Financial Literacy and Personal Finance
An Overview

Annamaria Lusardi
University Professor, The George Washington University
Founder and Academic Director, GFLEC
Director, Italian Financial Education Committee

Canadian Economics Association Annual Meeting, May 30th, 2023

Main topics I will cover

- Measuring financial literacy
- Assessing the impact of financial literacy on behavior
- Using the data and findings to design policy and programs
- Implications for teaching and the field

Motivation: Changes in pension system, financial markets, and more

- Changes in the pension system: people are now in charge of their pension
- Student loans: How to finance education
- Complexity of financial instruments, including new ones (crypto assets)
- Easy access to credit, buy now pay later
- Fintech, buy with a click
- Increase in risk, including climate change

Two numbers to remember from this presentation

3 and 1/3

Starting with the first number: 3

- How to measure financial literacy: the Big Three
  - First added in a module in the HRS in 2004

- Even a small number of questions can provide insights about financial literacy

- This small number made it possible to have these questions in many national surveys around the world
  - In the US, they were added to national surveys like the SCF

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 3

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

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
   - ☑ 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
   - ☑ False
   - ☐ Don't know
   - ☐ Refuse to answer

The second number: 1/3

- How many people know the ABCs of personal finance, even in countries with well-developed financial markets

- The proportion of “do not know” responses to many financial literacy questions

- How many people were financially fragile (in the US and Europe) before the pandemic started

How much do Americans know? (Lusardi and Mitchell, JPEF 2011)

Distribution of responses across the U.S. population
(2009 National Financial Capability Study)

	Responses			
	Correct	Incorrect	DK	Refuse
Interest rate	64.9%	20.5%	13.5%	1%
Inflation	64.3%	20.2%	14.2%	1.3%
Risk diversif.	51.8%	13.3%	33.7%	1.2%

NB: Only about 1/3 correctly answer all 3 questions. About 1/3 do not know about risk diversification.

How much do Germans know? (Bucher-Koenen & Lusardi, JPEF 2011)

Distribution of responses across the German population
(2009 SAVE)

	Responses		
	Correct	*Incorrect*	*DK*
Interest rate	82.4%	6.7%	11%
Inflation	78.4%	4.6%	17%
Risk diversif.	61.8%	5.9%	32.3%

NB: About half (53.2%) correctly answer all 3 questions. About 1/3 do not know about risk

How much do Canadians know? (Boisclair, Lusardi and Michaud, JPEF 2017)

Distribution of responses across the Canadian population
(2012 Canadian Securities Administrators Survey)

	Responses		
	Correct	*Incorrect*	*DK*
Interest rate	77.9%	13.2%	8.8%
Inflation	66.2%	17.7%	16.1%
Risk diversif.	59.3%	9.4%	31.3%

NB: Less than half (42.5%) correctly answer all 3 questions. About 1/3 do not know about risk.

Financial Literacy around the World (FLat World)

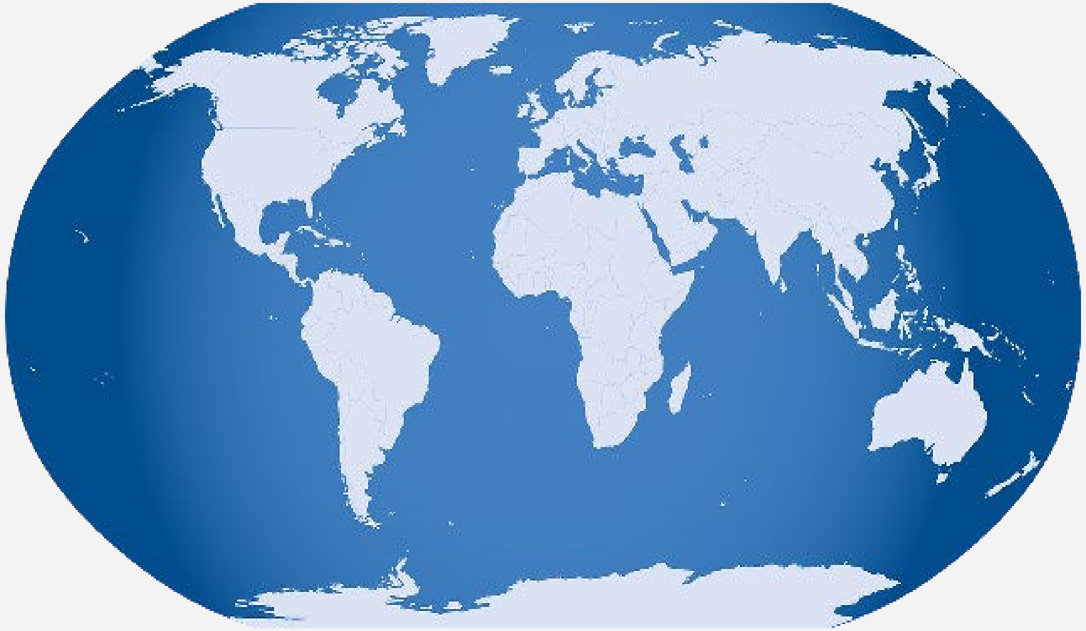
- Evidence from 15 countries:

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

Using the Big Three, we have found that financial literacy is low in both developed and developing economies

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

- Evidence from other countries and updating the evidence with a focus on inflation (special issue of the *Journal of Financial Literacy and Wellbeing*, 2023)
  - ❖ Latin America (Peru and Uruguay)
  - ❖ Eastern Europe (9 countries)
  - ❖ Singapore
  - ❖ Finland
  - ❖ Italy
  - ❖ Japan
  - ❖ US



How much do Canadians know? New evidence

Distribution of responses (age: 35-54)

(2023 RSI Index, Retirement and Savings Institute, HEC Montréal)

	Responses		
	Correct	*Incorrect*	*DK*
Interest rate	80.4%	8.6%	11.0%
Inflation	68.1%	15.9%	16.0%
Risk diversif.	60.7%	5.5%	33.9%

NB: Less than half (44.4%) correctly answer all 3 questions. About 1/3 are incorrect or do not know about inflation. About 1/3 do not know about risk.

Global Finlit Survey (data collected in 2014)

We partnered with the World Bank and Gallup to measure financial literacy around the world (more than 140 countries)

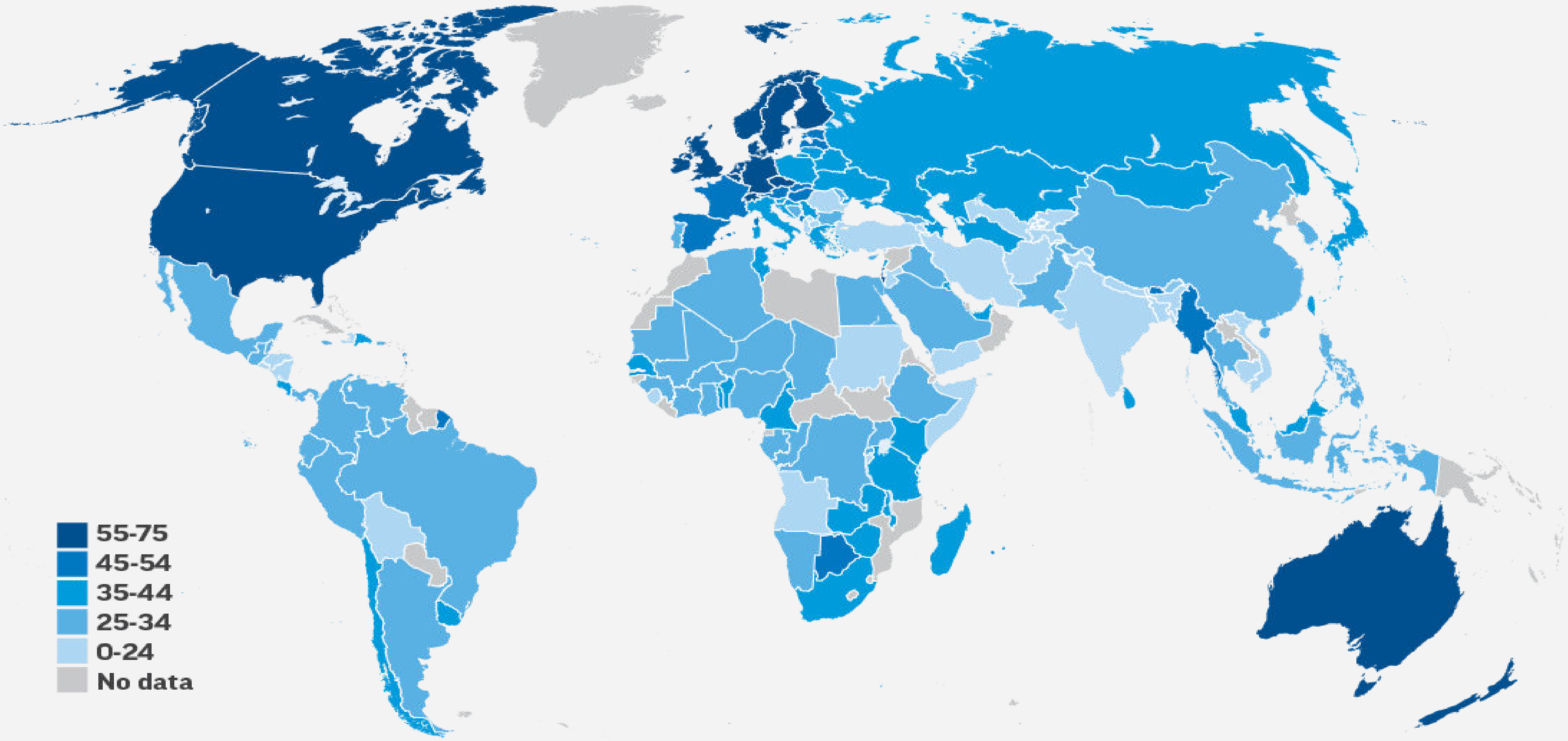
We used a modified version of the Big Three to measure financial literacy

Low financial literacy is widespread.

Even in countries with well-developed financial markets and high GDP, financial literacy levels are low.

