The Importance of Financial Literacy: Lessons from Many Years of Data

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2024 PRC Conference
May 2, 2024

The importance of data and measurement

- Data is the new currency
- From the Big Three to 28 questions
- A financial check-up
- How data can inform teaching and policy

Measuring financial literacy: The ABCs of personal finance

These are the questions I designed jointly with Olivia Mitchell, known as the “Big Three.”
One question is about inflation:

The 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?”

   - [x] More than $102
   - [ ] Exactly $102
   - [ ] Less than $102
   - [ ] Don’t know
   - [ ] Refuse to answer

2. “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
   - [x] Less than today
   - [ ] Don’t know
   - [ ] Refuse to answer

3. “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
   - [x] False
   - [ ] Don’t know
   - [ ] Refuse to answer

Financial Literacy around the World (Flat World)

Evidence from 15 countries and counting:

- USA
- Germany
- The Netherlands
- Italy
- Russia
- Sweden
- New Zealand
- Japan
- Australia
- France
- Switzerland
- Romania
- Chile
- Finland
- Canada

We have data available on financial literacy at the national level

Financial Literacy around the World (Flat World), cont.

Evidence from other countries and updating the evidence <u>with a focus on inflation</u> (special issue of the *Journal of Financial Literacy and Wellbeing*, 2023)

- USA
- Latin America (Peru and Uruguay)
- Eastern Europe (9 countries)
- Singapore
- Finland
- Italy
- Japan
- Germany
- Canada

Measuring personal finance knowledge

- The TIAA-Institute-GFLEC Personal Finance Index (P-Fin Index) is an annual measure of knowledge and understanding which enable sound financial decision-making and effective management of personal finances among U.S. adults.
- The P-Fin Index relates to common financial situations that individuals encounter and can be viewed as a gauge of "working knowledge."
- In addition to personal finance knowledge it provides information on financial well-being indicators.
- Data is now collected on a representative sample of about 3,500 respondents (age 18+).
- Data collection started at the end of 2016.

Eight years of P-Fin Index data (2017-2024)

2024

What is unique: 8 functional areas of personal finance

The index is based on responses to **28 questions**, with three or four questions for each of the eight functional areas (from the National Standards for Financial Literacy).

The P-Fin Index's 28 questions cover eight functional areas:

1. Earning
2. Saving
3. Consuming
4. Investing
5. Borrowing
6. Insuring
7. Comprehending risk
8. Go-to information sources

An example question

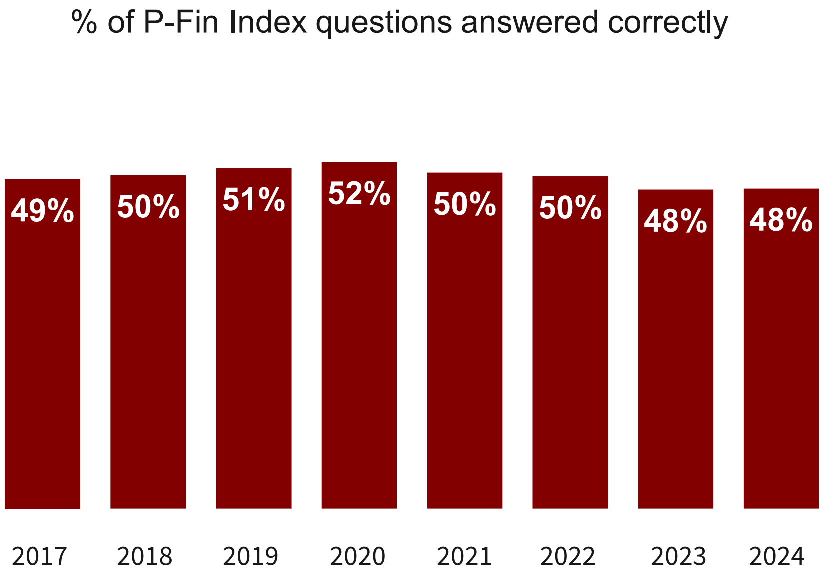
Paula saves $500 each year for 10 years and then stops saving additional money. At the same time, Charlie saves nothing for 10 years but then receives a $5,000 gift which he decides to save. If both Paula and Charlie earn a 5% return each year, who will have more money in savings after 20 years?

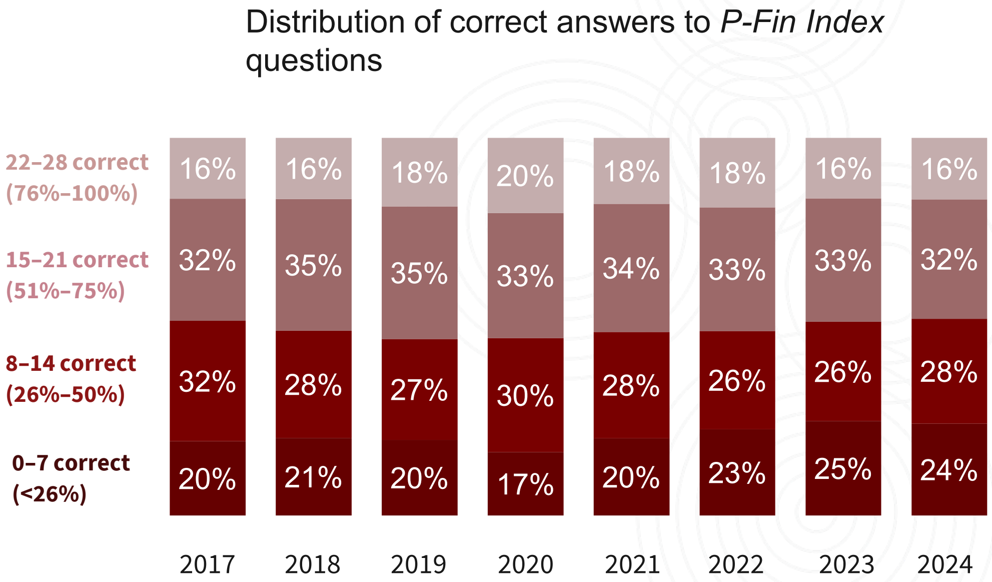
- Paula
- Charlie
- Paula and Charlie will have the same amount
- Don’t know
- Refuse to answer

