

PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT (PISA) RESULTS FROM PISA 2018

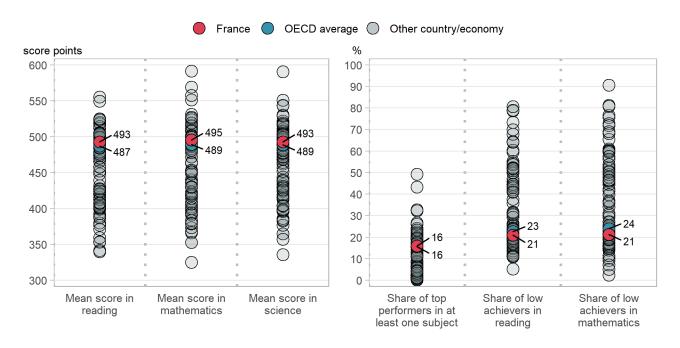
The Programme for International Student Assessment (PISA) is a triennial survey of 15-year-old students around the world that assesses the extent to which they have acquired the key knowledge and skills essential for full participation in societies. The assessment focuses on the core school subjects of reading, mathematics and science. Students' proficiency in an innovative domain is also assessed; in 2018, this domain was global competency.

France

- Students in France scored 493 points in reading, the main domain assessed in PISA 2018, slightly
 above the OECD average (487 score points). France ranked between 20th and 26th in average reading
 performance, on a par with Belgium, the Czech Republic, Germany, Portugal and Slovenia. On
 average, students in France scored slightly above the OECD average in mathematics and science.
- As observed in previous cycles, France is one of the OECD countries where the link between socioeconomic status and performance in PISA is the strongest. Advantaged students in France
 outperformed disadvantaged students in reading by 107 score points in PISA 2018 a difference
 significantly larger than the OECD average difference of 89 score points.
- Many students, especially disadvantaged students, hold lower ambitions than would be expected given their academic achievement. In France, 1 in 5 high-achieving disadvantaged students does not expect to complete tertiary education – while only 1 in 13 high-achieving advantaged students has low expectations for their future education
- The career expectations of the highest-achieving 15-year-old students reflect strong gender stereotypes. Amongst high-performing students in mathematics or science, one in three boys in France expects to work as an engineer or science professional at the age of 30, while only about one in six girls expects to do so. One in four high-performing girls in France expects to work in health-related professions, while only one in eight high-performing boys expects so. Only 7% of boys but almost no girls in France expect to work in ICT-related professions.
- France was one of the PISA-participating countries where students perceived some of the lowest levels
 of support and feedback from their teachers. Fewer than two in five students in France compared to
 almost one in two students on average across OECD countries reported that they think that their
 teacher usually helps them improve.
- Students in France reported great concern about the disciplinary climate at school. One in two students
 in France reported that there is noise and disorder in most or every lesson, compared with fewer than
 one in three students who reported so on average across OECD countries.

What students know and can do

Figure 1. Snapshot of performance in reading, mathematics and science



Note: Only countries and economies with available data are shown. Source: OECD, PISA 2018 Database, Tables I.1 and I.10.1.

- Students in France scored higher than the OECD average in reading, mathematics and science.
- Compared to the OECD average, a similar share of students in France performed at the highest levels of proficiency (Level 5 or 6) in at least one subject; at the same time a similar proportion of students achieved a minimum level of proficiency (Level 2 or higher) in at least one subject.

