	c	c	c	2.8	(0.1)	c	c	c	c	2.8	(0.1)	c	c
	Malta	c	c	c	c	m	m	m	m	c	c	c	c	c	c
	Moldova	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Montenegro	c	c	5.0	(0.1)	5.0	(0.2)	c	c	5.0	(0.1)	c	c	c	c
	Peru	4.3	(0.1)	3.9	(0.1)	3.8	(0.2)	**-0.5**	(0.2)	4.1	(0.1)	3.8	(0.1)	-0.2	(0.1)
	Qatar	5.3	(0.2)	6.1	(0.1)	5.9	(0.1)	**0.6**	(0.2)	5.5	(0.1)	6.5	(0.1)	**0.9**	(0.1)
	Romania	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Russia	5.4	(0.3)	4.7	(0.2)	4.6	(0.1)	**-0.8**	(0.3)	4.8	(0.1)	c	c	c	c
	Singapore	m	m	m	m	5.5	(0.1)	m	m	5.6	(0.1)	5.5	(0.5)	0.0	(0.5)
	Chinese Taipei	c	c	2.9	(0.1)	3.2	(0.1)	c	c	3.4	(0.1)	2.5	(0.1)	**-0.9**	(0.1)
	Thailand	5.3	(0.2)	5.4	(0.1)	5.7	(0.2)	0.4	(0.3)	5.4	(0.1)	5.3	(0.3)	-0.1	(0.3)
	Trinidad and Tobago	c	c	c	c	m	m	m	m	c	c	c	c	c	c
	Tunisia	4.4	(0.5)	4.3	(0.1)	4.3	(0.1)	-0.2	(0.5)	4.2	(0.1)	4.6	(1.0)	0.4	(1.1)
	United Arab Emirates	6.8	(0.3)	7.1	(0.2)	7.4	(0.1)	0.5	(0.3)	6.6	(0.1)	7.6	(0.1)	**1.0**	(0.2)
	Uruguay	3.4	(0.4)	3.4	(0.1)	3.1	(0.1)	-0.3	(0.4)	3.2	(0.1)	3.3	(0.1)	0.1	(0.2)
	Viet Nam	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Argentina**	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Kazakhstan**	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Malaysia**	5.7	(0.2)	5.8	(0.1)	5.9	(0.1)	0.2	(0.3)	5.9	(0.1)	5.0	(0.7)	-0.9	(0.7)

1. Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.6.38 Time per week studying science after school[1], science performance and school characteristics

Results based on students' self-reports

		Average time per week spent studying science after school (e.g. homework, additional instruction, private study), in hours													
		By education level						Before accounting for students' and schools' socio-economic profil[2]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per hour increase in the time per week spent studying science after school		Explained variance in student performance (r-squared x 100)		Change in the science score per hour increase in the time per week spent studying science after school		Explained variance in student performance (r-squared x 100)	
		Hours	S.E.	Hours	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	3.3	(0.0)	4.1	(0.1)	**0.8**	(0.1)	**-3.6**	(0.43)	1.1	(0.3)	**-3.3**	(0.38)	16.5	(1.2)
	Austria	6.1	(0.8)	3.6	(0.1)	**-2.5**	(0.8)	**-2.2**	(0.35)	1.4	(0.5)	**-1.5**	(0.32)	31.4	(1.9)
	Belgium	3.1	(0.1)	2.8	(0.0)	**-0.3**	(0.1)	**-1.2**	(0.56)	0.1	(0.1)	**-1.3**	(0.40)	31.9	(2.1)
	Canada	3.8	(0.2)	4.5	(0.1)	**0.7**	(0.2)	**-2.0**	(0.30)	0.8	(0.2)	**-2.2**	(0.27)	12.0	(1.0)
	Chile	4.4	(0.4)	3.6	(0.1)	**-0.8**	(0.4)	**-5.2**	(0.54)	3.8	(0.8)	**-4.2**	(0.46)	29.0	(1.7)
	Czech Republic	2.6	(0.1)	2.6	(0.1)	0.0	(0.1)	**-1.3**	(0.63)	0.2	(0.2)	**-1.4**	(0.52)	32.5	(1.9)
	Denmark	4.4	(0.1)	5.9	(1.3)	1.4	(1.3)	**-2.3**	(0.35)	1.5	(0.4)	**-2.2**	(0.32)	12.3	(1.3)
	Estonia	3.4	(0.0)	2.7	(0.5)	-0.7	(0.5)	**-4.1**	(0.47)	2.1	(0.5)	**-3.6**	(0.44)	12.5	(1.3)
	Finland	2.0	(0.0)	c	c	c	c	**-3.6**	(0.74)	0.7	(0.3)	**-3.7**	(0.68)	10.9	(1.1)
	France	2.6	(0.1)	2.5	(0.0)	-0.1	(0.1)	0.2	(0.70)	0.0	(0.0)	**-1.3**	(0.50)	36.1	(2.0)
	Germany	1.7	(0.0)	1.4	(0.3)	-0.3	(0.3)	-0.4	(0.90)	0.0	(0.0)	**-1.6**	(0.71)	32.7	(2.0)
	Greece	3.9	(0.5)	4.8	(0.1)	0.9	(0.5)	**1.1**	(0.45)	0.2	(0.2)	0.4	(0.39)	21.6	(2.6)
	Hungary	4.4	(0.4)	2.8	(0.1)	**-1.6**	(0.4)	**-2.2**	(0.74)	0.6	(0.4)	**-1.3**	(0.49)	42.9	(2.0)
	Iceland	1.9	(0.0)	m	m	m	m	**-6.4**	(0.85)	2.3	(0.6)	**-6.1**	(0.84)	7.5	(0.9)
	Ireland	3.1	(0.0)	2.1	(0.1)	**-1.0**	(0.1)	0.2	(0.54)	0.0	(0.0)	-0.2	(0.50)	14.7	(1.3)
	Israel	2.9	(0.2)	2.7	(0.1)	-0.2	(0.2)	**-4.0**	(0.73)	1.9	(0.7)	**-2.0**	(0.55)	23.6	(2.2)
	Italy	3.1	(0.3)	4.1	(0.1)	**1.0**	(0.4)	**2.3**	(0.58)	0.8	(0.4)	0.5	(0.47)	22.1	(2.2)
	Japan	m	m	2.0	(0.0)	m	m	**-2.1**	(0.63)	0.3	(0.2)	**-2.6**	(0.50)	27.8	(2.3)
	Korea	3.2	(0.3)	2.5	(0.1)	**-0.8**	(0.3)	**2.4**	(0.59)	0.6	(0.3)	0.5	(0.47)	17.1	(1.9)
	Latvia	3.4	(0.1)	2.8	(0.2)	**-0.6**	(0.2)	**-4.4**	(0.51)	2.9	(0.7)	**-4.2**	(0.48)	15.7	(1.5)
	Luxembourg	2.9	(0.1)	2.9	(0.1)	0.0	(0.1)	**-3.1**	(0.38)	1.1	(0.3)	**-2.5**	(0.32)	35.4	(1.1)
	Mexico	4.9	(0.2)	4.1	(0.1)	**-0.7**	(0.2)	**-1.6**	(0.36)	0.8	(0.3)	**-1.1**	(0.29)	17.0	(2.0)
	Netherlands	1.6	(0.1)	2.0	(0.1)	**0.4**	(0.1)	**5.7**	(0.77)	2.2	(0.6)	**2.6**	(0.66)	35.7	(3.2)
	New Zealand	3.1	(0.2)	3.6	(0.1)	**0.5**	(0.2)	**-3.5**	(0.69)	1.1	(0.4)	**-3.4**	(0.57)	19.5	(1.5)
	Norway	3.0	(0.0)	c	c	c	c	**-4.7**	(0.62)	1.8	(0.5)	**-4.6**	(0.62)	9.6	(1.1)
	Poland	3.1	(0.1)	c	c	c	c	**1.2**	(0.58)	0.1	(0.1)	0.2	(0.54)	16.2	(1.6)
	Portugal	3.2	(0.1)	3.1	(0.1)	-0.1	(0.1)	**3.3**	(0.42)	2.2	(0.6)	**2.5**	(0.33)	20.6	(2.0)
	Slovak Republic	3.3	(0.1)	2.8	(0.1)	**-0.5**	(0.1)	-0.4	(0.53)	0.0	(0.1)	-0.7	(0.49)	27.2	(1.9)
	Slovenia	2.9	(0.3)	3.0	(0.1)	0.2	(0.3)	-0.3	(0.60)	0.0	(0.1)	**-1.9**	(0.49)	36.7	(1.4)
	Spain	3.4	(0.1)	c	c	c	c	**2.5**	(0.50)	0.9	(0.4)	**1.8**	(0.46)	14.3	(1.2)
	Sweden	2.6	(0.0)	2.8	(0.6)	0.2	(0.6)	**-4.2**	(0.71)	1.3	(0.4)	**-4.1**	(0.64)	16.9	(1.6)
	Switzerland	2.0	(0.1)	2.3	(0.1)	**0.3**	(0.1)	**-5.7**	(0.82)	2.0	(0.6)	**-6.4**	(0.70)	28.7	(2.0)
	Turkey	4.2	(0.6)	4.7	(0.1)	0.5	(0.6)	1.0	(0.61)	0.2	(0.3)	0.3	(0.40)	26.4	(4.1)
	United Kingdom	3.5	(0.7)	3.7	(0.1)	0.2	(0.7)	**-1.2**	(0.57)	0.1	(0.1)	**-1.4**	(0.43)	17.3	(1.5)
	United States	4.6	(0.2)	4.4	(0.1)	-0.1	(0.2)	**-2.0**	(0.54)	0.6	(0.3)	**-1.8**	(0.47)	14.9	(1.5)
	OECD average	3.3	(0.0)	3.2	(0.1)	-0.1	(0.1)	**-1.5**	(0.10)	1.0	(0.1)	**-1.8**	(0.09)	22.5	(0.3)
Partners	**Albania**	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Algeria	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Brazil	5.5	(0.1)	4.0	(0.1)	**-1.5**	(0.2)	**-2.7**	(0.32)	1.5	(0.4)	**-2.9**	(0.27)	26.3	(2.2)
	B-S-J-G (China)	4.6	(0.1)	4.1	(0.2)	**-0.5**	(0.2)	**1.7**	(0.42)	0.6	(0.3)	0.5	(0.32)	35.0	(3.1)
	Bulgaria	4.6	(0.5)	3.8	(0.1)	-0.8	(0.5)	**-2.8**	(0.47)	1.1	(0.4)	**-1.7**	(0.33)	37.6	(2.8)
	CABA (Argentina)	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Colombia	4.2	(0.1)	3.4	(0.1)	**-0.8**	(0.1)	**-3.1**	(0.42)	1.9	(0.5)	**-2.3**	(0.37)	22.5	(2.4)
	Costa Rica	3.8	(0.1)	4.1	(0.1)	0.3	(0.1)	**-0.8**	(0.34)	0.2	(0.2)	**-1.1**	(0.27)	22.6	(2.1)
	Croatia	c	c	5.8	(0.2)	c	c	**2.4**	(0.31)	3.0	(0.7)	**0.6**	(0.24)	26.8	(2.1)
	Cyprus*	3.4	(0.2)	3.3	(0.1)	-0.1	(0.2)	**-2.4**	(0.50)	0.9	(0.3)	**-3.2**	(0.45)	17.4	(1.1)
	Dominican Republic	5.4	(0.4)	5.2	(0.1)	-0.2	(0.4)	**-1.3**	(0.35)	0.6	(0.3)	**-0.7**	(0.32)	27.1	(3.0)
	FYROM	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Georgia	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.0	(0.1)	2.9	(0.1)	-0.1	(0.1)	**2.2**	(0.35)	1.2	(0.4)	**1.3**	(0.36)	13.1	(1.9)
	Indonesia	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Jordan	c	c	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Lebanon	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Lithuania	3.4	(0.1)	c	c	c	c	**-2.1**	(0.43)	0.6	(0.3)	**-2.1**	(0.38)	22.0	(2.4)
	Macao (China)	2.6	(0.1)	2.9	(0.1)	**0.3**	(0.1)	**2.2**	(0.31)	1.0	(0.3)	**1.9**	(0.32)	2.6	(0.5)
	Malta	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Moldova	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Montenegro	5.4	(0.3)	5.0	(0.1)	-0.5	(0.3)	-0.1	(0.27)	0.0	(0.0)	**-0.7**	(0.26)	16.2	(1.0)
	Peru	4.4	(0.1)	3.9	(0.1)	**-0.5**	(0.1)	**-2.3**	(0.42)	0.9	(0.3)	**-1.5**	(0.32)	27.7	(2.1)
	Qatar	5.7	(0.1)	6.0	(0.1)	**0.4**	(0.1)	**1.6**	(0.22)	0.8	(0.2)	**1.8**	(0.21)	14.2	(0.7)
	Romania	c	c	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	4.7	(0.1)	4.8	(0.2)	0.0	(0.2)	-0.5	(0.35)	0.1	(0.1)	-0.5	(0.34)	10.0	(1.8)
	Singapore	4.5	(0.4)	5.6	(0.1)	**1.1**	(0.4)	**4.6**	(0.39)	3.4	(0.6)	**2.9**	(0.36)	27.5	(1.6)
	Chinese Taipei	4.0	(0.1)	2.6	(0.1)	**-1.3**	(0.1)	**4.2**	(0.32)	3.2	(0.4)	**1.9**	(0.29)	28.3	(2.5)
	Thailand	4.8	(0.2)	5.6	(0.1)	**0.8**	(0.2)	0.4	(0.36)	0.1	(0.1)	0.3	(0.32)	19.4	(3.2)
	Trinidad and Tobago	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Tunisia	4.7	(0.2)	4.1	(0.1)	**-0.5**	(0.2)	**-1.7**	(0.31)	1.2	(0.4)	**-1.5**	(0.27)	21.2	(3.4)
	United Arab Emirates	5.7	(0.2)	7.4	(0.1)	**1.6**	(0.2)	**2.8**	(0.26)	2.3	(0.4)	**2.7**	(0.23)	16.6	(1.6)
	Uruguay	3.5	(0.1)	3.1	(0.1)	**-0.4**	(0.2)	**-1.7**	(0.43)	0.5	(0.2)	**-1.5**	(0.35)	26.2	(2.0)
	Viet Nam	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Argentina**	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Kazakhstan**	c	c	c	c	c	c	m	m	m	m	m	m	m	m
	Malaysia**	5.4	(0.4)	5.8	(0.1)	0.5	(0.4)	**1.3**	(0.38)	0.6	(0.4)	**1.0**	(0.32)	18.5	(2.4)

1. Hours spent learning in addition to the required school schedule, including homework, additional instruction and private study.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status.
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.6.42 Schools providing study help

Results based on school principals' reports

		Percentage of students in schools where the following study help is provided			
		Room(s) where students can do their homework		Staff provides help with homework	
		%	S.E.	%	S.E.
OECD	**Australia**	86.9	(1.2)	89.9	(1.3)
	Austria	66.0	(3.5)	27.0	(2.7)
	Belgium	86.6	(2.1)	47.2	(3.0)
	Canada	90.0	(2.0)	87.9	(1.6)
	Chile	77.4	(3.4)	35.0	(3.7)
	Czech Republic	53.4	(3.2)	58.2	(3.2)
	Denmark	92.6	(1.9)	95.7	(1.5)
	Estonia	62.4	(2.8)	55.2	(2.8)
	Finland	52.3	(4.0)	62.2	(3.9)
	France	90.8	(2.1)	59.1	(3.0)
	Germany	70.4	(3.1)	48.0	(3.6)
	Greece	36.5	(3.9)	46.3	(4.1)
	Hungary	63.6	(3.0)	57.8	(3.4)
	Iceland	73.9	(0.2)	72.1	(0.3)
	Ireland	86.5	(2.6)	44.9	(3.7)
	Israel	51.3	(3.7)	58.7	(4.1)
	Italy	52.7	(3.3)	28.0	(3.1)
	Japan	95.8	(1.3)	80.0	(2.9)
	Korea	81.7	(3.1)	41.2	(4.3)
	Latvia	66.0	(2.6)	68.6	(2.8)
	Luxembourg	98.5	(0.0)	94.3	(0.1)
	Mexico	44.3	(3.4)	34.0	(2.8)
	Netherlands	84.0	(2.7)	54.2	(4.4)
	New Zealand	92.1	(1.8)	83.2	(2.7)
	Norway	63.8	(3.2)	40.0	(3.7)
	Poland	77.1	(3.3)	68.6	(3.8)
	Portugal	83.2	(2.8)	69.5	(3.2)
	Slovak Republic	41.5	(3.3)	55.3	(3.5)
	Slovenia	85.4	(0.2)	48.7	(0.6)
	Spain	68.6	(3.7)	35.2	(3.2)
	Sweden	90.4	(2.1)	91.0	(2.0)
	Switzerland	77.6	(3.0)	49.3	(3.7)
	Turkey	51.3	(4.4)	37.0	(3.8)
	United Kingdom	96.9	(1.0)	93.3	(1.8)
	United States	80.7	(3.2)	92.0	(2.0)
	OECD average	73.5	(0.5)	60.3	(0.5)
Partners	**Albania**	30.3	(3.4)	56.1	(3.7)
	Algeria	58.0	(3.9)	64.9	(3.8)
	Brazil	60.1	(3.1)	18.0	(2.5)
	B-S-J-G (China)	36.0	(3.6)	70.1	(3.9)
	Bulgaria	37.4	(3.3)	27.4	(2.7)
	CABA (Argentina)	39.9	(6.4)	40.5	(6.4)
	Colombia	46.7	(3.7)	18.8	(2.4)
	Costa Rica	51.3	(4.3)	27.3	(2.9)
	Croatia	60.7	(3.8)	15.2	(2.5)
	Cyprus*	39.0	(0.1)	47.4	(0.1)
	Dominican Republic	43.5	(3.6)	35.8	(4.2)
	FYROM	38.1	(0.1)	59.3	(0.2)
	Georgia	43.2	(3.7)	66.8	(3.0)
	Hong Kong (China)	88.0	(3.3)	76.3	(3.9)
	Indonesia	42.1	(3.3)	48.4	(3.7)
	Jordan	18.7	(3.1)	67.1	(3.2)
	Kosovo	19.0	(1.2)	28.9	(1.2)
	Lebanon	27.5	(3.3)	24.8	(2.8)
	Lithuania	78.5	(2.4)	73.6	(2.8)
	Macao (China)	91.8	(0.0)	58.4	(0.1)
	Malta	37.4	(0.1)	32.6	(0.1)
	Moldova	56.1	(3.5)	47.3	(3.6)
	Montenegro	39.9	(0.2)	15.0	(0.5)
	Peru	64.7	(2.8)	30.6	(2.6)
	Qatar	32.3	(0.1)	78.6	(0.1)
	Romania	62.1	(4.1)	60.4	(4.4)
	Russia	48.6	(4.5)	67.9	(4.0)
	Singapore	94.1	(0.1)	85.9	(1.6)
	Chinese Taipei	95.1	(1.5)	62.9	(3.6)
	Thailand	76.1	(2.8)	57.7	(3.7)
	Trinidad and Tobago	44.2	(0.3)	53.8	(0.3)
	Tunisia	65.1	(4.0)	51.8	(4.5)
	United Arab Emirates	36.1	(2.2)	49.4	(2.1)
	Uruguay	69.3	(3.0)	52.3	(3.3)
	Viet Nam	41.7	(3.7)	50.1	(3.8)
	Argentina**	42.5	(3.4)	61.8	(3.5)
	Kazakhstan**	56.7	(3.6)	92.7	(2.2)
	Malaysia**	58.3	(4.1)	41.6	(4.2)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/1]

Table II.6.46 Extracurricular activities offered at school

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the school offers the following activities to students in the national modal grade for 15-year-olds																			
		Band, orchestra or choir		School play or school musical		School yearbook, newspaper or magazine		Volunteering or service activities		Science club		Science competitions		Chess club		Club with a focus on computers and information and communication technologies		Art club or art activities		Sporting team or sporting activities	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Australia**	92.0	(1.1)	74.0	(1.9)	69.4	(1.9)	84.5	(1.4)	38.3	(2.2)	91.5	(1.2)	61.8	(1.9)	43.9	(2.0)	70.8	(1.9)	98.3	(0.6)
	Austria	47.2	(3.0)	34.4	(3.3)	42.4	(4.0)	87.4	(1.8)	5.0	(1.3)	30.9	(3.0)	16.2	(2.7)	21.4	(2.8)	27.5	(3.5)	75.5	(3.1)
	Belgium	27.7	(2.6)	53.0	(3.1)	36.9	(2.9)	72.2	(3.0)	5.7	(1.7)	69.2	(2.9)	17.6	(2.5)	9.7	(2.2)	36.2	(3.1)	86.4	(2.2)
	Canada	87.8	(1.4)	88.3	(1.7)	88.4	(1.8)	96.7	(1.1)	56.5	(2.9)	76.2	(2.6)	51.9	(2.3)	63.5	(2.3)	90.7	(1.3)	99.6	(0.4)
	Chile	73.4	(3.2)	57.8	(3.7)	29.6	(3.7)	59.5	(3.7)	35.5	(3.9)	63.4	(3.8)	29.9	(4.2)	47.4	(4.6)	86.6	(2.5)	97.3	(1.3)
	Czech Republic	42.0	(3.0)	25.0	(2.7)	54.4	(3.1)	63.0	(3.3)	47.1	(3.3)	84.9	(2.0)	21.0	(2.5)	46.1	(3.2)	53.5	(3.1)	89.3	(1.9)
	Denmark	42.9	(3.1)	40.1	(3.9)	27.9	(2.9)	18.2	(2.5)	8.9	(2.4)	33.2	(3.2)	15.7	(2.5)	11.9	(2.5)	28.6	(3.3)	70.7	(3.3)
	Estonia	80.6	(2.0)	50.5	(2.9)	57.2	(3.1)	76.1	(2.5)	42.5	(2.9)	94.5	(1.3)	20.5	(2.7)	46.5	(2.6)	74.8	(2.4)	96.3	(1.2)
	Finland	81.4	(3.0)	40.3	(4.1)	40.5	(3.4)	35.7	(4.1)	12.9	(2.5)	86.0	(2.9)	8.4	(2.3)	13.0	(2.6)	37.3	(4.2)	85.0	(3.0)
	France	44.8	(3.6)	70.3	(2.7)	38.5	(3.1)	36.5	(3.4)	24.3	(3.1)	67.1	(2.8)	19.7	(2.8)	19.2	(2.8)	71.8	(3.4)	96.7	(1.2)
	Germany	78.4	(2.8)	61.6	(3.7)	54.9	(3.9)	93.6	(2.0)	48.4	(3.8)	58.9	(2.9)	26.4	(3.1)	57.9	(4.1)	75.0	(3.3)	93.1	(1.9)
	Greece	50.4	(3.9)	60.5	(3.3)	25.5	(3.0)	61.9	(3.9)	18.5	(2.5)	70.8	(3.3)	7.0	(2.0)	18.9	(3.0)	45.7	(3.7)	84.7	(2.5)
	Hungary	49.5	(3.5)	44.7	(3.2)	49.4	(3.2)	81.8	(2.6)	52.0	(3.6)	92.7	(1.8)	20.7	(2.5)	57.1	(3.6)	56.7	(3.2)	98.4	(0.9)
	Iceland	48.3	(0.3)	75.5	(0.2)	69.6	(0.3)	31.1	(0.2)	10.0	(0.1)	25.8	(0.2)	46.7	(0.3)	39.5	(0.3)	58.0	(0.3)	69.5	(0.3)
	Ireland	81.1	(3.0)	42.8	(4.2)	44.5	(4.6)	66.0	(4.1)	34.6	(3.9)	65.3	(4.5)	38.5	(3.7)	36.5	(4.0)	63.2	(4.0)	100.0	c
	Israel	53.9	(3.6)	48.2	(3.5)	55.3	(4.1)	98.3	(1.0)	57.5	(3.9)	57.2	(3.8)	7.0	(2.3)	41.6	(3.9)	55.3	(3.9)	84.7	(2.6)
	Italy	21.1	(3.0)	67.8	(3.3)	48.6	(3.5)	66.5	(3.5)	45.7	(3.4)	65.9	(3.9)	7.8	(1.8)	33.5	(3.8)	43.7	(3.6)	92.4	(1.7)
	Japan	91.0	(2.1)	50.8	(4.2)	47.8	(3.7)	91.5	(1.8)	59.8	(3.2)	23.6	(2.9)	33.3	(3.1)	53.4	(3.4)	96.7	(1.2)	100.0	c
	Korea	85.8	(2.7)	55.4	(3.5)	84.8	(2.7)	99.5	(0.5)	92.8	(2.0)	85.5	(2.3)	95.4	(1.6)	84.0	(2.8)	96.8	(1.3)	99.0	(0.8)
	Latvia	78.1	(2.5)	74.1	(2.5)	54.6	(2.7)	79.7	(2.1)	45.4	(3.0)	85.2	(2.2)	16.0	(1.9)	39.2	(3.2)	85.6	(1.9)	95.8	(0.8)
	Luxembourg	84.8	(0.1)	77.3	(0.1)	52.7	(0.1)	92.6	(0.1)	32.5	(0.1)	80.8	(0.1)	50.8	(0.1)	20.9	(0.1)	66.6	(0.1)	100.0	c
	Mexico	42.1	(3.3)	50.3	(3.1)	33.1	(3.5)	56.1	(3.0)	28.7	(2.9)	68.7	(2.8)	38.9	(3.3)	23.5	(2.9)	62.9	(3.8)	86.2	(2.6)
	Netherlands	52.3	(4.7)	59.9	(4.7)	48.8	(4.7)	94.0	(2.2)	18.2	(3.8)	50.7	(4.3)	11.1	(3.0)	6.6	(2.3)	63.0	(4.7)	81.5	(3.7)
	New Zealand	96.0	(1.3)	82.0	(3.8)	88.1	(2.4)	98.5	(0.8)	48.6	(4.2)	82.8	(2.8)	76.4	(3.0)	64.2	(3.7)	76.8	(3.3)	100.0	c
	Norway	23.6	(3.1)	33.4	(3.6)	26.1	(3.1)	52.3	(4.0)	1.6	(0.9)	12.5	(2.5)	10.9	(2.2)	10.6	(2.4)	8.1	(2.1)	35.2	(3.4)
	Poland	64.9	(4.2)	81.4	(3.1)	61.1	(3.5)	98.6	(0.8)	79.4	(3.0)	94.9	(1.7)	23.9	(3.0)	72.1	(3.5)	87.5	(2.3)	99.5	(0.5)
	Portugal	26.1	(3.1)	57.3	(3.8)	69.4	(3.2)	89.1	(2.3)	56.6	(4.4)	88.6	(2.3)	32.5	(3.5)	22.9	(3.4)	58.0	(4.0)	96.8	(1.1)
	Slovak Republic	34.7	(3.2)	47.1	(3.0)	72.5	(2.9)	85.9	(2.3)	60.2	(3.1)	80.6	(2.2)	27.0	(3.0)	84.0	(2.0)	71.2	(2.9)	99.3	(0.3)
	Slovenia	68.5	(0.2)	70.2	(0.4)	86.1	(0.3)	85.8	(0.3)	52.1	(0.6)	87.3	(0.2)	28.5	(0.3)	48.6	(0.4)	71.2	(0.2)	98.2	(0.1)
	Spain	29.1	(3.3)	46.3	(4.0)	48.5	(3.6)	61.8	(3.6)	15.7	(2.7)	65.6	(3.3)	19.3	(2.9)	21.5	(3.1)	35.6	(3.7)	80.2	(2.6)
	Sweden	62.0	(3.8)	46.8	(3.9)	21.9	(3.2)	41.2	(3.5)	7.1	(1.9)	61.0	(3.4)	10.7	(2.4)	7.8	(2.0)	29.2	(3.3)	75.7	(3.2)
	Switzerland	71.2	(2.8)	57.1	(4.0)	30.5	(3.8)	35.7	(3.6)	37.2	(3.6)	24.1	(3.4)	8.7	(2.2)	22.0	(2.9)	63.2	(3.6)	89.7	(2.3)
	Turkey	38.9	(3.9)	50.5	(3.9)	41.9	(4.3)	74.8	(3.9)	42.2	(4.4)	57.9	(4.5)	75.4	(3.9)	50.7	(4.6)	55.1	(4.2)	96.5	(1.4)
	United Kingdom	95.8	(1.6)	87.6	(2.8)	77.9	(2.9)	90.7	(2.1)	79.3	(3.0)	72.1	(3.5)	56.2	(3.9)	68.5	(3.5)	93.8	(1.5)	100.0	(0.0)
	United States	93.1	(2.0)	84.2	(3.1)	95.5	(1.6)	98.4	(0.9)	75.1	(3.7)	72.1	(3.4)	47.7	(3.7)	67.4	(3.8)	92.4	(1.9)	98.0	(1.1)
	OECD average	61.2	(0.5)	58.5	(0.6)	53.6	(0.5)	73.0	(0.4)	39.3	(0.5)	66.5	(0.5)	30.8	(0.5)	39.3	(0.5)	62.5	(0.5)	90.0	(0.3)
Partners	**Albania**	56.4	(3.5)	64.3	(3.4)	36.9	(3.6)	88.1	(1.9)	47.6	(4.0)	84.8	(2.3)	36.3	(3.9)	34.9	(4.0)	77.7	(3.1)	97.5	(1.3)
	Algeria	32.0	(4.1)	57.2	(4.3)	45.4	(4.6)	65.5	(4.1)	64.4	(4.1)	33.3	(3.9)	7.2	(2.4)	34.6	(4.2)	43.7	(4.8)	90.5	(2.5)
	Brazil	31.1	(3.0)	51.5	(2.7)	26.4	(2.6)	49.2	(3.2)	12.7	(2.2)	27.4	(2.8)	32.6	(2.9)	16.3	(2.4)	42.5	(3.1)	86.7	(2.0)
	B-S-J-G (China)	66.5	(4.0)	53.8	(4.2)	79.0	(3.3)	92.7	(1.8)	90.6	(2.3)	90.5	(2.2)	68.4	(3.6)	72.4	(3.3)	95.0	(1.5)	100.0	c
	Bulgaria	39.1	(3.3)	41.9	(3.5)	56.6	(4.1)	89.3	(2.2)	60.9	(3.7)	83.2	(2.0)	25.9	(3.5)	46.6	(4.0)	58.8	(3.8)	93.9	(1.7)
	CABA (Argentina)	62.0	(7.8)	53.4	(7.3)	25.7	(6.5)	73.6	(4.7)	48.6	(7.4)	54.2	(7.6)	15.3	(5.4)	65.7	(7.5)	78.8	(6.1)	86.2	(4.5)
	Colombia	40.4	(3.7)	42.7	(3.9)	40.6	(3.8)	91.5	(1.9)	34.8	(3.1)	67.8	(3.6)	20.0	(3.2)	31.9	(3.3)	68.5	(3.5)	94.5	(1.6)
	Costa Rica	79.5	(2.7)	58.5	(3.9)	12.4	(2.9)	31.0	(3.8)	24.2	(3.1)	90.6	(2.2)	24.1	(3.0)	22.7	(3.1)	70.4	(2.9)	93.4	(1.7)
	Croatia	43.2	(3.3)	57.5	(3.8)	61.7	(3.6)	97.8	(1.3)	52.0	(3.9)	81.5	(2.6)	14.2	(2.7)	35.5	(3.8)	55.7	(3.6)	99.4	(0.5)
	Cyprus*	98.6	(0.0)	85.2	(0.1)	97.6	(0.0)	98.2	(0.1)	74.6	(0.1)	87.0	(0.1)	24.8	(0.1)	80.3	(0.1)	96.0	(0.1)	100.0	(0.0)
	Dominican Republic	48.8	(4.2)	53.9	(3.9)	20.5	(3.8)	78.9	(3.7)	50.5	(4.0)	80.6	(3.0)	46.0	(4.2)	17.1	(3.2)	75.0	(3.4)	85.5	(2.6)
	FYROM	71.0	(0.2)	69.9	(0.1)	59.8	(0.2)	83.9	(0.1)	38.8	(0.2)	71.1	(0.1)	23.0	(0.1)	53.7	(0.2)	62.3	(0.2)	100.0	c
	Georgia	31.9	(3.6)	58.3	(3.0)	68.7	(3.3)	81.9	(2.0)	39.3	(3.4)	78.6	(2.7)	34.8	(3.6)	14.4	(2.4)	81.1	(2.9)	98.4	(0.7)
	Hong Kong (China)	94.3	(1.8)	81.0	(3.8)	90.7	(2.9)	100.0	c	94.9	(2.0)	87.5	(3.0)	75.3	(4.1)	95.1	(2.1)	97.8	(1.5)	100.0	c
	Indonesia	63.5	(3.8)	36.6	(3.9)	68.2	(3.9)	75.7	(3.4)	58.6	(3.5)	79.7	(2.8)	29.3	(3.6)	42.3	(3.3)	80.3	(3.1)	96.2	(1.5)
	Jordan	23.2	(2.7)	54.4	(3.2)	46.7	(3.8)	86.4	(2.7)	51.5	(3.3)	25.1	(3.1)	32.5	(3.3)	35.6	(3.4)	56.8	(3.5)	95.2	(1.4)
	Kosovo	63.4	(0.9)	50.4	(1.4)	49.7	(1.2)	77.2	(1.2)	51.6	(1.3)	58.2	(1.2)	20.7	(1.1)	36.0	(1.3)	59.4	(1.3)	97.0	(0.6)
	Lebanon	22.9	(3.2)	49.1	(3.8)	49.7	(3.8)	78.2	(3.2)	43.5	(4.0)	57.9	(4.2)	14.4	(3.0)	35.3	(3.5)	58.2	(3.9)	88.5	(2.7)
	Lithuania	89.3	(1.6)	56.4	(2.7)	68.6	(2.6)	73.8	(2.4)	34.5	(2.6)	92.2	(1.5)	18.0	(2.2)	35.6	(2.9)	85.3	(2.0)	98.3	(0.6)
	Macao (China)	93.9	(0.1)	95.0	(0.0)	95.5	(0.1)	99.9	(0.0)	74.2	(0.1)	95.8	(0.0)	42.3	(0.1)	79.4	(0.1)	96.7	(0.0)	99.7	(0.0)
	Malta	72.8	(0.1)	81.0	(0.1)	56.0	(0.1)	91.9	(0.1)	65.8	(0.1)	74.7	(0.1)	34.7	(0.1)	61.4	(0.1)	91.2	(0.1)	97.8	(0.0)
	Moldova	30.6	(3.2)	44.4	(3.7)	42.2	(3.6)	87.5	(2.2)	17.1	(2.9)	98.5	(0.9)	39.6	(3.6)	34.1	(3.7)	89.9	(1.7)	99.4	(0.5)
	Montenegro	43.2	(0.3)	78.7	(0.1)	88.2	(0.5)	80.7	(0.6)	75.7	(0.5)	83.5	(0.6)	27.6	(0.3)	61.7	(0.3)	77.7	(0.1)	94.7	(0.6)
	Peru	49.3	(3.2)	55.0	(2.7)	22.0	(2.6)	44.0	(3.1)	28.1	(2.9)	70.4	(2.7)	27.2	(2.5)	25.2	(2.9)	62.4	(3.0)	84.5	(2.3)
	Qatar	29.7	(0.1)	73.9	(0.1)	87.0	(0.1)	94.5	(0.0)	85.8	(0.1)	91.0	(0.1)	25.6	(0.1)	74.4	(0.1)	80.0	(0.1)	99.3	(0.0)
	Romania	43.1	(3.9)	69.2	(3.3)	92.9	(1.9)	25.0	(3.7)	73.4	(3.0)	37.2	(3.7)	42.8	(4.3)	84.1	(2.9)	93.8	(1.8)	93.6	(1.9)
	Russia	67.8	(4.1)	40.9	(4.3)	67.2	(4.2)	92.1	(2.3)	77.3	(2.8)	99.2	(0.7)	32.8	(3.7)	38.3	(3.4)	70.8	(3.3)	98.1	(1.1)
	Singapore	99.0	(0.0)	69.5	(0.8)	95.1	(0.1)	100.0	c	41.7	(1.2)	88.6	(1.4)	25.1	(0.7)	89.3	(1.6)	92.3	(0.1)	100.0	c
	Chinese Taipei	91.6	(1.6)	60.3	(3.0)	96.9	(1.1)	98.9	(0.4)	79.6	(2.6)	81.4	(2.4)	70.7	(2.9)	75.7	(3.2)	95.1	(1.3)	98.8	(0.8)
	Thailand	81.6	(2.5)	79.0	(2.4)	85.8	(2.2)	89.2	(2.5)	89.6	(2.2)	72.3	(3.8)	38.0	(3.9)	94.1	(1.9)	88.5	(2.0)	98.8	(0.8)
	Trinidad and Tobago	64.4	(0.3)	44.8	(0.3)	30.3	(0.2)	81.5	(0.3)	38.5	(0.2)	68.5	(0.3)	38.5	(0.2)	18.1	(0.2)	73.5	(0.3)	96.6	(0.1)
	Tunisia	27.3	(4.4)	44.1	(4.6)	38.8	(4.6)	64.6	(4.3)	58.7	(4.4)	41.5	(4.4)	20.4	(3.9)	47.2	(4.6)	55.6	(4.6)	82.5	(2.8)
	United Arab Emirates	34.1	(2.4)	67.8	(2.7)	75.3	(2.2)	90.4	(2.0)	82.3	(1.8)	87.9	(1.7)	39.9	(3.1)	74.3	(2.4)	74.4	(2.5)	94.8	(1.2)
	Uruguay	69.9	(2.5)	42.8	(3.2)	11.5	(2.2)	26.8	(2.3)	35.2	(2.9)	44.5	(2.5)	13.5	(2.3)	27.0	(3.0)	26.5	(3.0)	88.3	(2.3)
	Viet Nam	18.2	(3.6)	89.1	(2.0)	45.4	(4.3)	81.7	(3.4)	44.3	(4.0)	47.0	(3.8)	15.1	(3.0)	18.1	(3.5)	66.7	(4.2)	99.3	(1.0)
	Argentina**	32.4	(3.6)	37.2	(3.8)	25.2	(3.2)	54.4	(3.7)	42.3	(4.0)	57.8	(3.5)	18.3	(2.9)	57.2	(3.2)	69.4	(3.5)	90.5	(2.2)
	Kazakhstan**	71.1	(3.3)	38.0	(3.5)	66.6	(3.6)	94.2	(1.9)	77.1	(3.1)	99.3	(0.4)	65.9	(2.8)	62.8	(3.0)	91.1	(2.2)	99.4	(0.5)
	Malaysia**	37.9	(3.6)	51.0	(4.0)	91.9	(2.1)	85.6	(3.0)	96.7	(1.5)	87.7	(2.5)	88.4	(2.6)	91.2	(2.4)	97.5	(1.4)	99.5	(0.6)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436513

[Part 1/1]

Table II.6.50 Attendance at pre-primary school

Results based on students' self-reports

				Percentage of students who had attended pre-primary school													
		I do not remember		Did not attend		Less than one year		Between one and two years		Between two and three years		Between three and four years		Between four and five years		5 years or more	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	16.1	(0.4)	2.2	(0.2)	9.2	(0.3)	37.6	(0.6)	33.8	(0.5)	11.9	(0.4)	4.1	(0.3)	1.2	(0.1)
	Austria	12.7	(0.5)	1.3	(0.2)	0.6	(0.1)	8.8	(0.5)	28.2	(0.8)	43.9	(0.9)	13.5	(0.6)	3.7	(0.3)
	Belgium	15.2	(0.4)	1.2	(0.2)	0.6	(0.1)	1.9	(0.2)	10.7	(0.4)	51.0	(0.6)	30.4	(0.6)	4.2	(0.3)
	Canada	14.1	(0.4)	2.6	(0.2)	13.7	(0.5)	36.9	(0.6)	30.9	(0.6)	10.5	(0.4)	3.8	(0.2)	1.6	(0.2)
	Chile	12.5	(0.7)	3.2	(0.4)	1.2	(0.2)	39.6	(0.9)	46.5	(0.8)	6.8	(0.5)	1.7	(0.2)	1.1	(0.2)
	Czech Republic	12.1	(0.5)	1.9	(0.3)	1.1	(0.2)	4.4	(0.4)	15.7	(0.5)	51.6	(0.9)	22.5	(0.8)	2.8	(0.2)
	Denmark	18.2	(0.6)	0.6	(0.1)	0.3	(0.1)	6.1	(0.3)	12.5	(0.6)	35.3	(0.7)	38.2	(0.8)	7.0	(0.4)
	Estonia	14.7	(0.7)	5.3	(0.5)	0.1	(0.0)	2.8	(0.4)	5.8	(0.4)	18.2	(0.6)	39.5	(0.8)	28.2	(0.8)
	Finland	14.7	(0.6)	1.7	(0.2)	1.2	(0.2)	25.2	(0.8)	19.2	(0.6)	19.9	(0.7)	18.6	(0.6)	14.2	(0.5)
	France	11.6	(0.6)	0.8	(0.1)	2.7	(0.3)	3.4	(0.3)	12.6	(0.4)	60.4	(0.8)	17.3	(0.6)	2.7	(0.3)
	Germany	18.4	(0.5)	1.3	(0.2)	2.3	(0.2)	6.4	(0.5)	16.4	(0.7)	49.2	(0.8)	18.8	(0.6)	5.5	(0.5)
	Greece	12.6	(0.6)	2.1	(0.4)	1.1	(0.2)	17.4	(0.7)	43.0	(0.9)	24.0	(0.6)	8.7	(0.6)	3.7	(0.3)
	Hungary	14.5	(0.6)	0.2	(0.1)	0.6	(0.2)	2.5	(0.3)	9.6	(0.6)	44.6	(0.8)	38.6	(0.8)	3.9	(0.3)
	Iceland	25.9	(0.8)	1.7	(0.3)	0.3	(0.1)	2.1	(0.3)	10.1	(0.6)	32.2	(0.9)	41.7	(0.9)	12.0	(0.6)
	Ireland	10.8	(0.5)	7.1	(0.4)	2.8	(0.3)	41.0	(1.1)	35.4	(0.9)	10.2	(0.5)	2.7	(0.3)	0.8	(0.2)
	Israel	13.3	(0.5)	0.9	(0.3)	0.7	(0.1)	6.6	(0.5)	21.7	(0.8)	36.8	(0.9)	22.2	(0.8)	11.0	(0.6)
	Italy	10.5	(0.6)	1.7	(0.2)	2.0	(0.2)	4.2	(0.3)	19.6	(0.7)	61.3	(0.9)	10.7	(0.6)	0.6	(0.1)
	Japan	17.6	(0.6)	0.4	(0.1)	0.7	(0.1)	6.4	(0.4)	25.8	(0.8)	40.6	(1.0)	12.8	(0.7)	13.4	(0.7)
	Korea	16.1	(0.5)	2.8	(0.3)	1.2	(0.2)	14.5	(0.6)	29.8	(0.7)	32.1	(0.8)	14.6	(0.5)	4.9	(0.4)
	Latvia	17.5	(0.6)	5.4	(0.5)	0.4	(0.1)	3.9	(0.3)	15.5	(0.7)	20.4	(0.7)	30.5	(0.8)	24.0	(0.9)
	Luxembourg	17.5	(0.6)	2.6	(0.2)	2.4	(0.3)	8.9	(0.4)	42.9	(0.8)	31.9	(0.7)	8.6	(0.4)	2.7	(0.3)
	Mexico	4.0	(0.3)	1.7	(0.2)	0.9	(0.1)	16.3	(0.9)	37.3	(1.0)	36.8	(1.2)	5.2	(0.4)	1.9	(0.2)
	Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	New Zealand	12.9	(0.5)	3.8	(0.3)	2.4	(0.3)	15.8	(0.7)	40.6	(1.0)	24.5	(0.7)	11.8	(0.6)	1.1	(0.2)
	Norway	21.1	(0.6)	5.9	(0.4)	0.5	(0.1)	4.1	(0.3)	12.8	(0.6)	30.0	(0.7)	31.7	(0.9)	15.0	(0.6)
	Poland	12.7	(0.6)	17.4	(1.3)	0.5	(0.1)	23.4	(1.2)	19.5	(0.9)	17.1	(0.8)	18.2	(0.8)	3.9	(0.3)
	Portugal	12.0	(0.5)	7.3	(0.5)	26.5	(0.8)	38.3	(0.8)	16.1	(0.7)	10.1	(0.5)	1.3	(0.2)	0.3	(0.1)
	Slovak Republic	10.0	(0.5)	3.8	(0.3)	1.8	(0.2)	9.2	(0.6)	14.9	(0.6)	44.5	(0.8)	22.5	(0.8)	3.3	(0.2)
	Slovenia	12.2	(0.6)	13.6	(0.5)	0.5	(0.1)	8.1	(0.4)	17.5	(0.6)	25.3	(0.8)	21.7	(0.7)	13.2	(0.6)
	Spain	6.0	(0.4)	1.0	(0.1)	3.0	(0.2)	4.0	(0.2)	16.6	(0.6)	59.1	(1.0)	11.3	(0.6)	5.0	(0.4)
	Sweden	16.8	(0.6)	3.7	(0.4)	0.7	(0.2)	5.8	(0.4)	7.6	(0.5)	13.5	(0.5)	26.5	(0.8)	42.2	(1.0)
	Switzerland	13.8	(0.4)	1.3	(0.2)	0.9	(0.2)	17.5	(1.2)	62.4	(1.5)	14.5	(0.6)	2.4	(0.3)	0.9	(0.2)
	Turkey	6.6	(0.4)	49.6	(1.3)	2.0	(0.2)	29.5	(0.9)	12.7	(0.5)	3.6	(0.3)	1.6	(0.2)	1.0	(0.2)
	United Kingdom	13.5	(0.5)	1.6	(0.2)	3.5	(0.3)	28.4	(0.7)	37.9	(0.8)	20.7	(0.7)	7.0	(0.5)	1.0	(0.1)
	United States	20.5	(0.6)	18.4	(0.8)	0.8	(0.2)	17.4	(0.7)	37.7	(0.9)	17.1	(0.7)	5.7	(0.5)	3.0	(0.2)
	OECD average	14.1	(0.1)	5.2	(0.1)	2.6	(0.0)	14.6	(0.1)	24.1	(0.1)	29.7	(0.1)	16.7	(0.1)	7.1	(0.1)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	15.1	(0.4)	2.9	(0.2)	6.7	(0.3)	16.2	(0.5)	19.4	(0.5)	21.6	(0.5)	15.4	(0.5)	17.8	(0.5)
	B-S-J-G (China)	12.3	(0.5)	17.1	(1.3)	2.2	(0.2)	10.0	(0.6)	20.9	(0.9)	33.3	(0.9)	13.1	(0.9)	3.4	(0.4)
	Bulgaria	11.5	(0.5)	6.1	(0.4)	0.5	(0.1)	5.4	(0.5)	10.2	(0.5)	22.0	(0.8)	40.4	(1.0)	15.4	(0.6)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	8.7	(0.4)	3.4	(0.4)	4.8	(0.3)	60.1	(1.3)	16.7	(0.8)	8.9	(0.7)	4.5	(0.4)	1.7	(0.2)
	Costa Rica	16.0	(0.5)	9.2	(0.5)	1.7	(0.2)	41.6	(0.8)	33.5	(0.8)	8.9	(0.4)	3.4	(0.3)	1.7	(0.2)
	Croatia	12.6	(0.5)	19.8	(0.9)	0.7	(0.1)	17.4	(0.7)	15.3	(0.5)	18.3	(0.6)	17.2	(0.6)	11.3	(0.5)
	Cyprus	17.7	(0.5)	1.8	(0.2)	1.2	(0.2)	12.8	(0.5)	37.6	(0.7)	30.4	(0.7)	11.5	(0.4)	4.7	(0.3)
	Dominican Republic	6.4	(0.5)	3.8	(0.4)	17.1	(0.8)	33.3	(0.9)	19.5	(0.8)	13.2	(0.7)	7.8	(0.4)	5.2	(0.4)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	15.9	(0.6)	1.0	(0.2)	0.5	(0.1)	2.0	(0.2)	10.7	(0.6)	64.1	(1.1)	18.4	(0.7)	3.4	(0.3)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	17.3	(0.6)	23.6	(1.0)	1.1	(0.2)	9.4	(0.5)	12.6	(0.5)	20.8	(0.7)	21.9	(0.8)	10.6	(0.5)
	Macao (China)	21.1	(0.6)	0.5	(0.1)	0.5	(0.1)	2.8	(0.3)	10.9	(0.5)	68.0	(0.7)	14.0	(0.5)	3.3	(0.3)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	8.3	(0.4)	27.2	(0.6)	1.1	(0.1)	11.8	(0.5)	19.5	(0.6)	20.9	(0.6)	12.9	(0.5)	6.7	(0.4)
	Peru	5.7	(0.3)	4.6	(0.4)	2.4	(0.2)	17.7	(0.7)	30.0	(0.8)	33.1	(0.9)	8.8	(0.4)	3.5	(0.2)
	Qatar	18.3	(0.4)	14.3	(0.3)	3.0	(0.2)	23.9	(0.4)	37.7	(0.5)	13.0	(0.3)	4.8	(0.2)	3.3	(0.2)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	12.1	(0.7)	14.0	(1.2)	0.3	(0.1)	2.3	(0.3)	5.8	(0.3)	17.2	(0.8)	33.4	(1.0)	26.9	(1.3)
	Singapore	24.5	(0.6)	1.1	(0.2)	0.5	(0.1)	4.1	(0.3)	23.1	(0.6)	36.4	(0.8)	25.2	(0.7)	9.6	(0.4)
	Chinese Taipei	24.9	(0.5)	1.8	(0.2)	0.5	(0.1)	9.9	(0.4)	32.6	(0.7)	33.4	(0.6)	14.3	(0.5)	7.4	(0.4)
	Thailand	6.4	(0.4)	0.6	(0.1)	1.4	(0.2)	7.0	(0.4)	37.2	(1.2)	36.1	(1.1)	13.7	(0.5)	3.9	(0.3)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	6.2	(0.4)	8.9	(0.7)	4.7	(0.3)	44.3	(0.8)	24.6	(0.7)	12.9	(0.6)	3.2	(0.3)	1.5	(0.2)
	United Arab Emirates	16.2	(0.4)	7.4	(0.3)	3.1	(0.2)	20.9	(0.5)	50.8	(0.7)	12.6	(0.5)	3.4	(0.2)	1.8	(0.2)
	Uruguay	6.0	(0.4)	0.8	(0.2)	3.4	(0.2)	11.5	(0.5)	40.6	(0.8)	24.6	(0.7)	13.0	(0.6)	6.2	(0.4)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	2.9	(0.5)	3.7	(0.4)	1.7	(0.2)	21.4	(1.0)	45.4	(1.0)	21.0	(0.9)	4.9	(0.4)	2.0	(0.2)

* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
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[Part 1/3]

Table II.6.51 Number of years at pre-primary school, science performance and school characteristics

