

# Knowledge about Investing and Risk: Evidence from the P-Fin Index

Annamaria Lusardi  
Stanford University

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BUSINESS GRADUATE  
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# The importance of data and measurement



# 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 risk diversification:

## 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

# From the Big Three to 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, including investing and risk and risk management
- In addition to personal finance knowledge, it provides information on financial well-being indicators.
- Data has been collected since 2016 on a yearly basis 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.

**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 about investing

A friend recommends that you invest in a particular technology company. The expected return is 25% in the first year. Which of the following statements is true?

- **The investment is likely to be very risky**
- The investment is likely no riskier than investing in multiple technology companies
- Nothing can be inferred about the risk of the investment
- Don't know

<b>Results:</b>	
<b>Correct</b>	<b>45%</b>
<b>Incorrect</b>	<b>27%</b>
<b>Don't Know</b>	<b>28%</b>
<b>No Answer</b>	<b>1%</b>

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

# Financial literacy in America: A failing grade

*% of P-Fin Index questions answered correctly*



*Distribution of correct answers to P-Fin Index questions*

**22-28 correct**  
(76%-100%)

**16%**

**15-21 correct**  
(51%-75%)

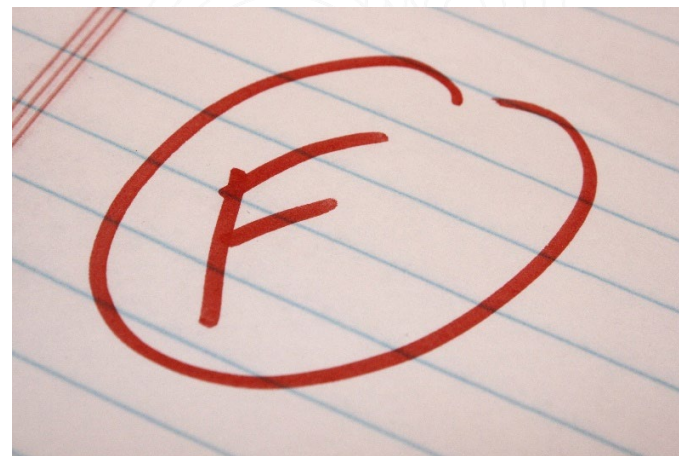
**33%**

**8-14 correct**  
(26%-50%)

**26%**

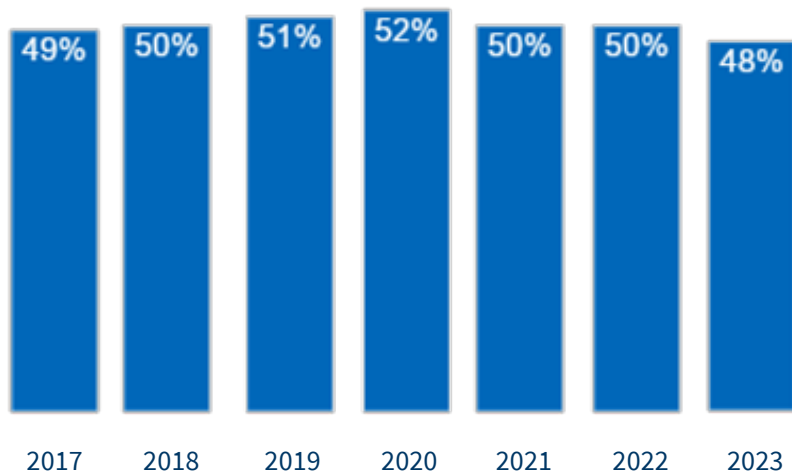
**0-7 correct**  
(<26%)