What students know and can do in reading

- Students in France scored 493 points in reading in PISA 2018, slightly above the OECD average (487 score points). France ranked between 20th and 26th in reading performance, with an average performance on a par with that of Belgium, the Czech Republic, Germany, Portugal and Slovenia. By comparison, in Canada, Estonia, Finland and Ireland, the highest-performing OECD countries in reading, the average score in reading was around 520 score points.
- Around 79% of students in France attained at least Level 2 proficiency in reading, a proportion close
 the OECD average (77%). At a minimum, these students are able to identify the main idea in a text of
 moderate length, find information based on explicit, though sometimes complex, criteria, and reflect on
 the purpose and form of texts when explicitly directed to do so.
- Some 9% of students in France were top performers in reading, meaning that they attained Level 5 or 6 in the PISA reading test (OECD average: 9%). At these levels, students are able to comprehend lengthy texts, deal with concepts that are abstract or counterintuitive, and establish distinctions between fact and opinion, based on implicit cues pertaining to the content or source of the information.
- Relative to the average across PISA-participating countries/economies, students in France appeared slightly more at ease with items requiring them to "locate information" in a text (496 points, on average) than with those that required them to "understand text" (490 points, on average) or "analyse and reflect" on a text (491 points, on average).

What students know and can do in mathematics

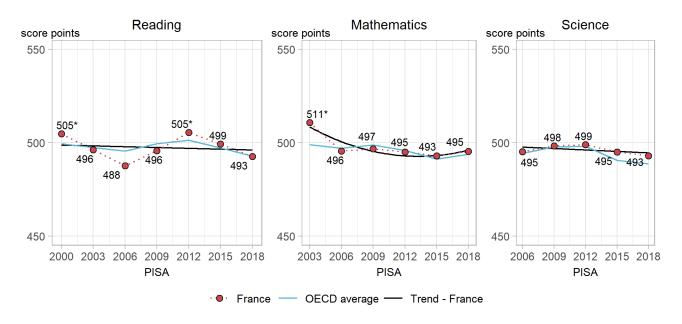
- Students in France scored 495 points in mathematics in PISA 2018, slightly above the OECD average (489 score points). France ranked between 15th and 24th in mathematics performance, with an average performance on a par with that in Australia, Austria, the Czech Republic, Germany, Iceland, Ireland, Latvia, New Zealand, Norway, Portugal and the United Kingdom, .
- In France, 78% of students attained Level 2 or higher in mathematics (OECD average: 76%). At a minimum, these students can interpret and recognise, without direct instructions, how a (simple) situation can be represented mathematically (e.g. comparing the total distance across two alternative routes, or converting prices into a different currency).
- Around one in nine French students (11%) attained at least Level 5 in mathematics (OECD average: 10.9%). These students can model complex situations mathematically, and can select, compare and evaluate appropriate problem-solving strategies for dealing with them. Only 1.8% of students in France attained Level 6 (OECD average: 2.4%). Six Asian countries and economies had the largest shares of students who did so: Beijing-Shanghai-Jiangsu-Zhejiang (China) (just over 44%), Singapore (nearly 37%), Hong Kong (China) (29%), Macao (China) (nearly 28%), Chinese Taipei (just over 23%) and Korea (just over 21%). These students can model complex situations mathematically, and can select, compare and evaluate appropriate problem-solving strategies for dealing with them.

What students know and can do in science

- Students in France scored 493 points in mathematics in PISA 2018, slightly above the OECD average (489 score points). France ranked between 16th and 23rd in science performance, with an average performance on a par with that of Austria, Belgium, the Czech Republic, Denmark, Ireland, Norway, Sweden and Switzerland
- Around four in five students in France attained Level 2 or higher in science (78.5%, compared to 79%) on average across OECD countries). At a minimum, these students can recognise the correct explanation for familiar scientific phenomena and can use such knowledge to identify, in simple cases, whether a conclusion is valid based on the data provided.
- Some 7% of students were top performers in science, meaning that they were proficient at Level 5 or 6. These students can creatively and autonomously apply their knowledge of and about science to a wide variety of situations, including unfamiliar ones.

Performance trends

Figure 2. Trends in performance in reading, mathematics and science



Note:*indicates statistically mean-performance estimates that are significantly above or below PISA 2018 estimates.