Results:	
Correct	**51%**
Incorrect	**23%**
Don’t Know	**25%**
No Answer	**0%**

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

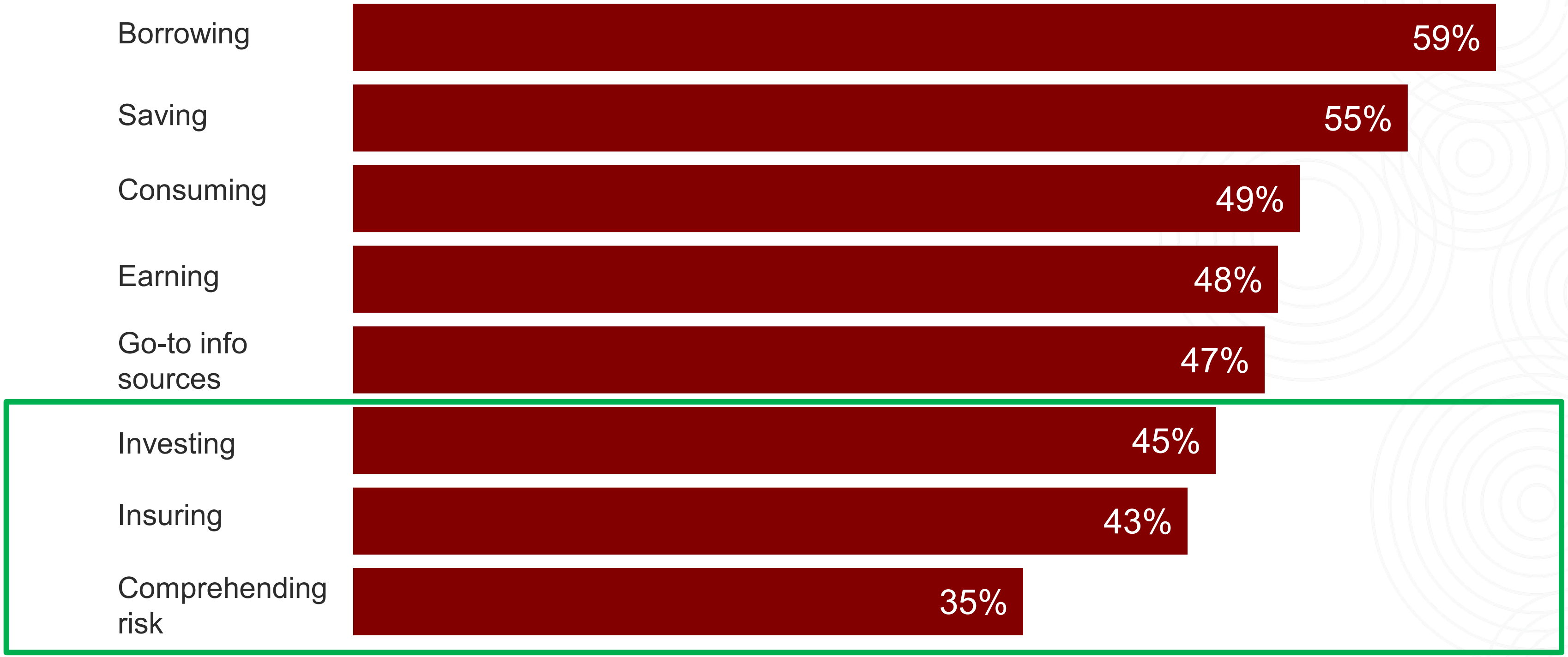
Financial (il)literacy is holding steady: 2017-2024





Source: TIAA Institute-GFLEC Personal Finance Index (2017-2024).

What do people know the most and the least



Source: TIAA Institute-GFLEC Personal Finance Index (2024).

Zooming in: Inflation knowledge

Akiko has $1,000 in savings that earns a 2% rate of return over the course of the year. The inflation rate during the year is 3%. Which statement is true?

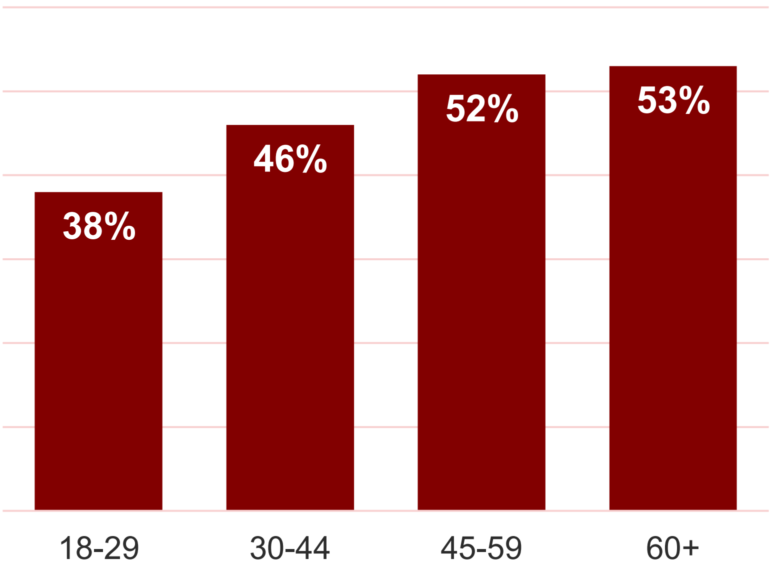
- She can afford to buy fewer things at the end of the year
- She can afford to buy more things at the end of the year
- It's not clear whether she can afford to buy more things or fewer things at the end of year
- Don't know
- Refuse to answer