Klapper and Lusardi, *Financial Management*, 2020

Global financial illiteracy: Only 1/3 is financially literate

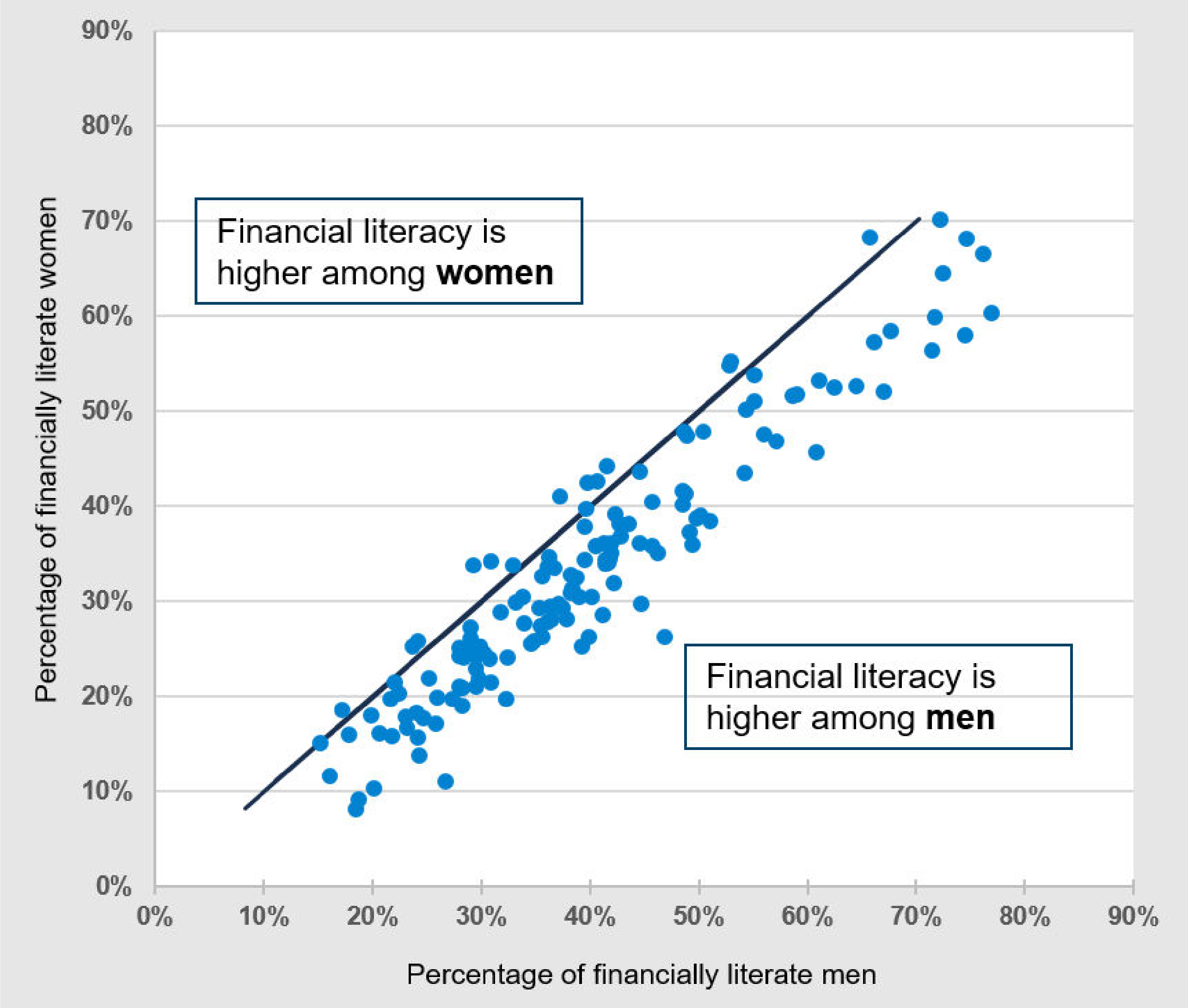


Source: Global Finlit Survey, 2014

Who knows the least?

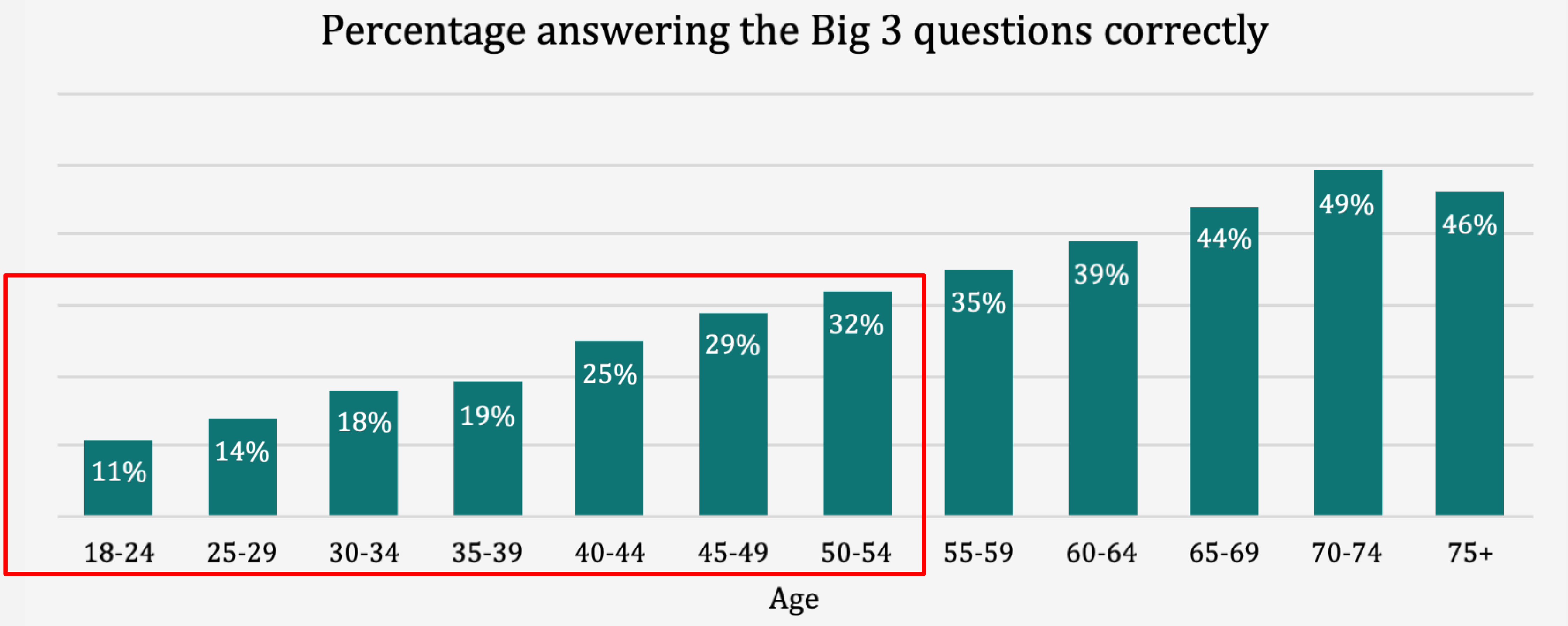
Gender gap in financial literacy around the world

In most economies around the world, men have a better understanding of basic financial concepts than women.



Source: Global Finlit Survey 2014

Financial literacy in America (2021 NFCS), by age

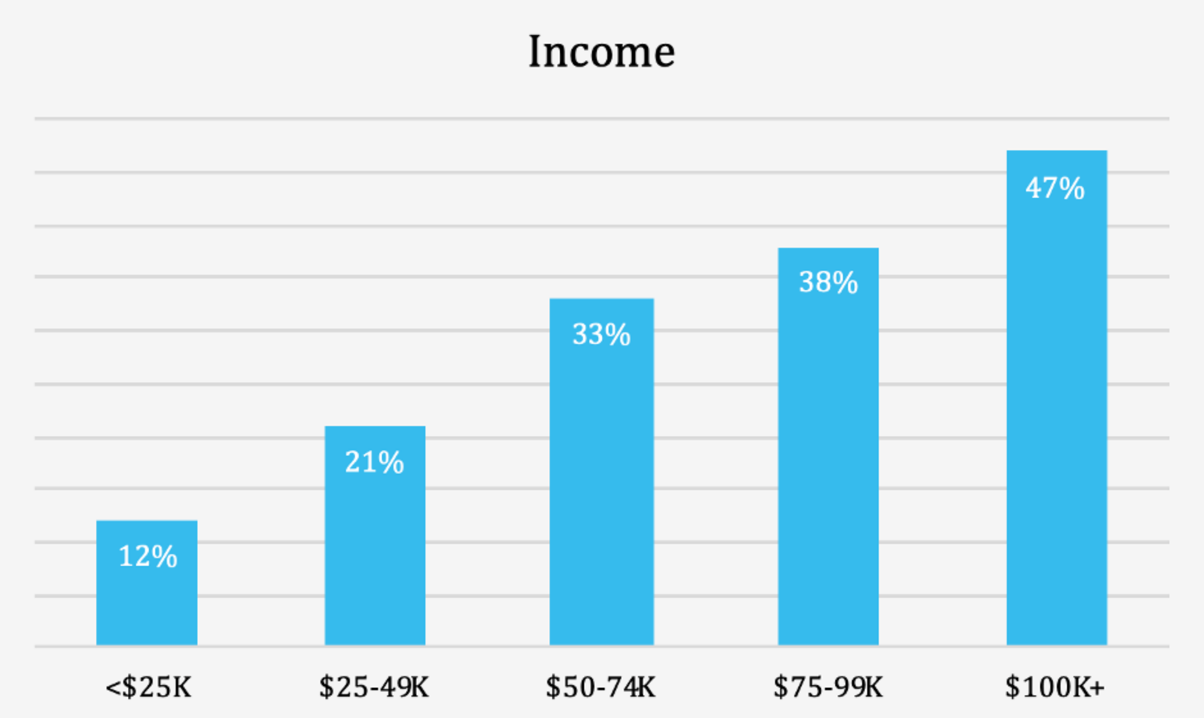


Only 1/3 of Americans know these 3 basic concepts by age 55, even though many financial decisions are made well before that age.

