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# The P-Fin Index: What we can learn from six years of data on financial literacy and personal finance


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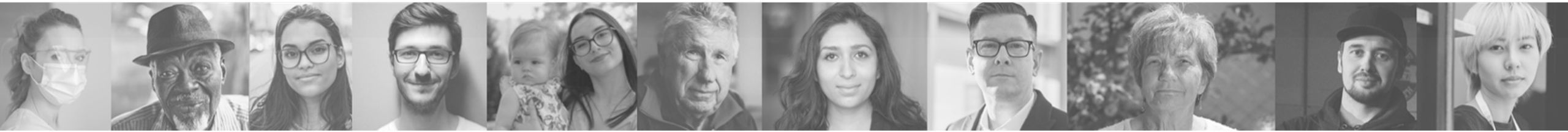
# Topics I will cover

1. Basic facts about financial literacy
2. The importance of heterogeneity
3. Linking financial literacy to well-being
4. Implications for future research, policy and programs



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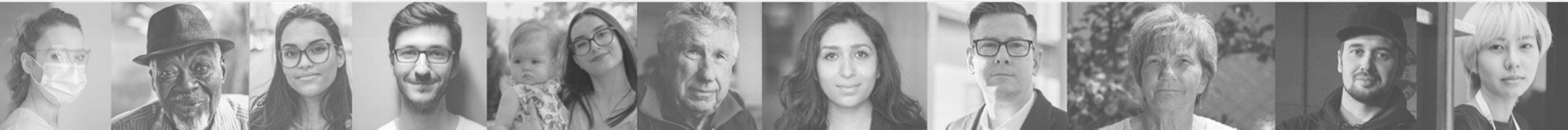
# Basic facts about financial literacy



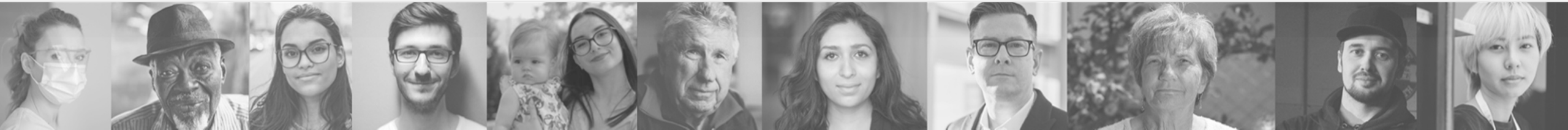
# Measuring personal finance knowledge

- The **TIAA Institute-GFLEC Personal Finance Index** (***P-Fin Index***) is an annual barometer 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 is 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 National Standards for Finlit).

**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**

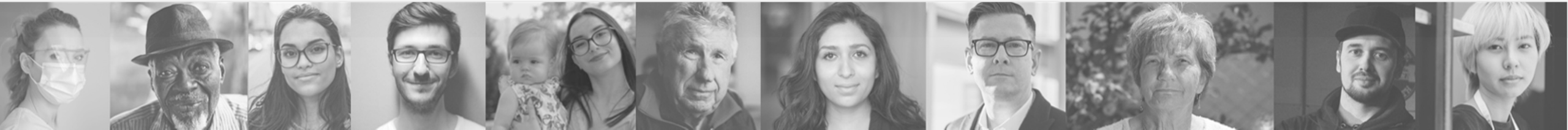
# An example question

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

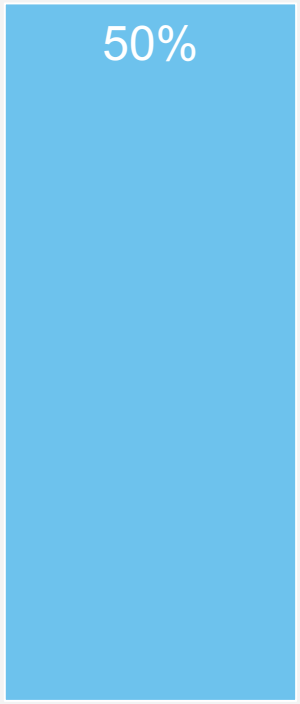
| **Results:** | |
|---|---|
| **Correct** | **52%** |
| **Incorrect** | **26%** |
| **Don't Know** | **22%** |
| **No Answer** | **0%** |

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

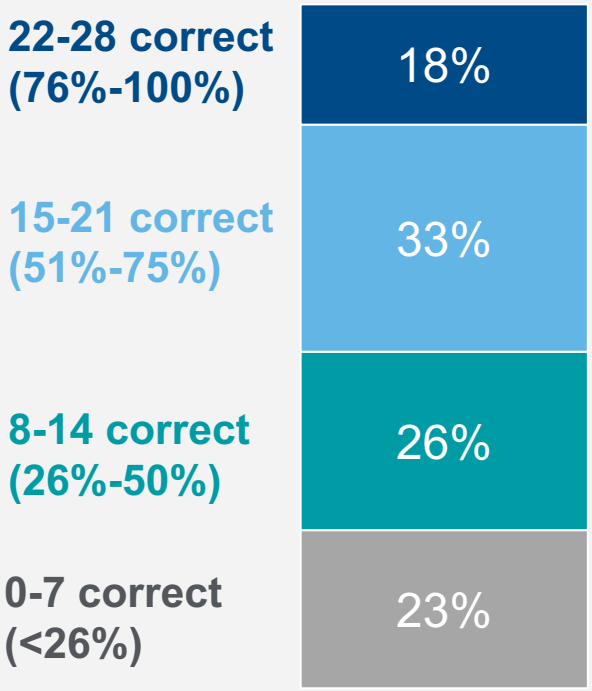


# Financial literacy: A failing grade

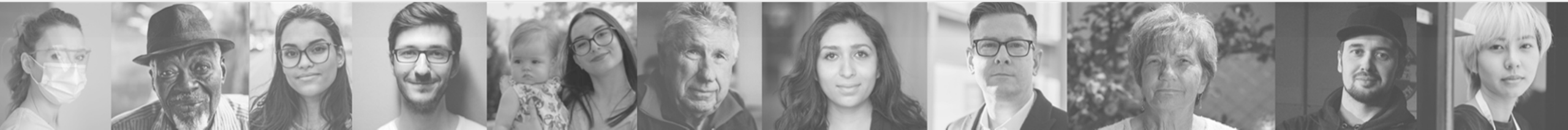
*% of P-Fin Index questions answered correctly*




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

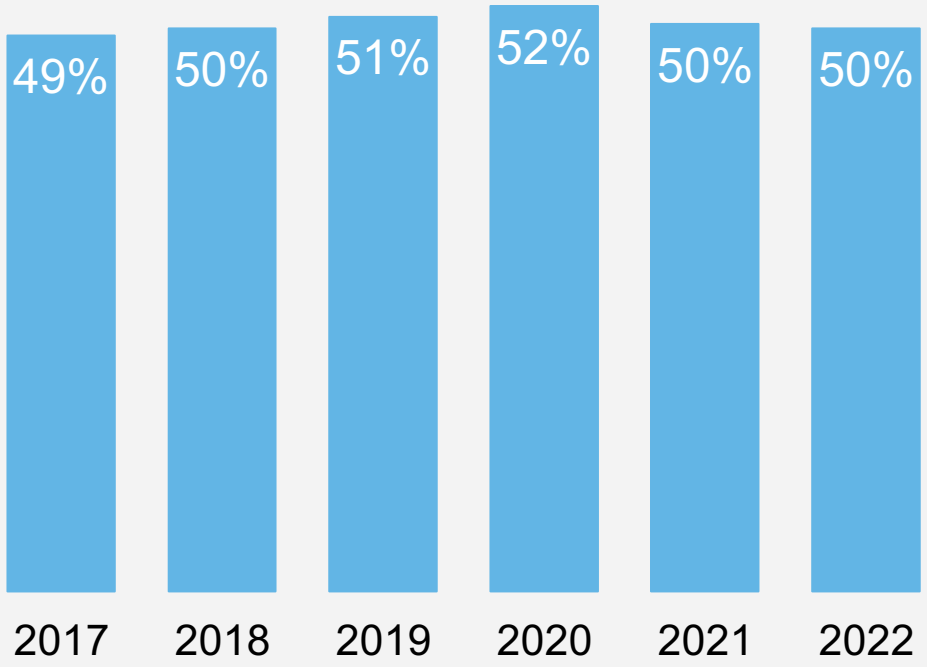


Source: TIAA Institute-GFLEC Personal Finance Index (2022).

