Increasing the effectiveness of financial education: Evidence from research

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STANFORD BUSINESS GRADUATE SCHOOL OF

Let's start with a video :

https://youtu.be/I_ZbOPnL7_M?si=6dhbyZTC8XiKr0N8

Data tells a story

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.

- 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 has been collected since 2016 on a representative sample of Americans (age 18+).

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

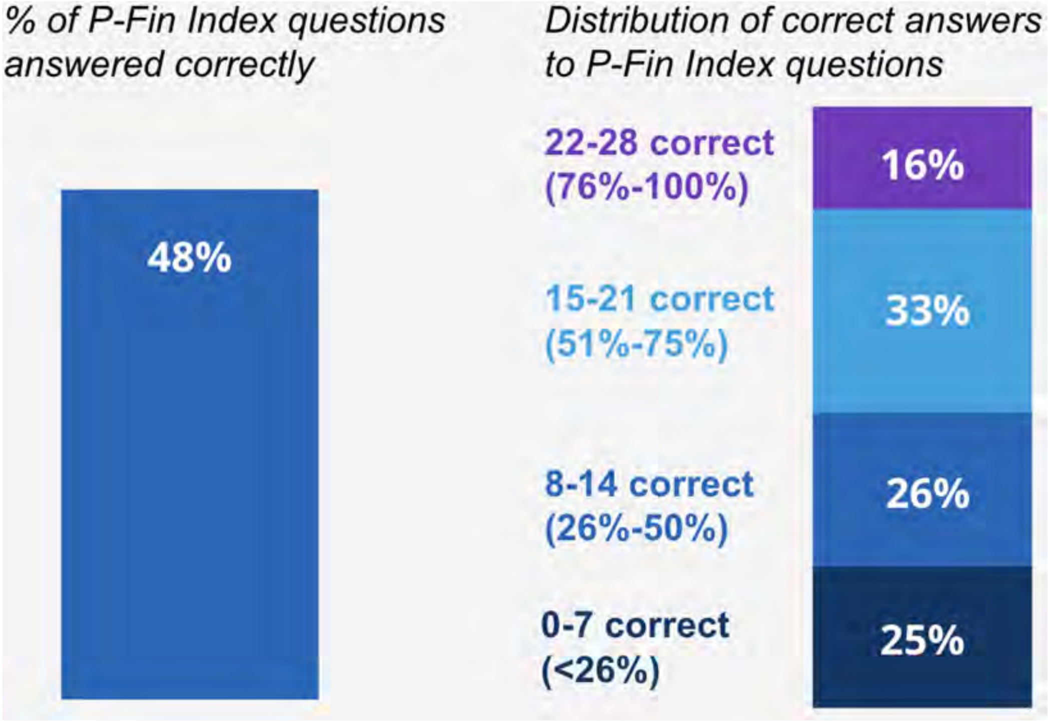
Anna saves $500 each year for 10 years and then stops saving additional money. At the same time, Charlie saves nothing for 10 years but then receives a $5,000 gift which he decides to save. If both Anna and Charlie earn a 5% return each year, who will have more money in savings after 20 years?

- Anna
- Charlie
- Anna and Charlie will have the same amount
- Don't know
- Refuse to answer

Results:	
Correct	**47%**
Incorrect	**28%**
Don't Know	**25%**
No Answer	**0%**

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

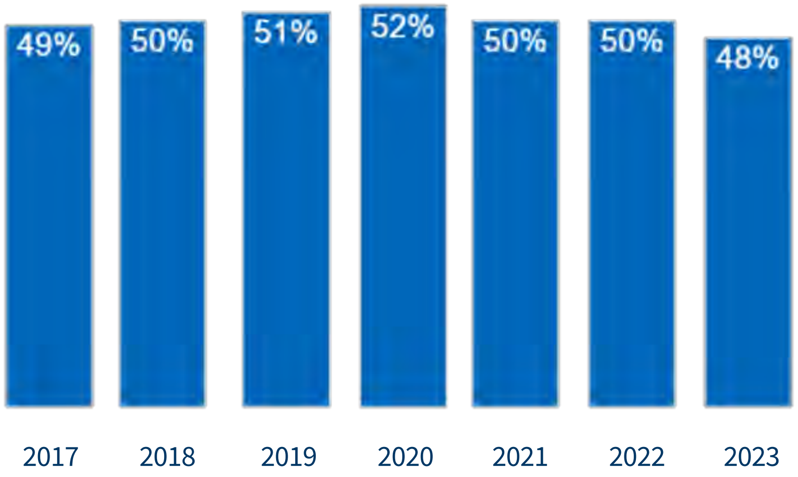
Financial literacy in America: A failing grade (2023 data)



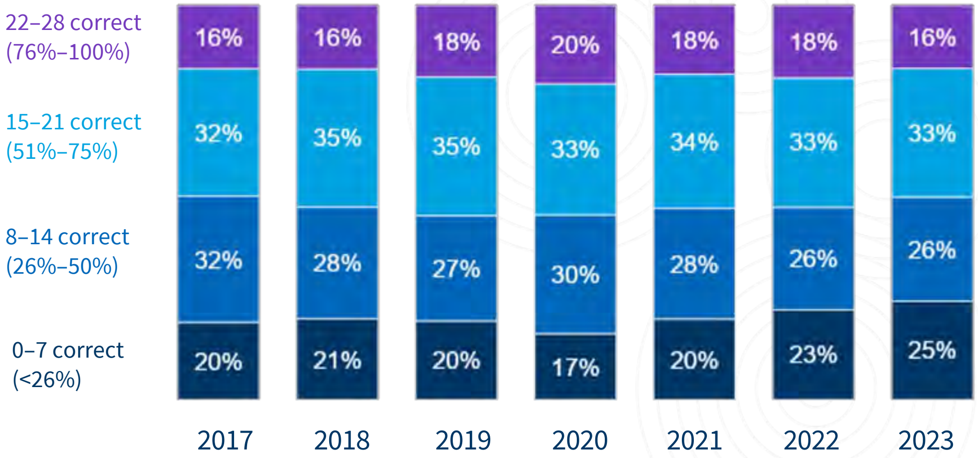
Source: TIAA Institute-GFLEC Personal Finance Index (2023).