**25%**

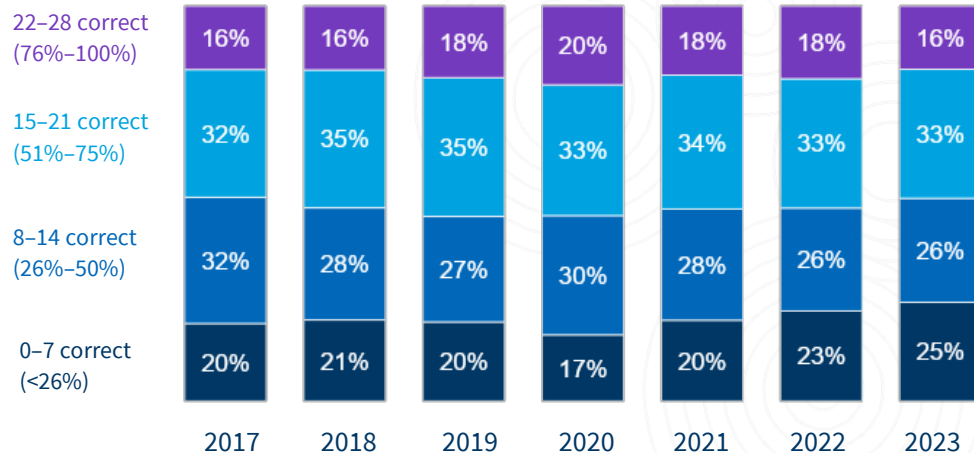


# Financial (il)literacy is holding steady: 2017-2023

*% of P-Fin Index questions answered correctly*



*Distribution of correct answers to P-Fin questions*

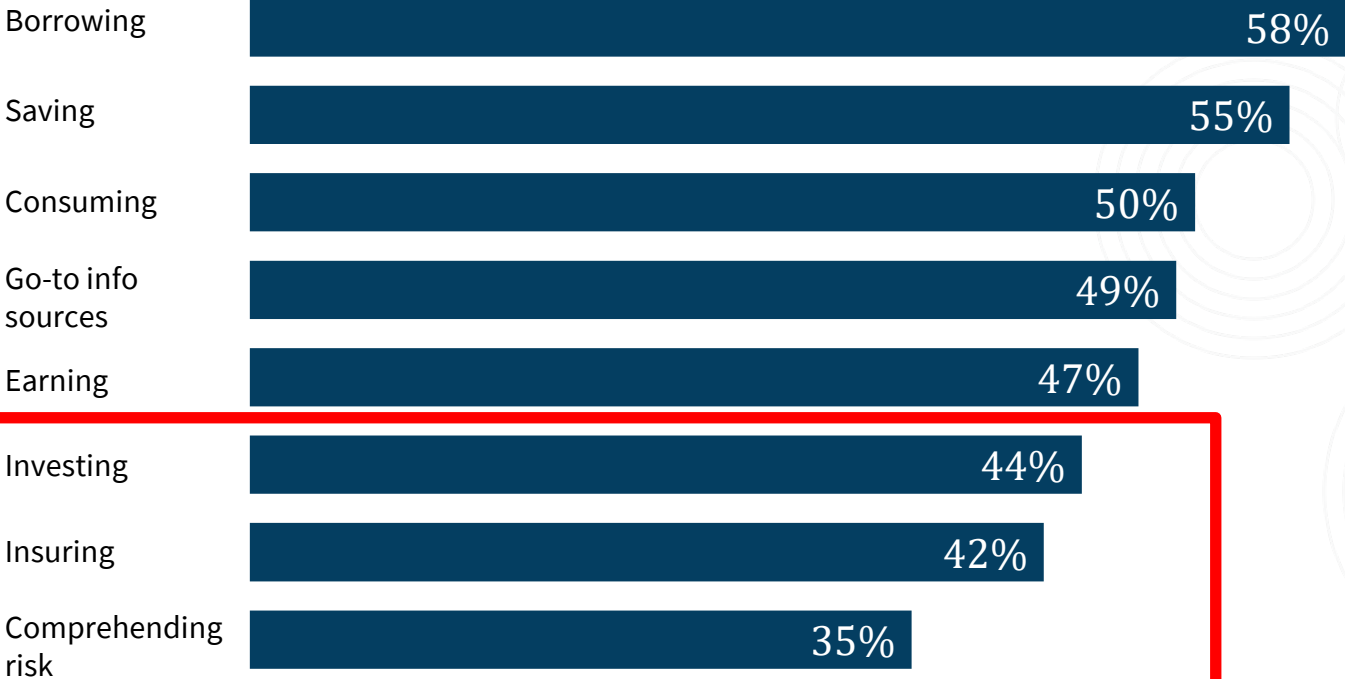


Source: TIAA Institute-GFLEC Personal Finance Index (2017-2023).



