

Financial Literacy Skills for the 21st Century: Evidence from PISA

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The Growing Importance of Financial Literacy

A New Economic Landscape

➤ **Changes in labor markets**

- More flexibility – workers change jobs often
- Divergence in wages – skills are critical

➤ **Changes in financial markets**

- Greater complexity of financial products
- More opportunities to invest and to borrow

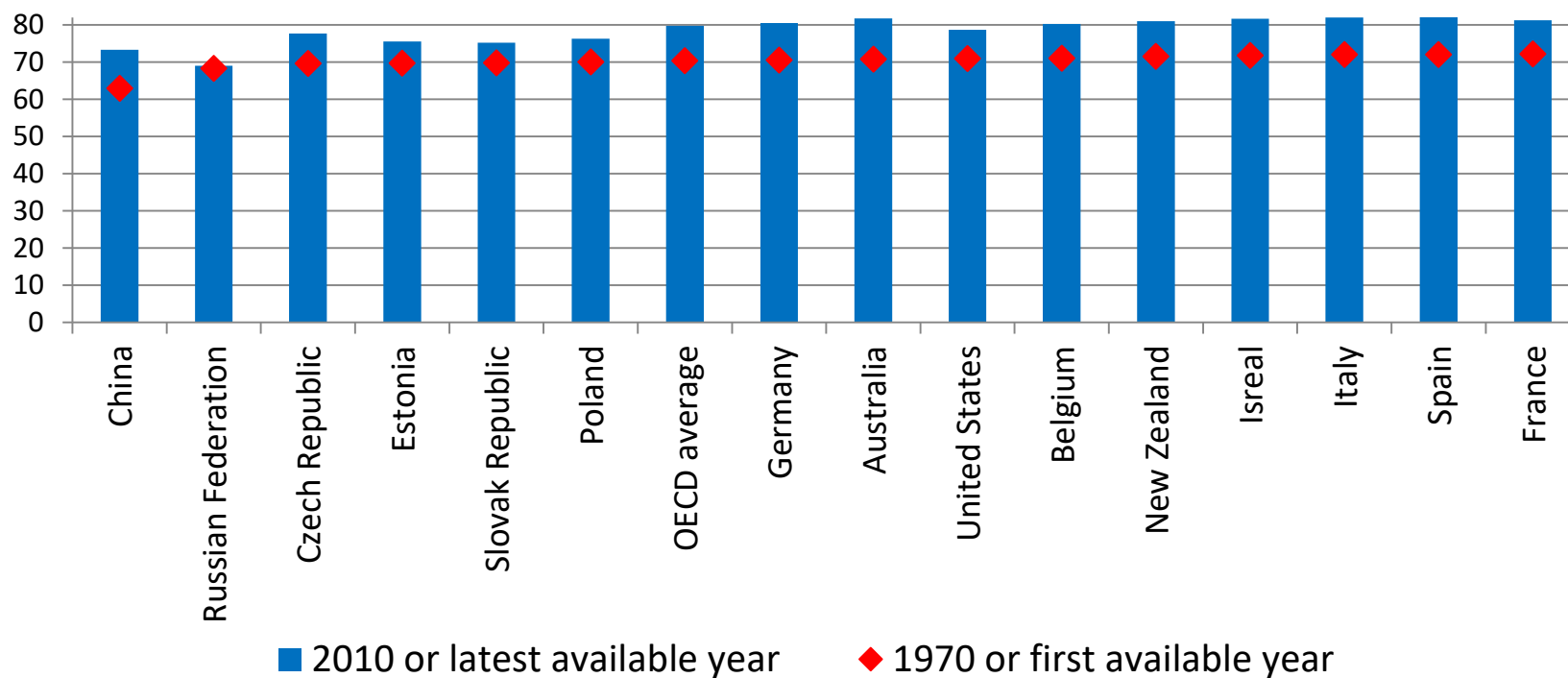
➤ **Changes in the education & pension system**

- Higher cost of education
- More individual retirement accounts



Looking Forward

Increases in Life Expectancy Changes Everything



- Life expectancy is high, and has continued to grow globally.
- Young people today will need to be able to support themselves for many years.

Data on Financial Literacy

Some recent sources of data on financial literacy

1. **OECD Programme for International Student Assessment (PISA)**
 - Financial literacy among the young (15-year-olds)
2. **US National Financial Capability Study (NFCS)**
 - Financial literacy in the US (18+)

The PISA Financial Literacy Assessment

Measuring Financial Literacy Among the Young

- PISA is the first large-scale international study to assess the financial literacy of 15-year-old students
- 18 countries participated in the 2012 Financial Literacy Assessment
- 15 countries participated in the 2015 Financial Literacy Assessment