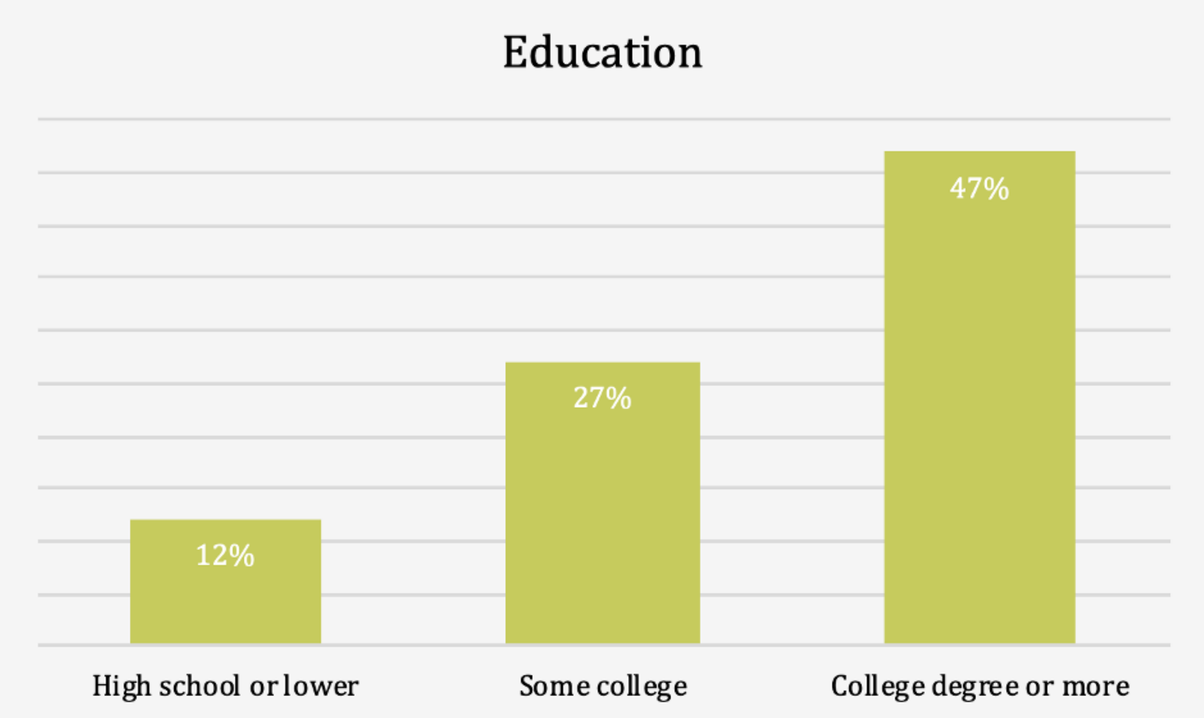
Source: 2021 NFCS

Financial literacy by income and education

Financial literacy and income…



… and education.



Source: 2021 NFCS

Explaining financial literacy (Lusardi et al., JPE 2017)

- These findings inspired Olivia Mitchell, Pierre-Carl Michaud, and I to work on a paper that was published in the JPE in 2017
- Who benefits from financial literacy? And what are the costs of acquiring financial literacy?
- Consider a life cycle model of saving with financial literacy. Financial literacy affects the return on savings. We have to spend time and effort in acquiring financial literacy
- Financial literacy is a choice variable and we can derive the “optimal” amount of knowledge.

Started our own data collection in 2017

- Designed an index of personal finance knowledge: TIAA Institute – GFLEC Personal Finance Index (*P-Fin Index*)

- Data is collected each year (in January)

- Focus on areas of interest and needs

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 National Standards for Financial Literacy).

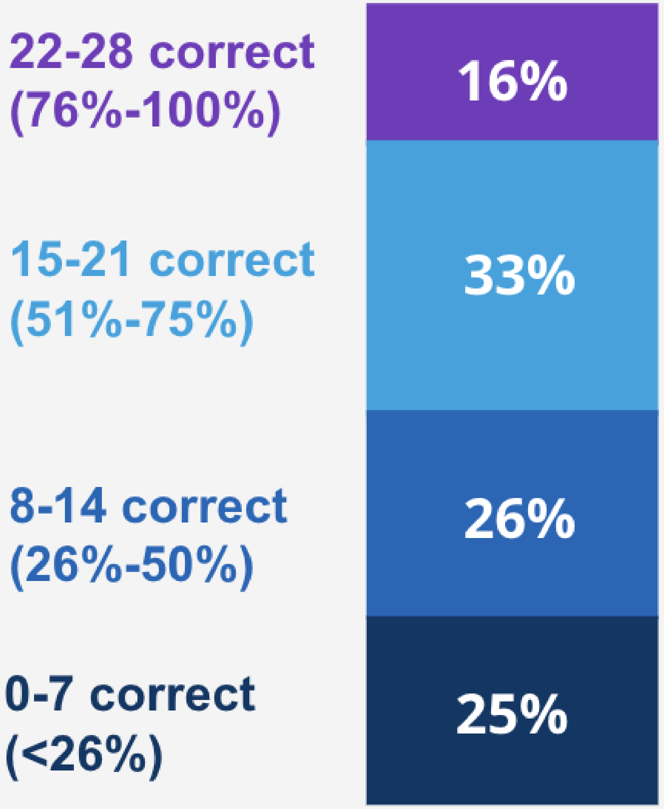
The P-Fin Index's 28 questions cover eight functional areas:

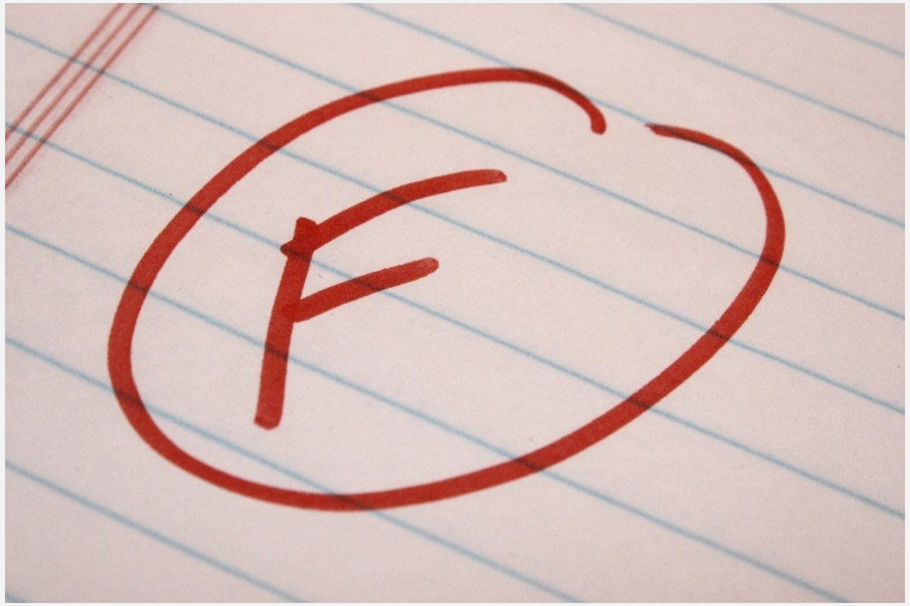
1. Earning
2. Saving
3. Consuming
4. Investing
5. Borrowing
6. Insuring
7. Comprehending risk
8. Go-to information sources

Financial literacy in America: A failing grade (2023 data)

% of P-Fin Index questions answered correctly

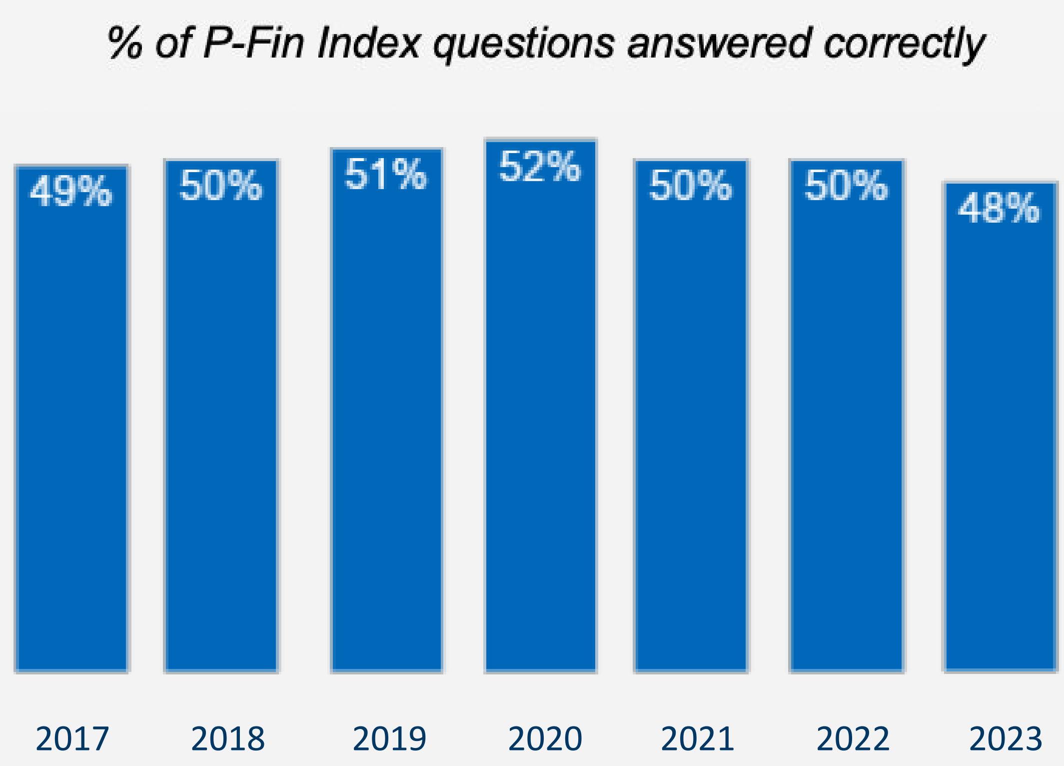
Distribution of correct answers to P-Fin Index questions

