

# PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT (PISA) RESULTS FROM PISA 2015 FINANCIAL LITERACY

## UNITED STATES

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 the United States score around the average of the 10 OECD countries and economies that were assessed in financial literacy in 2015 [Figure IV.3.2].

**Some 22% of students in the United States do not reach the baseline level of proficiency (Level 2) in financial literacy** (compared to 20% of students in Australia and 13% of students in the participating Canadian provinces) [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 <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>), which asks them to recognise the purpose of an everyday financial document, such as an invoice.

**Some 10% of students in the United States are top performers in financial literacy** [Table IV.3.2], meaning that they are proficient at Level 5 (compared to 15% in Australia and 22% in the participating Canadian provinces). These students can analyse complex financial products, solve nonroutine 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 <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>), which asks them to identify and respond appropriately to a financial scam e-mail message.

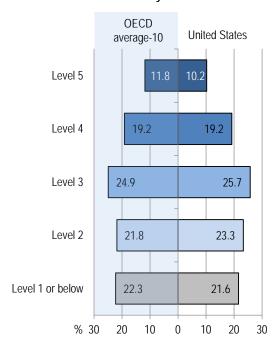
**In the United States, 53% of 15-year-old students have a bank account** [Table IV.5.8], in line with the relatively wide access to financial products and services in the population more generally (88% of 15-24 year-olds and 94% of 25-64 year-olds have an account at a formal financial institution) [Table IV.3.12]. Students in the United States who hold a bank account score 22 points higher in financial literacy than students who do not, after accounting for socio-economic status [Table IV.5.13]. In the United States, socio-economically advantaged students are about six times more likely than disadvantaged students to hold a bank account [Table IV.5.11].

**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 <u>PISA 2015 Assessment and Analytical Framework</u>.

#### 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	Percenta Below Level 2	ge of students Level 5
OECD avg-10	489		22.3	11.8
B-S-J-G (China)	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
Russia	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
Lithuania	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.

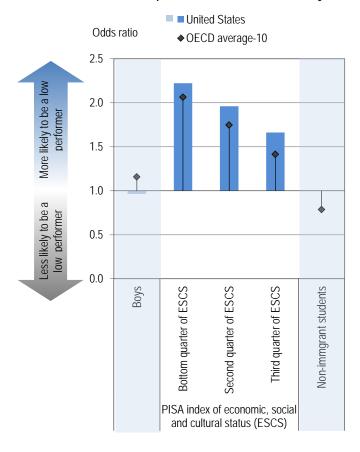
- Students in the United States score around the average of the 10 OECD countries and economies that were assessed in financial literacy in 2015 [Figure IV.3.2]. With a mean score of 487 points, the United States ranks between 7th and 9th among all 15 participating countries and economies [Figure IV.3.3].
- Average performance in the United States in 2015 is not significantly different from the average performance in Italy and Poland [Figure IV.3.2].
- The United States showed no significant change in mean performance between 2012 and 2015 (with a mean score of 492 in 2012) [Table IV.3.1]. However, changes in financial literacy performance over time should be interpreted with caution due to changes in test administration.
- The United States collected subnational-level data in financial literacy for two states. The difference in performance between Massachusetts and North Carolina is 28 score points, with Massachusetts scoring above the national average by 36 points [Table IV.4.4].

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

- In the United States, financial literacy is strongly correlated with mathematics and reading performance. Around 70% of the financial literacy score reflects skills that can be measured in the mathematics and/or reading assessments (the OECD average is 62%), while 30% of the score reflects factors that are uniquely captured by the financial literacy assessment [Table IV.3.10a].
- Students' performance in financial literacy in the United States is in line with what could be predicted on the basis of student performance in mathematics and reading [Table IV.3.11].
- On average across the participating OECD countries and economies, students perform worse in financial literacy than students around the world who perform similarly in mathematics and reading. This suggests that students could be helped in using the skills widely taught in school to attain higher levels of financial literacy.

#### How performance varies across student characteristics

#### Likelihood of low performance in financial literacy



*Notes*: After accounting for student characteristics and performance in mathematics and reading. Odds ratios that are statistically significant are marked in a darker tone. *Source*: OECD, PISA 2015 Database, Table IV.4.25a.