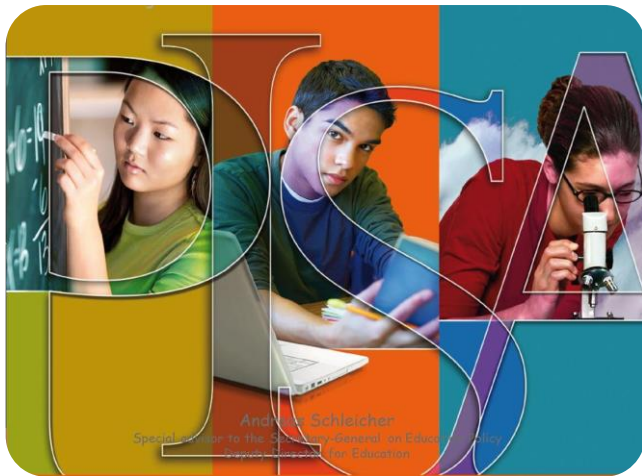
The countries/economies are:

2012: Australia, Belgium (Flemish Community), Shanghai-China, Colombia, Croatia, Czech Republic, Estonia, France, Israel, Italy, Latvia, New Zealand, Poland, Russia, Slovak Republic, Slovenia, Spain, and the United States

2015: Australia, Belgium (Flemish Community), Brazil, B-S-J-G (China), Chile, Canadian provinces, Italy, Lithuania, Netherlands, Peru, Poland, Russia, Slovak Republic, Spain, and the United States

What PISA Measures

- *Are students well prepared for future challenges? Can they analyze, reason and communicate effectively? Do they have the capacity to continue learning throughout life?*



Since 2000, every three years the OECD Programme for International Student Assessment (PISA) answers these questions and more. **It assesses to what extent students near the end of compulsory education have acquired some of the knowledge and skills essential for full participation in society.**

PISA Financial Literacy Assessment

Designing the Assessment

- A group of experts was put together by the OECD to design the 2012 module on financial literacy (I chair the group)
- They represented many countries and many stakeholders (treasury departments, central banks, regulators, practitioners, academics)
- Experts worked on the assessment about two years



PISA Financial Literacy Assessment

Definition of financial literacy

*“Financial literacy is **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**.”*

Four Key Aspects of the Financial Literacy Definition

There are 4 innovative aspects of this definition that can be highlighted:

1. Financial literacy does not refer only to knowledge and understanding, but also to promote effective decision making
2. The objective of financial literacy is to improve financial well-being, not to affect a single behavior
3. Financial literacy has effects not just for individuals but for society as well
4. Financial literacy, like reading, writing, and knowledge of science, enables young people to fully participate in economic life