# What do people know the most and the least

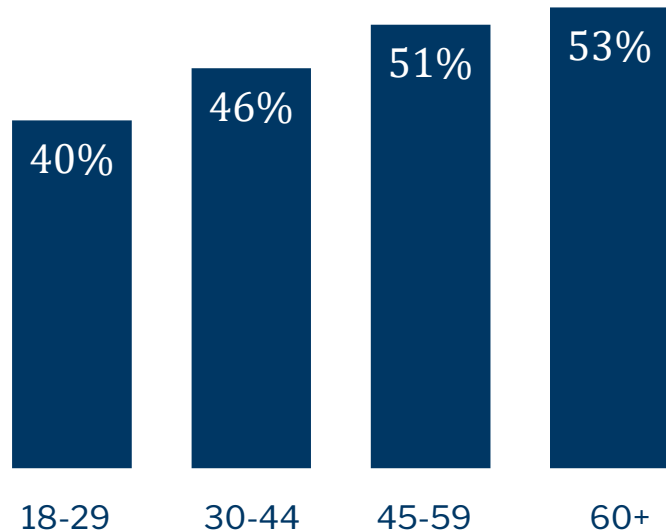
*% of P-Fin questions answered correctly*



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

# Demographic variation: Age

*% of P-Fin Index questions answered correctly*



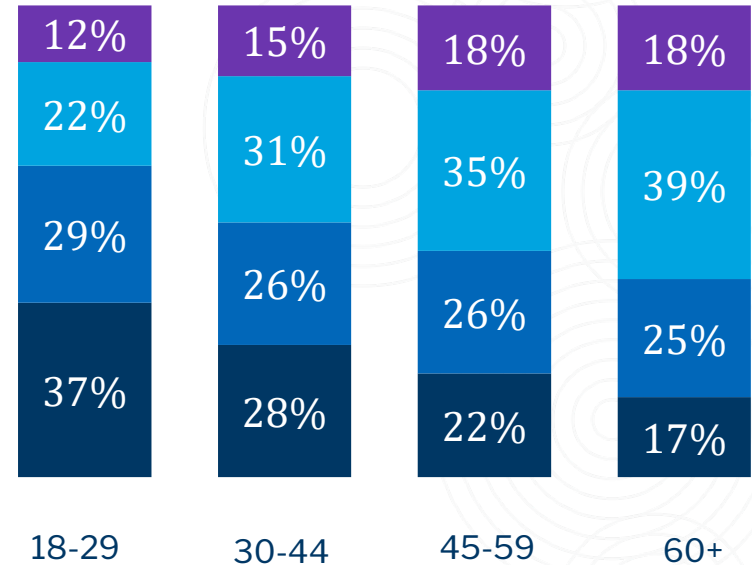
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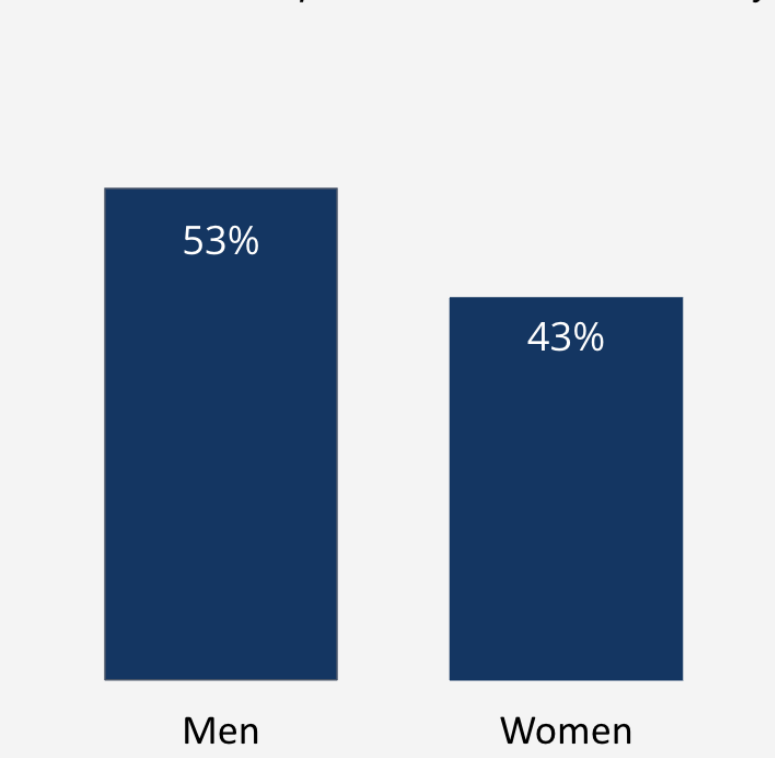
8-14 correct  
(26%-50%)

