

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 that assesses the extent to which they have acquired the key knowledge and skills essential for full participation in society. In 2018, PISA measured financial literacy for the third time. Results from this assessment provide not just insights into the level of money-related skills and knowledge that students possess, but also into their attitudes, behaviours and experience with financial matters, and the environments in which they learn about financial matters. These results can be used to improve their readiness to take responsible financial decisions and financial resilience once they leave school and enter further education or employment.

Brazil, Chile and Peru

What 15-year-old students in Brazil, Chile and Peru know and can do in financial literacy

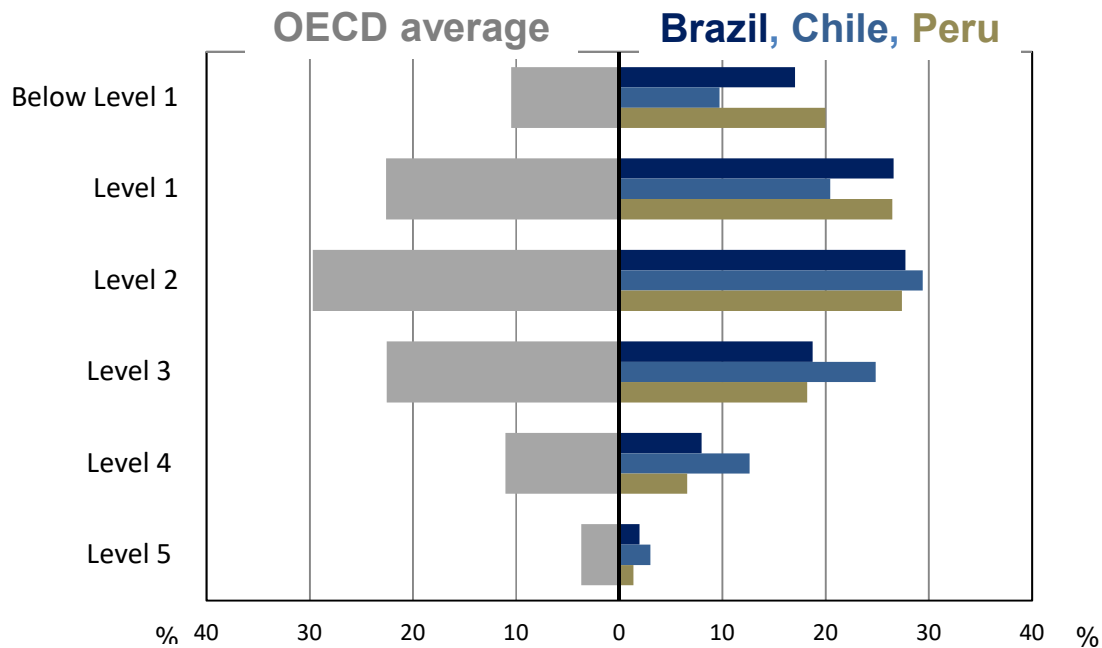
- Students in Brazil scored, on average, 420 points; students in Chile scored, on average, 451 points; and students in Peru scored, on average, 411 points. Performance in all three participating Latin American countries was lower than the OECD average in financial literacy (505 points).
- Some 44% of students in Brazil, 30% of students in Chile and 46% of students in Peru did not reach the baseline level of proficiency (Level 2) in financial literacy, compared to 15% on average across OECD countries and economies. At best, these students can identify common financial products and terms, recognise the difference between needs and wants, and make simple decisions on everyday spending in contexts that they are likely to have encountered personally. Over 90% of students in the Canadian provinces, Estonia, Finland and Poland displayed at least Level 2 proficiency.
- Some 2% of students in Brazil, 3% of students in Chile and 1% of students in Peru were top performers (Level 5) in financial literacy, compared to 10% on average across OECD countries and economies. These students can analyse complex financial products, solve non-routine financial problems and show an understanding of the wider financial landscape. Over 15% of students in the Canadian provinces, Estonia and Finland were also top performers.
- Mean financial literacy performance in Brazil in PISA 2018 was 27 points higher than that observed in PISA 2015; while mean performance in both Chile and Peru in PISA 2018 were similar to those observed in PISA 2015.
- Students in Brazil scored, on average, 12 points higher in financial literacy than what would have been expected based on their performance in mathematics and reading; students in Chile scored 5 points higher in financial literacy than what would have been expected. However, students in Peru scored 3 points lower in financial literacy than what would have been expected based on their performance in mathematics and reading.