A Short Definition

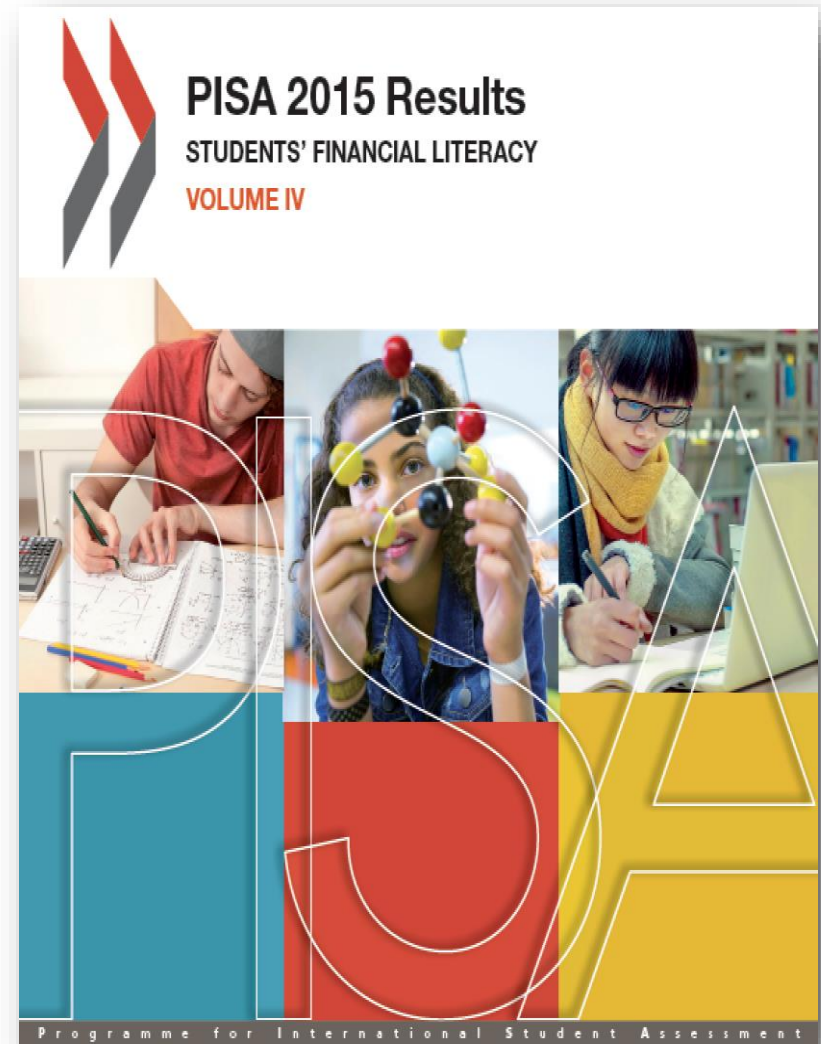
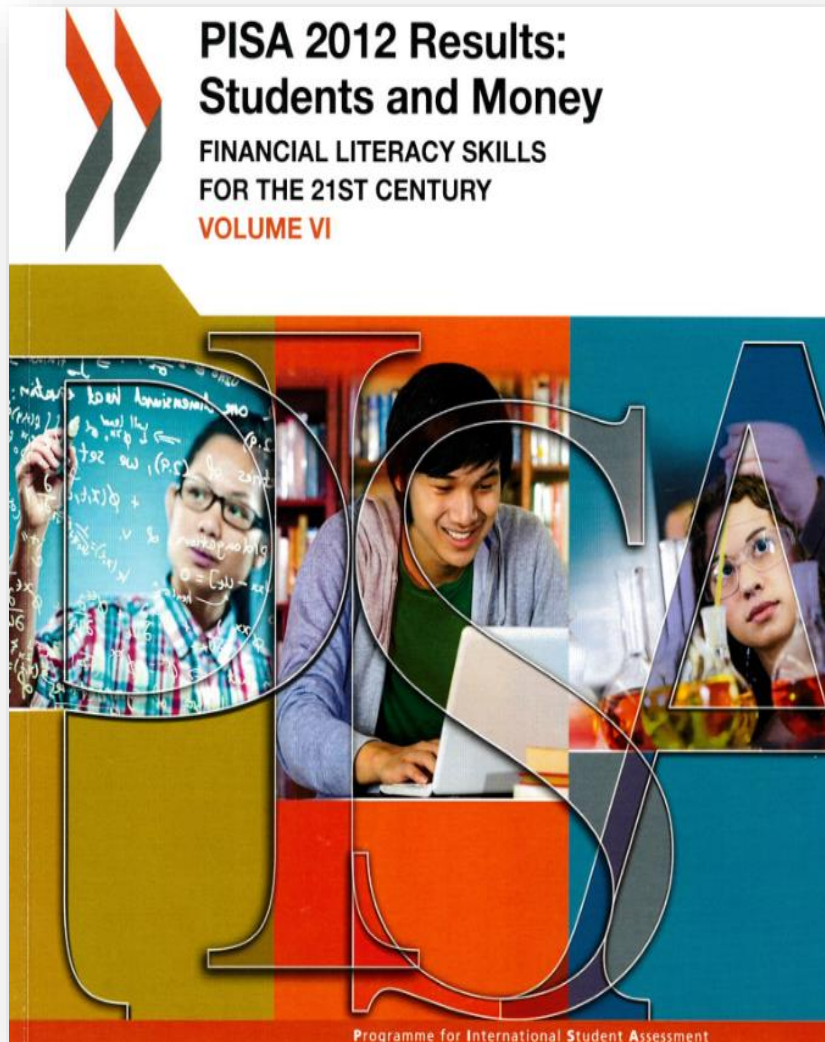
Financial Literacy: A Vision for the Future

1. Financial literacy is fundamentally about the future



2. The final objective of financial literacy is *individual well-being*

Financial Literacy Skills for the 21st Century



Mean score

605
595
585
575
565
555
545
535
525
515
505
495
485
475
465
455
445
435
425
415
405
395
385
375