Results based on students' self-reports

		Number of years attending pre-primary school (ISCED 0), in years[1]													
		All students				By school socio-economic profile[2]									
		Average		Variability		Bottom quarter		Second quarter		Third quarter		Top quarter		Top – bottom quarter	
		Years	S.E.	S.D.	S.E.	Years	S.E.	Years	S.E.	Years	S.E.	Years	S.E.	Dif.	S.E.
OECD	**Australia**	2.1	(0.0)	1.1	(0.0)	2.0	(0.0)	2.1	(0.0)	2.2	(0.0)	2.3	(0.0)	**0.3**	(0.0)
	Austria	3.2	(0.0)	1.0	(0.0)	3.1	(0.0)	3.1	(0.1)	3.2	(0.0)	3.3	(0.0)	**0.3**	(0.1)
	Belgium	3.7	(0.0)	0.9	(0.0)	3.7	(0.0)	3.7	(0.0)	3.7	(0.0)	3.7	(0.0)	-0.1	(0.0)
	Canada	2.0	(0.0)	1.1	(0.0)	1.9	(0.0)	2.0	(0.0)	2.0	(0.0)	2.3	(0.0)	**0.4**	(0.1)
	Chile	2.1	(0.0)	0.9	(0.0)	2.0	(0.0)	2.1	(0.0)	2.2	(0.0)	2.2	(0.0)	**0.2**	(0.1)
	Czech Republic	3.4	(0.0)	1.0	(0.0)	3.4	(0.1)	3.5	(0.1)	3.5	(0.0)	3.4	(0.0)	0.1	(0.1)
	Denmark	3.7	(0.0)	1.0	(0.0)	3.7	(0.0)	3.7	(0.0)	3.8	(0.0)	3.8	(0.0)	**0.1**	(0.0)
	Estonia	4.2	(0.0)	1.5	(0.0)	3.8	(0.1)	4.3	(0.1)	4.4	(0.1)	4.4	(0.0)	**0.6**	(0.1)
	Finland	3.2	(0.0)	1.5	(0.0)	2.8	(0.1)	3.0	(0.1)	3.3	(0.1)	3.7	(0.1)	**0.9**	(0.1)
	France	3.4	(0.0)	1.0	(0.0)	3.4	(0.0)	3.4	(0.0)	3.5	(0.0)	3.5	(0.0)	**0.1**	(0.0)
	Germany	3.4	(0.0)	1.1	(0.0)	3.3	(0.1)	3.3	(0.1)	3.5	(0.1)	3.4	(0.0)	0.1	(0.1)
	Greece	2.8	(0.0)	1.1	(0.0)	2.6	(0.0)	2.8	(0.0)	2.8	(0.0)	2.9	(0.0)	**0.3**	(0.1)
	Hungary	3.8	(0.0)	0.9	(0.0)	3.7	(0.0)	3.8	(0.0)	3.8	(0.0)	3.9	(0.0)	**0.1**	(0.0)
	Iceland	4.0	(0.0)	1.1	(0.0)	4.0	(0.0)	3.9	(0.0)	3.9	(0.0)	3.9	(0.0)	-0.1	(0.1)
	Ireland	2.0	(0.0)	1.0	(0.0)	2.1	(0.1)	2.0	(0.1)	2.0	(0.0)	2.2	(0.0)	0.1	(0.1)
	Israel	3.6	(0.0)	1.2	(0.0)	3.3	(0.1)	3.5	(0.1)	3.7	(0.1)	3.7	(0.0)	**0.4**	(0.1)
	Italy	3.2	(0.0)	0.9	(0.0)	3.2	(0.0)	3.2	(0.0)	3.2	(0.0)	3.3	(0.0)	0.1	(0.1)
	Japan	3.5	(0.0)	1.1	(0.0)	3.5	(0.0)	3.5	(0.1)	3.5	(0.1)	3.5	(0.0)	0.0	(0.1)
	Korea	3.0	(0.0)	1.2	(0.0)	3.0	(0.1)	3.0	(0.1)	3.0	(0.1)	3.0	(0.0)	0.0	(0.1)
	Latvia	3.9	(0.0)	1.5	(0.0)	3.5	(0.1)	4.0	(0.1)	4.0	(0.1)	4.0	(0.1)	**0.4**	(0.1)
	Luxembourg	2.9	(0.0)	1.1	(0.0)	2.8	(0.0)	2.8	(0.0)	2.9	(0.0)	3.0	(0.0)	**0.1**	(0.0)
	Mexico	2.8	(0.0)	1.0	(0.0)	2.8	(0.1)	2.7	(0.1)	2.7	(0.0)	3.0	(0.1)	**0.2**	(0.1)
	Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	New Zealand	2.7	(0.0)	1.1	(0.0)	2.7	(0.0)	2.7	(0.0)	2.7	(0.1)	2.8	(0.0)	0.1	(0.1)
	Norway	3.7	(0.0)	1.4	(0.0)	3.5	(0.1)	3.6	(0.1)	3.8	(0.1)	3.9	(0.0)	**0.4**	(0.1)
	Poland	2.5	(0.1)	1.6	(0.0)	1.8	(0.1)	2.3	(0.2)	2.7	(0.1)	3.1	(0.1)	**1.4**	(0.1)
	Portugal	1.5	(0.0)	1.1	(0.0)	1.3	(0.0)	1.5	(0.1)	1.6	(0.0)	1.7	(0.0)	**0.4**	(0.1)
	Slovak Republic	3.3	(0.0)	1.2	(0.0)	2.8	(0.1)	3.3	(0.1)	3.4	(0.1)	3.5	(0.0)	**0.7**	(0.1)
	Slovenia	3.2	(0.0)	1.7	(0.0)	3.0	(0.1)	3.1	(0.1)	3.2	(0.0)	3.4	(0.0)	**0.3**	(0.1)
	Spain	3.4	(0.0)	1.0	(0.0)	3.2	(0.0)	3.3	(0.0)	3.3	(0.1)	3.6	(0.0)	**0.4**	(0.1)
	Sweden	4.4	(0.0)	1.6	(0.0)	4.1	(0.1)	4.4	(0.1)	4.5	(0.1)	4.6	(0.1)	**0.5**	(0.1)
	Switzerland	2.5	(0.0)	0.8	(0.0)	2.5	(0.0)	2.5	(0.0)	2.5	(0.0)	2.5	(0.0)	0.1	(0.1)
	Turkey	1.0	(0.0)	1.2	(0.0)	0.9	(0.0)	0.9	(0.0)	0.9	(0.0)	1.4	(0.1)	**0.5**	(0.1)
	United Kingdom	2.5	(0.0)	1.1	(0.0)	2.3	(0.0)	2.5	(0.0)	2.5	(0.0)	2.6	(0.0)	**0.3**	(0.1)
	United States	2.2	(0.0)	1.4	(0.0)	1.9	(0.1)	2.2	(0.1)	2.3	(0.1)	2.6	(0.1)	**0.7**	(0.1)
	OECD average	3.0	(0.0)	1.2	(0.0)	2.9	(0.0)	3.0	(0.0)	3.1	(0.0)	3.2	(0.0)	**0.3**	(0.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	3.3	(0.0)	1.8	(0.0)	3.2	(0.1)	3.2	(0.1)	3.3	(0.1)	3.5	(0.1)	**0.2**	(0.1)
	B-S-J-G (China)	2.6	(0.1)	1.6	(0.0)	1.7	(0.1)	2.3	(0.2)	3.0	(0.1)	3.5	(0.1)	**1.7**	(0.2)
	Bulgaria	3.8	(0.0)	1.5	(0.0)	3.6	(0.1)	3.8	(0.1)	3.9	(0.1)	3.9	(0.1)	**0.4**	(0.1)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	2.0	(0.0)	1.1	(0.0)	1.7	(0.1)	1.8	(0.0)	1.9	(0.1)	2.4	(0.1)	**0.7**	(0.1)
	Costa Rica	2.0	(0.0)	1.1	(0.0)	1.8	(0.0)	1.9	(0.0)	1.9	(0.0)	2.5	(0.0)	**0.8**	(0.1)
	Croatia	2.7	(0.0)	1.9	(0.0)	2.1	(0.1)	2.6	(0.1)	2.8	(0.1)	3.3	(0.1)	**1.2**	(0.1)
	Cyprus*	3.0	(0.0)	1.1	(0.0)	2.8	(0.0)	3.0	(0.0)	3.1	(0.0)	3.0	(0.0)	**0.2**	(0.1)
	Dominican Republic	2.2	(0.0)	1.5	(0.0)	1.8	(0.1)	2.0	(0.1)	2.2	(0.1)	2.8	(0.1)	**1.0**	(0.1)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.6	(0.0)	0.8	(0.0)	3.6	(0.0)	3.5	(0.0)	3.5	(0.0)	3.6	(0.0)	**0.1**	(0.0)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	2.8	(0.0)	1.9	(0.0)	1.9	(0.1)	2.7	(0.1)	3.2	(0.1)	3.4	(0.1)	**1.5**	(0.1)
	Macao (China)	3.5	(0.0)	0.8	(0.0)	3.5	(0.0)	3.5	(0.0)	3.6	(0.0)	3.5	(0.0)	0.0	(0.0)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	2.4	(0.0)	1.8	(0.0)	2.0	(0.1)	2.3	(0.1)	2.3	(0.0)	2.9	(0.0)	**0.8**	(0.1)
	Peru	2.8	(0.0)	1.3	(0.0)	2.5	(0.1)	2.6	(0.1)	2.9	(0.1)	3.1	(0.1)	**0.6**	(0.1)
	Qatar	2.2	(0.0)	1.4	(0.0)	1.9	(0.0)	2.2	(0.0)	2.2	(0.0)	2.5	(0.0)	**0.6**	(0.0)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	3.8	(0.1)	1.9	(0.0)	3.0	(0.2)	4.1	(0.1)	4.2	(0.1)	4.0	(0.1)	**1.0**	(0.2)
	Singapore	3.6	(0.0)	1.2	(0.0)	3.5	(0.0)	3.6	(0.0)	3.6	(0.0)	3.7	(0.0)	**0.2**	(0.1)
	Chinese Taipei	3.2	(0.0)	1.2	(0.0)	3.2	(0.0)	3.2	(0.0)	3.2	(0.0)	3.3	(0.0)	0.1	(0.1)
	Thailand	3.2	(0.0)	1.1	(0.0)	2.9	(0.0)	3.1	(0.0)	3.3	(0.1)	3.4	(0.0)	**0.5**	(0.1)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	2.0	(0.0)	1.2	(0.0)	1.7	(0.1)	2.0	(0.1)	2.1	(0.0)	2.1	(0.0)	**0.5**	(0.1)
	United Arab Emirates	2.3	(0.0)	1.1	(0.0)	2.2	(0.0)	2.3	(0.0)	2.3	(0.0)	2.4	(0.0)	**0.3**	(0.0)
	Uruguay	3.0	(0.0)	1.2	(0.0)	2.6	(0.0)	2.8	(0.0)	3.0	(0.0)	3.5	(0.1)	**0.9**	(0.1)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	2.5	(0.0)	1.1	(0.0)	2.2	(0.1)	2.4	(0.1)	2.6	(0.1)	2.9	(0.1)	**0.7**	(0.1)

1. Students who did not attend are given a value of «0». Students who attended between 0 and 1 years are given a value of «0.5» years, students who attended between 1 and 2 years are given a value of «1.5»; and the same logic applies for other responses.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).
StatLink http://dx.doi.org/10.1787/888933436513

[Part 2/3]

Table II.6.51 Number of years at pre-primary school, science performance and school characteristics

Results based on students' self-reports

		Number of years attending pre-primary school (ISCED 0), in years[1]													
		By school location								By type of school					
		Rural area or village (fewer than 3 000 people)		Town (3 000 to 100 000 people)		City (over 100 000 people)		City – rural area		Public		Private		Private – public	
		Years	S.E.	Years	S.E.	Years	S.E.	Dif.	S.E.	Years	S.E.	Years	S.E.	Dif.	S.E.
OECD	**Australia**	2.1	(0.1)	2.1	(0.0)	2.2	(0.0)	0.1	(0.1)	2.1	(0.0)	2.2	(0.0)	**0.1**	(0.0)
	Austria	3.0	(0.1)	3.1	(0.0)	3.3	(0.0)	**0.3**	(0.1)	3.2	(0.0)	3.4	(0.1)	**0.3**	(0.1)
	Belgium	3.7	(0.1)	3.7	(0.0)	3.6	(0.0)	0.0	(0.1)	w	w	w	w	w	w
	Canada	1.9	(0.1)	1.9	(0.0)	2.1	(0.0)	**0.2**	(0.1)	2.0	(0.0)	2.2	(0.1)	**0.2**	(0.1)
	Chile	1.9	(0.3)	2.1	(0.0)	2.2	(0.0)	0.2	(0.3)	2.1	(0.0)	2.2	(0.0)	**0.1**	(0.0)
	Czech Republic	3.6	(0.1)	3.4	(0.0)	3.5	(0.0)	-0.1	(0.1)	3.5	(0.0)	3.4	(0.0)	-0.1	(0.0)
	Denmark	3.7	(0.0)	3.8	(0.0)	3.8	(0.0)	0.1	(0.1)	3.7	(0.0)	3.8	(0.0)	0.0	(0.0)
	Estonia	3.8	(0.1)	4.4	(0.0)	4.3	(0.0)	**0.6**	(0.1)	4.2	(0.0)	4.3	(0.1)	0.1	(0.1)
	Finland	2.8	(0.1)	3.1	(0.0)	3.6	(0.1)	**0.8**	(0.1)	3.2	(0.0)	3.7	(0.2)	**0.5**	(0.2)
	France	3.6	(0.0)	3.4	(0.0)	3.5	(0.0)	**-0.1**	(0.1)	3.4	(0.0)	3.4	(0.0)	0.0	(0.0)
	Germany	3.6	(0.2)	3.4	(0.0)	3.4	(0.0)	-0.3	(0.2)	3.4	(0.0)	3.3	(0.1)	-0.1	(0.1)
	Greece	2.6	(0.1)	2.8	(0.0)	2.8	(0.0)	**0.2**	(0.1)	2.8	(0.0)	2.9	(0.1)	**0.1**	(0.1)
	Hungary	3.8	(0.2)	3.8	(0.0)	3.8	(0.0)	0.0	(0.2)	3.8	(0.0)	3.8	(0.0)	0.0	(0.0)
	Iceland	4.1	(0.1)	4.0	(0.0)	3.8	(0.0)	**-0.2**	(0.1)	3.9	(0.0)	c	c	c	c
	Ireland	1.9	(0.1)	2.0	(0.0)	2.3	(0.0)	**0.4**	(0.1)	2.0	(0.0)	2.1	(0.0)	0.1	(0.0)
	Israel	3.5	(0.1)	3.5	(0.0)	3.6	(0.0)	0.1	(0.1)	m	m	m	m	m	m
	Italy	3.3	(0.0)	3.3	(0.0)	3.2	(0.0)	-0.1	(0.1)	3.3	(0.0)	3.1	(0.1)	-0.1	(0.1)
	Japan	c	c	3.5	(0.1)	3.5	(0.0)	c	c	3.4	(0.0)	3.5	(0.0)	**0.1**	(0.0)
	Korea	c	c	3.1	(0.1)	3.0	(0.0)	c	c	3.0	(0.0)	3.0	(0.0)	0.0	(0.0)
	Latvia	3.5	(0.1)	4.0	(0.0)	4.0	(0.1)	**0.5**	(0.1)	3.9	(0.0)	3.7	(0.4)	-0.2	(0.4)
	Luxembourg	m	m	2.8	(0.0)	2.9	(0.0)	m	m	2.9	(0.0)	3.0	(0.0)	**0.1**	(0.0)
	Mexico	2.7	(0.1)	2.8	(0.0)	2.8	(0.0)	0.1	(0.1)	2.8	(0.0)	3.1	(0.1)	**0.3**	(0.1)
	Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	New Zealand	2.8	(0.1)	2.7	(0.0)	2.7	(0.0)	0.0	(0.1)	2.7	(0.0)	2.7	(0.1)	0.0	(0.1)
	Norway	3.7	(0.1)	3.7	(0.0)	3.8	(0.1)	0.1	(0.1)	3.7	(0.0)	3.8	(0.2)	0.1	(0.2)
	Poland	2.0	(0.1)	2.6	(0.1)	3.1	(0.1)	**1.1**	(0.1)	2.4	(0.1)	3.3	(0.2)	**0.9**	(0.2)
	Portugal	1.3	(0.1)	1.5	(0.0)	1.7	(0.0)	**0.5**	(0.1)	1.5	(0.0)	1.7	(0.1)	**0.1**	(0.1)
	Slovak Republic	2.9	(0.1)	3.3	(0.0)	3.6	(0.1)	**0.8**	(0.1)	3.3	(0.0)	3.2	(0.1)	-0.1	(0.1)
	Slovenia	3.0	(0.2)	3.1	(0.0)	3.4	(0.1)	**0.4**	(0.2)	3.2	(0.0)	3.3	(0.2)	0.1	(0.2)
	Spain	3.4	(0.1)	3.3	(0.0)	3.4	(0.0)	0.0	(0.1)	3.2	(0.0)	3.6	(0.0)	**0.4**	(0.0)
	Sweden	4.2	(0.1)	4.4	(0.0)	4.5	(0.1)	**0.3**	(0.2)	4.4	(0.0)	4.6	(0.1)	**0.2**	(0.1)
	Switzerland	2.5	(0.1)	2.5	(0.0)	2.5	(0.0)	0.0	(0.1)	2.5	(0.0)	2.6	(0.1)	0.1	(0.1)
	Turkey	0.8	(0.2)	1.0	(0.0)	1.0	(0.0)	0.2	(0.2)	1.0	(0.0)	1.7	(0.4)	0.7	(0.4)
	United Kingdom	2.6	(0.1)	2.5	(0.0)	2.5	(0.0)	-0.1	(0.1)	2.5	(0.0)	2.8	(0.1)	**0.3**	(0.1)
	United States	2.1	(0.1)	2.3	(0.0)	2.2	(0.1)	0.1	(0.1)	2.2	(0.0)	2.8	(0.1)	**0.6**	(0.1)
	OECD average	2.9	(0.0)	3.0	(0.0)	3.1	(0.0)	**0.2**	(0.0)	3.0	(0.0)	3.1	(0.0)	**0.2**	(0.0)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	3.0	(0.2)	3.2	(0.0)	3.5	(0.0)	**0.5**	(0.2)	3.2	(0.0)	3.7	(0.1)	**0.5**	(0.1)
	B-S-J-G (China)	1.9	(0.2)	2.4	(0.1)	3.1	(0.1)	**1.3**	(0.2)	2.6	(0.1)	2.7	(0.2)	0.0	(0.2)
	Bulgaria	3.5	(0.2)	3.8	(0.0)	3.9	(0.0)	0.4	(0.2)	3.8	(0.0)	c	c	c	c
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	1.8	(0.1)	1.8	(0.1)	2.1	(0.0)	**0.4**	(0.1)	1.8	(0.0)	2.5	(0.1)	**0.7**	(0.1)
	Costa Rica	1.9	(0.0)	2.1	(0.0)	1.9	(0.1)	0.0	(0.1)	2.0	(0.0)	1.9	(0.1)	**-0.1**	(0.1)
	Croatia	c	c	2.4	(0.1)	3.2	(0.1)	c	c	2.7	(0.0)	3.0	(0.1)	**0.3**	(0.1)
	Cyprus*	2.8	(0.1)	3.0	(0.0)	3.0	(0.0)	**0.2**	(0.1)	3.0	(0.0)	2.9	(0.0)	0.0	(0.1)
	Dominican Republic	1.8	(0.1)	2.2	(0.1)	2.6	(0.1)	**0.8**	(0.1)	2.0	(0.0)	2.8	(0.1)	**0.8**	(0.1)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	m	m	m	m	3.6	(0.0)	m	m	3.6	(0.0)	3.6	(0.0)	**-0.1**	(0.0)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	1.7	(0.1)	2.8	(0.1)	3.4	(0.0)	**1.8**	(0.1)	2.8	(0.0)	3.2	(0.2)	0.4	(0.2)
	Macao (China)	c	c	c	c	3.5	(0.0)	c	c	c	c	3.5	(0.0)	c	c
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	c	c	2.2	(0.0)	2.8	(0.0)	c	c	2.4	(0.0)	c	c	c	c
	Peru	2.6	(0.1)	2.8	(0.0)	2.9	(0.1)	**0.3**	(0.1)	2.7	(0.0)	3.1	(0.0)	**0.4**	(0.1)
	Qatar	1.8	(0.1)	2.1	(0.0)	2.3	(0.0)	**0.5**	(0.1)	2.0	(0.0)	2.5	(0.0)	**0.5**	(0.0)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	2.9	(0.2)	3.9	(0.1)	4.0	(0.1)	**1.1**	(0.2)	3.8	(0.1)	c	c	c	c
	Singapore	m	m	m	m	3.6	(0.0)	m	m	3.6	(0.0)	3.4	(0.1)	**-0.2**	(0.1)
	Chinese Taipei	c	c	3.3	(0.0)	3.2	(0.0)	c	c	3.2	(0.0)	3.2	(0.0)	0.0	(0.0)
	Thailand	3.0	(0.1)	3.2	(0.0)	3.3	(0.0)	**0.3**	(0.1)	3.1	(0.0)	3.3	(0.1)	**0.2**	(0.1)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	1.5	(0.2)	2.0	(0.0)	2.2	(0.0)	**0.7**	(0.3)	2.0	(0.0)	2.2	(0.2)	0.2	(0.2)
	United Arab Emirates	2.3	(0.1)	2.2	(0.0)	2.3	(0.0)	0.1	(0.1)	2.2	(0.0)	2.3	(0.0)	**0.1**	(0.0)
	Uruguay	2.5	(0.1)	2.9	(0.0)	3.2	(0.0)	**0.7**	(0.1)	2.9	(0.0)	3.8	(0.1)	**0.9**	(0.1)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	2.3	(0.1)	2.4	(0.1)	2.8	(0.0)	**0.5**	(0.1)	2.5	(0.0)	3.3	(0.1)	**0.8**	(0.1)

1. Students who did not attend are given a value of «0». Students who attended between 0 and 1 years are given a value of «0.5» years, students who attended between 1 and 2 years are given a value of «1.5»; and the same logic applies for other responses.
2. The socio-economic profile is measured by the PISA index of economic, social and cultural status
Note: Values that are statistically significant are indicated in bold (see Annex A3).
* See note at the beginning of this Annex.
** Coverage is too small to ensure comparability (see Annex A4).

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[Part 3/3]

Table II.6.51 Number of years at pre-primary school, science performance and school characteristics

Results based on students' self-reports

		Number of years attending pre-primary school (ISCED 0), in years[1]													
		By education level						Before accounting for students' and schools' socio-economic profil[2]				After accounting for students' and schools' socio-economic profile			
		Lower secondary education (ISCED 2)		Upper secondary education (ISCED 3)		ISCED 3 – ISCED 2		Change in the science score per year attending pre-primary school		Explained variance in student performance (r-squared x 100)		Change in the science score per year attending pre-primary school		Explained variance in student performance (r-squared x 100)	
		Years	S.E.	Years	S.E.	Dif.	S.E.	Score dif.	S.E.	%	S.E.	Score dif.	S.E.	%	S.E.
OECD	**Australia**	2.1	(0.0)	2.0	(0.0)	**-0.1**	(0.0)	**3**	(1.1)	0.1	(0.1)	**-2**	(1.0)	16.3	(1.2)
	Austria	3.3	(0.3)	3.2	(0.0)	-0.2	(0.3)	-1	(1.9)	0.0	(0.1)	**-7**	(1.6)	31.8	(1.9)
	Belgium	3.7	(0.1)	3.7	(0.0)	0.0	(0.1)	0	(1.6)	0.0	(0.0)	0	(1.2)	36.3	(2.1)
	Canada	2.0	(0.1)	2.0	(0.0)	0.0	(0.1)	2	(1.2)	0.1	(0.1)	-2	(1.1)	11.4	(1.0)
	Chile	2.3	(0.1)	2.1	(0.0)	-0.2	(0.1)	-1	(2.4)	0.0	(0.1)	**-6**	(1.9)	26.5	(1.6)
	Czech Republic	3.6	(0.0)	3.3	(0.0)	**-0.3**	(0.0)	**6**	(1.8)	0.4	(0.2)	**4**	(1.3)	34.6	(2.1)
	Denmark	3.7	(0.0)	c	c	c	c	**7**	(1.4)	0.7	(0.3)	**5**	(1.3)	12.7	(1.4)
	Estonia	4.2	(0.0)	3.3	(0.3)	**-0.9**	(0.3)	0	(1.0)	0.0	(0.0)	**-3**	(1.0)	11.1	(1.3)
	Finland	3.2	(0.0)	c	c	c	c	**5**	(1.1)	0.8	(0.3)	1	(1.0)	10.7	(1.3)
	France	3.3	(0.0)	3.5	(0.0)	**0.2**	(0.0)	**9**	(2.1)	0.7	(0.4)	**5**	(1.5)	38.0	(2.0)
	Germany	3.4	(0.0)	3.3	(0.1)	-0.1	(0.1)	**7**	(1.8)	0.7	(0.3)	**5**	(1.4)	34.2	(2.0)
	Greece	2.5	(0.2)	2.8	(0.0)	0.3	(0.2)	**6**	(1.4)	0.6	(0.3)	2	(1.3)	22.9	(2.6)
	Hungary	3.8	(0.1)	3.8	(0.0)	0.0	(0.1)	**7**	(2.1)	0.4	(0.2)	3	(1.6)	44.9	(2.0)
	Iceland	4.0	(0.0)	m	m	m	m	0	(2.2)	0.0	(0.1)	0	(2.2)	5.2	(1.0)
	Ireland	2.1	(0.0)	1.9	(0.0)	**-0.3**	(0.0)	0	(1.6)	0.0	(0.0)	-2	(1.4)	14.2	(1.3)
	Israel	3.8	(0.1)	3.5	(0.0)	**-0.3**	(0.1)	3	(1.9)	0.1	(0.2)	**-3**	(1.3)	23.6	(2.5)
	Italy	2.5	(0.2)	3.2	(0.0)	**0.8**	(0.2)	**7**	(1.7)	0.5	(0.2)	**5**	(1.5)	24.2	(2.2)
	Japan	m	m	3.5	(0.0)	m	m	-3	(1.4)	0.1	(0.1)	**-3**	(1.1)	28.6	(2.4)
	Korea	3.1	(0.1)	3.0	(0.0)	-0.1	(0.1)	-2	(1.3)	0.1	(0.1)	-2	(1.3)	17.8	(2.1)
	Latvia	3.9	(0.0)	3.1	(0.1)	**-0.8**	(0.1)	0	(1.1)	0.0	(0.0)	-2	(1.0)	13.1	(1.6)
	Luxembourg	2.8	(0.0)	2.9	(0.0)	**0.1**	(0.0)	**6**	(1.5)	0.4	(0.2)	2	(1.3)	35.1	(1.1)
	Mexico	2.9	(0.0)	2.8	(0.0)	**-0.1**	(0.1)	1	(1.7)	0.0	(0.1)	**-3**	(1.4)	17.1	(2.0)
	Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	New Zealand	2.6	(0.1)	2.7	(0.0)	**0.2**	(0.1)	3	(1.9)	0.1	(0.1)	1	(1.7)	18.5	(1.6)
	Norway	3.7	(0.0)	c	c	c	c	**7**	(1.1)	1.0	(0.3)	**3**	(1.1)	9.2	(1.0)
	Poland	2.5	(0.1)	c	c	c	c	**8**	(1.1)	2.3	(0.6)	0	(1.1)	15.8	(1.6)
	Portugal	1.5	(0.0)	1.5	(0.0)	0.0	(0.0)	2	(1.5)	0.1	(0.1)	**-3**	(1.5)	20.2	(2.2)
	Slovak Republic	3.3	(0.0)	3.3	(0.0)	0.0	(0.1)	**11**	(1.9)	2.0	(0.7)	0	(1.3)	30.5	(2.3)
	Slovenia	2.9	(0.2)	3.2	(0.0)	0.3	(0.2)	1	(1.0)	0.0	(0.1)	**-3**	(0.8)	35.9	(1.3)
	Spain	3.4	(0.0)	c	c	c	c	**12**	(1.6)	2.0	(0.5)	**7**	(1.4)	15.2	(1.2)
	Sweden	4.4	(0.0)	4.1	(0.2)	-0.3	(0.2)	**10**	(1.5)	2.7	(0.8)	**6**	(1.2)	17.3	(1.9)
	Switzerland	2.5	(0.0)	2.4	(0.0)	**-0.2**	(0.0)	**-14**	(2.1)	1.5	(0.4)	**-15**	(1.9)	27.7	(2.0)
	Turkey	0.8	(0.1)	1.0	(0.0)	0.2	(0.1)	2	(1.8)	0.2	(0.2)	**-5**	(1.2)	27.3	(4.1)
	United Kingdom	2.5	(0.1)	2.5	(0.0)	0.0	(0.1)	**13**	(1.4)	1.8	(0.4)	**7**	(1.2)	18.1	(1.6)
	United States	2.3	(0.1)	2.2	(0.0)	0.0	(0.1)	**4**	(1.2)	0.3	(0.2)	**-3**	(1.0)	13.9	(1.5)
	OECD average	3.0	(0.0)	2.9	(0.0)	**-0.1**	(0.0)	**4**	(0.3)	0.6	(0.1)	0	(0.2)	22.3	(0.3)
Partners	**Albania**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	3.5	(0.1)	3.3	(0.0)	**-0.2**	(0.1)	**-2**	(0.8)	0.2	(0.1)	**-4**	(0.6)	24.0	(2.1)
	B-S-J-G (China)	2.5	(0.1)	2.8	(0.1)	**0.3**	(0.1)	**20**	(1.9)	9.6	(1.6)	**4**	(1.3)	35.3	(3.0)
	Bulgaria	3.0	(0.4)	3.8	(0.0)	**0.9**	(0.4)	**4**	(1.3)	0.3	(0.2)	-1	(1.0)	38.3	(2.7)
	CABA (Argentina)	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	2.0	(0.0)	1.9	(0.0)	-0.1	(0.0)	**5**	(1.7)	0.4	(0.3)	**-6**	(1.1)	21.7	(2.4)
	Costa Rica	2.0	(0.0)	2.0	(0.0)	0.0	(0.0)	**7**	(1.5)	1.1	(0.5)	**-2**	(1.1)	22.0	(2.1)
	Croatia	c	c	2.7	(0.0)	c	c	**4**	(0.9)	0.7	(0.3)	**-3**	(0.8)	25.1	(2.0)
	Cyprus*	3.0	(0.1)	3.0	(0.0)	0.0	(0.1)	**4**	(1.5)	0.2	(0.2)	1	(1.4)	17.6	(1.1)
	Dominican Republic	2.0	(0.1)	2.2	(0.0)	**0.2**	(0.1)	**4**	(1.3)	0.8	(0.5)	**-3**	(1.0)	26.2	(2.9)
	FYROM	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Georgia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Hong Kong (China)	3.6	(0.0)	3.5	(0.0)	**-0.1**	(0.0)	3	(2.2)	0.1	(0.1)	1	(1.9)	13.1	(2.0)
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kosovo	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	2.8	(0.0)	c	c	c	c	**3**	(1.0)	0.4	(0.3)	**-4**	(0.8)	22.1	(2.4)
	Macao (China)	3.6	(0.0)	3.5	(0.0)	**-0.1**	(0.0)	3	(2.0)	0.1	(0.1)	3	(2.0)	2.1	(0.5)
	Malta	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Moldova	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	2.2	(0.3)	2.4	(0.0)	0.2	(0.3)	-1	(0.7)	0.0	(0.1)	**-5**	(0.7)	18.4	(1.1)
	Peru	2.7	(0.1)	2.8	(0.0)	**0.1**	(0.1)	**4**	(1.2)	0.5	(0.3)	**-3**	(0.9)	29.9	(2.2)
	Qatar	2.2	(0.0)	2.2	(0.0)	0.0	(0.0)	2	(0.9)	0.1	(0.1)	**-3**	(0.8)	12.8	(0.6)
	Romania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	3.9	(0.1)	3.0	(0.2)	**-0.9**	(0.2)	1	(1.1)	0.0	(0.1)	**-2**	(0.9)	9.3	(1.8)
	Singapore	3.0	(0.2)	3.6	(0.0)	**0.6**	(0.2)	**8**	(1.5)	0.9	(0.3)	**4**	(1.2)	26.5	(1.8)
	Chinese Taipei	3.4	(0.0)	3.1	(0.0)	**-0.2**	(0.0)	-2	(1.1)	0.1	(0.1)	**-4**	(1.0)	27.5	(2.7)
	Thailand	3.0	(0.0)	3.2	(0.0)	**0.2**	(0.0)	**3**	(1.3)	0.2	(0.1)	**-2**	(1.0)	17.8	(3.1)
	Trinidad and Tobago	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	1.9	(0.1)	2.0	(0.0)	0.1	(0.1)	0	(1.2)	0.0	(0.1)	**-4**	(1.1)	19.9	(3.2)
	United Arab Emirates	2.3	(0.1)	2.3	(0.0)	0.0	(0.1)	-1	(1.2)	0.0	(0.0)	**-4**	(1.1)	13.6	(1.8)
	Uruguay	2.7	(0.0)	3.1	(0.0)	**0.4**	(0.0)	**16**	(1.3)	5.1	(0.8)	**4**	(1.0)	26.3	(1.8)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan**	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malaysia**	2.8	(0.2)	2.5	(0.0)	-0.3	(0.2)	**8**	(2.0)	1.3	(0.6)	-2	(1.3)	18.2	(2.4)

1. Students who did not attend are given a value of «0». Students who attended between 0 and 1 years are given a value of «0.5» years, students who attended between 1 and 2 years are given a value of «1.5»; and the same logic applies for other responses.

2. The socio-economic profile is measured by the PISA index of economic, social and cultural status

Note: Values that are statistically significant are indicated in bold (see Annex A3).

* See note at the beginning of this Annex.

** Coverage is too small to ensure comparability (see Annex A4).

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[Part 1/1]

Table II.6.53 Compulsory and intended instruction time, by age (2016)

Number of hours per year for 5-15 year-olds in public institutions

			Number of hours per year of total intended instruction time										
		Source	Age 5[1]	Age 6[1]	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15 (typical programme)
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	**Australia**	*a*	m	m	m	m	m	m	m	m	m	m	m
	Austria	*a*	a	m	m	m	m	m	m	m	m	m	a
	Belgium (Fl.)	*a*	a	826	826	826	826	826	826	952	952	952	952
	Belgium (Fr.)	*a*	a	m	m	m	m	m	m	m	m	m	m
	Canada	*a*	a	914	914	922	922	922	923	928	937	925	940
	Chile	*a*	a	994	994	1 061	1 061	1 061	1 061	1 072	1 071	1 168	1 164
	Czech Republic[2]	*a*	a	m	m	m	m	m	m	m	m	m	a
	Denmark	*a*	a	1 000	1 000	1 000	1 000	1 120	1 120	1 120	1 200	1 200	1 200
	England (UK)	*a*	m	m	m	m	m	m	m	m	m	m	a
	Estonia[2]	*a*	a	a	595	595	595	726	726	726	823	823	823
	Finland[2]	*a*	a	a	610	610	671	671	724	678	901	901	901
	France	*a*	a	864	864	864	864	864	964	1 000	1 252	1 144	1 144
	Germany[3]	*a*	a	632	656	756	768	870	893	913	922	937	946
	Greece	*a*	a	1 067	1 067	1 059	1 059	1 068	1 068	785	785	785	a
	Hungary	*a*	a	679	679	679	625	760	760	842	697	945	972
	Iceland[2]	*a*	a	680	680	680	680	793	793	793	839	839	839
	Ireland	*a*	a	915	915	915	915	915	915	935	935	935	935
	Israel[2]	*a*	a	910	910	967	987	997	997	978	1 005	1 014	1 107
	Italy	*a*	a	891	891	891	891	891	990	990	990	915	915
	Japan	*a*	a	689	734	760	797	797	797	895	895	895	a
	Korea[2]	*a*	a	560	560	657	657	725	725	842	842	842	a
	Latvia	*a*	a	a	m	m	m	m	m	m	m	m	m
	Luxembourg[2]	*a*	a	899	949	924	924	924	924	845	845	845	845
	Mexico	*a*	a	800	800	800	800	800	800	1 167	1 167	1 167	990
	Netherlands[4]	*a*	a	m	m	m	m	m	m	m	m	m	m
	New Zealand	*a*	m	m	m	m	m	m	m	m	m	m	a
	Norway[2]	*a*	a	748	748	748	748	748	748	748	874	874	874
	Poland[2, 5]	*a*	a	a	612	612	612	765	776	776	874	874	874
	Portugal	*a*	a	1 080	1 080	1 080	1 080	958	958	945	918	893	972
	Scotland (UK)	*a*	m	m	m	m	m	m	m	m	m	m	m
	Slovak Republic	*a*	a	630	659	716	745	774	831	860	860	860	1 031
	Slovenia	*a*	a	739	712	739	844	896	844	962	975	848	a
	Spain	*a*	a	790	791	792	791	792	790	1 042	1 041	1 049	1 060
	Sweden[2]	*a*	a	m	m	m	m	m	m	m	m	m	m
	Switzerland	*a*	a	m	m	m	m	m	m	m	m	m	a
	Turkey	*a*	a	720	720	720	720	843	843	843	842	960	960
	United States[6]	*a*	a	m	m	m	m	m	m	m	m	m	m
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m
	Argentina[7]	*b*	a	900	900	900	900	900	900	1 080	1 080	1 080	1 080
	Brazil	*a*	a	m	m	m	m	m	m	m	m	m	a
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria[8]	*b*	a	a	470	485	619	619	867	867	867	867	972
	Colombia	*a*	a	m	m	m	m	m	m	m	m	m	a
	Costa Rica	*b*	m	m	m	m	m	m	m	m	m	m	m
	Croatia[9]	*b*	a	a	525	525	525	578	735	761	840	840	840
	Cyprus*[10]	*b*	a	817	817	817	817	817	817	851	851	851	799
	Dominican Republic	*b*	a	746	746	746	746	746	746	826	826	991	991
	FYROM	*b*	a	552	624	696	720	792	864	816	864	888	863
	Georgia	*b*	a	411	528	587	599	714	714	714	778	842	816
	Hong Kong (China)	*b*	a	950	950	950	950	950	950	1 045	1 045	1 045	1 140
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan[11]	*b*	a	459	765	765	765	918	918	918	918	918	995
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	*b*	a	a	445	600	624	600	672	765	791	816	867
	Macao (China)[11]	*b*	a	697	697	697	697	697	697	720	720	720	720
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m
	Malta[12]	*b*	822	822	822	812	812	784	783	783	783	783	783
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m
	Montenegro[13]	*b*	a	510	510	510	599	650	663	765	765	698	891
	Peru	*b*	a	825	825	825	825	825	825	900	900	900	900
	Qatar	*b*	m	m	m	m	m	m	m	m	m	m	m
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	a	a	m	m	m	m	m	m	m	m	m
	Singapore	*b*	a	884	858	803	803	803	572	765	793	782	675
	Chinese Taipei	*b*	a	613	613	773	773	853	853	1 050	1 050	1 050	1 333
	Thailand	*b*	a	a	833	833	833	833	833	833	1 000	1 000	1 000
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	a	919	919	919	919	919	1 021	1 021	1 021	1 021	1 021
	Uruguay	*b*	a	774	774	774	774	774	774	630	630	630	630
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m

1. Only if applicable to primary education.
2. Year of reference 2015.
3. Estimated instruction time per age, as the allocation of instruction time across multiple grades is flexible.
4. Excludes the last year of pre-vocational secondary education (VMBO) for 15-year-old students.
5. In the 2015/16 school year, primary education was compulsory for six-year-old children, but in 2016/17 school year, primary school is compulsory for seven-year-old children and admission of six-year-olds to grade 1 of primary school is left to the parents' discretion.
6. Year of reference 2012.
7. Estimates based on a school year of 180 days and classes that last 5 hours/day (primary level) and 6 hours/day (secondary level). The duration of class sessions vary by region. Variations in the length of the school year (180 days) may also exist. These estimates include breaks between classes or other types of interruptions as well as hours lost when schools are closed for festivities, such as national holidays.
8. Minimum instruction time in general education, compulsory for all schools. Instruction time may vary depending on the type of schools/tracks.
9. General and vocational programmes combined.
10. Reference year 2013/14.
11. Reference year 2014/15.
12. The duration of class sessions in primary education (ages 5 to 10) varies from 30 to 60 minutes.
13. Typical programme for 15-year-olds is the first grade of non-compulsory secondary education. Least demanding programme refers to the final year of compulsory education for 15-year-old students who repeated a grade. A three-year vocational school is not reported since it is not compulsory.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.

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[Part 1/4]

Table II.6.54 Teachers' salaries (2014)

Ratio of salaries after 15 years of experience to per capita GDP and ratio of salary at top of scale to starting salary, based on minimum and typical qualification, by level of education

			Teachers with minimum training												
			Ratio of salaries after 15 years of experience to per capita GDP						Ratio of salary at top of scale to starting salary						Years from starting to top salary (lower secondary education, all education programmes)
			Lower secondary			Upper secondary			Lower secondary			Upper secondary			
		Source	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	**Australia**[1]	*a*	m	1.22	m	m	1.20	m	m	1.50	m	m	1.51	m	8
	Austria	*a*	m	0.98	m	m	1.06	m	m	1.94	m	m	2.07	m	34
	Belgium (Fl.)	*a*	m	m	m	m	m	m	m	1.73	m	m	1.76	m	27
	Belgium (Fr.)	*a*	m	m	m	m	m	m	m	1.60	m	m	1.60	m	27
	Canada	*a*	m	1.33	m	m	1.34	m	m	1.58	m	m	1.58	m	11
	Chile	*a*	m	1.11	m	m	1.17	m	m	1.85	m	m	1.85	m	30
	Czech Republic	*a*	m	0.58	m	m	0.58	m	m	1.14	m	m	1.14	m	27
	Denmark[2]	*a*	m	1.17	m	m	1.28	m	m	1.15	m	m	1.27	m	12
	England (UK)	*a*	m	m	m	m	m	m	m	1.58	m	m	1.58	m	m
	Estonia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Finland[1, 2]	*a*	m	1.04	m	m	1.13	m	m	1.30	m	m	1.32	m	20
	France[3]	*a*	m	0.93	m	m	0.94	m	m	1.74	m	m	1.73	m	29
	Germany	*a*	m	1.53	m	m	1.62	m	m	1.32	m	m	1.39	m	28
	Greece	*a*	m	0.92	m	m	0.92	m	m	1.89	m	m	1.89	m	45
	Hungary	*a*	m	0.78	m	m	0.86	m	m	1.90	m	m	1.90	m	15
	Iceland	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Ireland	*a*	m	1.14	m	m	1.14	m	m	2.01	m	m	2.01	m	22
	Israel	*a*	m	0.89	m	m	0.73	m	m	2.12	m	m	1.93	m	36
	Italy	*a*	m	1.01	m	m	1.03	m	m	1.50	m	m	1.57	m	35
	Japan[2]	*a*	m	1.35	m	m	1.35	m	m	2.20	m	m	2.26	m	34
	Korea	*a*	m	1.43	m	m	1.43	m	m	2.80	m	m	2.80	m	37
	Latvia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Luxembourg[2]	*a*	m	1.15	m	m	1.15	m	m	1.74	m	m	1.74	m	30
	Mexico	*a*	m	1.64	m	m	2.56	m	m	1.66	m	m	1.26	m	14
	Netherlands	*a*	m	1.38	m	m	1.38	m	m	1.74	m	m	1.74	m	12
	New Zealand	*a*	m	1.17	m	m	1.18	m	m	1.52	m	m	1.53	m	7
	Norway	*a*	m	0.67	m	m	0.72	m	m	1.22	m	m	1.17	m	16
	Poland	*a*	m	0.87	m	m	1.00	m	m	1.69	m	m	1.71	m	20
	Portugal	*a*	m	1.35	m	m	1.35	m	m	1.69	m	m	1.69	m	34
	Scotland (UK)	*a*	m	m	m	m	m	m	m	1.60	m	m	1.60	m	6
	Slovak Republic	*a*	m	0.53	m	m	0.53	m	m	1.35	m	m	1.35	m	32
	Slovenia	*a*	m	a	m	m	a	m	m	a	m	m	a	m	25
	Spain	*a*	m	1.40	m	m	1.41	m	m	1.40	m	m	1.41	m	38
	Sweden[4]	*a*	m	0.84	m	m	0.88	m	m	1.33	m	m	1.34	m	a
	Switzerland	*a*	m	m	m	m	m	m	m	1.53	m	m	1.53	m	26
	Turkey	*a*	m	1.52	m	m	1.52	m	m	1.14	m	m	1.14	m	27
	United States[5]	*a*	m	0.91	m	m	0.97	m	m	1.54	m	m	1.48	m	m

1. Statutory salaries do not include the part of social security contributions and pension-scheme contributions paid by employees.
2. Statutory salaries include the part of social security contributions and pension-scheme contributions paid by employers.
3. Includes the average of fixed bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries for 2013.
5. Actual base salaries.
6. At the lower secondary level, there is no distinction between general and vocational programmes.
7. Reference year 2015/2016.
8. Reference year 2014/2015.
9. Gross annual salaries reported for vocational programmes include base pay, employer's contribution to retirement schemes, and performance bonus. The salaries of teachers in general programmes include base pay and employer's contribution to retirement funds (there are no performance bonus for these teachers).
10. Reference year 2016.
11. Salaries include the employer's contribution to retirement as well as transportation and housing allowances. Transportation allowances are provided to all teachers. Housing allowances vary by marital status and are paid to all teachers, except married female teachers if their husbands receive a similar allowance from the government. Teachers in the role of supervisors may be awarded additional allowances.
12. Salaries vary depending on teacher's marital status.
13. Reference year 2015.
14. Salaries of part-time classroom teachers.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.
c) GDP and population data: World Bank, International Comparison Program database.

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[Part 2/4]

Table II.6.54 Teachers' salaries (2014)

Ratio of salaries after 15 years of experience to per capita GDP and ratio of salary at top of scale to starting salary, based on minimum and typical qualification, by level of education

		Source	Teachers with minimum training												
			Ratio of salaries after 15 years of experience to per capita GDP						Ratio of salary at top of scale to starting salary						Years from starting to top salary (lower secondary education, all education programmes)
			Lower secondary			Upper secondary			Lower secondary			Upper secondary			
			All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	*b*	0.66	0.66	m	0.66	0.66	m	1.60	1.60	m	1.60	1.60	m	24
	Brazil	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	*b*	0.85	0.85	0.85	0.85	0.85	0.85	2.00	2.00	2.00	2.00	2.00	2.00	20
	Colombia	*a*	m	2.17	m	m	2.17	m	m	1.79	m	m	1.79	m	9
	Costa Rica	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Croatia[6]	*b*	m	m	a	m	m	m	1.48	1.48	a	1.69	m	m	40
	Cyprus*	*b*	1.98	1.98	1.98	1.98	1.98	1.98	2.43	2.43	2.43	2.43	2.43	2.43	22
	Dominican Republic[7]	*b*	1.94	1.94	a	2.31	2.31	2.31	1.15	1.15	a	1.15	1.15	1.15	15
	FYROM	*b*	0.47	0.47	0.47	0.50	0.50	0.50	1.49	1.49	1.49	1.53	1.53	1.53	40
	Georgia	*b*	m	0.66	a	m	0.66	0.61	m	1.06	a	m	1.06	5.00	m
	Hong Kong (China)[8, 9]	*b*	m	1.63	m	m	1.96	m	m	1.80	1.43	m	2.56	1.43	m
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan[8]	*b*	0.39	0.39	a	0.39	0.39	0.44	1.18	1.18	a	1.18	1.18	1.21	> 25
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania[10]	*b*	0.52	0.53	0.52	0.52	0.53	0.52	1.03	1.01	1.05	1.03	1.01	1.05	15
	Macao (China)[8]	*b*	0.73	0.73	0.73	0.73	0.73	0.73	1.54	1.54	1.54	1.54	1.54	1.54	>33
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta[6]	*b*	1.18	1.18	a	1.16	1.16	m	1.32	1.32	a	1.32	1.32	m	18
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	*b*	1.36	1.36	a	1.54	1.54	1.54	1.28	1.28	a	1.30	1.30	1.30	40
	Peru	*b*	1.00	1.00	1.00	1.00	1.00	1.00	2.52	2.52	2.52	2.52	2.52	2.52	30
	Qatar[11]	*b*	2.00	2.00	m	2.00	2.00	m	2.53	2.53	m	2.53	2.53	m	20
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Singapore	*b*	1.30	1.30	a	1.30	1.30	a	2.81	2.81	a	2.81	2.81	a	m
	Chinese Taipei	*b*	1.10	1.10	a	1.10	1.10	1.10	1.86	1.86	a	1.86	1.86	1.86	25
	Thailand	*b*	1.48	1.48	a	1.48	1.48	1.48	1.64	1.64	a	1.64	1.64	1.64	13
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates[12]	*b,c*	1.80	1.80	1.80	1.80	1.80	1.80	m	m	m	m	m	m	m
	Uruguay[13, 14]	*b*	0.74	0.74	0.74	0.76	0.76	0.76	1.46	1.46	1.46	1.44	1.44	1.44	35
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Statutory salaries do not include the part of social security contributions and pension-scheme contributions paid by employees.
2. Statutory salaries include the part of social security contributions and pension-scheme contributions paid by employers.
3. Includes the average of fixed bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries for 2013.
5. Actual base salaries.
6. At the lower secondary level, there is no distinction between general and vocational programmes.
7. Reference year 2015/2016.
8. Reference year 2014/2015.
9. Gross annual salaries reported for vocational programmes include base pay, employer's contribution to retirement schemes, and performance bonus. The salaries of teachers in general programmes include base pay and employer's contribution to retirement funds (there are no performance bonus for these teachers).
10. Reference year 2016.
11. Salaries include the employer's contribution to retirement as well as transportation and housing allowances. Transportation allowances are provided to all teachers. Housing allowances vary by marital status and are paid to all teachers, except married female teachers if their husbands receive a similar allowance from the government. Teachers in the role of supervisors may be awarded additional allowances.
12. Salaries vary depending on teacher's marital status.
13. Reference year 2015.
14. Salaries of part-time classroom teachers.
* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.
c) GDP and population data: World Bank, International Comparison Program database.

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[Part 3/4]

Table II.6.54 Teachers' salaries (2014)

Ratio of salaries after 15 years of experience to per capita GDP and ratio of salary at top of scale to starting salary, based on minimum and typical qualification, by level of education

			Teachers with typical training													Outstanding performance in teaching used as a criteria for the base salary and additional payments in public institutions		
			Ratio of salaries after 15 years of experience to per capita GDP						Ratio of salary at top of scale to starting salary						Years from starting to top salary (lower secondary education, all education programmes)			
			Lower secondary			Upper secondary			Lower secondary			Upper secondary						
		Source	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes		Decisions on position in base salary scale	Decisions on supplemental payments that are paid every year	Decisions on supplemental incidental payments
			(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
OECD	Australia[1]	*a*	m	1.23	m	m	1.21	m	m	1.44	m	m	1.42	m	8	m	m	m
	Austria	*a*	m	0.98	m	m	1.06	m	m	1.94	m	m	2.07	m	34	m	m	m
	Belgium (Fl.)	*a*	m	m	m	m	m	m	m	1.73	m	m	1.76	m	27	m	m	m
	Belgium (Fr.)	*a*	m	m	m	m	m	m	m	1.72	m	m	1.75	m	27	m	m	m
	Canada	*a*	m	1.50	m	m	1.50	m	m	1.66	m	m	1.66	m	11	m	m	m
	Chile	*a*	m	1.20	m	m	1.27	m	m	2.11	m	m	2.11	m	30	m	m	m
	Czech Republic	*a*	m	0.60	m	m	0.60	m	m	1.22	m	m	1.22	m	27	m	m	m
	Denmark[2]	*a*	m	1.17	m	m	1.28	m	m	1.15	m	m	1.27	m	12	m	m	m
	England (UK)	*a*	m	m	m	m	m	m	m	1.70	m	m	1.70	m	m	m	m	m
	Estonia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Finland[1, 2]	*a*	m	1.04	m	m	1.13	m	m	1.30	m	m	1.32	m	20	m	m	m
	France[3]	*a*	m	0.93	m	m	0.94	m	m	1.74	m	m	1.73	m	29	m	m	m
	Germany	*a*	m	1.53	m	m	1.62	m	m	1.32	m	m	1.39	m	28	m	m	m
	Greece	*a*	m	0.92	m	m	0.92	m	m	1.89	m	m	1.89	m	45	m	m	m
	Hungary	*a*	m	0.78	m	m	0.86	m	m	1.73	m	m	1.90	m	15	m	m	m
	Iceland	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Ireland	*a*	m	1.20	m	m	1.20	m	m	2.11	m	m	2.11	m	22	m	m	m
	Israel	*a*	m	0.92	m	m	0.74	m	m	2.63	m	m	2.07	m	36	m	m	m
	Italy	*a*	m	1.01	m	m	1.03	m	m	1.50	m	m	1.57	m	35	m	m	m
	Japan[2]	*a*	m	1.35	m	m	1.35	m	m	2.20	m	m	2.26	m	34	m	m	m
	Korea	*a*	m	1.43	m	m	1.43	m	m	2.80	m	m	2.80	m	37	m	m	m
	Latvia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Luxembourg[2]	*a*	m	1.15	m	m	1.15	m	m	1.74	m	m	1.74	m	30	m	m	m
	Mexico	*a*	m	2.11	m	m	2.99	m	m	2.12	m	m	1.37	m	14	m	m	m
	Netherlands	*a*	m	1.38	m	m	1.38	m	m	1.74	m	m	1.74	m	12	m	m	m
	New Zealand	*a*	m	1.20	m	m	1.24	m	m	1.50	m	m	1.51	m	7	m	m	m
	Norway	*a*	m	0.74	m	m	0.84	m	m	1.18	m	m	1.24	m	16	m	m	m
	Poland	*a*	m	1.00	m	m	1.00	m	m	1.71	m	m	1.71	m	20	m	m	m
	Portugal	*a*	m	1.35	m	m	1.35	m	m	1.91	m	m	1.91	m	34	m	m	m
	Scotland (UK)	*a*	m	m	m	m	m	m	m	1.60	m	m	1.60	m	6	m	m	m
	Slovak Republic	*a*	m	0.60	m	m	0.60	m	m	1.52	m	m	1.52	m	32	m	m	m
	Slovenia	*a*	m	1.27	m	m	1.27	m	m	1.81	m	m	1.81	m	25	m	m	m
	Spain	*a*	m	1.41	m	m	1.41	m	m	1.41	m	m	1.41	m	38	m	m	m
	Sweden[4]	*a*	m	0.84	m	m	0.88	m	m	1.33	m	m	1.34	m	a	m	m	m
	Switzerland	*a*	m	m	m	m	m	m	m	1.53	m	m	1.53	m	26	m	m	m
	Turkey	*a*	m	1.52	m	m	1.52	m	m	1.14	m	m	1.14	m	27	m	m	m
	United States[5]	*a*	m	1.16	m	m	1.14	m	m	1.52	m	m	1.57	m	m	m	m	m

1. Statutory salaries do not include the part of social security contributions and pension-scheme contributions paid by employees.
2. Statutory salaries include the part of social security contributions and pension-scheme contributions paid by employers.
3. Includes the average of fixed bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries for 2013.
5. Actual base salaries.
6. At the lower secondary level, there is no distinction between general and vocational programmes.
7. Reference year 2015/2016.
8. Reference year 2014/2015.
9. Gross annual salaries reported for vocational programmes include base pay, employer's contribution to retirement schemes, and performance bonus. The salaries of teachers in general programmes include base pay and employer's contribution to retirement funds (there are no performance bonus for these teachers).
10. Reference year 2016.
11. Salaries include the employer's contribution to retirement as well as transportation and housing allowances. Transportation allowances are provided to all teachers. Housing allowances vary by marital status and are paid to all teachers, except married female teachers if their husbands receive a similar allowance from the government. Teachers in the role of supervisors may be awarded additional allowances.
12. Salaries vary depending on teacher's marital status.
13. Reference year 2015.
14. Salaries of part-time classroom teachers.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.
c) GDP and population data: World Bank, International Comparison Program database.

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[Part 4/4]

Table II.6.54 Teachers' salaries (2014)

Ratio of salaries after 15 years of experience to per capita GDP and ratio of salary at top of scale to starting salary, based on minimum and typical qualification, by level of education

			Teachers with typical training															
			Ratio of salaries after 15 years of experience to per capita GDP						Ratio of salary at top of scale to starting salary						Years from starting to top salary (lower secondary education, all education programmes)	Outstanding performance in teaching used as a criteria for the base salary and additional payments in public institutions		
			Lower secondary			Upper secondary			Lower secondary			Upper secondary						
		Source	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes	All education programmes	General programmes	Vocational programmes		Decisions on position in base salary scale	Decisions on supplemental payments that are paid every year	Decisions on supplemental incidental payments
			(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	*b*	0.66	0.66	m	0.66	0.66	m	1.60	1.60	m	1.60	1.60	m	24	No	No	No
	Brazil	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	*b*	0.85	0.85	0.85	0.85	0.85	0.85	2.00	2.00	2.00	2.00	2.00	2.00	20	Yes	Yes	Yes
	Colombia	*a*	m	2.44	m	m	2.44	m	m	2.04	m	m	2.04	m	9	m	m	m
	Costa Rica	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Croatia[6]	*b*	m	m	a	m	m	m	1.48	1.48	a	1.69	m	m	40	No	Yes	No
	Cyprus*	*b*	1.98	1.98	1.98	1.98	1.98	1.98	2.43	2.43	2.43	2.43	2.43	2.43	22	No	No	No
	Dominican Republic[7]	*b*	1.94	1.94	a	2.31	2.31	2.31	1.15	1.15	a	1.15	1.15	1.15	15	No	No	No
	FYROM	*b*	0.47	0.47	0.47	0.50	0.50	0.50	1.49	1.49	1.49	1.53	1.53	1.53	40	Yes	Yes	Yes
	Georgia	*b*	m	0.89	a	m	0.89	0.75	m	2.53	a	m	2.53	8.57	m	Yes	No	No
	Hong Kong (China)[8, 9]	*b*	m	1.63	m	m	2.14	m	m	1.62	1.34	m	2.32	1.34	m	No	No	No
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan[8]	*b*	0.41	0.41	a	0.41	0.41	0.48	1.17	1.17	a	1.17	1.17	1.20	> 25	No	Yes	Yes
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania[10]	*b*	0.58	0.58	0.58	0.58	0.58	0.58	1.05	1.05	1.05	1.05	1.05	1.05	15	No	No	Yes
	Macao (China)[8]	*b*	0.95	0.95	0.95	0.95	0.95	0.95	1.74	1.74	1.74	1.74	1.74	1.74	>33	No	No	No
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta[6]	*b*	1.18	1.18	a	1.16	1.16	m	1.32	1.32	a	1.32	1.32	m	18	No	No	No
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	*b*	1.54	1.54	a	1.54	1.54	1.54	1.30	1.30	a	1.30	1.30	1.30	40	Yes	Yes	Yes
	Peru	*b*	m	m	m	m	m	m	2.52	2.52	2.52	2.52	2.52	2.52	30	No	No	Yes
	Qatar[11]	*b*	2.00	2.00	m	2.00	2.00	m	2.53	2.53	m	2.53	2.53	m	20	Yes	Yes	Yes
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Singapore	*b*	1.30	1.30	a	1.30	1.30	a	2.81	2.81	a	2.81	2.81	a	m	Yes	Yes	Yes
	Chinese Taipei	*b*	1.34	1.34	a	1.34	1.34	1.34	1.87	1.87	a	1.87	1.87	1.87	23	No	Yes	Yes
	Thailand	*b*	1.92	1.92	a	1.92	1.92	1.92	2.57	2.57	a	2.57	2.57	2.57	23	No	No	No
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates[12]	*b,c*	1.84	1.84	1.84	1.84	1.84	1.84	m	m	m	m	m	m	m	No	No	No
	Uruguay[13, 14]	*b*	0.85	0.85	0.85	0.87	0.87	0.87	1.41	1.41	1.41	1.39	1.39	1.39	35	Yes	No	No
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Statutory salaries do not include the part of social security contributions and pension-scheme contributions paid by employees.
2. Statutory salaries include the part of social security contributions and pension-scheme contributions paid by employers.
3. Includes the average of fixed bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries for 2013.
5. Actual base salaries.
6. At the lower secondary level, there is no distinction between general and vocational programmes.
7. Reference year 2015/2016.
8. Reference year 2014/2015.
9. Gross annual salaries reported for vocational programmes include base pay, employer's contribution to retirement schemes, and performance bonus. The salaries of teachers in general programmes include base pay and employer's contribution to retirement funds (there are no performance bonus for these teachers).
10. Reference year 2016.
11. Salaries include the employer's contribution to retirement as well as transportation and housing allowances. Transportation allowances are provided to all teachers. Housing allowances vary by marital status and are paid to all teachers, except married female teachers if their husbands receive a similar allowance from the government. Teachers in the role of supervisors may be awarded additional allowances.
12. Salaries vary depending on teacher's marital status.
13. Reference year 2015.
14. Salaries of part-time classroom teachers.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.
c) GDP and population data: World Bank, International Comparison Program database.

