

IBEROAMÉRICA

The PISA 2015 assessment of financial literacy was the second of its kind. The results show the extent to which 15-year-old students have the financial knowledge and skills needed to make a successful transition from compulsory schooling into higher education, employment or entrepreneurship. For many 15-year-olds, finance is part of everyday life, as they are already consumers of financial services, such as bank accounts, and earn money from formal or informal small jobs. As they near the end of compulsory education, students will face complex and challenging financial choices, including whether to continue with formal education and, if so, how to finance such study.

Students in Brazil, Chile, Peru and Spain score below the average of the 10 OECD countries and economies that were assessed in financial literacy in 2015 [Figure IV.3.2].

More than 20% of students in Brazil (53%), Chile (38%), Peru (48%) and Spain (25%) do not reach the baseline level of proficiency (Level 2) in financial literacy (compared to 22% on average across OECD countries and economies) [Table IV.3.2]. 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 experienced personally. For instance, students performing below Level 2 in financial literacy can, at best, answer a question like INVOICE – Question 1 (available at <http://www.oecd.org/pisa/test>), which asks them to recognise the purpose of an everyday financial document, such as an invoice.

Less than 10% of students in Brazil (3%), Chile (3%), Peru (1%) and Spain (6%) are top performers in financial literacy [Table IV.3.2], meaning that they are proficient at Level 5 (compared to 12% 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. For instance, students performing at Level 5 are able to answer a question like BANK ERROR – Question 1 (available at <http://www.oecd.org/pisa/test>), which asks them to identify and respond appropriately to a financial scam e-mail message.

Students in Brazil, Chile and Spain perform worse in financial literacy than students around the world who perform similarly in mathematics and reading. This suggests that these students could be helped in using the skills widely taught in school, such as mathematics and reading, to attain higher levels of financial literacy [Table IV.3.11].

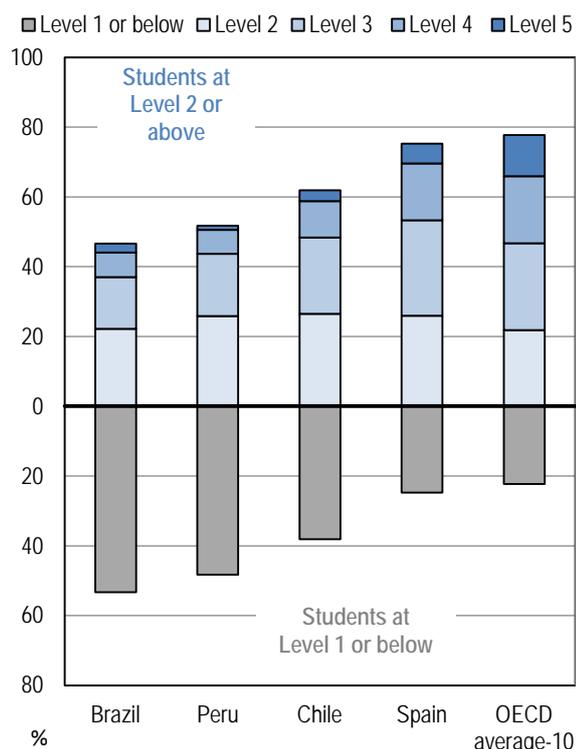
Socio-economically advantaged students score more than 75 points higher in financial literacy – equivalent to one proficiency level – than disadvantaged students in Brazil (78 score-points difference), Chile (103 score points), Spain (79 score points) and Peru (117 score points) [Table IV.4.11].

Financial literacy is associated with understanding the importance of investing in human capital. Students in Brazil, Chile, Peru and Spain who perform at Level 4 were more likely than students performing at or below Level 1 to report that they expect to complete university education, after accounting for student characteristics and performance in mathematics and reading [Table IV.6.9].

PISA defines financial literacy as “...knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life”. For a full explanation, see the [PISA 2015 Assessment and Analytical Framework](#).

Performance in financial literacy

Students at each level of proficiency in financial literacy



Source: OECD, PISA 2015 Database, Table IV.3.2.