Strong performance in
financial literacy

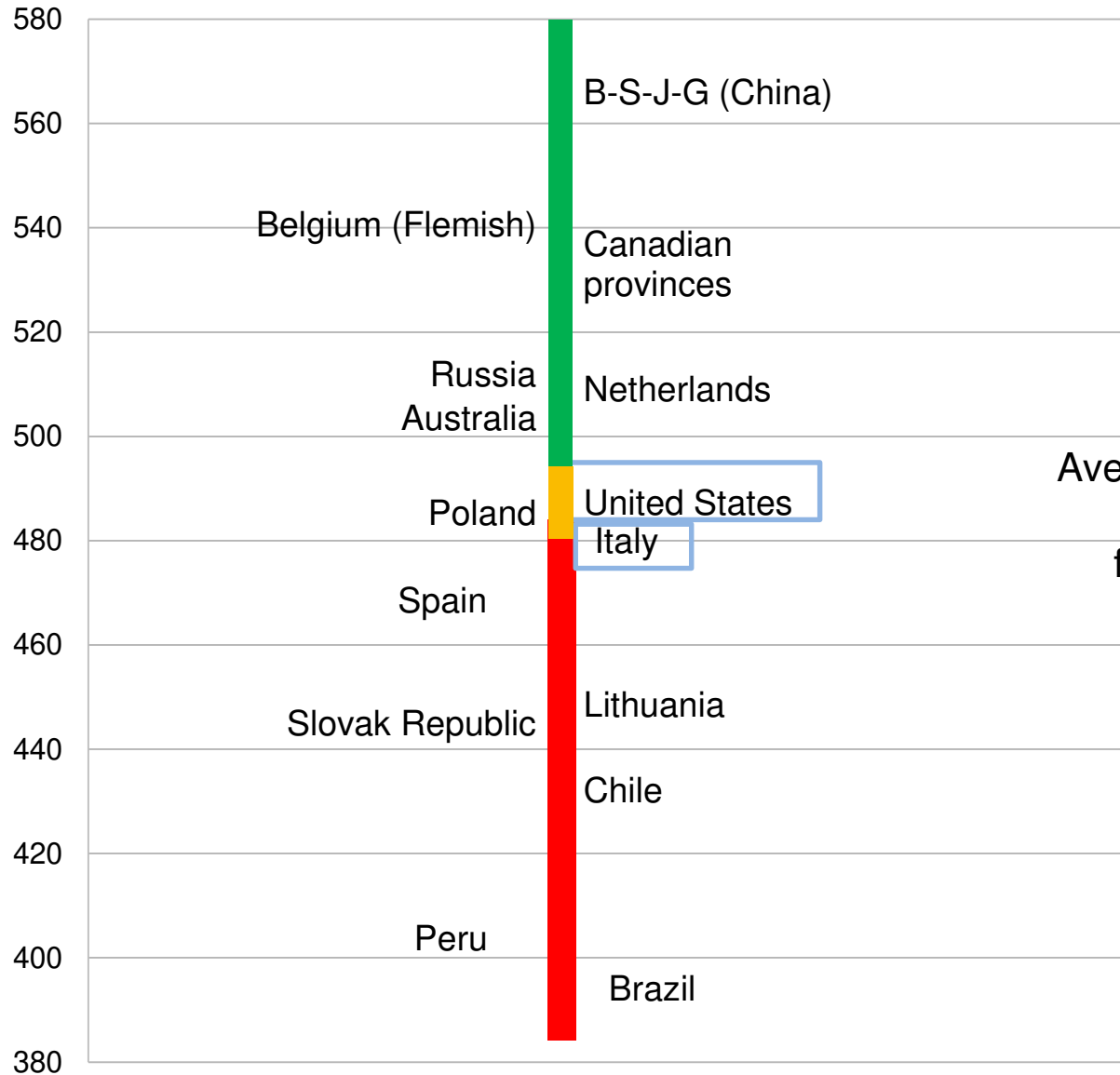
Low performance in financial literacy



Average performance
of 15-year-olds in
financial literacy in
2012 PISA

Strong performance in financial literacy

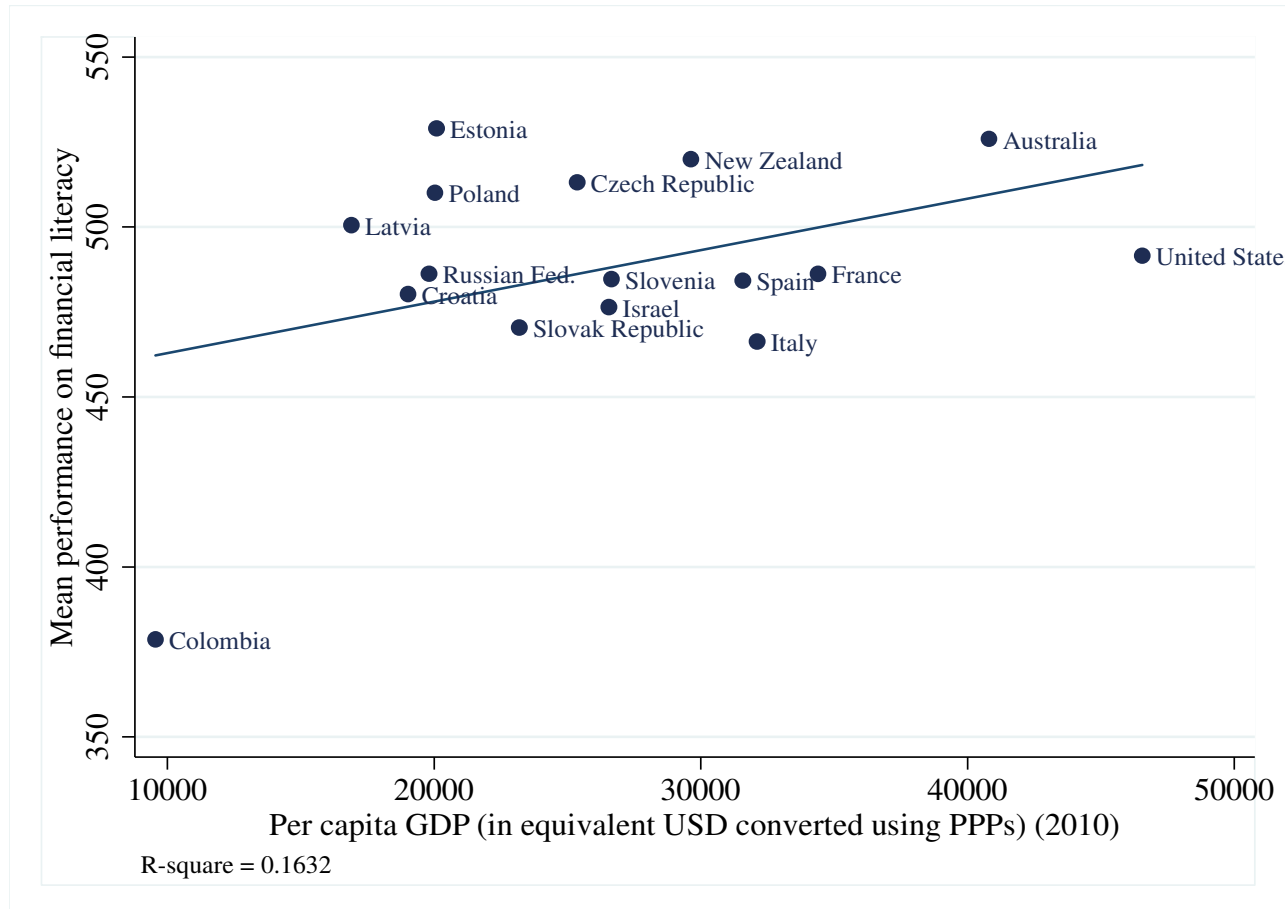
Mean score



Average performance of 15-year-olds in financial literacy in 2015 PISA

Low performance in financial literacy

Real GDP Per Capita and Financial Literacy (2012)



GDP per capita only explains 16% of country level variations in financial literacy (in 2012 PISA)

Scores and proficiency levels

- The difficulty of test questions was estimated based on the proportion of students answering each question correctly
- The proficiency of students was estimated using the proportion of test questions they answered correctly