Table 1. Performance in financial literacy across participating countries and economies

Country/Economy	Mean score	Percentage of students	
		Below Level 2 (low achievers)	Level 5 (top performers)
Estonia	547	5.3	19.0
Finland	537	9.9	19.9
Canadian provinces	532	8.8	16.7
Poland	520	9.5	11.8
Australia	511	15.6	14.1
United States	506	16.0	12.4
Portugal	505	14.0	8.3
OECD average	505	14.7	10.5
Latvia	501	10.6	6.1
Lithuania	498	14.2	7.7
Russian Federation	495	14.4	6.3
Spain	492	15.0	5.7
Slovak Republic	481	21.2	7.2
Italy	476	20.9	4.5
Chile	451	30.2	3.0
Serbia	444	33.2	2.5
Bulgaria	432	38.5	2.4
Brazil	420	43.6	1.9
Peru	411	46.4	1.4
Georgia	403	49.8	0.7
Indonesia	388	57.4	0.3

Countries and economies are ranked in descending order of their mean score.

Source: OECD PISA 2018 Database, Tables IV.B1.2.1 and IV.B1.2.4.

Figure 1. Percentage of students at each level of proficiency in financial literacy

Source: OECD, PISA 2018 Database, Table IV.B1.2.4.

Equity in financial literacy performance

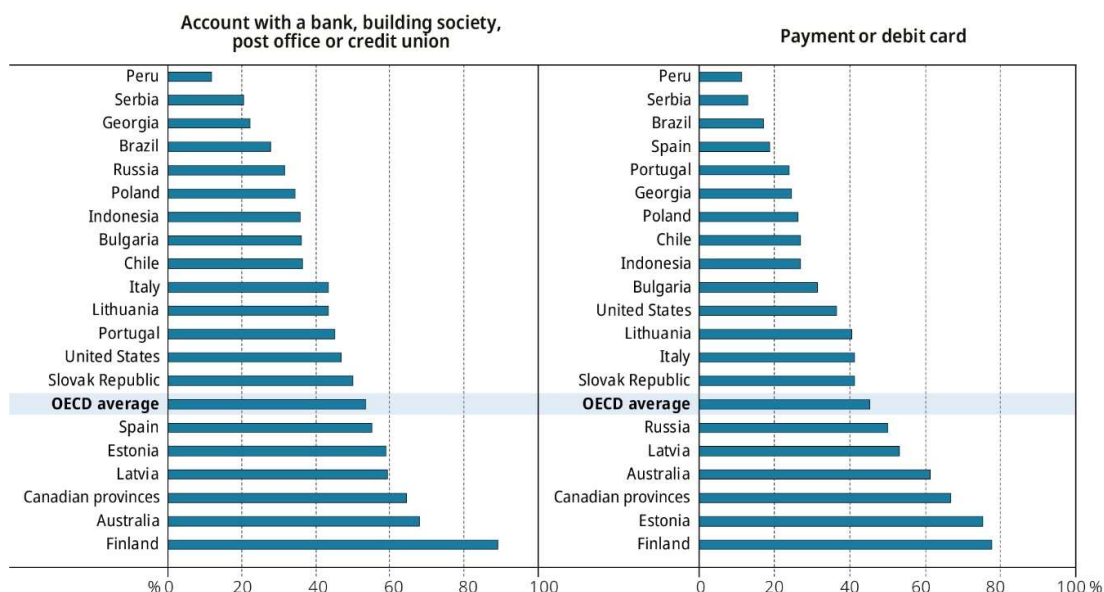
- On average across participating OECD countries and economies, boys outperformed girls by just two score points. In Brazil and Chile, the gender gap in financial literacy was not significant; but in Peru, the gender gap in financial literacy was significant in favour of boys, who scored on average 10 points higher than girls. The gender gap in PISA 2018 in Brazil and Chile was not significantly different from what it was in PISA 2015, while the gender gap in PISA 2018 in Peru was more in favour of boys than it was in PISA 2015; the gender gap in all three Latin American countries was not significant in PISA 2015.
- After accounting for performance in mathematics and reading, the average gender difference in performance remained non-significant in Brazil, was no longer significant in Peru, but was now 6 score points in favour of boys in Chile. This difference is related to the elements of the assessment that are unique to financial literacy.
- In Brazil, advantaged students scored 478 points in the PISA 2018 financial literacy assessment, on average; in Chile, advantaged students scored 500 points, on average; and in Peru, advantaged students scored 472 points, on average. Disadvantaged students, on the other hand, scored 381 points in Brazil, 411 points in Chile and 354 points in Peru.
- Advantaged students scored 98 points higher than disadvantaged students in Brazil; the similar gap in Peru was 118 points. The performance gap related to socio-economic advantage in both of these countries was wider than the average performance gap of 78 score points across OECD countries/economies. However, advantaged students scored 89 points higher than disadvantaged students in Chile, which was similar to the average performance gap across OECD countries/economies.
- Socio-economic status was a strong predictor of performance in financial literacy in all participating countries and economies. In Brazil, it explained 16% of the variation in financial literacy performance in PISA 2018; in Chile, it explained 15% of the variation; and in Peru, it explained 21% of variation. In all of these countries, socio-economic status explained a greater proportion of variation in financial literacy performance than the 10% it explained on average across OECD countries/economies.