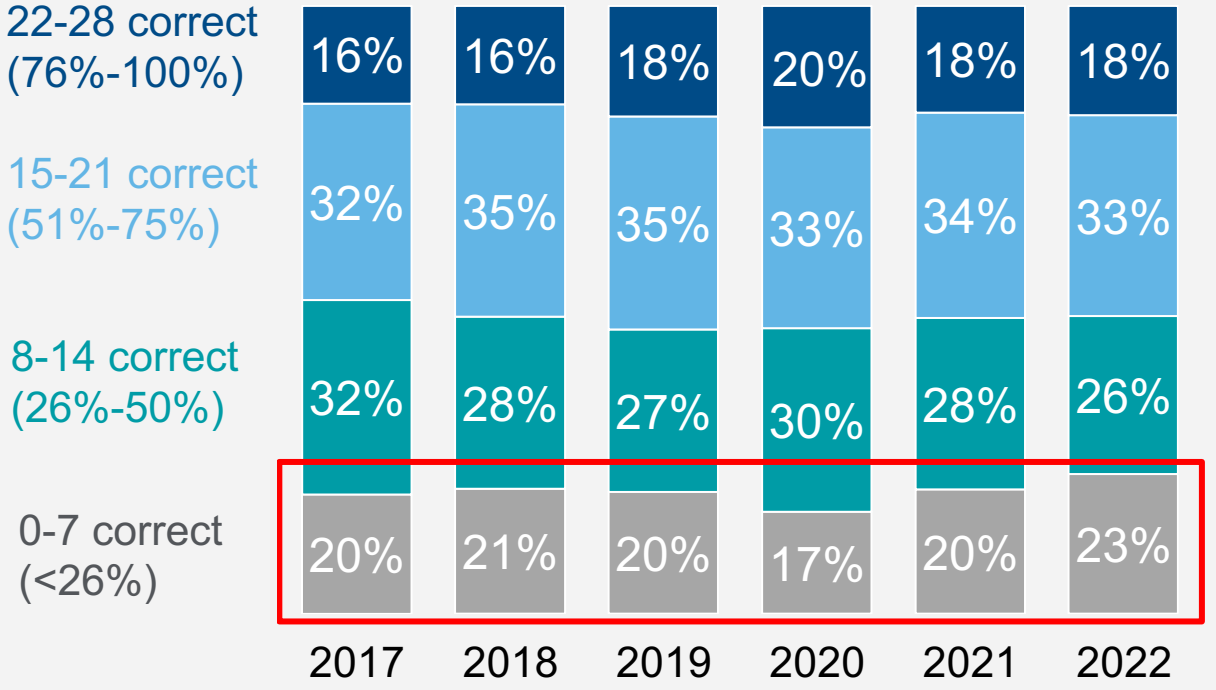


# Financial (il)literacy is holding steady: 2017-2022

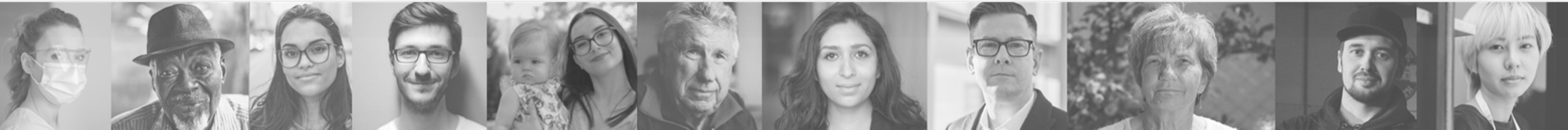
*% of P-Fin Index questions answered correctly*



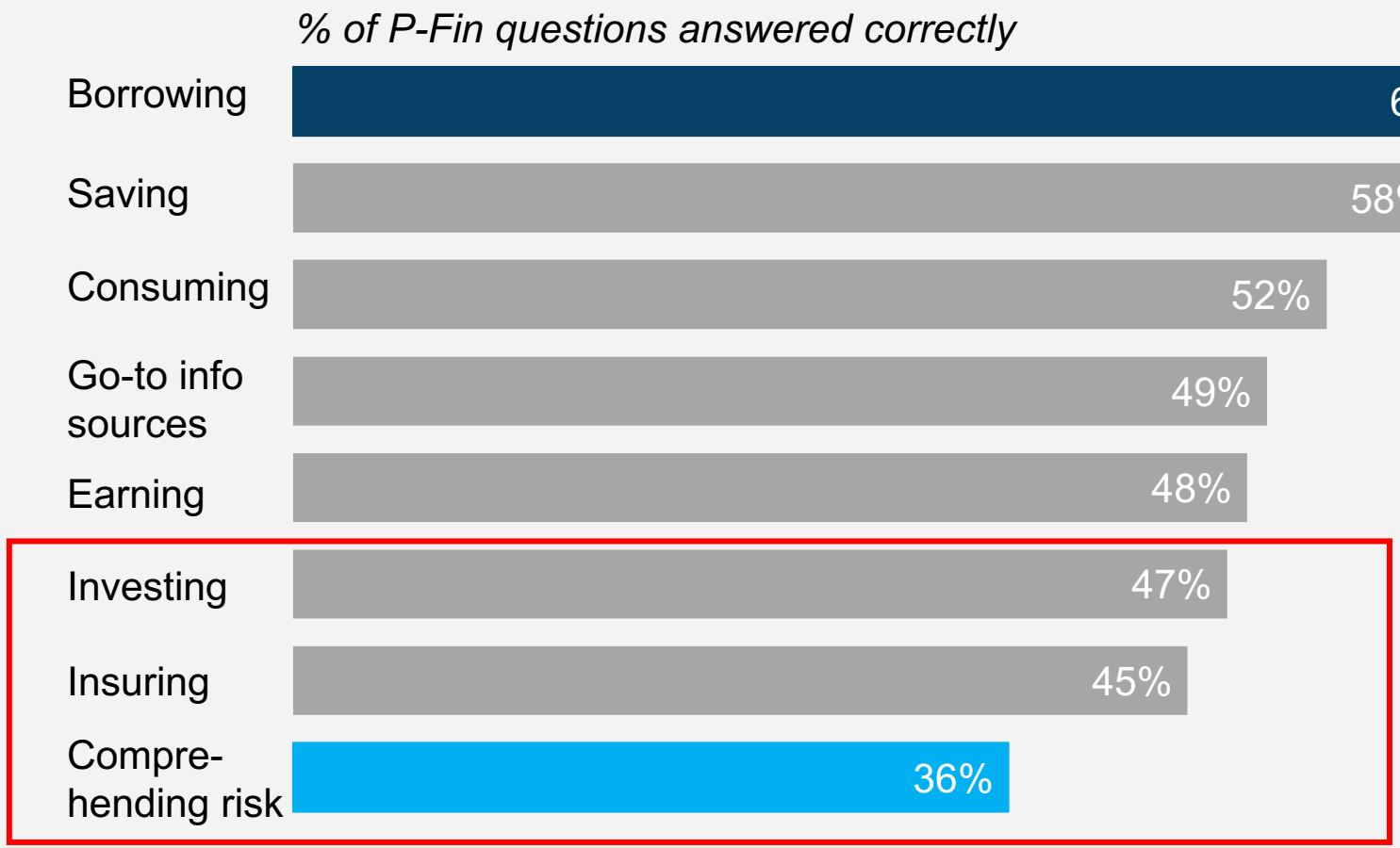

*Distribution of correct answers to P-Fin questions*



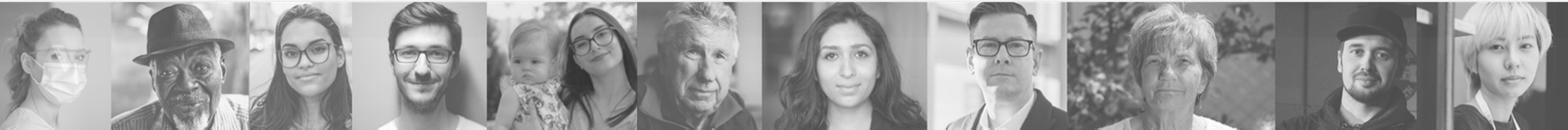

Source: TIAA Institute-GFLEC Personal Finance Index (2017-2022).



# What do people know the most and the least



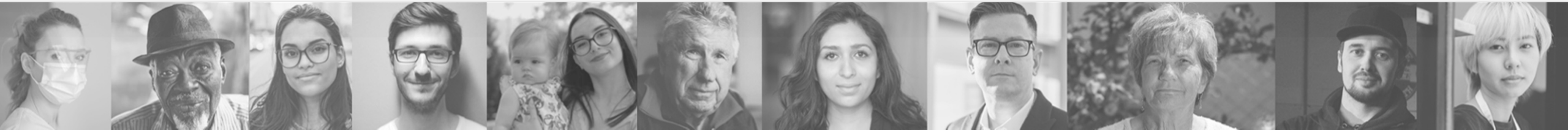

Source: TIAA Institute-GFLEC Personal Finance Index (2022).



# Inflation is coming back

Data released on Thursday shows Consumer prices rose 7.7 percent in the year through October, slower than economists anticipated but remain high in recent decades.

Source: Bureau of Labor Statistics, 2022



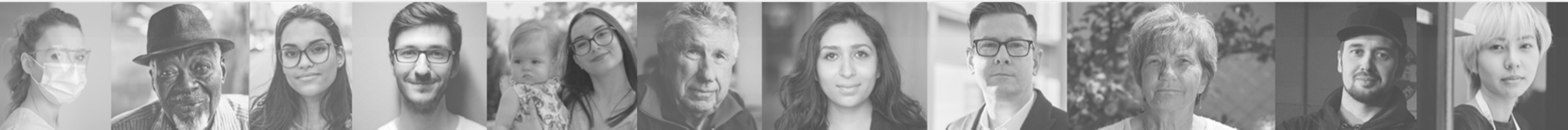
# Knowledge about Inflation: One of the Big Three

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 | 54% |
| Incorrect | 21% |
| Don't Know | 26% |
| No Answer | 1% |

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



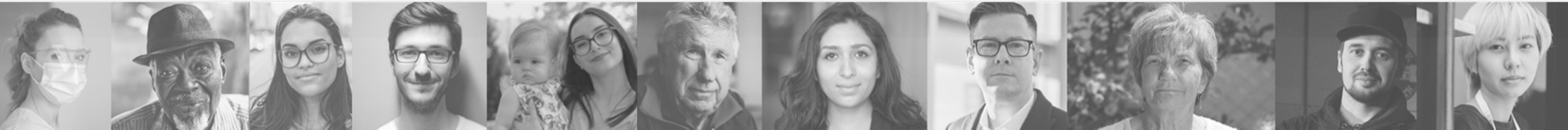
# “Calculated risk”?