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[Part 1/1]

Table II.6.55 Teachers' actual teaching time (2014)

Actual average teaching hours in general programmes, over the school year, in public institutions

		Source	Lower secondary	Upper secondary
OECD	**Australia**	*a*	848	834
	Austria	*a*	m	m
	Belgium (Fl.)	*a*	m	m
	Belgium (Fr.)	*a*	m	m
	Canada	*a*	m	m
	Chile	*a*	m	m
	Czech Republic	*a*	611	583
	Denmark[1]	*a*	663	386
	England	*a*	745	745
	Estonia	*a*	601	591
	Finland	*a*	m	m
	France	*a*	666	655
	Germany	*a*	m	m
	Greece	*a*	m	m
	Hungary	*a*	648	644
	Iceland	*a*	m	m
	Ireland	*a*	m	m
	Israel	*a*	m	m
	Italy	*a*	a	a
	Japan	*a*	611	513
	Korea	*a*	m	m
	Latvia	*a*	m	m
	Luxembourg	*a*	739	739
	Mexico	*a*	m	m
	Netherlands	*a*	m	m
	New Zealand	*a*	m	m
	Norway	*a*	m	m
	Poland	*a*	546	545
	Portugal	*a*	603	585
	Scotland	*a*	m	m
	Slovak Republic	*a*	m	m
	Slovenia	*a*	665	604
	Spain	*a*	m	m
	Sweden	*a*	m	m
	Switzerland	*a*	m	m
	Turkey	*a*	m	m
	United States	*a*	981	m
Partners	**Albania**	*b*	m	m
	Algeria	*b*	m	m
	Argentina	*b*	720	720
	Brazil	*a*	m	m
	B-S-J-G (China)	*b*	m	m
	Bulgaria[2]	*b*	520	520
	Colombia	*a*	m	m
	Costa Rica	*b*	m	m
	Croatia	*b*	604	551
	Cyprus*	*b*	600	510
	Dominican Republic[3, 4]	*b*	1 194	1 194
	FYROM	*b*	480	540
	Georgia	*b*	576	544
	Hong Kong (China)	*b*	m	m
	Indonesia	*b*	m	m
	Jordan	*b*	m	m
	Kazakhstan[5]	*b*	510	510
	Kosovo	*b*	m	m
	Lebanon	*b*	m	m
	Lithuania	*b*	634	675
	Macao (China)[5]	*b*	720	720
	Malaysia	*b*	m	m
	Malta[3]	*b*	414	414
	Moldova	*b*	m	m
	Montenegro[6]	*b*	536	567
	Peru	*b*	720	720
	Qatar	*b*	385	359
	Romania	*b*	m	m
	Russia	*a*	483	483
	Singapore	*b*	640	640
	Chinese Taipei	*b*	465	486
	Thailand[7, 8]	*b*	648	648
	Trinidad and Tobago	*b*	m	m
	Tunisia	*b*	m	m
	United Arab Emirates	*b*	m	m
	Uruguay[9]	*b*	450	390
	Viet Nam	*b*	m	m

1. Reference year for upper secondary education is 2015.
2. Estimated average teaching time. Teaching time varies depending on the subject taught.
3. Reference year 2015/16.
4. Estimates based on regular school schedule (5 hours per day).
5. Reference year 2014/15.
6. Estimates based on 21 lessons/week. An average teacher teaches 20 lessons/week.
7. Reference year 2013.
8. Estimates based on minimum statutory time.
9. Reference year 2015.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.

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[Part 1/3]

Table II.6.56 Pre-service teacher training requirements in public institutions (2013)

General programmes

		Source	Competitive examination required to enter pre-service teacher training				Duration of teacher-training programme, in years			
			Pre-primary education	Primary education	Lower secondary education	Upper secondary education	Pre-primary education	Primary education	Lower secondary education	Upper secondary education
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia[1]	a	No	No	No	No	4	4	4	4
	Austria[2]	a	Yes	No	a	a	5	3	4.5	4.5
	Belgium (Fl.)[3]	a	a	a	a	a	3	3	3	5
	Belgium (Fr.)	a	a	a	a	a	3	3	3	5
	Canada	a	m	m	m	m	m	m	m	m
	Chile[4]	a	a	a	a	a	5	5	5	5.5
	Czech Republic	a	Yes	Yes	Yes	Yes	3	5	5	5
	Denmark	a	No	No	No	No	3.5	4	4	6
	England	a	No	No	No	No	4	4	4	4
	Estonia	a	No	No	No	No	3	5	5	5
	Finland	a	Yes	Yes	Yes	Yes	3	5	5	5
	France	a	a	a	a	a	5	5	5	5
	Germany	a	m	a	a	a	3	6.5	6.5	6.5
	Greece	a	Yes	Yes	Yes	Yes	4	4	4	4.0
	Hungary[5]	a	No	No	No	No	3	4	5	6
	Iceland	a	a	a	a	a	5	5	5	5
	Ireland	a	m	No	No	No	m	4.6	5	5
	Israel	a	Yes	Yes	Yes	Yes	4	4	4	4
	Italy	a	Yes	Yes	m	m	5	5	6	6
	Japan[6]	a	m	m	m	m	2.4	4	4	4
	Korea[6]	a	Yes	Yes	Yes	Yes	2-4	4	4	4.0
	Latvia	a	m	m	m	m	m	m	m	m
	Luxembourg	a	a	a	a	a	4	4	6.5	6.5
	Mexico	a	a	a	a	a	4	4	4	4
	Netherlands	a	a	a	a	a	4	4	4	5.5
	New Zealand	a	m	m	m	m	m	m	m	m
	Norway	a	a	No	No	No	3	4	4	4-6
	Poland	a	a	a	a	a	5.3	5.3	5	5
	Portugal	a	Yes	Yes	Yes	Yes	3	3	5	5
	Scotland	a	m	m	m	m	4	4	5	5
	Slovak Republic	a	No	No	No	No	4	5	5	5
	Slovenia	a	No	No	No	No	3	5	5	5
	Spain	a	No	No	No	No	4	4	5	5
	Sweden[7]	a	No	No	No	No	3.5	4	4.5	5
	Switzerland	a	a	a	a	a	3	3	5	6
	Turkey	a	Yes	Yes	Yes	Yes	4	4	4	5
	United States	a	m	m	m	m	4	4	4	4
Partners	Albania	b	m	m	m	m	m	m	m	m
	Algeria	b	m	m	m	m	m	m	m	m
	Argentina	b	No	No	No	No	4	4	4	4
	Brazil	a	Yes	Yes	Yes	Yes	4	4	4	4
	B-S-J-G (China)	b	m	m	m	m	m	m	m	m
	Bulgaria	b	Yes	Yes	Yes	Yes	3	3	3	3
	Colombia	a	m	m	m	m	m	m	m	m
	Costa Rica	b	m	m	m	m	m	m	m	m
	Croatia	b	Yes	Yes	Yes	Yes	5	5	5	5
	Cyprus*	b	Yes	Yes	Yes	Yes	4	4	4	4
	Dominican Republic	b	No	No	No	No	4	4	4	4
	FYROM	b	No	No	No	No	4	4	4	4
	Georgia	b	Yes	Yes	Yes	Yes	3	4	4	4
	Hong Kong (China)[8]	b	a	Yes	Yes	Yes	a	5	5	5
	Indonesia	b	m	m	m	m	m	m	m	m
	Jordan	b	m	m	m	m	m	m	m	m
	Kazakhstan[9]	b	Yes	Yes	Yes	Yes	4	4	4	4
	Kosovo	b	m	m	m	m	m	m	m	m
	Lebanon	b	m	m	m	m	m	m	m	m
	Lithuania	b	Yes	Yes	Yes	Yes	3	4	4	4
	Macao (China)[9]	b	Yes	Yes	Yes	Yes	4	4	4	4
	Malaysia	b	m	m	m	m	m	m	m	m
	Malta[9]	b	No	No	No	No	2	4	4	4
	Moldova	b	m	m	m	m	m	m	m	m
	Montenegro	b	No	No	No	No	4	4	4	4
	Peru	b	Yes	Yes	Yes	Yes	5	5	5	5
	Qatar	b	No	No	No	No	m	m	m	m
	Romania	b	m	m	m	m	m	m	m	m
	Russia	a	Yes	Yes	Yes	Yes	4	4	4	4
	Singapore[10]	b	No	No	No	No	2-3	1	1	1
	Chinese Taipei	b	Yes	Yes	Yes	Yes	4	4	4	4
	Thailand	b	No	No	No	No	m	m	m	m
	Trinidad and Tobago	b	m	m	m	m	m	m	m	m
	Tunisia	b	m	m	m	m	m	m	m	m
	United Arab Emirates	b	a	a	a	a	a	a	a	a
	Uruguay[11]	b	No	No	No	No	4	4	4	4
	Viet Nam	b	m	m	m	m	m	m	m	m

1. For all levels of education, the awarded qualifications can be a bachelor's or a graduate diploma up to the master's level.
2. Lower secondary refers to «academic secondary school, lower level».
3. Includes all teachers in regular public lower secondary education (col. 19); all teachers in regular public upper secondary education (col. 20).
4. Includes all teachers, irrespective of the level of education they teach (columns 17-20).
5. Reference year 2014.
6. ISCED-1997 classification (column 13).
7. Includes lower secondary teachers (col. 18), primary teachers (col. 19), teachers teaching general and vocational subjects (col. 20).
8. Columns 6-8 refer to the number of years of study for B.Ed. graduates. However, there are candidates pursuing one-year, full-time postgraduate diploma as their pre-service teacher training programme.
9. Reference year 2014/15.
10. The length of pre-service training for pre-primary teachers ranges from 2 to 3 years, depending on the type of training programme (col. 5). The duration in columns 6-8 refers to the Postgraduate Diploma in Education programme, which is the training received by most trainee teachers. This training is required for those whose bachelor's degree is not specific to education. The duration of other full-time initial teacher preparation programmes offered at the National Institute of Education varies according to the programme: Bachelor of Arts/Science (Education) – 4 years; Diploma in Education – 1 to 2 years (depending on whether general or specialisation track); and Postgraduate Diploma in Education (Physical Education) – 2 years.
11. Reference year 2015.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2014: OECD Indicators* (OECD, 2014).
b) PISA system-level data collection in 2016.

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[Part 2/3]

Table II.6.56 Pre-service teacher training requirements in public institutions (2013)

General programmes

		Source	Teaching practicum required as part of pre-service training			
			Pre-primary education	Primary education	Lower secondary education	Upper secondary education
			(9)	(10)	(11)	(12)
OECD	**Australia**[1]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Austria[2]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Belgium (Fl.)[3]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Belgium (Fr.)	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Canada	*a*	m	m	m	m
	Chile[4]	*a*	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Czech Republic	*a*	Discretion of institutions	Mandatory	Discretion of institutions	Discretion of institutions
	Denmark	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	England	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Estonia	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Finland	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	France	*a*	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Germany	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Greece	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Hungary[5]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Iceland	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Ireland	*a*	m	Mandatory	Mandatory	Mandatory
	Israel	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Italy	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Japan[6]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Korea[6]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Latvia	*a*	m	m	m	m
	Luxembourg	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Mexico	*a*	Mandatory	Mandatory	Mandatory	Discretion of students
	Netherlands	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	New Zealand	*a*	m	m	m	m
	Norway	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Poland	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Portugal	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Scotland	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Slovak Republic	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Slovenia	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Spain	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Sweden[7]	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Switzerland	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Turkey	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	United States	*a*	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
Partners	**Albania**	*b*	m	m	m	m
	Algeria	*b*	m	m	m	m
	Argentina	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Brazil	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	B-S-J-G (China)	*b*	m	m	m	m
	Bulgaria	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Colombia	*a*	m	m	m	m
	Costa Rica	*b*	m	m	m	m
	Croatia	*b*	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Cyprus*	*b*	Mandatory	Mandatory	Discretion of institutions	Discretion of institutions
	Dominican Republic	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	FYROM	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Georgia	*b*	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Hong Kong (China)[8]	*b*	a	Mandatory	Mandatory	Mandatory
	Indonesia	*b*	m	m	m	m
	Jordan	*b*	m	m	m	m
	Kazakhstan[9]	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Kosovo	*b*	m	m	m	m
	Lebanon	*b*	m	m	m	m
	Lithuania	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Macao (China)[9]	*b*	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Malaysia	*b*	m	m	m	m
	Malta[9]	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Moldova	*b*	m	m	m	m
	Montenegro	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Peru	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Qatar	*b*	a	a	a	a
	Romania	*b*	m	m	m	m
	Russia	*a*	Mandatory	Mandatory	Mandatory	Mandatory
	Singapore[10]	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Chinese Taipei	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Thailand	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Trinidad and Tobago	*b*	m	m	m	m
	Tunisia	*b*	m	m	m	m
	United Arab Emirates	*b*	a	a	a	a
	Uruguay[11]	*b*	Mandatory	Mandatory	Mandatory	Mandatory
	Viet Nam	*b*	m	m	m	m

1. For all levels of education, the awarded qualifications can be a bachelor's or a graduate diploma up to the master's level.
2. Lower secondary refers to «academic secondary school, lower level».
3. Includes all teachers in regular public lower secondary education (col. 19); all teachers in regular public upper secondary education (col. 20).
4. Includes all teachers, irrespective of the level of education they teach (columns 17-20).
5. Reference year 2014.
6. ISCED-1997 classification (column 13).
7. Includes lower secondary teachers (col. 18), primary teachers (col. 19), teachers teaching general and vocational subjects (col. 20).
8. Columns 6-8 refer to the number of years of study for B.Ed. graduates. However, there are candidates pursuing one-year, full-time postgraduate diploma as their pre-service teacher training programme.
9. Reference year 2014/15.
10. The length of pre-service training for pre-primary teachers ranges from 2 to 3 years, depending on the type of training programme (col. 5). The duration in columns 6-8 refers to the Postgraduate Diploma in Education programme, which is the training received by most trainee teachers. This training is required for those whose bachelor's degree is not specific to education. The duration of other full-time initial teacher preparation programmes offered at the National Institute of Education varies according to the programme: Bachelor of Arts/Science (Education) – 4 years; Diploma in Education – 1 to 2 years (depending on whether general or specialisation track); and Postgraduate Diploma in Education (Physical Education) – 2 years.
11. Reference year 2015.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2014: OECD Indicators* (OECD, 2014).
b) PISA system-level data collection in 2016.

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[Part 3/3]

Table II.6.56 Pre-service teacher training requirements in public institutions (2013)

General programmes

		Source	ISCED 2011 attainment level at the end of the teacher training				Percentage of current teacher stock with this type of qualification			
			Pre-primary education (13)	Primary education (14)	Lower secondary education (15)	Upper secondary education (16)	Pre-primary education (17)	Primary education (18)	Lower secondary education (19)	Upper secondary education (20)
OECD	**Australia[1]**	*a*	6	6, Other	6, Other	6, Other	86	m	m	m
	Austria[2]	*a*	4	6	7	7	100	m	m	m
	Belgium (Fl.)[3]	*a*	6	6	6	6	86	77	96	95
	Belgium (Fr.)	*a*	5	5	5	7	m	m	70	53
	Canada	*a*	m	m	m	m	m	m	m	m
	Chile[4]	*a*	6	6	6	6	95	95	95	95
	Czech Republic	*a*	6	7	7	7	m	m	m	m
	Denmark	*a*	5	5	5	7	m	95	95	95
	England	*a*	7	7	7	7	m	m	m	m
	Estonia	*a*	6	7	7	7	62	93	93	93
	Finland	*a*	6	7	7	7	95	94	90	96
	France	*a*	7	7	7	7	m	m	m	m
	Germany	*a*	5	7	7	7	90	100	100	100
	Greece	*a*	6	6	6	6	100	100	100	m
	Hungary[5]	*a*	6	6	7	7	m	m	m	m
	Iceland	*a*	7	7	7	7	m	m	m	m
	Ireland	*a*	m	6	6	6	m	m	m	m
	Israel	*a*	6	6	6	6	83	90	94	94
	Italy	*a*	7	7	7	7	m	m	m	m
	Japan[6]	*a*	5B, 5A	6	6	6	m	m	m	m
	Korea[6]	*a*	5B, 5A	6	6	6	m	m	m	m
	Latvia	*a*	m	m	m	m	m	m	m	m
	Luxembourg	*a*	6	6	7	7	m	21	m	m
	Mexico	*a*	6	6	6	6	84	96	92	95
	Netherlands	*a*	6	6	6	7	100	100	82	82
	New Zealand	*a*	m	m	m	m	m	m	m	m
	Norway	*a*	6	6	6	7	m	m	m	m
	Poland	*a*	6, 7	6, 7	6, 7	7	95	99	99	99
	Portugal	*a*	6	6	7	7	87	90	95	96
	Scotland	*a*	6	6	6	6	100	100	100	100
	Slovak Republic	*a*	3	7	7	7	m	m	m	m
	Slovenia	*a*	6	7	7	7	m	m	m	m
	Spain	*a*	6	6	7	7	100	100	100	100
	Sweden[7]	*a*	6	7	7	7	93	86	86	79
	Switzerland	*a*	6	6	7	7	m	m	m	m
	Turkey	*a*	6	6	6	6	96	91	99	99
	United States	*a*	6	6	6	6	m	97	97	95
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m
	Argentina	*b*	4	4	4	4	m	m	m	m
	Brazil	*a*	5	5	5	5	57	69	82	96
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m
	Bulgaria	*b*	6	6	6	6	99	99	99	99
	Colombia	*a*	m	m	m	m	m	m	m	m
	Costa Rica	*b*	m	m	m	m	m	m	m	m
	Croatia	*b*	5	5	5	5	100	100	100	100
	Cyprus*	*b*	6	6	6	6	100	100	100	100
	Dominican Republic	*b*	6	6	6	6	m	m	m	m
	FYROM	*b*	6	6	6	6	67	77	77	97
	Georgia	*b*	5	6	6	6	m	73	77	82
	Hong Kong (China)[8]	*b*	a	6	6	6	a	m	m	m
	Indonesia	*b*	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m
	Kazakhstan[9]	*b*	6	6	6	6	61	87	87	90
	Kosovo	*b*	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m
	Lithuania	*b*	6	6	6	6	m	m	m	m
	Macao (China)[9]	*b*	6	6	6	6	m	m	m	m
	Malaysia	*b*	m	m	m	m	m	m	m	m
	Malta[9]	*b*	4	6	6	6	85	88	88	88
	Moldova	*b*	m	m	m	m	m	m	m	m
	Montenegro	*b*	6	6	6	6	50	66	74	95
	Peru	*b*	5	5	5	5	m	m	m	m
	Qatar	*b*	m	m	m	m	m	m	m	m
	Romania	*b*	m	m	m	m	m	m	m	m
	Russia	*a*	5	6	6	6	m	m	m	m
	Singapore[10]	*b*	5	6	6	6	86	70	94	94
	Chinese Taipei	*b*	6	6	6	6	m	m	m	m
	Thailand	*b*	5	5	5	5	m	m	m	m
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	a	a	a	a	a	a	a	a
	Uruguay[11]	*b*	6	6	6	6	100	100	56	67
	Viet Nam	*b*	m	m	m	m	m	m	m	m

1. For all levels of education, the awarded qualifications can be a bachelor's or a graduate diploma up to the master's level.
2. Lower secondary refers to «academic secondary school, lower level».
3. Includes all teachers in regular public lower secondary education (col. 19); all teachers in regular public upper secondary education (col. 20).
4. Includes all teachers, irrespective of the level of education they teach (columns 17-20).
5. Reference year 2014.
6. ISCED-1997 classification (column 13).
7. Includes lower secondary teachers (col. 18), primary teachers (col. 19), teachers teaching general and vocational subjects (col. 20).
8. Columns 6-8 refer to the number of years of study for B.Ed. graduates. However, there are candidates pursuing one-year, full-time postgraduate diploma as their pre-service teacher training programme.
9. Reference year 2014/15.
10. The length of pre-service training for pre-primary teachers ranges from 2 to 3 years, depending on the type of training programme (col. 5). The duration in columns 6-8 refers to the Postgraduate Diploma in Education programme, which is the training received by most trainee teachers. This training is required for those whose bachelor's degree is not specific to education. The duration of other full-time initial teacher preparation programmes offered at the National Institute of Education varies according to the programme: Bachelor of Arts/Science (Education) – 4 years; Diploma in Education – 1 to 2 years (depending on whether general or specialisation track); and Postgraduate Diploma in Education (Physical Education) – 2 years.
11. Reference year 2015.

Note: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2014: OECD Indicators* (OECD, 2014).
b) PISA system-level data collection in 2016.

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[Part 1/1]

Table II.6.57 Requirements for entry into the teaching profession and for professional development in public institutions (2013)

General programmes

		Source	Competitive examination required to enter the teaching profession				Credential or license, in addition to the education diploma, required to start teaching				Credential or license, in addition to the education diploma, required to become a fully qualified teacher				Professional development is a compulsory requirement for teachers to maintain employment				Professional development is a compulsory requirement for promotion or salary increase			
			Pre-primary education	Primary education	Lower secondary education	Upper secondary education	Pre-primary education	Primary education	Lower secondary education	Upper secondary education	Pre-primary education	Primary education	Lower secondary education	Upper secondary education	Pre-primary education	Primary education	Lower secondary education	Upper secondary education	Pre-primary education	Primary education	Lower secondary education	Upper secondary education
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD	**Australia**	*a*	No	No	No	No	Yes	Yes	Yes	Yes	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Austria[1]	*a*	a	a	No	No	a	a	Yes	Yes	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Belgium (Fl.)	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	No	No	No	No
	Belgium (Fr.)	*a*	a	a	a	a	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Canada	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Chile	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	Yes	Yes	Yes	Yes
	Czech Republic	*a*	a	a	a	a	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Denmark	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	No	No	No	No
	England	*a*	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
	Estonia	*a*	a	a	a	a	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Finland	*a*	a	a	a	a	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	France	*a*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Germany	*a*	a	a	a	a	a	a	a	a	a	a	a	a	m	Yes	Yes	Yes	m	No	No	No
	Greece	*a*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
	Hungary[2]	*a*	a	a	a	a	a	a	a	a	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No
	Iceland	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	Yes	Yes	No	No	No	No	No
	Ireland[3]	*a, b*	m	a	a	a	No	Yes	Yes	Yes	m	No	No	No	m	No	No	No	m	No	No	No
	Israel	*a*	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes
	Italy	*a*	a	a	a	a	a	a	a	a	No	No	No	No	No	No	No	No	No	No	No	No
	Japan	*a*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Korea	*a*	Yes	Yes	Yes	Yes	No	No	No	No	a	a	a	a	No	No	No	No	Yes	Yes	Yes	Yes
	Latvia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Luxembourg	*a*	Yes	Yes	a	a	No	No	a	a	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No
	Mexico	*a*	Yes	Yes	Yes	Yes	No	No	No	No	a	a	a	a	No	No	No	No	Yes	Yes	Yes	No
	Netherlands	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	No	No	No	No
	New Zealand	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Norway	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	No	No	No	No
	Poland	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	Yes	Yes	Yes	Yes
	Portugal	*a*	a	a	a	a	a	a	a	a	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
	Scotland	*a*	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
	Slovak Republic	*a*	a	a	a	a	a	a	a	a	a	a	a	a	No	No	No	No	Yes	Yes	Yes	Yes
	Slovenia	*a*	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
	Spain	*a*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
	Sweden	*a*	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No
	Switzerland	*a*	a	a	a	a	a	a	a	a	a	a	a	a	m	m	m	m	m	m	m	m
	Turkey	*a*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No
	United States	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	*b*	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Brazil	*a*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	m	m	m	m	m	m	m	m
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria	*b*	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
	Colombia	*a*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Costa Rica	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Croatia	*b*	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
	Cyprus*	*b*	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Dominican Republic	*b*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
	FYROM	*b*	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Georgia	*b*	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No	No
	Hong Kong (China)	*b*	a	No	No	No	a	No	No	No	a	No	No	No	a	No	No	No	a	Yes	Yes	Yes
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan[4]	*b*	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania	*b*	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Macao (China)[4]	*b*	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta[4]	*b*	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No	No
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro	*b*	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Peru	*b*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Qatar	*b*	No	Yes	Yes	Yes	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia	*a*	a	a	a	a	a	a	a	a	a	a	a	a	Yes	Yes	Yes	Yes	No	No	No	No
	Singapore	*b*	No	No	No	No	Yes	No	No	No	No	No	No	No	m	No	No	No	m	No	No	No
	Chinese Taipei	*b*	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No
	Thailand	*b*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Uruguay[5]	*b*	Yes	Yes	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Lower secondary refers to «academic secondary school, lower level».
2. Reference year 2014.
3. For columns 5-8, source «b» is used; source «a» is used for all other columns.
4. Reference year 2014/15.
5. Reference year 2015.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2014: OECD Indicators* (OECD, 2014).
b) PISA system-level data collection in 2016.

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[Part 1/1]

Table II.6.58 Cumulative expenditure by educational institutions per student aged 6 to 15 (2013)

In equivalent USD converted using PPPs for GDP, by level of education, based on full-time equivalents

			Average theoretical duration for students aged 6-15 (in years)				Annual expenditure on educational institutions per student for all services					Cumulative expenditure per student over the theoretical duration of studies (in US dollars)					
		Source	Pre-primary education	Primary education	Lower secondary	Upper secondary education	Pre-primary education (for children 3 years and older)	Primary education	Lower secondary education	Upper secondary education	All secondary education	Pre-Primary education	Primary education	Lower secondary	Upper secondary education	All secondary education	Total 6 to 15 year-olds
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	**Australia**	*a*	0	7	3	0	13 171	8 289	11 431	10 203	10 932	0	58 024	34 292	0	32 797	92 316
	Austria	*a*	0	4	4	2	8 737	10 780	14 831	15 255	15 024	0	43 120	59 325	30 510	90 141	132 955
	Belgium[1]	*a*	0	6	2	2	7 576	9 957	12 267	13 020	12 763	0	59 741	24 535	26 040	51 052	110 316
	Canada[1, 2, 3]	*a*	0	6	3	1	m	9 130	x(6)	12 086	m	m	82 168	x(11)	12 086	m	94 254
	Chile	*a*	0	6	2	2	6 408	4 021	4 099	4 141	4 127	0	24 128	8 197	8 282	16 507	40 607
	Czech Republic	*a*	0	5	4	1	4 655	4 730	8 061	7 682	7 861	0	23 652	32 242	7 682	39 303	63 576
	Denmark[4]	*a*	1	6	3	0	m	11 355	11 906	10 165	10 933	m	68 132	35 719	0	32 798	103 852
	Estonia[4]	*a*	1	6	3	0	m	7 138	7 009	5 909	6 417	m	42 829	21 028	0	19 252	63 858
	Finland[1]	*a*	1	6	3	0	10 477	8 519	13 312	8 786	10 237	10 477	51 114	39 937	0	30 712	101 527
	France	*a*	0	5	4	1	7 507	7 201	9 947	13 643	11 482	0	36 003	39 789	13 643	57 410	89 435
	Germany	*a*	0	4	6	0	9 167	8 103	9 967	13 093	11 106	0	32 414	59 800	0	66 639	92 214
	Greece	*a*	0	6	3	1	m	m	m	m	m	m	m	m	m	m	m
	Hungary	*a*	1	4	4	1	5 074	5 435	3 994	4 439	4 236	5 074	21 739	15 977	4 439	21 182	47 229
	Iceland	*a*	0	7	3	0	10 956	10 569	11 276	7 743	9 041	0	73 983	33 828	0	27 124	107 811
	Ireland[5]	*a*	0	6	3	1	6 532	8 002	10 773	10 840	10 804	0	48 011	32 320	10 840	43 215	91 171
	Israel[1]	*a*	0	6	3	1	4 302	6 941	x(9)	5 831	5 831	0	41 647	x(14)	5 831	23 325	64 973
	Italy	*a*	0	5	3	2	6 233	8 392	8 797	9 174	9 023	0	41 961	26 392	18 348	45 116	86 701
	Japan[1]	*a*	0	6	3	1	6 247	8 748	10 084	10 459	10 273	0	52 489	30 252	10 459	41 091	93 200
	Korea	*a*	0	6	3	1	6 227	7 957	7 324	9 801	8 592	0	47 745	21 971	9 801	34 366	79 517
	Latvia	*a*	0	6	3	1	4 854	5 974	6 016	6 005	6 010	0	35 847	18 047	6 005	24 039	59 899
	Luxembourg[3]	*a*	0	6	3	1	19 233	17 959	20 076	19 473	19 762	0	107 757	60 229	19 473	79 049	187 459
	Mexico	*a*	0	6	3	1	m	2 717	2 473	4 126	3 065	m	16 303	7 420	4 126	12 258	27 848
	Netherlands	*a*	0	6	3	1	8 305	8 371	12 334	12 200	12 269	0	50 228	37 002	12 200	49 076	99 430
	New Zealand	*a*	0	6	4	0	10 252	7 354	9 191	11 328	10 198	0	44 125	36 764	0	40 791	80 890
	Norway[1]	*a*	0	7	3	0	14 704	13 274	14 103	16 153	15 283	0	92 917	42 310	0	45 849	135 227
	Poland[1]	*a*	1	6	3	0	5 552	6 919	6 900	6 178	6 505	5 552	41 514	20 701	0	19 516	67 767
	Portugal[1]	*a*	0	6	3	1	6 604	7 258	9 667	10 503	10 074	0	43 545	29 002	10 503	40 295	83 050
	Slovak Republic[3]	*a*	0	4	5	1	4 996	5 942	5 755	5 839	5 795	0	23 767	28 775	5 839	34 769	58 382
	Slovenia	*a*	0	6	3	1	8 101	9 121	10 085	7 872	8 739	0	54 723	30 254	7 872	34 955	92 850
	Spain[1]	*a*	0	6	4	0	6 021	6 956	8 303	8 729	8 520	0	41 734	33 213	0	34 079	74 947
	Sweden	*a*	1	6	3	0	12 833	10 664	11 306	11 389	11 354	12 833	63 983	33 917	0	34 062	110 733
	Switzerland[1, 5]	*a*	0	6	3	1	5 479	15 930	19 698	18 479	18 994	0	95 580	59 093	18 479	75 977	173 151
	Turkey	*a*	0	4	4	2	3 172	2 894	3 337	3 914	3 590	0	11 575	13 350	7 827	21 538	32 752
	United Kingdom	*a*	0	6	3	1	8 727	10 669	13 092	11 627	12 200	0	64 016	39 277	11 627	48 801	114 920
	United States	*a*	0	6	3	1	9 986	10 959	11 947	13 587	12 740	0	65 752	35 840	13 587	50 959	115 180
Partners	**Albania**	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Algeria[5, 6]	*b*	m	m	m	m	a	x(9)	x(9)	x(9)	2 744	m	m	m	m	m	m
	Argentina	*b*	0	6	3	1	3 411	3 701	6 802	6 335	6 604	0	22 207	20 406	6 335	26 416	48 947
	Brazil[5]	*a*	0	5	4	1	m	3 826	3 802	3 852	3 822	0	19 129	15 210	3 852	19 112	38 190
	B-S-J-G (China)	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Bulgaria[2]	*b*	1	4	4	1	4 082	2 529	3 144	3 205	3 179	4 082	10 117	12 576	3 205	15 893	29 980
	Colombia	*a*	0	5	4	1	m	2 074	2 728	3 117	2 835	m	10 368	10 910	3 117	14 177	24 395
	Costa Rica[7]	*b*	0	6	3	1	3 553	4 143	5 249	5 924	5 456	0	24 860	15 747	5 924	21 822	46 531
	Croatia[5, 8]	*b*	1	4	4	1	5 194	5 005	x(6)	5 491	m	5 194	x(12)	40 037	5 491	m	50 722
	Cyprus*[2, 5]	*b*	0	6	3	1	6 643	9 231	14 048	14 603	14 337	0	55 386	42 144	14 603	57 347	112 133
	Dominican Republic[5]	*b*	0	6	3	1	2 790	2 495	2 388	2 128	2 226	0	14 970	7 165	2 128	8 904	24 264
	FYROM	*b*	0	5	4	1	m	m	m	m	m	m	m	m	m	m	m
	Georgia[6]	*b*	0	6	3	1	m	x(9)	x(9)	x(9)	1 170	m	x(15)	x(15)	x(15)	x(15)	11 704
	Hong Kong (China)	*b*	0	6	3	1	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Jordan	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Kazakhstan[9, 10]	*b*	0	4	5	1	1 890	792	x(9)	x(9)	3 253	0	3 170	x(14)	x(14)	19 519	22 689
	Kosovo	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lebanon	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Lithuania[11]	*a*	1	4	5	0	5 093	5 079	4 596	5 345	4 826	5 093	20 316	22 980	0	22 980	48 389
	Macao (China)[9]	*b*	0	6	3	1	m	m	m	m	m	m	m	m	m	m	m
	Malaysia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Malta	*b*	0	5	3	2	7 258	9 680	13 662	11 697	12 535	0	48 402	40 985	23 394	62 673	112 780
	Moldova	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Montenegro[5]	*b*	0	5	4	1	2 632	x(7)	2 570	2 657	m	0	x(12)	23 129	2 657	m	25 786
	Peru[9]	*b*	0	6	3	1	1 634	1 756	x(9)	x(9)	2 395	0	10 533	x(14)	x(14)	9 580	20 114
	Qatar	*b*	0	6	3	1	m	m	m	m	m	m	m	m	m	m	m
	Romania	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russia[1, 4]	*a*	1	4	5	0	5 588	x(8)	x(8)	5 100	5 100	5 588	x(14)	x(14)	0	45 903	51 492
	Singapore[5]	*b*	0	6	2	2	a	11 644	x(9)	x(9)	15 187	a	69 865	x(14)	x(14)	60 747	130 611
	Chinese Taipei	*b*	0	6	3	1	3 835	4 652	x(6)	4 140	m	0	x(12)	41 869	4 140	m	46 009
	Thailand[12]	*b*	0	6	3	1	x(9)	x(9)	x(9)	x(9)	2 722	x(15)	x(15)	x(15)	x(15)	x(15)	27 220
	Trinidad and Tobago	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Tunisia	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	United Arab Emirates	*b*	0	5	4	1	m	m	m	m	m	m	m	m	m	m	m
	Uruguay[5, 9, 12]	*b*	0	6	3	1	x(6)	3 068	x(9)	x(9)	3 351	x(11)	18 408	x(14)	x(14)	13 403	31 811
	Viet Nam	*b*	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Includes data from another category: Belgium (colums 8, 9), Canada (column 6), Finland (columns 8, 9), Israel (column 8), Japan (columns 8, 9), Norway (columns 8, 9), Poland (column 8), Portugal (columns 8, 9), Russia (columns 8, 9), Spain (columns 8, 9), Switzerland (columns 8, 9).
2. Reference year 2012.
3. Public institutions only for tertiary level.
4. Total expenditure data excludes pre-primary education.
5. Public institutions only.
6. Data reported for «all secondary education» includes primary education in public and private independent institutions (there are no government-dependent private institutions in Georgia). Enrolment data for public vocational programmes (ISCED 3) are estimated based on weighted data for academic years 2013/14 and 2014/15 (private institutions do not receive public funding for similar programmes).
7. Combined public and government dependent private institutions.
8. Reference year 2015.
9. Reference year 2014.
10. Combined public and independent private institutions.
11. Includes ISCED 0.1.
12. Total expenditure data includes pre-primary education.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.

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[Part 1/1]

Table II.6.59 Per capita GDP at the system level (2013, 2014)

		Source	Per capita GDP, in equivalent USD converted using PPPs	
			2013	2014
OECD	Australia	a, c	47 245	45 925
	Austria	a, c	47 571	47 682
	Belgium	a, c	43 142	43 435
	Canada	a, c	42 460	45 066
	Chile	a, c	21 345	22 071
	Czech Republic	a, c	30 038	31 186
	Denmark	a, c	45 781	45 537
	Estonia	a, c	27 090	28 140
	Finland	a, c	41 044	40 676
	France	a, c	39 428	39 328
	Germany	a, c	44 245	46 401
	Greece	a, c	26 689	26 851
	Hungary	a, c	23 999	25 069
	Iceland	a, c	42 968	43 993
	Ireland	a, c	47 674	49 393
	Israel	a, c	33 696	33 703
	Italy	a, c	36 036	35 463
	Japan	a, c	36 353	36 619
	Korea	a, c	32 664	33 395
	Latvia	a, c	22 434	23 548
	Luxembourg	a, c	97 057	98 460
	Mexico	a, c	17 141	17 315
	Netherlands	a, c	48 025	48 253
	New Zealand	a, c	36 381	37 679
	Norway	a, c	52 920	65 614
	Poland	a, c	24 479	25 262
	Portugal	a, c	27 850	28 760
	Slovak Republic	a, c	27 427	28 327
	Slovenia	a, c	29 114	30 403
	Spain	a, c	32 767	33 629
	Sweden	a, c	45 277	45 297
	Switzerland	a, c	59 723	59 540
	Turkey	a, c	19 193	19 788
	United Kingdom	a, c	38 853	40 233
	United States	a, c	51 764	54 629
Partners	Albania	c	10 410	11 108
	Algeria	b	13 847	14 244
	Argentina	b	22 407	21 795
	Brazil	a, c	15 944	15 893
	B-S-J-G (China)	c	m	m
	Bulgaria[1]	b	16 617	17 260
	Colombia	a, c	12 771	13 357
	Costa Rica	b	14 442	14 885
	Croatia[2]	b	20 584	20 939
	Cyprus*[3]	b	30 656	29 790
	Dominican Republic	b	12 950	13 964
	FYROM	b	12 752	13 523
	Georgia	c	6 526	6 666
	Hong Kong (China)	b	53 149	55 195
	Indonesia	c	9 995	10 517
	Jordan	c	11 782	12 050
	Kazakhstan	b	23 045	23 429
	Kosovo	c	8 899	9 114
	Lebanon	c	17 074	17 462
	Lithuania	b	26 384	27 581
	Macao (China)	b	132 007	127 051
	Malaysia	c	24 194	25 639
	Malta	b	31 102	31 661
	Moldova	c	4 692	4 983
	Montenegro	b	14 627	14 656
	Peru	b	11 682	12 043
	Qatar	b	144 369	138 050
	Romania	c	19 577	20 348
	Russia	a, c	22 548	22 990
	Singapore	b	79 996	82 515
	Chinese Taipei	b	21 916	22 648
	Thailand	b	16 595	16 804
	Trinidad and Tobago	c	31 397	31 967
	Tunisia	c	11 086	11 436
	United Arab Emirates	c	64 111	67 674
	Uruguay	b	19 955	20 881
	Viet Nam	c	5 291	5 629

1. Per capita GDP in 2012: 16 146.
2. Estimated per capita GDP in 2015: 21 581 (International Monetary Fund, World Economic Outlook Database, April 2016).
3. Per capita GDP in 2012: 31 920 (World Bank, International Comparison Program database).

Note: For OECD countries, Brazil, Colombia and Russia source «a» is used for 2013 and source «c» for 2014.

* See note at the beginning of this Annex.

Sources: *a) Education at a Glance 2016: OECD Indicators* (OECD, 2016).
b) PISA system-level data collection in 2016.
c) World Bank, International Comparison Program database.

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ANNEX B2

RESULTS FOR REGIONS WITHIN COUNTRIES

[Part 1/1]

Table B2.II.4 **Science-specific resources at school**

Results based on school principals' reports

		Percentage of students in schools where the principal reported that the following statements are true for the school's science department															
		Compared to other departments, our school's <school science department> is well-equipped		If we ever have some extra funding, a big share goes into improvement of our <school science> teaching		<School science> teachers are among our best-educated staff members		Compared to similar schools, we have a well-equipped laboratory		The material for hands-on activities in <school science> is in good shape		We have enough laboratory material that all courses can regularly use it		We have extra laboratory staff that helps support <school science> teaching		Our school spends extra money on up-to-date <school science> equipment	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																
	Flemish community•	85.7	(2.5)	33.5	(3.8)	71.8	(3.5)	79.2	(3.1)	90.8	(2.2)	87.1	(2.4)	8.4	(2.3)	77.1	(3.3)
	French community	79.3	(4.2)	31.2	(4.9)	52.8	(5.8)	71.1	(5.3)	92.1	(2.7)	61.7	(5.6)	16.6	(4.0)	67.9	(5.4)
	German-speaking community	92.9	(0.1)	34.1	(0.5)	62.4	(0.5)	83.8	(0.3)	92.9	(0.1)	73.4	(0.4)	0.0	c	75.1	(0.4)
	Canada																
	Alberta	89.6	(3.4)	30.6	(5.5)	79.7	(4.6)	88.8	(3.5)	88.3	(4.0)	93.5	(1.9)	60.9	(5.3)	57.0	(6.0)
	British Columbia	89.6	(4.9)	22.0	(6.4)	65.6	(5.8)	79.3	(5.6)	91.2	(3.7)	77.8	(6.4)	32.6	(6.1)	48.1	(6.0)
	Manitoba	96.3	(1.7)	37.0	(2.8)	71.7	(2.9)	85.1	(2.9)	96.4	(1.1)	92.9	(2.6)	46.5	(2.7)	71.9	(3.3)
	New Brunswick	85.5	(2.6)	39.4	(2.3)	77.4	(2.6)	83.7	(2.5)	81.2	(2.7)	77.5	(2.8)	12.5	(0.6)	48.4	(2.5)
	Newfoundland and Labrador	97.1	(1.6)	36.5	(1.8)	86.3	(1.9)	95.6	(1.6)	94.3	(3.4)	93.4	(1.1)	8.4	(1.5)	70.1	(3.0)
	Nova Scotia	86.4	(5.2)	14.3	(2.5)	80.0	(4.2)	86.3	(3.7)	89.8	(3.8)	71.2	(5.5)	5.5	(2.5)	56.8	(5.6)
	Ontario	93.7	(2.6)	35.9	(5.1)	79.9	(4.2)	88.8	(3.6)	94.8	(2.6)	93.8	(2.3)	13.6	(3.8)	44.0	(5.2)
	Prince Edward Island	96.2	(3.0)	9.0	(2.2)	62.5	(3.1)	79.3	(3.6)	80.5	(3.0)	83.4	(1.2)	10.9	(4.7)	49.4	(2.8)
	Quebec	96.1	(2.5)	41.8	(6.6)	56.1	(6.2)	90.2	(4.1)	97.7	(1.4)	88.7	(3.9)	95.4	(2.7)	62.5	(5.4)
	Saskatchewan	91.8	(1.9)	22.4	(3.8)	87.1	(2.3)	91.8	(1.5)	85.9	(3.1)	92.3	(1.6)	17.5	(2.6)	47.8	(4.2)
	Italy																
	Bolzano	m	m	34.5	(0.4)	64.2	(0.4)	80.8	(0.3)	88.2	(0.3)	92.2	(0.2)	65.7	(0.4)	73.2	(0.4)
	Campania	m	m	79.0	(5.3)	64.4	(7.7)	78.7	(5.6)	79.7	(5.2)	54.0	(6.9)	70.9	(6.5)	60.2	(6.9)
	Lombardia	m	m	64.4	(6.0)	67.3	(6.4)	73.7	(7.0)	81.3	(5.5)	69.3	(7.3)	66.8	(6.8)	60.8	(6.3)
	Trento	m	m	50.5	(1.6)	44.7	(1.0)	70.4	(1.6)	92.6	(1.7)	81.8	(1.5)	81.1	(1.8)	64.0	(1.4)
	Portugal																
	Região Autónoma dos Açores	84.4	(0.3)	63.3	(0.5)	37.7	(0.5)	59.9	(0.5)	88.2	(0.2)	63.8	(0.6)	58.3	(0.5)	44.3	(0.7)
	Spain																
	Andalusia•	60.8	(6.2)	39.7	(7.2)	77.2	(5.1)	61.6	(6.4)	68.6	(5.7)	47.8	(6.3)	3.1	(2.5)	40.6	(5.2)
	Aragon•	78.6	(5.7)	39.4	(6.5)	71.1	(7.1)	70.3	(6.9)	85.9	(5.1)	63.4	(7.4)	4.3	(3.1)	38.7	(7.0)
	Asturias•	80.1	(4.8)	43.6	(7.4)	81.5	(5.2)	79.6	(5.9)	86.7	(4.9)	66.5	(6.7)	4.3	(3.0)	49.2	(6.4)
	Balearic Islands•	80.4	(3.4)	35.4	(6.0)	87.5	(5.2)	63.1	(5.5)	86.1	(4.3)	63.7	(5.4)	15.8	(5.2)	50.3	(7.3)
	Basque Country•	68.1	(5.2)	24.4	(5.2)	44.1	(4.9)	68.8	(5.4)	74.1	(4.6)	76.7	(4.2)	9.8	(3.7)	30.2	(5.7)
	Canary Islands•	70.9	(6.3)	36.1	(7.1)	66.0	(6.8)	70.8	(6.8)	68.6	(7.1)	40.6	(7.4)	5.9	(3.1)	33.9	(6.5)
	Cantabria•	82.3	(4.3)	41.9	(6.0)	80.5	(4.8)	73.6	(4.9)	86.0	(4.2)	64.7	(5.2)	5.3	(3.1)	47.2	(6.6)
	Castile and Leon•	75.8	(5.8)	43.3	(8.0)	73.1	(5.6)	64.3	(6.2)	91.6	(4.0)	56.4	(6.8)	1.9	(2.0)	25.2	(5.9)
	Castile-La Mancha•	76.8	(6.7)	46.6	(5.4)	67.1	(6.8)	62.5	(6.5)	66.4	(6.5)	41.1	(7.0)	0.0	c	31.1	(6.7)
	Catalonia•	86.1	(3.5)	43.8	(6.5)	78.5	(5.7)	76.8	(5.6)	85.1	(4.3)	73.5	(6.3)	9.3	(4.0)	62.2	(7.2)
	Comunidad Valenciana•	83.2	(4.2)	34.9	(6.4)	78.6	(6.5)	71.0	(6.4)	85.6	(3.6)	58.1	(7.4)	4.3	(3.0)	59.3	(7.5)
	Extremadura•	73.4	(6.5)	29.7	(6.3)	74.9	(6.6)	64.0	(7.1)	74.0	(6.1)	45.2	(6.8)	2.0	(2.0)	30.8	(7.3)
	Galicia•	76.9	(5.2)	30.4	(6.6)	87.2	(5.3)	65.2	(6.5)	80.2	(4.6)	53.2	(7.1)	7.9	(3.9)	39.2	(6.4)
	La Rioja•	91.3	(0.1)	49.1	(0.4)	74.6	(0.3)	81.3	(0.2)	88.8	(0.2)	68.7	(0.3)	10.0	(0.3)	30.7	(0.4)
	Madrid•	88.7	(4.9)	27.7	(6.5)	71.9	(6.8)	82.1	(6.2)	82.0	(6.0)	63.3	(8.1)	11.0	(4.0)	47.9	(7.7)
	Murcia•	74.6	(5.3)	54.5	(6.6)	79.4	(5.6)	63.1	(6.8)	74.4	(5.8)	42.6	(7.0)	5.7	(3.2)	41.2	(6.2)
	Navarre•	79.4	(5.4)	13.1	(4.0)	44.1	(5.5)	66.6	(5.7)	83.2	(4.5)	56.0	(6.1)	3.6	(2.6)	27.7	(4.8)
	United Kingdom																
	England	85.7	(3.2)	34.5	(4.3)	69.1	(3.8)	79.0	(3.6)	84.6	(3.4)	92.0	(2.1)	91.4	(2.6)	57.1	(4.1)
	Northern Ireland	95.6	(1.9)	29.6	(5.5)	74.7	(5.0)	79.0	(4.6)	95.8	(2.8)	91.5	(3.0)	88.0	(3.8)	58.4	(5.5)
	Scotland	85.3	(3.7)	42.8	(6.1)	58.5	(5.3)	77.6	(5.2)	86.6	(3.8)	88.0	(3.7)	82.9	(3.8)	62.4	(6.1)
	Wales	82.7	(3.2)	41.8	(3.9)	68.2	(3.7)	67.8	(4.2)	79.4	(3.6)	83.5	(3.5)	90.3	(2.8)	40.1	(3.9)
	United States																
	Massachusetts•	92.4	(2.1)	49.3	(6.6)	81.3	(6.2)	81.1	(4.0)	93.6	(3.3)	90.0	(4.2)	9.6	(3.1)	58.6	(6.3)
	North Carolina•	85.7	(5.4)	40.7	(7.5)	80.0	(5.9)	69.0	(7.0)	83.8	(4.8)	62.5	(6.8)	16.5	(5.3)	48.6	(6.5)
	Puerto Rico•	35.5	(6.5)	64.0	(7.2)	96.0	(3.0)	25.1	(4.9)	51.3	(7.0)	26.4	(5.9)	22.7	(5.2)	25.8	(5.9)
Partners	**Colombia**																
	Bogotá	77.5	(7.7)	60.2	(7.5)	90.1	(5.2)	62.5	(9.8)	80.1	(6.8)	59.6	(9.1)	22.7	(6.0)	39.7	(6.6)
	Cali	50.6	(7.0)	60.9	(8.5)	95.2	(3.2)	43.8	(6.8)	56.7	(7.3)	40.6	(7.7)	10.5	(4.1)	45.6	(7.2)
	Manizales	78.3	(4.1)	69.3	(6.4)	95.3	(2.4)	69.5	(4.3)	74.8	(3.7)	53.2	(4.7)	6.1	(2.8)	65.1	(4.7)
	Medellín	61.5	(6.0)	78.6	(7.0)	89.5	(4.5)	56.4	(6.8)	64.4	(6.6)	40.1	(7.0)	3.1	(2.8)	59.7	(8.3)
	United Arab Emirates																
	Abu Dhabi•	92.8	(3.4)	82.7	(3.5)	87.2	(3.5)	91.3	(2.9)	94.0	(2.5)	90.0	(3.2)	83.4	(3.8)	79.9	(3.9)
	Ajman	90.4	(8.0)	85.5	(2.3)	84.2	(7.5)	100.0	c	85.9	(6.4)	68.9	(7.6)	68.0	(9.6)	66.2	(6.2)
	Dubai•	98.0	(0.0)	65.5	(0.2)	87.3	(0.1)	90.9	(0.1)	95.1	(0.0)	93.1	(0.1)	80.7	(0.2)	80.9	(0.2)
	Fujairah	100.0	c	78.8	(2.8)	92.5	(2.3)	97.9	(2.1)	96.0	(2.2)	95.3	(0.3)	60.8	(4.3)	85.4	(5.0)
	Ras Al Khaimah	93.9	(5.3)	79.2	(7.8)	82.6	(6.8)	85.1	(7.3)	86.0	(7.6)	85.1	(6.6)	55.6	(8.7)	87.2	(7.1)
	Sharjah	94.0	(4.9)	81.2	(10.9)	90.5	(3.4)	87.3	(8.0)	94.0	(4.9)	79.5	(7.2)	77.7	(7.2)	77.4	(10.1)
	Umm Al Quwain	100.0	c	79.4	(0.6)	73.1	(0.6)	100.0	c	100.0	c	97.6	(0.4)	81.8	(0.3)	84.3	(0.6)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.
For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).
Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.
See Table II.2.5 for national data.

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[Part 1/1]

Table B2.II.5 Science teaching staff

Results based on school principals' reports

		In schools attended by 15-year-olds, percentage of science teachers			
		Fully certified by the appropriate authority		With a university degree (ISCED Level 5A) and a major in science	
		%	S.E.	%	S.E.
OECD	**Belgium**				
	Flemish community•	85.3	(2.4)	45.7	(1.8)
	French community	83.5	(3.4)	50.2	(2.3)
	German-speaking community	80.6	(0.5)	56.6	(0.2)
	Canada				
	Alberta	97.5	(1.5)	75.5	(3.9)
	British Columbia	95.6	(2.2)	86.6	(3.8)
	Manitoba	99.3	(0.1)	84.9	(2.4)
	New Brunswick	91.3	(1.0)	73.1	(2.2)
	Newfoundland and Labrador	100.0	c	91.0	(2.3)
	Nova Scotia	95.2	(1.9)	78.4	(3.3)
	Ontario	99.1	(0.2)	79.1	(3.5)
	Prince Edward Island	100.0	c	87.2	(2.0)
	Quebec	93.1	(2.9)	87.8	(3.6)
	Saskatchewan	94.3	(1.8)	64.2	(3.5)
	Italy				
	Bolzano	70.3	(0.3)	14.2	(0.1)
	Campania	93.8	(2.7)	2.1	(1.1)
	Lombardia	87.2	(2.9)	10.5	(2.6)
	Trento	68.8	(1.7)	30.6	(1.6)
	Portugal				
	Região Autónoma dos Açores	93.2	(0.2)	87.3	(0.4)
	Spain				
	Andalusia•	94.3	(3.1)	84.5	(5.0)
	Aragon•	94.4	(3.1)	92.4	(3.1)
	Asturias•	88.0	(3.7)	89.3	(3.8)
	Balearic Islands•	92.8	(3.2)	33.1	(5.6)
	Basque Country•	87.1	(3.9)	78.0	(3.6)
	Canary Islands•	93.2	(3.3)	81.0	(4.8)
	Cantabria•	98.7	(0.7)	85.9	(3.9)
	Castile and Leon•	92.3	(3.9)	90.2	(3.4)
	Castile-La Mancha•	97.6	(2.0)	87.9	(4.5)
	Catalonia•	95.8	(2.6)	42.5	(6.7)
	Comunidad Valenciana•	97.5	(2.0)	79.6	(5.1)
	Extremadura•	95.2	(3.0)	93.7	(2.2)
	Galicia•	89.7	(3.2)	78.7	(4.8)
	La Rioja•	98.6	(0.1)	96.6	(0.1)
	Madrid•	91.7	(4.0)	91.3	(2.1)
	Murcia•	95.4	(2.8)	83.7	(3.9)
	Navarre•	97.1	(0.7)	86.6	(2.7)
	United Kingdom				
	England	95.4	(1.3)	93.2	(1.9)
	Northern Ireland	97.2	(1.9)	96.9	(2.0)
	Scotland	96.9	(1.8)	89.3	(3.6)
	Wales	98.0	(1.1)	96.9	(1.4)
	United States				
	Massachusetts•	97.4	(1.2)	97.3	(1.5)
	North Carolina•	96.9	(1.0)	96.7	(2.0)
	Puerto Rico•	88.6	(4.3)	82.7	(4.2)
Partners	**Colombia**				
	Bogotá	6.6	(3.0)	83.8	(3.7)
	Cali	23.8	(8.1)	94.4	(2.9)
	Manizales	11.1	(1.8)	83.6	(4.1)
	Medellín	5.9	(2.7)	78.8	(5.2)
	United Arab Emirates				
	Abu Dhabi•	82.0	(2.7)	86.3	(3.8)
	Ajman	79.3	(8.1)	89.9	(1.0)
	Dubai•	88.6	(0.1)	94.2	(0.0)
	Fujairah	64.3	(5.2)	95.1	(0.8)
	Ras Al Khaimah	59.0	(7.2)	99.5	(0.0)
	Sharjah	80.4	(6.5)	93.6	(5.0)
	Umm Al Quwain	65.8	(0.4)	99.5	(0.0)

• PISA adjudicated region.
Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.
For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).
Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.
See Table II.2.8 for national data.