Results:	
Correct	**47%**
Incorrect	**23%**
Don't Know	**29%**
No Answer	**1%**

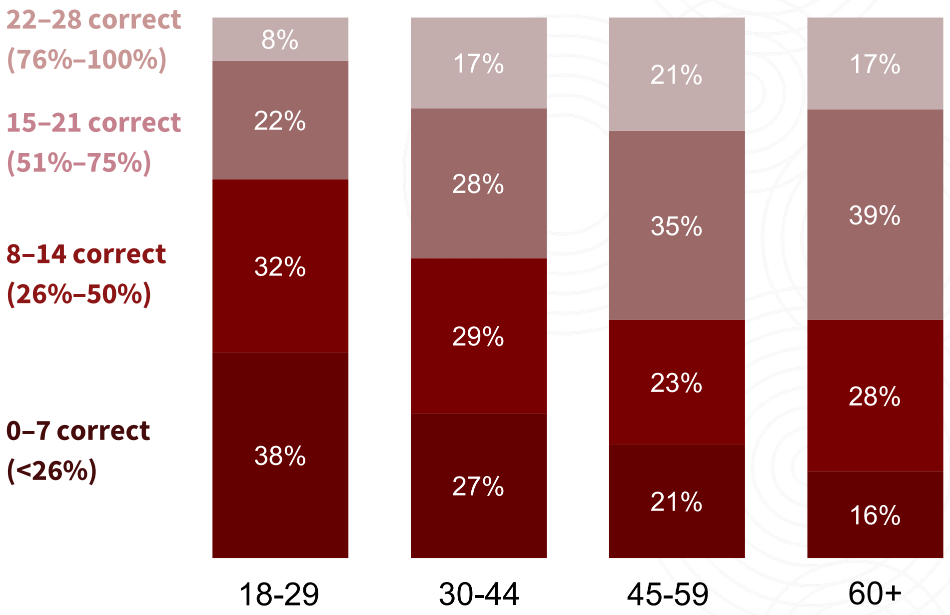
Source: TIAA Institute-GFLEC Personal Finance Index (2024).

Gaps in financial knowledge: Age groups/cohorts

% of P-Fin Index questions answered correctly



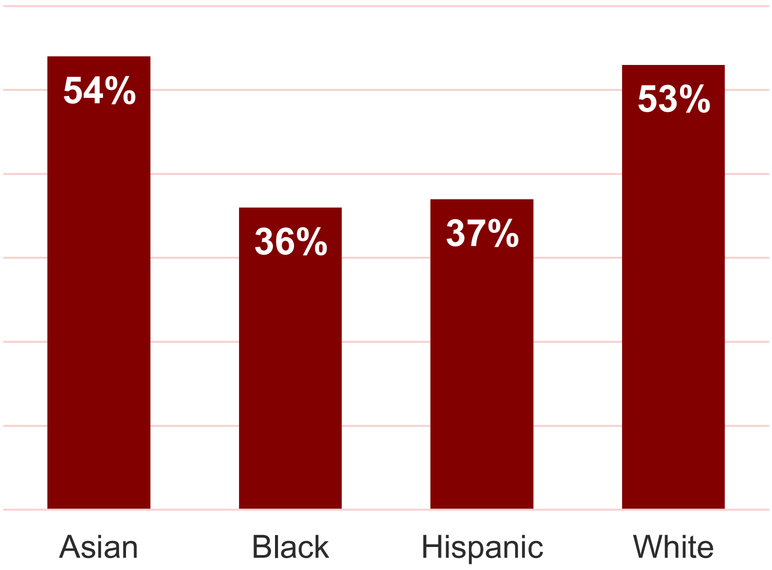
Distribution of correct answers to P-Fin Index questions



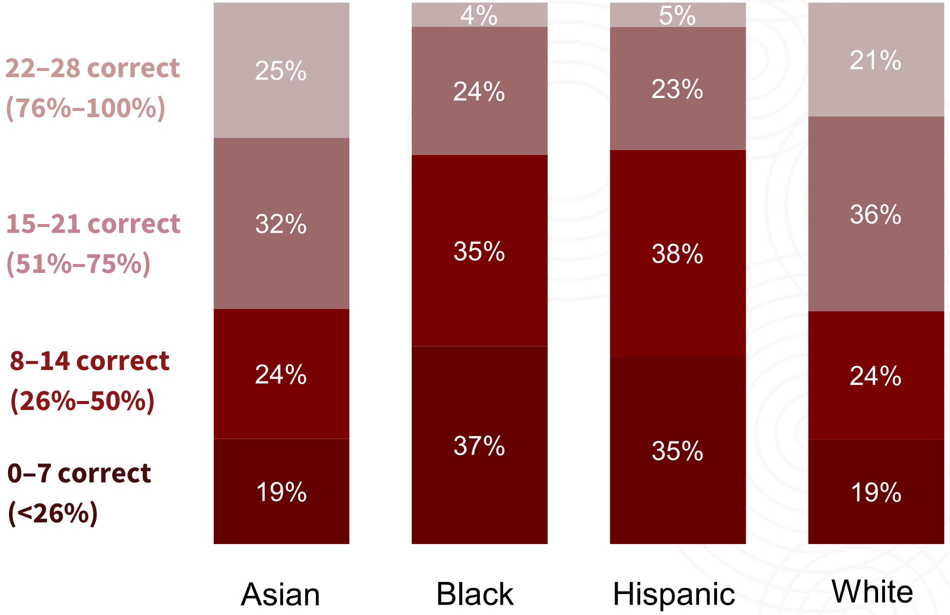
Source: TIAA Institute-GFLEC Personal Finance Index (2024).