How experienced are students in Latin American countries with money matters?

- In Brazil, 28% of students who sat the PISA 2018 financial literacy assessment reported holding an account with a bank, building society, post office or credit union (hereafter referred to as a bank account); in Chile, the proportion was 37% and in Peru, 12% of students held such an account. In Brazil and Peru, this was not significantly different from the percentage of students who so reported in PISA 2015 (27% and 14%, respective), but in Chile, more students so reported in 2018 than in 2015 (27%). On average across OECD countries/economies in 2018, 54% of students reported holding a bank account.
- Likewise, in Brazil, 17% of students who sat the PISA 2018 assessment reported holding a payment card or debit card; the proportion was 27% in Chile and 11% in Peru. This was significantly more than the 9% of students in all three countries who so reported in PISA 2015. On average across OECD countries/economies in 2018, 45% of students reported holding such a card.
- Socio-economic advantage was positively associated with the likelihood of holding both a bank account and a payment/debit card in all countries/economies that participated in PISA 2018.
- Holding a bank account was associated with a 30-point increase in financial literacy performance in Brazil, a 28-point increase in financial literacy performance in Chile, and no significant change in financial literacy performance in Peru in PISA 2018. Similarly, holding a payment/debit card was associated with a 30-point increase in financial literacy performance in Brazil, a 42-point increase in financial literacy performance in Chile, and no significant change in financial performance in Peru in PISA 2018.

Figure 2. Students holding basic financial products

Percentage of students who reported holding one of these financial products



Note: Countries and economies are ranked in ascending order of the percentage of students who reported holding each financial product.

Source: OECD, PISA 2018 Database, Table IV.B1.6.1.

- Some 52% of students in Brazil, 55% of students in Chile and 31% of students in Peru reported that they had bought something on line (either alone or with a family member) during the 12 months prior to sitting the PISA 2018 financial literacy assessment, compared to an average across OECD countries/economies of 73%. In Brazil, buying something on line was associated with a 31-point increase in financial literacy performance; in Chile, there was an associated 25-point increase; and in Peru, there was an associated 12-point increase.
- Making a payment using a mobile phone was less common. Some 34% of students in Brazil, 35% of students in Chile and 21% of students in Peru reported that they had made such a payment during the 12 months prior to sitting the PISA 2018 financial literacy assessment; the average across OECD countries/economies was 39%. In Peru, making a payment using a mobile phone was associated with a 12-point decrease in financial literacy performance; there was no significant performance difference in performance in Brazil or Chile associated with making a payment using a mobile phone.