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[Part 1/3]

Table B2.II.10 Enquiry-based science teaching and learning practices

Results based on students' reports

	Percentage of students who reported that the following things happen in their science lessons																							
	Students are given opportunities to explain their ideas								Students spend time in the laboratory doing practical experiments								Students are required to argue about science questions							
	In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD																								
Belgium																								
Flemish community•	26.5	(0.9)	37.1	(0.7)	25.6	(0.7)	10.8	(0.6)	3.8	(0.3)	8.0	(0.5)	47.3	(1.3)	40.9	(1.4)	3.7	(0.3)	9.2	(0.5)	31.7	(0.9)	55.3	(1.1)
French community	39.2	(1.2)	28.5	(0.8)	22.7	(1.0)	9.6	(0.7)	4.2	(0.5)	7.5	(0.6)	31.0	(1.3)	57.3	(1.5)	8.6	(0.8)	18.1	(0.8)	38.4	(0.9)	34.9	(1.1)
German-speaking community	32.5	(2.3)	32.5	(2.6)	24.5	(2.3)	10.5	(1.6)	6.5	(1.6)	11.2	(2.1)	43.1	(2.7)	39.1	(2.7)	7.6	(1.5)	24.5	(2.4)	40.8	(2.9)	27.2	(2.8)
Canada																								
Alberta	36.7	(1.2)	40.7	(1.2)	18.3	(0.9)	4.3	(0.5)	10.0	(0.9)	20.6	(1.1)	56.2	(1.5)	13.2	(1.4)	10.5	(0.8)	21.0	(1.0)	39.2	(1.3)	29.3	(1.5)
British Columbia	34.2	(1.9)	39.4	(1.6)	20.2	(1.4)	6.2	(0.8)	7.8	(0.9)	14.8	(1.2)	58.0	(1.8)	19.4	(2.1)	7.9	(0.9)	15.9	(0.9)	39.8	(1.7)	36.4	(2.0)
Manitoba	37.0	(2.1)	36.3	(1.6)	21.9	(1.2)	4.8	(0.6)	11.2	(1.0)	18.4	(1.3)	54.5	(1.4)	16.0	(1.2)	11.7	(1.1)	20.4	(1.7)	39.2	(1.8)	28.8	(1.3)
New Brunswick	33.5	(1.5)	39.7	(1.7)	21.1	(1.3)	5.7	(0.7)	6.4	(0.8)	15.0	(1.2)	55.6	(1.7)	23.0	(1.6)	8.9	(0.9)	18.8	(1.2)	38.8	(1.6)	33.5	(1.5)
Newfoundland and Labrador	33.5	(1.4)	40.6	(1.8)	19.7	(1.2)	6.3	(0.8)	5.9	(1.1)	9.2	(1.0)	49.8	(1.9)	35.1	(2.0)	7.9	(1.0)	12.4	(1.0)	36.1	(1.7)	43.6	(1.6)
Nova Scotia	36.9	(1.8)	37.3	(1.7)	20.4	(1.4)	5.4	(0.8)	6.5	(0.9)	12.5	(1.0)	59.5	(2.0)	21.5	(1.5)	7.8	(0.9)	16.5	(1.2)	40.3	(1.3)	35.3	(1.6)
Ontario	41.6	(1.2)	37.0	(1.1)	17.3	(0.9)	4.2	(0.4)	10.3	(0.7)	24.3	(1.2)	56.7	(1.2)	8.8	(0.8)	11.2	(0.8)	21.7	(0.9)	40.2	(1.1)	26.9	(1.1)
Prince Edward Island	42.1	(2.8)	37.3	(2.8)	17.8	(2.4)	2.8	(1.1)	10.8	(2.0)	11.8	(1.7)	52.0	(3.1)	25.4	(2.7)	6.9	(1.5)	19.5	(2.4)	36.0	(2.7)	37.6	(3.0)
Quebec	47.0	(1.3)	31.6	(1.1)	15.8	(0.9)	5.6	(0.7)	6.3	(0.7)	16.6	(1.0)	67.2	(1.5)	9.9	(1.4)	9.3	(0.8)	19.1	(0.9)	43.0	(1.4)	28.6	(1.4)
Saskatchewan	34.2	(1.6)	38.5	(1.3)	21.6	(1.2)	5.7	(0.8)	9.5	(0.8)	18.8	(1.5)	50.4	(1.7)	21.4	(2.0)	10.5	(0.9)	19.2	(1.2)	39.4	(1.4)	30.8	(1.9)
Italy																								
Bolzano	31.6	(1.1)	34.4	(1.1)	23.2	(1.1)	10.7	(0.8)	3.2	(0.4)	21.4	(0.9)	48.5	(1.2)	26.9	(1.0)	8.8	(0.6)	24.2	(1.2)	42.3	(1.2)	24.6	(1.3)
Campania	46.0	(1.7)	35.1	(1.5)	14.7	(1.2)	4.2	(0.6)	6.6	(0.9)	11.0	(1.4)	34.9	(2.1)	47.5	(2.8)	10.0	(0.9)	23.8	(1.7)	46.4	(1.5)	19.8	(1.5)
Lombardia	36.0	(1.4)	35.6	(1.3)	21.7	(1.4)	6.7	(0.6)	4.0	(0.7)	8.6	(1.0)	46.1	(2.8)	41.3	(3.0)	5.1	(0.6)	18.7	(1.0)	48.7	(1.1)	27.5	(1.3)
Trento	34.4	(1.4)	40.2	(1.3)	20.0	(1.1)	5.4	(0.5)	4.7	(0.7)	17.0	(1.1)	49.8	(1.5)	28.5	(1.2)	6.5	(0.7)	19.7	(1.0)	48.7	(1.2)	25.1	(1.1)
Portugal																								
Região Autónoma dos Açores	49.0	(1.8)	32.1	(1.8)	14.8	(1.3)	4.1	(0.8)	7.8	(0.9)	11.9	(1.2)	53.8	(1.6)	26.5	(1.1)	13.4	(1.2)	22.9	(1.4)	40.3	(1.6)	23.3	(1.4)
Spain																								
Andalusia•	37.7	(1.8)	35.3	(1.4)	21.6	(1.2)	5.3	(0.8)	2.2	(0.4)	2.9	(0.6)	24.8	(2.3)	70.1	(2.6)	4.8	(0.7)	9.9	(0.9)	44.2	(1.6)	41.1	(1.8)
Aragon•	33.4	(1.5)	32.9	(1.2)	25.7	(1.0)	7.9	(0.9)	2.5	(0.5)	3.7	(0.7)	31.0	(2.9)	62.8	(3.1)	4.7	(0.4)	10.2	(1.0)	36.5	(1.6)	48.6	(2.1)
Asturias•	34.2	(1.5)	34.6	(1.3)	22.1	(1.1)	9.1	(1.0)	3.3	(0.5)	4.6	(0.6)	42.8	(2.7)	49.3	(3.1)	6.1	(0.7)	9.5	(0.9)	39.2	(1.3)	45.2	(1.5)
Balearic Islands•	40.8	(2.1)	30.5	(1.5)	22.4	(1.4)	6.3	(0.8)	2.6	(0.4)	3.5	(0.7)	31.1	(1.9)	62.9	(2.1)	7.8	(0.7)	16.8	(1.5)	42.8	(1.4)	32.6	(2.1)
Basque Country•	34.8	(1.1)	34.2	(0.9)	23.0	(0.8)	8.0	(0.7)	4.3	(0.5)	8.4	(1.1)	23.7	(1.4)	63.6	(2.4)	5.8	(0.7)	13.2	(0.9)	35.5	(1.1)	45.5	(1.8)
Canary Islands•	36.3	(1.6)	32.3	(1.2)	24.0	(1.3)	7.4	(1.0)	2.7	(0.6)	4.1	(0.6)	28.6	(2.1)	64.6	(2.3)	6.1	(0.7)	11.7	(1.3)	39.7	(1.6)	42.5	(2.3)
Cantabria•	36.9	(1.1)	34.5	(1.2)	21.3	(1.3)	7.3	(0.7)	2.7	(0.4)	4.2	(0.7)	32.6	(2.5)	60.5	(2.8)	4.5	(0.5)	9.9	(1.0)	38.5	(1.6)	47.0	(2.0)
Castile and Leon•	32.9	(1.9)	33.7	(1.5)	25.1	(1.4)	8.3	(0.7)	3.1	(0.7)	6.3	(0.9)	36.4	(2.6)	54.2	(3.4)	3.5	(0.4)	10.4	(0.9)	38.0	(1.1)	48.0	(1.4)
Castile-La Mancha•	36.7	(1.2)	31.8	(1.2)	24.5	(1.2)	7.0	(0.6)	2.1	(0.3)	3.7	(0.6)	29.7	(2.8)	64.4	(3.0)	5.3	(0.7)	10.8	(0.7)	37.4	(1.7)	46.6	(1.8)
Catalonia•	42.1	(1.2)	33.5	(1.3)	19.4	(1.0)	5.0	(0.7)	3.2	(0.5)	4.2	(0.5)	40.6	(3.3)	52.0	(3.5)	8.7	(0.8)	21.9	(1.4)	43.5	(1.2)	25.9	(1.6)
Comunidad Valenciana•	30.6	(1.5)	35.0	(1.0)	26.8	(1.4)	7.6	(0.7)	2.6	(0.4)	4.7	(0.8)	27.3	(2.1)	65.3	(2.2)	5.7	(0.6)	12.7	(1.1)	39.5	(1.3)	42.1	(2.1)
Extremadura•	37.2	(1.7)	30.2	(1.3)	24.1	(1.1)	8.5	(0.8)	2.2	(0.3)	3.3	(0.5)	24.1	(2.6)	70.4	(2.8)	5.2	(0.6)	11.1	(0.8)	39.5	(1.4)	44.2	(1.7)
Galicia•	32.7	(1.2)	34.8	(1.0)	25.3	(1.3)	7.2	(0.8)	1.8	(0.3)	2.8	(0.5)	32.9	(2.2)	62.5	(2.3)	9.1	(1.0)	23.2	(1.8)	43.2	(1.6)	24.5	(2.3)
La Rioja•	33.5	(1.4)	34.5	(1.3)	23.9	(1.4)	8.2	(0.9)	4.1	(0.7)	5.4	(0.7)	32.0	(1.3)	58.5	(1.5)	5.7	(0.7)	12.4	(1.0)	38.9	(1.5)	43.0	(1.5)
Madrid•	32.1	(1.6)	35.9	(1.3)	24.4	(1.0)	7.5	(0.9)	1.9	(0.4)	3.4	(0.8)	41.1	(3.0)	53.6	(3.3)	3.0	(0.4)	9.3	(0.9)	37.8	(1.5)	49.9	(1.9)
Murcia•	35.6	(1.9)	33.1	(1.3)	22.8	(1.6)	8.5	(1.0)	2.6	(0.4)	5.0	(0.8)	42.7	(2.0)	49.7	(2.6)	5.8	(0.7)	9.9	(1.0)	39.3	(1.6)	45.0	(2.1)
Navarre•	32.9	(1.4)	37.0	(1.5)	21.0	(1.3)	9.1	(0.9)	3.1	(0.7)	8.3	(1.4)	31.3	(2.0)	57.3	(2.6)	4.3	(0.5)	13.3	(1.4)	38.4	(1.5)	44.0	(2.1)
United Kingdom																								
England	37.3	(0.9)	37.7	(0.8)	19.8	(0.7)	5.2	(0.3)	3.6	(0.3)	15.3	(0.8)	62.5	(1.0)	18.6	(0.9)	5.0	(0.3)	11.7	(0.7)	36.8	(1.0)	46.5	(1.0)
Northern Ireland	27.6	(1.0)	37.4	(1.2)	25.4	(0.9)	9.6	(0.9)	4.1	(0.5)	11.9	(1.0)	66.6	(1.3)	17.5	(1.4)	5.1	(0.6)	9.1	(0.6)	34.0	(1.1)	51.7	(1.4)
Scotland	28.2	(1.0)	41.0	(0.9)	23.1	(0.8)	7.7	(0.6)	4.1	(0.4)	14.1	(0.8)	60.6	(1.0)	21.1	(1.0)	8.5	(0.5)	22.8	(1.1)	42.5	(1.2)	26.2	(1.1)
Wales	26.6	(0.9)	39.6	(1.2)	24.5	(0.9)	9.3	(0.6)	4.5	(0.4)	11.5	(0.7)	61.8	(1.3)	22.2	(1.1)	5.3	(0.5)	12.2	(0.7)	35.1	(0.7)	47.4	(1.2)
United States																								
Massachusetts•	42.8	(1.6)	36.1	(1.0)	17.5	(1.3)	3.5	(0.6)	10.1	(0.9)	21.7	(1.5)	58.0	(1.3)	10.3	(1.3)	10.1	(0.7)	16.9	(0.8)	41.6	(1.3)	31.4	(1.4)
North Carolina•	35.0	(1.6)	37.6	(1.7)	21.3	(1.2)	6.1	(0.8)	11.1	(1.0)	21.3	(1.0)	49.4	(1.6)	18.2	(1.3)	9.2	(0.8)	17.4	(1.1)	38.4	(1.5)	35.0	(1.1)
Puerto Rico•	44.7	(1.8)	27.9	(1.8)	20.9	(1.3)	6.5	(1.0)	8.0	(1.0)	11.6	(1.0)	41.0	(2.1)	39.4	(2.3)	25.1	(1.8)	30.6	(1.3)	35.1	(1.6)	9.2	(1.3)
Partners																								
Colombia																								
Bogotá	41.0	(1.3)	28.0	(0.9)	25.9	(1.6)	5.1	(0.7)	4.5	(0.7)	8.3	(1.1)	53.3	(2.8)	33.9	(3.8)	9.0	(0.8)	17.0	(0.7)	45.2	(1.1)	28.7	(1.5)
Cali	44.0	(1.4)	27.0	(1.1)	24.1	(1.4)	4.9	(0.8)	4.5	(0.9)	6.6	(0.9)	32.6	(3.0)	56.4	(3.4)	12.8	(1.0)	15.2	(1.1)	41.8	(1.5)	30.2	(1.4)
Manizales	40.8	(2.0)	28.0	(1.6)	26.4	(1.5)	4.8	(0.7)	4.9	(0.7)	6.5	(0.8)	41.9	(2.2)	46.8	(2.3)	10.8	(0.9)	15.4	(1.2)	44.5	(1.3)	29.3	(1.6)
Medellín	40.5	(1.7)	28.9	(1.2)	25.3	(1.0)	5.2	(0.8)	5.1	(0.7)	7.4	(1.0)	45.0	(2.1)	42.5	(2.8)	9.2	(0.8)	15.2	(1.2)	43.7	(1.4)	31.9	(1.9)
United Arab Emirates																								
Abu Dhabi•	33.6	(1.1)	34.6	(1.0)	23.9	(1.0)	7.9	(0.6)	14.3	(0.8)	22.4	(1.1)	40.8	(1.3)	22.6	(1.5)	21.6	(1.0)	28.2	(1.0)	33.7	(1.2)	16.5	(0.7)
Ajman	35.2	(1.9)	36.8	(2.0)	22.1	(1.9)	5.9	(0.9)	12.5	(1.2)	23.8	(1.9)	45.6	(2.1)	18.1	(1.4)	22.1	(2.1)	30.8	(2.0)	36.5	(2.5)	10.6	(1.2)
Dubai•	36.7	(0.8)	35.9	(0.9)	21.6	(0.7)	5.9	(0.4)	12.2	(0.6)	21.0	(0.7)	49.8	(0.8)	17.0	(0.6)	17.2	(0.6)	25.6	(0.7)	37.3	(0.9)	19.9	(0.7)
Fujairah	34.2	(1.6)	36.1	(1.6)	22.6	(1.5)	7.1	(1.1)	14.1	(1.3)	27.1	(1.6)	43.3	(2.0)	15.6	(1.4)	22.7	(1.4)	34.2	(1.8)	30.1	(2.2)	13.1	(1.3)
Ras Al Khaimah	35.9	(2.4)	32.7	(2.0)	23.5	(1.6)	8.0	(0.9)	16.1	(1.9)	28.4	(2.4)	41.8	(1.8)	13.8	(2.2)	24.0	(2.0)	29.7	(1.9)	33.0	(1.6)	13.3	(1.8)
Sharjah	36.2	(2.5)	34.1	(1.4)	22.6	(1.7)	7.1	(1.5)	10.3	(1.7)	22.2	(2.2)	42.9	(3.5)	24.6	(3.7)	16.4	(2.2)	32.6	(2.0)	36.6	(2.1)	14.5	(1.5)
Umm Al Quwain	35.2	(2.2)	33.6	(2.6)	22.4	(2.5)	8.8	(1.5)	15.5	(1.8)	27.8	(1.9)	39.0	(2.6)	17.8	(2.1)	20.2	(2.1)	35.2	(2.5)	30.7	(2.5)	14.0	(1.8)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.
For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).
Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.
See Table II.2.26 for national data.

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[Part 2/3]

Table B2.II.10 Enquiry-based science teaching and learning practices

Results based on students' reports

	Percentage of students who reported that the following things happen in their science lessons																							
	Students are asked to draw conclusions from an experiment they have conducted								The teacher explains how a <school science> idea can be applied to a number of different phenomena (e.g. the movement of objects, substances with similar properties)								Students are allowed to design their own experiments							
	In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD																								
Belgium																								
Flemish community•	9.8	(0.5)	31.9	(0.7)	42.6	(0.8)	15.7	(0.8)	20.3	(0.9)	38.8	(0.9)	29.2	(0.8)	11.7	(0.6)	2.9	(0.3)	5.6	(0.4)	20.0	(0.9)	71.6	(1.0)
French community	12.2	(0.8)	25.5	(0.9)	40.5	(1.0)	21.8	(0.9)	28.1	(1.0)	36.2	(1.0)	25.7	(0.8)	10.0	(0.7)	6.2	(0.6)	8.7	(0.7)	20.8	(0.8)	64.3	(1.4)
German-speaking community	10.6	(2.0)	21.3	(2.4)	41.6	(2.9)	26.5	(2.2)	16.4	(2.4)	38.1	(2.7)	32.1	(2.7)	13.3	(1.9)	2.4	(0.9)	3.8	(1.1)	13.8	(2.0)	80.0	(2.5)
Canada																								
Alberta	20.9	(1.3)	38.8	(1.3)	34.9	(1.6)	5.4	(0.8)	33.1	(1.4)	41.3	(1.5)	20.9	(1.0)	4.8	(0.6)	8.6	(0.9)	16.4	(1.2)	32.2	(1.3)	42.9	(1.9)
British Columbia	19.3	(1.1)	34.0	(1.3)	38.9	(1.7)	7.8	(1.4)	32.5	(1.5)	39.7	(1.3)	22.0	(1.3)	5.7	(0.7)	7.0	(1.0)	12.3	(1.5)	27.9	(1.5)	52.8	(2.6)
Manitoba	19.1	(1.2)	34.2	(1.6)	38.2	(1.6)	8.5	(0.7)	30.1	(1.3)	39.9	(1.4)	23.2	(1.4)	6.8	(0.7)	10.1	(0.9)	15.8	(1.3)	31.9	(2.2)	42.1	(1.7)
New Brunswick	12.7	(1.0)	30.7	(1.4)	44.0	(1.4)	12.7	(1.1)	23.5	(1.5)	42.7	(1.6)	25.7	(1.3)	8.2	(0.8)	5.9	(0.6)	15.0	(1.2)	31.5	(1.5)	47.7	(1.7)
Newfoundland and Labrador	11.2	(1.3)	21.2	(1.3)	48.1	(1.6)	19.5	(1.5)	25.9	(1.7)	35.0	(1.9)	31.4	(1.6)	7.7	(0.7)	5.9	(0.9)	8.4	(0.9)	25.5	(1.8)	60.2	(2.2)
Nova Scotia	16.0	(1.2)	32.5	(1.6)	41.8	(1.5)	9.7	(1.3)	27.2	(1.3)	38.9	(1.7)	27.5	(1.4)	6.3	(0.8)	7.4	(1.1)	11.8	(1.0)	32.1	(1.4)	48.6	(2.2)
Ontario	19.8	(0.9)	39.6	(1.3)	35.5	(1.4)	5.1	(0.5)	30.5	(1.1)	40.7	(0.9)	23.2	(1.0)	5.6	(0.5)	8.6	(0.7)	13.2	(0.9)	30.5	(1.2)	47.7	(1.6)
Prince Edward Island	14.3	(2.0)	29.3	(2.9)	44.0	(2.7)	12.4	(1.9)	27.8	(2.8)	36.3	(2.8)	27.8	(2.7)	8.1	(1.7)	6.7	(1.5)	7.9	(1.6)	26.1	(2.8)	59.3	(3.1)
Quebec	11.6	(0.9)	28.2	(1.2)	52.6	(1.4)	7.6	(1.0)	44.4	(1.8)	36.5	(1.5)	14.9	(0.9)	4.1	(0.5)	7.1	(0.7)	10.5	(0.6)	30.7	(1.7)	51.7	(2.0)
Saskatchewan	17.5	(1.1)	35.2	(1.5)	37.5	(1.2)	9.9	(1.6)	25.1	(1.3)	38.7	(1.2)	28.2	(1.1)	7.9	(1.1)	9.0	(0.8)	16.2	(1.0)	32.5	(1.3)	42.4	(1.9)
Italy																								
Bolzano	12.0	(0.8)	28.2	(1.0)	38.1	(1.2)	21.7	(0.8)	13.7	(0.9)	34.1	(1.1)	35.0	(1.1)	17.2	(0.7)	3.6	(0.5)	8.0	(0.6)	18.0	(1.1)	70.5	(1.2)
Campania	8.9	(1.0)	17.0	(1.3)	35.6	(1.6)	38.6	(2.2)	14.9	(1.0)	32.4	(1.5)	39.6	(1.3)	13.1	(1.2)	6.8	(0.9)	10.4	(1.2)	25.7	(1.7)	57.1	(2.1)
Lombardia	5.1	(0.6)	16.9	(1.3)	40.2	(1.7)	37.7	(2.6)	10.1	(0.6)	31.2	(1.7)	41.0	(1.3)	17.7	(1.3)	3.0	(0.3)	6.8	(0.8)	19.3	(1.1)	70.8	(1.4)
Trento	8.7	(0.8)	22.6	(1.2)	41.7	(1.2)	27.0	(1.0)	9.3	(0.8)	30.8	(1.3)	44.5	(1.3)	15.5	(1.0)	2.7	(0.4)	8.8	(0.9)	20.7	(1.2)	67.8	(1.5)
Portugal																								
Região Autónoma dos Açores	14.5	(1.2)	25.4	(1.8)	45.6	(1.8)	14.4	(1.0)	22.7	(1.6)	35.1	(1.5)	34.3	(2.0)	7.9	(0.9)	6.8	(0.8)	11.5	(1.0)	28.5	(1.6)	53.2	(1.9)
Spain																								
Andalusia•	7.5	(1.1)	16.8	(1.4)	33.3	(1.5)	42.4	(2.6)	20.1	(1.6)	31.4	(1.6)	34.3	(1.5)	14.2	(1.2)	4.1	(0.6)	6.8	(0.9)	18.0	(1.3)	71.1	(1.8)
Aragon•	7.3	(0.7)	16.6	(1.3)	38.6	(1.6)	37.5	(2.6)	15.7	(1.1)	33.3	(1.7)	35.2	(1.5)	15.9	(1.5)	4.0	(0.6)	5.8	(0.8)	18.6	(1.8)	71.6	(2.5)
Asturias•	10.8	(1.1)	18.5	(1.3)	41.0	(1.4)	29.7	(1.9)	21.1	(1.6)	33.6	(1.5)	32.8	(1.2)	12.5	(1.0)	4.4	(0.6)	5.1	(0.6)	19.4	(1.3)	71.1	(1.6)
Balearic Islands•	11.1	(0.9)	20.5	(1.3)	36.1	(1.5)	32.2	(2.0)	20.4	(1.3)	32.6	(1.4)	33.1	(1.4)	13.8	(1.0)	4.6	(0.6)	8.0	(0.8)	19.1	(1.3)	68.2	(1.7)
Basque Country•	8.8	(0.7)	19.3	(1.2)	32.6	(1.2)	39.3	(1.9)	15.1	(0.8)	33.9	(1.0)	34.5	(1.1)	16.5	(1.2)	5.3	(0.6)	10.4	(1.0)	20.7	(1.0)	63.7	(1.9)
Canary Islands•	9.6	(0.8)	19.1	(1.3)	34.5	(1.6)	36.8	(2.4)	19.6	(1.3)	30.2	(1.4)	33.6	(1.2)	16.5	(1.0)	4.8	(0.6)	6.8	(0.8)	17.9	(1.4)	70.4	(2.0)
Cantabria•	6.7	(0.7)	18.2	(1.2)	37.2	(1.4)	37.9	(1.9)	16.6	(0.9)	32.2	(1.5)	36.1	(1.5)	15.1	(1.0)	3.6	(0.6)	4.5	(0.6)	18.9	(1.1)	73.0	(1.7)
Castile and Leon•	7.6	(1.3)	18.4	(1.4)	38.6	(1.6)	35.4	(2.5)	16.1	(1.3)	34.1	(1.3)	37.4	(1.5)	12.5	(1.3)	2.8	(0.6)	4.9	(0.7)	20.1	(1.3)	72.2	(2.1)
Castile-La Mancha•	9.1	(1.0)	17.5	(1.1)	37.7	(1.7)	35.8	(2.6)	19.8	(1.3)	31.5	(1.2)	34.4	(1.7)	14.3	(1.1)	4.0	(0.6)	6.8	(0.7)	21.4	(1.4)	67.8	(1.8)
Catalonia•	14.9	(1.2)	25.7	(1.7)	37.3	(1.4)	22.1	(2.0)	22.1	(1.5)	38.4	(1.4)	29.6	(1.6)	9.9	(0.8)	4.3	(0.5)	7.1	(0.8)	23.9	(1.5)	64.7	(1.7)
Comunidad Valenciana•	8.6	(0.8)	17.5	(1.4)	35.4	(1.8)	38.4	(2.3)	17.6	(1.1)	33.6	(1.7)	35.7	(1.6)	13.1	(1.2)	4.7	(0.7)	6.1	(0.8)	21.4	(1.8)	67.8	(2.4)
Extremadura•	7.3	(0.9)	14.2	(1.1)	35.4	(1.6)	43.1	(1.9)	16.8	(1.5)	31.3	(1.1)	35.6	(1.5)	16.3	(1.2)	3.1	(0.5)	7.4	(0.7)	18.9	(1.4)	70.6	(1.7)
Galicia•	6.2	(0.7)	19.1	(1.3)	35.8	(1.4)	38.8	(2.0)	16.9	(1.3)	33.0	(1.2)	35.9	(1.1)	14.1	(1.2)	2.4	(0.4)	5.7	(0.7)	20.3	(1.1)	71.6	(1.6)
La Rioja•	8.5	(0.8)	17.5	(1.3)	38.6	(1.5)	35.4	(1.4)	16.1	(1.0)	33.5	(1.6)	34.5	(1.7)	15.8	(1.1)	4.0	(0.6)	6.5	(0.8)	20.0	(1.3)	69.5	(1.3)
Madrid•	7.7	(1.2)	14.8	(1.3)	44.2	(1.6)	33.2	(2.4)	15.6	(1.0)	35.4	(1.9)	35.7	(1.6)	13.3	(0.9)	2.7	(0.5)	5.3	(0.8)	19.4	(1.2)	72.7	(1.8)
Murcia•	9.5	(0.8)	17.5	(1.3)	41.5	(1.1)	31.5	(1.8)	18.5	(1.0)	34.3	(1.4)	34.6	(1.2)	12.6	(0.9)	4.2	(0.6)	7.0	(0.7)	24.3	(1.4)	64.4	(1.8)
Navarre•	8.4	(0.9)	21.8	(1.8)	37.8	(1.7)	31.9	(2.6)	17.5	(1.2)	34.9	(1.4)	35.3	(1.2)	12.3	(1.0)	2.9	(0.5)	10.3	(1.3)	22.4	(1.6)	64.4	(2.8)
United Kingdom																								
England	11.9	(0.5)	36.9	(0.8)	44.2	(0.9)	6.9	(0.4)	21.7	(0.7)	39.0	(0.9)	30.1	(0.7)	9.2	(0.6)	3.3	(0.3)	5.9	(0.4)	29.7	(1.0)	61.1	(1.2)
Northern Ireland	9.2	(0.5)	35.3	(1.1)	46.5	(1.2)	9.0	(1.0)	19.5	(1.1)	39.0	(1.0)	31.9	(1.1)	9.6	(0.8)	3.2	(0.5)	4.1	(0.4)	18.2	(1.1)	74.5	(1.3)
Scotland	11.9	(0.6)	37.2	(1.1)	44.7	(1.4)	6.2	(0.5)	20.9	(1.0)	41.7	(0.9)	28.3	(1.2)	9.2	(0.6)	3.8	(0.4)	7.7	(0.8)	29.8	(1.1)	58.7	(1.3)
Wales	9.1	(0.6)	36.1	(1.1)	46.8	(1.1)	7.9	(0.6)	16.3	(0.7)	40.1	(1.0)	33.1	(0.9)	10.4	(0.7)	3.9	(0.4)	7.7	(0.6)	26.3	(0.9)	62.1	(1.2)
United States																								
Massachusetts•	20.1	(1.1)	37.5	(1.7)	38.9	(1.9)	3.5	(0.6)	29.6	(1.3)	37.2	(1.2)	26.6	(1.4)	6.6	(0.7)	7.2	(0.7)	9.1	(0.7)	34.2	(1.2)	49.5	(1.8)
North Carolina•	20.6	(1.3)	36.1	(1.3)	36.4	(1.5)	7.0	(0.8)	29.8	(1.7)	35.1	(1.4)	27.7	(1.4)	7.3	(0.8)	8.3	(1.0)	15.0	(1.1)	32.6	(1.3)	44.1	(1.7)
Puerto Rico•	30.1	(1.4)	28.2	(1.3)	28.8	(1.5)	12.9	(1.6)	35.8	(1.7)	28.1	(1.8)	26.2	(1.4)	9.9	(1.5)	17.0	(1.3)	17.7	(1.4)	30.4	(1.7)	34.9	(1.9)
Partners																								
Colombia																								
Bogotá	13.0	(1.0)	24.5	(1.1)	46.6	(1.3)	15.9	(1.9)	28.9	(1.6)	35.1	(1.2)	29.0	(0.8)	7.0	(1.0)	6.5	(0.7)	10.3	(1.1)	31.3	(1.5)	51.9	(2.2)
Cali	13.1	(1.1)	20.2	(1.4)	39.7	(2.0)	27.0	(2.0)	27.7	(1.6)	32.3	(1.4)	31.1	(1.4)	8.9	(0.7)	8.4	(0.8)	13.2	(1.0)	32.6	(1.5)	45.9	(1.8)
Manizales	13.1	(0.9)	21.1	(1.3)	45.0	(1.4)	20.9	(1.5)	27.9	(1.1)	32.7	(1.3)	31.0	(1.3)	8.3	(0.8)	7.1	(0.7)	10.2	(0.9)	36.5	(1.6)	46.3	(2.0)
Medellín	12.3	(1.1)	21.4	(1.4)	44.5	(1.6)	21.8	(2.2)	27.0	(1.4)	33.0	(1.0)	30.7	(1.1)	9.2	(0.9)	8.2	(0.7)	8.0	(0.8)	32.5	(1.3)	51.4	(1.7)
United Arab Emirates																								
Abu Dhabi•	22.6	(1.1)	31.6	(1.2)	32.1	(1.1)	13.6	(0.9)	33.1	(1.1)	34.2	(1.0)	24.6	(0.9)	8.1	(0.6)	17.1	(0.8)	22.5	(1.0)	30.4	(1.0)	30.0	(1.5)
Ajman	20.6	(1.5)	32.2	(1.7)	33.6	(2.0)	13.6	(1.2)	36.7	(2.5)	31.9	(1.9)	24.8	(1.8)	6.6	(0.9)	20.1	(1.5)	26.2	(1.7)	30.8	(2.1)	23.0	(2.2)
Dubai•	24.0	(0.7)	32.5	(0.7)	32.9	(0.8)	10.6	(0.5)	35.4	(0.8)	35.2	(0.7)	23.4	(0.6)	5.9	(0.4)	13.6	(0.6)	17.9	(0.6)	33.5	(0.8)	35.1	(0.7)
Fujairah	23.9	(1.4)	30.7	(2.1)	33.4	(2.1)	12.0	(1.5)	34.3	(1.7)	36.0	(1.8)	22.7	(1.3)	7.0	(0.9)	21.3	(1.8)	26.8	(1.8)	31.4	(2.1)	20.4	(1.4)
Ras Al Khaimah	23.3	(2.1)	33.6	(1.5)	32.4	(2.0)	10.7	(1.4)	37.4	(2.1)	30.6	(1.8)	25.2	(1.9)	6.8	(0.9)	21.2	(2.1)	27.7	(1.9)	31.2	(1.5)	19.9	(2.3)
Sharjah	19.3	(1.5)	30.8	(2.2)	33.2	(2.1)	16.7	(1.7)	33.3	(1.7)	32.7	(1.6)	29.3	(1.2)	4.7	(0.7)	13.5	(1.2)	21.2	(2.3)	32.1	(1.8)	33.3	(2.5)
Umm Al Quwain	22.2	(2.4)	32.1	(2.6)	33.3	(2.5)	12.4	(1.8)	36.5	(2.2)	32.7	(2.4)	23.7	(2.2)	7.2	(1.4)	18.9	(2.1)	28.6	(2.5)	29.9	(2.4)	22.6	(2.2)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.
For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).
Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.
See Table II.2.26 for national data.

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[Part 3/3]

Table B2.II.10 Enquiry-based science teaching and learning practices

Results based on students' reports

	Percentage of students who reported that the following things happen in their science lessons																							
	There is a class debate about investigations								The teacher clearly explains the relevance of <broad science> concepts to our lives								Students are asked to do an investigation to test ideas							
	In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever		In all lessons		In most lessons		In some lessons		Never or hardly ever	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD																								
Belgium																								
Flemish community•	9.2	(0.5)	25.5	(0.9)	42.2	(0.9)	23.1	(0.9)	9.6	(0.5)	24.3	(0.8)	38.9	(0.8)	27.2	(0.7)	3.9	(0.3)	10.3	(0.5)	34.6	(0.8)	51.3	(1.0)
French community	8.9	(0.7)	12.5	(0.7)	29.2	(1.1)	49.3	(1.5)	17.0	(0.9)	24.4	(0.9)	34.6	(1.0)	23.9	(1.0)	6.4	(0.7)	12.0	(0.8)	29.3	(1.0)	52.3	(1.4)
German-speaking community	2.7	(0.9)	12.2	(1.9)	31.0	(2.4)	54.1	(2.6)	8.1	(1.5)	29.6	(2.7)	37.1	(3.0)	25.2	(2.4)	2.3	(0.9)	9.8	(1.8)	33.0	(2.4)	54.9	(2.8)
Canada																								
Alberta	11.1	(1.0)	19.7	(1.1)	34.2	(1.3)	34.9	(1.5)	29.5	(1.5)	33.8	(1.2)	27.2	(1.2)	9.5	(0.8)	14.0	(1.1)	27.7	(1.2)	38.4	(0.9)	19.8	(1.4)
British Columbia	7.2	(0.6)	12.8	(1.0)	36.4	(1.5)	43.6	(2.1)	27.5	(1.5)	34.7	(1.1)	26.0	(1.4)	11.8	(0.9)	10.8	(0.9)	22.2	(1.5)	38.9	(0.9)	28.1	(1.7)
Manitoba	11.5	(1.0)	16.9	(1.3)	35.1	(2.3)	36.5	(1.8)	29.5	(1.9)	32.4	(1.3)	26.4	(1.5)	11.8	(1.2)	14.0	(1.1)	23.5	(1.3)	40.2	(1.4)	22.3	(1.2)
New Brunswick	7.7	(0.8)	16.6	(1.1)	35.0	(1.5)	40.7	(1.7)	23.2	(1.4)	32.6	(1.6)	30.2	(1.5)	14.0	(1.1)	8.9	(0.9)	21.1	(1.4)	38.8	(1.5)	31.2	(1.6)
Newfoundland and Labrador	7.3	(1.0)	12.9	(1.0)	35.1	(1.5)	44.7	(1.6)	26.6	(1.8)	29.8	(1.8)	31.7	(1.7)	11.9	(1.0)	8.4	(1.0)	14.6	(1.3)	38.0	(2.0)	38.9	(1.5)
Nova Scotia	7.8	(1.0)	16.8	(0.9)	36.9	(1.7)	38.5	(2.1)	24.9	(1.5)	35.5	(1.7)	28.7	(1.3)	10.9	(1.1)	11.6	(1.3)	23.9	(1.5)	42.6	(1.4)	21.9	(1.3)
Ontario	10.2	(0.8)	18.8	(0.7)	36.4	(1.1)	34.7	(1.4)	28.6	(1.0)	35.1	(0.9)	26.9	(0.9)	9.4	(0.6)	14.1	(0.7)	30.0	(1.0)	39.6	(1.0)	16.2	(0.8)
Prince Edward Island	6.7	(1.4)	11.0	(1.9)	39.4	(2.7)	42.9	(2.9)	28.2	(3.0)	32.2	(3.1)	29.2	(2.7)	10.4	(1.9)	9.4	(2.0)	16.3	(2.5)	37.8	(3.3)	36.5	(3.3)
Quebec	6.2	(0.8)	10.4	(0.9)	26.0	(1.5)	57.3	(2.1)	28.2	(1.5)	31.5	(1.0)	27.3	(1.2)	13.0	(1.1)	6.9	(0.8)	11.3	(0.8)	28.4	(1.4)	53.4	(1.9)
Saskatchewan	10.9	(1.1)	20.0	(1.1)	35.6	(1.5)	33.4	(1.9)	22.8	(1.3)	34.0	(1.7)	29.5	(1.4)	13.8	(1.8)	12.9	(1.0)	25.9	(1.3)	38.1	(1.6)	23.1	(1.8)
Italy																								
Bolzano	8.8	(0.8)	21.0	(0.9)	42.8	(1.3)	27.4	(1.2)	12.5	(0.8)	27.3	(1.1)	37.9	(1.2)	22.3	(1.2)	6.1	(0.7)	16.7	(1.0)	37.2	(1.4)	40.0	(1.3)
Campania	9.1	(0.8)	17.7	(1.0)	39.9	(1.1)	33.3	(1.6)	17.7	(1.2)	31.9	(1.3)	35.3	(1.2)	15.1	(1.2)	7.1	(0.8)	12.8	(1.4)	31.6	(1.4)	48.5	(1.9)
Lombardia	4.0	(0.5)	15.4	(1.3)	42.4	(1.3)	38.2	(1.9)	8.5	(0.8)	21.9	(1.2)	41.7	(1.2)	27.9	(1.7)	3.0	(0.5)	7.8	(0.8)	30.2	(1.6)	59.0	(1.9)
Trento	5.4	(0.7)	16.9	(1.0)	43.6	(1.2)	34.1	(1.2)	7.6	(0.8)	26.7	(1.0)	39.2	(1.2)	26.5	(1.0)	2.7	(0.4)	11.1	(0.8)	33.8	(1.3)	52.5	(1.4)
Portugal																								
Região Autónoma dos Açores	11.5	(1.1)	20.3	(1.5)	42.8	(1.7)	25.4	(1.6)	24.4	(1.4)	32.7	(1.5)	31.9	(1.4)	11.0	(1.1)	10.1	(1.1)	16.6	(1.3)	39.7	(1.8)	33.6	(1.5)
Spain																								
Andalusia•	5.7	(0.7)	10.5	(1.0)	35.3	(1.1)	48.5	(1.5)	20.5	(1.5)	32.0	(1.5)	33.3	(1.4)	14.2	(1.1)	5.8	(0.8)	15.5	(1.1)	39.0	(1.1)	39.7	(1.9)
Aragon•	4.7	(0.7)	7.7	(0.9)	31.5	(1.6)	56.1	(2.1)	17.2	(1.1)	28.5	(1.2)	35.2	(1.4)	19.0	(1.4)	6.2	(0.7)	12.5	(1.0)	39.0	(1.4)	42.3	(2.3)
Asturias•	5.5	(0.8)	9.7	(0.9)	34.2	(1.2)	50.6	(1.6)	19.1	(1.4)	30.1	(1.0)	35.0	(1.0)	15.9	(1.1)	7.7	(1.0)	17.4	(1.3)	43.1	(1.2)	31.8	(1.6)
Balearic Islands•	6.9	(0.6)	13.4	(1.1)	40.1	(1.5)	39.6	(1.9)	20.5	(1.1)	31.9	(1.2)	30.6	(1.4)	17.0	(1.1)	9.1	(0.8)	20.5	(1.3)	41.7	(1.5)	28.7	(1.7)
Basque Country•	6.8	(0.7)	14.0	(1.2)	29.4	(1.2)	49.8	(2.1)	16.6	(0.8)	29.8	(1.1)	33.6	(1.1)	20.0	(1.1)	7.2	(0.7)	14.3	(1.2)	33.0	(1.1)	45.5	(1.8)
Canary Islands•	6.6	(0.8)	11.3	(1.3)	35.4	(1.7)	46.6	(2.3)	20.0	(1.3)	27.0	(1.1)	33.7	(1.4)	19.3	(1.2)	8.4	(0.8)	16.1	(1.5)	39.8	(1.4)	35.7	(2.2)
Cantabria•	4.3	(0.6)	8.8	(1.0)	33.5	(1.4)	53.4	(1.9)	17.3	(1.0)	28.4	(1.4)	35.2	(1.2)	19.1	(1.2)	5.7	(0.6)	13.9	(0.8)	40.3	(1.5)	40.0	(1.7)
Castile and Leon•	3.5	(0.6)	8.1	(0.8)	33.7	(1.3)	54.7	(1.7)	14.4	(1.4)	30.7	(1.1)	37.1	(1.5)	17.8	(1.4)	4.5	(0.6)	13.9	(1.0)	40.6	(1.2)	41.0	(2.0)
Castile-La Mancha•	5.3	(0.8)	9.3	(1.0)	30.9	(1.5)	54.4	(1.8)	20.6	(1.2)	28.8	(1.2)	34.1	(1.2)	16.5	(1.0)	7.9	(0.8)	16.1	(1.4)	42.0	(1.5)	34.1	(1.8)
Catalonia•	6.1	(0.5)	16.1	(1.2)	40.6	(1.4)	37.2	(1.6)	20.2	(1.2)	29.4	(1.2)	35.9	(1.3)	14.5	(1.0)	9.2	(0.6)	22.1	(1.4)	43.2	(1.3)	25.5	(1.6)
Comunidad Valenciana•	5.6	(0.7)	11.5	(1.2)	33.9	(2.1)	49.0	(2.3)	19.5	(1.2)	27.7	(1.4)	35.8	(1.4)	17.1	(1.3)	6.6	(0.8)	14.0	(1.1)	41.7	(1.9)	37.7	(1.8)
Extremadura•	5.6	(0.7)	11.3	(0.8)	31.2	(1.3)	51.9	(1.9)	19.8	(1.3)	28.2	(1.2)	34.1	(1.5)	18.0	(1.0)	7.6	(0.8)	13.3	(1.0)	35.3	(1.4)	43.8	(1.6)
Galicia•	3.4	(0.5)	6.1	(0.6)	22.7	(1.2)	67.8	(1.6)	18.3	(1.1)	28.1	(1.5)	34.5	(1.2)	19.1	(1.4)	4.3	(0.6)	9.8	(1.1)	35.2	(1.4)	50.7	(1.8)
La Rioja•	4.6	(0.6)	10.2	(0.9)	32.4	(1.4)	52.8	(1.5)	17.8	(1.1)	31.1	(1.4)	33.2	(1.6)	17.9	(1.4)	7.0	(0.8)	13.0	(1.1)	37.4	(1.4)	42.6	(1.5)
Madrid•	3.7	(0.5)	8.8	(1.0)	32.8	(1.4)	54.7	(1.7)	16.5	(1.1)	27.3	(1.1)	38.3	(1.3)	17.8	(1.0)	5.3	(0.6)	14.3	(1.2)	41.6	(1.3)	38.8	(2.1)
Murcia•	4.8	(0.7)	10.2	(0.9)	34.7	(1.7)	50.3	(1.7)	20.5	(1.5)	29.1	(1.2)	35.4	(1.4)	15.1	(1.3)	6.2	(0.6)	14.9	(1.0)	41.6	(1.3)	37.2	(1.8)
Navarre•	4.5	(0.7)	14.0	(1.6)	32.0	(1.3)	49.4	(2.4)	17.2	(1.1)	31.1	(1.5)	34.5	(1.6)	17.1	(1.3)	5.5	(0.6)	17.2	(1.6)	39.7	(1.2)	37.6	(1.8)
United Kingdom																								
England	4.2	(0.3)	10.0	(0.5)	32.4	(0.9)	53.3	(1.1)	18.5	(0.7)	28.8	(0.7)	35.1	(0.9)	17.6	(0.7)	7.5	(0.5)	22.2	(0.8)	51.3	(1.0)	19.0	(0.7)
Northern Ireland	4.4	(0.6)	8.6	(0.8)	29.8	(1.2)	57.2	(1.4)	18.0	(1.0)	32.2	(1.0)	32.7	(1.2)	17.0	(1.0)	7.2	(0.6)	20.8	(1.0)	49.5	(1.2)	22.5	(1.2)
Scotland	5.7	(0.4)	12.8	(0.7)	35.8	(1.0)	45.7	(1.3)	19.6	(0.9)	38.0	(1.1)	32.0	(1.0)	10.4	(0.6)	7.8	(0.5)	23.9	(0.9)	48.1	(1.2)	20.2	(1.0)
Wales	4.9	(0.4)	11.8	(0.8)	34.8	(0.9)	48.6	(1.2)	13.9	(0.6)	31.3	(0.9)	37.1	(0.9)	17.7	(0.7)	6.4	(0.4)	21.5	(0.8)	49.7	(1.0)	22.5	(1.0)
United States																								
Massachusetts•	8.4	(0.7)	12.5	(0.8)	35.4	(1.5)	43.7	(1.8)	23.9	(1.3)	29.0	(1.1)	33.3	(1.2)	13.7	(0.9)	13.6	(1.0)	25.8	(1.1)	42.1	(1.4)	18.4	(1.7)
North Carolina•	9.0	(0.9)	19.5	(1.1)	35.4	(1.0)	36.0	(1.6)	23.6	(1.6)	30.6	(1.4)	32.5	(1.5)	13.3	(1.2)	13.3	(1.0)	25.7	(1.0)	39.2	(1.2)	21.8	(1.1)
Puerto Rico•	19.2	(1.2)	18.9	(1.7)	34.2	(1.8)	27.7	(2.0)	38.0	(1.9)	27.0	(1.6)	25.6	(1.5)	9.4	(1.3)	35.1	(1.5)	28.1	(1.9)	25.8	(2.0)	11.0	(1.3)
Partners																								
Colombia																								
Bogotá	10.0	(0.8)	16.3	(1.1)	40.8	(1.4)	32.9	(1.8)	31.8	(1.3)	30.7	(0.9)	29.8	(1.5)	7.8	(0.7)	19.2	(1.3)	28.5	(1.2)	36.7	(1.2)	15.6	(1.1)
Cali	15.4	(1.3)	18.4	(0.9)	37.8	(1.4)	28.3	(1.3)	32.2	(1.8)	31.7	(1.4)	28.6	(1.0)	7.5	(0.8)	22.9	(1.2)	25.0	(1.3)	37.4	(1.0)	14.7	(1.0)
Manizales	10.3	(1.0)	17.4	(1.0)	37.7	(1.4)	34.6	(1.5)	32.9	(1.6)	29.6	(1.5)	29.2	(1.3)	8.4	(0.7)	17.6	(1.4)	25.1	(1.3)	40.2	(1.7)	17.1	(0.8)
Medellín	11.3	(0.9)	15.8	(0.8)	38.2	(1.5)	34.7	(1.4)	31.9	(1.5)	29.4	(1.0)	28.7	(1.1)	10.0	(0.9)	16.3	(1.2)	23.3	(1.0)	41.7	(1.2)	18.7	(1.3)
United Arab Emirates																								
Abu Dhabi•	17.9	(0.9)	24.4	(1.2)	30.7	(1.1)	26.9	(1.2)	31.0	(1.1)	32.1	(1.0)	26.7	(0.8)	10.1	(0.8)	21.3	(0.9)	25.5	(1.0)	33.3	(0.9)	19.9	(1.3)
Ajman	17.4	(1.6)	22.9	(1.7)	32.4	(1.6)	27.3	(2.1)	40.9	(1.9)	28.8	(2.1)	22.8	(1.5)	7.4	(1.0)	22.0	(1.9)	25.9	(1.8)	31.9	(2.1)	20.2	(2.0)
Dubai•	12.9	(0.6)	17.1	(0.6)	33.4	(0.9)	36.5	(0.8)	31.1	(0.7)	32.0	(0.8)	27.0	(0.7)	9.9	(0.5)	16.3	(0.5)	25.1	(0.7)	37.3	(0.9)	21.3	(0.7)
Fujairah	18.9	(1.7)	26.8	(1.8)	28.9	(1.9)	25.4	(2.1)	36.9	(1.9)	32.5	(2.0)	24.1	(1.4)	6.4	(0.8)	24.6	(1.8)	29.3	(1.8)	29.9	(1.6)	16.1	(1.6)
Ras Al Khaimah	20.8	(1.6)	23.0	(1.7)	33.5	(1.6)	22.7	(1.6)	37.6	(1.9)	32.1	(1.6)	23.7	(1.6)	6.6	(1.0)	25.9	(2.2)	27.5	(1.3)	30.5	(2.1)	16.2	(1.4)
Sharjah	13.1	(1.8)	20.4	(1.4)	32.7	(1.9)	33.8	(2.9)	33.8	(1.7)	33.3	(1.4)	26.7	(1.3)	6.2	(0.8)	17.8	(1.8)	26.2	(1.7)	32.6	(2.3)	23.4	(2.0)
Umm Al Quwain	19.3	(2.0)	27.8	(2.2)	29.1	(2.0)	23.8	(2.2)	35.3	(2.5)	32.5	(2.6)	23.7	(2.2)	8.5	(1.7)	21.3	(2.1)	31.6	(2.5)	31.7	(2.3)	15.3	(2.0)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.2.26 for national data.