Gaps in financial knowledge: Racial/Ethnic groups

% of P-Fin Index questions answered correctly

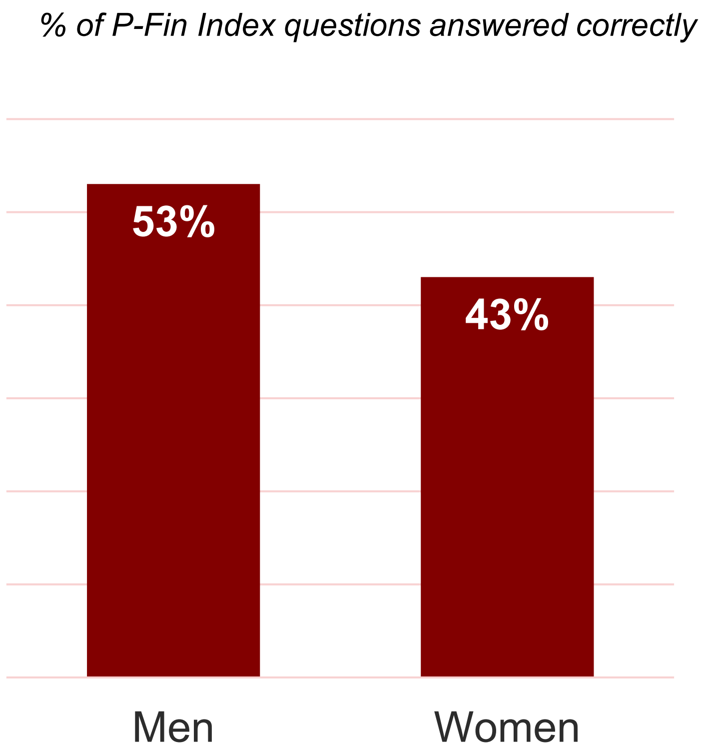


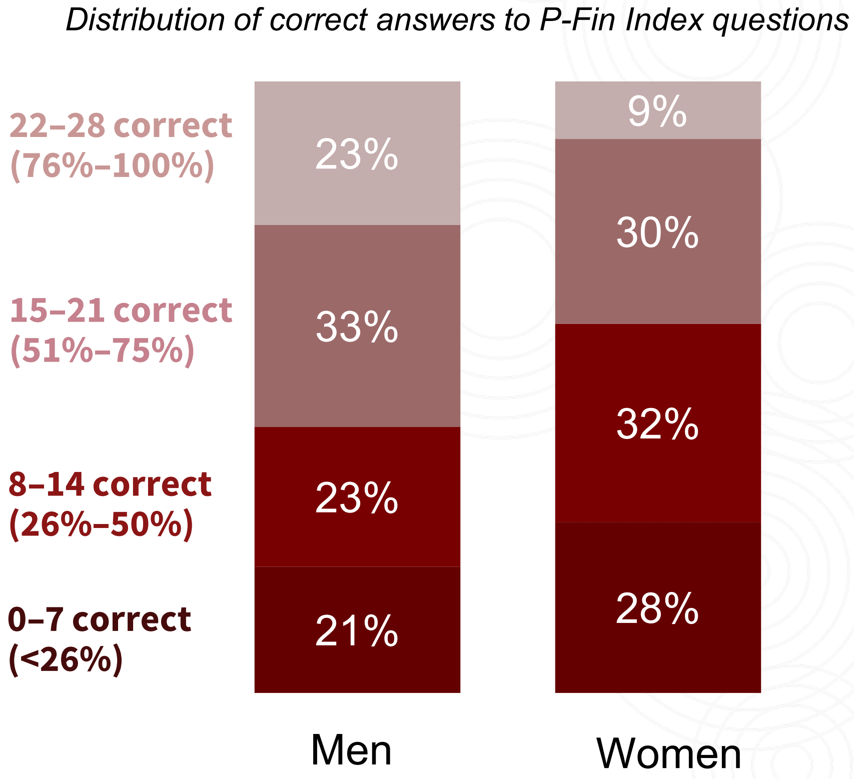
Distribution of correct answers to P-Fin Index questions



Source: TIAA Institute-GFLEC Personal Finance Index (2024).

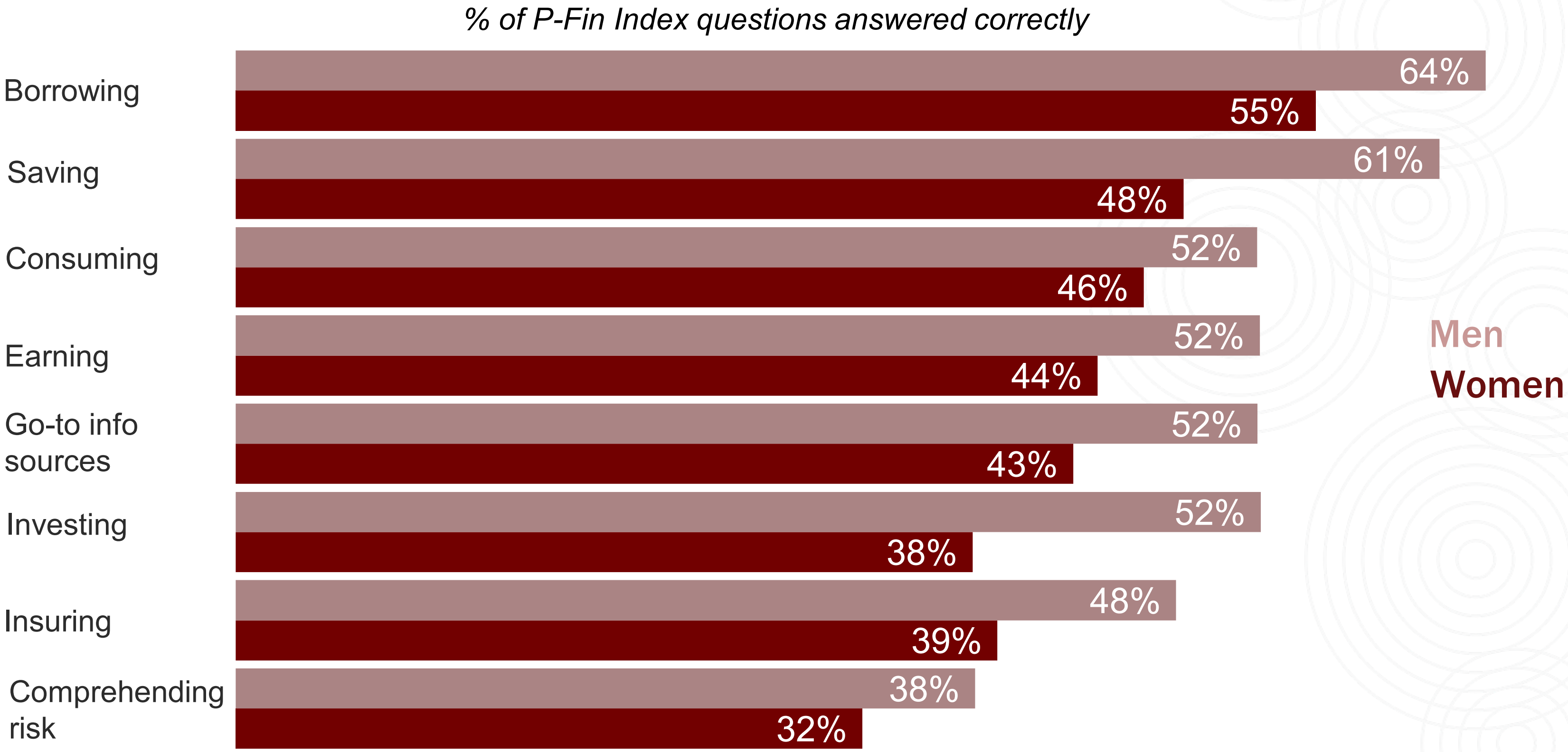
Gaps in financial knowledge: Women and men