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

% of P-Fin Index questions answered correctly

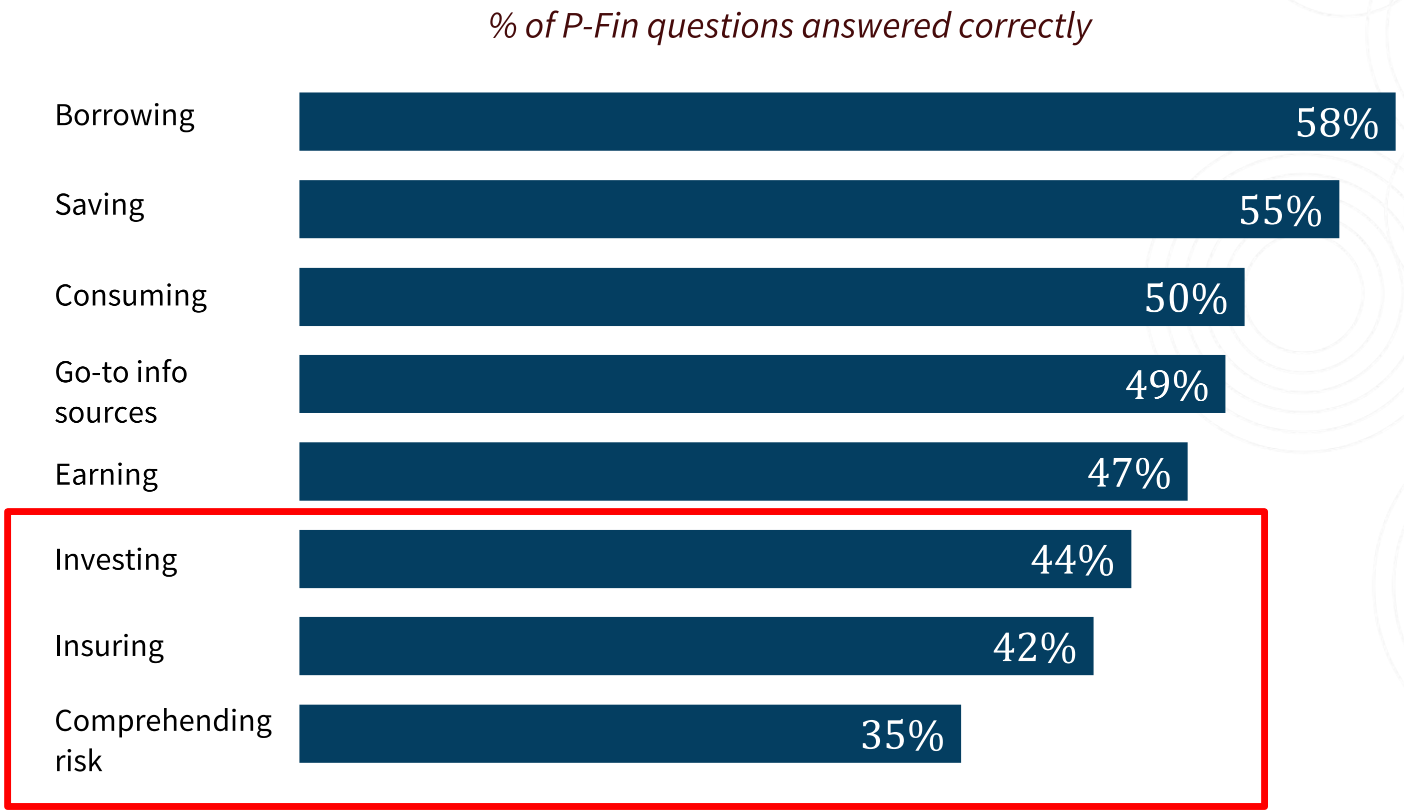


Distribution of correct answers to P-Fin questions



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).

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 <u>true</u>?

- 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

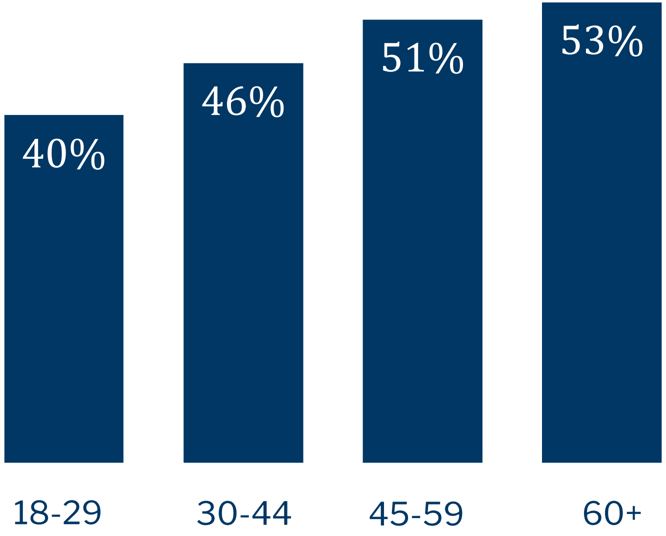
Results:

Correct	**55%**
Incorrect	**17%**
Don't Know	**27%**
No Answer	**1%**

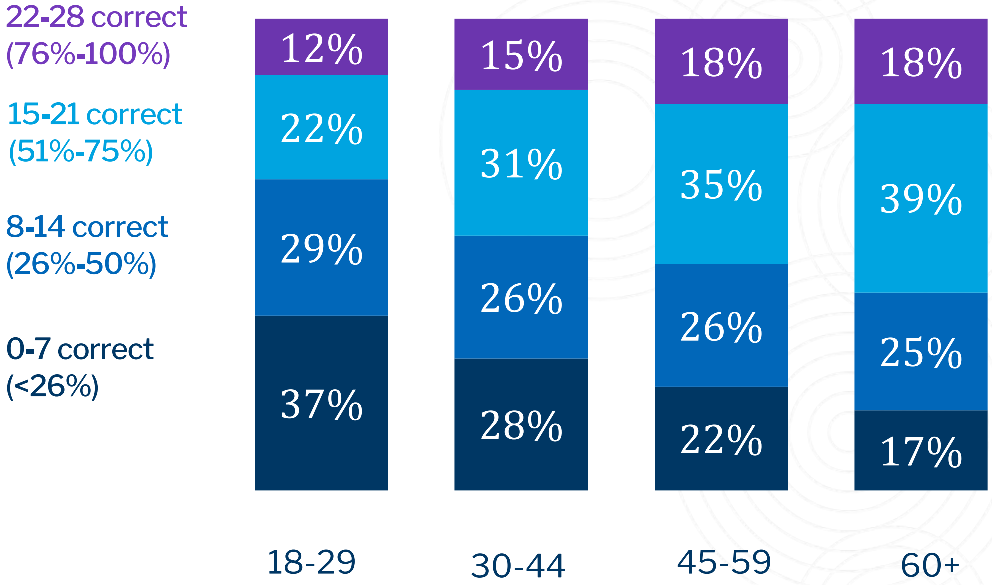
Source: TIAA Institute-GFLEC Personal Finance Index (2023).