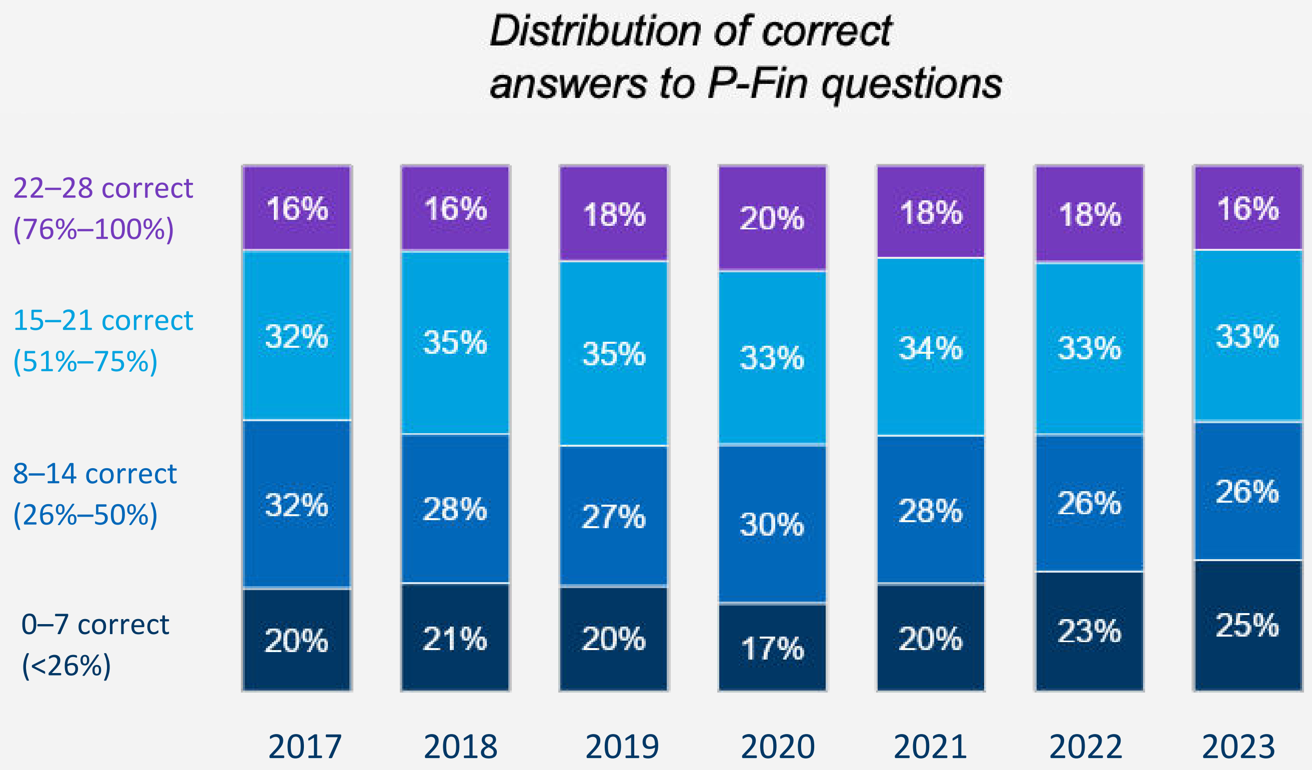




Source: TIAA Institute-GFLEC Personal Finance Index (2023).

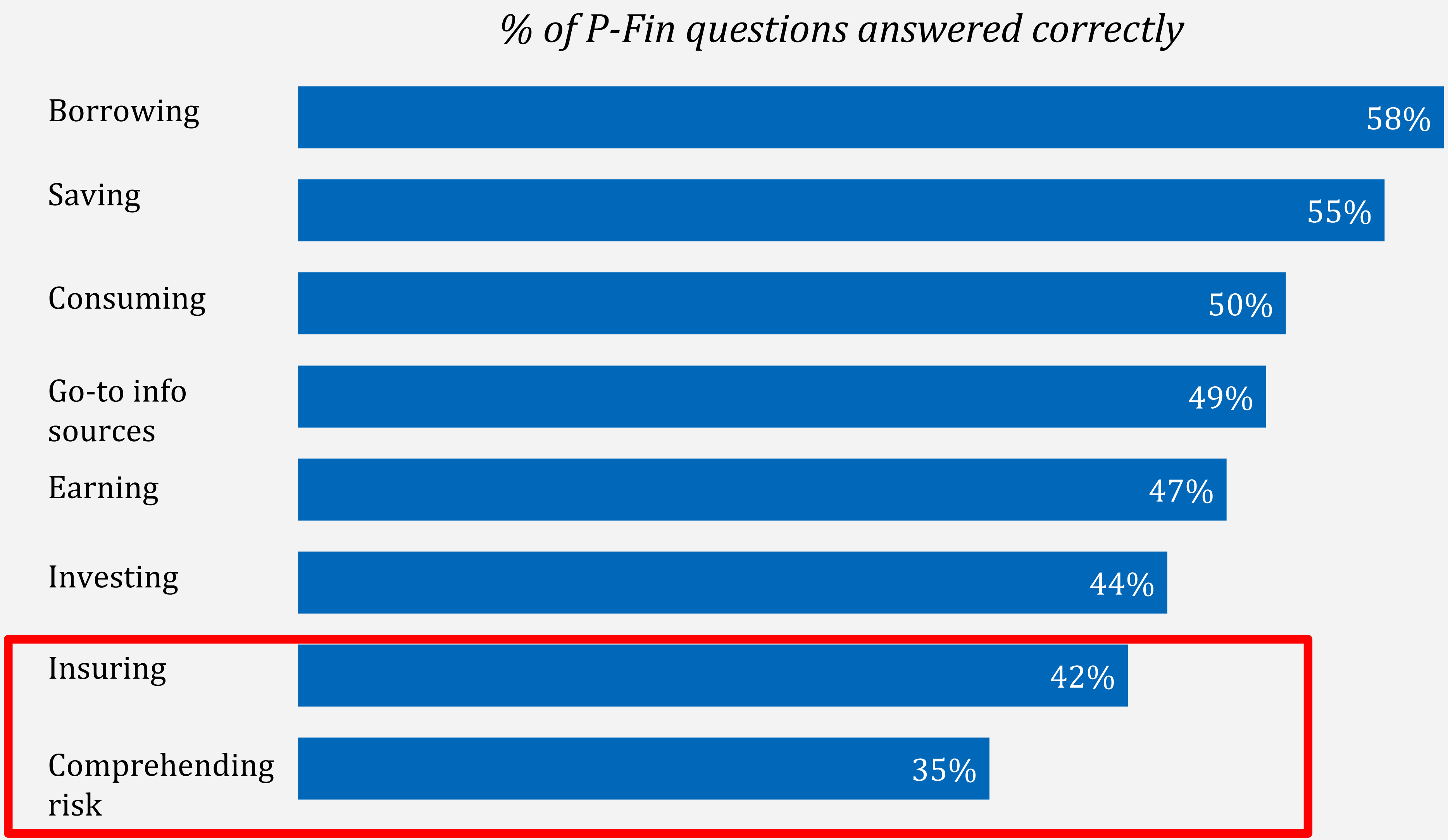
Financial (il)literacy is holding steady: 2017-2023





Source: TIAA Institute-GFLEC Personal Finance Index (2017-2023).

What do people know the most and the least



Source: TIAA Institute-GFLEC Personal Finance Index (2023).

“Calculated risk”? New question in 2021

Which of the following indicates the highest probability of getting a particular disease?

- There is a one-in-twenty chance of getting the disease
- 2% of the population will get the disease
- 25 out of every 1,000 people will get the disease
- Don’t know
- Refuse to answer

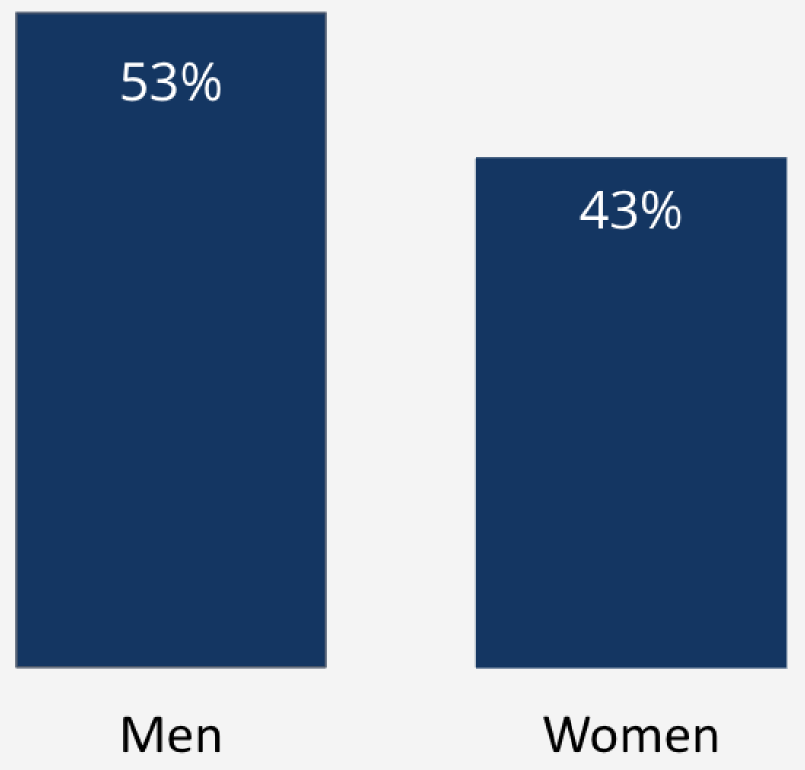
Results:

Correct	**28%**
Incorrect	**19%**
Don’t Know	**53%**
No Answer	**0%**

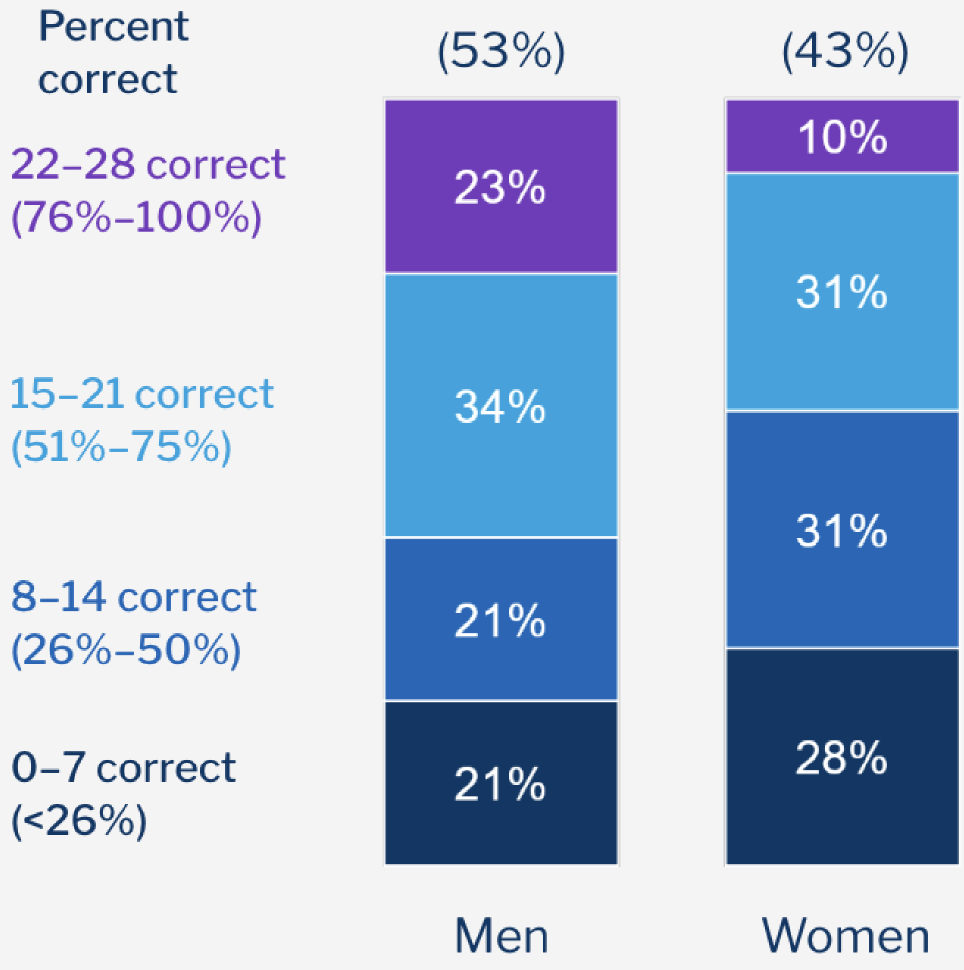
Source: TIAA Institute-GFLEC Personal Finance Index (2021).

Demographic variation: Women and knowledge

% of P-Fin Index questions answered correctly

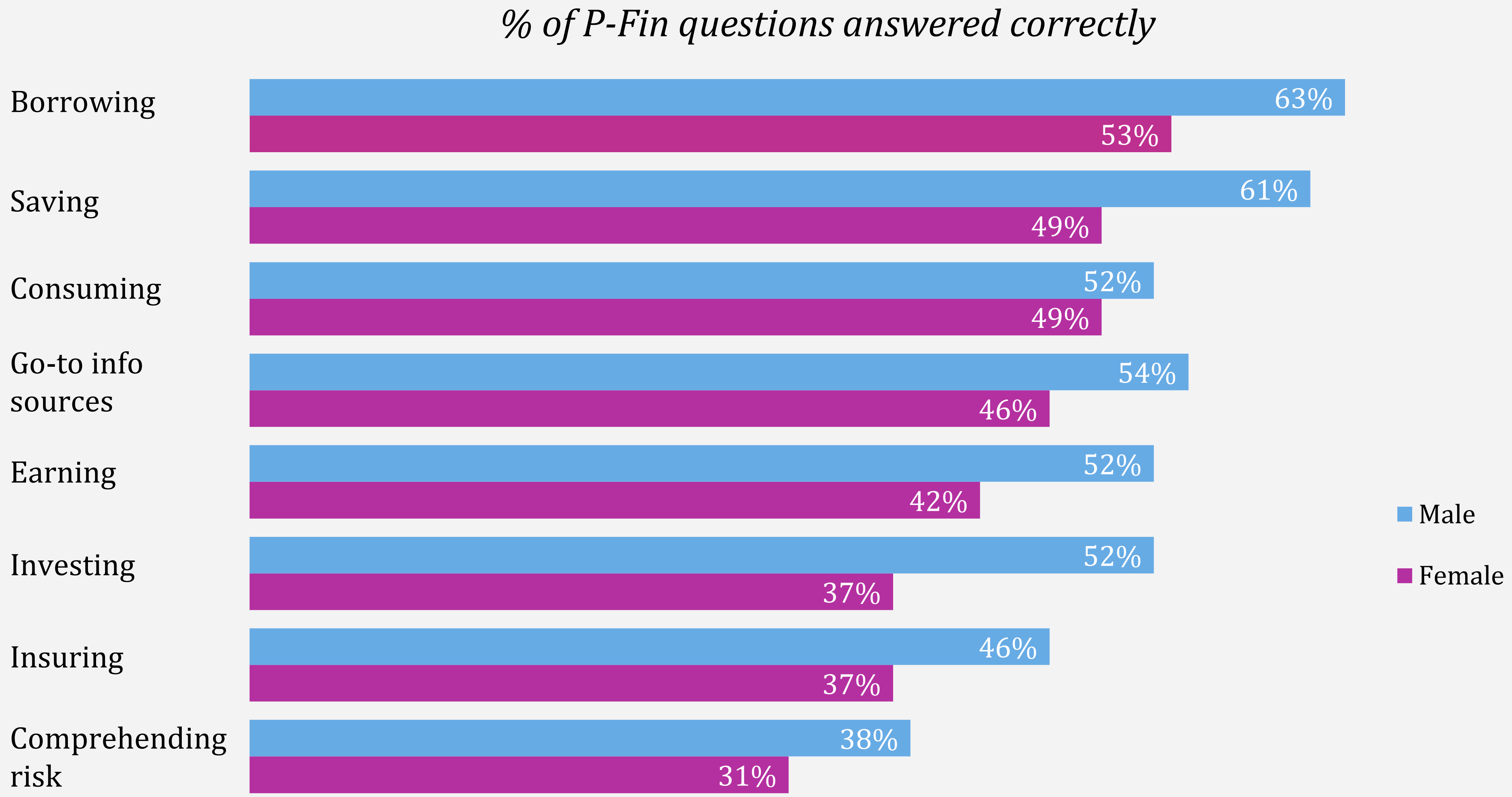


Distribution of correct answers to P-Fin questions



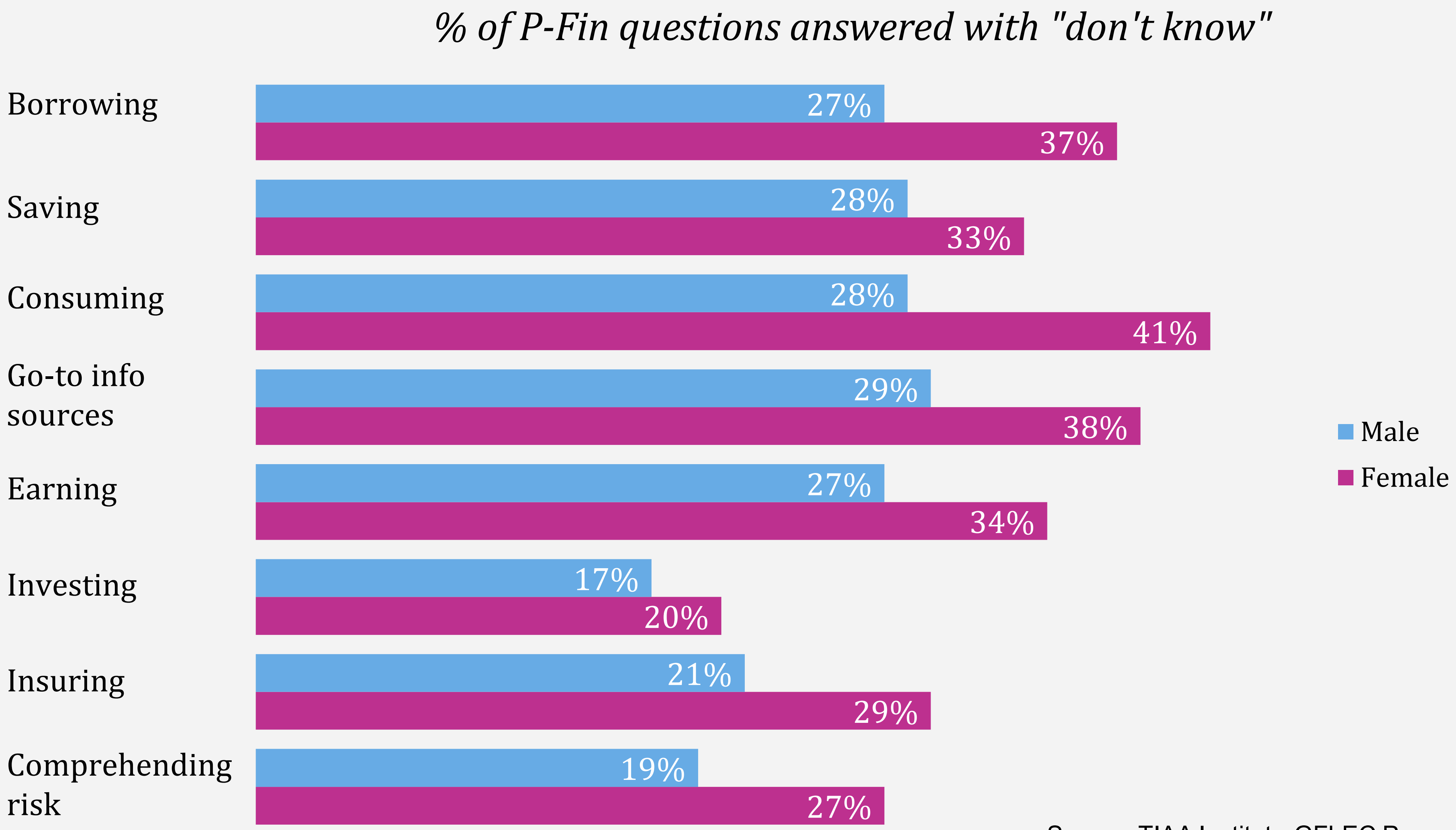
Source: TIAA Institute-GFLEC Personal Finance Index (2023).

Financial literacy gender gap in each topic...



Source: TIAA Institute-GFLEC Personal Finance Index (2023).

...and in answering "Do not know"



Source: TIAA Institute-GFLEC Personal Finance Index (2023).

Does financial literacy matter?