	Mean performance in financial literacy			
	Mean score	Range of ranks	Percentage of students	
			Below Level 2	Level 5
OECD avg-10	489		22.3	11.8
<i>B-S-J-G (China)</i>	566	1 - 1	9.4	33.4
Belgium (Flemish)	541	2 - 3	12.0	24.0
Canadian provinces	533	2 - 3	12.7	21.8
<i>Russia</i>	512	4 - 5	10.9	10.5
Netherlands	509	4 - 6	19.2	17.5
Australia	504	5 - 6	19.7	15.4
United States	487	7 - 9	21.6	10.2
Poland	485	7 - 9	20.1	8.0
Italy	483	7 - 9	19.8	6.5
Spain	469	10 - 10	24.7	5.6
<i>Lithuania</i>	449	11 - 12	31.5	3.7
Slovak Republic	445	11 - 12	34.7	6.3
Chile	432	13 - 13	38.1	3.1
Peru	403	14 - 14	48.2	1.2
Brazil	393	15 - 15	53.3	2.6

Source: OECD, PISA 2015 Database, Figure IV.3.3 and Table IV.3.2.

Notes: Partner countries and economies are marked in blue.

"Canadian provinces" refers to the seven provinces in Canada that participated in the PISA 2015 financial literacy assessment: British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario and Prince Edward Island.

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

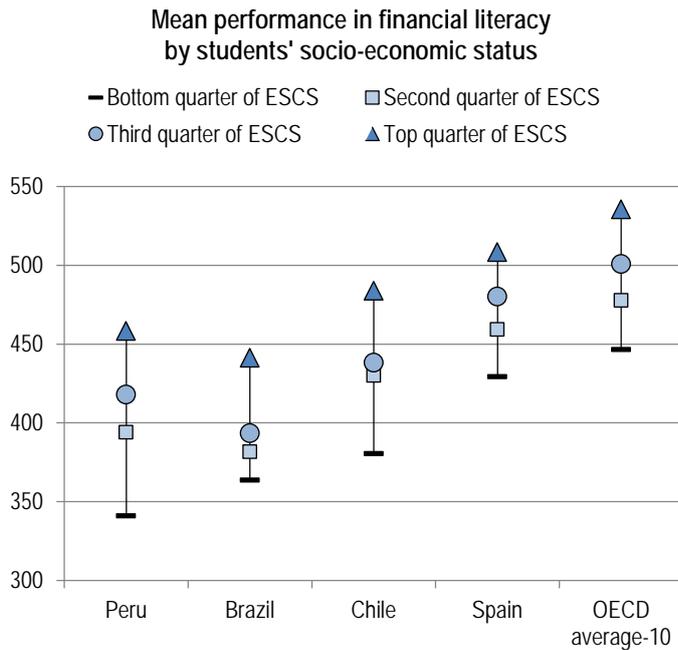
Countries and economies are ranked in descending order of mean score.

- Students in Brazil, Chile, Peru and Spain score below the average of the 10 OECD countries and economies that were assessed in financial literacy in 2015 [Figure IV.3.2]. Spain ranks 10th among all 15 participating countries and economies, Chile ranks 13th, Peru ranks 14th and Brazil ranks 15th [Figure IV.3.3].
- Spain declined in mean performance between 2012 and 2015 (with a mean score of 484 in 2012) [Table IV.3.1]. During the same period, the share of students in Spain who perform below Level 2 increased by 8 percentage points [Table IV.3.6]. However, changes in financial literacy performance over time should be interpreted with caution due to changes in test administration.
- Spain collected subnational-level data in financial literacy for the Basque Country, whose mean score is not statistically different from the national average [Table IV.4.4].