0-7 correct  
(<26%)

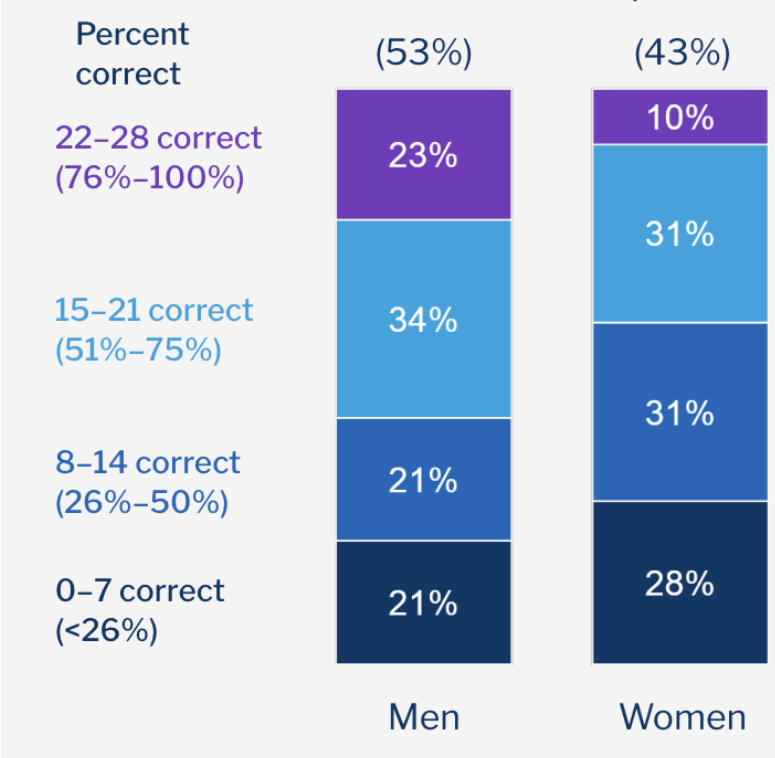


# Demographic variation: Women and knowledge

*% of P-Fin Index questions answered correctly*

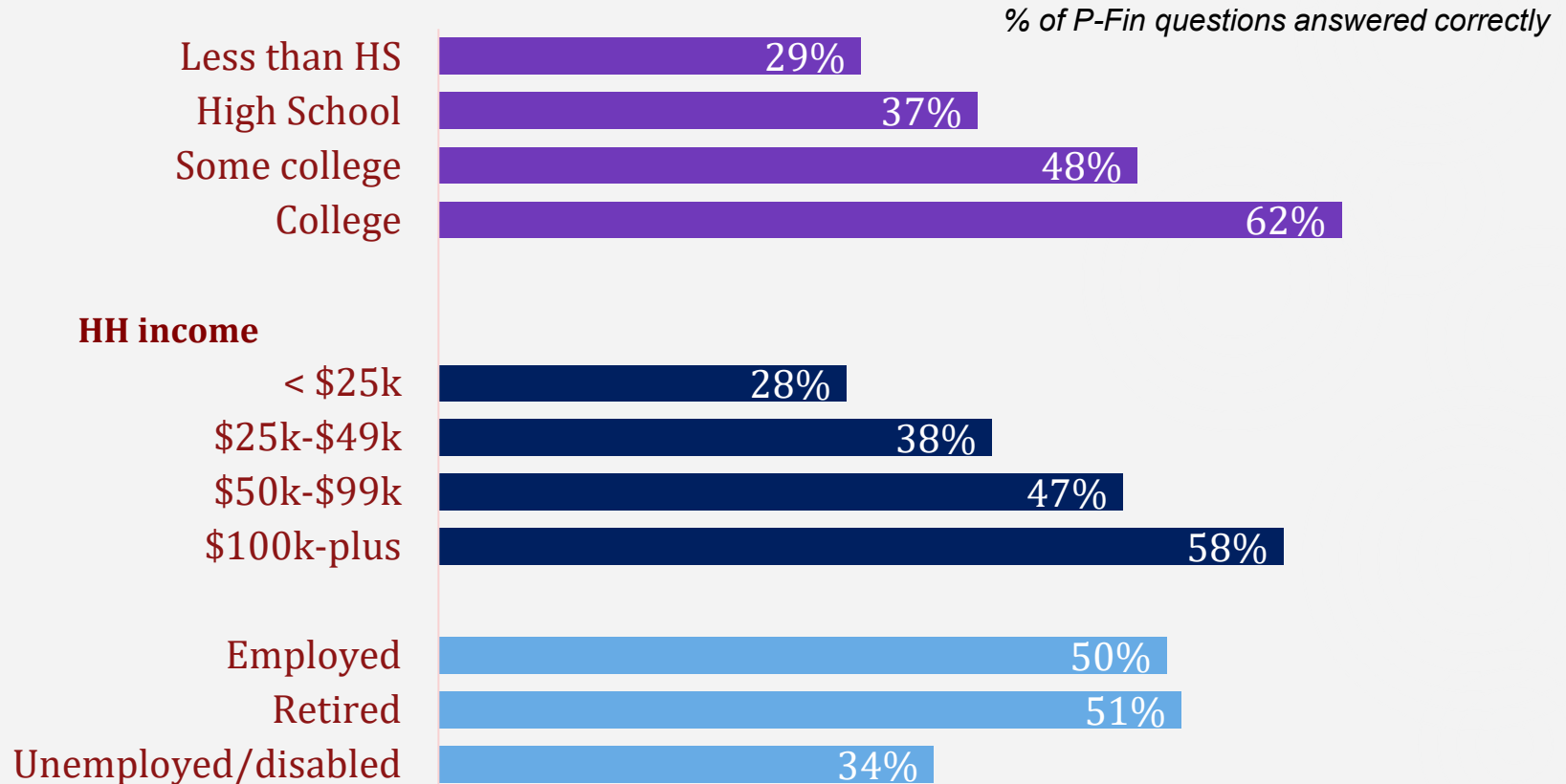


*Distribution of correct answers to P-Fin questions*