Financial fragility in America

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

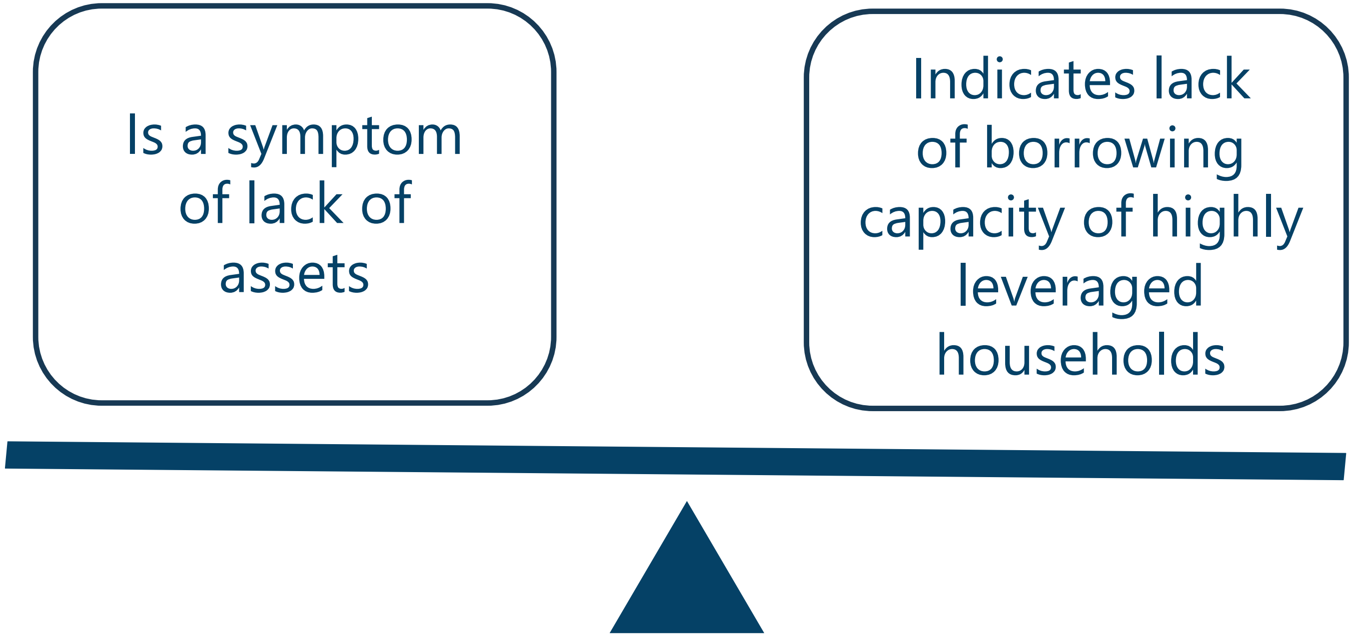
Measuring financial fragility (Lusardi, Schneider and Tufano, BPEA, 2011)

How **confident** are you that you could come up with **$2,000** if an unexpected need arose **within the next month**?

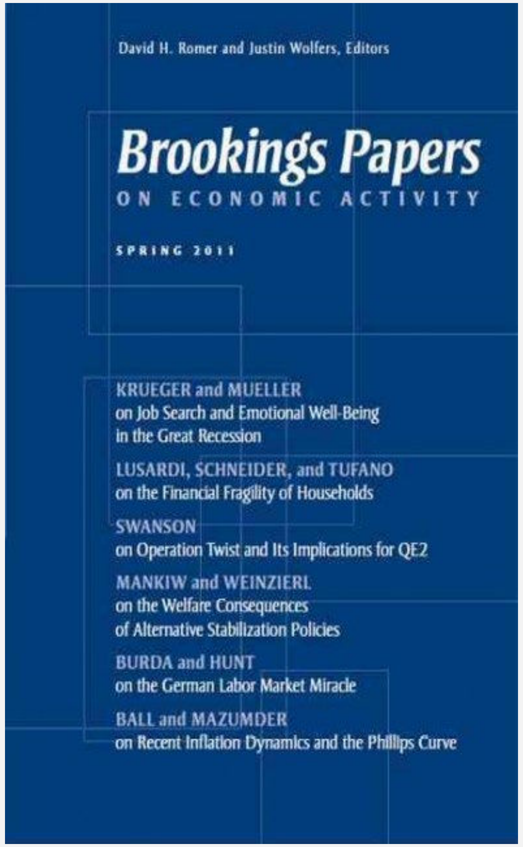
- I am certain I could come up with the full $2,000.
- I could probably come up with $2,000.
- I could probably not come up with $2,000.
- I am certain I could not come up with $2,000.
- Don’t know.
- Prefer not to say.

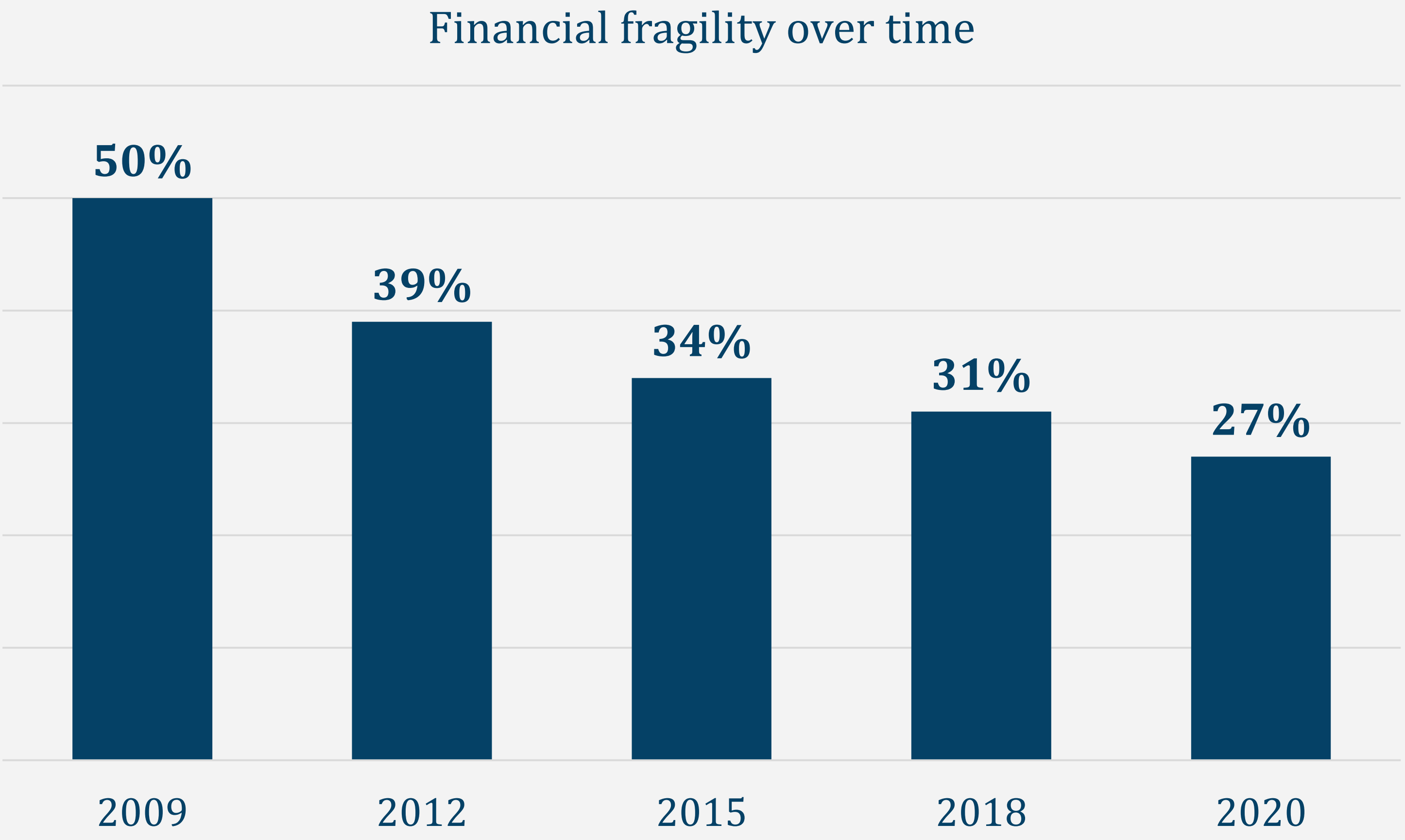
Respondents are classified as financially fragile.

Financial fragility: What does it measure?