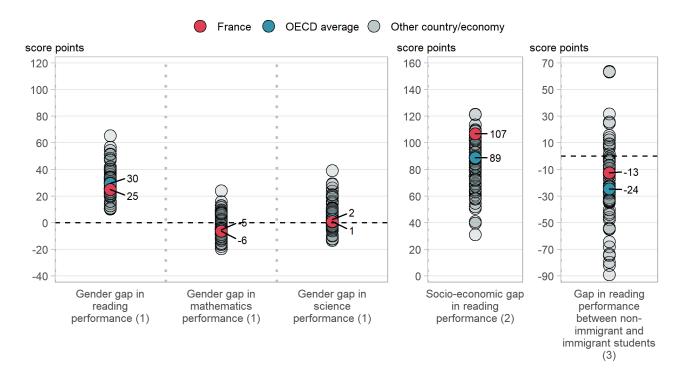
The blue line indicates the average mean performance across OECD countries with valid data in all PISA assessments. The red dotted line indicates mean performance in France. The black line represents a trend line for France (line of best fit).

Source: OECD, PISA 2018 Database, Tables I. B1.10, I. B1.11 and I. B1.12.

- Average reading performance in France remained stable from the first PISA assessment in 2000. Similarly, no overall direction of change can be determined for mean science performance between 2006 (the first time science was main domain assessed) and 2018. Mathematics performance declined between 2003 and 2018, but most of that decline was observed in earlier assessments. Average mathematics performance was almost flat between 2006 and 2018.
- In reading, the apparent stability in performance hides distinct trends amongst students at different levels in the performance distribution. Amongst the lowest-achieving students, performance had declined over the period; whereas amongst the highest-achieving students, performance improved. However, most of the changes occurred between 2000 and 2009. No such widening of performance gaps was observed in mathematics (where a similar decline was observed amongst the highest- and lowest-achieving students) and science.

Where All Students Can Succeed

Figure 3. Differences in performance related to personal characteristics



Note: Only countries and economies with available data are shown. (1) Girls' minus boys' performance; (2) Advantaged minus disadvantaged students' performance; (3) Immigrants' minus non-immigrants' performance in reading 1 After accounting for students' and schools' socio-economic

Source: OECD, PISA 2018 Database, Tables II.B1.2.3, II.B1.7.1 and II.B1.9.3.

Equity related to socio-economic status

- In France, advantaged students outperformed disadvantaged students in reading by 107 score points in PISA 2018. This is one of the widest socio-economic gaps observed across OECD countries (OECD average gap: 89 score points). Significantly larger gaps were observed only in Israel and Luxembourg (122 score points). In PISA 2009, this performance gap related to socio-economic status was 110 score points in France – and 87 points on average across OECD countries.
- Some 20% of advantaged students, but only 2.4% of disadvantaged students, were top performers in reading in France. On average across OECD countries, 17.4% of advantaged students, and 2.9 % of disadvantaged students, were top performers in reading in PISA 2018. A disadvantaged student in France is 7 times more likely than an advantaged student to be a low performer in PISA (OECD average: 5 times more likely). This is one of the greatest likelihoods observed across OECD countries, along with Hungary (10 times more likely), and Belgium and Luxembourg (8 times).
- Socio-economic status was also a strong predictor of performance in mathematics and science in France. It explained 21.1% of the variation in mathematics performance amongst students in France (compared to 13.8% of the variation on average across OECD countries), and 20.1% of the variation in science performance (compared to 12.8% of the variation on average across OECD countries).
- Some 9.5% of disadvantaged students were able to perform in the top quarter of reading performance in France, indicating that disadvantage is not destiny. On average across OECD countries, 11.4% of disadvantaged students scored amongst the highest performers in reading in their countries. In

Canada, Estonia, Ireland and the United Kingdom, average reading performance was higher than 500 score points and the proportion of resilient students was larger than 13%.