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

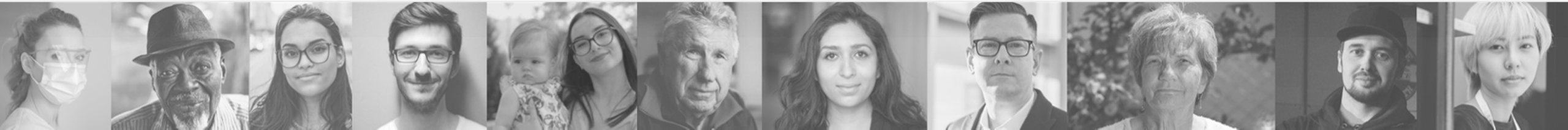
- There is a one-in-twenty chance of getting the disease
- 2% of the population will get the disease
- 25 out of every 1,000 people will get the disease
- Don’t know
- Refuse to answer

| **Results:** | |
|---|---|
| **Correct** | **28%** |
| **Incorrect** | **19%** |
| **Don’t Know** | **53%** |
| **No Answer** | **0%** |

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



# Powerball anyone?



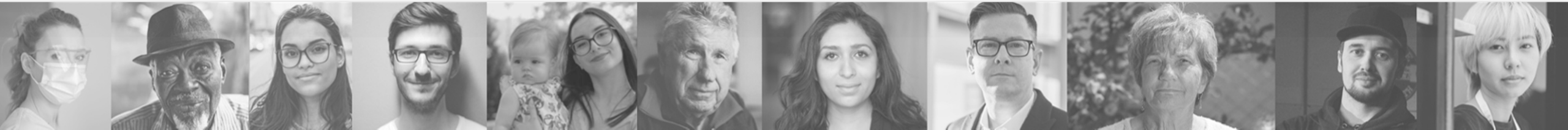
# Expected value of a lottery

Lottery A pays a prize of $200 and the chance of winning is 5%. Lottery B pays a prize of $90,000 and the chance of winning is 0.01%. Expected winnings are greater in which lottery?

- Lottery A
- Lottery B
- They are equal
- Don't know
- Refuse to answer

| **Results:** | |
|---|---|
| **Correct** | **48%** |
| **Incorrect** | **22%** |
| **Don't Know** | **29%** |
| **No Answer** | **1%** |

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



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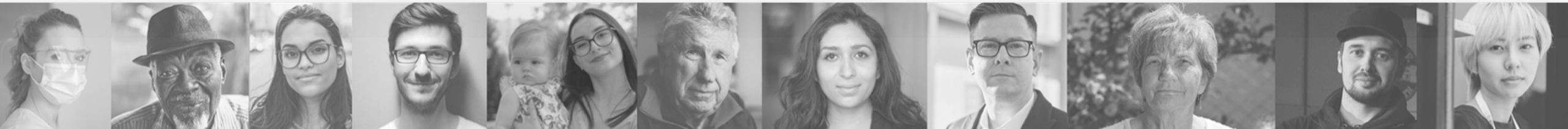
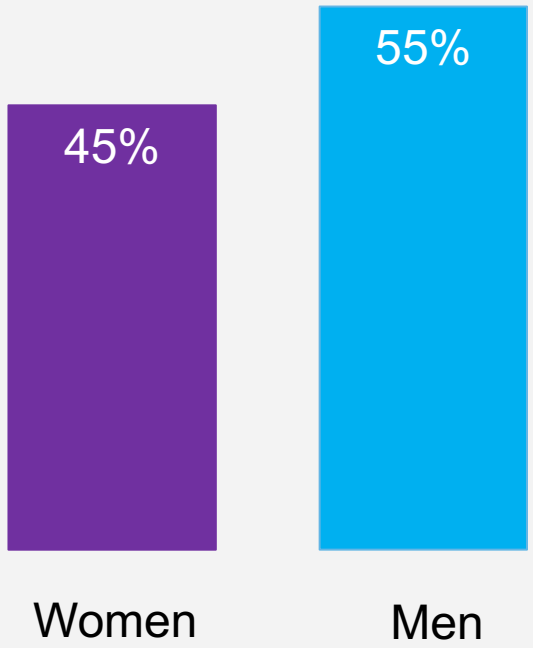
# The importance of heterogeneity

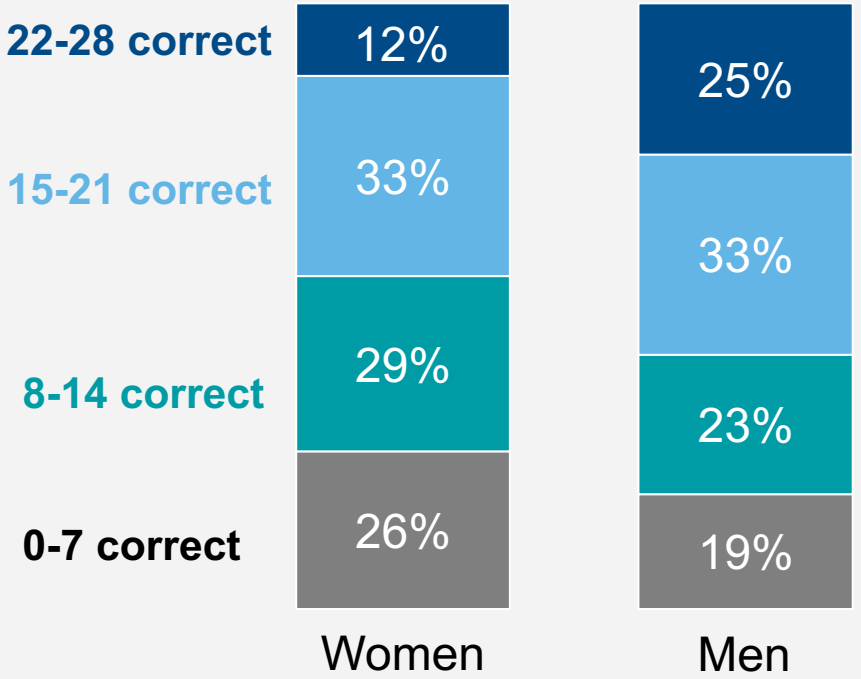


# Demographic variation: Women and knowledge

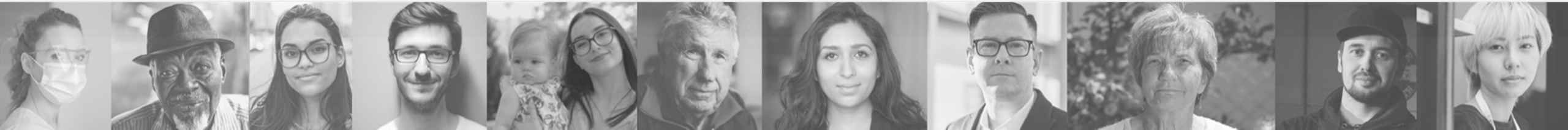
*% of P-Fin questions answered correctly*



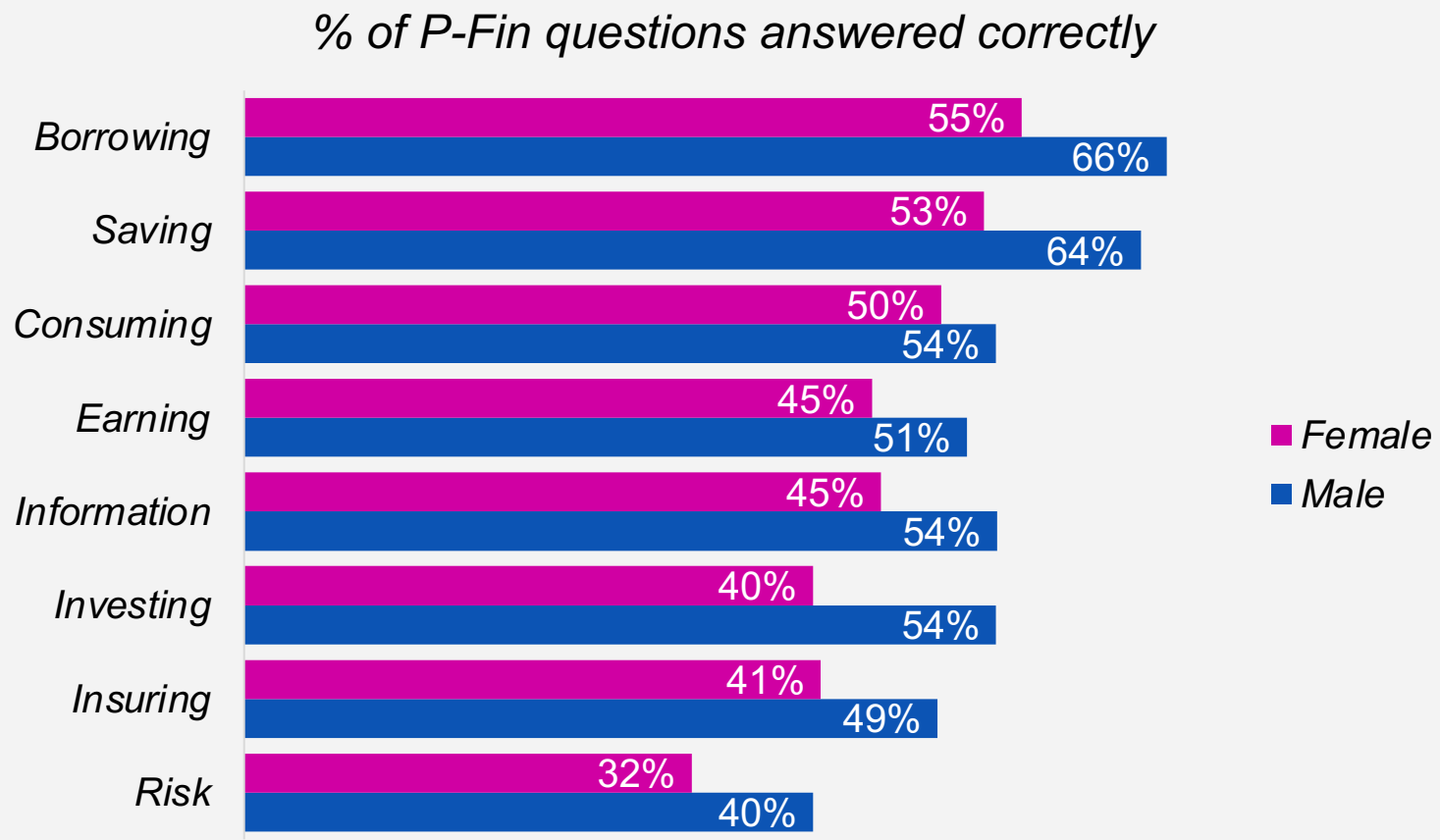

*Distribution of correct answers to P-Fin questions*



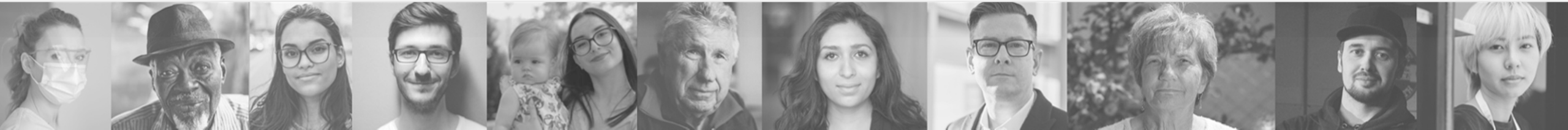

Source: TIAA Institute-GFLEC Personal Finance Index (2022).