- The relationship between the difficulty of questions and the proficiency of students was presented on a scale divided into five levels:
 - **Level 1** indicates low proficiency
 - **Level 2** indicates baseline proficiency
 - **Level 3** indicates intermediate proficiency
 - **Levels 4 and 5** indicate high proficiency

Too Many Students Lack Basic Financial Skills (2015 Data)

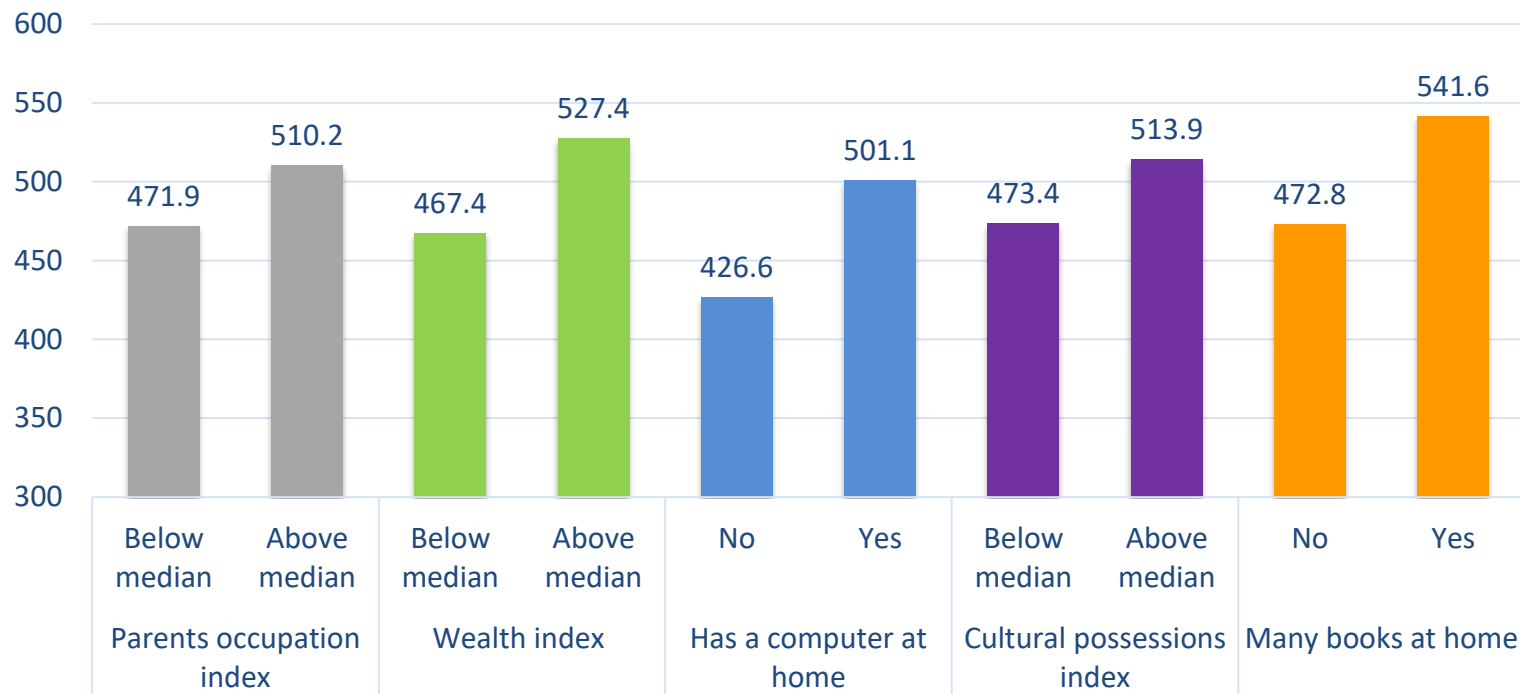


22%

- On average across OECD countries and economies, 22% of students do not have basic financial skills
- Only about 12% of students across participating OECD countries and economies are top performers, as they can tackle the most difficult tasks

The Role of Socioeconomic Status (2012)

Financial Literacy Score in the US



Young people who are financially literate are from educated families who have a lot of resources.