Financial fragility before the pandemic: 1/3 cannot face a shock

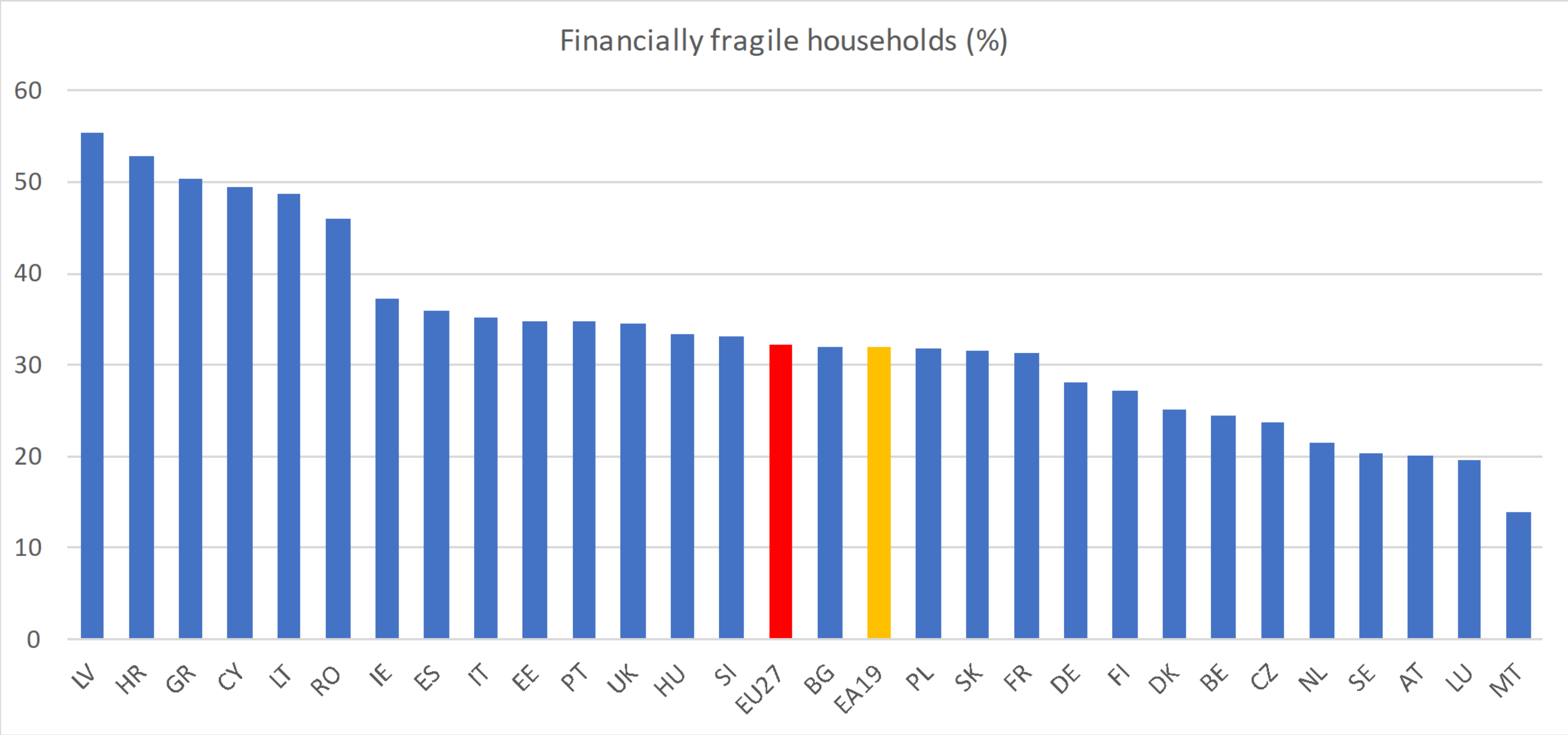




Source: 2009 TNS data, 2012, 2015 and 2018 NFCS data, and 2020 P-Fin data

Similar findings in Europe: 1/3 cannot face a shock

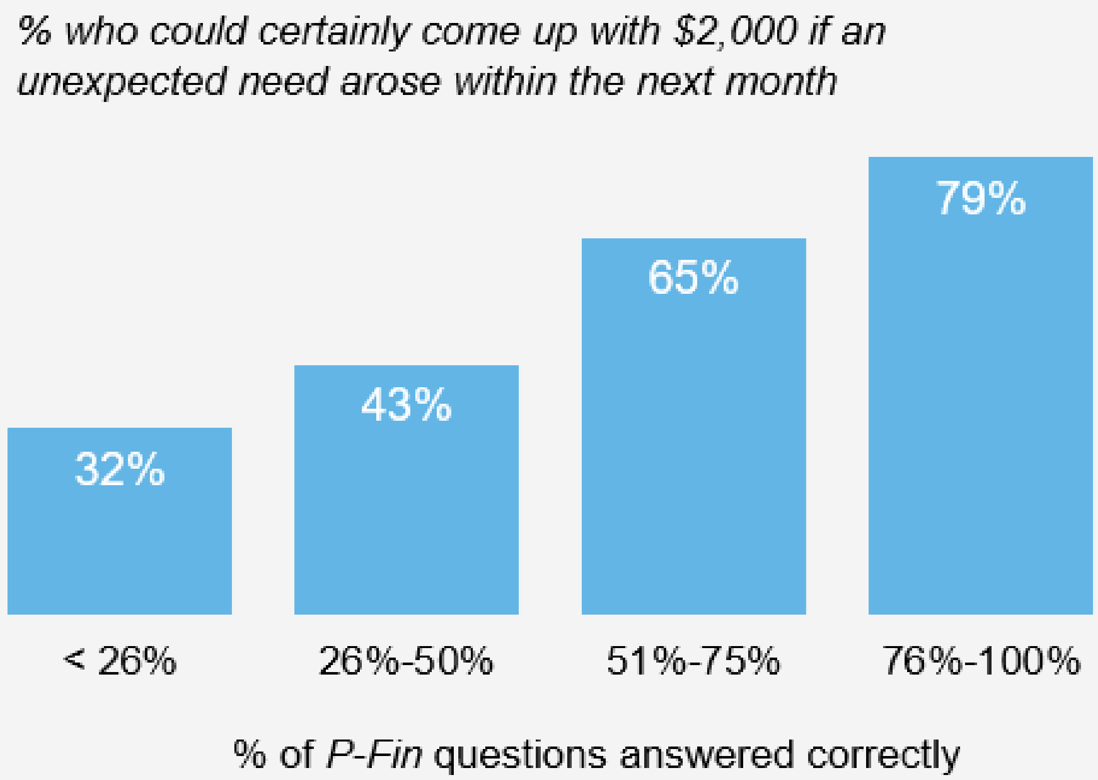
(Demertzis, Domínguez-Jiménez and Lusardi, 2020)



Source: EU-SILC 2018

Financial literacy and being able to cope

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



Source: TIAA Institute-GFLEC Personal Finance Index (2022).

The relationship between being able to cope and financial literacy (Lusardi et al., JAPP 2023)

	Model 1 *Financial Resilience*	**Model 2** *Financial Resilience*	**Model 3** *Financial Resilience*
> 50% of P-Fin questions correct	0.079***		
	(0.018)		
Total # of questions correct		0.007***	
		(0.001)	
Was offered financial education			0.012
			(0.016)
Demographic controls	Yes	Yes	Yes
Observations	3,377	3,377	3,377
R-squared	0.187	0.190	0.181

Source: TIAA Institute-GFLEC Personal Finance Index (2022).

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	0.125*** (0.023)		
Total # of questions correct		0.011*** (0.002)	
Was offered financial education			0.074*** (0.021)
Demographic controls	Yes	Yes	Yes
Observations	2,507	2,507	2,507
R-squared	0.183	0.192	0.176

Source: TIAA Institute-GFLEC Personal Finance Index (2022); non-retirees.

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 the Big Three around the world (Lusardi and Mitchell, NBER working paper, 2023)

Financial literacy and wealth inequality

- Consider a life cycle model of saving with financial literacy
- Financial literacy affects the return on savings
- Financial literacy is an important determinant of wealth and wealth inequality
- Important finding: **30-40%** of U.S. retirement wealth inequality can be attributed to difference in financial knowledge

What we learn from data and research

- Very low levels of financial literacy, even in advanced economies
  - Cannot take financial literacy for granted
  - The world is changing fast, we need to catch up

- Large heterogeneity across demographic subpopulations
  - One size does not fit all

- Financial literacy has an impact on behavior
  - It can impact the macroeconomy too

Use research to inform policy and programs

Financial education for Millennials

Program:

- Covered 5 basic concepts for financial planning
- Targeted to young workers
- It is a story (narrative or video)

- We put together a team of researchers from different fields: Economics, psychology, and linguistics

- We evaluated its effectiveness

“Five Steps to Planning Success. Experimental Evidence from U.S. Households”, Lusardi et al., Oxford Review of Economic Policy, Vol. 30, 4, 2014, pp 697–724

Five steps to financial success: topics

The five topics

- ***Compound interest***
  - How to grow your wealth
- ***Inflation***
  - The erosion of purchasing power over time
- ***Risk diversification***
  - Do not put all your eggs in one basket
- ***Tax treatment of retirement savings vehicles***
  - Taxes advantages; 401(K) and IRAs
- ***Employer matches in defined contribution saving plans***
  - Don’t leave money on the table

Five steps to financial success: effectiveness

- After being exposed to videos, financial literacy improved among participants
- While young were targeted, the videos affected all age groups
- 25-33% of the knowledge gain is still observable after 8 months
- People learned even difficult topics, such as risk diversification

Even short interventions can affect knowledge

New project: Evaluating the effects of a low-cost online financial education program

- Teaching financial literacy (the Big Three) using stories
- Target: older population (45-75 year old)
- Use data from Understanding America Study (UAS) in 2021 and 2022
- We have used so far 2 surveys but we aim to estimate the effects of improving financial literacy in the longer term

A meta-analysis of the effects of financial education

ELSEVIER

Journal of Financial Economics

Available online 3 October 2021

In Press, Corrected Proof

Financial education affects financial knowledge and downstream behaviors

Tim Kaiser[a], Annamaria Lusardi[b], Lukas Menkhoff[c], Carly Urban[d]