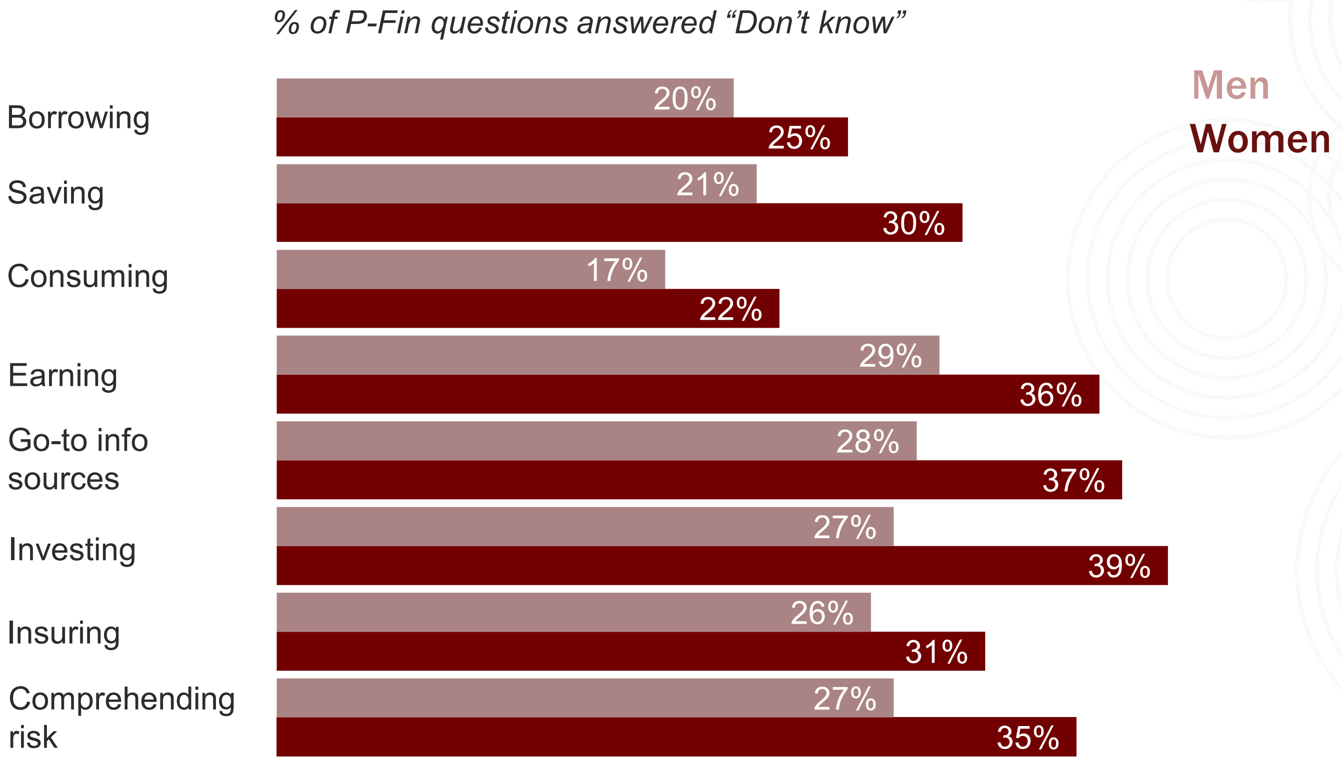
Source: TIAA Institute-GFLEC Personal Finance Index (2024).

Financial literacy gender gap in each topic...



Source: TIAA Institute-GFLEC Personal Finance Index (2024).

...and in answering “Do not know”



Source: TIAA Institute-GFLEC Personal Finance Index (2024).

Focusing on gender differences

What happens if we take away the “do not know” option?

This is what we did in a project with data from the Dutch Central Bank using the Big Three.