Students acquire financial skills from their parents... up to what their parents can transmit to them (2015 Data)

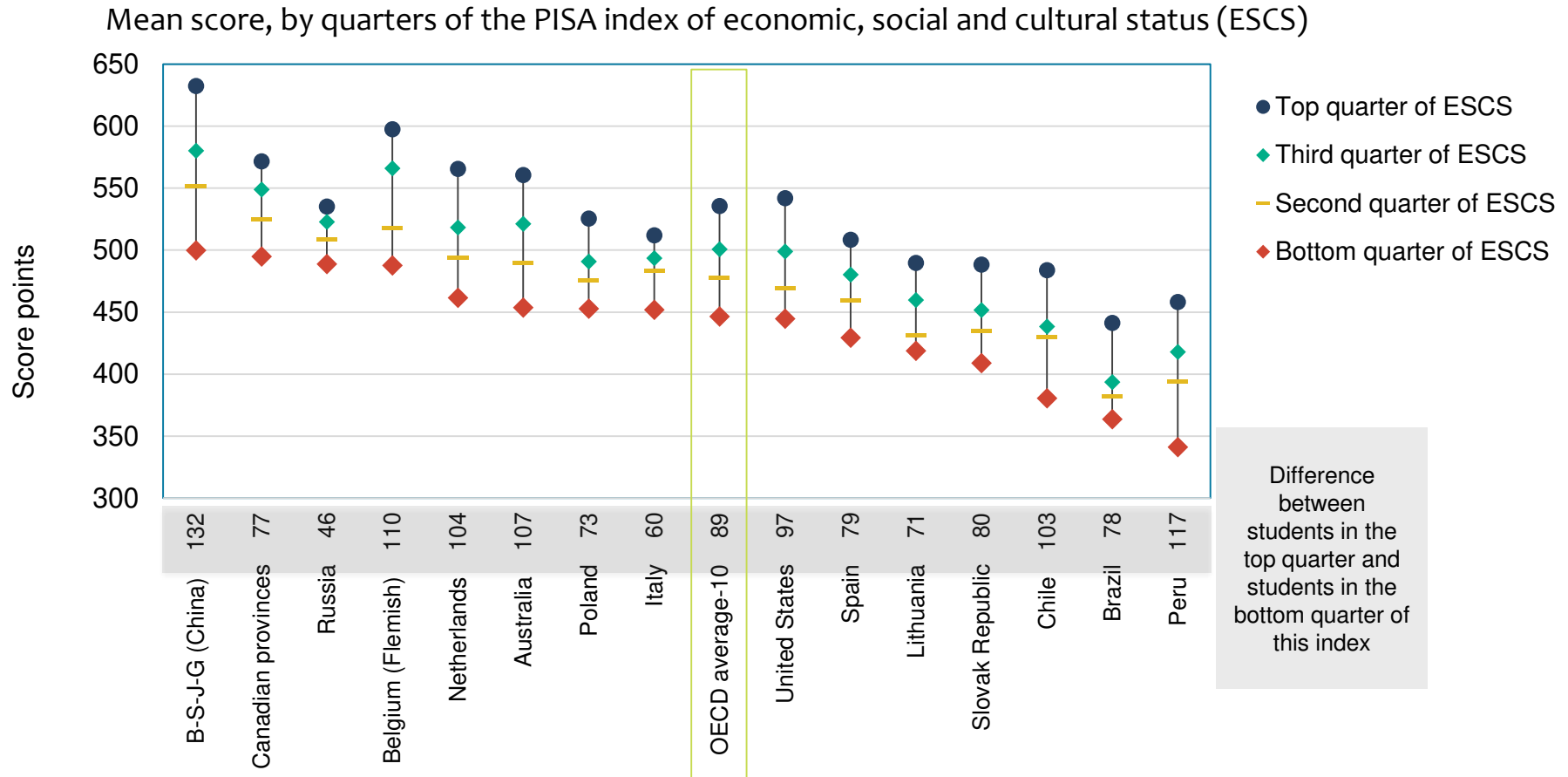
84%

- On average, 84% of students discuss money matters with their parents at least once a month
- Students who do so tend to perform better in financial literacy

- But financial skills are strongly related to the socio-economic background of their family
- Advantaged students score 89 points higher in financial literacy than disadvantaged students

89 score
points

The Role of Socioeconomic Status (2015)



Socioeconomically advantaged students score 89 points higher than disadvantaged students, on average across OECD, this is equivalent to more than one PISA proficiency level.