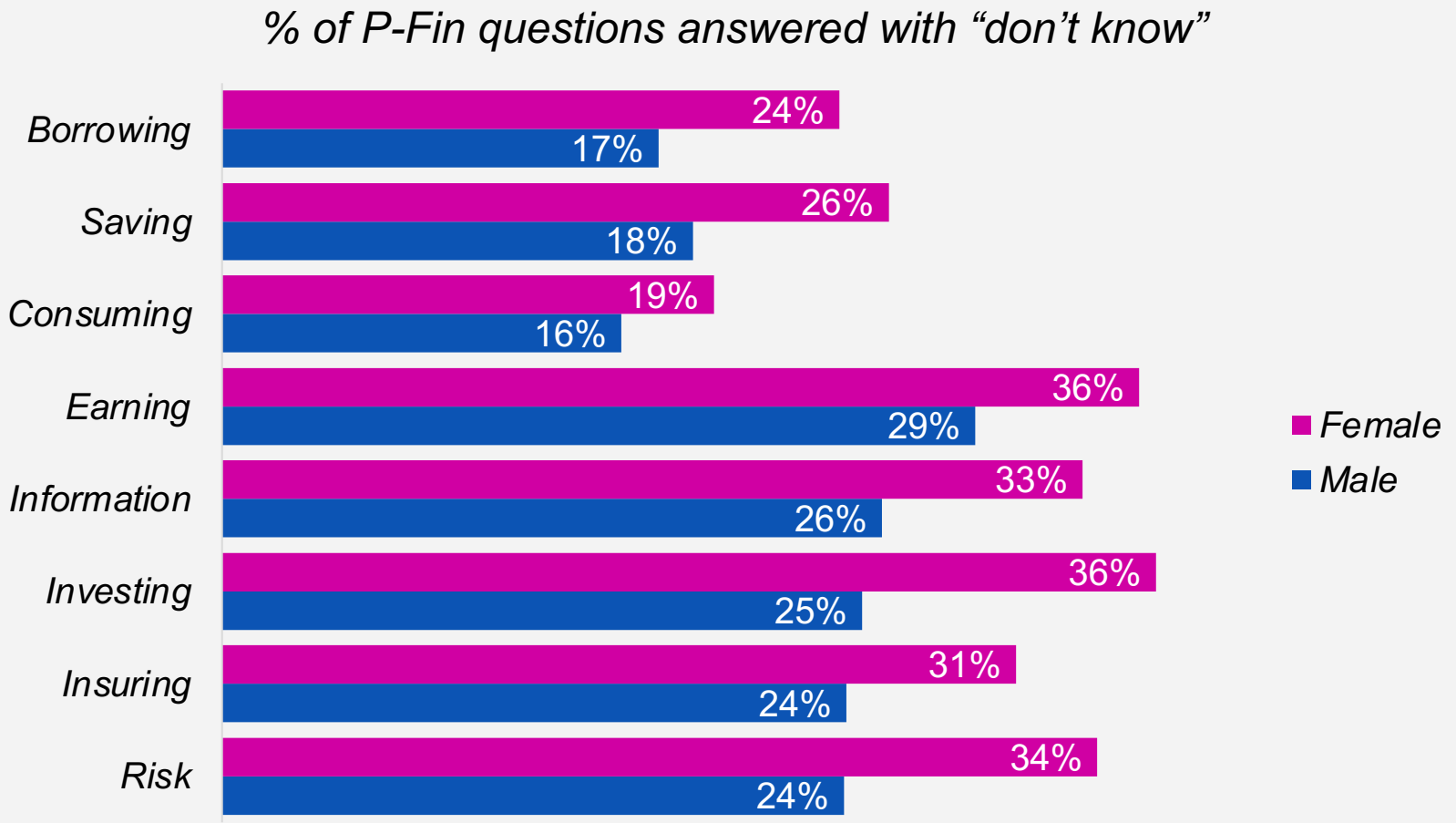
# A gender gap in every topic..



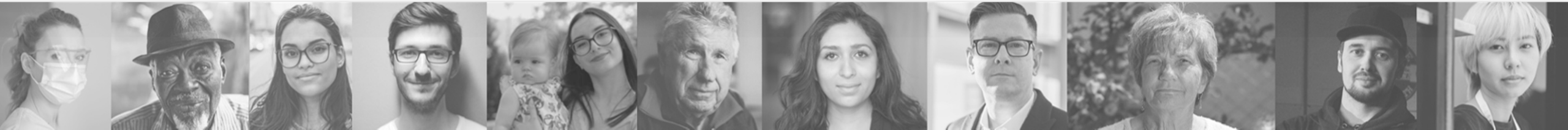

Source: TIAA Institute-GFLEC Personal Finance Index (2022).



# ..and in answering “Do not know”

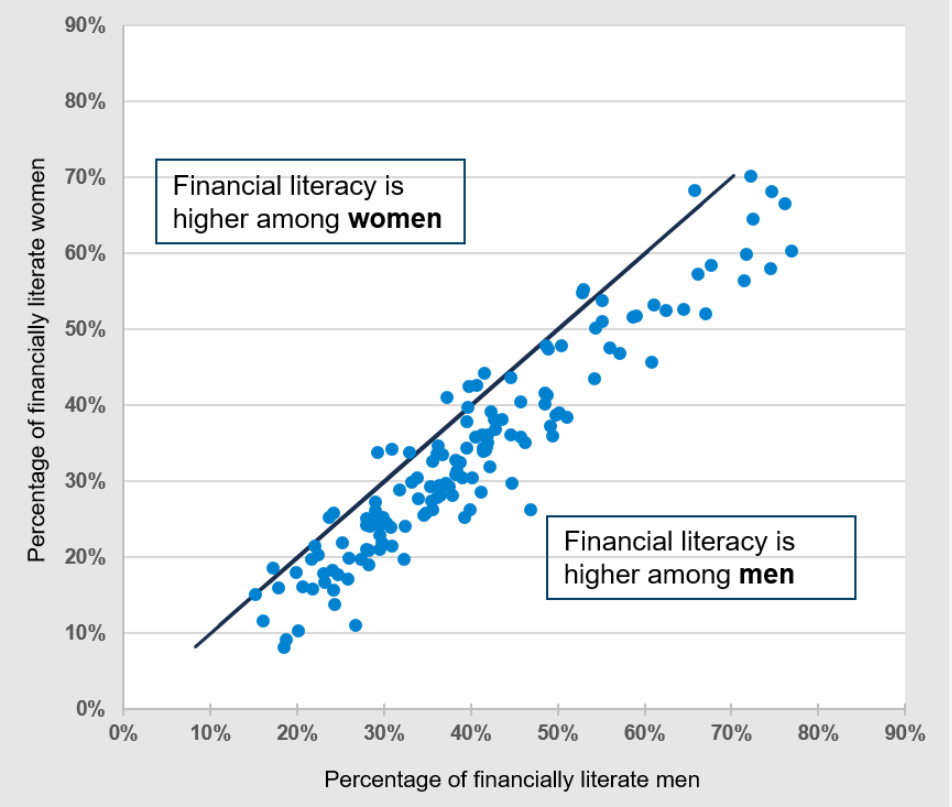



Source: TIAA Institute-GFLEC Personal Finance Index (2022).

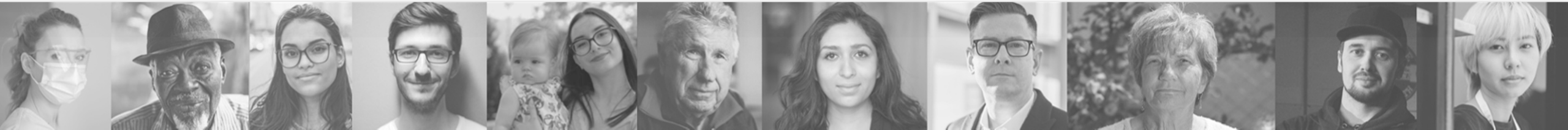


# Gender differences in finlit: From Global Finlit Survey

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




Source: S&P GFLS.