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[Part 1/1]

Table B2.II.11 Student truancy

Results based on students' self-reports

		Percentage of students who reported that, during the two weeks prior to the PISA test																							
		I skipped a whole day of school								I skipped some classes								I arrived late for school							
		Never		Once or twice		Three or four times		Five or more times		Never		Once or twice		Three or four times		Five or more times		Never		Once or twice		Three or four times		Five or more times	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																								
	Flemish community•	94.7	(0.4)	4.1	(0.3)	0.7	(0.1)	0.6	(0.1)	92.8	(0.5)	5.6	(0.4)	1.0	(0.1)	0.7	(0.1)	50.9	(1.1)	31.6	(0.7)	9.2	(0.5)	8.2	(0.5)
	French community	90.8	(0.7)	6.4	(0.4)	1.2	(0.2)	1.5	(0.3)	82.7	(1.1)	12.6	(0.8)	2.5	(0.3)	2.3	(0.3)	45.3	(1.4)	33.5	(1.1)	9.8	(0.6)	11.5	(0.9)
	German-speaking community	87.7	(1.8)	10.2	(1.6)	0.6	(0.4)	1.6	(0.7)	84.4	(1.6)	12.8	(1.5)	2.0	(0.8)	0.8	(0.4)	59.5	(2.1)	24.3	(2.1)	8.5	(1.5)	7.7	(1.5)
	Canada																								
	Alberta	83.5	(0.9)	13.5	(0.8)	1.6	(0.3)	1.4	(0.3)	69.5	(1.2)	23.9	(1.1)	4.3	(0.5)	2.4	(0.3)	50.7	(1.6)	32.7	(1.4)	8.7	(0.6)	7.9	(0.8)
	British Columbia	83.3	(1.1)	13.9	(1.0)	1.5	(0.3)	1.4	(0.2)	70.1	(1.4)	22.2	(1.1)	5.0	(0.8)	2.7	(0.4)	48.5	(1.4)	32.4	(1.3)	10.1	(0.7)	9.0	(0.8)
	Manitoba	80.7	(1.3)	15.3	(1.1)	2.4	(0.6)	1.6	(0.3)	63.8	(1.6)	27.7	(1.4)	5.8	(0.7)	2.8	(0.4)	47.9	(1.6)	31.4	(1.3)	11.9	(1.3)	8.7	(0.7)
	New Brunswick	82.0	(1.3)	13.1	(1.0)	2.4	(0.5)	2.4	(0.7)	77.1	(1.4)	15.8	(1.3)	3.6	(0.5)	3.6	(0.7)	58.3	(1.7)	29.0	(1.4)	7.2	(0.8)	5.4	(0.9)
	Newfoundland and Labrador	70.0	(1.9)	20.9	(1.4)	4.7	(0.7)	4.4	(0.6)	67.5	(1.7)	23.4	(1.2)	5.0	(0.9)	4.1	(0.6)	53.8	(1.9)	26.9	(1.6)	10.7	(1.0)	8.7	(1.1)
	Nova Scotia	81.3	(1.0)	14.7	(1.0)	2.5	(0.4)	1.6	(0.3)	75.9	(1.4)	18.0	(1.2)	3.7	(0.6)	2.5	(0.4)	55.5	(1.6)	29.9	(1.1)	8.2	(0.8)	6.4	(0.9)
	Ontario	77.9	(1.0)	17.8	(0.9)	2.4	(0.3)	1.8	(0.3)	70.7	(1.3)	22.1	(1.1)	4.5	(0.5)	2.6	(0.3)	50.2	(1.4)	30.4	(0.7)	11.0	(0.7)	8.4	(0.7)
	Prince Edward Island	83.5	(2.1)	11.9	(1.9)	2.5	(0.9)	2.1	(0.8)	80.7	(2.4)	14.1	(2.1)	3.8	(1.1)	1.3	(0.7)	56.6	(2.7)	32.0	(2.5)	6.0	(1.4)	5.3	(1.1)
	Quebec	91.2	(0.7)	6.9	(0.6)	0.8	(0.2)	1.1	(0.3)	85.5	(1.1)	11.3	(0.8)	1.4	(0.2)	1.7	(0.4)	60.3	(1.8)	26.3	(1.1)	6.8	(0.7)	6.6	(0.8)
	Saskatchewan	79.8	(1.2)	15.4	(1.0)	2.5	(0.5)	2.2	(0.5)	68.2	(1.7)	23.7	(1.4)	4.6	(0.6)	3.6	(0.5)	45.0	(1.8)	33.7	(1.3)	11.5	(0.7)	9.8	(1.0)
	Italy																								
	Bolzano	69.1	(1.0)	22.8	(0.9)	3.8	(0.4)	4.2	(0.4)	71.1	(1.0)	21.2	(0.9)	3.5	(0.4)	4.1	(0.5)	61.5	(1.0)	24.5	(1.0)	7.3	(0.7)	6.7	(0.6)
	Campania	34.1	(1.8)	50.8	(1.6)	7.2	(0.8)	7.9	(0.8)	55.1	(1.5)	35.6	(1.3)	6.6	(0.8)	2.8	(0.5)	56.4	(1.7)	29.4	(1.4)	8.1	(0.8)	6.2	(0.9)
	Lombardia	50.1	(1.8)	36.2	(1.3)	5.6	(0.6)	8.2	(0.7)	59.3	(1.5)	30.9	(1.4)	5.7	(0.4)	4.1	(0.6)	64.7	(1.5)	24.6	(1.3)	5.5	(0.5)	5.3	(0.5)
	Trento	51.6	(1.2)	35.7	(1.3)	6.8	(0.7)	5.9	(0.5)	53.9	(1.5)	34.7	(1.4)	6.2	(0.6)	5.2	(0.6)	71.4	(1.3)	20.1	(1.1)	3.6	(0.4)	4.8	(0.6)
	Portugal																								
	Região Autónoma dos Açores	73.8	(1.1)	21.1	(1.2)	3.3	(0.5)	1.8	(0.4)	61.1	(1.2)	31.5	(1.2)	5.4	(0.7)	1.9	(0.3)	53.9	(1.5)	31.5	(1.5)	9.7	(0.9)	5.0	(0.6)
	Spain																								
	Andalusia•	74.1	(1.7)	21.0	(1.3)	3.0	(0.5)	1.9	(0.4)	69.7	(1.5)	23.6	(1.3)	4.5	(0.6)	2.2	(0.4)	59.7	(1.8)	27.8	(1.2)	8.3	(0.8)	4.2	(0.6)
	Aragon•	75.2	(1.5)	20.7	(1.4)	2.7	(0.4)	1.5	(0.4)	62.2	(1.4)	28.9	(1.3)	5.5	(0.5)	3.4	(0.6)	54.8	(2.4)	27.0	(1.6)	8.9	(0.9)	9.3	(1.1)
	Asturias•	73.6	(1.6)	19.6	(1.5)	3.8	(0.4)	3.1	(0.5)	70.6	(1.6)	22.7	(1.4)	3.9	(0.6)	2.8	(0.5)	59.0	(1.6)	26.1	(1.0)	7.5	(0.8)	7.4	(0.8)
	Balearic Islands•	68.3	(1.6)	26.2	(1.3)	2.9	(0.5)	2.6	(0.4)	68.7	(1.3)	24.9	(1.3)	3.8	(0.5)	2.6	(0.3)	58.6	(1.9)	26.7	(1.2)	8.3	(0.8)	6.4	(0.9)
	Basque Country•	83.5	(0.9)	13.5	(0.8)	1.6	(0.2)	1.4	(0.2)	74.6	(0.9)	19.9	(0.8)	3.1	(0.3)	2.4	(0.3)	56.7	(1.6)	28.8	(1.1)	7.5	(0.6)	6.9	(0.6)
	Canary Islands•	72.5	(1.0)	23.5	(0.9)	1.9	(0.3)	2.1	(0.4)	72.0	(1.4)	22.4	(1.2)	4.1	(0.4)	1.5	(0.4)	56.7	(2.0)	28.9	(1.4)	8.3	(0.6)	6.1	(0.7)
	Cantabria•	80.0	(1.1)	15.9	(0.9)	2.2	(0.4)	1.9	(0.3)	68.2	(1.6)	25.1	(1.5)	4.4	(0.4)	2.4	(0.4)	54.8	(1.8)	29.5	(1.3)	8.3	(0.7)	7.4	(0.8)
	Castile and Leon•	83.2	(1.1)	14.4	(1.1)	1.6	(0.3)	0.9	(0.2)	70.1	(1.6)	23.2	(1.4)	4.6	(0.7)	2.1	(0.4)	62.7	(1.9)	25.6	(1.4)	6.3	(0.7)	5.4	(0.6)
	Castile-La Mancha•	76.5	(1.1)	19.6	(1.1)	2.3	(0.3)	1.6	(0.3)	61.7	(2.1)	29.2	(1.4)	5.7	(0.7)	3.5	(0.6)	59.0	(1.7)	26.2	(1.1)	8.4	(0.7)	6.5	(0.7)
	Catalonia•	74.1	(0.9)	21.0	(0.8)	2.7	(0.4)	2.2	(0.4)	65.0	(2.1)	27.1	(1.4)	5.0	(0.8)	2.9	(0.6)	56.2	(1.9)	28.7	(1.4)	7.5	(0.8)	7.6	(1.0)
	Comunidad Valenciana•	79.2	(1.3)	17.2	(1.2)	2.2	(0.4)	1.5	(0.4)	62.2	(1.7)	29.3	(1.7)	5.7	(0.7)	2.9	(0.5)	53.6	(1.6)	31.0	(1.3)	8.8	(0.6)	6.7	(0.9)
	Extremadura•	74.5	(1.6)	21.4	(1.5)	2.3	(0.4)	1.9	(0.3)	68.2	(1.9)	25.5	(1.5)	4.6	(0.5)	1.7	(0.3)	64.6	(1.7)	24.7	(1.5)	5.5	(0.6)	5.3	(0.6)
	Galicia•	84.1	(1.1)	13.0	(1.0)	1.8	(0.3)	1.1	(0.2)	78.2	(1.1)	17.1	(1.1)	3.5	(0.5)	1.3	(0.3)	51.2	(2.0)	31.1	(1.4)	9.4	(0.9)	8.4	(0.9)
	La Rioja•	78.9	(1.2)	16.3	(1.1)	2.9	(0.5)	1.9	(0.4)	66.9	(1.1)	25.0	(1.0)	4.5	(0.6)	3.6	(0.6)	56.0	(1.4)	27.9	(1.2)	7.6	(0.7)	8.5	(0.8)
	Madrid•	74.8	(0.9)	21.2	(1.0)	2.2	(0.4)	1.9	(0.4)	63.3	(1.9)	28.9	(1.5)	4.6	(0.5)	3.2	(0.5)	56.2	(2.2)	28.2	(1.4)	8.9	(0.8)	6.7	(0.9)
	Murcia•	72.9	(1.2)	23.7	(1.0)	2.2	(0.4)	1.2	(0.2)	56.0	(1.7)	34.7	(1.2)	6.8	(0.5)	2.6	(0.4)	54.0	(1.6)	29.5	(1.2)	9.3	(0.6)	7.3	(0.8)
	Navarre•	81.8	(1.2)	15.1	(1.1)	2.0	(0.3)	1.1	(0.3)	71.3	(1.2)	22.4	(1.0)	4.5	(0.5)	1.8	(0.3)	59.3	(1.4)	26.9	(1.0)	7.2	(0.7)	6.5	(0.6)
	United Kingdom																								
	England	74.9	(0.7)	20.8	(0.7)	2.6	(0.2)	1.8	(0.2)	65.7	(0.9)	27.6	(0.8)	4.3	(0.3)	2.4	(0.3)	68.6	(1.0)	23.3	(0.8)	5.1	(0.4)	3.0	(0.3)
	Northern Ireland	64.1	(1.0)	30.3	(0.9)	3.3	(0.3)	2.3	(0.3)	51.4	(1.0)	40.1	(1.1)	6.0	(0.6)	2.6	(0.3)	70.1	(1.2)	21.7	(0.8)	5.0	(0.7)	3.2	(0.4)
	Scotland	80.6	(0.7)	15.3	(0.7)	2.2	(0.3)	1.8	(0.3)	80.3	(0.8)	15.0	(0.7)	2.8	(0.3)	2.0	(0.2)	53.1	(1.0)	30.6	(1.0)	8.1	(0.5)	8.2	(0.5)
	Wales	65.5	(1.0)	27.5	(0.9)	4.2	(0.4)	2.8	(0.3)	58.7	(1.0)	32.6	(0.9)	5.6	(0.4)	3.1	(0.3)	63.6	(1.0)	25.1	(0.7)	6.0	(0.4)	5.4	(0.5)
	United States																								
	Massachusetts•	71.1	(1.4)	26.1	(1.3)	2.1	(0.4)	0.7	(0.2)	68.6	(1.5)	27.7	(1.4)	3.2	(0.5)	0.6	(0.2)	74.7	(1.5)	20.8	(1.1)	3.1	(0.5)	1.4	(0.3)
	North Carolina•	66.4	(1.1)	28.5	(1.0)	3.3	(0.3)	1.8	(0.4)	60.4	(1.2)	33.7	(1.1)	4.3	(0.3)	1.5	(0.3)	68.9	(1.5)	25.3	(1.1)	3.8	(0.5)	2.0	(0.3)
	Puerto Rico•	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Partners	**Colombia**																								
	Bogotá	61.0	(1.6)	33.2	(1.6)	4.0	(0.4)	1.8	(0.4)	62.0	(1.7)	32.8	(1.6)	4.0	(0.3)	1.2	(0.3)	49.0	(2.2)	37.4	(2.0)	9.7	(0.9)	3.9	(0.8)
	Cali	49.6	(1.0)	41.4	(1.0)	5.7	(0.6)	3.3	(0.3)	55.0	(1.5)	36.9	(1.4)	5.9	(0.4)	2.2	(0.4)	54.4	(1.5)	34.3	(1.2)	7.2	(0.7)	4.1	(0.4)
	Manizales	55.1	(1.7)	37.7	(1.6)	4.1	(0.6)	3.1	(0.5)	47.6	(1.2)	40.7	(1.3)	7.4	(0.7)	4.3	(0.6)	57.4	(1.7)	31.3	(1.4)	7.3	(0.7)	4.0	(0.7)
	Medellín	52.7	(1.7)	37.3	(1.6)	5.2	(0.4)	4.8	(0.6)	51.7	(1.3)	38.3	(1.3)	6.0	(0.6)	4.0	(0.5)	58.9	(2.0)	30.6	(1.4)	7.1	(0.8)	3.4	(0.5)
	United Arab Emirates																								
	Abu Dhabi•	79.7	(1.2)	14.2	(1.0)	3.5	(0.4)	2.7	(0.3)	67.0	(1.3)	22.9	(1.0)	6.0	(0.5)	4.1	(0.4)	53.3	(1.3)	29.2	(1.0)	9.9	(0.5)	7.6	(0.6)
	Ajman	85.4	(1.5)	9.9	(1.1)	2.6	(0.6)	2.2	(0.4)	70.0	(1.8)	22.2	(1.6)	4.4	(0.8)	3.5	(0.7)	49.9	(2.9)	34.2	(2.4)	9.1	(0.9)	6.9	(0.9)
	Dubai•	75.2	(0.7)	19.4	(0.6)	3.0	(0.3)	2.5	(0.2)	66.9	(0.7)	24.0	(0.7)	5.4	(0.4)	3.7	(0.3)	64.3	(0.7)	24.5	(0.7)	6.9	(0.3)	4.3	(0.3)
	Fujairah	84.0	(1.2)	11.2	(1.0)	2.4	(0.6)	2.4	(0.5)	69.8	(1.8)	20.8	(1.5)	5.1	(0.8)	4.2	(0.8)	53.1	(1.5)	31.3	(1.6)	8.6	(1.0)	7.1	(0.9)
	Ras Al Khaimah	84.6	(1.4)	10.8	(1.2)	2.3	(0.6)	2.3	(0.4)	65.8	(1.6)	24.9	(1.1)	6.4	(0.9)	2.9	(0.5)	51.1	(2.7)	32.2	(2.0)	10.7	(1.2)	6.0	(1.1)
	Sharjah	78.7	(3.0)	16.4	(2.0)	2.1	(0.8)	2.9	(0.8)	65.8	(2.2)	25.8	(1.7)	4.7	(0.8)	3.6	(0.7)	56.4	(2.1)	28.8	(1.5)	8.8	(1.2)	6.0	(0.5)
	Umm Al Quwain	83.1	(1.8)	9.2	(1.5)	3.5	(1.0)	4.2	(1.1)	65.6	(2.6)	22.3	(2.1)	6.3	(1.2)	5.9	(1.2)	47.0	(2.5)	37.4	(2.2)	8.3	(1.5)	7.3	(1.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.3.1 for national data.

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[Part 1/5]

Table B2.II.20 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where the principal has considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																								
	Flemish community•	94.7	(1.8)	82.3	(3.2)	1.3	(0.8)	1.5	(0.9)	85.7	(2.9)	89.2	(2.4)	90.7	(2.3)	89.0	(2.7)	84.3	(3.1)	48.0	(4.1)	30.2	(3.5)	76.3	(3.3)
	French community	50.1	(4.9)	44.3	(4.7)	0.2	(0.3)	0.0	c	28.8	(4.4)	45.2	(5.1)	48.4	(5.6)	42.8	(5.3)	51.7	(5.1)	26.9	(5.0)	6.2	(2.7)	42.4	(4.9)
	German-speaking community	43.0	(0.5)	37.4	(0.4)	0.0	c	0.0	c	37.3	(0.5)	66.9	(0.6)	61.2	(0.6)	42.5	(0.5)	66.9	(0.6)	11.7	(0.3)	6.6	(0.2)	66.9	(0.6)
	Canada																								
	Alberta	96.9	(2.1)	57.9	(4.7)	0.2	(0.2)	0.0	c	82.6	(4.7)	93.4	(3.0)	97.9	(1.7)	93.6	(4.0)	86.9	(4.1)	38.8	(5.3)	28.5	(4.9)	98.4	(1.4)
	British Columbia	81.5	(5.5)	28.3	(5.7)	6.6	(1.3)	6.6	(1.3)	46.8	(5.9)	90.0	(3.5)	93.4	(3.2)	77.4	(6.1)	82.5	(5.2)	40.4	(6.6)	22.9	(5.5)	96.1	(2.7)
	Manitoba	93.9	(1.9)	31.6	(3.3)	1.2	(1.0)	2.0	(0.1)	32.9	(2.2)	91.6	(2.5)	83.3	(2.4)	68.5	(2.7)	88.5	(2.0)	47.8	(2.9)	29.3	(3.3)	99.9	(0.1)
	New Brunswick	70.3	(1.8)	20.4	(1.9)	0.0	c	0.0	c	25.1	(1.0)	80.8	(1.6)	89.4	(0.5)	86.3	(1.4)	75.4	(2.0)	21.4	(2.4)	13.5	(2.1)	84.2	(0.6)
	Newfoundland and Labrador	71.6	(3.8)	23.6	(4.4)	2.0	(0.3)	0.0	c	26.4	(2.8)	87.9	(1.7)	75.6	(3.1)	44.4	(4.2)	66.4	(4.5)	8.8	(0.6)	3.2	(0.2)	82.5	(3.1)
	Nova Scotia	66.6	(6.3)	25.7	(3.6)	0.0	c	0.0	c	22.1	(5.0)	75.0	(5.9)	38.2	(4.8)	34.2	(5.6)	64.2	(5.8)	15.1	(2.6)	4.8	(1.2)	71.9	(4.6)
	Ontario	84.9	(3.3)	33.7	(5.1)	0.2	(0.0)	0.1	(0.0)	43.2	(5.0)	98.9	(1.1)	83.7	(3.5)	60.0	(4.6)	90.1	(2.8)	55.3	(4.8)	24.8	(4.3)	96.0	(1.8)
	Prince Edward Island	100.0	c	58.9	(3.4)	2.1	(2.0)	2.1	(2.0)	63.0	(3.0)	100.0	c	70.1	(2.0)	69.1	(5.1)	96.6	(0.3)	3.6	(2.6)	2.1	(2.0)	96.6	(2.1)
	Quebec	57.2	(5.2)	41.4	(5.8)	11.2	(3.4)	9.1	(2.6)	60.0	(5.3)	80.2	(4.6)	83.1	(5.1)	67.4	(5.8)	85.1	(3.5)	50.8	(5.9)	26.0	(5.4)	75.8	(5.5)
	Saskatchewan	77.4	(2.7)	22.2	(3.1)	0.0	c	0.0	c	34.3	(4.2)	86.0	(1.9)	88.9	(1.7)	66.5	(3.3)	84.0	(2.8)	40.2	(3.9)	8.9	(3.3)	91.1	(1.2)
	Italy																								
	Bolzano	45.3	(0.4)	23.0	(0.3)	1.2	(0.1)	20.9	(0.3)	4.9	(0.1)	58.2	(0.4)	55.6	(0.4)	35.3	(0.3)	84.1	(0.2)	15.6	(0.3)	12.5	(0.3)	9.6	(0.2)
	Campania	3.7	(1.7)	8.9	(3.8)	2.3	(1.8)	0.6	(0.6)	2.6	(2.0)	38.6	(7.5)	27.1	(7.1)	29.3	(7.0)	53.8	(7.6)	8.7	(4.0)	14.8	(5.5)	32.9	(6.9)
	Lombardia	15.9	(4.0)	22.2	(5.0)	7.4	(2.0)	7.4	(2.0)	17.4	(4.3)	48.3	(7.5)	25.2	(5.2)	38.6	(7.3)	58.5	(6.9)	6.7	(3.5)	12.0	(4.7)	41.8	(7.0)
	Trento	25.3	(2.0)	17.7	(2.1)	4.1	(1.1)	4.1	(1.1)	7.6	(1.0)	52.7	(1.4)	21.5	(0.7)	25.6	(1.7)	74.6	(1.3)	5.8	(1.9)	21.8	(2.0)	27.9	(1.9)
	Portugal																								
	Região Autónoma dos Açores	10.6	(0.1)	1.2	(0.1)	0.4	(0.0)	0.4	(0.0)	10.2	(0.5)	12.0	(0.5)	20.2	(0.7)	13.7	(0.6)	14.7	(0.6)	0.5	(0.0)	1.4	(0.1)	15.4	(0.6)
	Spain																								
	Andalusia•	21.2	(2.7)	21.2	(2.7)	2.1	(1.8)	2.1	(1.8)	54.1	(6.1)	59.1	(5.2)	62.7	(6.3)	35.4	(5.8)	24.6	(5.6)	18.9	(4.9)	6.8	(3.5)	37.7	(6.3)
	Aragon•	35.6	(0.6)	35.6	(0.6)	1.0	(1.5)	1.0	(1.5)	49.7	(6.2)	65.8	(6.1)	58.8	(6.5)	28.0	(5.9)	15.3	(4.9)	23.5	(4.9)	8.2	(3.4)	44.6	(4.8)
	Asturias•	33.1	(1.4)	31.4	(1.9)	5.5	(3.3)	5.5	(3.3)	85.4	(5.1)	83.3	(4.5)	64.5	(6.8)	27.3	(5.2)	29.0	(7.7)	16.8	(4.0)	5.8	(3.3)	39.4	(5.5)
	Balearic Islands•	38.3	(0.5)	38.5	(2.9)	1.6	(1.6)	3.6	(2.5)	57.6	(6.5)	70.7	(5.6)	56.2	(5.6)	42.2	(6.7)	23.8	(4.2)	26.4	(3.9)	6.0	(3.1)	59.6	(5.2)
	Basque Country•	45.2	(2.9)	42.6	(3.2)	7.1	(3.1)	8.7	(3.4)	54.3	(4.1)	64.3	(4.4)	52.5	(5.8)	45.7	(5.5)	30.5	(5.5)	22.9	(4.7)	15.4	(4.3)	61.0	(5.4)
	Canary Islands•	17.5	(3.3)	15.8	(2.7)	6.5	(2.2)	4.4	(0.5)	38.5	(6.4)	41.7	(6.8)	45.0	(7.5)	26.9	(6.0)	30.2	(6.2)	19.4	(5.4)	5.4	(3.1)	29.2	(5.0)
	Cantabria•	28.1	(2.3)	28.1	(2.3)	3.3	(2.4)	1.6	(1.6)	63.0	(5.4)	75.3	(6.0)	57.4	(6.0)	35.5	(6.0)	21.2	(4.3)	17.8	(3.3)	6.0	(3.1)	43.9	(5.6)
	Castile and Leon•	35.0	(2.9)	35.0	(2.9)	0.5	(0.5)	4.7	(2.6)	67.8	(6.3)	76.0	(5.6)	53.9	(5.8)	38.2	(6.2)	26.2	(6.5)	21.2	(4.4)	6.3	(3.4)	48.2	(5.2)
	Castile-La Mancha•	17.6	(1.5)	17.6	(1.5)	1.3	(1.4)	2.2	(1.6)	56.8	(5.0)	64.0	(5.4)	47.2	(6.9)	38.1	(6.2)	7.6	(2.9)	13.6	(2.4)	6.5	(3.3)	42.7	(5.3)
	Catalonia•	47.3	(4.1)	46.9	(4.0)	8.2	(2.7)	9.9	(3.2)	78.0	(5.4)	69.2	(6.1)	72.3	(6.2)	57.9	(6.5)	22.8	(5.8)	33.5	(6.7)	28.1	(5.8)	57.0	(6.8)
	Comunidad Valenciana•	31.1	(1.5)	29.4	(2.5)	2.0	(2.1)	2.0	(2.1)	64.7	(6.5)	72.5	(6.5)	64.9	(5.3)	32.1	(5.2)	17.0	(4.2)	21.8	(4.9)	17.1	(4.9)	49.8	(5.4)
	Extremadura•	22.8	(1.0)	19.2	(2.5)	2.1	(2.1)	2.1	(2.1)	49.8	(6.8)	50.6	(6.3)	43.5	(7.4)	22.4	(6.0)	15.8	(4.8)	15.1	(3.9)	3.4	(2.4)	25.6	(4.9)
	Galicia•	27.0	(2.9)	25.1	(1.5)	4.4	(2.7)	3.7	(2.0)	49.1	(7.7)	65.6	(6.4)	57.7	(7.4)	31.9	(5.7)	38.8	(6.2)	15.2	(3.9)	6.3	(3.2)	54.4	(7.0)
	La Rioja•	39.6	(0.2)	39.6	(0.2)	0.0	c	0.0	c	53.2	(0.3)	57.9	(0.3)	42.5	(0.4)	18.0	(0.2)	21.0	(0.2)	20.2	(0.3)	9.8	(0.2)	46.8	(0.3)
	Madrid•	46.3	(1.6)	44.8	(2.6)	12.1	(3.8)	16.7	(5.0)	71.0	(6.3)	78.9	(5.9)	66.3	(5.9)	48.8	(6.5)	57.1	(6.2)	21.0	(4.7)	23.0	(4.1)	62.2	(6.9)
	Murcia•	26.1	(1.6)	26.1	(1.6)	3.4	(2.4)	3.4	(2.4)	62.8	(6.2)	62.2	(5.8)	47.1	(4.8)	32.6	(6.0)	22.9	(4.3)	12.7	(2.8)	5.6	(1.9)	36.4	(4.7)
	Navarre•	37.4	(2.1)	33.0	(3.6)	0.0	c	4.3	(0.1)	71.7	(4.5)	79.7	(4.4)	65.0	(5.1)	36.7	(5.1)	30.8	(4.4)	24.7	(3.7)	4.7	(2.9)	71.4	(3.9)
	United Kingdom																								
	England	96.1	(1.7)	90.5	(2.6)	88.8	(2.7)	84.7	(2.9)	87.6	(3.1)	96.0	(1.8)	92.9	(2.2)	88.7	(2.5)	70.1	(4.3)	14.8	(3.1)	18.8	(3.4)	80.1	(3.3)
	Northern Ireland	75.8	(4.5)	58.1	(4.7)	15.8	(4.3)	36.0	(5.6)	55.4	(5.9)	93.4	(3.7)	91.4	(3.2)	90.3	(3.7)	81.5	(3.9)	10.8	(3.2)	17.4	(4.7)	89.0	(4.1)
	Scotland	92.9	(2.8)	38.9	(5.1)	4.3	(1.2)	2.7	(1.0)	19.6	(4.1)	88.3	(4.0)	91.4	(3.1)	75.4	(5.3)	73.1	(4.9)	10.7	(3.5)	17.4	(4.5)	83.9	(4.0)
	Wales	92.6	(2.4)	81.7	(3.4)	66.6	(3.7)	78.2	(3.2)	82.7	(3.1)	93.2	(2.3)	90.4	(2.5)	90.4	(2.5)	63.4	(4.0)	10.2	(2.5)	25.4	(4.3)	83.4	(3.1)
	United States																								
	Massachusetts•	95.7	(3.0)	95.7	(3.0)	3.7	(2.6)	2.0	(1.9)	67.4	(7.1)	81.0	(5.4)	89.5	(4.6)	83.0	(5.9)	36.6	(8.1)	70.3	(6.9)	64.0	(6.3)	91.9	(4.3)
	North Carolina•	94.3	(3.3)	83.1	(5.7)	0.0	c	0.0	c	52.2	(7.7)	98.0	(2.0)	84.7	(5.5)	54.3	(6.7)	52.1	(7.3)	34.2	(7.1)	17.9	(6.0)	72.6	(6.5)
	Puerto Rico•	21.7	(4.6)	13.0	(2.9)	11.3	(2.3)	11.3	(2.3)	56.3	(7.9)	80.3	(6.0)	73.0	(6.4)	44.8	(7.6)	100.0	c	16.8	(5.0)	16.0	(4.8)	33.3	(5.5)
Partners	**Colombia**																								
	Bogotá	49.4	(4.7)	50.1	(4.7)	36.2	(5.8)	32.1	(8.0)	45.4	(7.3)	53.6	(8.0)	43.0	(9.0)	51.6	(7.2)	48.6	(6.4)	30.2	(7.3)	25.1	(6.9)	64.9	(7.4)
	Cali	52.1	(6.2)	52.1	(6.2)	44.6	(7.4)	40.3	(6.8)	54.7	(8.2)	62.7	(7.4)	36.0	(7.5)	34.3	(7.3)	51.4	(7.9)	30.9	(6.2)	37.0	(7.8)	55.1	(8.2)
	Manizales	26.0	(3.6)	31.9	(4.3)	17.4	(3.9)	17.4	(3.9)	39.3	(4.2)	54.1	(3.7)	38.4	(3.8)	43.5	(3.9)	80.4	(2.6)	43.0	(3.2)	21.2	(5.5)	57.2	(3.4)
	Medellín	28.7	(3.8)	23.6	(3.9)	18.0	(2.7)	18.0	(2.7)	30.9	(6.9)	53.6	(7.5)	37.2	(7.3)	36.4	(7.8)	54.6	(7.4)	26.4	(6.7)	25.6	(7.2)	41.1	(6.9)
	United Arab Emirates																								
	Abu Dhabi•	40.3	(4.2)	39.1	(3.9)	26.4	(3.9)	30.6	(4.3)	36.5	(4.9)	45.5	(4.6)	48.4	(3.8)	47.3	(4.2)	56.4	(4.1)	31.2	(4.5)	25.5	(3.5)	32.5	(3.2)
	Ajman	52.4	(3.0)	39.8	(4.6)	26.6	(5.0)	33.6	(4.8)	45.2	(7.5)	52.5	(8.3)	31.6	(2.7)	31.1	(2.5)	41.6	(7.4)	28.0	(2.2)	19.4	(2.1)	16.1	(2.0)
	Dubai•	80.6	(0.1)	80.0	(0.1)	32.1	(0.1)	39.2	(0.2)	59.3	(0.2)	68.8	(0.2)	82.7	(0.1)	76.8	(0.1)	83.1	(0.1)	47.6	(0.2)	52.5	(0.2)	68.4	(0.2)
	Fujairah	14.8	(3.2)	16.3	(3.6)	13.7	(3.1)	13.7	(3.1)	40.7	(5.1)	28.5	(4.3)	30.9	(4.9)	27.4	(6.1)	73.0	(2.6)	1.1	(1.1)	14.3	(6.0)	13.7	(3.1)
	Ras Al Khaimah	24.5	(5.3)	26.2	(5.3)	11.2	(7.4)	9.0	(5.3)	27.9	(7.5)	38.5	(7.1)	31.5	(7.0)	29.0	(7.9)	47.7	(8.7)	20.2	(4.4)	4.5	(2.7)	12.7	(4.8)
	Sharjah	57.3	(7.1)	63.4	(6.0)	34.8	(5.6)	34.1	(5.4)	40.0	(9.6)	47.6	(10.8)	49.6	(9.0)	40.2	(8.0)	67.3	(8.8)	44.5	(4.7)	44.5	(4.7)	44.5	(4.7)
	Umm Al Quwain	19.2	(0.4)	9.6	(0.5)	2.4	(0.4)	4.8	(0.4)	45.3	(0.6)	39.3	(0.6)	15.0	(0.4)	32.2	(0.6)	49.8	(0.6)	9.6	(0.5)	2.4	(0.1)	4.8	(0.4)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.1 for national data.

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[Part 2/5]

Table B2.II.20 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where teachers have considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																								
	Flemish community•	9.5	(2.5)	1.3	(0.9)	0.0	c	0.0	c	15.6	(3.0)	14.1	(2.7)	67.3	(3.8)	80.5	(3.1)	37.3	(3.7)	92.1	(2.2)	83.1	(3.0)	58.1	(4.3)
	French community	0.0	c	1.1	(1.2)	0.0	c	0.0	c	0.0	c	3.6	(2.2)	38.1	(5.8)	47.8	(5.6)	10.1	(3.4)	89.4	(3.2)	43.7	(5.2)	22.5	(4.6)
	German-speaking community	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	35.9	(0.5)	81.5	(0.5)	80.1	(0.5)	0.0	c	100.0	c	76.6	(0.5)	50.9	(0.5)
	Canada																								
	Alberta	22.6	(4.9)	1.7	(1.7)	0.0	c	1.1	(1.0)	15.1	(3.6)	21.8	(4.6)	61.5	(6.5)	67.8	(5.5)	4.2	(2.8)	79.6	(5.2)	51.0	(5.9)	63.3	(5.4)
	British Columbia	5.2	(3.1)	0.0	c	2.1	(2.0)	3.6	(2.6)	5.7	(3.5)	22.2	(5.4)	49.8	(5.7)	78.9	(4.6)	3.2	(2.2)	89.0	(4.6)	66.8	(6.3)	54.2	(6.1)
	Manitoba	13.9	(1.9)	0.0	c	5.0	(1.9)	10.0	(1.9)	8.1	(1.4)	22.1	(2.6)	51.5	(3.5)	59.0	(3.2)	2.5	(1.0)	92.6	(2.1)	57.6	(2.9)	57.0	(2.6)
	New Brunswick	4.4	(1.3)	0.0	c	0.6	(0.1)	0.6	(0.1)	0.0	c	16.0	(2.2)	62.0	(2.0)	77.6	(2.0)	0.0	c	50.6	(2.7)	37.6	(2.5)	34.4	(2.6)
	Newfoundland and Labrador	0.0	c	0.0	c	3.8	(0.3)	3.8	(0.3)	10.8	(2.2)	28.5	(4.5)	60.4	(2.1)	36.0	(3.4)	0.0	c	15.6	(1.6)	12.4	(2.6)	23.5	(3.3)
	Nova Scotia	4.7	(2.1)	0.0	c	0.0	c	0.0	c	0.0	c	10.0	(1.9)	21.2	(4.1)	24.8	(4.3)	0.4	(0.4)	32.9	(4.5)	26.6	(3.9)	24.9	(4.4)
	Ontario	1.3	(1.1)	0.0	c	0.6	(0.7)	1.9	(1.5)	6.1	(2.6)	22.9	(4.1)	48.1	(5.1)	45.5	(4.5)	1.6	(1.3)	78.4	(4.3)	50.9	(5.2)	51.0	(4.7)
	Prince Edward Island	37.0	(3.4)	0.0	c	3.5	(4.9)	0.0	c	16.6	(1.2)	22.2	(2.7)	68.0	(2.6)	70.5	(3.1)	0.0	c	6.5	(2.4)	16.9	(2.2)	22.6	(2.3)
	Quebec	1.3	(0.6)	0.0	c	0.0	c	0.0	c	0.4	(0.0)	5.3	(2.2)	61.9	(6.3)	54.7	(6.2)	1.0	(0.1)	85.5	(4.2)	73.4	(4.5)	62.0	(5.7)
	Saskatchewan	0.0	c	0.0	c	0.0	c	0.0	c	2.5	(1.4)	19.9	(3.0)	54.7	(4.4)	57.8	(4.0)	3.3	(1.6)	68.8	(3.4)	38.8	(4.1)	50.7	(3.3)
	Italy																								
	Bolzano	1.2	(0.1)	0.0	c	0.2	(0.1)	0.2	(0.1)	0.0	c	16.2	(0.2)	74.1	(0.3)	81.9	(0.3)	15.5	(0.3)	95.0	(0.1)	69.4	(0.4)	29.7	(0.4)
	Campania	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	8.4	(3.0)	26.7	(7.2)	86.6	(4.5)	35.0	(7.1)	91.1	(3.9)	81.3	(5.4)	58.4	(7.3)
	Lombardia	0.0	c	0.0	c	0.0	c	0.0	c	2.4	(2.5)	13.2	(5.1)	38.9	(5.8)	91.3	(3.5)	29.9	(6.1)	94.4	(2.9)	88.5	(4.0)	53.0	(7.0)
	Trento	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	2.2	(0.1)	44.9	(1.0)	95.7	(1.4)	30.3	(0.9)	100.0	c	93.3	(1.9)	49.7	(1.4)
	Portugal																								
	Região Autónoma dos Açores	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	8.1	(0.5)	29.1	(0.6)	44.8	(0.5)	8.2	(0.5)	95.8	(0.1)	21.6	(0.5)	53.1	(0.5)
	Spain																								
	Andalusia•	0.0	c	0.0	c	0.0	c	0.0	c	5.5	(3.2)	5.8	(3.4)	50.8	(5.5)	52.3	(7.6)	1.8	(1.9)	82.8	(5.7)	49.2	(8.1)	23.2	(6.8)
	Aragon•	0.0	c	0.0	c	0.0	c	0.0	c	3.8	(2.8)	8.2	(4.1)	45.1	(6.4)	47.8	(4.9)	2.0	(2.0)	90.9	(4.2)	37.6	(5.2)	21.4	(5.4)
	Asturias•	2.1	(2.1)	2.1	(2.1)	0.0	c	0.0	c	7.7	(3.9)	9.2	(4.3)	49.5	(6.8)	49.4	(6.6)	0.0	c	89.2	(4.7)	24.1	(5.6)	27.7	(5.6)
	Balearic Islands•	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	7.2	(3.7)	55.6	(7.6)	50.3	(7.3)	0.0	c	88.2	(3.7)	64.7	(6.7)	21.7	(6.0)
	Basque Country•	1.3	(1.2)	0.0	c	0.0	c	0.0	c	6.2	(1.8)	4.7	(2.3)	51.3	(6.0)	74.5	(5.6)	1.8	(1.5)	92.5	(3.1)	77.3	(4.5)	47.0	(5.7)
	Canary Islands•	0.0	c	0.0	c	0.0	c	0.0	c	2.2	(2.1)	5.9	(3.4)	54.9	(5.7)	46.5	(6.1)	2.0	(2.0)	84.7	(4.0)	33.6	(5.6)	17.6	(5.1)
	Cantabria•	0.0	c	0.0	c	0.0	c	0.0	c	6.6	(3.3)	6.7	(2.6)	66.8	(5.3)	59.8	(6.5)	0.0	c	90.4	(3.6)	41.2	(5.4)	22.0	(5.3)
	Castile and Leon•	0.0	c	0.0	c	0.0	c	0.0	c	2.5	(2.0)	0.0	c	44.8	(6.9)	50.2	(5.3)	0.0	c	93.3	(3.5)	36.1	(6.6)	27.2	(6.3)
	Castile-La Mancha•	0.0	c	0.0	c	0.0	c	0.0	c	1.8	(1.7)	6.9	(3.5)	49.1	(6.2)	55.5	(6.2)	0.0	c	99.0	(0.7)	40.8	(6.1)	15.3	(4.8)
	Catalonia•	1.9	(1.9)	0.0	c	0.0	c	0.0	c	1.8	(1.7)	5.5	(3.2)	57.6	(6.7)	62.1	(7.5)	2.1	(2.1)	93.0	(3.3)	71.3	(7.6)	11.8	(4.7)
	Comunidad Valenciana•	0.0	c	0.0	c	0.0	c	0.0	c	7.2	(3.7)	5.5	(3.3)	56.5	(6.0)	56.7	(7.9)	0.0	c	96.8	(2.5)	61.5	(6.8)	25.3	(6.3)
	Extremadura•	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	1.6	(1.6)	30.8	(5.2)	46.5	(7.1)	0.0	c	91.0	(4.1)	33.8	(7.7)	21.1	(5.7)
	Galicia•	0.0	c	0.0	c	0.0	c	0.0	c	1.6	(1.6)	16.5	(5.2)	52.9	(6.4)	78.7	(5.6)	0.0	c	95.2	(2.8)	45.9	(6.8)	33.3	(5.4)
	La Rioja•	0.0	c	0.0	c	0.0	c	0.0	c	3.0	(0.1)	1.9	(0.1)	45.1	(0.4)	66.7	(0.4)	0.0	c	93.1	(0.2)	40.6	(0.4)	12.0	(0.3)
	Madrid•	0.0	c	0.0	c	0.0	c	0.0	c	6.3	(3.6)	8.3	(4.2)	56.3	(6.9)	60.4	(7.2)	0.0	c	94.7	(2.4)	53.6	(6.8)	33.1	(7.2)
	Murcia•	0.0	c	0.0	c	0.0	c	0.0	c	1.8	(1.9)	1.9	(1.9)	40.8	(7.5)	63.0	(5.4)	0.0	c	90.0	(4.0)	41.5	(6.4)	53.1	(6.9)
	Navarre•	2.2	(2.2)	0.0	c	0.0	c	2.2	(2.2)	0.0	c	1.6	(1.6)	59.3	(5.5)	60.7	(4.8)	0.0	c	89.4	(4.7)	52.9	(5.1)	32.3	(6.1)
	United Kingdom																								
	England	36.3	(4.2)	1.1	(1.1)	0.0	c	7.4	(2.5)	4.9	(2.1)	12.2	(2.6)	58.0	(4.2)	69.1	(3.8)	15.3	(3.2)	96.2	(1.7)	93.3	(2.2)	81.7	(3.1)
	Northern Ireland	16.7	(4.5)	0.0	c	0.0	c	0.0	c	1.4	(1.0)	7.8	(3.1)	72.4	(6.2)	83.7	(4.3)	6.5	(3.0)	99.3	(0.0)	95.8	(2.1)	82.9	(4.6)
	Scotland	20.4	(4.9)	1.2	(1.3)	0.0	c	0.0	c	0.0	c	13.0	(4.3)	70.7	(4.9)	68.0	(5.2)	10.2	(2.9)	92.5	(2.9)	85.4	(4.1)	71.1	(4.6)
	Wales	37.6	(3.8)	0.0	c	0.6	(0.6)	4.1	(1.7)	1.4	(1.0)	8.5	(2.3)	66.5	(4.1)	75.9	(3.9)	14.1	(2.8)	91.3	(2.4)	87.1	(2.8)	72.7	(3.6)
	United States																								
	Massachusetts•	70.4	(6.3)	1.8	(1.9)	1.8	(1.8)	1.8	(1.8)	19.9	(5.4)	39.3	(8.2)	58.9	(8.2)	63.0	(7.1)	2.9	(2.1)	84.2	(5.9)	89.2	(4.7)	73.4	(6.9)
	North Carolina•	54.3	(7.0)	2.1	(2.0)	0.0	c	0.0	c	21.6	(6.2)	47.5	(7.3)	63.3	(6.6)	47.3	(6.9)	6.0	(3.4)	52.4	(7.7)	41.3	(7.8)	54.6	(7.6)
	Puerto Rico•	0.0	c	0.0	c	0.0	c	0.0	c	1.9	(1.9)	6.2	(3.7)	14.5	(4.9)	46.5	(6.9)	10.1	(4.7)	40.9	(9.0)	25.7	(6.8)	14.9	(4.5)
Partners	**Colombia**																								
	Bogotá	0.0	c	0.0	c	0.0	c	1.9	(1.9)	0.0	c	7.1	(4.1)	41.8	(10.7)	48.4	(7.0)	15.3	(5.7)	73.0	(7.0)	72.8	(8.2)	21.1	(6.7)
	Cali	3.6	(2.4)	1.6	(1.6)	2.0	(1.9)	0.0	c	2.0	(1.9)	3.6	(2.4)	14.6	(5.4)	20.1	(6.5)	10.2	(4.0)	57.2	(8.3)	57.5	(6.9)	13.4	(5.8)
	Manizales	4.9	(3.3)	0.0	c	0.0	c	0.0	c	0.0	c	5.6	(2.1)	37.6	(3.3)	35.5	(4.5)	12.8	(3.3)	85.2	(2.7)	68.1	(4.1)	29.0	(4.6)
	Medellín	0.0	c	2.5	(2.6)	0.0	c	0.0	c	0.0	c	8.5	(4.4)	28.1	(7.0)	36.7	(7.6)	8.9	(4.5)	58.6	(7.4)	50.4	(6.7)	30.1	(7.4)
	United Arab Emirates																								
	Abu Dhabi•	7.9	(2.9)	3.5	(2.1)	1.0	(1.0)	2.7	(1.9)	6.9	(2.9)	8.1	(3.0)	32.6	(4.3)	32.6	(4.5)	16.7	(3.5)	28.0	(2.5)	29.1	(2.7)	17.6	(3.2)
	Ajman	5.1	(0.3)	0.0	c	0.0	c	0.0	c	4.6	(4.6)	8.4	(5.6)	16.6	(4.8)	34.6	(6.7)	8.0	(0.9)	17.7	(1.9)	17.2	(2.4)	9.9	(1.6)
	Dubai•	15.3	(0.1)	2.2	(0.0)	0.0	c	0.8	(0.0)	9.4	(0.1)	15.4	(0.1)	45.7	(0.2)	52.6	(0.2)	26.7	(0.2)	58.5	(0.2)	53.9	(0.2)	43.1	(0.2)
	Fujairah	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	19.1	(2.9)	19.1	(2.9)	0.0	c	13.7	(3.1)	4.8	(0.3)	2.2	(2.2)
	Ras Al Khaimah	8.2	(5.5)	0.0	c	0.0	c	0.0	c	9.6	(6.6)	9.6	(6.6)	22.3	(7.6)	33.2	(6.9)	7.9	(3.0)	16.0	(5.5)	17.8	(5.5)	12.0	(5.5)
	Sharjah	4.6	(3.1)	4.4	(4.3)	0.0	c	0.0	c	10.0	(7.3)	10.0	(7.3)	38.0	(11.1)	48.9	(11.8)	12.3	(4.2)	31.9	(10.3)	35.3	(8.5)	30.7	(10.3)
	Umm Al Quwain	2.4	(0.4)	0.0	c	0.0	c	0.0	c	5.3	(0.1)	5.3	(0.1)	7.7	(0.4)	42.9	(0.4)	2.4	(0.4)	9.0	(0.2)	14.3	(0.2)	6.7	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.1 for national data.

StatLink http://dx.doi.org/10.1787/888933436536

[Part 3/5]

Table B2.II.20 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where a school governing board has considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																								
	Flemish community•	15.8	(3.0)	50.9	(4.3)	0.9	(0.7)	1.4	(0.9)	55.6	(3.9)	44.7	(3.9)	15.0	(2.6)	8.9	(2.5)	4.6	(1.6)	0.4	(0.4)	2.1	(1.1)	18.4	(3.0)
	French community	26.9	(4.4)	21.1	(4.6)	0.0	c	0.0	c	22.5	(4.4)	46.0	(5.8)	60.1	(5.0)	56.3	(5.1)	61.0	(5.6)	29.9	(4.9)	8.0	(2.9)	41.1	(4.8)
	German-speaking community	70.4	(0.5)	26.3	(0.5)	0.0	c	0.0	c	50.4	(0.5)	89.2	(0.3)	87.7	(0.3)	84.0	(0.3)	89.2	(0.3)	59.5	(0.5)	45.7	(0.5)	89.2	(0.3)
	Canada																								
	Alberta	6.5	(2.4)	10.2	(3.9)	15.1	(4.7)	16.9	(4.9)	15.3	(4.6)	4.6	(2.6)	15.7	(4.4)	17.3	(4.1)	5.5	(2.7)	5.9	(3.5)	4.1	(1.3)	19.7	(4.0)
	British Columbia	7.1	(3.7)	23.8	(6.1)	14.8	(3.8)	10.6	(2.4)	26.7	(6.2)	10.7	(3.5)	10.7	(4.5)	4.2	(2.7)	10.4	(4.4)	1.8	(1.8)	2.0	(2.1)	0.8	(0.5)
	Manitoba	16.7	(3.0)	39.6	(3.9)	51.4	(2.8)	52.9	(2.8)	52.2	(2.7)	11.0	(2.8)	33.7	(3.0)	32.0	(3.1)	16.8	(1.9)	1.9	(0.1)	1.0	(1.3)	12.2	(2.3)
	New Brunswick	9.8	(1.4)	6.0	(2.4)	1.7	(1.0)	1.7	(1.0)	2.6	(0.2)	0.5	(0.5)	8.7	(0.6)	6.1	(0.5)	0.0	c	2.4	(0.3)	0.0	c	0.5	(0.5)
	Newfoundland and Labrador	0.0	c	0.0	c	1.4	(1.4)	1.4	(1.4)	7.2	(2.2)	10.5	(2.2)	13.8	(1.9)	16.2	(0.8)	0.0	c	0.0	c	0.0	c	0.0	c
	Nova Scotia	6.5	(3.4)	9.5	(4.0)	0.4	(0.4)	0.4	(0.4)	5.1	(2.9)	7.2	(2.2)	14.7	(3.1)	3.7	(2.2)	0.8	(0.3)	0.0	c	0.0	c	0.4	(0.4)
	Ontario	3.0	(1.6)	3.2	(1.7)	4.3	(2.1)	5.5	(2.4)	10.7	(3.4)	2.8	(1.6)	21.0	(4.0)	12.9	(3.1)	4.7	(2.1)	4.1	(1.9)	2.0	(1.3)	3.4	(1.6)
	Prince Edward Island	0.0	c	13.7	(0.9)	0.0	c	0.0	c	0.0	c	0.0	c	0.9	(0.9)	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c
	Quebec	3.2	(2.2)	5.7	(3.1)	1.8	(2.1)	1.8	(2.1)	13.8	(4.3)	22.2	(4.6)	46.4	(6.5)	23.2	(5.7)	6.3	(3.3)	20.6	(4.7)	3.3	(2.1)	31.9	(6.2)
	Saskatchewan	12.5	(3.8)	14.4	(2.9)	6.4	(2.1)	4.9	(1.5)	26.0	(2.9)	7.3	(2.3)	10.8	(3.4)	20.1	(4.1)	5.1	(1.9)	5.2	(2.3)	2.9	(1.1)	6.3	(2.3)
	Italy																								
	Bolzano	0.0	c	0.0	c	0.0	c	0.0	c	2.1	(0.0)	73.8	(0.4)	49.5	(0.4)	17.3	(0.3)	7.2	(0.2)	3.9	(0.2)	2.2	(0.1)	29.8	(0.4)
	Campania	0.0	c	0.4	(0.4)	0.0	c	0.0	c	12.7	(4.6)	78.7	(5.8)	89.2	(3.9)	6.6	(3.6)	37.4	(7.5)	3.7	(2.6)	1.7	(1.7)	51.9	(7.5)
	Lombardia	0.0	c	0.0	c	0.0	c	0.0	c	22.5	(5.7)	79.1	(5.1)	86.2	(3.8)	8.1	(4.1)	40.2	(7.2)	13.3	(5.2)	5.4	(2.9)	49.6	(7.5)
	Trento	0.0	c	0.9	(0.0)	3.5	(0.2)	3.5	(0.2)	5.4	(0.3)	58.5	(1.7)	74.5	(0.8)	16.8	(1.3)	10.1	(1.4)	11.2	(0.4)	11.0	(1.3)	37.1	(1.1)
	Portugal																								
	Região Autónoma dos Açores	2.5	(0.1)	3.0	(0.1)	0.8	(0.0)	0.8	(0.0)	78.3	(0.4)	88.9	(0.5)	82.6	(0.2)	61.7	(0.5)	78.5	(0.2)	4.8	(0.2)	11.1	(0.3)	76.9	(0.2)
	Spain																								
	Andalusia•	3.6	(0.1)	1.8	(1.8)	0.0	c	0.0	c	41.0	(6.2)	65.0	(4.8)	57.4	(6.5)	22.7	(6.1)	31.2	(7.1)	25.7	(4.9)	6.4	(3.7)	23.3	(6.3)
	Aragon•	5.8	(3.3)	5.8	(3.3)	0.0	c	0.0	c	26.5	(5.8)	40.0	(5.7)	66.5	(5.8)	9.9	(4.4)	25.1	(5.1)	13.2	(5.3)	2.2	(2.2)	14.5	(4.4)
	Asturias•	3.0	(2.2)	6.8	(1.9)	0.0	c	0.0	c	31.5	(6.8)	35.7	(6.0)	63.1	(6.5)	7.5	(3.9)	21.5	(6.0)	18.0	(5.5)	4.3	(3.0)	5.4	(3.2)
	Balearic Islands•	2.6	(1.9)	1.1	(1.1)	0.0	c	0.0	c	29.5	(6.5)	39.0	(6.7)	52.1	(6.8)	9.0	(4.1)	11.6	(4.8)	12.7	(4.0)	3.8	(2.8)	14.2	(5.5)
	Basque Country•	6.9	(2.6)	7.7	(2.8)	2.7	(1.7)	2.7	(1.7)	33.5	(5.1)	41.3	(4.8)	68.5	(5.6)	15.5	(4.3)	22.9	(5.1)	8.7	(3.2)	1.0	(0.7)	24.2	(4.9)
	Canary Islands•	3.2	(2.3)	5.1	(3.0)	0.0	c	0.0	c	65.8	(6.3)	77.7	(5.8)	76.5	(5.3)	21.1	(5.5)	41.3	(7.4)	47.3	(6.8)	6.7	(3.5)	30.2	(7.1)
	Cantabria•	4.2	(2.5)	5.3	(2.2)	0.0	c	0.0	c	52.9	(5.5)	63.5	(5.7)	67.0	(5.1)	10.7	(4.4)	32.0	(5.2)	11.5	(4.2)	1.8	(1.8)	28.0	(5.1)
	Castile and Leon•	7.1	(2.3)	7.1	(2.3)	0.0	c	0.0	c	31.3	(4.9)	35.7	(5.7)	57.7	(6.9)	6.1	(3.5)	20.8	(5.7)	15.0	(5.4)	2.0	(2.0)	11.2	(4.8)
	Castile-La Mancha•	3.7	(2.6)	5.7	(1.9)	0.0	c	0.0	c	43.1	(7.0)	59.0	(6.0)	73.0	(5.0)	11.2	(2.1)	7.1	(3.6)	5.7	(2.0)	3.2	(2.3)	15.7	(4.1)
	Catalonia•	3.0	(0.7)	3.0	(0.7)	0.0	c	0.0	c	21.0	(6.0)	39.4	(6.3)	57.1	(6.1)	3.8	(0.3)	7.8	(3.9)	5.6	(3.2)	0.0	c	11.7	(4.5)
	Comunidad Valenciana•	5.6	(3.1)	5.0	(2.2)	0.0	c	0.0	c	49.2	(6.4)	59.1	(7.1)	63.3	(6.8)	13.0	(5.1)	37.1	(7.0)	17.5	(5.8)	5.3	(3.2)	27.2	(6.2)
	Extremadura•	2.9	(2.1)	3.0	(2.2)	0.0	c	0.0	c	50.2	(7.5)	61.6	(6.7)	67.6	(6.5)	8.4	(3.9)	27.7	(6.3)	11.3	(3.7)	3.7	(2.7)	30.3	(6.5)
	Galicia•	6.1	(3.2)	7.7	(3.1)	0.0	c	0.0	c	24.1	(5.9)	64.6	(5.1)	68.1	(6.6)	9.7	(4.1)	51.7	(7.1)	3.8	(2.6)	1.8	(1.8)	25.9	(5.9)
	La Rioja•	4.6	(0.1)	4.6	(0.1)	0.0	c	0.0	c	39.2	(0.4)	51.7	(0.4)	68.3	(0.4)	5.4	(0.2)	6.3	(0.1)	8.1	(0.2)	2.6	(0.1)	2.3	(0.1)
	Madrid•	3.7	(2.7)	6.9	(3.5)	0.0	c	0.0	c	23.7	(4.3)	37.5	(7.0)	63.6	(6.4)	8.0	(4.3)	20.2	(5.6)	18.3	(6.4)	2.6	(1.9)	15.2	(5.6)
	Murcia•	9.0	(2.0)	9.0	(2.0)	0.0	c	0.0	c	25.7	(5.8)	44.9	(6.2)	63.3	(6.2)	7.7	(3.8)	18.8	(4.5)	7.1	(3.6)	0.0	c	16.7	(4.9)
	Navarre•	8.3	(4.2)	6.1	(3.6)	2.2	(2.2)	4.3	(3.1)	32.2	(5.9)	33.7	(5.0)	52.8	(5.4)	3.1	(2.2)	14.3	(3.0)	11.7	(3.6)	0.0	c	13.2	(2.3)
	United Kingdom																								
	England	48.4	(4.1)	71.6	(3.6)	51.5	(3.9)	78.4	(3.4)	74.7	(3.7)	44.7	(4.5)	53.7	(4.3)	37.3	(4.0)	35.5	(3.9)	1.1	(1.1)	1.1	(1.1)	29.6	(3.7)
	Northern Ireland	93.0	(2.6)	85.1	(4.3)	27.4	(6.0)	52.6	(6.2)	54.7	(6.4)	62.8	(6.1)	66.3	(6.5)	50.7	(6.2)	85.1	(4.9)	1.5	(1.5)	0.0	c	50.2	(5.6)
	Scotland	22.9	(4.8)	1.5	(1.1)	4.6	(0.9)	5.3	(1.3)	4.6	(0.9)	7.1	(2.8)	20.6	(4.6)	10.2	(3.4)	0.0	c	1.2	(1.2)	1.2	(1.2)	7.0	(3.0)
	Wales	77.6	(3.5)	87.0	(2.9)	68.6	(3.4)	84.2	(3.2)	73.5	(3.5)	65.5	(3.9)	75.5	(3.4)	52.1	(3.8)	29.7	(3.3)	0.9	(0.8)	4.1	(1.8)	44.5	(4.3)
	United States																								
	Massachusetts•	7.0	(4.1)	7.4	(2.5)	58.8	(8.2)	60.7	(8.2)	59.2	(8.3)	42.4	(8.0)	64.1	(6.8)	46.5	(7.1)	32.2	(6.3)	43.9	(7.3)	31.1	(6.2)	52.6	(6.9)
	North Carolina•	9.9	(4.5)	12.8	(5.1)	13.4	(4.3)	7.8	(4.0)	35.7	(5.9)	32.8	(7.0)	50.0	(7.0)	41.5	(6.7)	17.4	(5.8)	28.1	(6.4)	19.3	(6.1)	40.9	(8.2)
	Puerto Rico•	1.2	(1.7)	5.3	(3.3)	1.2	(1.7)	1.2	(1.7)	35.9	(8.3)	47.7	(8.4)	16.6	(5.5)	3.2	(2.3)	11.6	(6.9)	0.0	c	0.0	c	2.7	(2.0)
Partners	**Colombia**																								
	Bogotá	7.6	(2.1)	5.0	(3.7)	5.0	(3.7)	5.0	(3.7)	18.1	(5.2)	58.6	(7.0)	88.8	(5.2)	68.7	(5.7)	18.6	(3.9)	38.6	(5.5)	49.9	(6.1)	40.6	(7.5)
	Cali	4.8	(3.6)	8.0	(4.6)	3.6	(2.6)	3.6	(2.6)	46.2	(8.7)	47.1	(7.1)	81.3	(6.2)	74.4	(6.9)	51.1	(7.1)	34.9	(7.0)	33.8	(5.1)	48.5	(7.3)
	Manizales	0.0	c	2.0	(2.0)	0.0	c	0.0	c	29.6	(4.3)	53.5	(4.2)	93.8	(1.6)	70.5	(4.6)	33.4	(4.5)	25.4	(3.5)	32.0	(5.0)	37.0	(3.5)
	Medellín	4.2	(3.0)	6.9	(1.9)	1.9	(1.9)	4.2	(3.0)	27.6	(5.5)	69.3	(6.6)	94.8	(3.0)	85.8	(5.4)	51.9	(6.9)	55.7	(5.8)	60.0	(7.0)	67.4	(6.2)
	United Arab Emirates																								
	Abu Dhabi•	24.7	(3.6)	27.7	(4.0)	38.3	(3.8)	42.6	(3.9)	43.9	(4.3)	38.0	(4.2)	16.1	(3.8)	12.4	(4.1)	7.0	(3.1)	2.8	(2.0)	4.1	(2.0)	9.6	(2.8)
	Ajman	16.4	(2.4)	30.1	(4.0)	42.4	(4.2)	42.4	(4.2)	43.7	(4.2)	38.2	(5.6)	15.9	(1.9)	13.4	(1.9)	19.5	(4.8)	19.8	(2.1)	14.5	(1.9)	20.3	(1.9)
	Dubai•	33.6	(0.2)	45.4	(0.2)	70.0	(0.1)	73.9	(0.1)	69.1	(0.1)	40.8	(0.2)	31.5	(0.2)	18.1	(0.2)	19.1	(0.2)	15.3	(0.1)	14.2	(0.1)	36.7	(0.2)
	Fujairah	0.0	c	4.5	(4.5)	0.0	c	0.0	c	14.4	(2.5)	10.4	(0.7)	19.8	(4.0)	1.1	(1.1)	5.1	(0.4)	0.0	c	0.0	c	0.0	c
	Ras Al Khaimah	14.0	(5.8)	12.7	(4.8)	16.0	(5.5)	16.0	(5.5)	22.4	(5.1)	19.1	(4.5)	13.6	(5.3)	13.6	(5.3)	6.3	(0.4)	1.8	(1.7)	1.8	(1.7)	8.2	(4.8)
	Sharjah	19.5	(6.9)	11.2	(6.1)	41.9	(7.9)	46.2	(8.5)	53.8	(8.0)	44.1	(8.2)	12.5	(9.0)	4.1	(4.0)	11.6	(8.5)	7.6	(5.5)	9.1	(8.1)	25.0	(7.6)
	Umm Al Quwain	5.8	(0.5)	19.2	(0.4)	19.2	(0.4)	19.2	(0.4)	16.2	(0.4)	16.2	(0.4)	10.2	(0.5)	3.0	(0.3)	9.6	(0.4)	3.0	(0.3)	3.0	(0.3)	12.0	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.1 for national data.