Young people are already financial consumers and will soon encounter complex financial decision, like student loans

Some 56% of 15-year-olds in participating OECD countries and economies have a bank account, 19% have a prepaid debit card

56%

64%

Some 64% earn money from some type of work activity

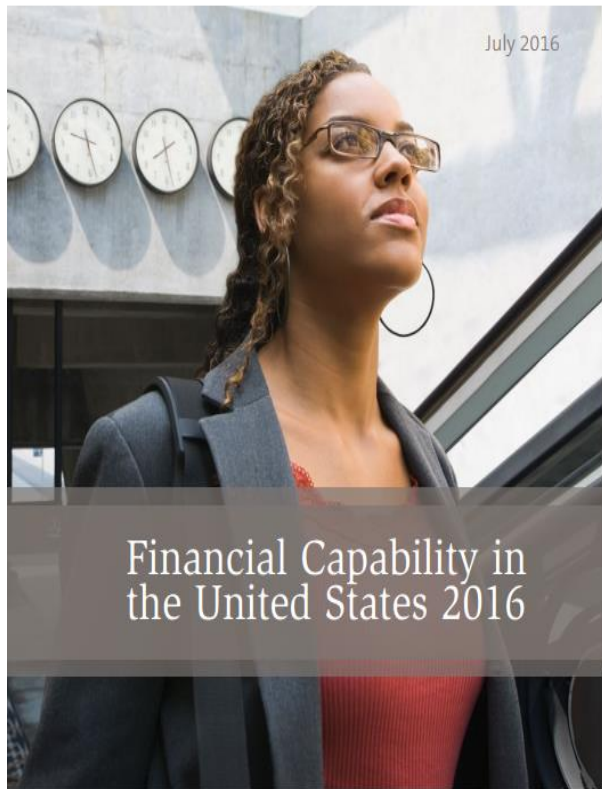
But fewer than one in three students have the skills to manage a bank account

31%

PISA findings have affected policies

- Countries/policy makers have taken steps to improve financial literacy both among the young and among the population
- Some examples are:
 - Brazil (scored last in 2015): Financial literacy in schools
 - Italy (scored second to last in 2012): In 2017, a new Financial Education Committee was created and it includes a representative from the Department of Education