- In France, the concentration of high performers in some high schools is similar to the OECD average, but low performers are more often clustered in certain schools than on average across OECD countries. This may partly reflect differences in tracking. Students in French vocational high schools underperformed students in general high schools by 100 score points in reading (OECD average difference: 68 score points).
- The concentration of disadvantaged students in schools in France is similar that observed on average across OECD countries. As on average, a disadvantaged student has only a 16% chance of being enrolled in a school with students who score in the top quarter of reading performance, which may have adverse consequences for their learning.
- According to school principals in France, the proportions of teachers with at least a master's degree are similar in advantaged and disadvantaged schools: around two in five teachers have such a diploma.
- In France, school principals reported more staff and material shortage, on average, than the OECD average; and there was no significant difference between advantaged and disadvantaged schools in this respect. But, 30% of students enrolled in public schools in France (OECD average 35%), and 14% of students enrolled in dependent private schools (OECD average 25%), attend a school whose principal reported than the capacity of the school to provide instruction is hindered at least to some extent by poor infrastructure.
- Many students, especially disadvantaged students, hold lower ambitions than would be expected given their academic achievement. In France, 1 in 5 high-achieving disadvantaged students does not expect to complete tertiary education – while only 1 in 13 high-achieving advantaged students has low expectations for their future education.

OECD average Other country/economy index index points 1.0 0.5 0.9 0.8 0 0 -0.2 -0.2 0.7 -0.4-0.4 0.6 -0.5 0.5 0.4 -1.0 0.3 0.30.2 0.2 -1.50.1 0.0 -2.0 Isolation index of Difference between Difference between Isolation index of Isolation index of low-performing high-performing disadvantaged advantaged and advantaged and disadvantaged students students students from highdisadvantaged performing schools in the schools in the students index of staff index of material shortage shortage

Figure 4. School segregation and gap in material and staff shortage between advantaged and disadvantaged schools

Notes: Only countries and economies with available data are shown. The isolation indices ranging from 0 (no segregation) to 1 (full segregation) measure whether low-/high-performing students or disadvantaged students are more or less concentrated in some schools. A negative value in the differences in the indices of shortage in educational resources and staff means that principals in disadvantaged schools viewed the amount of resources in their schools as an obstacle to providing instruction to a greater extent than their colleagues in advantaged schools. See detailed description of the indices in Volume II Annexes A1 and A3.

Source: OECD, PISA 2018 Database, Tables II.B1.4.1, II.B1.4.8, II.B1.5.13 and II.B1.5.14.

Equity related to gender

- In all countries and economies that participated in PISA 2018, girls significantly outperformed boys in reading - by 30 score points on average across OECD countries. In France, the gender gap in reading is slightly narrower: 25 score points. This is smaller than the gap observed in 2009 (40 score points), although the performance of boys did not improve significantly over the period.
- In France, boys outperformed girls in mathematics by 6 score points, which is close to the average gender gap in mathematics across OECD countries (5 score points). In 2009, the gender gap in mathematics performance was larger than 10 score points in France. While girls slightly outperformed boys in science (by 2 score points), on average across OECD countries, in France, boys and girls scored similarly in science.
- In France, one in three high-performing boys in mathematics or science wants to work an engineer or science professional when he is 30 years olds, while only one in six girls expects such a career. One in four girls who are high performers in science or mathematics expects to work in a health-related profession, while only one in eight high-performing boys expects to do so. In France, only 7% boys, but almost no girls, want to work in ICT-related professions.
- Girls expressed a lack of self-confidence more often than boys. In France, almost three in four girls, but one in two boys, reported that when they are failing, they are afraid that they might not have enough talent, or it makes them doubt their plans for the future.

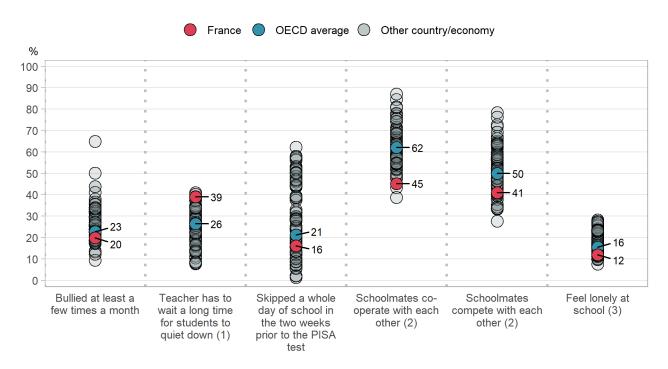
Unlike what is observed in many countries, in France girls expressed positive feelings (such as often
or always feeling happy, lively or joyful) more often than boys did. However, as in almost all PISAparticipating countries, girls reported more often than boys that they feel sometimes sad: two in five
girls, but only one in three boys in France so reported.