Student performance in financial literacy in comparison with performance in reading and mathematics

- In Spain and Brazil, around 60% of the financial literacy score reflects skills that can be measured in the mathematics and/or reading assessments (58% in Spain and 61% in Brazil, the OECD average is 62%), while around 40% of the score reflects factors that are uniquely captured by the financial literacy assessment, and may reflect distinct associations of individual and school-level determinants with financial literacy skills [Table IV.3.10a]. Financial literacy is more strongly correlated with mathematics and reading performance in Chile and Peru, where less than 40% of the score reflects factors that are unique to financial literacy (Chile: 38%, Peru: 32%, OECD Average: 38%) [Table IV.3.10a].
- Students in Brazil, Chile and Spain perform worse in financial literacy than students around the world who perform similarly in mathematics and reading [Table IV.3.11]. This suggests that students could be helped in using the skills widely taught in school to attain higher levels of financial literacy. On the contrary, students in Peru perform at the same level in financial literacy as students around the world who perform similarly in mathematics and reading.

How performance varies across student characteristics



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

Source: OECD, PISA 2015 Database, Table IV.4.11.

- In Brazil, Chile and Peru, boys and girls perform at the same level in financial literacy, on average, while girls perform better than boys in Spain [Table IV.4.5]. There are more boys than girls among low performers in Brazil and Spain [Table IV.4.7].
- Socio-economically advantaged students (those in the highest 25% of socio-economic status) score more than 75 points higher in financial literacy – equivalent to one proficiency level – than disadvantaged students (those in the lowest 25% of socio-economic status) in Brazil (78 score-points difference), Chile (103 score points), Spain (79 score points) and Peru (117 score points) [Table IV.4.11].
- Disadvantaged students are more likely than advantaged students to perform below Level 2 in financial literacy, in Brazil (42% more likely), Chile (more than twice as likely), Peru (more than twice as likely) and Spain (82% more likely), after accounting for student characteristics and performance in mathematics and reading [Table IV.4.25a]. Advantaged students in Spain perform at about the same level (508 score points) as students in the third quartile of socio-economic status on average across OECD countries and economies (501 score points) [Table IV.4.11].
- Some 11% of students who participated in the 2015 financial literacy assessment in Spain are foreign-born or have foreign-born parents [Table IV.4.17]. Students in Spain without an immigrant background score 33 points higher in financial literacy than students who are foreign-born or have foreign-born parents. This difference is 19 score points when considering students of similar socio-economic status [Table IV.4.18]. Less than 3% of students who participated in the 2015 financial literacy assessment in Brazil, Chile and Peru have an immigrant background.
- In Peru, students who attend schools in cities perform better in financial literacy by 46 score points than students of similar socio-economic status and at the same level of education who attend schools in rural areas. On the contrary, in Spain, students who attend schools in rural areas perform better in financial literacy by 29 score points than similar students who attend schools in cities [Table IV.4.15].

Formal financial education

Brazil

- In Brazil, financial education was initially introduced in high schools through an experimental pilot programme in 2010/11 in more than 800 schools in six states. The pilot involved preparing a financial education curriculum, developed by a team of education experts, psychologists and sociologists. The content consisted of case studies that can be integrated into regular school subjects, such as mathematics, Portuguese, science, geography and history. Teacher guidelines explain how to integrate these case studies into the regular curriculum, and teachers have discretion over the order in which the cases are taught. Teachers were trained through workshops, DVDs and a guidebook. The material developed for the pilot is now available on line to all teachers across the country.
- This pilot was evaluated in 2010/11 using a randomised control trial. The results of the evaluation revealed higher average financial literacy, a greater propensity to save and a higher likelihood to engage in financial planning among students who had participated in the programme than among students who did not participate (Bruhn, M., L. de Souza Leão, A. Legovini, R. Marchetti and B. Zia (2016), “The impact of high school financial education: evidence from a large-scale evaluation in Brazil”, *American Economic Journal: Applied Economics*, Vol. 8, No. 4, pp. 256-295).
- A pilot for primary schools is now being developed.

Chile

- In Chile, financial education is not part of the national school curriculum, both the central bank and the Superintendency of Banks and Financial Institutions organise competitions for students in schools about economic and financial themes.

Peru

- In Peru, economic and financial education topics were incorporated into the national curriculum in 2016. In secondary schools, they are taught as part of the subject History, Geography and Economics. The minister of education and the Peruvian Superintendence of Banking, Insurance and Private Pension Funds developed pedagogical support for teachers and training programmes.