- The gender difference shrinks but does not go away
- Women know more than they think they do, but they are not confident about their knowledge
- Both knowledge and confidence matter for financial behavior (investing in the stock market)

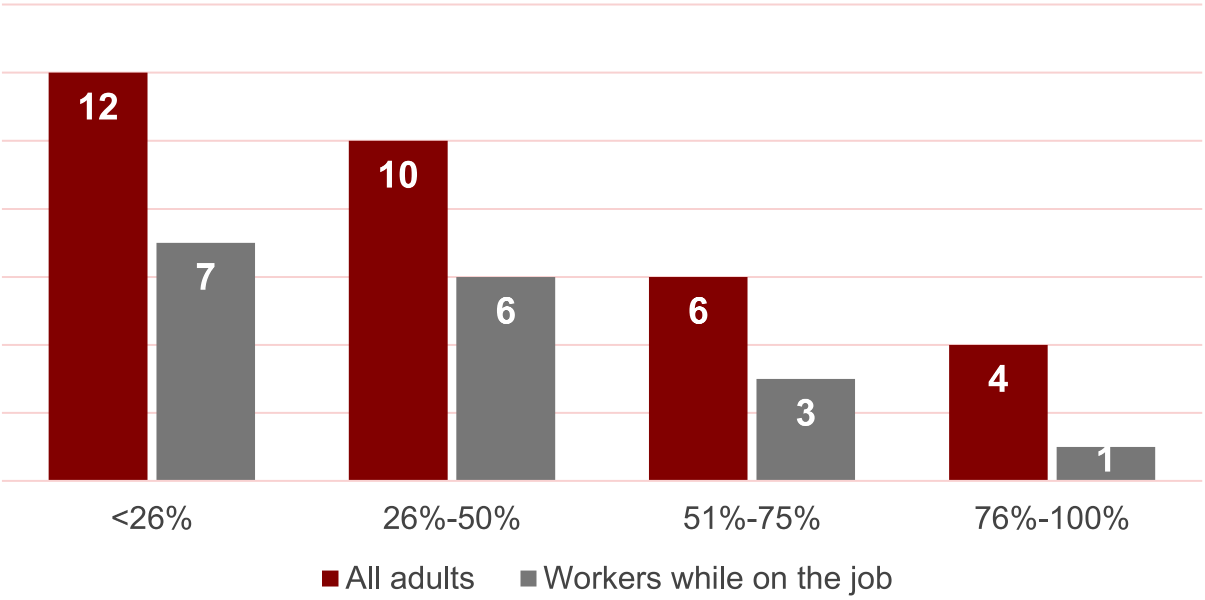
The P-Fin index and the Big Three

- Similar findings
  - Low levels of financial literacy
- Comprehending risk
  - Risk is a difficult concept to grasp
- Many “do not know” responses
  - They provide useful information
- Gaps in financial literacy
  - Similar findings

Turning to financial wellbeing

A simple measure of the cost of financial illiteracy

Average hours per week spent thinking about and dealing with issues and problems related to personal finance



People spend an average of 8h per week thinking about and dealing with financial issues and problems. An average of 4h per week occur at work.

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

Measuring financial fragility ***(Lusardi, Schneider and Tufano, BPEA, 2011)***

How **confident** are you that you could come up with **$2000** if an unexpected need arose **within the next month**?

- I am certain I could come up with the full $2,000.
- I could probably come up with $2,000.
- **I could probably not come up with $2,000.**
- **I am certain I could not come up with $2,000.**
- Don’t know.
- Prefer not to say.

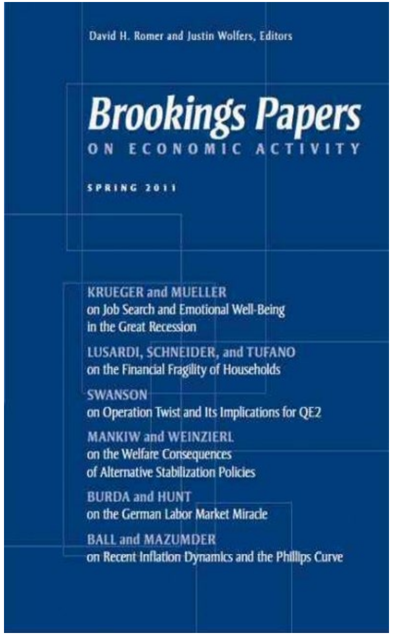
Respondents are classified as financially fragile.

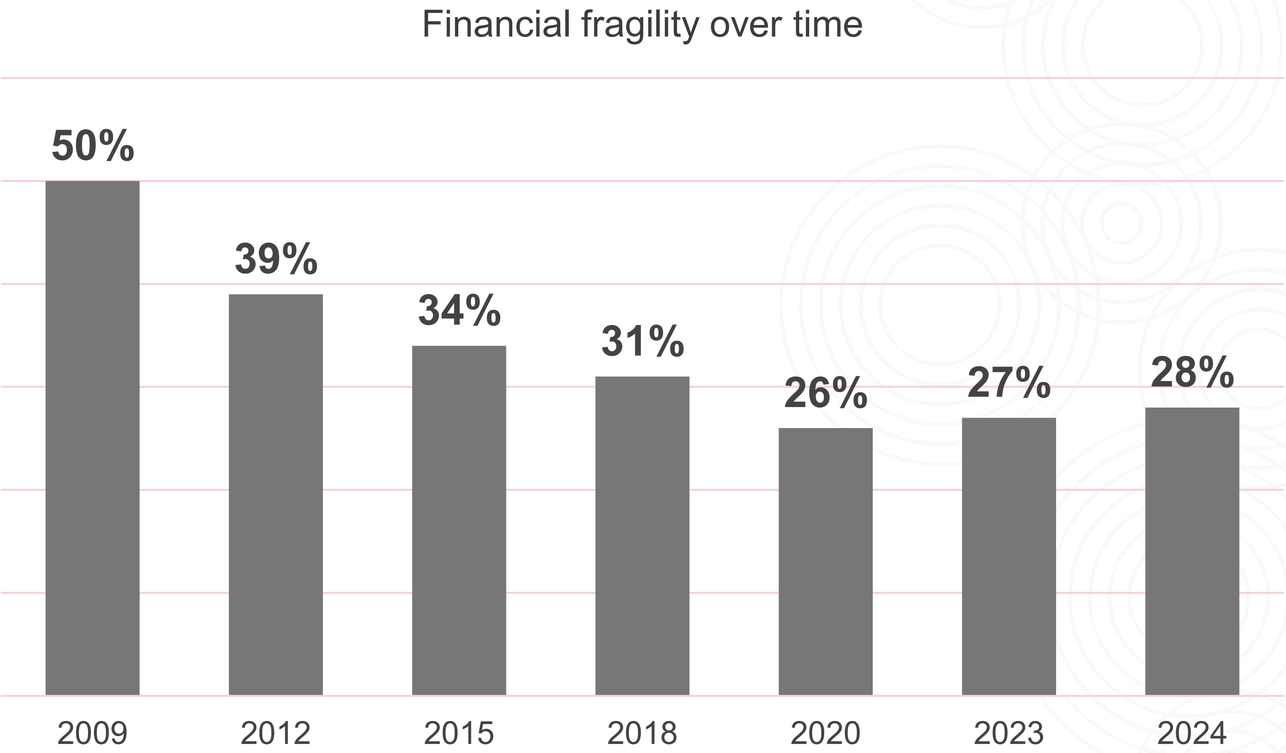
Financial fragility: what does it measure?