Equity related to immigrant background

- In France, some 14.3% of students in 2018 had an immigrant background, up from 13.1% in 2009. France is one of the countries with a large proportion of socio-economically disadvantaged immigrant students. Nearly one in two immigrant students in France are disadvantaged.
- The average difference in reading performance between immigrant and non-immigrant students in France was 52 score points in favour of non-immigrant students. The difference shrank to 13 score points after accounting for students' and schools' socio-economic profile. The difference is more marked amongst first-generation immigrant students: they scored 77 points lower than non-immigrant students (OECD average difference: 54 score points). Second-generation immigrant students scored 49 points lower that students without an immigrant background (OECD average difference: 29 score points).
- Even though immigrant students tend to be disadvantaged, some are able to attain academic excellence. Some 13% of immigrant students scored in the top quarter of reading performance in France (OECD average: 17%).

What school life means for students' lives: Main findings

Figure 5. School climate



Note: Only countries and economies with available data are shown. (1) In every or most language-of-instruction lessons; (2) Very or extremely true; (3) Agreed or strongly agreed.

Source: OECD, PISA 2018 Database, Tables III.B1.2.1, III.B1.3.1, III.B1.4.1, III.B1.8.1, III.B1.8.2 and III.B1.9.1

School climate

- On average, students in France reported amongst the lowest levels of co-operation and competition - amongst students in 2018. Some 45% of students in France reported that students co-operate with each other in schools (OECD average: 62%), while only 41% of students reported that their schoolmates compete with each other (OECD average: 50%).
- Students in France reported than they have good relationships with their schoolmates. More than eight in ten students reported that they make friends easily at school, that other students seem to like them, or that they do not feel lonely at school. But almost 30% of students reported that they feel like an outsider at school (OECD average: 20%).
- Only 7% of students in France reported that they are frequently bullied, a proportion slightly smaller than the OECD average (7.8%). Some 20% of students reported that they are bullied at least a few times a month (23% on average across OECD countries). This is higher than the level observed in 2015 by 2 percentage points (OECD average increase: 4 percentage points). One in six advantaged students reported that he or she had been bullied at least a few times a month, but one in four disadvantaged students reported so. The bullying act that students most commonly reported was other students making fun of them (12% of students in France so reported compared with 13.3% on average across OECD countries). According to PISA result, exposure to bullying is negatively related to life satisfaction and to performance in reading.

Teachers' attitudes and practices

- France was one of the PISA-participating countries where students perceived the least support from their teachers; only in Austria, Croatia, Germany, Luxembourg, the Netherlands, Poland and Slovenia did students report less perceived support from their teachers.
- In France, 57% of students reported that their teachers show an interested in every student's learning in most or every French language class (OECD average: 70% of students so reported about their language-of-instruction class). Almost one in three French students (OECD average: one in four) did not perceive that their teacher usually gives extra help when students need it, and a similar proportion reported that their teacher usually helps students with their learning or continues teaching until students understand (OECD average: one in four).
- Students in France also perceived receiving less feedback from their teachers than their counterparts in other PISA-participating countries reported. Fewer than one in four students in France (one in three, on average across OECD countries) considered that their teachers usually give them feedback on their strengths. Fewer than two in five students in France, while almost one in two students on average across OECD countries, reported that they think their teacher usually helps them improve. Almost one in three students in France are in a school whose principal reported that the fact that the teachers are too strict may hinder, at least to some extent, student learning. On average across OECD countries, only one in eight students attends such a school.