Show more

Share Cite

https://doi.org/10.1016/j.jfineco.2021.09.022

Get rights and content

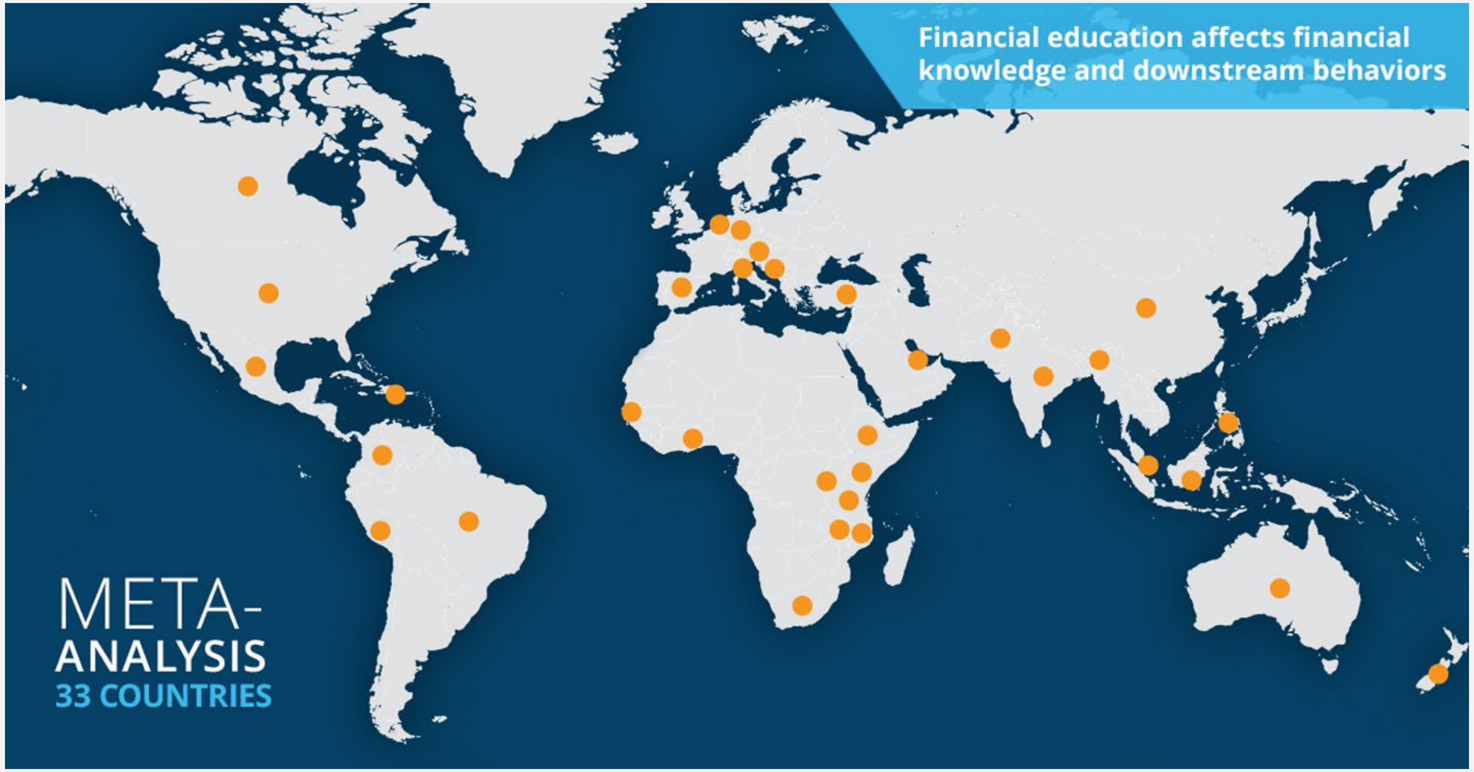
Abstract

We study the rapidly growing literature on the causal effects of financial education programs in a meta-analysis of 76 randomized experiments with a total sample size of over 160,000 individuals. Many of these experiments are published in top economics and finance journals. The evidence shows that financial education programs have, on average, positive causal treatment effects on financial knowledge and downstream financial behaviors. Treatment effects are economically meaningful in size, similar to those realized by educational interventions in other domains, and robust to accounting for publication bias in the literature. We also discuss the cost-effectiveness of financial education interventions.

GFLEC.org/metaanalysis

A meta-analysis of financial education, cont.

Our study includes 76 RCTs from 33 countries with over 160,000 individuals across the lifespan.



The sample include many low-income countries/target groups. The effects are measured after 30 weeks, on average, and up to more than two years.

Major findings from meta-analysis cont.

The impact on ***financial knowledge*** is larger than on ***financial behavior.***

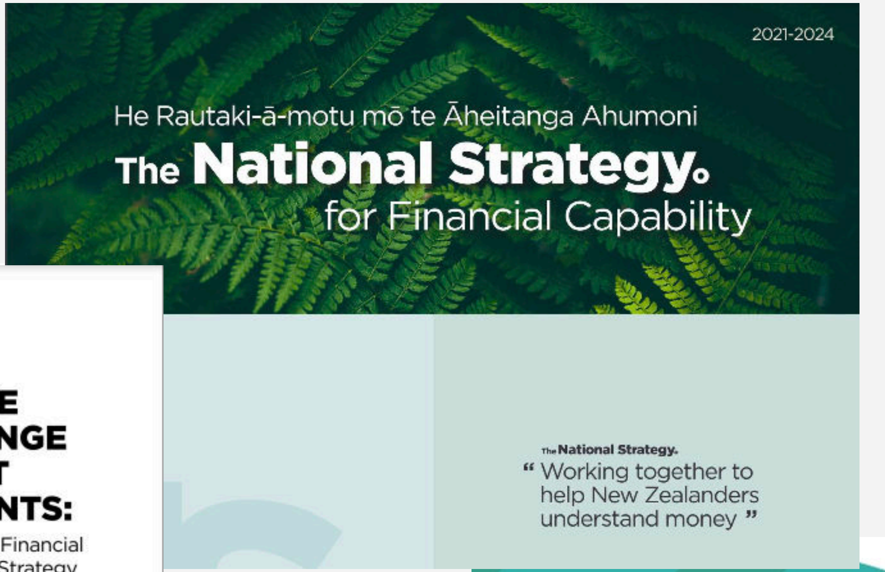
Behavior takes time to change and it may be optimal to do nothing

Among behaviors: changes are largest in behaviors relate to ***budgeting, saving and credit.***

The effects are similar across age and across countries

Policy: National strategies for financial literacy

- **More than 80 countries have done or are doing a national strategy for financial literacy**



A national strategy for financial literacy in Italy

I chair the Italian Committee for Financial Education in charge of designing a national strategy for financial literacy.

We did many initiatives all based on research and data. We started collecting data after the pandemic to be able to have more targeted initiatives

We provide guidelines for financial education for young and adults.

We are evaluating a national campaign.

Mandatory financial education in school

- Italy just passed a law mandating financial education in school
- Mandatory financial education in school could help alleviate inequality in financial literacy

It could also decrease the cost of investing in financial literacy.

Implications for teaching and the field

Personal finance courses at GW

- Started a Personal Finance course at GW in 2012
- I teach both undergraduate and graduate students
- Based on data and research
- Teach risk at the end and devote many classes to it

Personal finance courses at GW, cont.

- We start each class with a statistics from the P-Fin Index
- Cover the 8 topics (and more)
- Encourage female students to participate in class
- Discuss policy implications

First conference on teaching personal finance at Stanford

Financial literacy has its JEL code (G53)

AMERICAN ECONOMIC ASSOCIATION

Membership About AEA Log In

Journals Annual Meeting Careers Resources EconLit EconSpark

Home › Resources › JEL Guide

Resources

- Data Sources
- For Students
- For Educators
- Online Seminars
- Meetings & Conferences
- *JEL* Codes Guide
- Funding & Grants

JEL Classification Codes Guide

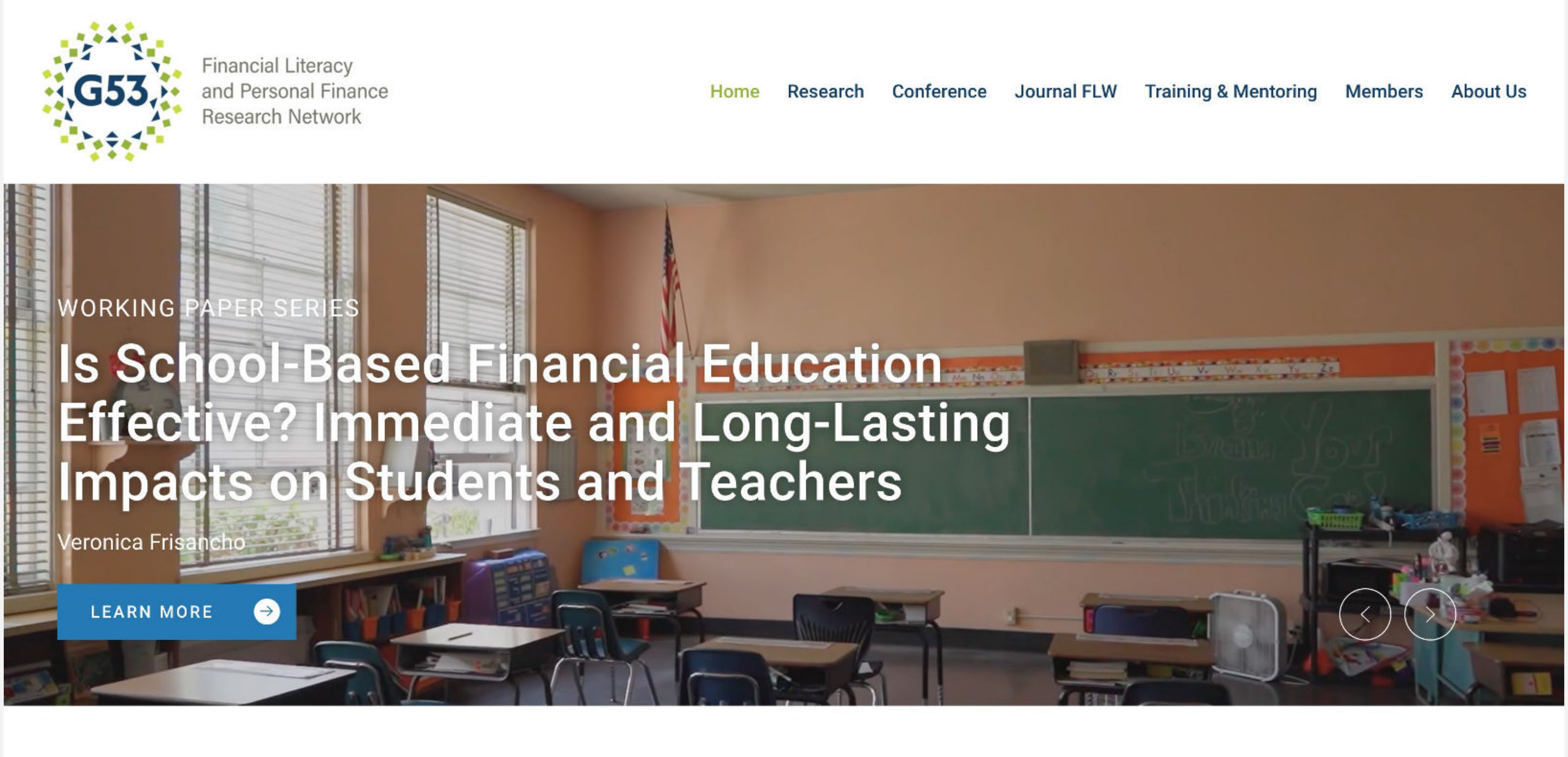
The guide provides JEL Code application guidelines, keywords, and examples of items within each classification.

The "JEL" classification system originated with the Journal of Economic Literature and is a standard method of classifying scholarly literature in the field of economics. It is used in many of the AEA's published research materials.

Use the guide to gain insight on how JEL Codes are used to classify articles, dissertations, books, book reviews, and working papers. You will also find it is helpful when adding classification codes to your own work.

G53 Financial Literacy

G53 Financial literacy and personal finance network



The first journal for the financial literacy field

First issue in 2023

- Submission is now available
- Special issues: propose some!

Some new initiatives

- Adding financial literacy to national statistics, such as reporting GDP or inflation, and use it for policy.
  - A financial literacy target?

- Finland launched a challenge: they want to be the most financially literate country by 2030.

- In the US, many states are making financial education mandatory in high school. Good new data for research (great work by Carly Urban and others)

Living well

- We need to 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 and merci!

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@gwu.edu.