# *Fearless Woman*: Financial Literacy and Stock Market Participation

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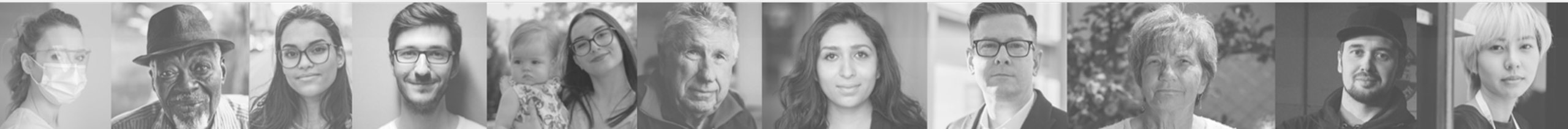
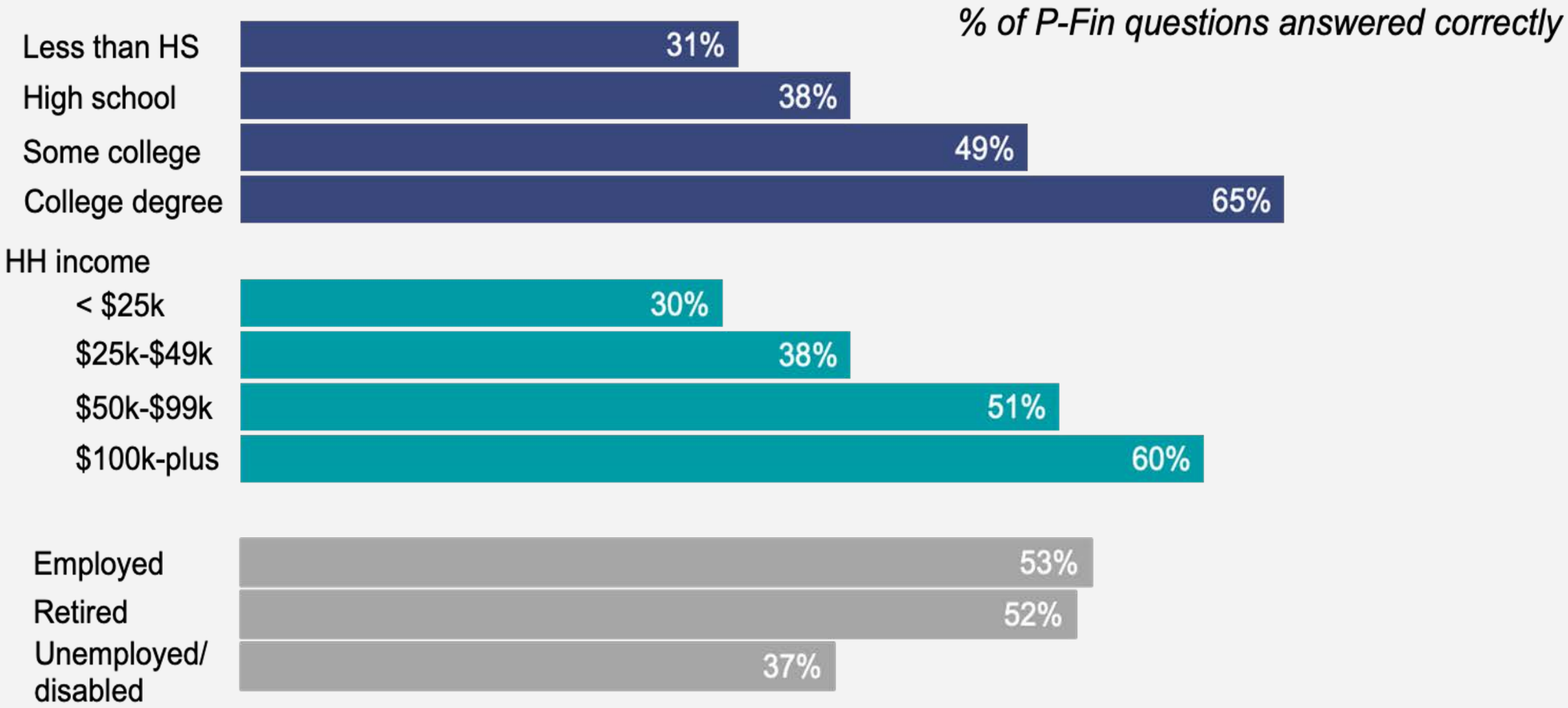
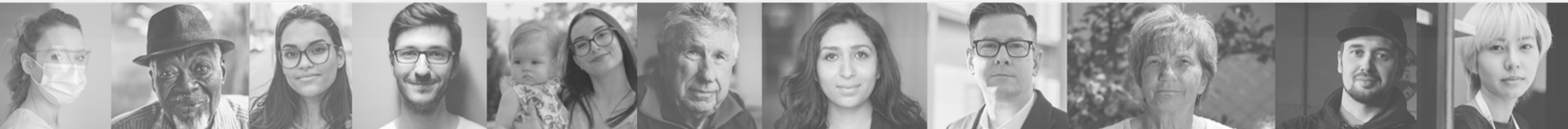
Tabea Bucher-Koenen (ZEW, U of Mannheim)
Rob Alessie (U of Groningen)
Annamaria Lusardi (The George Washington University and GFLEC )
Maarten van Rooij (DNB)



# Large variation in financial literacy across demographics




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



# Where changes happened over time: Toward an unequal path

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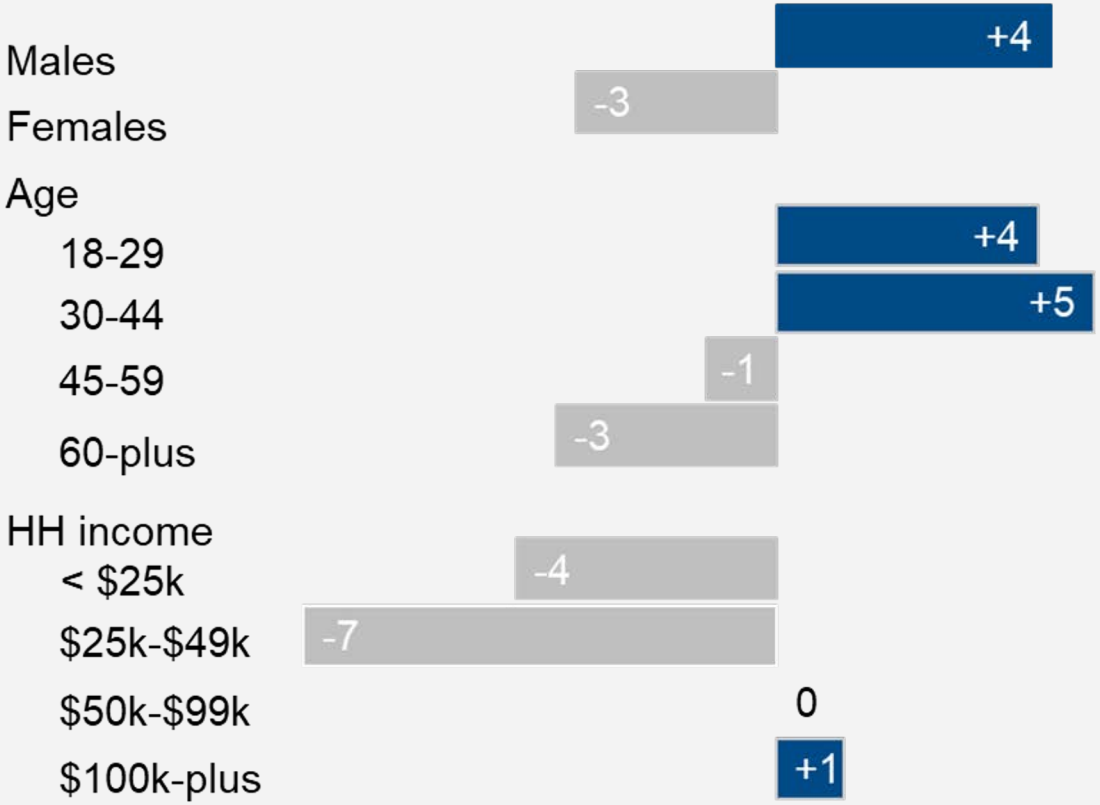
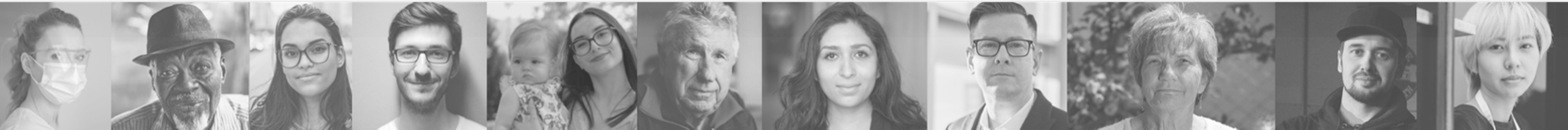
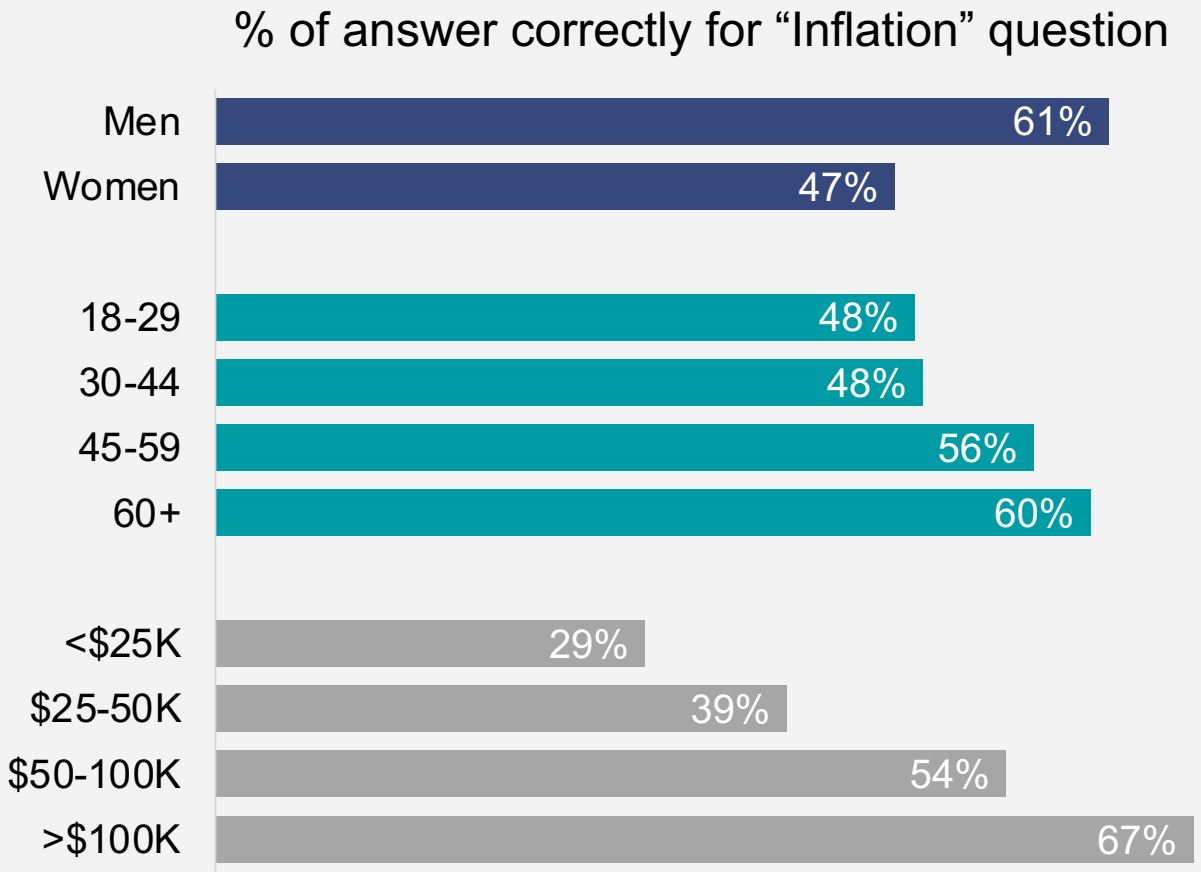
*% point change in P-Fin questions answered correctly, 2017 to 2022*