Spain

- In Spain, financial education topics were incorporated into the primary education curriculum in 2014 as part of social sciences, and in the first year of upper secondary education (fourth year of the *Educación Secundaria Obligatoria*) as part of economics. Economics is offered only to students choosing a general/academic path and is optional for those students. All education administrations have included the subject of economics in their offerings, and almost all have integrated all the content described in the national legislation.
- Since 2010/11, in parallel with the revision of the curriculum, the Bank of Spain and the Securities and Exchange Commission have been implementing a financial education programme in schools within the scope of the national strategy for financial education. Schools participate on a voluntary basis and teachers can use resources available on line (gepeese.es). This programme was evaluated in 2015 in the Madrid region, and the results show that the programme increased financial knowledge among participating 15-year-old students by between one-fourth and one-third of a standard deviation (Hospido, L., E. Villanueva and G. Zamarro [2015], “Finance For All: The Impact of financial literacy training in compulsory secondary education in Spain”, Banco de España, Documentos de Trabajo, N.º 1502, 2015).

Legal framework for young people's access to financial products

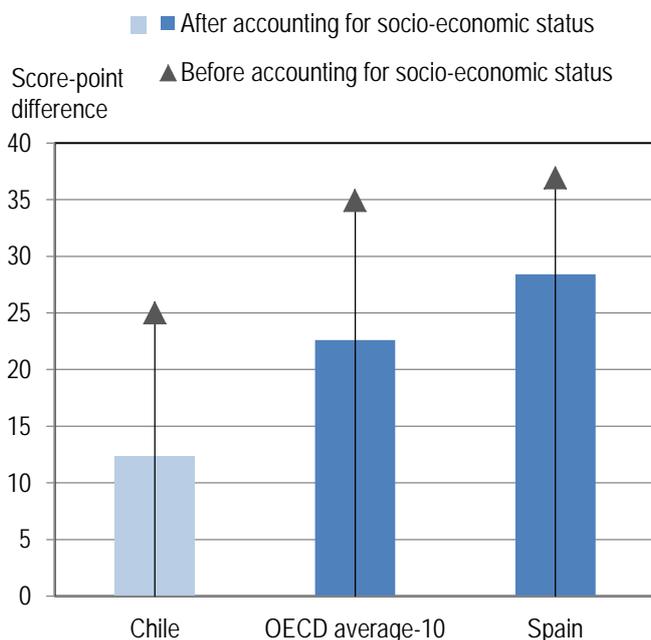
- In Brazil and Spain, minors may open and operate an account only under the consent of parents or caregivers. In Chile, minors may operate savings accounts, but the account must be opened by an adult; minors cannot hold current accounts. In Peru, parental consent is typically required; however, minors from the age of 16 may open current and saving accounts under specific circumstances (such as being married or being legally entitled to exercise a profession).
- Brazil and Peru require parents' consent to allow 15-year-olds to open and operate cash withdrawal/ATM cards, prepaid cards and debit cards. In Chile, cards ownership is subject to the same requirements as the account to which they are linked. In Spain, minors over 14 may be supplementary cardholders of debit and prepaid cards, but the main cardholder must be a parent/legal representative. Minors may also be restricted in the operations that they can conduct with these cards.

Students' experience with money and their financial literacy

Basic financial products

- Some 27% of 15-year-old students in Chile, and 52% in Spain, have a bank account [Table IV.5.8].
- The prevalence of holding a basic financial product is in line with the access to financial products and services in the population more generally (in Chile, 62% of 15-24 year-olds and 70% of 25-64 year-olds have an account at a formal financial institution; in Spain, 85% of 15-24 year-olds and 99% of 25-64 year-olds have an account at a formal financial institution) [Table IV.3.12].
- Students in Spain who hold a bank account score 37 points higher in financial literacy than students who do not, and 28 points higher after accounting for socio-economic status. Students who hold a bank account in Chile score at the same level as students who do not, after taking their socio-economic status into account [Table IV.5.13].
- In Chile and Spain, socio-economically advantaged students are about twice as likely as disadvantaged students to hold a bank account [Table IV.5.11].