Demographic variation: Age

% of P-Fin Index questions answered correctly

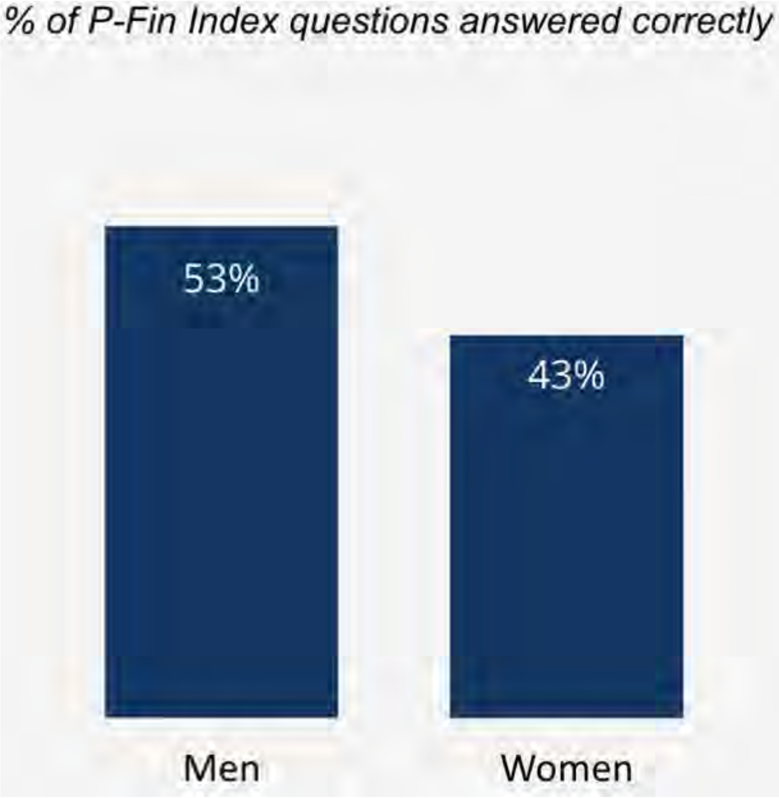


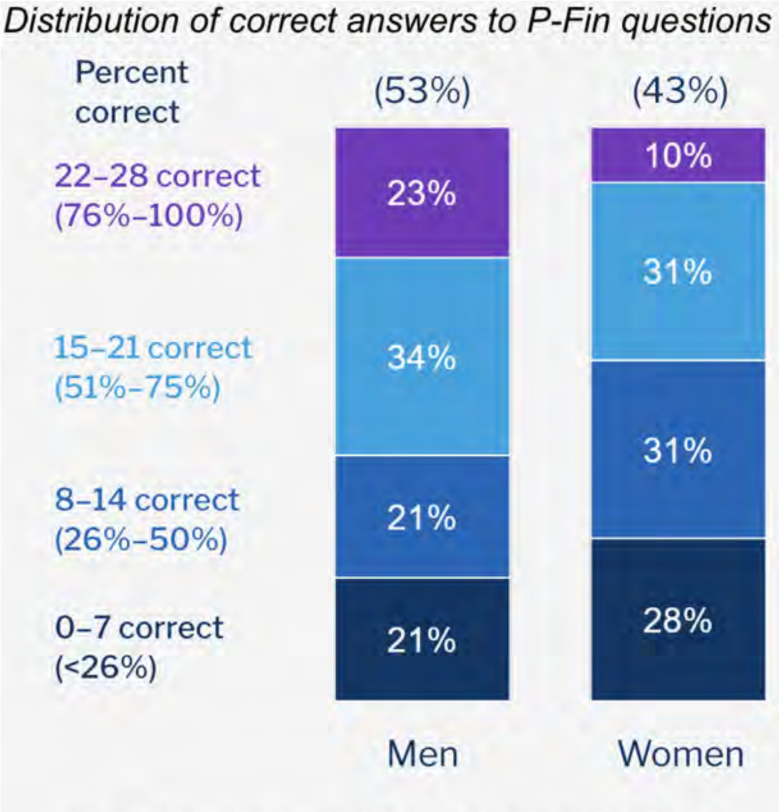
Distribution of correct answers to P-Fin questions