- In the United States, boys and girls score at the same level in financial literacy, on average [Table IV.4.5], but there are more boys than girls among top performers [Table IV.4.7].
- Some 11% of the variation in student performance in financial literacy in the United States is associated with socioeconomic status (10% on average across OECD countries and economies) [Table IV.4.12].
- Socio-economically advantaged students (those in the highest 25% of socio-economic status) score 97 points higher in financial literacy than disadvantaged students (those in the lowest 25% of socio-economic status) (OECD average difference: 89 score points) [Table IV.4.11].
- Disadvantaged students are more than twice as likely as advantaged students to perform below Level 2 in financial literacy, after accounting for student characteristics and performance in mathematics and reading [Table IV.4.25a].
- The 25% most advantaged students in the United States perform worse (542 score points) than students in the third quartile of socio-economic status in Beijing-Shanghai-Jiangsu-Guangdong (China) (580 score points) [Table IV.4.11].
- Some 23% of students in the United States who participated in the 2015 financial literacy assessment are foreign-born or have foreign-born parents [Table IV.4.17]. Students in the United States without an immigrant background score 30 points higher in financial literacy than students who are foreign-born or have foreign-born parents. This difference disappears when considering students of similar socio-economic status [Table IV.4.18].
- Immigrant students in the United States who do not speak the assessment language at home score 17 points lower in financial literacy than immigrant students of similar socio-economic status who speak the assessment language at home [Table IV.4.22].

## Formal financial education

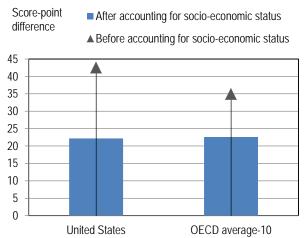
In the United States, decisions about providing financial education in high schools vary at the state and district levels. Depending on the state, schools may be required to offer an optional course in personal finance, may teach personal finance or economics content within another course (typically in economics, mathematics or social sciences), or may be required to teach personal finance as a standalone course, and students would have to earn a certain number of credits in the subject to graduate.

## Students' experience with money and their financial literacy

#### **Basic financial products**

- In the United States, 53% of 15-year-old students have a bank account [Table IV.5.8].
- The prevalence of holding a basic financial product is in line with the relatively wide access to financial products and services in the population more generally (88% of 15-24 year-olds and 94% of 25-64 year-olds have an account at a formal financial institution) [Table IV.3.12].
- Students in the United States who hold a bank account score 42 points higher in financial literacy than students who do not, and 22 points higher after accounting for socioeconomic status [Table IV.5.13].
- In the United States, socio-economically advantaged students are about six times more likely than 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



Note: All differences in this figure are statistically significant. Source: OECD, PISA 2015 Database, Figure IV.5.5.

• Students in the United States who earn money from working outside school hours (e.g. a holiday job, part-time work) or from occasional informal jobs (e.g. babysitting or gardening) are more likely to hold a bank account than students who do not work outside school hours [Table IV.5.11].

#### **Money sources**

- Some 91% of students in the United States receive gifts of money from friends or relatives, 69% receive pocket money, 55% earn money from occasional informal jobs, such as babysitting or gardening, and 38% earn money from working outside school hours (e.g. a holiday job or part-time work) [Table IV.5.15].
- In the United States, students who receive money as a gift score higher in financial literacy than students of similar characteristics and performance in mathematics and reading who do not receive gifts of money [Table IV.5.18].
- 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 <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>),
  which asks them to identify the net salary on a pay slip.

#### Discussing money matters with parents

• More than eight in ten students in the United States discuss money matters with their parents at least once a month [Table IV.5.1].

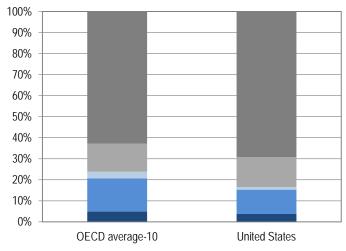
## Legal framework for young people's access to financial products

- In the United States, financial institutions (banks and credit unions) generally offer checking and savings accounts only with the consent or co-ownership of the parent/guardian; but, depending on state laws, some institutions allow minors to own their own account.
- Consumers under the age of 21 seeking to obtain a credit card need to prove that they can
  independently make the required minimum payments, unless they have a co-signer or similar
  party who is at least 21 years old.

## Students' financial literacy and behaviour

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?

- Save up to buy it
- Not buy it
- Try to borrow money from a friend
- Try to borrow money from a family member
- Buy it with money that really should be used for something else



- In the United States, 69% of students 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 49% of students in the United States reported that they save each week or month, 19% save only when they have money to spare, and 20% save only when they want to buy something. Few students reported that they do not save any money (5%) [Table IV.6.4].

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

## 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 make 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 scams. They will soon have to make 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. It thus provides a comprehensive set of cross-country comparative data that policy makers and other stakeholders can use to make evidence-based decisions.

## 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 <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>.
- 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 the United States, 5 712 students completed the PISA 2015 assessment; of these, 1 486 students were assessed in financial literacy.

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