Score-point difference between students who hold a bank account and students who do not



Notes: Differences that are statistically significant are marked in a darker tone. Information about students' experience with money is not reported for Brazil and Peru because a significant proportion of students who sat the financial literacy assessment did not reply to one or more of the questions about money experiences. Source: OECD, PISA 2015 Database, Figure IV.5.5.

Money sources

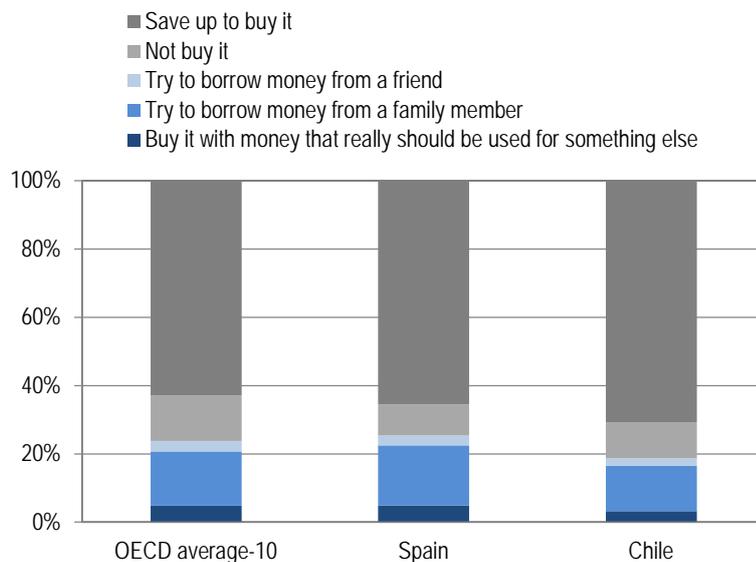
- Gifts of money are the most frequent source of money for 15-year-old students in Chile (70% of students receive gifts of money from friends or relatives) and in Spain (79%), and about 38% of students in both countries receive pocket money (with or without having to do chores at home). Some 57% of students in Chile and 55% in Spain earn money from some formal or informal work activity, such as working outside school hours, working in a family business, or doing occasional informal jobs [Table IV.5.15].
- Socio-economically advantaged students in Chile and Spain are less likely than disadvantaged students to earn money from working outside school hours (e.g. a holiday job, part-time work) [Table IV.5.16c].
- Across all participating countries and economies, only students performing at Level 4 or above can answer a question like **PAY SLIP** – Question 1 (available at <http://www.oecd.org/pisa/test>), which asks them to identify the net salary on a pay slip.

Discussing money matters with parents

- Some 81% of students in Chile and 78% in Spain discuss money matters with their parents at least once a month [Table IV.5.1].
- In Chile, discussing money matters with parents at least sometimes is associated with higher financial literacy than never discussing the subject, after accounting for students' socio-economic status. By contrast, in Spain, the frequency of discussing money matters with parents is not associated with students' financial literacy [Table IV.5.5].

Students' financial literacy, behaviour and expectations

If you don't have enough money to buy something you really want (e.g. an item of clothing, sports equipment) what are you most likely to do?



Note: Information about students' experience with money is not reported for Brazil and Peru because a significant proportion of students who sat the financial literacy assessment did not reply to one or more of the questions about money experiences.

Source: OECD, PISA 2015 Database, Figure IV.6.1.

- Some 71% of students in Chile and 66% in Spain reported that they would save if they want to buy something for which they do not have enough money (OECD average: 63%) [Table IV.6.1].
- Some 45% of students in Chile and 50% in Spain reported that they save each week or month [Table IV.6.4].
- Students in Spain who perform at Level 2 or 3 were more than three times as likely as students who perform at or below Level 1 to report that they would save to buy an item for which they did not have enough money rather than to report that they would buy the item anyway, after accounting for student characteristics and performance in mathematics and reading [Table IV.6.3].
- Students in Brazil, Chile, Peru and Spain who perform at Level 4 were more likely than students performing at or below Level 1 to report that they expect to complete university education, after accounting for student characteristics and performance in mathematics and reading (44% more likely in Brazil; 75% in Chile; and more than twice as likely in Peru and Spain) [Table IV.6.9].
- Students in Chile and Spain who perform at Level 4 were more likely than students performing below Level 2 to report that they expect to have a high-skilled occupation when they are 30 years old, after taking into account student characteristics and performance in mathematics and reading (55% more likely in Chile and 51% more likely in Spain) [Table IV.6.11].