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

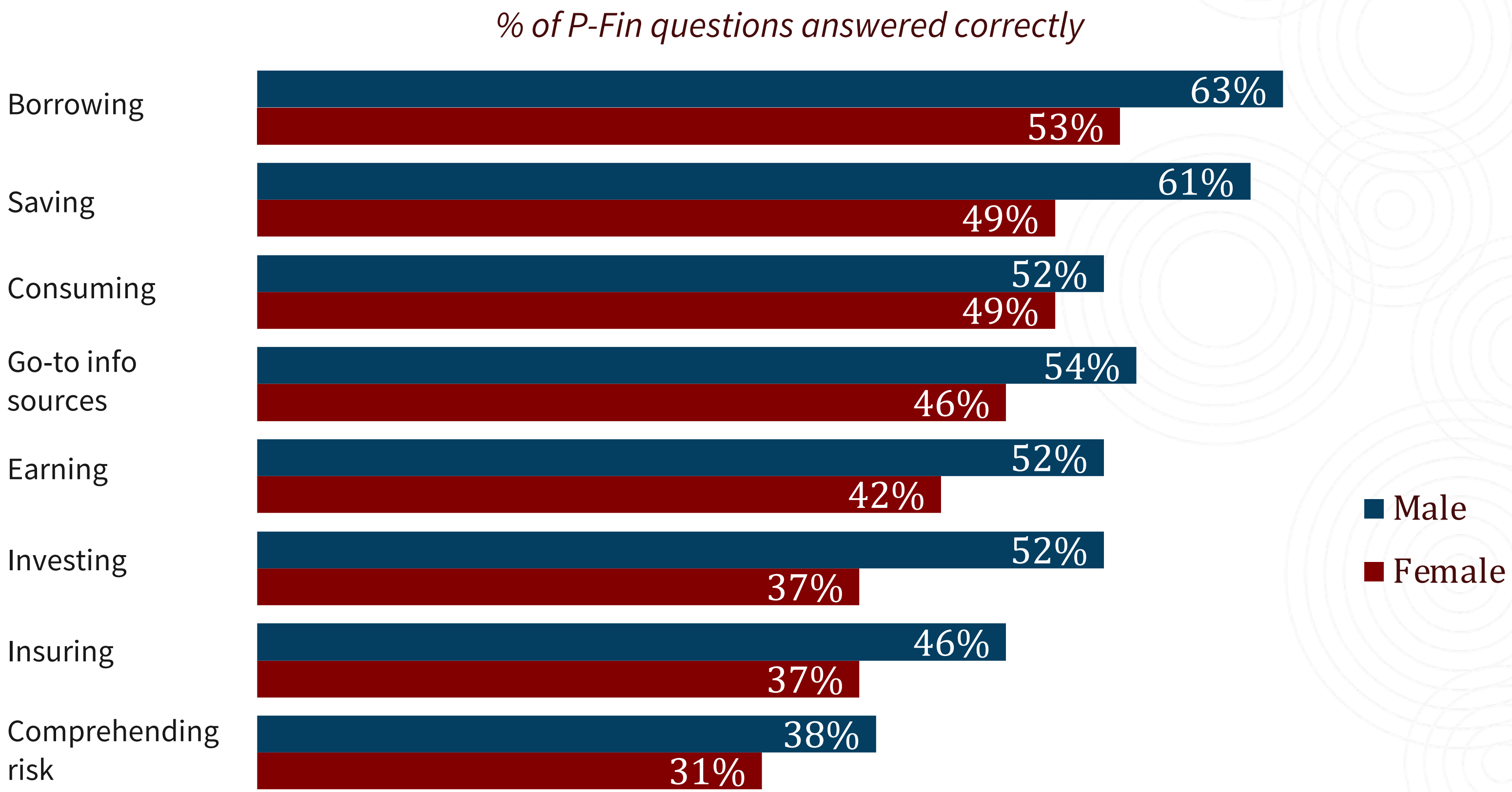
Demographic variation: Women and knowledge





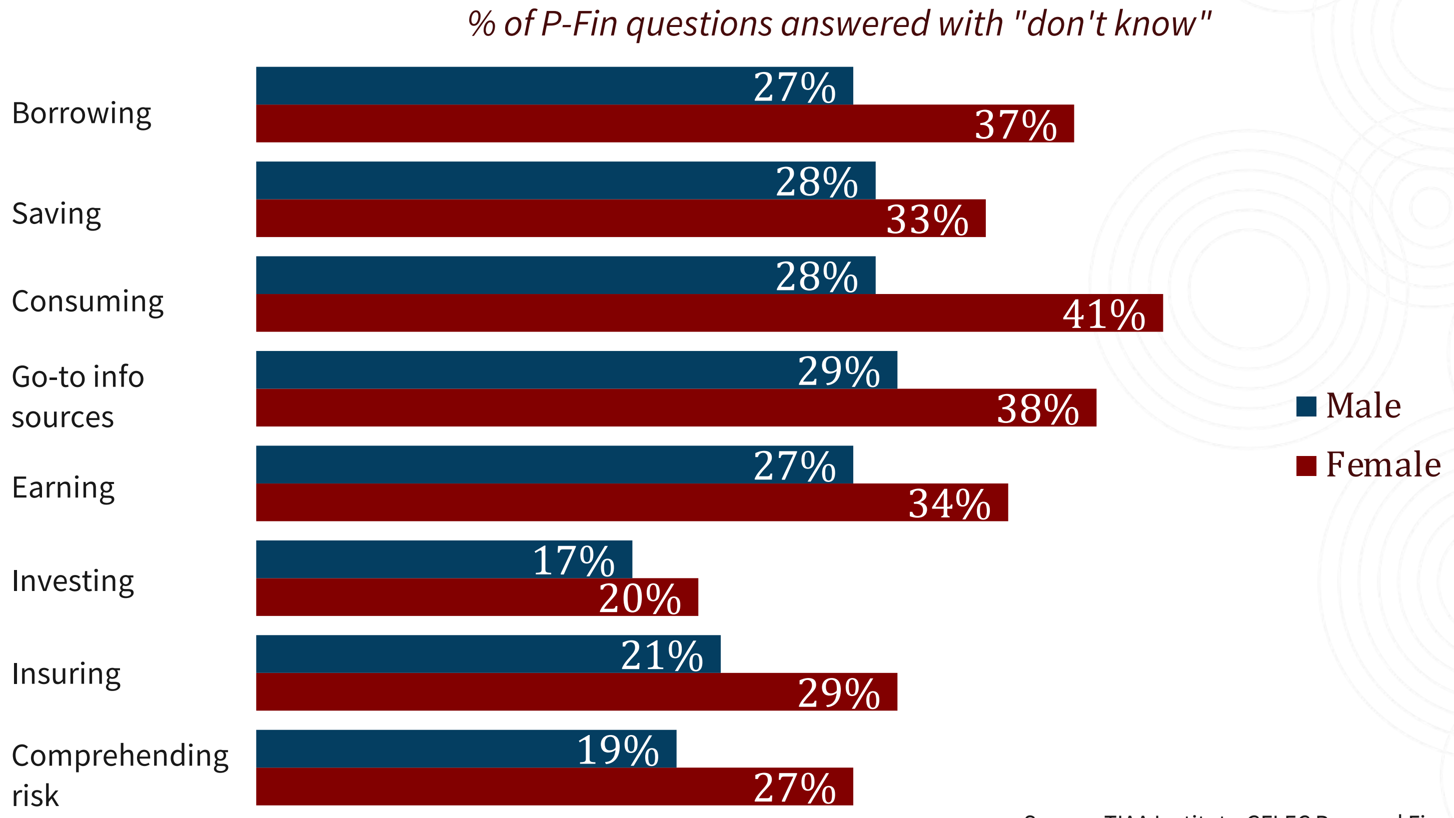
Source: TIAA Institute-GFLEC Personal Finance Index (2023).