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

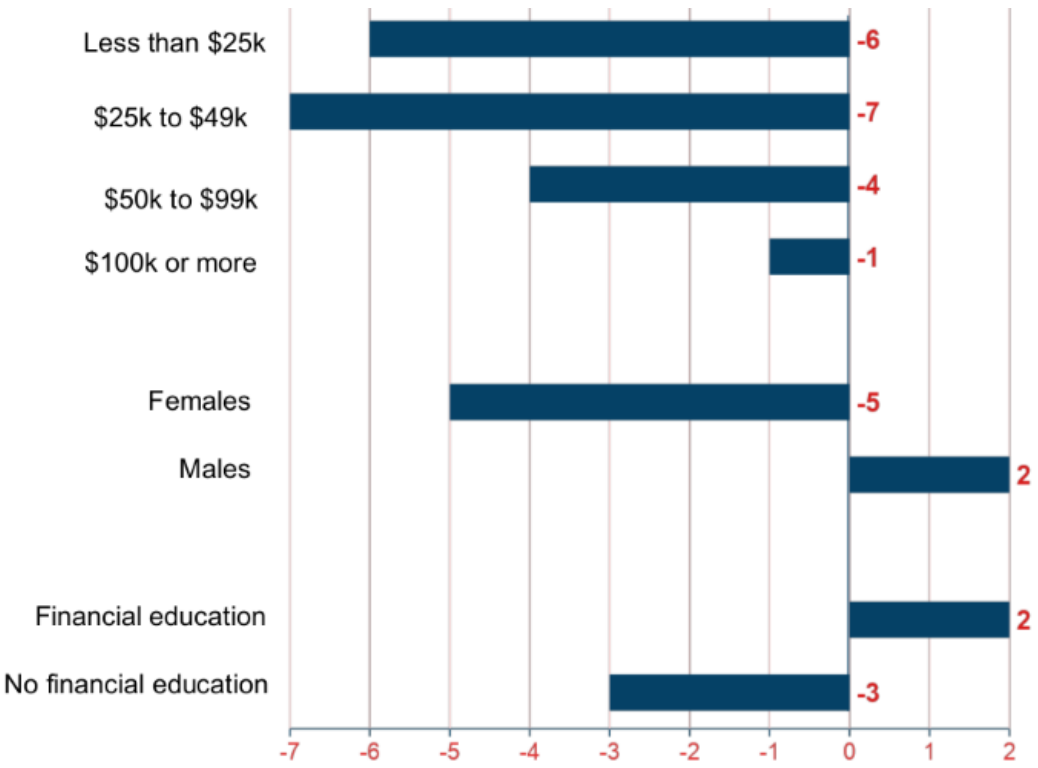
# Large variation in finlit across income/education/employment status



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).