Is a symptom of lack of assets

Indicates lack of borrowing capacity of highly leveraged households

Financial fragility before and after the pandemic





Source: 2009 TNS data; 2012, 2015 and 2018 NFCS data; 2020, 2023, 2024 P-Fin data.

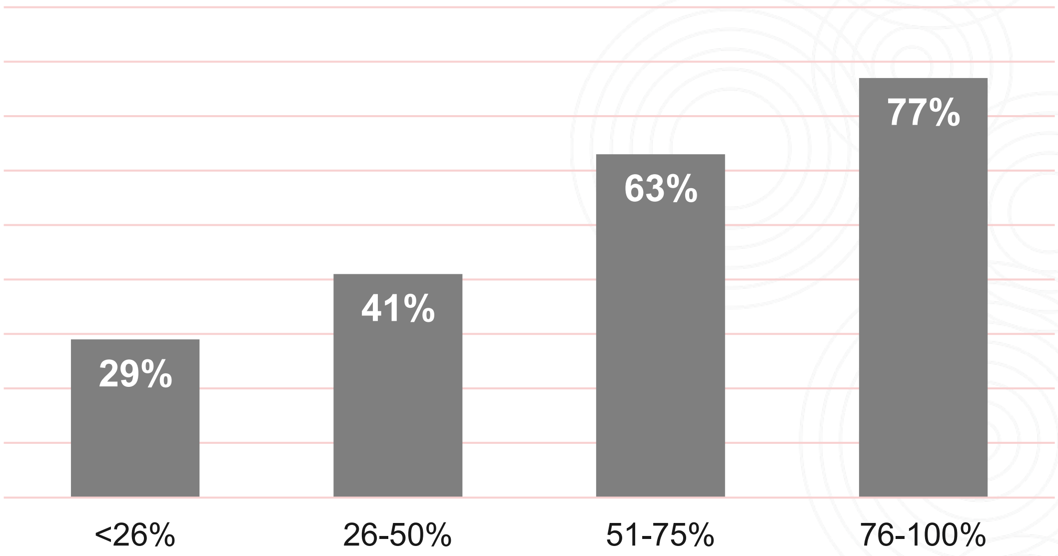
Financial fragility in America

Long lines at the food banks at the start of the pandemic!

Financial literacy and financial fragility

Those with greater financial literacy are less likely to be financially fragile.

% who could certainly come up with $2,000 if an unexpected need arose within the next month



% of P-Fin Index questions answered correctly

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

The relationship between financial resilience (being able to cope) and financial literacy

	Model 1 *Financial Resilience*	Model 2 *Financial Resilience*	Model 3 *Financial Resilience*
>50% of P-Fin questions correct	0.095*** (0.018)		
Total # of P-Fin questions correct		0.007*** (0.001)	
Was offered financial education			0.052*** (0.015)
Demographic Controls	Yes	Yes	Yes
Observations	3,687	3,687	3,687
R-squared	0.173	0.175	0.168

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

The relationship between retirement planning and financial literacy

	Model 1 *Retirement Planning*	**Model 2** *Retirement Planning*	**Model 3** *Retirement Planning*
>50% of P-Fin questions correct	0.145*** (0.022)		
Total # of P-Fin questions correct		0.011*** (0.001)	
Was offered financial education			0.106*** (0.020)
Demographic Controls	Yes	Yes	Yes
Observations	2,809	2,809	2,809
R-squared	0.148	0.152	0.143

Source: TIAA Institute-GFLEC Personal Finance Index (2024); non-retirees.

Contents lists available at ScienceDirect

J. Account. Public Policy

journal homepage: www.elsevier.com/locate/jaccpubpol

Full length article

Resilience and wellbeing in the midst of the COVID-19 pandemic: The role of financial literacy

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ARTICLE INFO

Article history:
Available online 30 March 2023

JEL classifications:
G53
D14

ABSTRACT

Using the 2021 wave of the TIAA Institute-GFLEC Personal Finance Index (*P-Fin Index*), this paper provides an in-depth examination of the financial literacy of U.S. adults in the midst of the COVID-19 pandemic. Knowledge is troublingly low, with U.S. adults averaging a score of 50 percent on the twenty-eight questions that compose the *P-Fin Index*. Even more disturbingly, only 28 percent of U.S. adults correctly answered a question testing their ability to comprehend and compare probabilities. Financial literacy matters. Lower financial literacy is associated with increased time spent worrying about personal finances. After controlling for income, education, and key demographic information, the more financially literate are found to be more likely to be financially resilient, to plan for retirement, and to feel unconstrained by debt. These findings highlight the importance of financial knowledge, in particular in a time of crisis, and raise concerns about the public's ability to comprehend complex messages about risk during the pandemic.