Financial literacy gender gap in each topic...



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

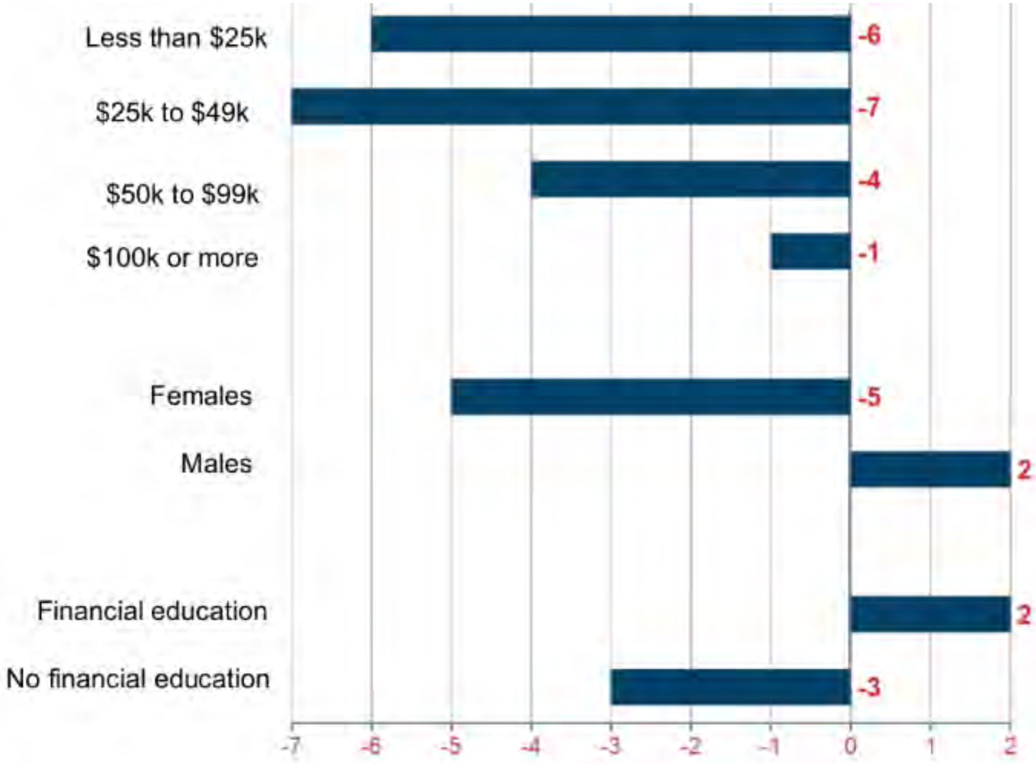
...and in answering "Do not know"



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

Where changes happened over time: Toward an unequal path

% point change in P-Fin questions answered correctly, 2017 to 2023



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

Financial literacy matters: It affects behavior

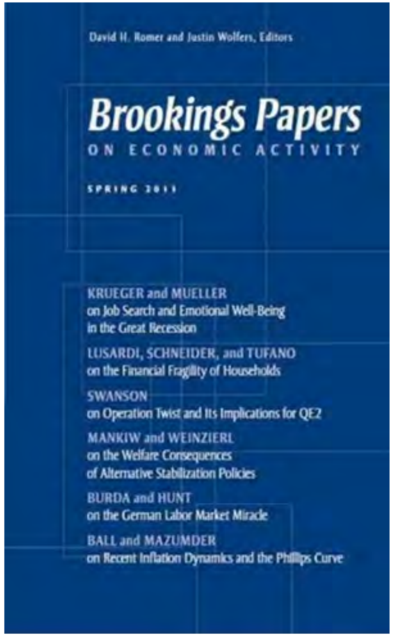
Measuring financial fragility *(Lusardi, Schneider and Tufano, BPEA, 2011)*

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

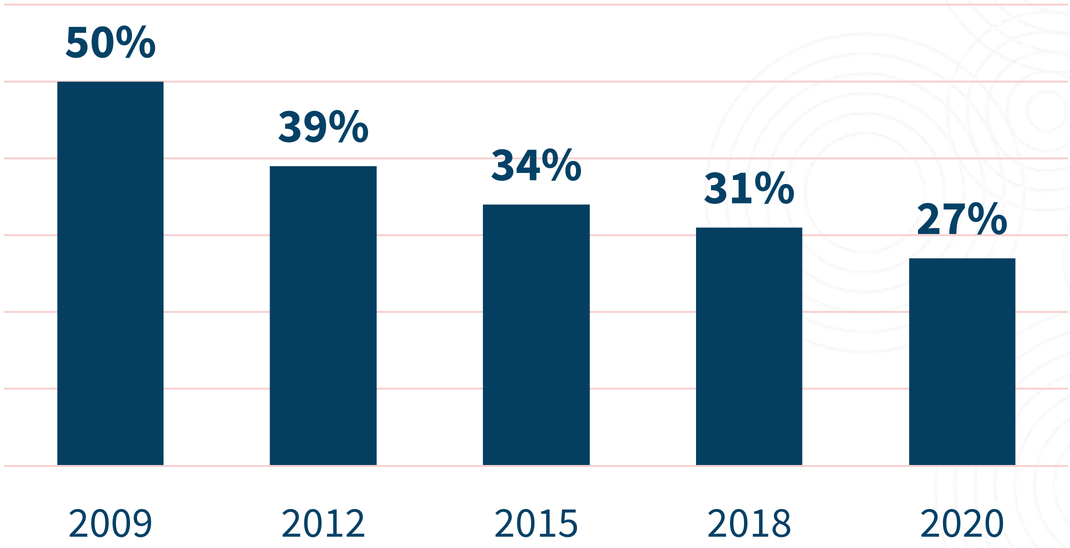
- I am certain I could come up with the full $2,000.
- I could probably come up with $2,000.
- **I could probably not come up with $2,000.**
- **I am certain I could not come up with $2,000.**
- Don’t know.
- Prefer not to say.