# What we learn from data and research

- Stubbornly low levels of financial literacy over time
  - Financial literacy is not improving over time
- Knowledge is particularly low for investing, insuring and managing risk
  - Complex topics that people may not learn without formal training
- Large heterogeneity across demographic subpopulations
  - One size does not fit all
- Cost of financial illiteracy can be high
  - Lack of participation in the stock market (Bucher-Koenen et al, 2023).

# Using data for policy and programs



# Financial education works: Our meta-analysis of financial education programs



Journal of Financial Economics

Available online 3 October 2021

In Press, Corrected Proof



## Financial education affects financial knowledge and downstream behaviors

Tim Kaiser<sup>a</sup>, Annamaria Lusardi<sup>b</sup>, Lukas Menkhoff<sup>c</sup>, Carly Urban<sup>d</sup>

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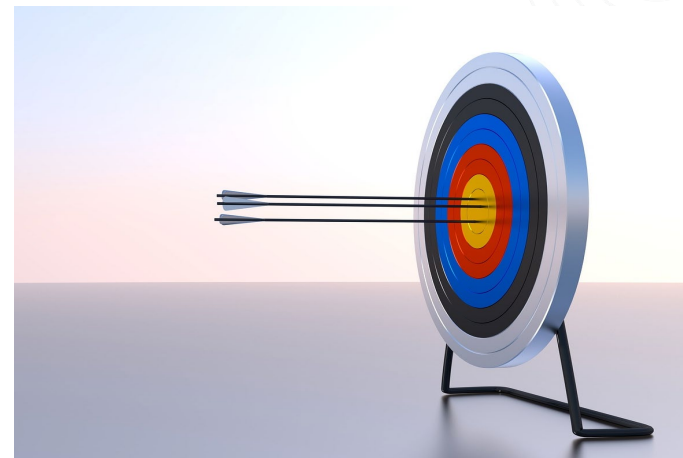
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<https://doi.org/10.1016/j.jfineco.2021.09.022>

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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.



<https://gflec.org/metaanalysis/>



# Personal finance courses in college



- I started teaching Personal Finance courses at GW to undergraduate and graduate students based on the P-Fin data
- Extensive coverage of risk and risk management
- Paying attention to gender and other differences in financial literacy
- A lot of applications

# New personal finance course at Stanford University

- When the course opened, 362 students signed up. It became one of the most popular courses in Econ.
- Can serve as a springboard to scale compelling curriculum online to a wide variety of constituents and ensure as much access as possible for effective distribution



# A conference about teaching personal finance

Stanford | Institute for Economic  
Policy Research (SIEPR)

Stanford | Department of Economics  
SCHOOL OF HUMANITIES AND SCIENCES

STANFORD  
BUSINESS  
SCHOOL

GFLEC 10  
GLOBAL FINANCIAL LITERACY  
EXCELLENCE CENTER

GW Business

## Teaching Personal Finance Conference

Stanford University | September 29, 2022

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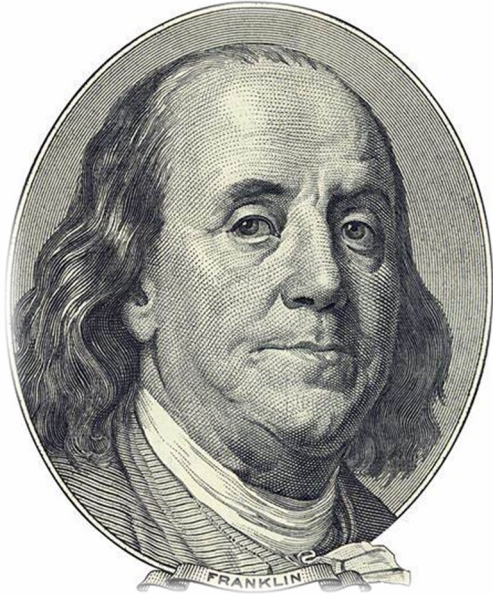
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## From one of the Founding Fathers



“An investment in knowledge pays  
the best interest”

- Benjamin Franklin



# Thank you.

For more info visit [www.gflec.org](http://www.gflec.org).

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**If you have any questions, please send them to [alusardi@stanford.edu](mailto:alusardi@stanford.edu).**