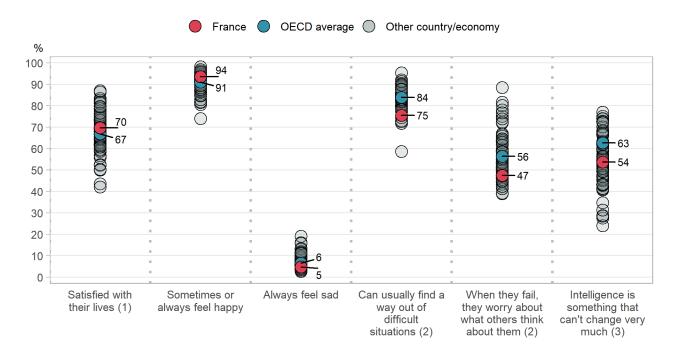
Student misbehaviour

France is amongst the three countries where students reported the greatest concerns about disciplinary climate in class. Only in Argentina and Brazil was the index of disciplinary climate lower than the average observed in France. One in two students in France reported that there is noise and disorder in most or every lesson, while fewer than one in three students reported so on average across OECD countries. More than two in five students in France reported that learning time is reduced because of noise, as students do not start working for a long time after the lesson begins (fewer than one in four students reported so on average across OECD countries). However, these proportions decreased slightly in France since 2009, while they increased on average across OECD countries.

In France, 16% of students had skipped a day of school in the two weeks prior to the PISA 2018 test – less than the OECD average of 21%. However, 29% of students in France reported having missed some lessons (OECD average: 27%), and 57% had arrived late for school during the same period (OECD average: 48%). The shares of students who were truant or late for school increased by 5 percentage points from the levels observed in France in PISA 2015.

Students' well-being

Figure 6. Student well-being and growth mindset



Note: Only countries and economies with available data are shown. (1) Between 7 and 10 on the life-satisfaction scale; (2) Agreed or strongly agreed; (3) Disagreed or strongly disagreed.

Source: OECD, PISA 2018 Database, Tables III.B1.11.1, III.B1.12.1, III.B1.12.2, III.B1.13.1, III.B1.13.2 and III.B1.14.1

- On average, students in France expressed less self-efficacy and greater fear of failure than observed on average across OECD countries. In France, 62% of students reported that when they are failing, they are afraid that they might not have enough talent (OECD average: 55%), and that this makes them doubt their plans for the future (OECD average: 53%).
- Three in four students in France (75%) reported that when they are in a difficult situation, they can usually find their way out of it (OECD average: 84%). Only three in five students (59%) reported that their belief in themselves gets them through hard times (OECD average: 71%).
- Students who expressed a greater fear of failure reported less satisfaction with life than students who
 expressed less concern about failing, after accounting for the socio-economic profile of students and
 schools.
- Seven in ten students in France reported being satisfied with their lives (students who reported between 7 and 10 on the 10-point life-satisfaction scale), a proportion slightly higher than the OECD average. Between 2015 and 2018, the share of satisfied students in France shrank more (by 8 percentage points) than observed on average across OECD countries (by 5 percentage points).
- On average, students in France reported that they spend 28 hours per week on the Internet outside of school – 6 hours more than reported in PISA 2015 and 1 hour more than the OECD average (27 hours).
 Students in France who reported that they are satisfied with their lives spend 27 hours per week on

the Internet outside school (OECD average: 26 hours), 4 hours less (OECD average: 3 hours less) than those who reported that they are not being satisfied with their lives (students who reported between 1 and 4 on the 10-point life-satisfaction scale).

Students' belief that their ability and intelligence can develop over time (growth mindset)

- In France, 53% of students disagreed or strongly disagreed with the statement "Your intelligence is something about you that you can't change very much", a smaller proportion than the OECD average (62%). Girls were more likely than boys, and advantaged students were more likely than disadvantaged students, to exhibit a growth mindset.
- On average across OECD countries, having a growth mindset was positively associated with students' motivation to master tasks, general self-efficacy, setting learning goals and perceiving the value of school.