Respondents are classified as financially fragile.

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



Financial fragility over time

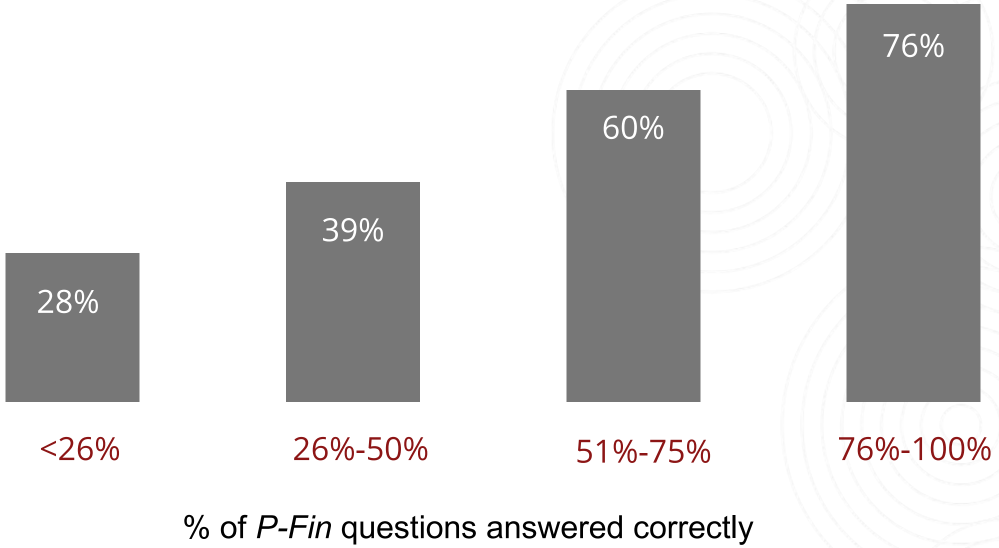


Source: 2009 TNS data, 2012, 2015 and 2018 NFCS data, and 2020 P-Fin data

Financial literacy and being able to cope

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



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

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 learn from data and research

- Very low levels of financial literacy
  - Cannot take financial literacy for granted

- Financial illiteracy is widespread
  - Need interventions that can be scaled up to see changes at the aggregate level
  - Changing behavior requires more than small interventions

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

- Cost of financial illiteracy can be high
  - It affects behavior at micro and macro level

Making financial education effective

We need large and scalable programs

1. Financial education in school and college (for the young)

2. Financial education in the workplace (for the adults)

3. Financial education where people go to learn (libraries, museums, theaters, and online)




Research says that financial education works

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]

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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.

Financial education in school

Financial education in high school

Many states are increasingly mandating financial education in high school

2022 SURVEY OF THE STATES—BY THE NUMBERS

25

states require students to take a course in economics to graduate

0

change in the number of states that require students to take a course in economics to graduate

~~23~~ **30**

states require students to take a course in personal finance to graduate

~~+2~~ **+9**

more states require students to take a course in personal finance to graduate since 2020

Progress as of August 2023

The effects of financial education in high school

- A study investigates the effects of mandatory financial education in high school in two states: Georgia and Texas.
- Using data from the Federal Reserve Bank of New York/ Equifax Consumer Credit Panel (CCP) they track young people (age 18-21).
- Financial education exposure is associated with
  → fewer defaults
  → higher credit scores

“The Effects of High School Personal Finance Education Policies on Financial Behaviors”, Urban et al., Economics of Education Review, October 2020, vol. 78.

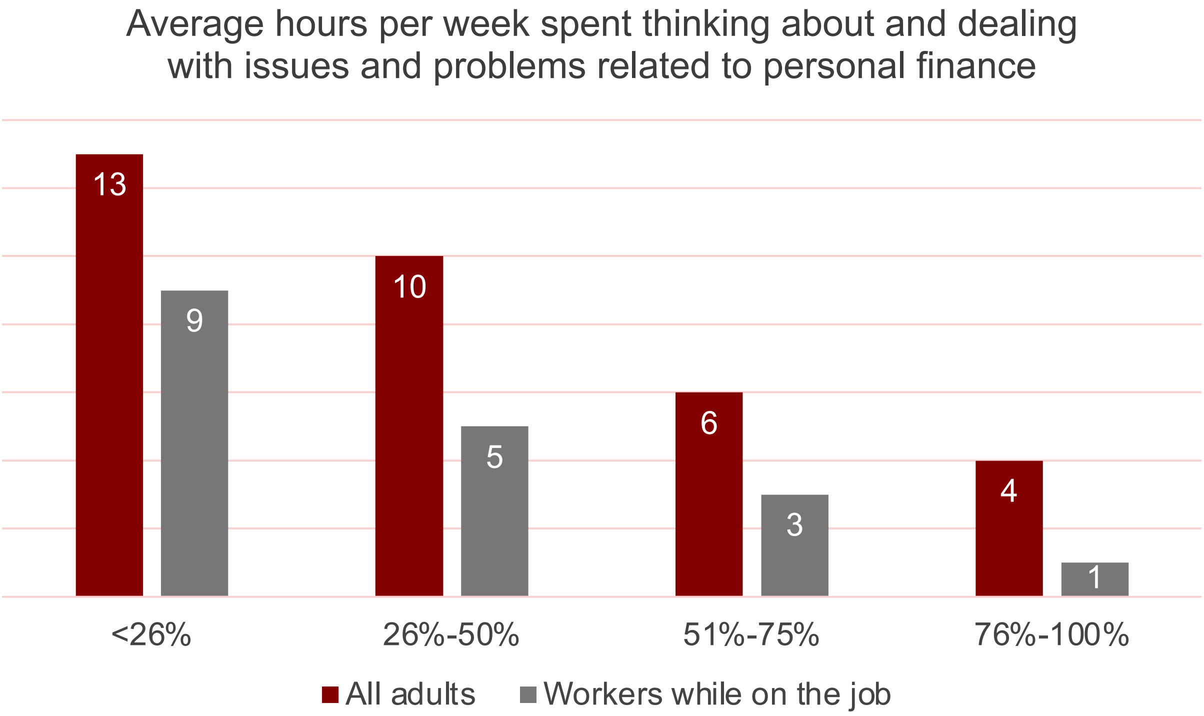
How to make it more effective

- Have a one-semester course
- Rigorous curriculum
- Train the teachers
- Standardized evaluation

“The Effects of High School Personal Finance Education Policies on Financial Behaviors”, Urban et al., Economics of Education Review, 2020, Vol. 78: 101786.