What attitudes and behaviours towards money matters do students in Brazil, Chile and Peru display?

- Some 54% of students in Brazil and 62% of students in Chile reported that they feel confident or very confident in paying with a debit card instead of using cash, compared to 67% of students on average across OECD countries/economies; this issue was not examined in Peru. Such students scored 37 points higher in financial literacy, in both Brazil and Chile, than students who reported otherwise.
- Likewise, some 58% of students in Brazil and 65% of students in Chile reported that they feel confident or very confident in keeping track of their balance digitally, compared to 65% of students on average across OECD countries/economies. Such students in Brazil scored 35 points higher in financial literacy than students who reported otherwise, while such students in Chile scored 42 points higher in financial literacy than students who reported otherwise.

- Positive associations between both confidence in paying with a debit card instead of using cash and confidence in keeping track of one's balance digitally, on the one hand, and performance, on the other, were observed in 18 of the 19 participating countries/economies.
- In Brazil, 49% of students agreed or strongly agreed that they enjoy talking about money matters; 51% of students in Chile and 67% of students in Peru reported likewise. This disposition was associated with a 23-score point increase in financial literacy performance in Brazil, a 21-score point increase in Chile and an 18-point score increase in Peru.
- Most 15-year-old students in all participating countries/economies already display responsible financial behaviours. Just under nine in ten students, on average across OECD countries/economies, reported that they had checked how much money they have at some point during the 12 months prior to sitting the PISA financial literacy assessment (78% in Brazil, 86% in Chile and 90% in Peru), and a similar proportion reported that they had checked that they were given the right change when they had bought something over the same period (85% in Brazil, 91% in Chile and 90% in Peru).
- In Brazil, students who reported that they had checked how much money they have scored 60 points higher in financial literacy than students who did not so report; in Chile, there was a 63-point difference and in Peru, there was a 68-point difference.
- Students in Brazil who reported that they had checked that they were given the right change after buying something scored 52 points higher in financial literacy than students who did not so report. The performance difference associated with checking that one was given the right change after buying something was 62 points in Chile and a 59 points in Peru.
- Most 15-year-old students in almost all participating countries/economies also already use responsible spending strategies. Some 73% of students in Brazil, 70% of students Chile and 77% of students in Peru reported sometimes or always comparing prices in different shops, compared to 76% on average across OECD countries/economies. Such students scored 52 points (Brazil), 55 points (Chile) and 47 points (Peru) higher in financial literacy in PISA 2018 than students who did not so report.
- Some 65% of students in Brazil, 56% of students in Chile and 51% of students in Peru reported sometimes or always comparing prices between a physical shop and an online shop, compared to 69% on average across OECD countries/economies. These students scored 48 points (Brazil), 41 points (Chile) and 38 points (Peru) higher in financial literacy in PISA 2018 than students who did not so report.

Do students in Brazil, Chile and Peru learn about financial matters at home?

- Some 90% of students in Brazil, 94% of students in Chile and 89% of students in Peru reported obtaining information about money matters from their parents, guardians or other adult relations; this was consistent with a high average of 94% of students reporting so, on average across OECD countries/economies.
- The Internet was another common source of information about money matters, with 81% of students in Brazil, 81% of students in Chile and 73% of students in Peru reporting that they obtain such information through this medium.
- In Brazil, students who reported obtaining information about money matters from their parents, guardians or other adult relations scored 36 points higher on the PISA 2018 financial literacy assessment than students who did not so report. In Chile, the performance difference was 48 score points and in Peru, the performance difference was 52 score points.
- Most students in the participating Latin American countries reported that they were given a certain level of autonomy in handling money: some 66% of students in Brazil, 81% of students in Chile and 65% of students in Peru agreed or strongly agreed that they could decide independently what to spend their money on, and some 65% of students in Brazil, 78% of students in Chile and 76% of students in Peru

agreed or strongly agreed that they were responsible for their own money matters (e.g. for preventing theft).