Source: TIAA Institute-GFLEC Personal Finance Index (2017, 2022).



# Who knows about inflation?

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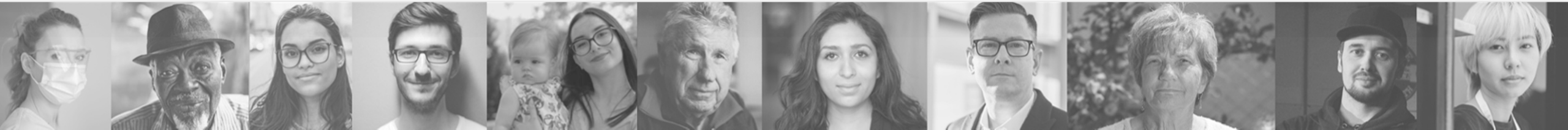
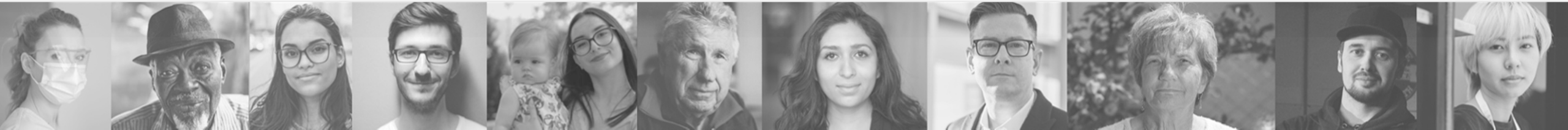


# What we learn from basic facts

- Very low levels of financial literacy
  - Do not take financial literacy for granted

- Financial illiteracy is widespread
  - Changing behavior requires more than small interventions

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



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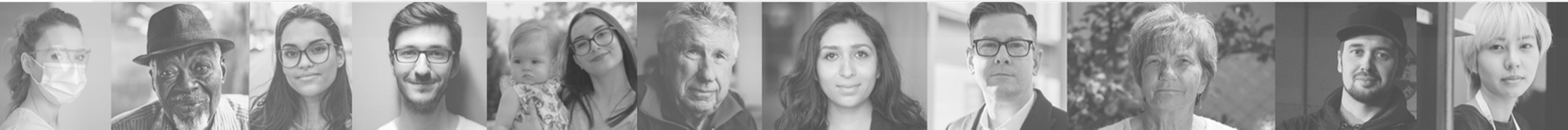
# Financial literacy and financial well-being



# A simple measure of the cost of financial illiteracy

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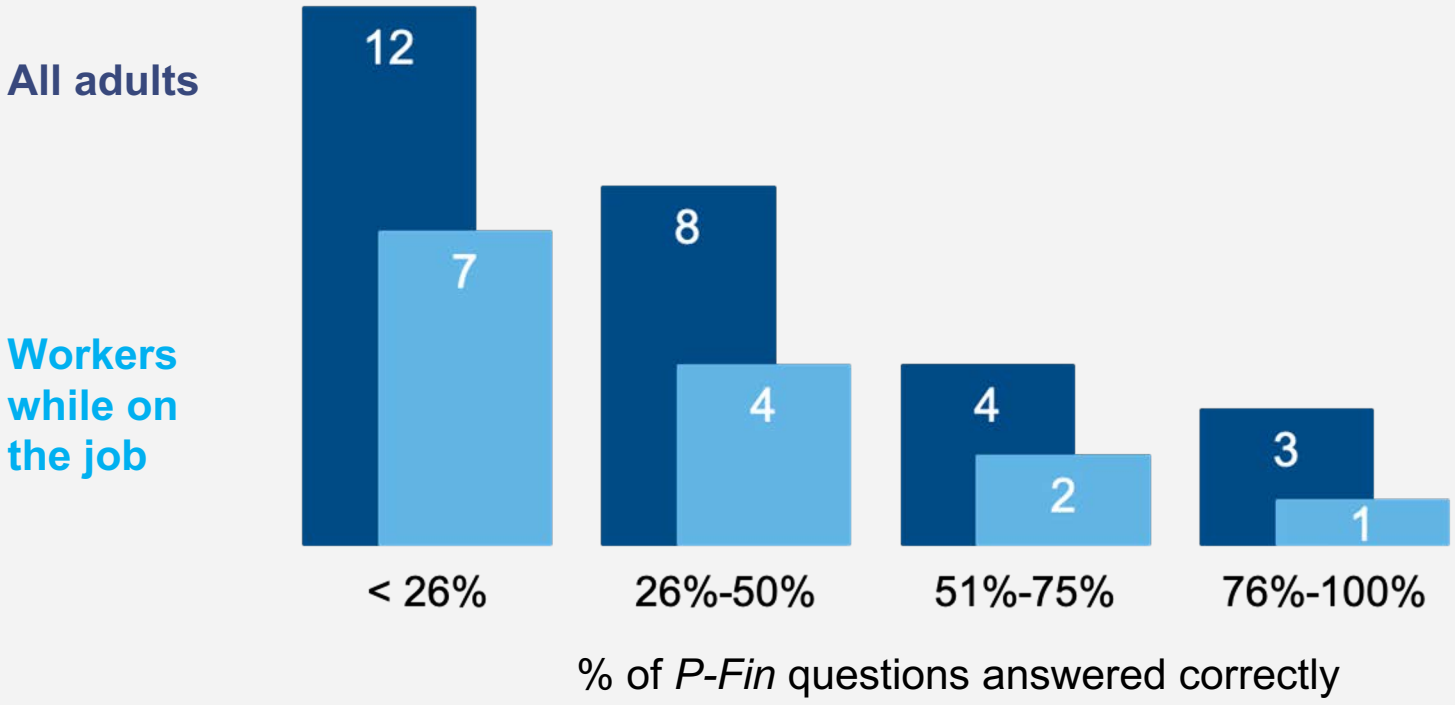
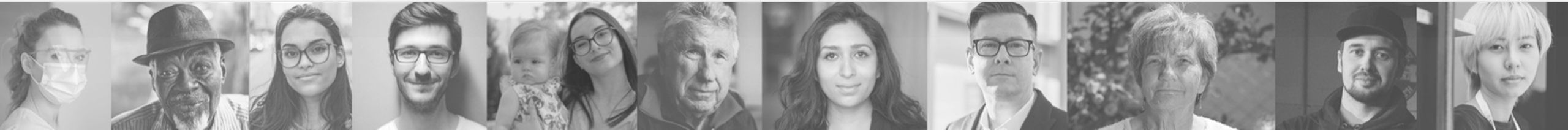
*Average hours per week spent thinking about and dealing with issues and problems related to personal finances*




**People spend an average of 7h per week thinking about and dealing with financial issues and problems. An average of 3h per week occur at work.**

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

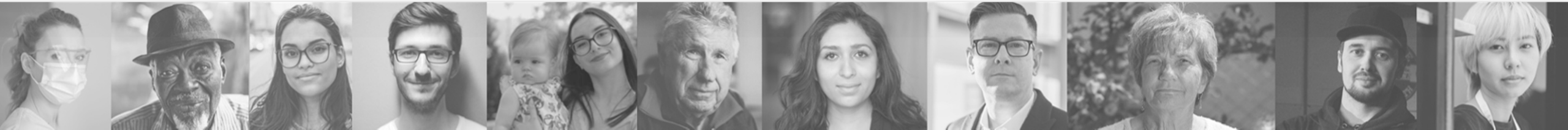


# Measuring financial fragility

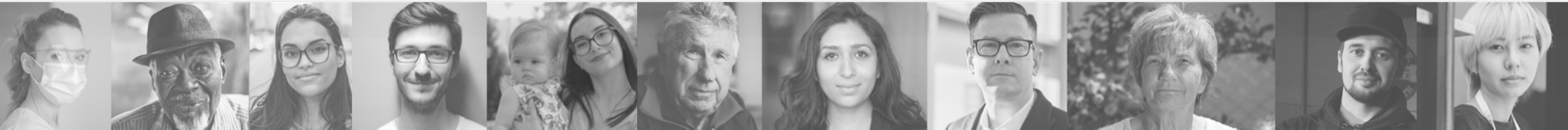
How **confident** are you that you could come up with **$2,000** if an unexpected need arose **within the next month**?