Fast track to financial education in the workplace

A simple measure of the cost of financial illiteracy



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 (2023).

What we have learned from our projects

Online program - SSA

FINRA Investor
Education Foundation

European Investment Bank
Institute

Dartmouth College

Federal Reserve Office of Employee
Benefits

New York Stock Exchange

Five steps to planning success

Program:

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

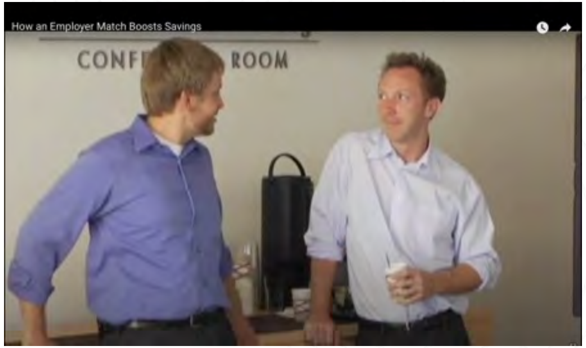
- We put together a team of researchers from different fields: Economics, psychology, and linguistics
- We evaluated its effectiveness

“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

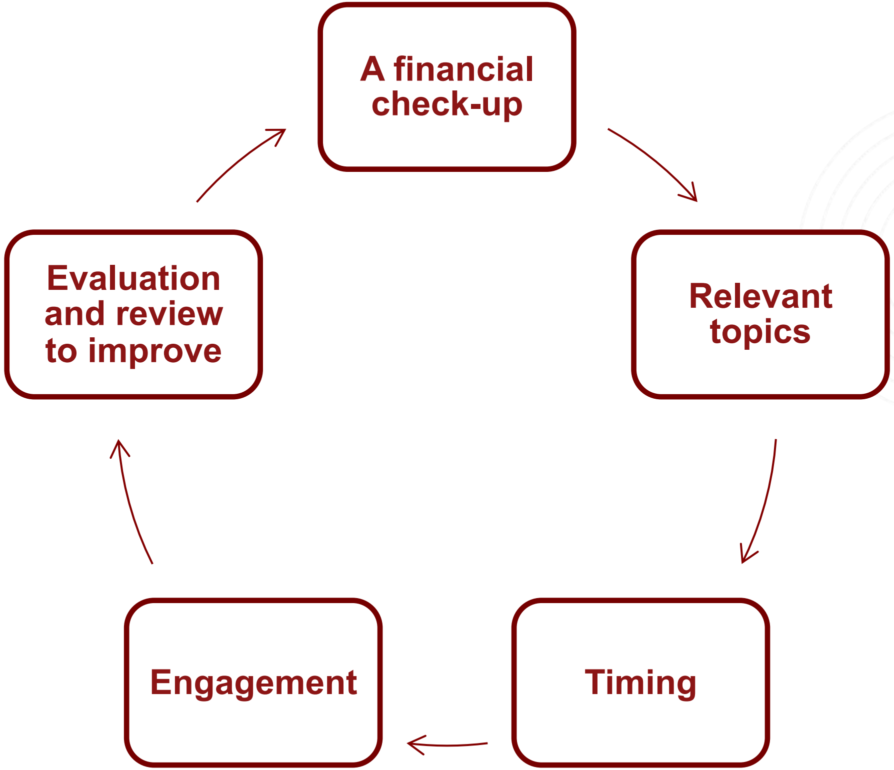


Five steps to financial success: effectiveness

- 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 even learned difficult topics, such as risk diversification

Even short interventions can affect knowledge

Financial education in the workplace: main components



1. A financial check-up

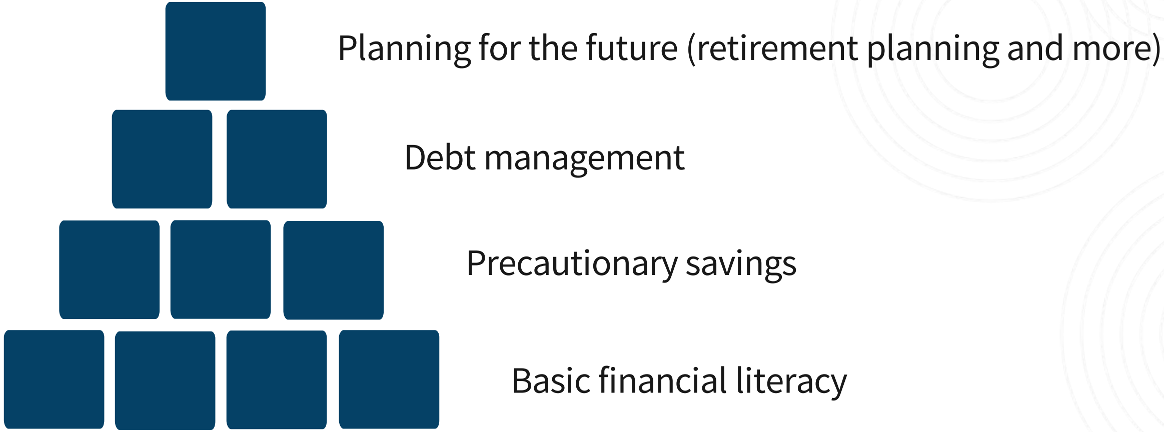
As going to the doctor for a regular check-up, a financial check-up can help assess financial health

- It should look at several indicators (not just one variable, such as retirement savings)
- It provides a way to then segment and better target employees' needs
- It allows tracking progress over time if measured on a regular basis

2. Relevant topics

The building blocks of financial security

- Covers beyond retirement savings (below are some topics)
- Most effective if tailored to the specific needs and financial circumstances of the participants.