- Being able to decide independently what to spend one's money on was associated with a 27 score-point improvement in financial literacy performance in Brazil, a 37 score-point improvement in Chile and a 34 score-point improvement in Peru. Similarly, being responsible for one's own money matters was associated with an 11 score-point improvement in financial literacy performance in Brazil, a 26 score-point improvement in Chile and a 45 score-point improvement in Peru.

Do students in Brazil, Chile and Peru learn about financial matters at school?

- Advantaged students were more likely than disadvantaged students to report having encountered certain money-related tasks and activities in school lessons in Brazil and Peru. However, there was no significant difference between advantaged and disadvantaged students in the extent to which they reported encountering money-related tasks and activities in school lessons in Chile.
- Some 66% of students in Brazil, 52% of students in Chile and 72% of students in Peru reported encountering certain types of problems about money matters in their mathematics classes. Reporting that they encountered such problems in their mathematics classes was associated with a 13-point improvement in financial literacy performance in Brazil and a 14-point improvement in Chile in PISA 2018, but with no significant difference in financial literacy performance in Peru.
- A smaller percentage of students – 35% in Brazil, 24% in Chile and 44% in Peru – reported encountering these types of problems about money matters in another class. Reporting that they encountered such problems in these other classes was associated with a 17-point decline in financial literacy performance in Brazil, a 9-point improvement in financial literacy performance in Peru, and no significant difference in financial literacy performance in Chile in PISA 2018.

Key features of PISA 2018

The content

- The PISA 2018 survey focused on reading, with mathematics, science and global competence as minor areas of assessment; Brazil and Peru 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 were released on 3 December 2019; results for financial literacy on 7 May 2020; and results for global competence will be released later in 2020.

The students

- Some 600 000 students completed the main assessment in 2018, representing about 32 million 15-year-olds in the schools of the 79 participating countries and economies. The financial literacy sample in PISA 2018 was comprised of around 117 000 students, representing about 13.5 million 15-year-old students in the schools of 20 participating countries and economies. In Brazil, 8 311 students, in 596 schools, completed the financial literacy assessment, representing 2 036 861 15-year-old students (65% of the total population of 15-year-olds). In Chile, 4 485 students, in 254 schools, completed the financial literacy assessment, representing 213 832 15-year-old students (89% of the total population of 15-year-olds). In Peru, 4 734 students, in 339 schools, completed the financial literacy assessment, representing 424 586 15-year-old students (73% 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. All countries/economies that participated in financial literacy delivered the assessment on the computer.

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.
- 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. This questionnaire also included questions about students' relationship with financial matters, including where they obtained information about financial matters, and their attitudes, behaviours and experiences with financial matters.
- Some countries/economies also distributed additional questionnaires to elicit more information. These included a questionnaire for teachers asking about themselves and their teaching practices; a questionnaire for parents asking them to provide information about their perceptions of and involvement in their child's school and learning; a questionnaire about students' familiarity with computers; a questionnaire about students' expectations for further education; and a questionnaire, developed for PISA 2018, about students' well-being.

References

OECD (2019), *PISA 2018 Results (Volume IV): Are Students Smart About Money?*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/48ebd1ba-en>

Map of PISA countries and economies


OECD member countries

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

Partner countries and economies in PISA 2018

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

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

* 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.

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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*  under the tables and charts in the publication.

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

Questions can be directed to:

PISA team, Directorate for Education and Skills

edu.pisa@oecd.org

OECD International Network on Financial Education, Directorate for Financial and Enterprise Affairs

Secretariat@NFE@oecd.org

Country note author:

Jeffrey Mo, Directorate for Financial and Enterprise Affairs

jeffrey.mo@oecd.org