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[Part 4/5]

Table B2.II.20 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where local or regional education authorities have considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																								
	Flemish community•	1.3	(0.8)	1.1	(0.7)	0.6	(0.4)	0.6	(0.4)	2.2	(1.0)	1.5	(0.8)	1.3	(1.3)	1.8	(1.1)	1.5	(1.1)	0.0	c	7.1	(2.3)	6.1	(1.9)
	French community	37.6	(5.3)	57.1	(5.5)	8.3	(3.1)	8.3	(3.1)	57.8	(5.8)	51.3	(5.3)	36.4	(5.2)	30.5	(4.8)	11.8	(3.5)	1.5	(1.4)	27.7	(5.3)	50.9	(5.9)
	German-speaking community	59.5	(0.5)	59.3	(0.4)	29.5	(0.7)	29.5	(0.7)	49.5	(0.5)	0.0	c	15.9	(0.5)	41.0	(0.4)	13.7	(0.5)	15.9	(0.5)	72.9	(0.5)	50.0	(0.7)
	Canada																								
	Alberta	34.4	(4.6)	65.7	(5.7)	55.5	(6.3)	55.0	(6.1)	63.8	(5.3)	29.0	(5.9)	49.5	(5.5)	54.4	(4.9)	48.8	(5.4)	32.9	(4.2)	26.3	(4.4)	43.8	(4.7)
	British Columbia	46.0	(6.4)	61.9	(7.2)	26.7	(5.5)	19.7	(4.1)	58.1	(7.2)	21.2	(6.0)	38.5	(6.8)	33.8	(6.2)	36.3	(6.2)	21.7	(5.1)	15.9	(5.3)	20.0	(5.8)
	Manitoba	35.9	(2.8)	61.6	(3.1)	56.1	(3.1)	57.5	(3.5)	65.0	(2.7)	15.8	(2.9)	53.3	(3.2)	58.3	(3.0)	28.7	(2.7)	12.0	(1.5)	10.9	(2.2)	23.6	(2.3)
	New Brunswick	89.7	(0.6)	96.8	(1.2)	2.5	(0.1)	2.5	(0.1)	82.3	(2.6)	41.8	(2.5)	45.7	(2.7)	62.1	(1.5)	71.7	(2.6)	31.1	(2.7)	11.5	(2.9)	23.9	(2.7)
	Newfoundland and Labrador	85.7	(1.5)	89.6	(1.6)	9.1	(1.0)	4.7	(0.9)	72.3	(3.8)	25.3	(1.7)	63.4	(2.1)	93.1	(1.5)	60.2	(2.8)	20.8	(1.6)	18.0	(1.8)	40.7	(2.5)
	Nova Scotia	59.9	(5.0)	84.5	(4.8)	2.9	(1.0)	5.9	(1.1)	85.3	(4.4)	43.8	(6.2)	58.3	(5.9)	78.6	(5.5)	68.4	(5.9)	24.0	(4.1)	18.9	(4.0)	45.6	(4.8)
	Ontario	56.1	(5.2)	85.3	(3.3)	64.4	(5.5)	61.5	(5.4)	76.7	(5.0)	20.4	(4.6)	77.1	(4.8)	78.7	(4.4)	47.8	(5.6)	40.6	(5.5)	23.1	(4.6)	32.3	(4.8)
	Prince Edward Island	56.5	(3.2)	94.9	(2.0)	2.9	(2.9)	3.5	(4.9)	97.0	(2.2)	32.6	(3.2)	80.3	(5.0)	93.9	(2.1)	57.3	(2.5)	24.6	(4.5)	19.5	(3.0)	35.2	(2.6)
	Quebec	56.4	(4.9)	59.2	(4.5)	9.1	(3.4)	5.3	(2.5)	49.3	(5.2)	18.5	(4.8)	3.8	(1.8)	25.6	(5.4)	28.7	(4.6)	5.3	(1.9)	10.4	(3.7)	12.9	(4.0)
	Saskatchewan	60.8	(4.1)	81.4	(3.6)	3.7	(2.2)	3.0	(1.6)	69.8	(2.4)	18.3	(3.0)	47.8	(3.4)	70.4	(3.9)	34.4	(3.4)	49.3	(4.7)	14.2	(2.7)	42.0	(3.7)
	Italy																								
	Bolzano	88.6	(0.2)	89.3	(0.3)	85.1	(0.3)	79.7	(0.4)	92.7	(0.1)	15.8	(0.5)	0.7	(0.0)	25.8	(0.4)	21.0	(0.4)	0.0	c	57.4	(0.4)	74.9	(0.4)
	Campania	32.9	(6.4)	22.6	(6.3)	4.2	(2.6)	2.3	(1.9)	11.1	(4.4)	0.0	c	0.0	c	2.8	(2.4)	2.3	(2.0)	2.8	(2.4)	0.0	c	10.4	(4.2)
	Lombardia	30.6	(5.9)	31.3	(6.6)	6.1	(2.7)	8.1	(3.2)	9.8	(3.7)	5.1	(2.5)	0.0	c	0.0	c	4.2	(2.9)	2.4	(2.5)	3.3	(2.2)	20.8	(4.3)
	Trento	76.7	(1.3)	83.5	(2.2)	74.1	(1.7)	78.4	(1.7)	87.1	(1.8)	15.6	(1.3)	0.0	c	15.3	(0.9)	18.6	(0.5)	0.0	c	26.0	(1.3)	38.5	(1.4)
	Portugal																								
	Região Autónoma dos Açores	86.5	(0.2)	95.6	(0.1)	66.7	(0.6)	65.0	(0.6)	54.9	(0.4)	7.5	(0.2)	59.7	(0.4)	74.2	(0.6)	25.2	(0.2)	1.9	(0.1)	71.4	(0.6)	69.5	(0.5)
	Spain																								
	Andalusia•	69.7	(3.1)	71.5	(3.6)	90.2	(3.2)	90.2	(3.2)	16.1	(4.8)	4.7	(3.2)	19.8	(6.1)	51.9	(6.6)	65.9	(6.4)	5.6	(3.3)	63.8	(6.7)	68.2	(5.4)
	Aragon•	64.4	(0.6)	66.5	(2.2)	91.3	(4.1)	88.9	(4.7)	34.3	(7.2)	5.7	(3.2)	1.8	(1.8)	47.2	(8.0)	74.5	(6.0)	0.0	c	68.1	(7.6)	62.3	(7.2)
	Asturias•	66.9	(1.4)	66.9	(1.4)	84.9	(5.5)	88.9	(4.6)	16.8	(5.5)	5.8	(3.4)	23.1	(6.3)	67.9	(6.7)	83.2	(5.8)	6.4	(3.7)	86.3	(4.3)	76.1	(5.8)
	Balearic Islands•	61.7	(0.5)	61.7	(0.5)	89.0	(4.5)	89.6	(4.3)	41.0	(5.7)	10.6	(4.7)	21.8	(5.1)	63.9	(6.0)	79.2	(5.4)	0.0	c	57.7	(6.2)	61.9	(5.8)
	Basque Country•	50.5	(2.9)	48.5	(3.3)	87.4	(3.9)	85.5	(4.1)	20.1	(4.7)	6.3	(2.9)	27.6	(5.1)	42.9	(5.9)	70.5	(5.0)	2.1	(1.6)	45.2	(5.7)	44.7	(4.7)
	Canary Islands•	71.9	(3.0)	71.9	(3.0)	84.5	(5.0)	82.2	(5.3)	17.4	(5.8)	9.2	(3.1)	17.8	(5.3)	57.2	(5.6)	64.8	(5.4)	5.3	(3.3)	75.7	(5.2)	75.9	(4.6)
	Cantabria•	69.1	(2.1)	69.1	(2.1)	87.5	(3.6)	85.8	(4.0)	11.4	(3.7)	1.8	(1.8)	10.6	(3.8)	49.4	(5.7)	80.7	(5.4)	1.9	(1.9)	74.6	(5.9)	70.5	(5.4)
	Castile and Leon•	58.5	(5.0)	56.4	(4.6)	89.1	(4.5)	85.0	(5.3)	25.2	(6.2)	7.3	(3.7)	19.0	(4.4)	48.6	(6.8)	67.7	(6.5)	9.4	(4.3)	84.2	(5.5)	56.5	(8.2)
	Castile-La Mancha•	82.8	(2.0)	80.9	(0.6)	88.8	(4.1)	92.7	(2.7)	23.7	(5.7)	5.4	(3.1)	3.7	(2.7)	54.1	(6.5)	89.4	(3.6)	1.0	(0.7)	84.2	(4.7)	75.3	(4.9)
	Catalonia•	56.8	(3.2)	52.7	(4.2)	87.6	(4.0)	85.6	(4.4)	20.6	(5.7)	17.4	(5.2)	9.1	(3.9)	46.6	(6.9)	85.7	(5.4)	2.0	(2.1)	54.4	(7.7)	68.3	(5.4)
	Comunidad Valenciana•	66.9	(0.9)	66.9	(0.9)	93.7	(3.4)	93.7	(3.4)	12.6	(4.1)	9.0	(3.0)	26.8	(6.1)	56.1	(7.0)	65.3	(6.5)	0.0	c	66.4	(6.6)	51.3	(7.1)
	Extremadura•	80.3	(3.7)	78.3	(3.2)	90.6	(3.2)	90.6	(3.2)	20.3	(6.2)	1.5	(1.5)	13.8	(3.1)	56.1	(7.6)	68.7	(6.5)	0.0	c	75.9	(6.4)	62.2	(5.1)
	Galicia•	71.6	(2.6)	73.6	(0.8)	94.3	(3.0)	91.9	(3.2)	41.0	(6.5)	2.8	(2.1)	24.9	(6.1)	31.7	(7.0)	39.8	(8.0)	6.7	(3.4)	78.9	(5.4)	50.9	(6.6)
	La Rioja•	59.7	(0.2)	59.7	(0.2)	91.6	(0.3)	91.6	(0.3)	25.9	(0.4)	0.8	(0.1)	10.8	(0.2)	50.7	(0.4)	85.2	(0.2)	0.0	c	74.7	(0.4)	75.5	(0.3)
	Madrid•	51.6	(2.7)	51.6	(2.7)	85.2	(5.4)	80.5	(5.6)	21.4	(4.9)	3.5	(2.6)	24.1	(7.1)	37.0	(7.2)	62.0	(7.5)	4.0	(3.9)	67.6	(7.7)	52.7	(7.2)
	Murcia•	72.5	(0.5)	72.5	(0.5)	92.6	(2.9)	90.3	(3.6)	20.5	(4.9)	12.7	(4.1)	23.2	(6.2)	47.3	(6.9)	76.5	(3.5)	3.7	(0.0)	77.0	(4.9)	54.7	(6.3)
	Navarre•	60.8	(1.1)	60.8	(1.1)	96.0	(2.8)	91.7	(4.2)	29.7	(4.1)	12.1	(2.1)	26.6	(5.0)	53.0	(6.1)	75.2	(4.0)	20.2	(4.6)	80.2	(2.9)	56.4	(3.9)
	United Kingdom																								
	England	1.3	(0.9)	8.1	(2.4)	9.3	(2.4)	6.7	(2.1)	11.6	(2.6)	0.8	(0.7)	4.8	(2.0)	3.6	(1.7)	38.9	(3.8)	0.0	c	0.8	(0.7)	0.8	(0.7)
	Northern Ireland	10.9	(3.5)	31.2	(5.3)	11.5	(3.6)	13.6	(4.2)	28.9	(5.6)	1.7	(1.8)	2.4	(1.5)	3.3	(2.0)	30.1	(5.7)	0.0	c	1.7	(1.7)	0.0	c
	Scotland	32.3	(5.7)	77.3	(4.4)	13.9	(3.8)	10.7	(3.7)	84.0	(3.4)	19.7	(4.9)	28.9	(5.6)	36.7	(5.9)	49.0	(5.7)	3.8	(2.1)	14.6	(4.1)	24.2	(4.6)
	Wales	5.6	(1.8)	32.7	(3.9)	32.9	(3.8)	18.8	(3.2)	41.4	(4.1)	6.9	(2.3)	9.7	(2.0)	3.1	(1.6)	45.7	(3.9)	2.5	(1.0)	1.5	(0.6)	5.2	(2.1)
	United States																								
	Massachusetts•	4.1	(2.8)	12.5	(5.2)	42.7	(7.5)	44.6	(7.5)	37.5	(7.4)	19.8	(6.5)	26.3	(6.8)	37.6	(8.2)	25.4	(6.0)	13.4	(5.5)	16.7	(5.8)	15.8	(5.1)
	North Carolina•	16.4	(5.9)	62.3	(8.1)	94.3	(3.3)	96.2	(2.7)	75.0	(7.0)	18.2	(5.3)	60.7	(6.4)	82.5	(5.7)	68.6	(6.0)	83.0	(5.0)	90.6	(4.3)	80.6	(6.2)
	Puerto Rico•	78.2	(4.6)	84.3	(3.0)	84.3	(3.0)	84.3	(3.0)	37.6	(7.4)	0.0	c	35.9	(7.0)	53.1	(6.7)	5.0	(3.6)	68.7	(7.0)	74.4	(6.0)	75.1	(4.3)
Partners	**Colombia**																								
	Bogotá	45.1	(4.9)	47.7	(4.7)	12.9	(5.5)	9.0	(4.8)	30.7	(6.8)	10.6	(5.3)	10.1	(4.6)	17.4	(5.9)	44.4	(4.6)	10.7	(3.9)	8.3	(4.1)	27.5	(4.9)
	Cali	34.7	(5.3)	40.5	(5.4)	18.2	(6.5)	13.2	(5.8)	6.6	(3.8)	1.7	(1.7)	1.7	(1.7)	8.1	(3.9)	5.8	(3.7)	2.8	(2.7)	8.5	(4.2)	6.6	(3.6)
	Manizales	69.8	(2.9)	74.0	(3.6)	21.6	(3.2)	17.5	(3.1)	20.9	(2.8)	1.7	(1.5)	17.2	(2.3)	21.0	(3.5)	11.9	(3.6)	5.5	(0.2)	15.5	(3.1)	27.7	(3.7)
	Medellín	66.7	(4.9)	64.2	(5.4)	19.9	(6.7)	11.6	(5.0)	15.3	(4.9)	8.9	(3.1)	4.5	(3.0)	14.4	(5.2)	6.8	(3.9)	3.6	(2.5)	10.9	(4.5)	22.3	(6.3)
	United Arab Emirates																								
	Abu Dhabi•	46.2	(4.8)	42.2	(4.7)	28.2	(4.2)	26.3	(4.2)	33.0	(4.0)	26.2	(4.0)	49.1	(4.6)	44.0	(3.9)	47.5	(4.8)	36.5	(4.3)	42.2	(3.8)	43.2	(4.5)
	Ajman	38.1	(7.3)	26.9	(7.5)	15.5	(5.4)	0.0	c	11.1	(6.5)	7.7	(0.4)	27.3	(6.6)	19.9	(3.5)	38.4	(7.2)	6.1	(0.3)	16.3	(0.9)	10.5	(0.6)
	Dubai•	22.1	(0.1)	18.7	(0.1)	7.6	(0.1)	3.7	(0.0)	9.1	(0.1)	5.8	(0.1)	16.0	(0.1)	13.6	(0.1)	18.6	(0.1)	17.9	(0.1)	16.8	(0.2)	10.1	(0.1)
	Fujairah	33.4	(4.6)	23.1	(3.7)	25.6	(4.6)	20.5	(4.7)	14.3	(4.2)	19.2	(4.5)	23.1	(3.2)	22.9	(2.6)	26.1	(3.1)	32.9	(4.6)	13.7	(2.8)	23.0	(4.7)
	Ras Al Khaimah	11.0	(3.6)	7.6	(2.9)	10.2	(5.2)	10.2	(5.2)	7.6	(2.9)	7.6	(2.9)	17.8	(7.2)	10.8	(5.2)	25.7	(8.8)	10.2	(5.2)	20.2	(6.1)	19.6	(6.0)
	Sharjah	14.1	(6.8)	20.6	(8.9)	12.8	(3.5)	12.8	(3.5)	8.0	(4.2)	2.5	(1.4)	33.2	(8.7)	33.5	(9.3)	22.4	(9.1)	13.7	(6.2)	12.7	(6.2)	9.2	(4.6)
	Umm Al Quwain	21.8	(0.5)	21.8	(0.5)	0.0	c	0.0	c	27.3	(0.4)	27.3	(0.4)	2.4	(0.4)	27.3	(0.4)	55.9	(0.6)	0.0	c	27.3	(0.4)	28.4	(0.6)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.1 for national data.

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[Part 5/5]

Table B2.II.20 Responsibilities for school governance

Results based on school principals' reports

		Percentage of students in schools where national education authorities have considerable responsibility for the following:																							
		Selecting teachers for hire		Firing teachers		Establishing teachers' starting salaries		Determining teachers' salary increases		Formulating the school budget		Deciding on budget allocations within the school		Establishing student disciplinary policies		Establishing student assessment policies		Approving students for admission to the school		Choosing which textbooks are used		Determining course content		Deciding which courses are offered	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																								
	Flemish community•	3.3	(1.4)	5.3	(1.9)	91.5	(2.3)	92.3	(2.1)	1.2	(0.9)	2.7	(1.4)	2.7	(1.3)	6.2	(2.0)	19.7	(3.1)	0.0	c	33.2	(3.9)	31.7	(3.5)
	French community	18.6	(4.0)	18.7	(4.6)	91.0	(3.1)	88.8	(3.4)	36.6	(5.9)	5.5	(2.6)	6.5	(2.4)	20.8	(4.1)	20.0	(4.2)	3.6	(2.1)	59.5	(5.2)	42.3	(4.9)
	German-speaking community	27.6	(0.5)	47.6	(0.5)	86.3	(0.5)	86.3	(0.5)	40.0	(0.6)	6.6	(0.2)	21.0	(0.6)	34.2	(0.5)	1.4	(0.1)	22.5	(0.5)	79.3	(0.5)	30.3	(0.4)
	Canada																								
	Alberta	3.5	(1.5)	18.6	(4.1)	62.0	(5.7)	74.7	(5.0)	15.8	(3.9)	3.1	(2.2)	13.3	(3.8)	32.4	(4.3)	15.4	(2.8)	44.5	(4.8)	83.8	(4.5)	35.5	(4.6)
	British Columbia	3.8	(2.5)	25.1	(5.6)	76.6	(5.1)	81.9	(4.1)	18.3	(6.1)	2.2	(2.2)	7.7	(2.7)	22.8	(4.6)	4.3	(3.0)	28.7	(6.1)	69.3	(5.8)	16.9	(5.2)
	Manitoba	0.0	c	12.8	(2.3)	14.6	(2.2)	13.2	(2.2)	20.7	(2.5)	2.0	(1.4)	21.4	(2.4)	40.1	(3.5)	11.9	(2.1)	30.1	(2.5)	77.7	(3.2)	36.6	(2.5)
	New Brunswick	0.0	c	27.2	(2.4)	98.5	(0.1)	96.3	(0.2)	36.1	(3.0)	7.4	(0.4)	8.3	(2.1)	28.3	(1.9)	9.0	(1.6)	69.4	(2.0)	96.0	(0.6)	47.1	(2.1)
	Newfoundland and Labrador	11.0	(2.0)	21.3	(1.5)	95.1	(0.3)	97.5	(0.3)	38.0	(3.6)	7.9	(2.2)	13.8	(1.1)	14.3	(2.5)	22.0	(4.4)	90.1	(1.5)	89.5	(0.5)	42.9	(3.3)
	Nova Scotia	3.7	(0.3)	14.0	(2.8)	92.6	(2.4)	89.1	(2.7)	23.5	(4.3)	4.6	(2.7)	76.0	(5.2)	63.9	(6.2)	14.5	(3.1)	83.2	(3.6)	89.9	(2.9)	57.0	(5.2)
	Ontario	2.3	(1.7)	8.7	(2.7)	62.5	(5.5)	68.7	(4.8)	16.2	(4.2)	3.3	(1.8)	33.7	(4.7)	62.8	(4.6)	10.9	(3.2)	35.4	(5.0)	84.7	(3.3)	25.4	(4.6)
	Prince Edward Island	0.0	c	10.7	(0.8)	97.9	(2.0)	97.9	(2.0)	15.7	(4.4)	11.3	(1.0)	11.3	(1.0)	48.8	(2.6)	16.6	(1.2)	97.9	(2.0)	97.9	(2.0)	54.8	(3.9)
	Quebec	0.0	c	0.0	c	70.7	(4.8)	74.1	(4.3)	7.7	(2.9)	2.1	(1.8)	2.3	(1.8)	31.5	(6.3)	5.5	(1.9)	10.5	(3.1)	53.8	(6.0)	32.2	(6.1)
	Saskatchewan	0.0	c	23.5	(3.3)	93.7	(2.2)	95.7	(1.6)	21.9	(2.8)	1.9	(0.2)	7.4	(2.1)	23.7	(3.5)	9.8	(3.2)	36.5	(4.1)	92.6	(1.7)	29.8	(3.9)
	Italy																								
	Bolzano	1.7	(0.0)	7.2	(0.2)	34.3	(0.3)	29.2	(0.3)	7.2	(0.2)	2.3	(0.2)	0.7	(0.0)	12.2	(0.2)	9.9	(0.2)	0.0	c	34.8	(0.3)	27.0	(0.3)
	Campania	67.4	(6.0)	67.1	(5.6)	92.0	(3.0)	91.5	(3.2)	71.5	(6.0)	6.8	(3.6)	0.0	c	4.7	(3.2)	0.0	c	0.0	c	24.3	(6.4)	20.4	(6.0)
	Lombardia	66.3	(6.1)	61.3	(6.4)	82.3	(3.6)	80.3	(4.1)	66.9	(6.1)	7.2	(3.7)	0.0	c	3.4	(2.2)	0.0	c	0.0	c	24.0	(5.6)	29.9	(6.5)
	Trento	7.7	(0.3)	1.3	(0.0)	26.9	(0.9)	24.4	(0.9)	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	0.0	c	8.5	(0.3)	7.4	(0.3)
	Portugal																								
	Região Autónoma dos Açores	0.0	c	0.0	c	31.1	(0.6)	27.1	(0.5)	0.0	c	0.0	c	6.8	(0.1)	7.6	(0.2)	3.3	(0.1)	1.3	(0.2)	63.2	(0.3)	0.4	(0.0)
	Spain																								
	Andalusia•	8.6	(3.9)	8.6	(3.9)	25.2	(6.7)	23.5	(6.5)	8.0	(3.7)	4.3	(2.6)	6.1	(3.5)	13.6	(5.0)	9.7	(3.9)	2.2	(1.6)	31.8	(6.0)	21.2	(4.7)
	Aragon•	3.4	(2.5)	3.4	(2.5)	17.5	(5.1)	22.2	(6.0)	0.0	c	0.0	c	1.6	(1.5)	20.4	(5.7)	9.3	(2.8)	0.0	c	36.2	(6.8)	11.8	(4.7)
	Asturias•	0.0	c	0.0	c	13.3	(5.1)	13.9	(5.2)	0.0	c	0.0	c	5.9	(3.4)	20.6	(5.2)	1.0	(1.0)	2.1	(2.1)	45.6	(6.2)	16.4	(5.8)
	Balearic Islands•	0.0	c	0.0	c	17.0	(5.1)	12.9	(4.3)	1.7	(1.8)	0.0	c	2.1	(2.1)	15.1	(4.0)	3.8	(2.8)	0.0	c	17.0	(5.7)	7.0	(3.6)
	Basque Country•	0.0	c	0.0	c	3.2	(1.9)	5.2	(2.5)	0.0	c	0.0	c	1.4	(1.0)	7.3	(3.2)	1.3	(1.3)	1.3	(1.3)	12.4	(3.5)	14.2	(3.4)
	Canary Islands•	4.8	(2.9)	4.8	(2.9)	22.5	(5.9)	20.4	(6.2)	3.6	(2.5)	0.0	c	1.9	(1.9)	14.0	(4.2)	8.0	(3.9)	0.0	c	31.3	(6.0)	18.7	(5.9)
	Cantabria•	0.0	c	0.0	c	11.3	(4.0)	14.3	(4.3)	1.9	(0.1)	1.8	(1.8)	1.8	(1.8)	22.0	(4.7)	0.8	(0.9)	0.0	c	36.4	(5.8)	6.0	(3.2)
	Castile and Leon•	9.6	(4.2)	9.6	(4.2)	13.1	(4.9)	13.1	(4.9)	5.4	(3.2)	3.5	(2.6)	2.2	(2.1)	15.6	(5.4)	3.5	(2.6)	0.0	c	23.5	(6.4)	16.9	(5.6)
	Castile-La Mancha•	5.9	(3.4)	5.9	(3.4)	20.4	(5.7)	27.8	(5.6)	0.0	c	0.0	c	0.0	c	21.1	(6.4)	7.4	(3.6)	0.0	c	37.4	(6.4)	14.3	(5.2)
	Catalonia•	3.7	(2.6)	3.7	(2.6)	16.9	(5.0)	16.9	(5.0)	0.0	c	2.0	(2.1)	2.1	(2.0)	11.1	(4.5)	3.7	(2.6)	0.0	c	9.4	(4.2)	7.8	(3.9)
	Comunidad Valenciana•	2.6	(2.2)	2.6	(2.2)	14.0	(5.2)	16.3	(5.6)	0.0	c	0.0	c	0.0	c	10.4	(4.7)	0.0	c	0.0	c	18.5	(5.4)	2.2	(2.1)
	Extremadura•	4.1	(0.1)	4.1	(0.1)	14.0	(4.1)	16.0	(4.5)	2.1	(2.0)	0.0	c	2.1	(1.9)	19.9	(4.1)	7.1	(2.3)	0.0	c	25.6	(6.0)	10.7	(4.4)
	Galicia•	1.9	(2.0)	1.9	(2.0)	6.8	(3.5)	8.0	(3.7)	0.0	c	0.0	c	1.9	(1.2)	8.9	(3.8)	2.7	(1.9)	2.8	(2.1)	22.4	(5.2)	12.3	(4.7)
	La Rioja•	0.0	c	0.0	c	15.5	(0.4)	15.5	(0.4)	0.0	c	0.0	c	4.5	(0.1)	7.7	(0.2)	1.0	(0.1)	0.0	c	22.1	(0.3)	5.2	(0.1)
	Madrid•	2.1	(2.1)	2.1	(2.1)	15.8	(4.7)	16.9	(4.9)	0.0	c	0.0	c	7.7	(4.7)	12.6	(4.9)	5.5	(3.3)	0.0	c	37.2	(6.9)	11.5	(4.8)
	Murcia•	1.6	(1.7)	1.6	(1.7)	15.2	(4.2)	15.7	(4.4)	1.5	(1.1)	0.0	c	0.0	c	8.8	(4.1)	2.5	(0.4)	0.0	c	16.9	(4.5)	8.1	(3.2)
	Navarre•	0.9	(1.0)	0.9	(1.0)	4.9	(3.0)	6.6	(3.4)	0.0	c	0.0	c	3.9	(1.8)	13.8	(3.0)	0.0	c	2.1	(0.1)	22.0	(4.4)	12.7	(4.0)
	United Kingdom																								
	England	0.0	c	1.4	(1.0)	8.9	(2.6)	3.6	(1.5)	8.5	(2.2)	0.3	(0.3)	2.9	(1.3)	5.8	(1.8)	4.7	(1.8)	1.2	(1.1)	15.0	(3.4)	6.9	(2.3)
	Northern Ireland	2.6	(1.8)	28.7	(5.1)	82.8	(4.1)	75.4	(4.0)	48.3	(6.3)	3.3	(2.4)	2.8	(1.3)	8.2	(3.0)	22.0	(4.3)	2.9	(2.2)	23.0	(4.9)	12.9	(4.0)
	Scotland	0.0	c	21.5	(4.5)	80.7	(4.0)	82.7	(3.7)	8.6	(3.3)	0.0	c	5.0	(2.4)	25.8	(4.5)	2.7	(1.8)	1.5	(1.4)	48.2	(5.5)	11.6	(3.3)
	Wales	1.1	(1.1)	3.8	(1.9)	23.3	(3.5)	10.0	(2.6)	3.7	(1.7)	0.7	(0.7)	2.7	(1.6)	5.6	(2.1)	1.7	(0.8)	1.1	(1.1)	23.3	(3.6)	13.4	(2.9)
	United States																								
	Massachusetts•	0.0	c	0.0	c	0.0	c	0.0	c	5.1	(3.7)	0.0	c	2.1	(2.1)	4.6	(3.3)	2.9	(2.9)	0.0	c	4.3	(3.0)	2.2	(2.2)
	North Carolina•	0.0	c	0.0	c	6.0	(3.5)	3.8	(2.7)	11.7	(5.0)	0.0	c	2.2	(2.2)	19.5	(5.7)	4.2	(3.0)	0.0	c	14.6	(5.5)	10.0	(4.4)
	Puerto Rico•	0.0	c	0.0	c	0.0	c	0.0	c	2.6	(2.7)	0.0	c	0.0	c	0.0	c	0.0	c	2.6	(2.7)	4.8	(3.4)	2.6	(2.7)
Partners	**Colombia**																								
	Bogotá	5.1	(3.2)	4.2	(2.4)	54.4	(7.0)	62.7	(6.4)	36.1	(7.3)	2.6	(2.9)	7.6	(3.8)	15.1	(5.2)	2.6	(2.9)	2.8	(2.7)	22.5	(6.7)	13.0	(4.4)
	Cali	17.1	(5.0)	11.3	(4.2)	40.6	(6.6)	51.3	(6.3)	4.0	(2.9)	0.0	c	1.7	(1.7)	10.6	(4.7)	0.0	c	0.7	(0.7)	16.8	(6.2)	9.7	(4.8)
	Manizales	13.5	(1.6)	11.4	(0.5)	77.1	(5.5)	83.7	(5.2)	36.1	(3.6)	1.9	(2.0)	9.7	(3.7)	27.1	(4.7)	0.0	c	0.0	c	24.3	(4.4)	32.3	(5.0)
	Medellín	13.8	(5.0)	13.8	(5.0)	61.8	(6.8)	70.2	(5.2)	43.7	(5.7)	0.0	c	1.9	(1.9)	16.5	(5.5)	4.6	(3.1)	5.2	(3.1)	29.6	(6.8)	17.9	(5.4)
	United Arab Emirates																								
	Abu Dhabi•	20.0	(3.2)	21.5	(3.2)	27.6	(3.5)	25.7	(3.6)	13.4	(2.3)	15.5	(2.8)	23.4	(3.6)	28.1	(4.1)	14.9	(3.5)	41.6	(4.6)	44.3	(4.8)	42.5	(4.6)
	Ajman	31.2	(6.5)	36.1	(5.2)	40.5	(2.6)	40.5	(2.6)	17.9	(7.0)	24.0	(7.7)	44.7	(7.8)	45.0	(5.5)	24.3	(7.0)	66.6	(2.5)	74.4	(2.0)	74.4	(2.0)
	Dubai•	18.0	(0.1)	16.9	(0.1)	14.9	(0.1)	14.9	(0.1)	9.1	(0.1)	8.8	(0.1)	20.1	(0.1)	21.2	(0.2)	6.8	(0.1)	26.4	(0.2)	34.7	(0.2)	27.2	(0.2)
	Fujairah	48.9	(4.7)	59.1	(4.8)	59.1	(4.8)	64.2	(5.1)	46.0	(5.1)	49.1	(4.3)	50.4	(4.8)	54.1	(5.0)	11.5	(4.1)	58.5	(4.1)	64.6	(5.9)	60.7	(4.9)
	Ras Al Khaimah	67.4	(4.7)	69.1	(5.0)	76.3	(6.1)	69.1	(5.0)	58.0	(5.7)	46.8	(6.9)	56.6	(8.4)	63.5	(6.9)	43.6	(8.9)	74.5	(6.2)	72.1	(4.7)	73.8	(4.6)
	Sharjah	34.0	(5.4)	36.2	(4.2)	33.2	(5.4)	33.3	(5.4)	26.9	(5.2)	24.1	(7.8)	34.1	(6.9)	34.1	(6.9)	23.8	(6.6)	51.9	(7.1)	51.9	(7.1)	51.9	(7.1)
	Umm Al Quwain	64.8	(0.4)	64.8	(0.4)	80.8	(0.4)	80.8	(0.4)	48.1	(0.4)	33.3	(0.4)	85.6	(0.3)	58.3	(0.4)	57.3	(0.4)	85.6	(0.3)	58.3	(0.4)	85.6	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.1 for national data.

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[Part 1/2]

Table B2.II.25 Student assessment

Results based on school principals' reports

		Percentage of students in schools that use the following methods for assessing students:																			
		Mandatory standardised tests										Non-mandatory standardised tests									
		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																				
	Flemish community•	86.5	(3.0)	11.4	(2.9)	0.4	(0.4)	0.0	c	1.7	(1.1)	46.0	(4.2)	50.4	(4.3)	2.0	(1.1)	0.0	c	1.6	(1.1)
	French community	15.5	(4.3)	81.7	(4.6)	1.5	(1.0)	1.2	(1.3)	0.0	c	75.6	(4.4)	21.0	(4.1)	2.5	(1.8)	0.0	c	1.0	(0.6)
	German-speaking community	78.1	(0.6)	21.9	(0.6)	0.0	c	0.0	c	0.0	c	98.6	(0.1)	1.4	(0.1)	0.0	c	0.0	c	0.0	c
	Canada																				
	Alberta	75.6	(4.6)	22.7	(4.8)	1.8	(1.7)	0.0	c	0.0	c	62.2	(5.1)	32.8	(4.4)	1.1	(1.0)	1.7	(1.7)	2.1	(1.8)
	British Columbia	0.0	c	88.5	(4.5)	11.4	(4.5)	0.0	c	0.0	(0.1)	73.2	(6.5)	26.7	(6.5)	0.0	c	0.0	c	0.0	(0.1)
	Manitoba	80.1	(2.2)	19.9	(2.2)	0.0	c	0.0	c	0.0	c	79.1	(2.5)	15.2	(1.8)	2.7	(1.6)	2.1	(0.2)	0.9	(0.9)
	New Brunswick	17.0	(2.5)	73.5	(2.5)	9.5	(0.7)	0.0	c	0.0	c	71.5	(2.2)	16.2	(1.0)	7.3	(2.4)	5.0	(0.4)	0.0	c
	Newfoundland and Labrador	28.3	(3.8)	71.7	(3.8)	0.0	c	0.0	c	0.0	c	65.0	(4.0)	33.0	(4.0)	2.1	(0.3)	0.0	c	0.0	c
	Nova Scotia	4.6	(2.5)	88.8	(4.2)	5.6	(3.1)	1.0	(1.2)	0.0	c	76.5	(4.8)	19.4	(4.7)	3.1	(2.6)	1.0	(1.2)	0.0	c
	Ontario	1.4	(1.1)	93.1	(2.2)	5.5	(1.9)	0.0	c	0.0	c	78.5	(4.3)	16.6	(3.7)	3.3	(1.9)	1.7	(1.2)	0.0	c
	Prince Edward Island	54.7	(3.7)	45.3	(3.7)	0.0	c	0.0	c	0.0	c	63.4	(3.5)	36.6	(3.5)	0.0	c	0.0	c	0.0	c
	Quebec	4.7	(2.5)	81.1	(5.4)	12.4	(4.5)	0.4	(0.3)	1.4	(1.7)	45.9	(6.5)	31.4	(5.5)	15.6	(5.4)	3.3	(2.5)	3.7	(2.2)
	Saskatchewan	51.5	(4.3)	46.8	(4.3)	1.7	(1.7)	0.0	c	0.0	c	58.4	(3.3)	39.8	(3.0)	1.3	(1.3)	0.0	c	0.5	(0.7)
	Italy																				
	Bolzano	0.0	c	82.5	(0.4)	17.5	(0.4)	0.0	c	0.0	c	51.8	(0.4)	32.3	(0.4)	15.9	(0.3)	0.0	c	0.0	c
	Campania	7.0	(4.0)	84.4	(5.4)	8.6	(3.8)	0.0	c	0.0	c	46.1	(7.3)	35.7	(6.8)	16.2	(5.6)	2.0	(2.0)	0.0	c
	Lombardia	2.9	(2.1)	95.1	(2.7)	2.0	(1.9)	0.0	c	0.0	c	59.8	(7.8)	34.9	(7.4)	5.3	(3.5)	0.0	c	0.0	c
	Trento	6.7	(0.3)	85.1	(0.5)	3.9	(0.2)	4.3	(0.3)	0.0	c	35.0	(1.6)	39.5	(1.5)	25.5	(0.8)	0.0	c	0.0	c
	Portugal																				
	Região Autónoma dos Açores	72.1	(0.5)	17.5	(0.4)	8.8	(0.6)	1.5	(0.1)	0.0	c	44.2	(0.5)	53.6	(0.5)	2.2	(0.1)	0.0	c	0.0	c
	Spain																				
	Andalusia•	85.4	(5.2)	10.6	(4.4)	2.2	(2.1)	0.0	c	1.9	(1.8)	55.7	(7.4)	37.5	(6.3)	6.8	(3.6)	0.0	c	0.0	c
	Aragon•	59.2	(7.0)	29.5	(5.7)	4.3	(3.1)	2.5	(2.4)	4.4	(3.1)	41.3	(7.5)	54.6	(8.1)	1.9	(2.0)	0.0	c	2.1	(2.1)
	Asturias•	57.5	(8.1)	36.9	(8.0)	4.3	(0.1)	0.0	c	1.4	(1.4)	27.7	(6.0)	58.9	(7.1)	12.3	(5.0)	1.0	(1.0)	0.0	c
	Balearic Islands•	31.8	(6.5)	54.1	(7.4)	5.5	(3.2)	7.0	(3.5)	1.6	(1.7)	40.4	(6.5)	49.6	(7.4)	6.0	(3.4)	0.0	c	3.9	(2.8)
	Basque Country•	44.8	(6.1)	48.6	(6.3)	5.1	(2.7)	1.5	(1.3)	0.0	c	38.4	(6.5)	42.9	(6.5)	11.1	(4.0)	4.9	(1.6)	2.7	(1.7)
	Canary Islands•	60.2	(6.8)	29.9	(6.4)	6.3	(3.2)	3.6	(2.5)	0.0	c	52.5	(7.0)	35.4	(7.4)	8.0	(4.0)	3.0	(2.2)	1.1	(1.2)
	Cantabria•	20.0	(5.3)	76.9	(5.8)	3.1	(2.2)	0.0	c	0.0	c	27.3	(5.5)	69.6	(5.5)	3.2	(0.2)	0.0	c	0.0	c
	Castile and Leon•	68.2	(6.5)	27.8	(6.5)	4.0	(0.4)	0.0	c	0.0	c	56.9	(7.4)	42.2	(7.4)	0.9	(0.9)	0.0	c	0.0	c
	Castile-La Mancha•	74.7	(5.2)	21.9	(5.3)	1.6	(1.6)	1.8	(1.8)	0.0	c	58.2	(6.4)	40.9	(6.4)	0.0	c	0.9	(0.9)	0.0	c
	Catalonia•	0.0	c	85.7	(5.4)	10.2	(4.6)	2.0	(2.1)	2.1	(2.1)	22.0	(6.4)	58.5	(7.0)	13.8	(5.3)	2.0	(2.0)	3.7	(2.6)
	Comunidad Valenciana•	61.8	(6.3)	24.2	(5.8)	4.3	(2.9)	6.5	(3.8)	3.2	(2.5)	61.3	(6.4)	33.4	(6.4)	4.3	(3.0)	0.0	c	1.0	(1.4)
	Extremadura•	71.9	(4.9)	26.5	(4.6)	1.6	(1.6)	0.0	c	0.0	c	44.1	(6.7)	55.9	(6.7)	0.0	c	0.0	c	0.0	c
	Galicia•	68.3	(5.9)	21.7	(5.2)	6.8	(3.5)	3.1	(2.2)	0.0	c	53.0	(5.5)	28.9	(6.1)	10.7	(4.0)	5.3	(3.1)	2.1	(2.1)
	La Rioja•	59.7	(0.4)	30.9	(0.3)	9.3	(0.3)	0.1	(0.0)	0.0	c	40.6	(0.3)	53.5	(0.3)	5.9	(0.1)	0.0	c	0.0	c
	Madrid•	53.3	(7.7)	30.0	(6.6)	8.5	(3.9)	3.8	(2.7)	4.4	(3.1)	50.2	(7.1)	38.4	(7.5)	9.4	(4.3)	0.0	c	2.0	(2.0)
	Murcia•	60.1	(7.5)	37.6	(7.8)	0.0	c	2.3	(2.2)	0.0	c	64.0	(5.4)	36.0	(5.4)	0.0	c	0.0	c	0.0	c
	Navarre•	58.0	(6.6)	38.1	(6.2)	2.2	(2.2)	0.0	c	1.7	(0.1)	31.4	(6.0)	53.7	(6.3)	11.5	(3.5)	1.7	(1.7)	1.8	(0.1)
	United Kingdom																				
	England	0.0	c	76.1	(3.3)	17.1	(3.1)	5.3	(2.1)	1.5	(1.2)	33.0	(4.7)	57.7	(4.8)	7.5	(2.2)	1.9	(1.1)	0.0	c
	Northern Ireland	0.0	c	82.2	(3.3)	14.6	(3.6)	0.0	c	3.2	(1.9)	10.4	(3.6)	84.8	(4.3)	1.6	(1.6)	2.7	(1.9)	0.4	(0.0)
	Scotland	0.0	c	47.1	(5.4)	40.4	(5.4)	6.3	(2.6)	6.2	(3.0)	57.9	(5.5)	32.7	(5.6)	8.2	(3.1)	1.2	(1.1)	0.0	c
	Wales	0.0	c	62.7	(4.4)	31.8	(4.0)	5.5	(2.1)	0.0	c	30.2	(3.8)	62.9	(4.0)	5.0	(1.8)	1.9	(1.2)	0.0	c
	United States																				
	Massachusetts•	0.0	c	45.2	(7.4)	52.6	(7.0)	2.3	(2.3)	0.0	c	10.7	(4.9)	68.8	(6.2)	11.3	(5.0)	4.0	(2.9)	5.2	(3.6)
	North Carolina•	0.0	c	52.1	(6.4)	44.1	(6.7)	1.9	(1.9)	1.8	(1.8)	3.6	(2.6)	66.6	(6.3)	25.8	(5.9)	1.8	(1.8)	2.2	(2.2)
	Puerto Rico•	41.4	(7.9)	54.2	(8.5)	4.3	(3.2)	0.0	c	0.0	c	52.4	(9.7)	39.7	(8.8)	2.0	(2.1)	3.5	(3.4)	2.5	(2.6)
Partners	**Colombia**																				
	Bogotá	29.1	(9.6)	54.6	(9.2)	12.2	(5.2)	1.3	(1.9)	2.8	(2.7)	15.6	(4.7)	37.8	(8.3)	23.6	(6.3)	11.5	(5.9)	11.4	(4.0)
	Cali	35.0	(7.6)	49.5	(7.9)	11.0	(4.8)	2.5	(2.5)	1.9	(1.9)	13.1	(5.5)	35.3	(8.7)	39.3	(7.3)	8.7	(4.2)	3.6	(2.6)
	Manizales	33.6	(5.9)	45.9	(5.3)	13.6	(1.6)	5.9	(0.6)	1.0	(1.1)	15.8	(4.1)	43.9	(5.3)	20.2	(4.2)	3.1	(0.2)	17.1	(4.0)
	Medellín	17.5	(4.8)	57.8	(7.8)	22.0	(6.8)	0.0	c	2.8	(2.7)	36.8	(7.2)	39.4	(7.1)	16.4	(6.0)	3.5	(2.5)	3.9	(2.7)
	United Arab Emirates																				
	Abu Dhabi•	14.8	(3.9)	50.0	(4.7)	23.6	(4.5)	6.2	(2.6)	5.5	(1.7)	38.1	(5.1)	46.3	(4.9)	12.0	(3.3)	2.0	(0.4)	1.6	(1.4)
	Ajman	24.5	(7.4)	63.2	(5.3)	5.1	(0.3)	0.0	c	7.2	(7.1)	35.7	(8.5)	53.1	(9.4)	5.0	(5.0)	6.3	(0.4)	0.0	c
	Dubai•	24.6	(0.1)	54.6	(0.2)	15.4	(0.1)	3.2	(0.0)	2.3	(0.0)	43.1	(0.2)	44.4	(0.2)	9.8	(0.1)	1.8	(0.0)	1.0	(0.0)
	Fujairah	21.3	(4.2)	73.1	(4.3)	0.0	c	0.0	c	5.6	(0.4)	38.3	(4.7)	55.8	(4.0)	5.9	(2.7)	0.0	c	0.0	c
	Ras Al Khaimah	30.2	(9.2)	54.7	(10.0)	10.3	(0.7)	4.8	(4.2)	0.0	c	30.0	(8.2)	61.9	(7.6)	7.5	(5.4)	0.0	c	0.6	(0.0)
	Sharjah	20.1	(9.0)	43.0	(11.5)	26.8	(11.2)	5.7	(2.9)	4.4	(4.3)	26.1	(9.4)	67.9	(10.4)	4.4	(4.3)	1.6	(1.7)	0.0	c
	Umm Al Quwain	74.0	(0.4)	17.7	(0.4)	8.4	(0.3)	0.0	c	0.0	c	77.8	(0.3)	22.2	(0.3)	0.0	c	0.0	c	0.0	c

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.19 for national data.