3. Timing is important

- Make it timely
- Programs can use critical moments when financial decisions are made: orientation, end of the year, tax time, birth of children, etc.
- Crises are a “teachable moment”

4. Boost engagement

- Simplify financial decisions (step-by-step action plan)
- Make it easy to understand and participate
- Provide incentives to participate
- Personalize as much as possible and make it relevant

5. Evaluation

Evaluate to show impact and adjust to increase effectiveness

- Repeat on a regular basis
- Continually evaluate and assess impact
- Adjust programs to increase effectiveness

An example: the Dartmouth Project

Dartmouth project:

- We designed a program that targeted individuals who wanted to save but were limited by a lack of knowledge.
- Development of a comprehensive, cost-effective plan to improve participation in and contribution to Supplementary Retirement Accounts (SRAs).
- Step-by-step planning aid. Reducing enrollment process into small manageable steps.

We have outlined 7 simple steps to help you complete the application.

1. Select a 30 minute time slot right now to complete the online contribution to your Supplemental Retirement Account (SRA) during the next week.
2. 3 minutes. Check to see if you have the following materials: a) worksheet in your benefits packet _√_ and b) the name and social security number of a beneficiary _√_.
3. Select the amount you want to invest for 2006 (minimum: $16/month, maximum: $1,666.67/ month), even if you don't know your take-home pay in your first month. If you want, you can change this amount at a later date. This voluntary contribution is tax-deferred, you will not pay taxes on it until you withdraw the funds.
4. 5 minutes. Select a carrier. If you do not select a carrier, Dartmouth will invest the non-voluntary portion of your college funds in a Fidelity Freedom Fund, a fund that automatically changes asset allocation as people age.
5. 5 minutes. Now you are ready to complete your worksheet. Complete the worksheet even though you may be unsure of some options. You can change the options in the future.
6. Take your completed worksheet to a computer that is available for 20 minutes. If you like, you can use the one in the Human Resources office at 7 Lebanon Street, Suite 203.
7. 15-20 minutes. Log on to Flex Online and complete your online SRA registration within the 20 assigned minutes. Be sure to click on the investment company (TIAA-CREF, Fidelity, or Calvert) to complete the application. You need to set up your account – otherwise your savings will not reach the carrier.

Research–based workplace financial education programs

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

National strategies for financial literacy

We need policies for financial literacy to have a wide reach and an impact

Learning from a national strategy for financial literacy in Italy

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

We built a website to provide financial education to the Italian population

Supported a law to mandate fineduc in school

We are evaluating a national campaign

How about us?

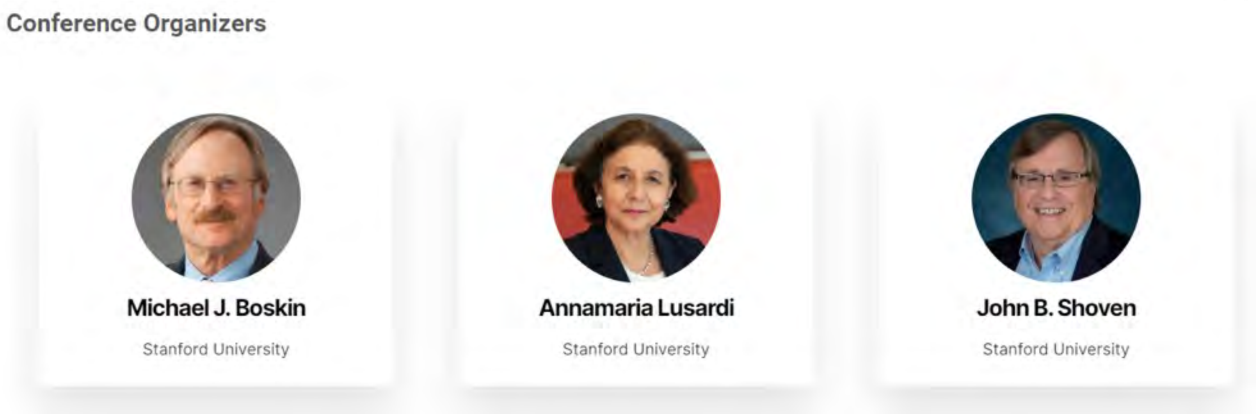
Personal finance course at Harvard

Personal finance course I started 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
- A lot of applications

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

It's time to teach personal finance in every college/university



- We organized the first conference on teaching personal finance
- We want to promote personal finance in other universities and colleges
- We want to extend the course to create programs for alumni and have students become ambassadors for financial literacy

The first journal for the financial literacy field offers further insights and findings

- Two issues already released in 2023 show:

There is a spillover effect of financial education in school (from students to parents)

Financial literacy can help citizens understand reforms

The Importance of Financial Literacy: Opening a New Field

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

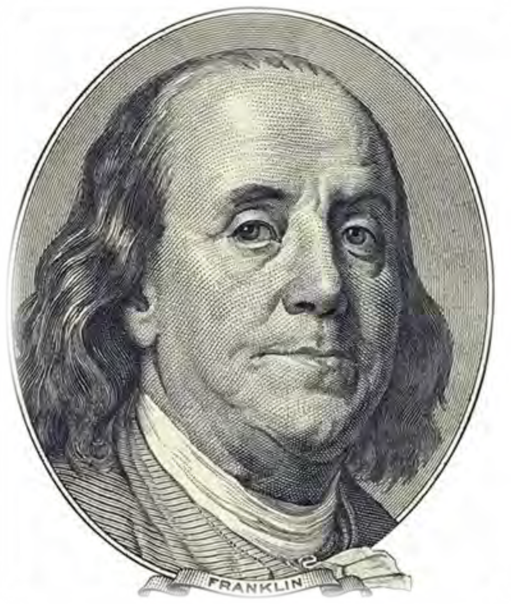
People face complex financial decisions with potentially long-lasting consequences at all stages of life. As young people grow into adulthood, they make decisions about loans for college tuition, cars, and houses, along with how to manage credit cards, health and other kinds of insurance, and living 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.

From one of the Founding Fathers



"An investment in knowledge pays the best interest"

- Benjamin Franklin

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.