What results from the PISA 2015 financial literacy assessment imply for policy

From buying mobile phone credit to deciding how to spend pocket money, young people commonly take financial decisions. Fifteen-year-olds are starting to encounter situations where they need to set their spending priorities, be aware of ongoing costs, and be alert to potential scam. They will soon have to take decisions with long-term financial consequences.

The PISA 2015 financial literacy assessment highlights some general policy suggestions for all the countries and economies participating in PISA, including:

- Address the needs of low-performing students.
- Tackle socio-economic inequalities early on.
- Provide equal opportunities for learning to boys and girls.
- Help students make the most of available learning opportunities at school.
- Target parents at the same time as young people.
- Provide young people with safe opportunities to learn by experience outside of school.
- Evaluate the impact of initiatives in and outside of school.

What is PISA?

The Programme for International Student Assessment (PISA) is a triennial survey that assesses the readiness of 15-year-old students for life beyond compulsory education by collecting and analysing test and questionnaire data about students' knowledge, skills and the context in which they live and learn.

Key features of the PISA 2015 assessment of financial literacy

The PISA 2015 assessment of financial literacy was the second of its kind. Fifteen countries and economies participated in the 2015 assessment, including 10 OECD countries and economies: Australia, the Flemish Community of Belgium, seven provinces in Canada (British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario and Prince Edward Island), Chile, Italy, the Netherlands, Poland, the Slovak Republic, Spain and the United States; and five partner countries and economies: Brazil, four provinces/municipalities in China (Beijing, Shanghai, Jiangsu, Guangdong), Lithuania, Peru and the Russian Federation. Eight countries/economies participated in both the 2012 and 2015 assessments: Australia, the Flemish Community of Belgium, Italy, Poland, the Russian Federation, the Slovak Republic, Spain and the United States.

The assessment

- Financial literacy was assessed through a computer-based test. Students assessed in financial literacy also completed the assessments of mathematics, reading and science.
- Test questions were a mixture of multiple-choice questions and those requiring students to construct their own responses. The items were organised in groups based on a passage setting out a real-life situation. Sample items can be explored on line at <http://www.oecd.org/pisa/test>.
- Students who sat the assessment of financial literacy also answered questions about their experience with money, as well as the PISA student questionnaire about themselves, their homes, and their school and learning experiences. School principals completed a questionnaire that covered the school system and the learning environment.

The students

- Among the students who participated in the core PISA 2015 assessment of science, reading and mathematics, a subsample of students was randomly selected to sit the financial literacy test. In general, about 11 students were chosen at random in each participating school to sit the financial literacy assessment; the financial literacy assessment was conducted in a separate session after the core assessment. This is different from the sample design adopted in 2012, when, in sampled schools, two separate student samples sat the financial literacy test and the core PISA assessment.
- Around 48 000 students were assessed in financial literacy in 2015, representing about 12 million 15-year-olds in the schools of the 15 participating countries and economies.
- In Brazil, 6 078 students were assessed in financial literacy (out of 23 141 who completed the PISA 2015 assessment); in Chile, 1 809 students were assessed in financial literacy (out of 7 053 who completed the PISA 2015 assessment); in Peru, 1 804 students were assessed in financial literacy (out of 6 971 who completed the PISA 2015 assessment); in Spain, 1 750 students were assessed in financial literacy (out of 6 736 who completed the PISA 2015 assessment).

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For more information on PISA and to access the full set of PISA 2015 results, visit: www.oecd.org/pisa

For more information on the OECD work on financial education, visit: www.financial-education.org