- 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.

People with these responses are classified as financially fragile.



# The face of financial fragility



# Financial fragility: What does it measure?

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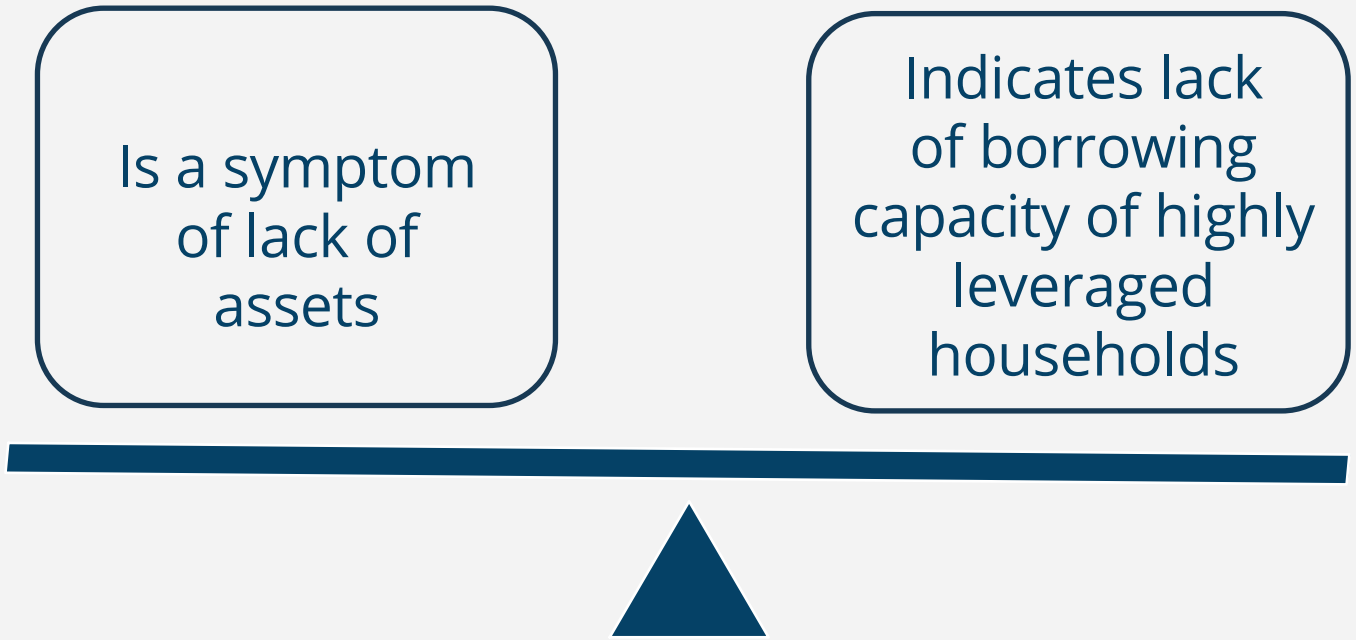
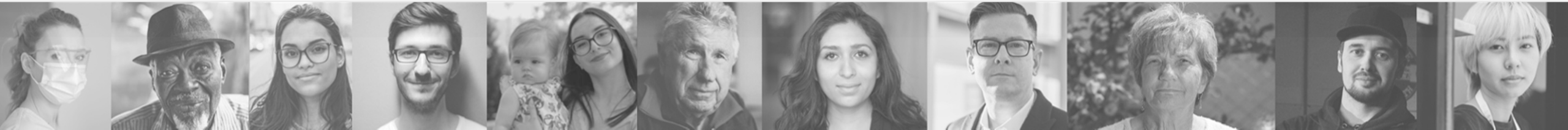
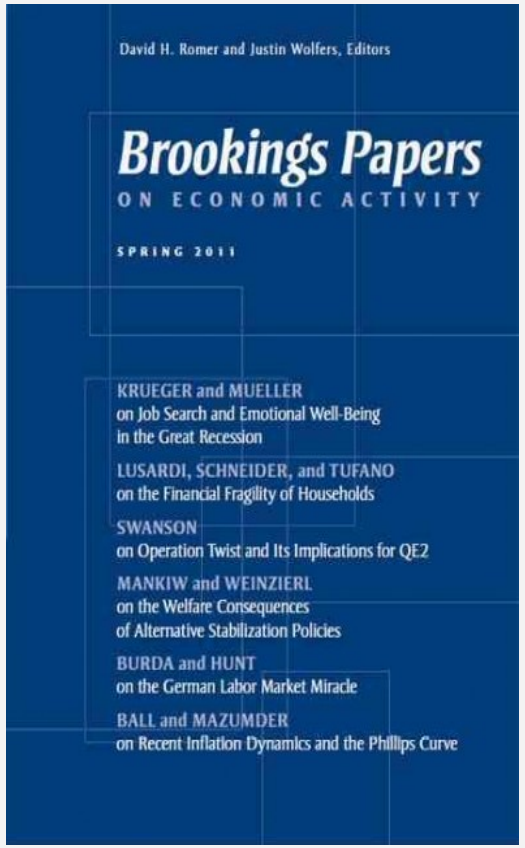
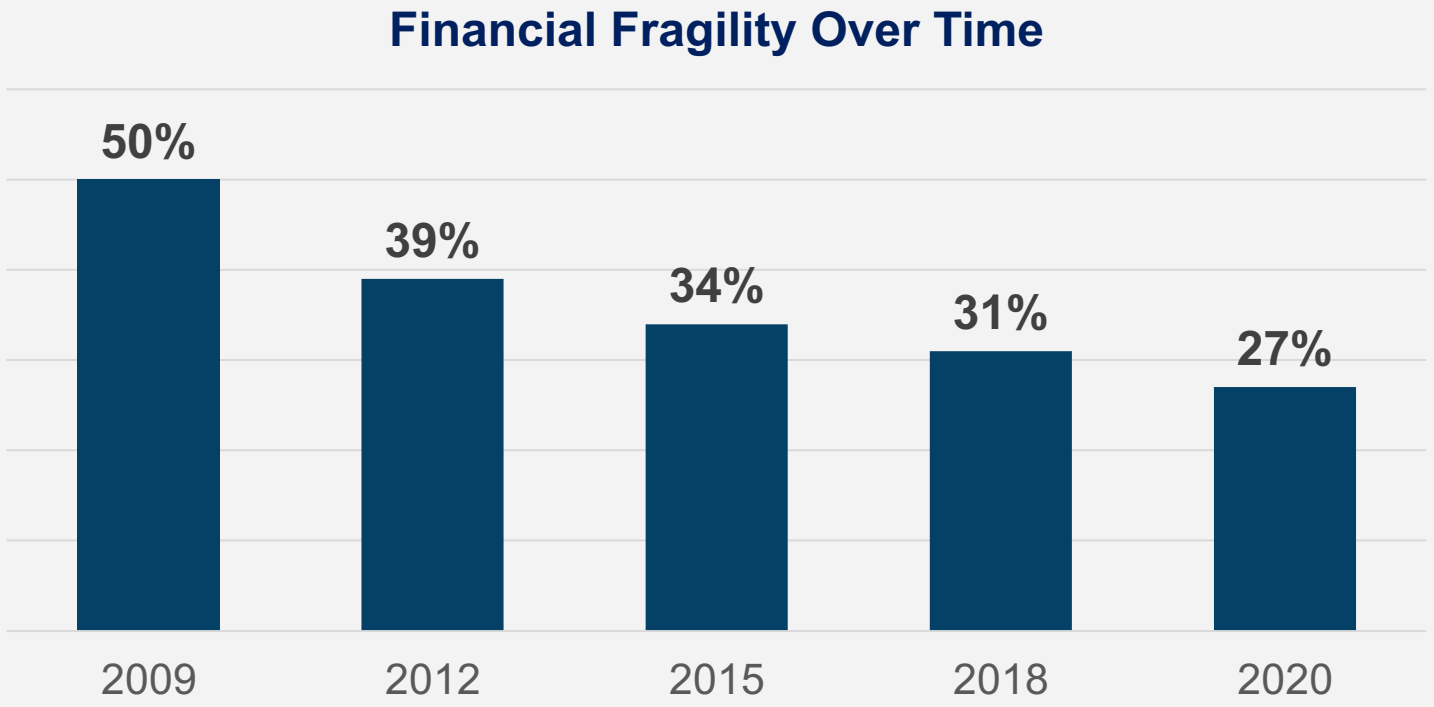