Financial Literacy in the Population- US Data



State-by-State Survey: Online survey of more than 25,000 respondents

First wave collected in 2009

Third wave collected in 2015

Survey offers unique information on Americans' financial literacy and capability

A Simple Measure of Financial Literacy

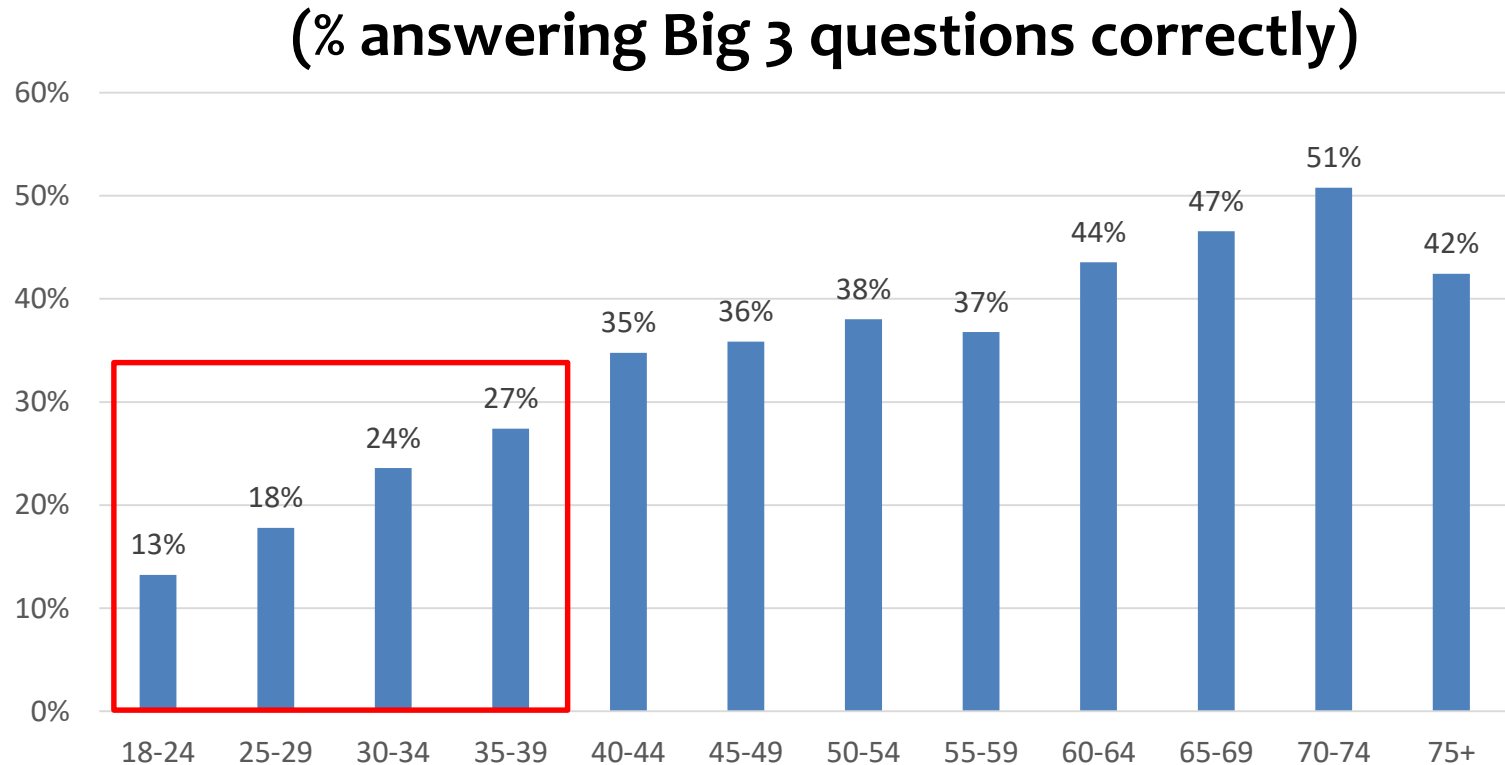
Big Three

1. “Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?”
 - ☐ More than \$102
 - ☐ Exactly \$102
 - ☐ Less than \$102
 - ☐ Don't know
 - ☐ Refuse to answer

1. “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, with the money in this account, would you be able to buy...”
 - ☐ More than today
 - ☐ Exactly the same as today
 - ☐ Less than today
 - ☐ Don't know
 - ☐ Refuse to answer

2. “Do you think the following statement is true or false? *Buying a single company stock usually provides a safer return than a stock mutual fund.*”
 - ☐ True
 - ☐ False
 - ☐ Don't know
 - ☐ Refuse to answer

Financial Literacy Across Age – 2015 NFCS



Source: 2015 NFCS data

- Financial knowledge increases very slowly with age/cohort
- Less than 1/3 know 3 basic concept by age 40 even though most important decisions are made well before that age

The Cost of Ignorance (Lusardi and Mitchell, JEL, 2014)

Financial Illiteracy is Expensive

- **Borrowing behavior**
 - Defaults and inability to pay
- **Saving behavior**
 - Not saving enough for the short and long term
- **Poor investment**
 - In financial assets, education, entrepreneurship

Implications for Financial Education

The Need for Financial Education

- **Need to improve levels of financial literacy**
 - Levels of knowledge are critically low
- **The young have very low financial knowledge**
 - Even in countries with advanced financial markets
- **It is important to provide access to all**
 - Socioeconomic status is a strong determinant of financial literacy

Implications for Financial Education (cont'd)

The need for financial education

➤ **We need to start in school**

- Widespread financial illiteracy requires robust interventions
- Knowledge and financial habits start early in life
- Important to provide knowledge *before* important financial decisions are made

➤ **Access and equity**

- Many young people do not have access to financial education in their environment

Financial Education in School

Evidence From Adding Financial Literacy in High School Curricula

- When exposed to rigorous programs and trained teachers, students do well and are less likely to have problems with debt.
 - Brown, Collins, Schmeiser, and Urban (2014). *State Mandated Financial Education and the Credit Behavior of Young Adults*.

- Confirms findings from previous work.
 - Tennyson and Chau (2001) State Curriculum Mandates and Student Knowledge of Personal Finance. *Journal of Consumer Affairs* 35 (2), 241-262.
 - Walstad, Rebeck and MacDonald (2010), The Effects of Financial Education on the Financial Knowledge of High School Students. *Journal of Consumer Affairs* 44(2), 336-357.

GFLEC's Programs for Schools

1. A pilot program to train high school educators teaching financial education

- Program in collaboration with Digital Promise
- Goal: enable educators to strengthen their pedagogy and better use personal finance professional development resources



2. A Personal Finance course at the George Washington University

- Using a rigorous quantitative approach
- Incorporating National Standards for Financial Literacy



Thinking outside the box: A museum in Italy devoted to financial literacy



Il gioco della **Formica**

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Ciao!

Giochiamo insieme? Metti alla prova le tue conoscenze sul risparmio e l'economia con il trivial quiz e non perderti le caselle bonus per incrementare il punteggio.

Occhio alle formiche da collezione: raccogliline 3 e partecipa al concorso!

Buon divertimento!

Premi per iniziare



It's my life

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INTERNATIONAL FEDERATION
of FINANCE MUSEUMS



Beijing Financial Literacy Manifesto



“... the International Federation of Finance Museums (IFFM) is committed to promoting financial literacy globally, raising awareness that every individual in every country is in need of financial literacy.”

Final Thoughts

➤ **Financial literacy is like reading and writing**

- As it was not possible in the past to participate in society without being able to read and write, so it is not possible to thrive in today's society without being financially literate

➤ **Building human capital for the 21st century**

- Everyone deals with finance and finance is sufficiently complex that we cannot leave it to the individual to learn by himself/herself

Final thoughts continued

➤ **The question is:**

Which future do we want to build?

Final quote

“Knowledge is in every country the surest basis of public happiness.”

*George Washington, First President of the United States
(1789–97)*

Thank you !

**More information are available at
www.gflec.org**