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Financial literacy matters

Who is financially literate:

- is more likely to cope with financial shocks
- is more likely to plan for retirement
- is more likely to save
- is less likely to be debt-constrained

The findings in the P-Fin Index confirm the results in other studies using other measures of financial literacy.

What we have learned

- Need to improve levels of financial literacy
  - Levels of knowledge are critically low
- Some topics are particularly complex
  - Risk and risk diversification
- Gaps across demographic subpopulations
  - One size does not fit all
- Increasing financial wellbeing
  - Financial knowledge matters too

Using research and data for teaching, policy and programs

Research–based workplace financial education programs

Our workplace financial wellness webpage describes the financial wellness programs we have designed based on our research

From research to teaching

- Personal Finance courses for undergraduate and graduate students
- Extensive coverage of risk and risk management
- Paying attention to gender and other differences in financial literacy
- Use the P-Fin Index data in every class to motivate and illustrate the topic
- A lot of applications

It’s time to teach personal finance in every college and university

Initiative for Financial Decision-Making

Collaboration between:

Stanford | Institute for Economic Policy Research (SIEPR)

STANFORD BUSINESS GRADUATE SCHOOL OF

Stanford | Department of Economics
SCHOOL OF HUMANITIES AND SCIENCES

An initiative in which education, technology, policy, and research come together.

From research to policy

We have:

- Advised countries on national strategies for financial literacy
- Chaired the National Financial Education Committee in Italy

Implementing the national strategy for financial literacy in Italy

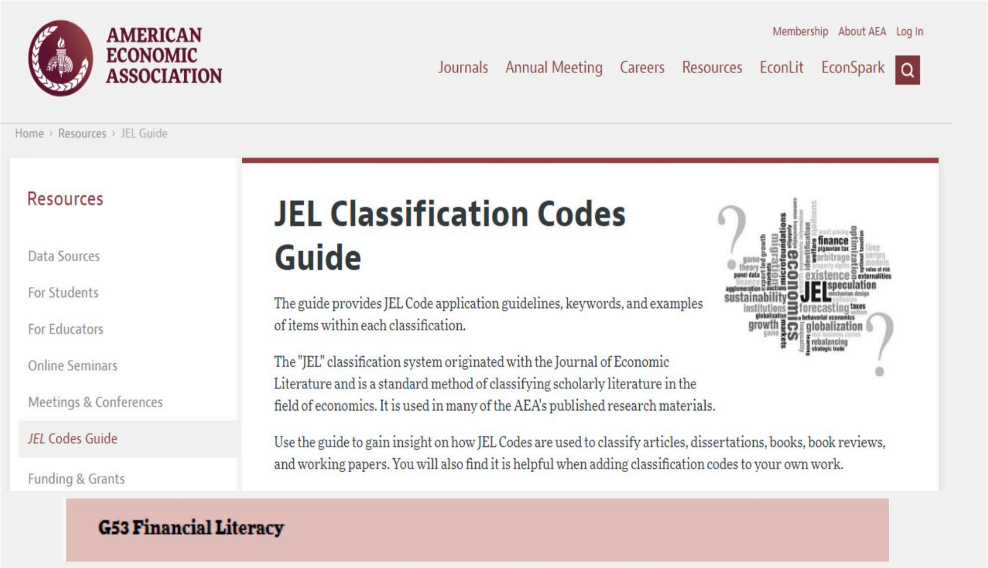
I chaired the Italian Committee for Financial Education in charge of the national strategy for financial literacy

Our initiatives available at www.quellocheconta.gov.it

Collected data to better design policy and programs

Supported a law mandating financial education in school

Opening a new field



For a summary: New paper describes the research in the past 20 years

Annamaria Lusardi and Olivia S. Mitchell

Journal of Economic Perspectives

Fall 2023

Journal of Economic Perspectives—Volume 37, Number 4—Fall 2023—Pages 137–154

The Importance of Financial Literacy: Opening a New Field

Annamaria Lusardi and Olivia S. Mitchell

People face complex financial decisions with potentially long-lasting consequences at all stages of life. As young people grow into adulthood, they make decisions about loans for college tuition, cars, and houses, along with how to manage credit cards, health and other kinds of insurance, and living within a budget. The shift from defined benefit to defined contribution retirement plans implies that ordinary people must now shoulder decisions about saving, investing, and more. Older people face decisions about how to manage risks and costs of aging, as well as drawing down their retirement assets. These decisions have only become more complex with the advent of new financial products (which, with the help of technology, one can access with a click), novel ways to make payments ("buy now, pay later"), risky instruments such as crypto assets, and most recently the rise of inflation. According to Google Trends, searches for how to budget or save for retirement have increased fourfold since 2004.

For these reasons and others, *financial literacy*, by which we mean people's knowledge of and ability to use fundamental financial concepts in their economic decision-making, matters and is more important than ever. The fact that so many people lack financial knowledge not only limits their ability to utilize their resources to the fullest, but also contributes to macroeconomic problems. Recent economic crises related to the subprime mortgage debacle and the COVID-19 pandemic

■ *Annamaria Lusardi is Senior Fellow at the Stanford Institute for Economic Policy Research (SIEPR) and the Director of the Financial Freedom Initiative, a collaboration between the Graduate School of Business (GSB), SIEPR, and the Economics Department, Stanford University, Stanford, California. Olivia Mitchell is Professor of Insurance/Risk Management and Business Economics/Policy, and Executive Director of the Pension Research Council, at The Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania. Their email addresses are alusardi@stanford.edu and mitchelo@wharton.upenn.edu.*

For supplementary materials such as appendices, datasets, and author disclosure statements, see the article page at https://doi.org/10.1257/jep.37.4.137.

Living well

We need to teach and provide access to knowledge and skills so that people can be more financially resilient and financially secure. Financial literacy is like water in an eco-system, it is needed to grow and flourish.

Thank you.

For more info visit www.gflec.org.

Follow us on social media and stay informed.

If you have any questions, please send them to alusardi@stanford.edu.