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[Part 2/2]

Table B2.II.25 Student assessment

Results based on school principals' reports

		Percentage of students in schools that use the following methods for assessing students:																			
		Teacher-developed tests										Teachers' judgemental ratings									
		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month		Never		1-2 times a year		3-5 times a year		Monthly		More than once a month	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																				
	Flemish community•	0.7	(0.7)	1.0	(0.7)	1.5	(0.9)	8.5	(2.3)	88.3	(2.4)	0.0	c	0.7	(0.7)	6.6	(1.5)	11.6	(2.7)	81.1	(3.2)
	French community	2.6	(1.8)	9.6	(3.5)	18.6	(4.8)	10.3	(3.0)	58.9	(5.4)	11.3	(3.4)	13.8	(3.5)	19.2	(4.7)	8.0	(3.2)	47.7	(5.7)
	German-speaking community	0.0	c	17.3	(0.5)	0.0	c	23.9	(0.5)	58.8	(0.7)	0.0	c	5.2	(0.2)	38.8	(0.6)	15.9	(0.5)	40.1	(0.6)
	Canada																				
	Alberta	0.0	c	1.2	(1.3)	1.6	(1.3)	10.8	(4.5)	86.3	(4.9)	21.1	(5.4)	12.0	(4.3)	7.0	(3.2)	10.1	(4.1)	49.8	(5.9)
	British Columbia	0.0	c	0.0	c	4.5	(3.9)	23.5	(5.9)	72.0	(6.5)	30.5	(5.8)	0.0	c	18.8	(5.6)	4.9	(3.2)	45.8	(7.2)
	Manitoba	0.0	c	0.5	(0.5)	3.2	(1.4)	13.5	(2.3)	82.8	(2.5)	24.2	(2.4)	5.9	(0.3)	15.6	(2.6)	6.4	(1.9)	47.9	(3.2)
	New Brunswick	0.0	c	3.2	(0.2)	1.1	(0.1)	19.6	(2.6)	76.2	(2.6)	22.4	(2.9)	1.3	(1.1)	17.1	(1.5)	19.5	(1.7)	39.7	(3.3)
	Newfoundland and Labrador	0.0	c	0.0	c	8.0	(0.7)	17.4	(2.9)	74.6	(2.9)	34.9	(4.5)	4.5	(0.2)	16.4	(0.9)	15.6	(4.2)	28.6	(4.1)
	Nova Scotia	0.0	c	1.5	(1.4)	1.0	(1.0)	38.4	(5.4)	59.1	(5.6)	23.4	(4.2)	8.4	(3.1)	15.5	(4.0)	17.7	(4.7)	35.0	(6.4)
	Ontario	1.0	(0.9)	0.0	c	1.5	(1.0)	24.6	(4.8)	72.9	(4.9)	31.8	(4.7)	2.3	(1.7)	12.4	(3.2)	7.2	(2.7)	46.3	(4.6)
	Prince Edward Island	0.0	c	0.9	(0.9)	0.0	c	0.0	c	99.1	(0.9)	4.9	(1.3)	11.3	(1.0)	4.0	(0.4)	34.3	(3.1)	45.5	(3.5)
	Quebec	0.0	c	4.3	(3.0)	5.9	(3.2)	19.9	(4.9)	70.0	(5.1)	10.1	(3.2)	12.1	(4.5)	13.6	(4.8)	10.1	(3.9)	54.2	(6.2)
	Saskatchewan	0.8	(0.8)	0.4	(0.4)	3.6	(1.0)	25.9	(3.7)	69.3	(3.8)	36.7	(3.9)	5.1	(2.0)	13.2	(2.2)	11.9	(2.5)	33.1	(3.9)
	Italy																				
	Bolzano	0.9	(0.0)	6.5	(0.1)	18.2	(0.3)	40.1	(0.4)	34.4	(0.4)	0.0	c	6.6	(0.1)	6.0	(0.1)	37.3	(0.4)	50.0	(0.4)
	Campania	2.1	(2.2)	5.1	(3.0)	14.5	(4.4)	37.7	(6.6)	40.5	(7.2)	6.2	(3.7)	3.8	(2.6)	6.9	(3.6)	8.2	(3.6)	74.9	(5.9)
	Lombardia	6.0	(4.4)	11.0	(4.2)	6.4	(3.0)	26.5	(6.9)	50.1	(7.6)	12.8	(5.4)	3.0	(2.2)	12.1	(4.7)	14.2	(4.7)	57.9	(8.0)
	Trento	5.0	(0.2)	9.9	(0.3)	19.1	(0.6)	31.3	(0.9)	34.7	(1.4)	2.7	(0.1)	11.2	(0.4)	21.2	(0.6)	8.1	(1.5)	56.8	(1.4)
	Portugal																				
	Região Autónoma dos Açores	2.4	(0.1)	0.0	c	30.9	(0.6)	46.2	(0.5)	20.5	(0.5)	2.4	(0.1)	0.0	c	5.2	(0.6)	0.0	c	92.4	(0.6)
	Spain																				
	Andalusia•	0.0	c	0.0	c	5.9	(3.4)	25.8	(5.7)	68.4	(6.8)	3.8	(2.8)	0.0	c	7.9	(3.9)	8.8	(4.0)	79.5	(4.9)
	Aragon•	0.0	c	2.1	(2.1)	5.5	(3.2)	33.3	(7.1)	59.2	(7.0)	9.3	(4.4)	2.2	(2.2)	9.7	(4.4)	11.0	(4.8)	67.7	(7.5)
	Asturias•	0.0	c	0.0	c	6.1	(3.5)	32.8	(7.6)	61.1	(6.8)	11.1	(4.5)	0.0	c	13.4	(5.1)	15.2	(4.9)	60.3	(6.8)
	Balearic Islands•	1.7	(1.8)	0.0	c	2.3	(2.3)	27.7	(6.3)	68.2	(6.9)	2.9	(2.2)	0.0	c	2.3	(2.3)	16.7	(4.9)	78.1	(5.6)
	Basque Country•	1.0	(1.0)	1.3	(1.3)	9.9	(3.6)	37.1	(5.2)	50.6	(5.7)	15.5	(4.4)	4.3	(2.5)	18.9	(5.1)	14.1	(4.1)	47.2	(6.9)
	Canary Islands•	3.5	(2.5)	0.0	c	4.0	(2.9)	32.6	(6.2)	59.9	(5.9)	4.9	(2.9)	4.0	(2.7)	4.1	(2.9)	11.7	(4.0)	75.2	(6.1)
	Cantabria•	0.0	c	1.1	(1.1)	4.7	(2.8)	28.3	(5.9)	65.8	(5.9)	3.8	(1.8)	0.0	c	7.9	(3.7)	9.0	(3.4)	79.3	(5.2)
	Castile and Leon•	0.0	c	0.0	c	15.6	(4.5)	38.5	(6.7)	46.0	(6.0)	0.0	c	1.9	(1.9)	12.3	(5.0)	13.2	(5.0)	72.6	(6.0)
	Castile-La Mancha•	0.0	c	0.0	c	3.7	(2.6)	48.8	(7.1)	47.5	(7.1)	3.2	(2.2)	2.0	(2.0)	3.0	(2.2)	13.4	(4.4)	78.3	(5.7)
	Catalonia•	0.0	c	2.1	(2.0)	8.3	(4.1)	36.4	(5.0)	53.3	(6.8)	4.5	(2.9)	2.0	(2.0)	10.3	(4.6)	12.7	(5.2)	70.5	(6.4)
	Comunidad Valenciana•	0.0	c	0.0	c	9.5	(4.4)	35.3	(6.1)	55.3	(6.0)	8.1	(3.0)	3.7	(2.7)	10.9	(4.6)	10.1	(4.5)	67.1	(6.6)
	Extremadura•	0.2	(0.2)	0.0	c	9.0	(4.1)	22.9	(6.0)	67.8	(5.9)	1.3	(1.1)	1.7	(1.7)	14.0	(4.4)	3.2	(2.2)	79.8	(5.2)
	Galicia•	0.0	c	1.7	(1.7)	8.9	(4.1)	36.5	(7.1)	52.9	(7.3)	1.7	(1.8)	2.0	(2.0)	8.4	(3.8)	12.5	(4.7)	75.4	(6.4)
	La Rioja•	3.3	(0.1)	3.0	(0.1)	20.0	(0.4)	30.0	(0.4)	43.7	(0.5)	6.3	(0.1)	4.1	(0.1)	17.5	(0.3)	13.4	(0.4)	58.7	(0.4)
	Madrid•	0.0	c	0.0	c	9.5	(4.3)	28.0	(5.9)	62.6	(6.9)	6.4	(3.7)	0.0	c	10.2	(4.6)	13.5	(4.9)	69.9	(7.6)
	Murcia•	3.9	(2.8)	1.9	(1.9)	17.1	(5.1)	22.3	(6.2)	54.8	(6.8)	5.5	(3.2)	0.0	c	15.3	(4.8)	7.6	(3.8)	71.6	(5.9)
	Navarre•	0.0	c	2.1	(2.1)	9.1	(2.2)	40.4	(5.4)	48.3	(5.7)	8.0	(3.0)	3.8	(2.1)	26.1	(4.3)	14.8	(3.5)	47.3	(5.4)
	United Kingdom																				
	England	0.7	(0.7)	0.9	(0.7)	42.8	(4.6)	34.4	(4.4)	21.1	(3.9)	2.3	(1.3)	3.8	(1.6)	43.8	(4.5)	24.0	(3.8)	26.1	(4.2)
	Northern Ireland	0.0	c	0.0	c	37.1	(5.1)	27.4	(5.5)	35.5	(5.4)	6.3	(1.8)	10.0	(3.4)	37.2	(5.4)	15.8	(4.2)	30.7	(5.1)
	Scotland	0.0	c	3.6	(2.2)	44.5	(6.4)	38.0	(5.8)	13.9	(4.4)	1.3	(1.3)	10.7	(3.8)	29.1	(6.1)	20.4	(4.9)	38.5	(5.4)
	Wales	0.0	c	2.2	(1.4)	35.8	(3.8)	41.7	(3.5)	20.2	(3.5)	1.0	(1.1)	1.1	(1.1)	51.6	(4.4)	21.7	(3.8)	24.6	(3.7)
	United States																				
	Massachusetts•	0.0	c	3.9	(2.8)	1.2	(1.2)	16.1	(5.0)	78.9	(5.9)	23.7	(6.5)	7.9	(2.9)	11.1	(5.0)	6.5	(3.8)	50.7	(7.2)
	North Carolina•	0.0	c	0.0	c	2.5	(2.5)	3.9	(2.7)	93.6	(3.7)	17.0	(5.1)	6.1	(3.5)	2.2	(1.9)	8.7	(4.3)	64.0	(7.0)
	Puerto Rico•	2.4	(2.4)	1.4	(2.0)	5.5	(3.9)	6.2	(3.5)	84.5	(6.1)	40.4	(8.5)	15.4	(6.5)	9.5	(5.6)	10.7	(5.4)	24.0	(8.7)
Partners	**Colombia**																				
	Bogotá	0.0	c	2.5	(2.5)	30.2	(5.0)	15.3	(10.4)	52.0	(9.9)	8.7	(6.2)	0.0	c	30.7	(7.7)	24.7	(6.8)	35.9	(10.0)
	Cali	0.7	(0.7)	11.3	(6.0)	27.7	(7.7)	18.3	(6.6)	42.0	(8.0)	5.6	(3.6)	11.6	(6.2)	29.7	(7.4)	6.9	(3.3)	46.1	(6.6)
	Manizales	0.7	(0.5)	4.1	(2.4)	25.5	(3.6)	13.8	(1.6)	55.9	(3.3)	9.3	(1.5)	6.3	(2.1)	21.2	(4.2)	12.3	(2.8)	50.8	(4.8)
	Medellín	1.1	(1.1)	4.8	(3.5)	38.6	(7.3)	13.9	(5.4)	41.5	(7.1)	8.4	(4.3)	12.1	(4.8)	40.1	(6.7)	8.1	(4.0)	31.3	(6.0)
	United Arab Emirates																				
	Abu Dhabi•	2.9	(1.7)	3.4	(1.9)	13.9	(3.4)	22.6	(3.5)	57.1	(4.4)	5.7	(2.6)	10.0	(3.1)	12.8	(2.8)	19.8	(3.4)	51.8	(5.1)
	Ajman	1.1	(0.8)	0.0	c	15.3	(5.7)	38.6	(6.2)	45.1	(8.1)	13.3	(1.3)	5.8	(5.7)	13.0	(4.2)	14.4	(5.1)	53.4	(7.5)
	Dubai•	0.0	c	0.6	(0.0)	19.7	(0.1)	38.4	(0.2)	41.4	(0.2)	5.0	(0.1)	2.1	(0.0)	24.1	(0.2)	30.2	(0.1)	38.7	(0.2)
	Fujairah	1.5	(1.6)	7.1	(1.9)	9.7	(4.6)	42.3	(4.4)	39.4	(2.4)	8.8	(1.7)	11.7	(4.9)	3.8	(2.4)	23.3	(4.4)	52.4	(4.1)
	Ras Al Khaimah	1.8	(1.8)	0.6	(0.6)	20.5	(8.1)	20.9	(8.9)	56.1	(10.7)	1.8	(1.8)	9.7	(7.7)	13.3	(4.3)	20.0	(6.9)	55.3	(8.7)
	Sharjah	7.0	(8.1)	0.0	c	9.4	(2.5)	40.8	(11.0)	42.8	(10.9)	6.3	(4.9)	14.2	(10.4)	13.9	(5.6)	22.8	(9.2)	42.8	(11.5)
	Umm Al Quwain	6.5	(0.4)	0.0	c	0.0	c	49.3	(0.4)	44.2	(0.3)	35.2	(0.5)	1.5	(0.1)	2.3	(0.3)	33.9	(0.5)	27.1	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.19 for national data.

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[Part 1/3]

Table B2.II.28 Quality assurance and improvement actions at school

Results based on school principals' reports

	Percentage of students in schools whose principal reported that the following arrangements aimed at quality assurance and improvement exist in the school:																							
	Internal evaluation/ Self-evaluation						External evaluation						Written specification of the school's curricular profile and educational goals						Written specification of student performance standards					
	Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD																								
Belgium																								
Flemish community•	20.0	(3.2)	77.0	(3.4)	2.9	(1.5)	73.7	(4.0)	12.6	(3.0)	13.7	(3.1)	53.1	(3.8)	40.0	(4.1)	6.8	(1.8)	30.0	(3.8)	36.8	(4.1)	33.2	(4.1)
French community	13.2	(3.7)	53.2	(5.5)	33.6	(5.4)	80.2	(4.7)	4.5	(2.1)	15.3	(4.3)	70.3	(5.3)	26.3	(4.8)	3.5	(2.4)	20.9	(4.3)	31.7	(5.4)	47.4	(6.2)
German-speaking community	31.9	(0.6)	62.9	(0.6)	5.2	(0.2)	100.0	c	0.0	c	0.0	c	73.4	(0.4)	26.6	(0.4)	0.0	c	26.7	(0.5)	28.1	(0.6)	45.3	(0.5)
Canada																								
Alberta	42.4	(6.6)	50.8	(6.9)	6.8	(3.2)	43.7	(6.3)	26.2	(4.6)	30.1	(5.8)	69.8	(5.4)	21.8	(4.9)	8.3	(2.8)	65.8	(5.7)	24.3	(5.5)	10.0	(3.1)
British Columbia	30.3	(6.8)	47.1	(7.9)	22.5	(6.0)	48.9	(7.3)	12.7	(5.2)	38.4	(7.1)	64.4	(7.7)	31.3	(7.7)	4.4	(3.3)	44.7	(7.6)	32.9	(7.0)	22.4	(6.4)
Manitoba	44.2	(2.8)	48.7	(2.8)	7.1	(2.4)	33.0	(3.2)	21.3	(2.8)	45.7	(3.6)	61.2	(2.8)	31.7	(2.7)	7.2	(2.1)	33.8	(2.8)	44.0	(3.5)	22.2	(3.4)
New Brunswick	56.5	(2.4)	37.1	(1.9)	6.4	(2.4)	83.5	(2.0)	3.6	(1.3)	12.9	(2.1)	62.5	(2.9)	27.2	(2.5)	10.2	(2.7)	61.4	(2.5)	18.2	(1.4)	20.4	(1.5)
Newfoundland and Labrador	83.0	(1.6)	14.0	(0.7)	3.0	(1.4)	74.0	(3.8)	11.0	(1.6)	15.0	(3.3)	82.2	(4.5)	15.8	(4.6)	2.0	(0.2)	67.3	(4.6)	21.2	(4.0)	11.5	(2.3)
Nova Scotia	70.9	(5.8)	20.9	(5.1)	8.2	(3.2)	59.2	(4.7)	10.9	(4.4)	29.9	(4.4)	70.6	(3.7)	26.4	(4.5)	3.0	(2.7)	71.7	(6.0)	9.7	(3.5)	18.6	(6.1)
Ontario	46.8	(5.4)	41.4	(5.5)	11.9	(3.1)	56.8	(5.5)	10.1	(3.3)	33.1	(5.4)	62.3	(4.6)	28.0	(4.8)	9.7	(3.3)	57.2	(5.8)	28.0	(4.9)	14.8	(4.0)
Prince Edward Island	39.9	(3.8)	56.6	(2.1)	3.5	(2.1)	42.4	(4.7)	14.8	(1.3)	42.8	(4.3)	92.4	(2.8)	4.6	(2.8)	3.0	(0.3)	54.0	(4.2)	45.1	(4.2)	0.9	(0.9)
Quebec	24.2	(5.7)	52.8	(6.9)	23.0	(5.1)	42.0	(6.3)	11.5	(4.4)	46.5	(6.4)	71.4	(5.8)	25.3	(5.3)	3.3	(2.2)	43.5	(6.4)	35.7	(4.8)	20.8	(5.5)
Saskatchewan	35.5	(3.4)	51.4	(3.7)	13.1	(2.1)	39.9	(4.2)	8.6	(3.0)	51.4	(4.0)	52.3	(3.2)	39.3	(3.7)	8.4	(1.9)	42.5	(4.1)	29.2	(3.2)	28.3	(3.8)
Italy																								
Bolzano	28.4	(0.3)	66.0	(0.4)	5.5	(0.3)	76.1	(0.5)	14.5	(0.3)	9.4	(0.4)	29.1	(0.4)	51.1	(0.4)	19.8	(0.3)	20.9	(0.4)	37.3	(0.4)	41.8	(0.4)
Campania	50.4	(6.2)	43.6	(6.4)	6.0	(3.8)	48.2	(8.0)	7.6	(3.9)	44.2	(8.3)	24.1	(6.1)	67.3	(6.2)	8.6	(4.1)	17.7	(4.8)	56.6	(7.2)	25.7	(6.3)
Lombardia	57.6	(7.8)	35.7	(7.3)	6.7	(3.5)	21.4	(5.3)	21.5	(5.9)	57.1	(6.4)	17.9	(5.3)	74.7	(5.7)	7.4	(3.4)	13.4	(4.8)	54.3	(6.8)	32.3	(6.4)
Trento	38.9	(0.9)	60.4	(0.9)	0.6	(0.0)	43.3	(1.0)	13.3	(0.4)	43.4	(1.2)	30.7	(1.3)	64.8	(1.3)	4.5	(0.2)	12.0	(1.7)	52.2	(1.1)	35.8	(1.1)
Portugal																								
Região Autónoma dos Açores	47.1	(0.6)	41.9	(0.6)	11.0	(0.1)	68.2	(0.3)	4.5	(0.1)	27.3	(0.3)	50.5	(0.6)	41.2	(0.6)	8.2	(0.1)	18.5	(0.5)	56.2	(0.6)	25.3	(0.7)
Spain																								
Andalusia•	63.3	(5.4)	34.6	(5.8)	2.1	(2.1)	53.6	(7.0)	17.0	(5.0)	29.4	(7.0)	43.2	(5.6)	41.5	(6.1)	15.2	(4.5)	41.3	(6.4)	43.0	(6.4)	15.7	(4.6)
Aragon•	13.1	(5.0)	68.7	(6.7)	18.2	(5.4)	47.7	(6.7)	10.1	(4.2)	42.3	(6.4)	42.7	(7.9)	37.0	(7.7)	20.3	(4.9)	32.3	(7.4)	46.3	(7.8)	21.4	(5.1)
Asturias•	31.3	(6.1)	56.7	(5.1)	12.0	(4.4)	66.1	(4.8)	13.3	(4.1)	20.6	(4.6)	55.4	(7.9)	30.4	(7.6)	14.1	(5.2)	42.8	(6.2)	38.1	(6.7)	19.1	(5.2)
Balearic Islands•	10.2	(4.5)	71.1	(6.5)	18.7	(5.3)	43.9	(6.7)	18.7	(6.0)	37.4	(7.3)	46.2	(7.9)	31.0	(6.4)	22.8	(5.6)	22.0	(5.9)	41.5	(6.3)	36.5	(5.8)
Basque Country•	14.3	(4.1)	67.2	(5.5)	18.6	(4.6)	65.5	(5.5)	19.7	(4.9)	14.8	(4.0)	43.5	(5.8)	49.4	(5.8)	7.1	(3.1)	25.2	(4.4)	57.3	(5.8)	17.5	(4.6)
Canary Islands•	25.8	(5.4)	59.6	(6.2)	14.6	(4.4)	46.6	(6.5)	15.4	(4.7)	38.0	(6.3)	47.7	(7.2)	36.1	(7.1)	16.2	(5.8)	57.4	(7.7)	32.6	(7.0)	10.0	(4.5)
Cantabria•	46.4	(5.3)	42.4	(5.0)	11.3	(3.2)	76.2	(5.6)	13.1	(3.6)	10.7	(4.3)	56.2	(5.9)	31.9	(5.5)	11.9	(4.2)	47.5	(6.6)	27.7	(6.2)	24.8	(5.3)
Castile and Leon•	11.9	(4.1)	76.1	(6.2)	11.9	(4.7)	53.4	(6.9)	7.3	(2.9)	39.3	(7.2)	55.4	(7.0)	32.2	(6.5)	12.4	(4.6)	53.0	(5.8)	30.8	(6.1)	16.3	(4.9)
Castile-La Mancha•	69.2	(6.2)	30.8	(6.2)	0.0	c	56.1	(7.2)	16.7	(4.9)	27.2	(5.4)	51.8	(8.2)	36.2	(7.4)	12.0	(4.6)	39.9	(7.0)	39.5	(6.6)	20.7	(5.2)
Catalonia•	31.0	(6.5)	59.9	(7.2)	9.2	(3.9)	80.0	(6.3)	17.7	(5.8)	2.4	(2.3)	44.2	(6.8)	46.7	(6.8)	9.1	(4.1)	24.1	(6.0)	62.0	(6.6)	13.9	(5.2)
Comunidad Valenciana•	16.5	(5.7)	59.1	(7.0)	24.4	(6.5)	53.4	(7.2)	8.7	(3.1)	37.9	(6.6)	50.2	(7.4)	36.8	(7.4)	13.0	(4.1)	29.6	(5.5)	37.2	(6.6)	33.2	(6.9)
Extremadura•	20.3	(6.0)	57.9	(6.3)	21.8	(5.7)	58.4	(7.0)	20.7	(5.6)	20.9	(5.7)	43.6	(6.2)	41.3	(7.2)	15.1	(4.5)	27.2	(6.0)	47.9	(6.6)	24.9	(5.7)
Galicia•	26.8	(6.9)	53.0	(6.5)	20.1	(6.1)	54.0	(7.1)	10.3	(3.5)	35.7	(7.2)	60.3	(7.7)	22.9	(6.4)	16.8	(5.7)	35.4	(6.5)	37.8	(5.9)	26.8	(6.6)
La Rioja•	18.1	(0.3)	57.4	(0.4)	24.5	(0.4)	42.0	(0.5)	16.2	(0.3)	41.8	(0.4)	48.6	(0.4)	24.9	(0.3)	26.5	(0.4)	26.0	(0.4)	46.5	(0.3)	27.5	(0.4)
Madrid•	30.9	(6.4)	55.7	(6.4)	13.4	(5.4)	70.2	(7.2)	11.1	(4.7)	18.7	(6.3)	50.3	(6.9)	43.4	(7.2)	6.2	(3.6)	35.6	(5.1)	53.0	(6.4)	11.5	(4.8)
Murcia•	24.9	(5.6)	62.0	(7.0)	13.1	(5.1)	62.6	(5.9)	6.9	(3.7)	30.5	(6.0)	40.6	(6.7)	51.1	(6.1)	8.3	(4.0)	36.8	(6.5)	44.8	(7.0)	18.4	(6.0)
Navarre•	21.1	(4.8)	54.7	(5.4)	24.2	(3.6)	67.6	(5.7)	19.6	(4.6)	12.8	(3.2)	42.8	(5.6)	45.7	(6.0)	11.4	(3.2)	24.5	(4.9)	54.5	(4.3)	21.0	(4.0)
United Kingdom																								
England	38.5	(4.0)	61.5	(4.0)	0.0	c	67.9	(3.9)	29.0	(3.8)	3.1	(1.6)	48.0	(4.0)	49.2	(4.5)	2.8	(1.7)	56.6	(4.4)	42.4	(4.5)	1.0	(0.9)
Northern Ireland	34.2	(5.9)	65.8	(5.9)	0.0	c	90.5	(3.1)	9.5	(3.1)	0.0	c	59.7	(5.8)	37.2	(6.1)	3.1	(1.7)	69.0	(4.8)	29.2	(4.8)	1.7	(0.1)
Scotland	62.2	(6.0)	37.8	(6.0)	0.0	c	90.5	(3.5)	4.3	(2.3)	5.2	(2.8)	58.3	(4.9)	38.6	(5.1)	3.1	(2.2)	58.9	(5.9)	28.9	(4.7)	12.2	(4.3)
Wales	77.1	(4.1)	22.9	(4.1)	0.0	c	88.3	(2.8)	9.2	(2.5)	2.6	(1.5)	64.9	(4.3)	29.4	(4.2)	5.7	(2.3)	71.3	(3.8)	26.0	(3.7)	2.7	(1.5)
United States																								
Massachusetts•	79.3	(5.2)	18.6	(4.7)	0.0	c	54.9	(6.5)	14.9	(5.7)	24.0	(5.8)	54.4	(7.4)	40.6	(7.6)	0.0	c	75.5	(7.1)	14.3	(5.6)	4.0	(2.8)
North Carolina•	84.9	(5.5)	12.6	(4.9)	2.5	(2.5)	90.9	(4.1)	3.5	(2.5)	5.6	(3.2)	77.6	(5.5)	20.8	(5.8)	1.6	(1.5)	79.1	(5.8)	11.6	(5.0)	9.3	(4.1)
Puerto Rico•	46.0	(7.9)	40.0	(6.6)	14.0	(7.4)	62.1	(8.7)	21.0	(5.5)	16.9	(7.4)	78.7	(3.6)	17.9	(3.7)	3.4	(2.5)	76.4	(5.2)	21.3	(4.7)	2.3	(2.3)
Partners																								
Colombia																								
Bogotá	38.1	(7.5)	61.9	(7.5)	0.0	c	59.4	(6.9)	32.8	(6.9)	7.8	(4.4)	23.1	(6.4)	68.9	(7.9)	7.9	(4.9)	30.4	(10.4)	58.0	(8.5)	11.6	(6.0)
Cali	69.2	(7.6)	30.8	(7.6)	0.0	c	62.1	(8.0)	28.1	(6.6)	9.8	(5.3)	42.5	(7.4)	54.2	(7.2)	3.3	(2.6)	48.9	(8.3)	48.6	(8.1)	2.5	(2.0)
Manizales	60.2	(4.8)	39.8	(4.8)	0.0	c	79.2	(4.6)	15.8	(4.7)	5.0	(1.9)	37.3	(3.9)	60.0	(4.5)	2.7	(2.7)	61.3	(5.2)	37.3	(5.4)	1.3	(1.5)
Medellín	63.8	(7.4)	36.2	(7.4)	0.0	c	71.4	(6.1)	21.8	(5.6)	6.8	(4.0)	36.4	(6.9)	58.0	(6.6)	5.6	(1.9)	47.6	(5.4)	48.9	(5.5)	3.5	(2.5)
United Arab Emirates																								
Abu Dhabi•	58.8	(4.6)	40.0	(4.6)	1.2	(1.2)	93.0	(2.7)	7.0	(2.7)	0.0	c	57.3	(5.0)	41.9	(5.0)	0.7	(0.0)	53.2	(5.2)	43.7	(5.1)	3.1	(1.7)
Ajman	54.8	(8.4)	45.2	(8.4)	0.0	c	86.6	(6.1)	12.8	(6.0)	0.6	(0.5)	76.6	(4.5)	23.4	(4.5)	0.0	c	39.4	(8.8)	60.6	(8.8)	0.0	c
Dubai•	60.6	(0.2)	39.4	(0.2)	0.0	c	91.1	(0.1)	8.5	(0.1)	0.3	(0.0)	56.3	(0.2)	41.7	(0.2)	2.0	(0.0)	47.1	(0.2)	52.5	(0.2)	0.5	(0.0)
Fujairah	68.9	(4.8)	31.1	(4.8)	0.0	c	87.6	(0.9)	12.4	(0.9)	0.0	c	44.0	(3.8)	53.8	(3.3)	2.2	(2.2)	50.7	(4.1)	49.3	(4.1)	0.0	c
Ras Al Khaimah	70.6	(6.8)	29.4	(6.8)	0.0	c	78.8	(8.7)	21.2	(8.7)	0.0	c	74.4	(9.2)	25.6	(9.2)	0.0	c	74.5	(8.9)	25.5	(8.9)	0.0	c
Sharjah	53.2	(10.3)	46.8	(10.3)	0.0	c	90.3	(4.9)	9.7	(4.9)	0.0	c	48.5	(8.5)	46.4	(8.4)	5.1	(4.9)	52.9	(9.8)	47.1	(9.8)	0.0	c
Umm Al Quwain	86.3	(0.5)	13.7	(0.5)	0.0	c	98.8	(0.0)	0.0	c	1.2	(0.0)	88.6	(0.1)	11.4	(0.1)	0.0	c	50.0	(0.4)	48.8	(0.4)	1.2	(0.0)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.33 for national data.

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[Part 2/3]

Table B2.II.28 Quality assurance and improvement actions at school

Results based on school principals' reports

	Percentage of students in schools whose principal reported that the following arrangements aimed at quality assurance and improvement exist in the school:																	
	Systematic recording of data, such as teacher or student attendance, and professional development						Systematic recording of student test results and graduation rates						Seeking written feedback from students					
	Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD																		
Belgium																		
Flemish community•	42.1	(4.2)	56.7	(4.3)	1.3	(0.9)	24.4	(3.5)	70.3	(3.7)	5.3	(1.9)	2.6	(1.4)	74.2	(3.3)	23.2	(3.3)
French community	41.5	(5.7)	31.6	(5.3)	26.9	(5.6)	44.5	(6.0)	42.2	(5.6)	13.2	(4.3)	3.1	(1.5)	9.1	(3.5)	87.8	(3.8)
German-speaking community	42.8	(0.7)	46.3	(0.6)	10.8	(0.3)	29.2	(0.7)	46.3	(0.6)	24.5	(0.5)	0.0	c	54.5	(0.6)	45.5	(0.6)
Canada																		
Alberta	56.4	(5.7)	34.4	(5.5)	9.2	(2.9)	87.3	(4.5)	12.7	(4.5)	0.0	c	22.1	(4.5)	56.5	(6.0)	21.4	(5.0)
British Columbia	53.9	(7.0)	29.5	(6.7)	16.6	(4.6)	88.9	(4.4)	9.7	(4.1)	1.4	(1.4)	8.1	(4.4)	55.3	(7.4)	36.5	(7.5)
Manitoba	64.0	(3.0)	28.7	(3.0)	7.3	(1.7)	55.8	(3.6)	33.0	(3.6)	11.3	(2.3)	3.6	(1.4)	59.7	(3.6)	36.7	(3.5)
New Brunswick	44.7	(2.7)	42.1	(2.0)	13.2	(1.4)	61.9	(3.0)	27.4	(2.3)	10.8	(2.5)	21.7	(0.8)	28.2	(2.3)	50.1	(2.5)
Newfoundland and Labrador	70.4	(2.6)	28.3	(2.6)	1.3	(0.3)	81.0	(1.6)	19.0	(1.6)	0.0	c	21.5	(2.8)	54.1	(3.9)	24.5	(3.4)
Nova Scotia	82.1	(4.3)	9.3	(3.4)	8.6	(2.7)	84.0	(4.7)	11.2	(3.4)	4.7	(3.2)	14.8	(4.4)	39.4	(4.8)	45.9	(5.7)
Ontario	65.3	(5.8)	24.9	(5.1)	9.8	(3.1)	82.7	(4.3)	11.9	(3.6)	5.4	(2.4)	5.5	(2.3)	53.0	(6.0)	41.4	(5.8)
Prince Edward Island	90.1	(4.7)	6.9	(4.8)	3.0	(0.3)	92.1	(2.9)	7.9	(2.9)	0.0	c	16.6	(1.2)	33.7	(4.9)	49.7	(4.4)
Quebec	36.1	(6.0)	35.3	(5.5)	28.6	(5.7)	60.5	(5.5)	37.5	(5.0)	2.0	(2.0)	2.2	(1.6)	27.3	(5.4)	70.6	(5.1)
Saskatchewan	53.2	(4.1)	41.0	(4.3)	5.8	(1.5)	78.3	(3.0)	17.6	(3.3)	4.0	(1.6)	29.0	(4.1)	44.8	(4.6)	26.2	(4.5)
Italy																		
Bolzano	17.1	(0.4)	76.1	(0.4)	6.7	(0.1)	28.1	(0.4)	62.5	(0.4)	9.4	(0.3)	0.6	(0.0)	72.0	(0.3)	27.4	(0.3)
Campania	31.0	(6.6)	48.2	(7.7)	20.8	(6.1)	35.2	(7.2)	58.8	(7.8)	5.9	(3.8)	2.6	(2.1)	28.7	(6.2)	68.7	(6.5)
Lombardia	23.7	(5.8)	63.1	(7.3)	13.2	(4.7)	29.8	(5.4)	65.2	(5.8)	4.9	(3.0)	1.3	(0.9)	32.6	(6.6)	66.1	(6.5)
Trento	18.3	(1.8)	70.2	(1.9)	11.4	(1.4)	10.6	(0.8)	87.9	(1.5)	1.5	(1.5)	0.0	c	53.3	(1.5)	46.7	(1.5)
Portugal																		
Região Autónoma dos Açores	48.3	(0.4)	34.7	(0.3)	17.0	(0.4)	23.3	(0.3)	76.7	(0.3)	0.0	c	1.6	(0.1)	49.2	(0.4)	49.2	(0.4)
Spain																		
Andalusia•	58.1	(7.2)	35.3	(6.4)	6.6	(3.6)	48.9	(7.9)	49.0	(7.6)	2.1	(2.1)	6.0	(3.5)	71.4	(6.2)	22.6	(5.2)
Aragon•	47.7	(6.7)	37.4	(5.5)	14.9	(4.9)	54.9	(8.0)	38.8	(7.6)	6.3	(3.7)	0.0	c	64.1	(7.1)	35.9	(7.1)
Asturias•	46.4	(5.3)	42.6	(6.4)	11.0	(4.8)	50.9	(7.0)	48.2	(6.9)	0.8	(0.6)	2.2	(2.1)	66.9	(5.8)	30.9	(5.4)
Balearic Islands•	47.6	(8.1)	40.6	(7.2)	11.8	(4.8)	46.4	(7.0)	45.2	(6.1)	8.4	(3.9)	1.6	(1.7)	81.6	(5.1)	16.8	(4.8)
Basque Country•	29.6	(5.8)	64.0	(6.4)	6.4	(2.8)	44.6	(5.6)	55.1	(5.6)	0.2	(0.2)	2.1	(1.8)	80.2	(4.5)	17.7	(4.7)
Canary Islands•	54.5	(6.1)	35.7	(5.2)	9.8	(4.5)	61.0	(6.9)	37.1	(6.6)	1.9	(1.9)	4.7	(3.0)	73.3	(5.7)	22.0	(5.9)
Cantabria•	50.9	(5.6)	32.2	(4.8)	16.9	(3.3)	35.5	(6.6)	59.4	(7.1)	5.0	(3.0)	7.1	(2.9)	56.5	(6.2)	36.4	(5.5)
Castile and Leon•	44.4	(5.0)	48.2	(3.7)	7.4	(3.6)	47.8	(5.7)	45.3	(6.6)	6.9	(3.5)	3.0	(2.0)	82.2	(5.8)	14.8	(5.4)
Castile-La Mancha•	69.4	(4.7)	26.3	(4.7)	4.3	(2.6)	47.9	(7.7)	46.4	(7.4)	5.7	(2.1)	6.3	(3.2)	76.3	(5.2)	17.4	(4.2)
Catalonia•	46.4	(7.4)	51.6	(7.0)	2.0	(1.9)	68.6	(6.1)	31.4	(6.1)	0.0	c	7.5	(3.8)	76.1	(6.0)	16.4	(5.4)
Comunidad Valenciana•	43.3	(5.9)	49.9	(6.5)	6.8	(3.5)	38.9	(6.5)	54.2	(7.4)	6.9	(3.9)	1.0	(1.4)	71.2	(7.2)	27.8	(7.0)
Extremadura•	41.9	(7.6)	49.8	(7.1)	8.3	(4.2)	30.4	(7.1)	67.4	(7.4)	2.2	(2.3)	2.3	(2.2)	69.6	(6.1)	28.1	(5.7)
Galicia•	55.4	(6.4)	28.9	(5.2)	15.7	(5.3)	46.7	(7.2)	32.6	(5.9)	20.8	(5.9)	2.0	(2.0)	55.8	(5.4)	42.2	(5.7)
La Rioja•	41.8	(0.4)	33.7	(0.2)	24.5	(0.4)	38.4	(0.4)	59.6	(0.4)	2.0	(0.1)	4.3	(0.1)	59.3	(0.5)	36.4	(0.5)
Madrid•	26.5	(5.4)	55.3	(5.7)	18.2	(6.1)	40.6	(6.7)	58.5	(6.8)	0.9	(0.9)	1.3	(1.3)	69.0	(6.1)	29.7	(6.2)
Murcia•	50.9	(7.4)	35.2	(6.0)	14.0	(5.3)	44.2	(7.3)	52.2	(7.3)	3.7	(2.7)	2.2	(2.0)	77.3	(6.2)	20.5	(5.9)
Navarre•	26.9	(4.4)	70.8	(4.3)	2.3	(0.1)	26.6	(4.3)	64.9	(4.9)	8.5	(2.2)	3.0	(0.2)	72.2	(4.1)	24.8	(4.1)
United Kingdom																		
England	49.0	(4.3)	51.0	(4.3)	0.0	c	52.0	(4.3)	48.0	(4.3)	0.0	c	3.5	(1.4)	86.4	(2.5)	10.1	(2.5)
Northern Ireland	74.1	(5.7)	25.9	(5.7)	0.0	c	64.2	(5.4)	35.8	(5.4)	0.0	c	4.9	(2.3)	83.5	(4.1)	11.6	(3.5)
Scotland	80.1	(3.8)	18.6	(3.7)	1.3	(1.3)	72.6	(4.7)	23.6	(4.9)	3.9	(2.3)	2.7	(2.0)	93.8	(2.8)	3.5	(2.0)
Wales	60.4	(4.1)	39.6	(4.1)	0.0	c	57.0	(4.1)	43.0	(4.1)	0.0	c	5.5	(1.9)	91.4	(2.6)	3.0	(1.8)
United States																		
Massachusetts•	60.7	(7.5)	28.9	(5.7)	4.2	(3.0)	79.3	(6.5)	14.8	(5.6)	3.8	(2.8)	26.2	(6.6)	39.0	(7.6)	32.6	(6.6)
North Carolina•	63.6	(6.2)	32.3	(5.6)	4.1	(2.9)	95.5	(3.1)	2.5	(2.4)	0.0	c	37.9	(7.5)	23.7	(6.1)	38.3	(7.2)
Puerto Rico•	60.6	(6.7)	27.6	(6.9)	11.8	(6.9)	68.7	(7.0)	29.1	(6.8)	2.2	(2.2)	18.6	(7.2)	55.7	(8.8)	25.7	(7.0)
Partners																		
Colombia																		
Bogotá	6.2	(4.4)	90.9	(5.4)	2.9	(3.1)	16.2	(6.6)	78.4	(7.4)	5.4	(3.7)	4.7	(3.4)	82.8	(5.3)	12.5	(3.8)
Cali	22.7	(5.1)	77.3	(5.1)	0.0	c	24.7	(6.4)	75.3	(6.4)	0.0	c	5.1	(3.5)	79.3	(5.8)	15.5	(5.1)
Manizales	22.7	(4.4)	75.3	(4.1)	2.0	(2.0)	26.1	(4.9)	71.7	(4.9)	2.2	(0.1)	7.2	(1.6)	84.8	(3.3)	8.0	(2.9)
Medellín	16.9	(5.6)	83.1	(5.6)	0.0	c	18.2	(5.1)	81.8	(5.1)	0.0	c	2.2	(2.0)	84.7	(4.8)	13.2	(4.4)
United Arab Emirates																		
Abu Dhabi•	64.0	(4.6)	36.0	(4.6)	0.0	c	73.5	(4.4)	26.5	(4.4)	0.0	c	21.3	(4.4)	69.7	(4.6)	9.0	(2.6)
Ajman	65.0	(7.4)	35.0	(7.4)	0.0	c	85.9	(4.8)	14.1	(4.8)	0.0	c	25.8	(6.3)	69.1	(7.8)	5.1	(3.8)
Dubai•	45.6	(0.2)	54.4	(0.2)	0.0	c	57.8	(0.2)	41.1	(0.2)	1.0	(0.0)	16.5	(0.2)	74.7	(0.2)	8.8	(0.1)
Fujairah	53.2	(4.3)	46.8	(4.3)	0.0	c	82.6	(3.0)	17.4	(3.0)	0.0	c	22.6	(3.9)	59.4	(5.0)	18.0	(3.5)
Ras Al Khaimah	88.1	(6.3)	11.9	(6.3)	0.0	c	90.7	(6.8)	9.3	(6.8)	0.0	c	35.0	(7.9)	53.8	(8.6)	11.2	(6.4)
Sharjah	57.7	(10.2)	42.3	(10.2)	0.0	c	71.2	(9.1)	28.8	(9.1)	0.0	c	27.8	(7.6)	60.6	(9.8)	11.7	(6.6)
Umm Al Quwain	36.5	(0.4)	60.8	(0.4)	2.8	(0.0)	45.3	(0.4)	54.7	(0.4)	0.0	c	13.1	(0.1)	75.3	(0.3)	11.5	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.33 for national data.

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[Part 3/3]

Table B2.II.28 Quality assurance and improvement actions at school

Results based on school principals' reports

		Percentage of students in schools whose principal reported that the following arrangements aimed at quality assurance and improvement exist in the school:																	
		Teacher mentoring						Regular consultation aimed at school improvement with one or more experts over a period of at least six months						Implementation of a standardised policy for science subjects					
		Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No		Yes, this is mandatory		Yes, based on school initiative		No	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																		
	Flemish community•	4.2	(1.6)	93.2	(2.1)	2.6	(1.3)	2.2	(1.2)	59.8	(3.2)	38.0	(3.4)	7.8	(2.3)	39.1	(4.3)	53.0	(4.1)
	French community	2.4	(1.8)	58.2	(5.6)	39.4	(5.3)	1.0	(1.0)	25.2	(4.6)	73.9	(4.7)	16.1	(4.7)	51.7	(5.8)	32.2	(5.3)
	German-speaking community	0.0	c	41.4	(0.7)	58.6	(0.7)	0.0	c	46.3	(0.6)	53.7	(0.6)	27.1	(0.6)	21.8	(0.3)	51.1	(0.6)
	Canada																		
	Alberta	28.6	(5.5)	69.8	(5.3)	1.6	(1.4)	32.6	(5.8)	47.9	(5.1)	19.5	(4.7)	42.2	(5.5)	39.2	(5.4)	18.6	(4.8)
	British Columbia	9.9	(4.1)	77.5	(6.3)	12.6	(4.8)	6.9	(3.2)	40.7	(6.6)	52.4	(6.9)	29.0	(6.8)	27.2	(6.5)	43.8	(6.7)
	Manitoba	11.6	(1.3)	76.1	(3.1)	12.3	(3.2)	14.0	(1.7)	45.5	(2.9)	40.5	(3.2)	28.6	(2.1)	31.9	(2.8)	39.5	(3.3)
	New Brunswick	24.3	(2.0)	57.0	(2.0)	18.7	(2.4)	41.1	(2.4)	39.2	(2.7)	19.6	(2.8)	31.1	(1.8)	26.3	(2.4)	42.6	(3.5)
	Newfoundland and Labrador	19.4	(2.6)	70.6	(4.0)	10.1	(3.0)	60.2	(4.0)	21.8	(4.2)	18.0	(0.8)	58.7	(4.1)	35.7	(3.5)	5.6	(2.7)
	Nova Scotia	20.1	(6.0)	72.9	(6.2)	7.0	(2.9)	46.6	(5.9)	35.5	(6.0)	17.9	(4.7)	31.8	(5.4)	38.3	(6.1)	29.9	(6.7)
	Ontario	63.0	(4.7)	29.3	(4.6)	7.7	(2.6)	48.1	(5.0)	38.5	(4.8)	13.4	(3.6)	47.0	(5.1)	29.4	(4.9)	23.6	(4.4)
	Prince Edward Island	36.5	(3.0)	51.8	(3.0)	11.7	(1.2)	61.1	(3.2)	30.3	(4.7)	8.6	(2.3)	66.9	(3.4)	19.8	(2.2)	13.3	(2.2)
	Quebec	4.8	(2.6)	68.8	(6.0)	26.4	(5.6)	7.0	(2.6)	25.0	(5.7)	68.0	(6.0)	39.0	(6.0)	28.7	(6.0)	32.4	(6.3)
	Saskatchewan	24.7	(3.8)	63.8	(4.0)	11.4	(1.9)	22.5	(3.7)	43.6	(4.2)	34.0	(3.2)	49.1	(4.2)	23.7	(3.2)	27.2	(3.6)
	Italy																		
	Bolzano	8.8	(0.4)	70.6	(0.4)	20.6	(0.3)	0.0	c	47.9	(0.4)	52.1	(0.4)	17.1	(0.2)	39.3	(0.4)	43.6	(0.4)
	Campania	0.0	c	23.8	(6.2)	76.2	(6.2)	4.1	(3.2)	10.0	(4.4)	85.9	(5.4)	1.8	(1.8)	40.9	(5.6)	57.2	(5.9)
	Lombardia	2.0	(2.0)	33.7	(7.1)	64.3	(7.4)	0.0	c	10.8	(4.4)	89.2	(4.4)	2.0	(2.0)	37.4	(7.2)	60.6	(7.3)
	Trento	0.0	c	58.9	(1.6)	41.1	(1.6)	0.0	c	34.1	(1.7)	65.9	(1.7)	2.3	(0.1)	44.7	(1.0)	52.9	(1.1)
	Portugal																		
	Região Autónoma dos Açores	24.7	(0.4)	29.7	(0.3)	45.6	(0.5)	3.2	(0.1)	0.8	(0.1)	96.0	(0.2)	10.5	(0.4)	18.6	(0.6)	70.9	(0.5)
	Spain																		
	Andalusia•	4.8	(2.8)	16.1	(4.8)	79.1	(5.5)	1.8	(1.8)	20.2	(5.5)	78.1	(5.8)	3.1	(2.2)	24.8	(5.0)	72.1	(5.3)
	Aragon•	13.1	(5.2)	22.7	(6.0)	64.2	(7.8)	4.3	(3.0)	19.1	(5.0)	76.6	(5.9)	4.2	(2.9)	27.7	(6.8)	68.1	(6.5)
	Asturias•	6.1	(3.6)	19.7	(3.6)	74.1	(4.2)	8.1	(2.9)	18.6	(5.0)	73.3	(4.9)	2.0	(2.0)	33.7	(6.5)	64.4	(6.1)
	Balearic Islands•	1.6	(1.7)	59.8	(6.5)	38.5	(6.3)	0.0	c	24.3	(4.9)	75.7	(4.9)	5.1	(3.2)	21.5	(6.3)	73.4	(7.0)
	Basque Country•	10.2	(2.1)	40.7	(5.1)	49.1	(4.8)	8.5	(3.3)	52.7	(5.5)	38.8	(5.2)	3.0	(1.9)	39.1	(6.4)	57.9	(6.6)
	Canary Islands•	3.3	(2.3)	22.6	(5.5)	74.0	(5.8)	4.5	(3.0)	36.8	(5.9)	58.7	(5.7)	9.2	(4.0)	24.6	(5.6)	66.2	(6.6)
	Cantabria•	3.6	(2.6)	14.2	(5.0)	82.2	(5.0)	0.0	c	15.3	(4.3)	84.7	(4.3)	4.8	(2.9)	23.5	(5.7)	71.7	(6.3)
	Castile and Leon•	4.5	(2.9)	26.7	(5.6)	68.7	(6.0)	1.9	(1.8)	31.5	(6.1)	66.6	(6.3)	7.6	(3.9)	32.6	(7.2)	59.8	(7.7)
	Castile-La Mancha•	8.3	(3.5)	10.4	(4.3)	81.2	(5.3)	5.3	(3.1)	7.1	(3.4)	87.6	(4.6)	4.4	(2.5)	17.8	(5.3)	77.8	(5.5)
	Catalonia•	6.2	(2.1)	71.6	(4.9)	22.3	(5.3)	6.1	(2.9)	36.3	(6.0)	57.6	(6.3)	6.8	(3.8)	53.5	(7.0)	39.7	(7.2)
	Comunidad Valenciana•	7.1	(2.8)	42.2	(6.6)	50.7	(6.3)	0.0	c	28.5	(5.9)	71.5	(5.9)	1.0	(1.4)	38.6	(6.7)	60.4	(6.8)
	Extremadura•	0.0	c	16.7	(5.7)	83.3	(5.7)	4.1	(2.9)	22.0	(5.3)	74.0	(4.4)	3.4	(2.4)	23.4	(5.7)	73.2	(5.5)
	Galicia•	9.9	(4.4)	48.7	(7.1)	41.4	(6.2)	2.0	(2.0)	23.9	(6.4)	74.1	(6.7)	3.9	(2.7)	20.2	(5.3)	75.8	(6.0)
	La Rioja•	14.4	(0.3)	31.0	(0.4)	54.6	(0.4)	0.0	c	11.5	(0.2)	88.5	(0.2)	8.4	(0.3)	17.0	(0.3)	74.6	(0.4)
	Madrid•	2.1	(2.1)	26.5	(6.5)	71.3	(6.8)	6.5	(3.8)	16.4	(4.8)	77.1	(6.3)	3.4	(2.5)	33.8	(6.8)	62.8	(7.3)
	Murcia•	2.1	(2.0)	8.4	(2.5)	89.5	(3.2)	3.6	(2.3)	11.8	(3.9)	84.6	(4.2)	2.6	(0.4)	13.7	(5.0)	83.8	(5.0)
	Navarre•	3.5	(2.4)	30.3	(4.0)	66.3	(4.7)	7.6	(3.3)	23.7	(4.5)	68.8	(4.6)	1.8	(1.8)	36.4	(4.6)	61.7	(5.0)
	United Kingdom																		
	England	6.6	(2.4)	92.8	(2.5)	0.6	(0.5)	12.3	(3.3)	72.5	(4.2)	15.2	(3.1)	10.7	(2.0)	73.6	(3.7)	15.7	(3.3)
	Northern Ireland	12.8	(4.4)	74.7	(5.6)	12.5	(3.7)	14.6	(4.4)	54.5	(5.2)	30.9	(5.5)	22.0	(4.9)	64.9	(6.3)	13.1	(4.0)
	Scotland	16.1	(3.7)	74.5	(4.6)	9.3	(3.2)	27.6	(5.4)	46.7	(6.3)	25.7	(5.5)	29.7	(5.3)	45.2	(5.6)	25.1	(5.2)
	Wales	17.6	(3.9)	80.0	(4.1)	2.4	(1.5)	55.0	(3.9)	35.9	(3.6)	9.1	(2.9)	28.5	(4.1)	54.2	(4.7)	17.4	(3.5)
	United States																		
	Massachusetts•	62.9	(8.5)	33.0	(8.1)	2.0	(2.0)	12.7	(5.3)	56.8	(7.6)	26.1	(6.5)	21.0	(6.6)	57.5	(7.6)	15.3	(4.7)
	North Carolina•	81.8	(5.2)	18.2	(5.2)	0.0	c	43.2	(7.1)	34.7	(6.2)	22.1	(5.9)	67.5	(7.0)	17.9	(5.9)	14.6	(4.7)
	Puerto Rico•	15.4	(4.5)	53.3	(6.4)	31.3	(6.0)	29.0	(8.7)	36.2	(5.7)	34.8	(9.9)	58.8	(8.8)	28.1	(6.7)	13.2	(7.3)
Partners	**Colombia**																		
	Bogotá	0.0	c	60.9	(7.5)	39.1	(7.5)	1.9	(1.9)	45.4	(7.8)	52.7	(7.9)	26.7	(6.7)	30.9	(5.4)	42.4	(6.7)
	Cali	2.8	(2.7)	81.4	(6.3)	15.8	(6.1)	9.6	(4.8)	54.2	(7.3)	36.3	(6.6)	12.5	(4.3)	55.8	(9.0)	31.7	(8.4)
	Manizales	8.2	(2.6)	83.3	(3.9)	8.5	(2.8)	6.9	(2.7)	49.1	(3.2)	44.0	(3.8)	21.3	(3.3)	38.6	(5.2)	40.1	(5.2)
	Medellín	10.9	(4.5)	71.4	(7.4)	17.8	(6.1)	8.8	(4.0)	42.9	(6.5)	48.3	(6.9)	16.4	(5.5)	59.1	(6.1)	24.4	(4.6)
	United Arab Emirates																		
	Abu Dhabi•	46.8	(4.2)	48.7	(4.3)	4.5	(1.6)	43.4	(4.3)	42.1	(4.7)	14.5	(3.1)	59.1	(4.5)	38.0	(4.6)	3.0	(1.6)
	Ajman	79.1	(7.1)	15.7	(4.8)	5.2	(5.1)	21.6	(8.5)	70.7	(10.0)	7.7	(3.9)	74.0	(3.7)	19.1	(3.7)	6.9	(1.5)
	Dubai•	27.2	(0.2)	72.3	(0.2)	0.5	(0.0)	24.7	(0.2)	57.0	(0.2)	18.3	(0.1)	29.5	(0.2)	66.2	(0.2)	4.3	(0.1)
	Fujairah	53.0	(5.2)	47.0	(5.2)	0.0	c	47.4	(4.0)	33.0	(5.3)	19.6	(1.4)	57.5	(4.8)	25.3	(4.5)	17.2	(2.5)
	Ras Al Khaimah	64.7	(7.9)	28.3	(6.2)	6.9	(5.0)	40.9	(7.5)	42.2	(7.7)	16.9	(6.5)	85.3	(7.8)	8.9	(6.8)	5.8	(4.3)
	Sharjah	37.6	(7.0)	62.4	(7.0)	0.0	c	40.4	(9.1)	45.1	(7.9)	14.5	(8.0)	47.4	(8.5)	46.8	(9.0)	5.7	(8.5)
	Umm Al Quwain	83.8	(0.4)	13.8	(0.4)	2.4	(0.1)	54.2	(0.4)	13.8	(0.5)	32.1	(0.4)	88.6	(0.1)	10.0	(0.3)	1.4	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.4.33 for national data.