Parents' involvement in school activities

- According to school principals in France, about 39% of students' parents discussed their child's progress with a teacher on their own initiative (OECD average: 41%) and 56% did so on the initiative of teachers (OECD average: 57%). For almost one in two students enrolled in an advantaged school, a school in a big city or a private school, the discussion is initiated by parents, according to school principals; this was the case for only one in three students enrolled in a disadvantaged school, a rural school or a public school. However, in France only 11% of parents participated in local school government, which is significantly lower than the OECD averages (17% participated in local school government).
- In a set of countries, parents were asked about the factors that hinder their participation in school activities. On average across the 9 OECD countries that distributed this questionnaire, the obstacles that parents most commonly cited were time-related, and included the need to work (34%) and the inconvenience of meeting times (33%).

Key features of PISA 2018

The content

The PISA 2018 survey assessed reading, with mathematics, science and global competence, with reading as main focus, France did not participate in the assessment of global competence. PISA 2018 also included an assessment of young people's financial literacy, which was optional for countries and economies. Results for reading, mathematics and science are released on 3 December 2019 and results for global competence and financial literacy in 2020.

The students

Some 600 000 students completed the assessment in 2018, representing about 32 million 15-yearolds in the schools of the 79 participating countries and economies. In France, 6 308 students, in 252 schools, completed the assessment, representing 756 477 15-year-old students (91% of the total population of 15-year-olds).

The assessment

- Computer-based tests were used in most countries, with assessments lasting a total of two hours. In reading, a multi-stage adaptive approach was applied in computer -based tests whereby students were assigned a block of test items based on their performance in preceding blocks.
- Test items were a mixture of multiple-choice questions and questions requiring students to construct
 their own responses. The items were organised into groups based on a passage of text describing a
 real-life situation. More than 15 hours of test items for reading, mathematics, science and global
 competence were covered, with different students taking different combinations of test items.
- Students also answered a background questionnaire, which took about 35 minutes to complete. The
 questionnaire sought information about the students themselves, their attitudes, dispositions and
 beliefs, their homes, and their school and learning experiences. School principals completed a
 questionnaire that covered school management and organisation, and the learning environment.
- Some countries/economies also distributed additional questionnaires to elicit more information. These
 included: in 19 countries/economies, a questionnaire for teachers asking about themselves and their
 teaching practices; and in 17 countries/economies, a questionnaire for parents asking them to provide
 information about their perceptions of and involvement in their child's school and learning.
- Countries/economies could also chose to distribute three other optional questionnaires for students: 52 countries/economies distributed a questionnaire about students' familiarity with computers; 32 countries/economies distributed a questionnaire about students' expectations for further education; and 9 countries/economies distributed a questionnaire, developed for PISA 2018, about students' wellbeing.

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Map of PISA countries and economies



OECD member countries

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

Partner countries and economies in PISA 2018

Albania Malaysia Malta Argentina Baku (Azerbaijan) Republic of Moldova Belarus Montenegro Bosnia and Herzegovina Morocco Brazil Republic of North Macedonia Brunei Darussalam Panama B-S-J-Z (China)** Peru Bulgaria Philippines Costa Rica Oatar Croatia Romania Russian Federation Saudi Arabia Cyprus Dominican Republic Serbia Georgia Hong Kong (China) Indonesia Singapore Chinese Taipei Jordan Thailand Kazakhstan Ukraine Kosovo United Arab Emirates

Partner countries and economies in previous cycles

Algeria Azerbaijan Guangdong (China) Himachal Pradesh (India) Kyrgyzstan Liechtenstein Mauritius Miranda (Venezuela) Tamil Nadu (India) Trinidad and Tobago Tunisia

Macao (China)

Lebanon

Uruguay

Viet Nam

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For more information about PISA 2018 visit http://www.oecd.org/pisa/

Data can also be found on line by following the **StatLinks** and charts in the publication.

Explore, compare and visualise more data and analysis using: http://gpseducation.oecd.org/.

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^{*} Puerto Rico participated in the PISA 2015 assessment (as an unincorporated territory of the United States).

^{**} B-S-J-Z (China) refers to four PISA 2018 participating Chinese provinces/municipalities: Beijing, Shanghai, Jiangsu and Zhejiang. In PISA 2015, the four PISA participating Chinese provinces/municipalities were: Beijing, Shanghai, Jiangsu and Guangdong.