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[Part 1/1]

Table B2.II.33 Grade repetition

Results based on students' self-reports

		Percentage of students who had repeated a grade in:																		At least once in primary, lower secondary or upper secondary school	
		Primary school						Lower secondary school						Upper secondary school							
		Never		Once		Twice or more		Never		Once		Twice or more		Never		Once		Twice or more			
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																				
	Flemish community•	82.5	(0.7)	16.4	(0.6)	1.1	(0.2)	94.5	(0.4)	5.2	(0.4)	0.3	(0.1)	95.7	(0.3)	4.1	(0.3)	0.1	(0.1)	24.3	(0.7)
	French community	77.6	(1.4)	19.1	(1.2)	3.2	(0.4)	73.7	(1.5)	24.7	(1.4)	1.6	(0.4)	85.9	(0.8)	13.8	(0.8)	0.3	(0.1)	46.0	(1.8)
	German-speaking community	89.1	(1.4)	10.0	(1.4)	0.9	(0.5)	86.5	(1.7)	12.5	(1.7)	0.9	(0.5)	89.2	(1.3)	10.8	(1.3)	0.0	c	30.5	(1.1)
	Canada																				
	Alberta	95.0	(0.9)	5.0	(0.9)	0.0	(0.0)	99.3	(0.3)	0.7	(0.3)	0.0	c	99.5	(0.2)	0.5	(0.2)	0.1	(0.1)	5.8	(0.9)
	British Columbia	98.9	(0.2)	1.1	(0.2)	0.0	(0.0)	99.1	(0.4)	0.7	(0.3)	0.2	(0.2)	99.6	(0.2)	0.3	(0.2)	0.0	(0.0)	2.1	(0.5)
	Manitoba	97.4	(0.5)	2.5	(0.5)	0.1	(0.1)	97.2	(0.6)	2.5	(0.6)	0.3	(0.1)	98.7	(0.2)	0.9	(0.2)	0.3	(0.1)	5.7	(1.0)
	New Brunswick	93.9	(0.7)	5.6	(0.7)	0.4	(0.2)	96.2	(1.3)	3.0	(1.1)	0.8	(0.2)	99.2	(0.3)	0.7	(0.3)	0.1	(0.1)	9.5	(1.4)
	Newfoundland and Labrador	99.0	(0.4)	0.5	(0.3)	0.5	(0.3)	99.3	(0.3)	0.2	(0.1)	0.5	(0.3)	99.2	(0.3)	0.2	(0.1)	0.6	(0.3)	1.5	(0.4)
	Nova Scotia	98.4	(0.3)	1.4	(0.3)	0.2	(0.1)	99.0	(0.3)	0.9	(0.3)	0.2	(0.1)	99.5	(0.2)	0.4	(0.2)	0.2	(0.1)	2.5	(0.3)
	Ontario	97.8	(0.3)	1.8	(0.3)	0.4	(0.1)	98.2	(0.3)	1.5	(0.2)	0.3	(0.1)	98.9	(0.2)	0.9	(0.2)	0.2	(0.1)	3.9	(0.5)
	Prince Edward Island	98.4	(0.6)	1.3	(0.6)	0.3	(0.2)	99.3	(0.3)	0.5	(0.2)	0.3	(0.2)	99.9	(0.1)	0.1	(0.1)	0.0	c	1.8	(0.7)
	Quebec	93.7	(0.9)	5.6	(0.9)	0.6	(0.2)	92.4	(1.0)	6.6	(0.9)	1.0	(0.3)	99.6	(0.2)	0.1	(0.1)	0.3	(0.1)	12.0	(1.5)
	Saskatchewan	94.4	(0.8)	5.5	(0.8)	0.1	(0.1)	98.8	(0.3)	1.0	(0.3)	0.2	(0.1)	99.4	(0.2)	0.5	(0.2)	0.1	(0.0)	6.7	(0.8)
	Italy																				
	Bolzano	97.8	(0.4)	1.5	(0.4)	0.7	(0.2)	94.7	(0.6)	4.4	(0.6)	0.9	(0.3)	87.1	(0.7)	12.2	(0.7)	0.7	(0.2)	17.9	(0.7)
	Campania	98.7	(0.4)	0.9	(0.4)	0.4	(0.2)	95.0	(0.8)	4.2	(0.8)	0.8	(0.4)	90.2	(1.2)	8.9	(1.1)	0.9	(0.4)	14.3	(1.5)
	Lombardia	98.3	(0.4)	1.5	(0.4)	0.2	(0.1)	92.7	(0.7)	6.3	(0.7)	1.0	(0.2)	86.7	(1.0)	13.0	(1.0)	0.3	(0.2)	20.2	(1.3)
	Trento	99.0	(0.3)	1.0	(0.3)	0.0	c	96.1	(0.5)	3.5	(0.5)	0.3	(0.1)	90.1	(0.7)	9.8	(0.7)	0.1	(0.1)	14.0	(1.0)
	Portugal																				
	Região Autónoma dos Açores	77.0	(1.0)	15.4	(0.9)	7.6	(0.7)	67.7	(1.0)	25.5	(1.1)	6.8	(0.6)	99.9	(0.1)	0.1	(0.1)	0.0	c	43.6	(0.8)
	Spain																				
	Andalusia•	84.0	(1.1)	14.4	(1.1)	1.6	(0.3)	67.7	(1.5)	29.1	(1.3)	3.2	(0.6)	m	m	m	m	m	m	37.7	(1.7)
	Aragon•	85.9	(1.1)	13.5	(1.0)	0.6	(0.2)	74.3	(1.5)	24.3	(1.4)	1.4	(0.3)	m	m	m	m	m	m	31.1	(1.7)
	Asturias•	87.7	(1.0)	11.7	(0.9)	0.5	(0.2)	76.8	(1.6)	22.5	(1.5)	0.7	(0.2)	m	m	m	m	m	m	27.6	(1.6)
	Balearic Islands•	78.7	(1.6)	20.3	(1.5)	1.0	(0.2)	67.9	(1.8)	29.2	(1.6)	2.9	(0.4)	m	m	m	m	m	m	40.4	(1.9)
	Basque Country•	89.1	(0.7)	10.4	(0.7)	0.5	(0.2)	81.1	(1.1)	17.9	(1.0)	1.0	(0.2)	m	m	m	m	m	m	23.6	(1.1)
	Canary Islands•	80.2	(1.4)	18.5	(1.4)	1.2	(0.2)	68.6	(1.3)	29.3	(1.3)	2.1	(0.3)	m	m	m	m	m	m	38.5	(1.4)
	Cantabria•	87.1	(1.6)	12.6	(1.5)	0.2	(0.1)	72.1	(1.6)	26.3	(1.6)	1.6	(0.3)	m	m	m	m	m	m	33.2	(1.9)
	Castile and Leon•	88.9	(0.9)	10.7	(0.9)	0.4	(0.2)	72.7	(1.6)	25.8	(1.5)	1.5	(0.3)	m	m	m	m	m	m	31.1	(1.6)
	Castile-La Mancha•	84.3	(1.0)	14.5	(0.9)	1.2	(0.3)	67.1	(1.3)	30.7	(1.2)	2.1	(0.4)	m	m	m	m	m	m	37.0	(1.3)
	Catalonia•	91.8	(1.0)	7.9	(1.0)	0.3	(0.1)	84.7	(1.2)	13.7	(1.0)	1.5	(0.5)	m	m	m	m	m	m	21.0	(1.6)
	Comunidad Valenciana•	89.4	(1.2)	9.8	(1.1)	0.8	(0.3)	69.1	(1.8)	28.1	(1.6)	2.8	(0.4)	m	m	m	m	m	m	35.1	(1.6)
	Extremadura•	86.6	(1.1)	12.7	(1.1)	0.6	(0.2)	65.1	(1.9)	32.9	(1.7)	2.0	(0.4)	m	m	m	m	m	m	38.0	(1.7)
	Galicia•	88.2	(1.1)	10.9	(1.0)	0.9	(0.2)	70.6	(1.6)	27.8	(1.5)	1.7	(0.4)	m	m	m	m	m	m	33.0	(1.6)
	La Rioja•	89.0	(0.7)	10.4	(0.7)	0.6	(0.2)	69.7	(0.7)	27.4	(0.8)	2.8	(0.5)	m	m	m	m	m	m	34.4	(0.6)
	Madrid•	87.0	(1.0)	12.8	(0.9)	0.1	(0.1)	74.4	(1.9)	23.6	(1.7)	2.1	(0.4)	m	m	m	m	m	m	31.0	(1.9)
	Murcia•	80.6	(1.2)	18.9	(1.1)	0.5	(0.2)	67.4	(1.4)	31.1	(1.3)	1.5	(0.3)	m	m	m	m	m	m	38.9	(1.2)
	Navarre•	89.4	(1.1)	10.1	(1.0)	0.5	(0.2)	82.6	(1.2)	16.5	(1.2)	0.9	(0.2)	m	m	m	m	m	m	23.1	(1.4)
	United Kingdom																				
	England	97.9	(0.3)	1.8	(0.2)	0.3	(0.1)	99.2	(0.1)	0.6	(0.1)	0.2	(0.1)	99.1	(0.2)	0.6	(0.1)	0.3	(0.1)	2.8	(0.3)
	Northern Ireland	98.4	(0.3)	1.4	(0.2)	0.2	(0.1)	99.6	(0.1)	0.2	(0.1)	0.2	(0.1)	99.2	(0.2)	0.6	(0.1)	0.2	(0.1)	2.1	(0.3)
	Scotland	97.8	(0.3)	1.9	(0.3)	0.3	(0.1)	99.2	(0.1)	0.6	(0.1)	0.2	(0.1)	99.6	(0.1)	0.2	(0.1)	0.2	(0.1)	2.8	(0.3)
	Wales	97.4	(0.4)	2.2	(0.3)	0.4	(0.1)	99.1	(0.2)	0.6	(0.1)	0.3	(0.1)	99.4	(0.2)	0.3	(0.1)	0.3	(0.1)	3.1	(0.4)
	United States																				
	Massachusetts•	96.4	(0.5)	3.4	(0.6)	0.1	(0.1)	98.1	(0.4)	1.7	(0.4)	0.1	(0.1)	99.5	(0.1)	0.5	(0.1)	0.0	c	4.9	(0.7)
	North Carolina•	89.8	(1.1)	9.8	(1.1)	0.4	(0.1)	96.4	(0.5)	3.5	(0.5)	0.1	(0.1)	99.1	(0.2)	0.8	(0.2)	0.1	(0.1)	13.0	(1.2)
	Puerto Rico•	84.8	(3.1)	12.8	(2.6)	2.4	(0.6)	91.2	(1.6)	6.8	(1.0)	2.0	(0.7)	98.8	(0.3)	1.2	(0.3)	0.0	c	20.2	(3.6)
Partners	**Colombia**																				
	Bogotá	85.8	(0.9)	11.0	(0.8)	3.2	(0.5)	72.2	(1.3)	19.7	(1.3)	8.1	(1.2)	98.0	(0.6)	2.0	(0.6)	0.0	c	35.9	(1.5)
	Cali	78.7	(1.3)	17.6	(1.2)	3.6	(0.6)	73.0	(2.2)	20.8	(1.3)	6.2	(1.5)	99.3	(0.3)	0.7	(0.3)	0.0	c	39.6	(2.0)
	Manizales	80.9	(1.1)	14.7	(1.0)	4.4	(0.5)	70.1	(1.7)	19.0	(1.2)	10.8	(0.9)	98.0	(0.5)	1.9	(0.5)	0.1	(0.1)	40.0	(1.7)
	Medellín	80.2	(1.8)	14.4	(1.2)	5.4	(1.1)	66.5	(2.4)	20.3	(1.5)	13.3	(2.3)	98.3	(0.5)	1.7	(0.5)	0.0	c	42.4	(2.6)
	United Arab Emirates																				
	Abu Dhabi•	91.6	(0.6)	7.4	(0.6)	1.0	(0.2)	93.2	(0.7)	5.5	(0.6)	1.3	(0.2)	97.6	(0.4)	1.4	(0.3)	1.0	(0.2)	12.9	(0.8)
	Ajman	89.2	(1.6)	9.2	(1.1)	1.6	(0.6)	92.8	(1.5)	6.1	(1.3)	1.1	(0.3)	97.1	(1.0)	1.5	(0.3)	1.4	(0.9)	14.8	(1.8)
	Dubai•	93.5	(0.4)	6.0	(0.4)	0.5	(0.1)	96.5	(0.3)	2.9	(0.2)	0.6	(0.1)	98.4	(0.2)	1.1	(0.2)	0.5	(0.1)	9.5	(0.4)
	Fujairah	90.6	(0.9)	8.4	(0.9)	1.0	(0.3)	94.8	(0.7)	4.4	(0.8)	0.8	(0.3)	97.6	(0.6)	0.8	(0.3)	1.6	(0.5)	12.8	(1.1)
	Ras Al Khaimah	90.6	(2.5)	8.7	(2.4)	0.7	(0.2)	93.9	(1.2)	5.5	(1.2)	0.6	(0.2)	97.1	(0.8)	2.0	(0.6)	1.0	(0.3)	13.4	(2.6)
	Sharjah	92.2	(1.3)	6.4	(0.8)	1.4	(0.7)	95.0	(1.0)	4.0	(0.9)	1.0	(0.2)	98.2	(0.8)	1.3	(0.6)	0.5	(0.3)	10.8	(1.8)
	Umm Al Quwain	82.5	(1.5)	14.7	(1.4)	2.8	(0.7)	89.3	(1.6)	8.6	(1.5)	2.1	(0.8)	95.7	(1.1)	3.1	(1.0)	1.2	(0.6)	23.1	(1.7)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.5.9 for national data.

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[Part 1/1]

Table B2.II.35 Programme orientation

Results based on students' self-reports

		Percentage of students who are enrolled in a programme whose curriculum is:					
		General		Pre-vocational or vocational		Modular	
		%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**						
	Flemish community•	47.4	(1.3)	52.6	(1.3)	0.0	c
	French community	72.4	(2.4)	27.6	(2.4)	0.0	c
	German-speaking community	64.0	(1.2)	36.0	(1.2)	0.0	c
	Canada						
	Alberta	0.0	c	0.0	c	100.0	c
	British Columbia	0.0	c	0.0	c	100.0	c
	Manitoba	0.0	c	0.0	c	100.0	c
	New Brunswick	0.0	c	0.0	c	100.0	c
	Newfoundland and Labrador	0.0	c	0.0	c	100.0	c
	Nova Scotia	0.0	c	0.0	c	100.0	c
	Ontario	0.0	c	0.0	c	100.0	c
	Prince Edward Island	0.0	c	0.0	c	100.0	c
	Quebec	0.0	c	0.0	c	100.0	c
	Saskatchewan	0.0	c	0.0	c	100.0	c
	Italy						
	Bolzano	38.9	(0.3)	61.1	(0.3)	0.0	c
	Campania	52.8	(1.3)	47.2	(1.3)	0.0	c
	Lombardia	47.0	(2.9)	53.0	(2.9)	0.0	c
	Trento	43.9	(0.6)	56.1	(0.6)	0.0	c
	Portugal						
	Região Autónoma dos Açores	87.4	(0.5)	12.6	(0.5)	0.0	c
	Spain						
	Andalusia•	98.4	(0.7)	1.6	(0.7)	0.0	c
	Aragon•	97.5	(0.6)	2.5	(0.6)	0.0	c
	Asturias•	99.7	(0.2)	0.3	(0.2)	0.0	c
	Balearic Islands•	97.7	(0.4)	2.3	(0.4)	0.0	c
	Basque Country•	99.7	(0.2)	0.3	(0.2)	0.0	c
	Canary Islands•	99.0	(0.3)	1.0	(0.3)	0.0	c
	Cantabria•	98.8	(0.3)	1.2	(0.3)	0.0	c
	Castile and Leon•	99.5	(0.1)	0.5	(0.1)	0.0	c
	Castile-La Mancha•	98.8	(0.3)	1.2	(0.3)	0.0	c
	Catalonia•	100.0	c	0.0	c	0.0	c
	Comunidad Valenciana•	96.8	(0.8)	3.2	(0.8)	0.0	c
	Extremadura•	98.0	(0.6)	2.0	(0.6)	0.0	c
	Galicia•	99.8	(0.2)	0.2	(0.2)	0.0	c
	La Rioja•	96.4	(0.5)	3.6	(0.5)	0.0	c
	Madrid•	99.8	(0.1)	0.2	(0.1)	0.0	c
	Murcia•	98.5	(0.5)	1.5	(0.5)	0.0	c
	Navarre•	99.8	(0.2)	0.2	(0.2)	0.0	c
	United Kingdom						
	England	100.0	c	0.0	c	0.0	c
	Northern Ireland	100.0	(0.0)	0.0	(0.0)	0.0	c
	Scotland	90.7	(2.9)	9.3	(2.9)	0.0	c
	Wales	99.7	(0.2)	0.3	(0.2)	0.0	c
	United States						
	Massachusetts•	100.0	c	0.0	c	0.0	c
	North Carolina•	100.0	c	0.0	c	0.0	c
	Puerto Rico•	100.0	c	0.0	c	0.0	c
Partners	**Colombia**						
	Bogotá	81.1	(2.9)	18.9	(2.9)	0.0	c
	Cali	65.8	(3.5)	34.2	(3.5)	0.0	c
	Manizales	91.4	(2.7)	8.6	(2.7)	0.0	c
	Medellín	84.8	(2.7)	15.2	(2.7)	0.0	c
	United Arab Emirates						
	Abu Dhabi•	95.5	(1.1)	4.5	(1.1)	0.0	c
	Ajman	85.1	(0.7)	14.9	(0.7)	0.0	c
	Dubai•	98.3	(0.0)	1.7	(0.0)	0.0	c
	Fujairah	95.1	(0.2)	4.9	(0.2)	0.0	c
	Ras Al Khaimah	93.6	(0.4)	6.4	(0.4)	0.0	c
	Sharjah	98.9	(0.1)	1.1	(0.1)	0.0	c
	Umm Al Quwain	86.9	(0.2)	13.1	(0.2)	0.0	c

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.5.14 for national data.

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[Part 1/2]

Table B2.II.36 School admissions policies

Results based on school principals' reports

	Percentage of students in schools where the following factors are "never", "sometimes" or "always" considered for admission to school:																	
	Student's record of academic performance (including placement tests)						Recommendation of feeder schools						Parents' endorsement of the instructional or religious philosophy of the school					
	Never		Sometimes		Always		Never		Sometimes		Always		Never		Sometimes		Always	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD																		
Belgium																		
Flemish community•	31.2	(3.5)	32.3	(4.1)	36.5	(4.2)	45.1	(3.7)	42.3	(4.0)	12.6	(2.8)	54.9	(4.2)	27.2	(3.9)	18.0	(3.2)
French community	56.6	(6.0)	25.9	(5.1)	17.5	(4.6)	65.9	(5.2)	32.9	(5.2)	1.2	(0.8)	14.2	(3.9)	12.0	(3.6)	73.8	(5.1)
German-speaking community	41.0	(0.4)	51.0	(0.5)	8.0	(0.4)	54.4	(0.6)	30.6	(0.5)	15.1	(0.5)	39.3	(0.5)	14.8	(0.4)	46.0	(0.6)
Canada																		
Alberta	38.9	(5.2)	33.6	(5.9)	27.5	(6.1)	30.2	(5.5)	33.8	(5.1)	36.0	(6.1)	38.1	(5.8)	35.1	(5.6)	26.8	(5.3)
British Columbia	46.4	(7.3)	36.1	(7.3)	17.5	(4.5)	39.2	(6.6)	36.5	(6.5)	24.3	(6.0)	71.0	(5.2)	19.8	(5.3)	9.2	(2.9)
Manitoba	45.6	(3.3)	38.9	(2.6)	15.5	(2.5)	27.9	(3.2)	44.3	(3.0)	27.9	(2.5)	60.2	(2.6)	31.3	(2.2)	8.5	(1.4)
New Brunswick	53.0	(3.1)	27.9	(2.7)	19.1	(2.1)	32.8	(2.4)	43.9	(2.9)	23.2	(3.1)	88.0	(2.4)	12.0	(2.4)	0.0	c
Newfoundland and Labrador	53.1	(3.1)	9.8	(0.5)	37.1	(3.2)	43.1	(2.5)	10.1	(2.3)	46.8	(3.2)	85.9	(4.0)	11.1	(4.0)	3.0	(0.3)
Nova Scotia	62.0	(4.7)	25.7	(4.8)	12.3	(4.4)	43.5	(6.3)	51.8	(5.4)	4.8	(3.3)	76.8	(4.7)	23.2	(4.7)	0.0	c
Ontario	38.1	(5.3)	32.0	(5.1)	29.9	(5.3)	28.1	(5.1)	33.8	(5.1)	38.1	(5.8)	51.2	(5.3)	28.8	(4.5)	20.0	(4.1)
Prince Edward Island	43.9	(2.9)	19.6	(1.2)	36.4	(2.7)	28.2	(2.8)	39.4	(1.9)	32.3	(1.9)	82.2	(2.4)	4.4	(1.4)	13.4	(2.1)
Quebec	17.5	(3.8)	34.7	(5.1)	47.9	(6.0)	16.1	(4.5)	73.7	(5.0)	10.1	(2.3)	64.3	(6.0)	15.8	(4.8)	19.9	(4.5)
Saskatchewan	37.2	(4.0)	33.2	(3.6)	29.7	(3.9)	27.2	(4.3)	36.5	(3.5)	36.3	(3.6)	59.5	(3.5)	19.3	(3.2)	21.2	(2.2)
Italy																		
Bolzano	41.9	(0.3)	39.6	(0.3)	18.5	(0.4)	67.2	(0.4)	27.1	(0.3)	5.7	(0.2)	76.4	(0.4)	19.2	(0.3)	4.4	(0.2)
Campania	23.0	(6.2)	30.4	(6.6)	46.6	(7.2)	16.7	(5.4)	36.9	(7.0)	46.4	(6.6)	20.1	(6.0)	8.7	(3.9)	71.2	(6.4)
Lombardia	32.1	(5.5)	31.6	(6.6)	36.3	(7.4)	14.2	(5.3)	45.7	(7.0)	40.1	(6.5)	43.0	(8.3)	16.9	(5.0)	40.1	(7.8)
Trento	36.8	(1.1)	28.4	(1.4)	34.8	(1.8)	24.1	(0.7)	33.4	(1.0)	42.4	(1.7)	64.6	(1.1)	13.3	(0.5)	22.1	(1.2)
Portugal																		
Região Autónoma dos Açores	33.3	(0.5)	27.4	(0.7)	39.3	(0.6)	74.1	(0.5)	24.5	(0.5)	1.4	(0.0)	58.0	(0.3)	18.1	(0.4)	23.8	(0.4)
Spain																		
Andalusia•	89.3	(4.5)	7.7	(3.8)	3.0	(2.5)	83.0	(4.5)	8.9	(3.9)	8.2	(4.1)	89.8	(4.1)	2.1	(2.1)	8.1	(3.5)
Aragon•	80.4	(5.0)	14.6	(5.6)	5.1	(3.2)	83.4	(5.0)	10.4	(3.6)	6.2	(3.5)	82.5	(5.4)	8.0	(4.1)	9.5	(3.5)
Asturias•	92.5	(3.8)	5.6	(3.3)	1.9	(1.9)	87.7	(5.1)	12.3	(5.1)	0.0	c	90.3	(4.4)	4.2	(3.0)	5.5	(3.3)
Balearic Islands•	86.0	(5.4)	10.0	(4.5)	4.1	(3.0)	89.7	(3.5)	6.0	(3.5)	4.3	(0.2)	81.7	(5.5)	7.2	(3.6)	11.2	(4.1)
Basque Country•	86.7	(4.1)	6.8	(2.9)	6.5	(3.0)	74.1	(4.6)	11.0	(2.8)	14.9	(4.6)	66.2	(5.3)	14.4	(3.4)	19.4	(4.4)
Canary Islands•	76.0	(6.1)	18.2	(5.5)	5.8	(2.7)	72.4	(5.8)	25.6	(6.1)	2.0	(2.0)	75.4	(4.4)	4.0	(2.8)	20.6	(4.4)
Cantabria•	79.7	(5.6)	16.2	(5.0)	4.1	(2.5)	89.8	(3.8)	6.2	(2.5)	4.0	(2.8)	78.6	(4.9)	5.8	(3.3)	15.6	(4.8)
Castile and Leon•	85.6	(5.0)	10.3	(4.2)	4.0	(2.5)	87.0	(4.5)	8.4	(3.7)	4.6	(2.7)	70.3	(5.9)	8.7	(3.7)	21.0	(6.4)
Castile-La Mancha•	76.6	(6.2)	18.3	(5.7)	5.1	(3.1)	86.8	(4.4)	11.1	(3.9)	2.1	(2.1)	78.8	(4.8)	12.5	(4.8)	8.7	(2.7)
Catalonia•	83.3	(5.1)	12.7	(4.3)	4.0	(2.8)	84.1	(5.5)	13.9	(5.1)	2.0	(2.0)	84.5	(4.3)	7.2	(3.2)	8.3	(2.8)
Comunidad Valenciana•	81.3	(6.1)	16.6	(5.7)	2.1	(2.1)	87.9	(4.9)	9.9	(4.3)	2.3	(2.2)	81.5	(4.8)	10.8	(4.0)	7.7	(4.0)
Extremadura•	87.4	(5.0)	10.5	(4.4)	2.2	(2.2)	94.1	(3.3)	3.8	(2.7)	2.1	(1.9)	88.3	(4.7)	4.0	(2.7)	7.6	(3.8)
Galicia•	87.8	(4.7)	10.1	(4.2)	2.1	(2.0)	92.7	(3.4)	6.1	(3.2)	1.1	(1.1)	84.7	(3.9)	3.7	(2.6)	11.6	(3.9)
La Rioja•	93.3	(0.2)	0.0	c	6.7	(0.2)	83.7	(0.3)	8.8	(0.2)	7.6	(0.2)	80.8	(0.2)	12.9	(0.3)	6.3	(0.1)
Madrid•	67.1	(6.4)	27.7	(6.3)	5.2	(3.1)	73.3	(6.0)	19.8	(6.3)	6.9	(3.6)	61.6	(5.8)	21.3	(5.3)	17.1	(5.0)
Murcia•	86.4	(5.2)	13.6	(5.2)	0.0	c	90.4	(3.4)	7.5	(2.7)	2.0	(2.0)	86.7	(4.3)	5.7	(3.3)	7.6	(3.8)
Navarre•	82.2	(3.1)	15.2	(2.1)	2.6	(2.3)	88.0	(4.0)	10.2	(3.6)	1.8	(1.8)	85.3	(2.7)	7.0	(2.2)	7.7	(3.4)
United Kingdom																		
England	70.3	(4.1)	9.5	(2.8)	20.2	(3.3)	66.1	(4.6)	20.0	(3.9)	13.8	(3.0)	70.7	(4.3)	17.6	(3.2)	11.6	(3.0)
Northern Ireland	35.3	(5.1)	7.6	(3.0)	57.0	(4.7)	38.9	(5.6)	31.6	(4.8)	29.5	(5.3)	67.9	(6.1)	20.0	(5.1)	12.2	(3.8)
Scotland	76.3	(4.1)	8.5	(3.0)	15.3	(3.4)	54.8	(5.5)	26.4	(5.4)	18.8	(3.8)	78.6	(5.0)	13.4	(4.2)	8.0	(3.0)
Wales	72.0	(4.1)	7.4	(2.3)	20.6	(3.8)	47.6	(4.4)	21.2	(3.5)	31.2	(4.0)	63.9	(3.8)	15.7	(3.1)	20.4	(3.3)
United States																		
Massachusetts•	60.6	(6.6)	10.1	(4.5)	26.2	(6.2)	66.3	(6.3)	11.2	(4.7)	21.1	(5.2)	80.4	(5.7)	7.7	(3.8)	6.7	(3.8)
North Carolina•	56.1	(8.4)	17.6	(5.2)	26.3	(6.6)	54.9	(6.9)	32.4	(5.9)	12.7	(4.8)	80.0	(5.6)	13.4	(5.1)	6.6	(3.8)
Puerto Rico•	4.3	(2.6)	12.8	(4.8)	82.9	(5.6)	21.8	(4.7)	40.4	(7.5)	37.8	(7.1)	48.8	(7.4)	29.0	(8.4)	22.1	(6.3)
Partners																		
Colombia																		
Bogotá	41.9	(6.5)	14.0	(5.4)	44.1	(6.8)	58.1	(6.7)	14.1	(5.7)	27.8	(5.4)	62.5	(5.4)	8.6	(6.0)	28.9	(9.3)
Cali	15.4	(6.2)	31.8	(8.0)	52.8	(8.8)	49.9	(7.5)	36.3	(6.8)	13.8	(5.3)	71.3	(7.3)	19.3	(6.3)	9.5	(4.2)
Manizales	15.5	(2.2)	33.4	(3.4)	51.1	(3.7)	31.2	(3.7)	50.0	(3.7)	18.9	(2.8)	54.5	(3.2)	24.3	(5.1)	21.2	(5.2)
Medellín	35.3	(7.0)	29.1	(6.8)	35.6	(7.6)	48.2	(8.4)	46.0	(9.1)	5.8	(3.2)	57.3	(7.2)	16.2	(5.7)	26.5	(6.1)
United Arab Emirates																		
Abu Dhabi•	13.3	(3.2)	27.9	(3.7)	58.8	(4.4)	23.2	(4.2)	48.8	(5.5)	28.0	(4.3)	36.7	(4.6)	32.0	(5.4)	31.3	(5.3)
Ajman	4.6	(4.6)	21.1	(4.5)	74.3	(6.4)	3.7	(3.8)	64.2	(6.2)	32.1	(4.7)	26.5	(9.0)	32.5	(8.4)	41.1	(8.7)
Dubai•	2.7	(0.0)	18.8	(0.1)	78.5	(0.1)	7.0	(0.1)	56.6	(0.2)	36.4	(0.2)	40.7	(0.2)	24.6	(0.1)	34.7	(0.2)
Fujairah	4.6	(0.3)	27.8	(4.7)	67.6	(4.8)	14.2	(2.5)	62.6	(5.4)	23.2	(4.8)	17.8	(3.7)	39.0	(4.7)	43.3	(5.4)
Ras Al Khaimah	11.7	(5.1)	45.3	(9.8)	43.0	(8.5)	27.9	(8.2)	47.6	(9.1)	24.5	(8.4)	33.7	(9.0)	46.1	(10.6)	20.1	(8.4)
Sharjah	4.4	(4.5)	17.2	(4.9)	78.4	(6.8)	24.0	(12.0)	45.7	(9.8)	30.3	(8.5)	28.0	(11.3)	28.9	(9.3)	43.0	(10.5)
Umm Al Quwain	0.0	c	61.3	(0.4)	38.7	(0.4)	24.6	(0.4)	69.1	(0.4)	6.3	(0.1)	21.9	(0.4)	62.0	(0.4)	16.1	(0.3)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.5.18 for national data.

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[Part 2/2]

Table B2.II.36 School admissions policies

Results based on school principals' reports

		Percentage of students in schools where the following factors are "never", "sometimes" or "always" considered for admission to school:																	
		Whether the student requires or is interested in a special programme						Preference given to family members of current or former students						Residence in a particular area					
		Never		Sometimes		Always		Never		Sometimes		Always		Never		Sometimes		Always	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	**Belgium**																		
	Flemish community•	26.9	(2.9)	67.1	(3.3)	6.0	(1.6)	49.8	(3.9)	23.8	(3.8)	26.4	(3.4)	93.3	(1.9)	6.0	(1.8)	0.7	(0.6)
	French community	21.7	(3.7)	49.3	(5.1)	28.9	(5.2)	33.7	(4.8)	31.8	(5.3)	34.5	(5.1)	61.1	(5.2)	34.3	(5.2)	4.6	(2.2)
	German-speaking community	21.0	(0.5)	77.6	(0.5)	1.4	(0.1)	92.9	(0.1)	1.4	(0.1)	5.7	(0.1)	76.1	(0.5)	22.5	(0.5)	1.4	(0.1)
	Canada																		
	Alberta	14.2	(4.4)	51.5	(5.9)	34.3	(5.9)	40.6	(6.4)	43.1	(6.4)	16.3	(4.7)	7.8	(3.3)	33.5	(5.7)	58.7	(5.4)
	British Columbia	16.2	(5.8)	58.5	(7.4)	25.3	(6.2)	31.7	(5.1)	34.7	(6.6)	33.6	(6.9)	12.4	(3.8)	21.9	(5.3)	65.7	(5.6)
	Manitoba	15.8	(3.0)	63.1	(2.9)	21.2	(2.1)	56.4	(2.7)	34.9	(2.3)	8.6	(1.8)	11.5	(2.8)	18.3	(3.0)	70.2	(3.1)
	New Brunswick	55.1	(2.5)	39.6	(2.0)	5.3	(2.5)	92.0	(0.9)	8.0	(0.9)	0.0	c	11.0	(2.0)	19.5	(2.6)	69.6	(2.6)
	Newfoundland and Labrador	39.5	(2.9)	30.3	(3.9)	30.2	(4.0)	81.1	(0.9)	12.2	(0.6)	6.7	(0.5)	23.7	(2.9)	7.2	(2.1)	69.2	(3.6)
	Nova Scotia	22.6	(6.3)	59.3	(5.5)	18.0	(4.8)	60.3	(4.3)	33.7	(3.9)	6.0	(1.2)	8.4	(4.2)	9.9	(4.4)	81.7	(5.4)
	Ontario	17.7	(3.9)	40.6	(4.6)	41.7	(5.0)	56.9	(4.8)	28.7	(4.6)	14.4	(3.4)	11.7	(3.4)	10.4	(3.4)	77.9	(4.4)
	Prince Edward Island	27.8	(2.8)	56.5	(3.5)	15.7	(1.4)	83.8	(3.3)	16.2	(3.3)	0.0	c	5.6	(5.2)	22.0	(1.1)	72.4	(4.5)
	Quebec	10.4	(4.2)	63.6	(6.5)	25.9	(5.0)	42.0	(6.1)	32.6	(6.8)	25.4	(5.8)	24.8	(5.2)	19.8	(5.1)	55.4	(6.1)
	Saskatchewan	21.0	(4.1)	42.9	(4.0)	36.1	(4.2)	76.7	(3.1)	15.3	(2.8)	8.0	(1.4)	29.0	(3.8)	20.7	(2.7)	50.4	(3.8)
	Italy																		
	Bolzano	21.8	(0.2)	44.8	(0.4)	33.4	(0.4)	91.1	(0.2)	6.9	(0.2)	2.0	(0.0)	80.6	(0.4)	13.2	(0.4)	6.2	(0.2)
	Campania	7.8	(2.7)	26.7	(5.1)	65.4	(5.5)	11.1	(3.9)	38.6	(7.4)	50.3	(6.8)	29.0	(6.9)	43.1	(7.3)	28.0	(6.5)
	Lombardia	13.1	(5.1)	35.0	(6.6)	51.8	(7.2)	22.8	(6.0)	52.8	(7.5)	24.4	(6.3)	20.9	(6.1)	44.2	(7.4)	34.9	(8.1)
	Trento	17.6	(0.6)	34.9	(1.2)	47.6	(1.1)	41.4	(0.9)	50.9	(1.5)	7.7	(0.8)	41.6	(1.1)	18.6	(1.3)	39.8	(0.9)
	Portugal																		
	Região Autónoma dos Açores	8.0	(0.2)	23.4	(0.2)	68.6	(0.3)	39.7	(0.5)	12.6	(0.2)	47.6	(0.4)	13.6	(0.6)	2.1	(0.1)	84.3	(0.6)
	Spain																		
	Andalusia•	58.9	(8.0)	24.0	(6.1)	17.1	(5.3)	41.5	(7.4)	16.7	(4.9)	41.8	(7.8)	18.7	(5.1)	16.5	(5.1)	64.8	(7.0)
	Aragon•	54.5	(8.5)	29.2	(7.3)	16.3	(6.0)	58.7	(7.3)	23.0	(4.7)	18.3	(6.2)	35.5	(7.6)	16.0	(5.0)	48.5	(6.7)
	Asturias•	57.8	(7.7)	25.1	(5.8)	17.2	(5.9)	34.9	(6.9)	28.8	(6.9)	36.3	(6.8)	10.9	(4.3)	13.8	(5.3)	75.3	(5.2)
	Balearic Islands•	53.4	(7.1)	36.1	(7.4)	10.5	(4.8)	30.2	(6.5)	21.1	(5.7)	48.7	(4.9)	17.1	(4.8)	12.2	(4.9)	70.7	(5.9)
	Basque Country•	48.6	(5.3)	30.7	(4.9)	20.7	(5.1)	35.2	(5.2)	21.9	(4.4)	42.9	(5.9)	27.2	(6.0)	12.9	(3.4)	59.9	(6.6)
	Canary Islands•	34.1	(5.5)	55.6	(5.8)	10.3	(4.6)	23.4	(6.2)	34.3	(5.9)	42.3	(7.7)	3.0	(1.1)	9.8	(4.2)	87.3	(4.0)
	Cantabria•	56.6	(6.1)	26.5	(4.6)	16.9	(5.0)	51.5	(5.5)	20.9	(5.7)	27.7	(6.1)	25.0	(5.6)	20.2	(5.5)	54.8	(6.6)
	Castile and Leon•	46.8	(6.9)	30.7	(5.6)	22.5	(6.3)	36.4	(5.9)	25.5	(6.2)	38.1	(6.4)	30.1	(6.6)	24.6	(5.5)	45.3	(6.6)
	Castile-La Mancha•	45.6	(6.9)	35.1	(6.3)	19.3	(5.5)	41.3	(4.6)	19.4	(5.4)	39.3	(4.2)	27.2	(5.9)	11.9	(4.6)	60.9	(6.3)
	Catalonia•	59.7	(6.3)	26.0	(6.4)	14.3	(3.5)	19.8	(5.4)	17.7	(5.2)	62.6	(5.6)	11.6	(3.7)	9.8	(4.4)	78.6	(5.0)
	Comunidad Valenciana•	45.7	(7.2)	29.6	(5.8)	24.8	(6.7)	19.0	(5.8)	21.9	(5.8)	59.1	(6.8)	20.3	(5.5)	21.7	(5.9)	58.0	(7.0)
	Extremadura•	67.8	(6.1)	16.0	(5.7)	16.2	(5.7)	65.9	(6.9)	17.4	(5.9)	16.6	(4.7)	51.9	(5.5)	10.3	(3.2)	37.8	(5.6)
	Galicia•	60.4	(7.4)	24.6	(6.8)	15.0	(4.9)	48.8	(6.6)	23.5	(5.0)	27.7	(6.0)	23.0	(4.8)	6.9	(3.5)	70.1	(5.8)
	La Rioja•	50.8	(0.4)	28.5	(0.4)	20.7	(0.3)	34.9	(0.5)	14.4	(0.3)	50.7	(0.5)	40.5	(0.4)	16.0	(0.2)	43.5	(0.5)
	Madrid•	39.7	(4.8)	35.3	(7.6)	25.0	(7.1)	4.7	(3.5)	29.4	(7.4)	65.9	(7.4)	16.4	(5.7)	27.8	(6.2)	55.8	(6.7)
	Murcia•	50.8	(7.3)	31.5	(6.9)	17.7	(4.6)	35.6	(7.1)	19.0	(4.7)	45.4	(7.2)	26.5	(6.4)	7.5	(2.7)	66.1	(6.3)
	Navarre•	64.9	(4.3)	21.7	(5.2)	13.4	(3.4)	50.7	(3.2)	18.5	(4.3)	30.9	(4.1)	27.9	(4.1)	17.5	(4.1)	54.6	(5.7)
	United Kingdom																		
	England	56.1	(5.3)	33.4	(4.5)	10.5	(2.7)	22.0	(3.5)	33.2	(4.0)	44.8	(4.1)	18.1	(3.2)	24.4	(4.2)	57.5	(4.4)
	Northern Ireland	35.2	(6.0)	47.3	(4.9)	17.4	(5.2)	17.3	(3.8)	55.7	(6.0)	27.0	(5.8)	39.4	(4.3)	31.6	(4.6)	29.0	(4.8)
	Scotland	44.0	(5.2)	42.1	(5.0)	13.9	(3.8)	55.4	(5.9)	39.0	(5.8)	5.6	(2.4)	11.4	(3.4)	22.6	(4.6)	66.0	(4.8)
	Wales	48.0	(4.6)	36.9	(4.6)	15.1	(3.1)	63.8	(3.5)	19.9	(3.2)	16.3	(3.1)	26.7	(3.9)	30.1	(4.3)	43.2	(4.0)
	United States																		
	Massachusetts•	59.1	(6.2)	22.0	(5.0)	15.4	(4.9)	77.3	(6.9)	17.5	(6.0)	0.0	c	29.0	(5.9)	6.3	(3.6)	61.3	(6.8)
	North Carolina•	34.2	(7.4)	43.5	(6.8)	20.8	(5.7)	75.4	(5.6)	18.4	(4.4)	6.2	(3.5)	12.5	(4.8)	7.2	(3.8)	80.3	(6.0)
	Puerto Rico•	6.3	(4.1)	39.9	(9.1)	53.8	(7.4)	61.8	(7.7)	19.4	(6.8)	18.9	(5.7)	45.1	(9.5)	27.1	(8.4)	27.8	(7.8)
Partners	**Colombia**																		
	Bogotá	33.8	(6.4)	34.8	(7.4)	31.4	(7.1)	42.5	(8.7)	39.5	(8.1)	18.0	(6.0)	50.6	(7.2)	32.1	(7.1)	17.3	(6.7)
	Cali	33.1	(6.5)	46.2	(6.9)	20.7	(6.3)	43.9	(6.6)	43.9	(7.5)	12.2	(4.5)	64.8	(7.5)	21.9	(6.1)	13.3	(5.2)
	Manizales	33.8	(5.2)	40.4	(3.7)	25.8	(2.4)	42.4	(3.7)	44.7	(5.8)	12.9	(5.0)	38.8	(4.1)	41.0	(4.1)	20.2	(4.0)
	Medellín	42.4	(7.8)	44.2	(7.7)	13.3	(5.2)	52.0	(7.9)	21.7	(6.8)	26.3	(6.1)	51.2	(7.4)	30.0	(6.3)	18.8	(5.9)
	United Arab Emirates																		
	Abu Dhabi•	23.0	(3.8)	42.7	(5.0)	34.3	(4.7)	18.8	(3.5)	30.0	(5.2)	51.2	(5.3)	19.9	(4.4)	22.6	(3.9)	57.5	(4.5)
	Ajman	15.7	(8.1)	59.2	(8.1)	25.1	(7.2)	21.8	(4.6)	42.6	(4.9)	35.6	(6.3)	18.1	(1.4)	36.6	(4.8)	45.3	(4.7)
	Dubai•	22.9	(0.2)	40.4	(0.2)	36.7	(0.2)	6.3	(0.1)	35.2	(0.2)	58.5	(0.2)	40.1	(0.2)	31.3	(0.2)	28.6	(0.2)
	Fujairah	9.4	(3.4)	52.9	(5.1)	37.7	(5.0)	45.1	(5.0)	20.6	(4.1)	34.3	(5.8)	16.7	(4.6)	13.3	(5.2)	70.0	(6.0)
	Ras Al Khaimah	25.7	(5.2)	40.8	(7.5)	33.5	(7.7)	27.4	(8.5)	39.3	(8.5)	33.3	(8.4)	17.2	(6.9)	11.4	(6.6)	71.4	(6.3)
	Sharjah	16.0	(9.8)	53.0	(10.5)	31.0	(7.4)	12.4	(7.1)	32.2	(7.9)	55.4	(9.6)	18.0	(7.4)	28.0	(9.5)	54.0	(9.1)
	Umm Al Quwain	19.5	(0.3)	49.9	(0.4)	30.7	(0.3)	23.4	(0.4)	55.1	(0.4)	21.5	(0.4)	5.4	(0.3)	31.3	(0.6)	63.3	(0.6)

• PISA adjudicated region.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.5.18 for national data.

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[Part 1/1]

Table B2.II.45 Average time per week spent learning in regular lessons

Results based on students' reports

		Average time per week spent learning, in hours							
		Regular science lessons		Regular language-of-instruction lessons		Regular mathematics lessons		Total learning time in regular lessons[1]	
		Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.
OECD	**Belgium**								
	Flemish community•	3.0	(0.1)	3.2	(0.0)	3.2	(0.0)	27.7	(0.1)
	French community	2.9	(0.1)	3.8	(0.0)	3.7	(0.0)	27.7	(0.1)
	German-speaking community	2.3	(0.1)	3.8	(0.1)	3.5	(0.0)	28.8	(0.1)
	Canada								
	Alberta	5.4	(0.1)	5.3	(0.1)	5.2	(0.1)	28.4	(0.3)
	British Columbia	4.7	(0.2)	4.9	(0.2)	4.7	(0.2)	27.9	(0.8)
	Manitoba	4.4	(0.1)	4.4	(0.1)	4.6	(0.1)	27.1	(0.2)
	New Brunswick	3.8	(0.1)	5.1	(0.1)	4.9	(0.0)	26.8	(0.2)
	Newfoundland and Labrador	4.7	(0.1)	4.3	(0.1)	4.3	(0.1)	26.0	(0.2)
	Nova Scotia	4.4	(0.1)	5.0	(0.1)	5.9	(0.1)	26.9	(0.3)
	Ontario	4.8	(0.1)	5.3	(0.1)	4.9	(0.1)	26.9	(0.1)
	Prince Edward Island	5.0	(0.2)	5.7	(0.2)	5.3	(0.2)	26.8	(0.3)
	Quebec	5.2	(0.1)	5.4	(0.1)	5.1	(0.1)	26.7	(0.2)
	Saskatchewan	3.6	(0.1)	4.9	(0.1)	4.5	(0.1)	25.8	(0.2)
	Italy								
	Bolzano	2.9	(0.0)	3.6	(0.1)	3.0	(0.0)	30.0	(0.1)
	Campania	2.4	(0.1)	5.1	(0.1)	4.0	(0.1)	28.8	(0.2)
	Lombardia	2.7	(0.1)	4.5	(0.1)	3.7	(0.1)	28.5	(0.2)
	Trento	2.6	(0.0)	4.2	(0.1)	3.4	(0.0)	28.4	(0.1)
	Portugal								
	Região Autónoma dos Açores	3.2	(0.1)	4.4	(0.1)	4.8	(0.1)	28.1	(0.3)
	Spain								
	Andalusia•	3.2	(0.1)	3.4	(0.0)	3.9	(0.0)	28.7	(0.2)
	Aragon•	3.1	(0.1)	3.6	(0.0)	3.5	(0.0)	26.9	(0.2)
	Asturias•	3.2	(0.1)	3.7	(0.0)	3.1	(0.0)	27.5	(0.3)
	Balearic Islands•	3.2	(0.1)	2.9	(0.0)	3.4	(0.0)	29.5	(0.3)
	Basque Country•	3.3	(0.1)	3.2	(0.0)	3.6	(0.0)	28.7	(0.2)
	Canary Islands•	3.0	(0.1)	3.8	(0.0)	3.9	(0.0)	27.1	(0.2)
	Cantabria•	3.2	(0.1)	3.7	(0.0)	3.5	(0.0)	26.7	(0.2)
	Castile and Leon•	3.3	(0.1)	3.6	(0.0)	3.6	(0.0)	26.6	(0.2)
	Castile-La Mancha•	3.2	(0.0)	3.7	(0.0)	3.6	(0.0)	27.2	(0.2)
	Catalonia•	3.1	(0.1)	3.0	(0.0)	3.7	(0.0)	29.9	(0.3)
	Comunidad Valenciana•	3.0	(0.1)	3.0	(0.0)	3.5	(0.0)	29.0	(0.2)
	Extremadura•	3.1	(0.1)	3.7	(0.0)	3.7	(0.0)	26.8	(0.2)
	Galicia•	3.0	(0.1)	2.7	(0.0)	3.0	(0.0)	27.2	(0.2)
	La Rioja•	3.2	(0.1)	3.5	(0.0)	3.5	(0.0)	26.4	(0.1)
	Madrid•	3.7	(0.1)	3.8	(0.0)	3.3	(0.1)	27.8	(0.5)
	Murcia•	3.3	(0.1)	3.8	(0.0)	3.6	(0.0)	28.2	(0.2)
	Navarre•	3.0	(0.1)	3.6	(0.0)	3.5	(0.0)	27.4	(0.2)
	United Kingdom								
	England	4.8	(0.1)	4.1	(0.1)	3.9	(0.0)	26.3	(0.1)
	Northern Ireland	4.2	(0.1)	3.8	(0.1)	3.7	(0.0)	27.2	(0.2)
	Scotland	4.3	(0.1)	3.8	(0.0)	3.7	(0.0)	27.4	(0.1)
	Wales	4.9	(0.1)	4.0	(0.1)	3.8	(0.1)	26.6	(0.2)
	United States								
	Massachusetts•	4.7	(0.1)	4.9	(0.2)	4.7	(0.1)	28.3	(0.3)
	North Carolina•	4.7	(0.1)	5.1	(0.2)	4.9	(0.1)	28.3	(0.4)
	Puerto Rico•	m	m	m	m	m	m	m	m
Partners	**Colombia**								
	Bogotá	3.7	(0.2)	3.5	(0.1)	3.9	(0.1)	26.2	(0.4)
	Cali	2.9	(0.1)	3.1	(0.1)	3.2	(0.1)	24.8	(0.5)
	Manizales	3.6	(0.1)	3.6	(0.1)	4.0	(0.1)	27.6	(0.3)
	Medellín	3.3	(0.1)	3.2	(0.1)	3.5	(0.1)	25.8	(0.4)
	United Arab Emirates								
	Abu Dhabi•	5.4	(0.1)	4.9	(0.1)	5.6	(0.1)	29.7	(0.3)
	Ajman	4.6	(0.2)	4.6	(0.1)	4.9	(0.1)	29.2	(0.3)
	Dubai•	5.4	(0.1)	4.3	(0.0)	4.4	(0.0)	28.0	(0.1)
	Fujairah	4.9	(0.1)	5.0	(0.1)	4.9	(0.1)	29.1	(0.4)
	Ras Al Khaimah	4.9	(0.2)	4.9	(0.1)	4.8	(0.1)	28.7	(0.5)
	Sharjah	5.3	(0.3)	4.5	(0.1)	4.7	(0.2)	28.2	(0.4)
	Umm Al Quwain	4.6	(0.1)	4.6	(0.1)	4.9	(0.1)	29.2	(0.4)

• PISA adjudicated region.

1. Total learning time includes all school subjects.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.6.32 for national data.

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[Part 1/1]

Table B2.II.46 After-school study time

Results based on students' self-reports

		Average time per week spent studying after school[1] (e.g. homework, additional instruction, private study), in hours									
		Science		Mathematics		Language of instruction		Foreign language		Other subjects	
		Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.	Hours	S.E.
OECD	**Belgium**										
	Flemish community•	2.7	(0.1)	3.5	(0.1)	1.9	(0.0)	2.8	(0.0)	3.4	(0.1)
	French community	2.9	(0.1)	3.7	(0.1)	2.9	(0.1)	3.4	(0.1)	3.7	(0.1)
	German-speaking community	2.4	(0.1)	3.5	(0.1)	2.6	(0.1)	3.6	(0.2)	2.8	(0.2)
	Canada										
	Alberta	4.9	(0.2)	4.2	(0.1)	3.7	(0.1)	1.5	(0.1)	4.0	(0.2)
	British Columbia	4.5	(0.1)	4.5	(0.1)	3.8	(0.1)	2.2	(0.1)	4.3	(0.2)
	Manitoba	4.2	(0.2)	4.4	(0.2)	3.4	(0.2)	1.5	(0.1)	4.3	(0.2)
	New Brunswick	3.9	(0.1)	4.0	(0.1)	3.5	(0.1)	1.7	(0.1)	3.4	(0.1)
	Newfoundland and Labrador	4.4	(0.1)	4.2	(0.1)	3.1	(0.1)	1.7	(0.1)	3.9	(0.2)
	Nova Scotia	3.7	(0.1)	4.5	(0.2)	3.5	(0.1)	1.3	(0.1)	3.8	(0.1)
	Ontario	4.8	(0.1)	4.8	(0.1)	4.1	(0.1)	1.9	(0.1)	4.8	(0.1)
	Prince Edward Island	4.3	(0.3)	4.0	(0.3)	3.7	(0.2)	1.8	(0.2)	4.0	(0.3)
	Quebec	3.5	(0.1)	3.9	(0.1)	2.4	(0.1)	1.5	(0.1)	3.0	(0.1)
	Saskatchewan	3.6	(0.1)	3.9	(0.1)	3.8	(0.1)	1.4	(0.1)	4.4	(0.2)
	Italy										
	Bolzano	2.7	(0.1)	2.4	(0.1)	2.1	(0.1)	3.6	(0.1)	3.9	(0.1)
	Campania	4.8	(0.2)	5.1	(0.2)	5.3	(0.1)	4.4	(0.1)	5.0	(0.2)
	Lombardia	3.7	(0.1)	3.5	(0.1)	3.5	(0.1)	3.4	(0.1)	4.3	(0.1)
	Trento	3.7	(0.1)	3.2	(0.1)	3.5	(0.1)	3.9	(0.1)	4.2	(0.1)
	Portugal										
	Região Autónoma dos Açores	2.8	(0.1)	3.9	(0.1)	3.6	(0.1)	2.9	(0.1)	3.2	(0.1)
	Spain										
	Andalusia•	3.3	(0.1)	4.2	(0.1)	3.5	(0.1)	3.4	(0.1)	4.1	(0.1)
	Aragon•	3.5	(0.1)	3.9	(0.1)	3.8	(0.1)	3.1	(0.1)	4.4	(0.1)
	Asturias•	3.7	(0.1)	4.2	(0.1)	3.7	(0.1)	3.4	(0.1)	4.5	(0.2)
	Balearic Islands•	3.3	(0.1)	3.7	(0.1)	3.0	(0.1)	3.3	(0.1)	3.9	(0.1)
	Basque Country•	3.1	(0.1)	3.6	(0.1)	2.8	(0.1)	3.2	(0.1)	4.1	(0.1)
	Canary Islands•	3.3	(0.1)	3.9	(0.1)	3.5	(0.1)	3.5	(0.1)	4.2	(0.1)
	Cantabria•	3.5	(0.1)	4.3	(0.1)	3.7	(0.1)	3.1	(0.1)	4.2	(0.1)
	Castile and Leon•	3.8	(0.1)	4.2	(0.1)	4.0	(0.1)	3.3	(0.1)	4.6	(0.1)
	Castile-La Mancha•	3.8	(0.1)	4.2	(0.1)	3.9	(0.1)	3.4	(0.1)	4.4	(0.2)
	Catalonia•	2.9	(0.1)	3.6	(0.1)	2.7	(0.1)	3.1	(0.1)	3.7	(0.1)
	Comunidad Valenciana•	3.2	(0.1)	3.8	(0.1)	3.2	(0.1)	3.2	(0.1)	4.6	(0.2)
	Extremadura•	3.7	(0.1)	4.2	(0.1)	4.0	(0.1)	3.4	(0.1)	4.5	(0.1)
	Galicia•	3.8	(0.1)	4.2	(0.1)	3.1	(0.1)	3.1	(0.1)	4.5	(0.1)
	La Rioja•	3.2	(0.1)	3.8	(0.1)	3.4	(0.1)	3.0	(0.1)	4.4	(0.1)
	Madrid•	3.8	(0.1)	3.8	(0.1)	3.6	(0.1)	3.0	(0.1)	4.2	(0.1)
	Murcia•	3.6	(0.1)	4.2	(0.1)	4.1	(0.1)	3.4	(0.1)	4.6	(0.1)
	Navarre•	2.9	(0.1)	3.8	(0.1)	3.2	(0.1)	3.1	(0.1)	4.3	(0.1)
	United Kingdom										
	England	3.7	(0.1)	3.5	(0.0)	3.0	(0.1)	1.5	(0.0)	4.9	(0.1)
	Northern Ireland	3.8	(0.1)	4.0	(0.1)	3.5	(0.1)	1.8	(0.1)	5.2	(0.1)
	Scotland	3.9	(0.1)	4.0	(0.1)	3.9	(0.1)	1.5	(0.1)	6.0	(0.1)
	Wales	3.9	(0.1)	4.0	(0.1)	3.6	(0.1)	1.3	(0.1)	5.1	(0.1)
	United States										
	Massachusetts•	4.8	(0.1)	4.8	(0.1)	4.7	(0.2)	3.0	(0.2)	4.1	(0.2)
	North Carolina•	4.7	(0.1)	4.1	(0.1)	3.8	(0.1)	2.1	(0.1)	4.6	(0.2)
	Puerto Rico•	m	m	m	m	m	m	m	m	m	m
Partners	**Colombia**										
	Bogotá	3.2	(0.1)	3.7	(0.1)	3.4	(0.1)	3.6	(0.1)	4.4	(0.1)
	Cali	3.0	(0.1)	3.7	(0.1)	3.6	(0.1)	3.7	(0.2)	4.2	(0.2)
	Manizales	3.2	(0.1)	4.0	(0.1)	3.4	(0.1)	3.5	(0.1)	4.5	(0.2)
	Medellín	3.3	(0.1)	3.7	(0.1)	3.5	(0.1)	3.5	(0.2)	4.3	(0.1)
	United Arab Emirates										
	Abu Dhabi•	7.5	(0.2)	7.5	(0.1)	5.6	(0.1)	5.2	(0.1)	5.8	(0.1)
	Ajman	7.0	(0.3)	7.5	(0.2)	6.3	(0.2)	5.9	(0.2)	5.6	(0.2)
	Dubai•	6.9	(0.1)	6.5	(0.1)	4.8	(0.1)	3.0	(0.1)	5.4	(0.1)
	Fujairah	7.4	(0.2)	7.2	(0.2)	6.3	(0.2)	6.0	(0.2)	6.1	(0.2)
	Ras Al Khaimah	6.9	(0.3)	6.5	(0.2)	5.6	(0.2)	5.7	(0.3)	5.9	(0.2)
	Sharjah	7.1	(0.2)	6.9	(0.3)	5.4	(0.2)	4.3	(0.3)	5.1	(0.2)
	Umm Al Quwain	6.4	(0.3)	6.8	(0.3)	5.7	(0.3)	7.3	(0.4)	5.3	(0.3)

• PISA adjudicated region.

1. Hours spent learning in addition to the required school schedule, including homework, additional instruction or private study.

Notes: Results for the province of Quebec in this table should be treated with caution due to a possible non-response bias.

For Massachusetts and North Carolina, the desired target population covers 15-year-old students in grade 7 or above in public schools only (see Annex A2).

Puerto Rico is an unincorporated territory of the United States. As such, PISA results for the United States do not include Puerto Rico.

See Table II.6.37 for national data.

StatLink http://dx.doi.org/10.1787/888933436536

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Annex C

THE DEVELOPMENT AND IMPLEMENTATION OF PISA: A COLLABORATIVE EFFORT

Notes regarding Cyprus

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

PISA is a collaborative effort, bringing together experts from the participating countries, steered jointly by their governments on the basis of shared, policy-driven interests.

A PISA Governing Board, representing each country, determines the policy priorities for PISA, in the context of OECD objectives, and oversees adherence to these priorities during the implementation of the programme. This includes setting priorities for the development of indicators, for establishing the assessment instruments and for reporting the results.

Experts from participating countries also serve on working groups that are charged with linking policy objectives with the best internationally available technical expertise. By participating in these expert groups, countries ensure that: the instruments are internationally valid and take into account the cultural and educational contexts in OECD countries and in partner countries and economies; the assessment materials have strong measurement properties; and the instruments emphasise authenticity and educational validity.

Participating countries and economies implement PISA at the national level through National Project Managers, subject to the agreed administration procedures. National Project Managers play a vital role in ensuring that the implementation of the survey is of high quality, and verify and evaluate the survey results, analyses, reports and publications.

External contractors are responsible for designing and implementing the surveys, within the framework established by the PISA Governing Board. Pearson developed the science and collaborative problem-solving frameworks, and adapted the frameworks for reading and mathematics, while the Deutsches Institut für Pädagogische Forschung (DIPF) designed and developed the questionnaires. Management and oversight of this survey, the development of the instruments, scaling and analyses are the responsibility of the Educational Testing Service (ETS) as is development of the electronic platform. Other partners or subcontractors involved with ETS include: cApStAn Linguistic Quality Control and the Department of Experimental and Theoretical Pedagogy at the University of Liège (SPe) in Belgium; the Center for Educational Technology (CET) in Israel; the Public Research Centre (CRP) Henri Tudor and the Educational Measurement and Research Center (EMACS) of the University of Luxembourg in Luxembourg; and GESIS – Leibniz-Institute for the Social Sciences in Germany. Westat assumed responsibility for survey operations and sampling with the subcontractor, the Australian Council for Educational Research (ACER).

The OECD Secretariat has overall managerial responsibility for the programme, monitors its implementation daily, acts as the secretariat for the PISA Governing Board, builds consensus among countries, and serves as the interlocutor between the PISA Governing Board and the international Consortium charged with implementing the activities. The OECD Secretariat also produces the indicators and analyses and prepares the international reports and publications in co-operation with the PISA Consortium and in close consultation with OECD countries and partner countries and economies at both the policy level (PISA Governing Board) and the level of implementation (National Project Managers).

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(* Former PGB member who was involved in PISA 2015)

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Chapter 3: The school learning environment
Chapter 4: School governance, assessment and accountability
Chapter 5: Selecting and grouping students
Chapter 6: Resources invested in education
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