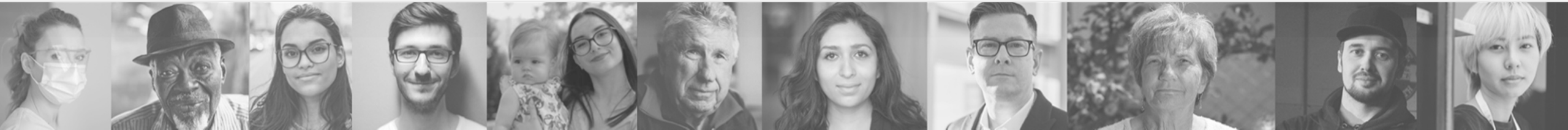



# Financial fragility in America before the pandemic



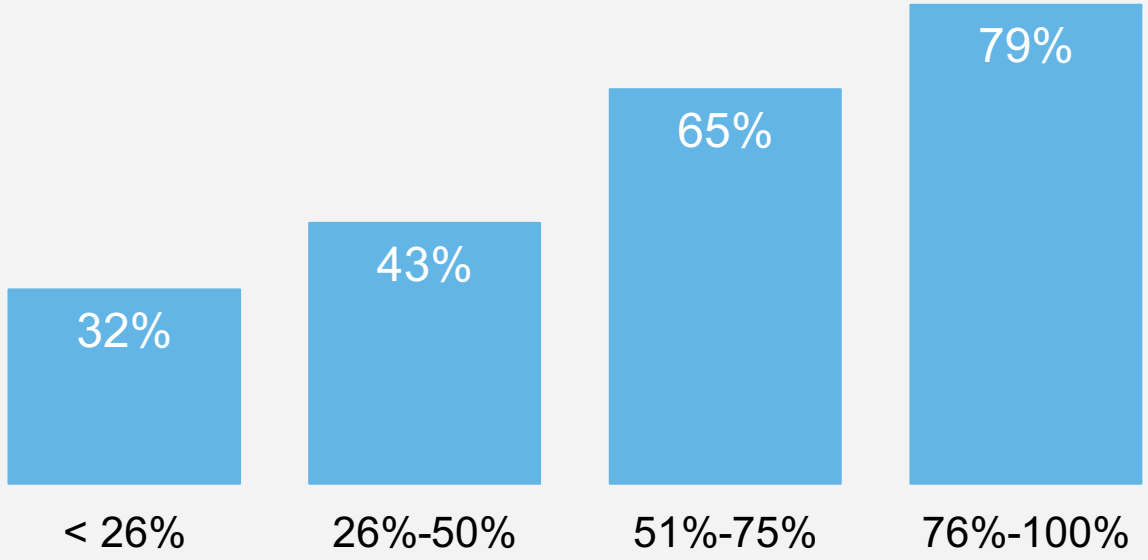

Source: 2009 TNS data, 2012, 2015 and 2018 NFCS data, and 2020 P-Fin data



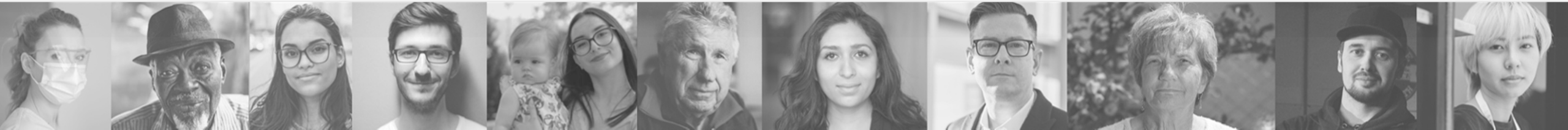
# Financial literacy and financial fragility

**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*



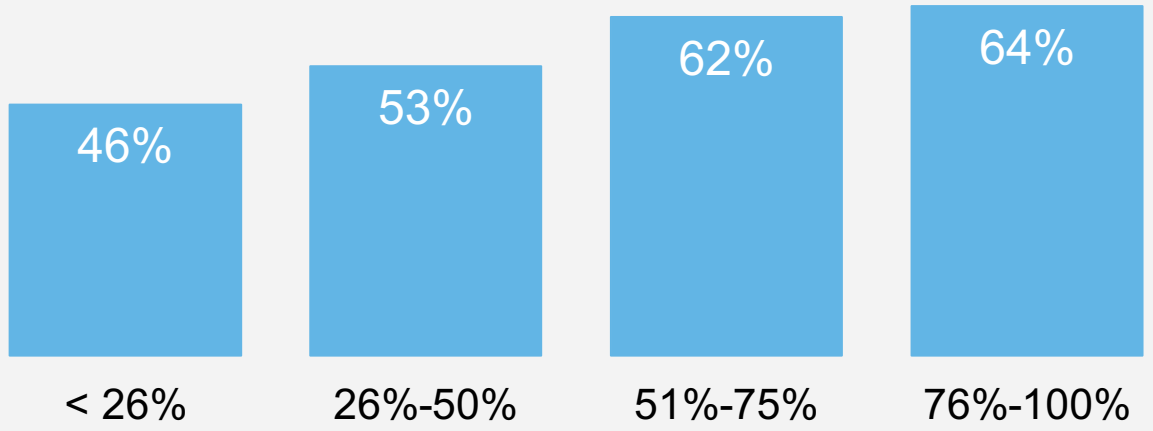

Source: TIAA Institute-GFLEC Personal Finance Index (2022).



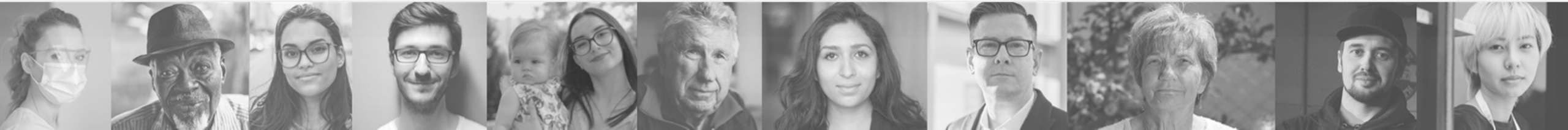
# Financial literacy and being constrained by debt

**Those with greater financial literacy are less likely to be debt constrained.**

*% for whom debt and debt payments do not prevent adequately addressing other financial priorities*

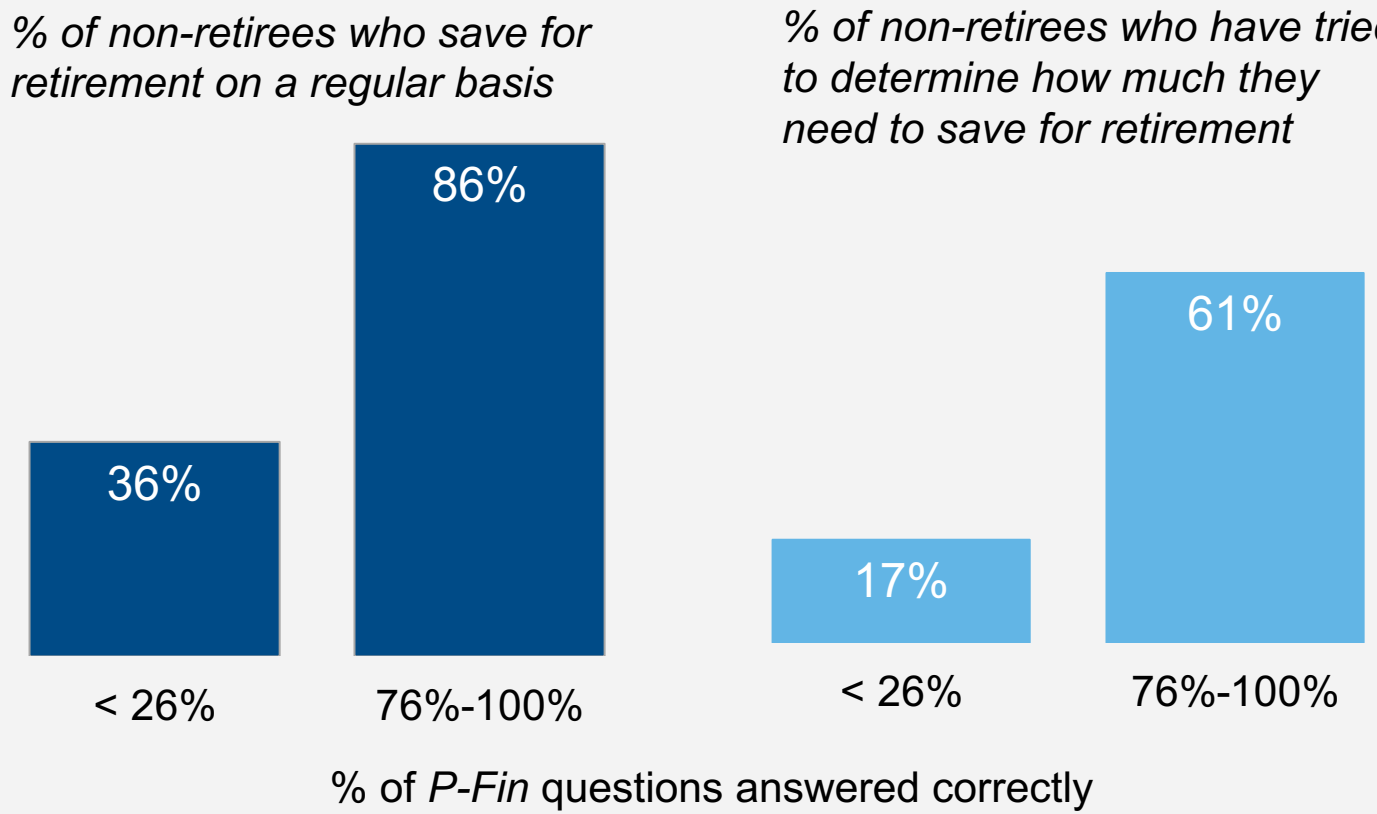



Source: TIAA Institute-GFLEC Personal Finance Index (2022).

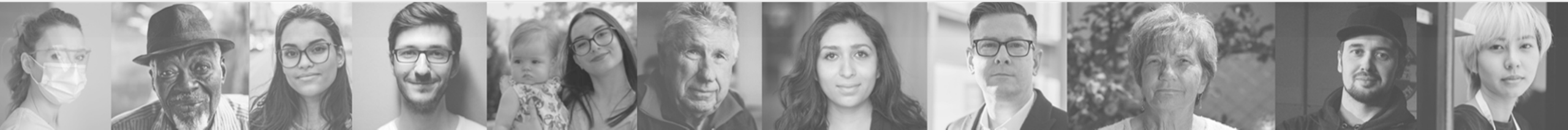


# Financial literacy and retirement planning

**Those with greater financial literacy are more likely to save and plan for retirement.**



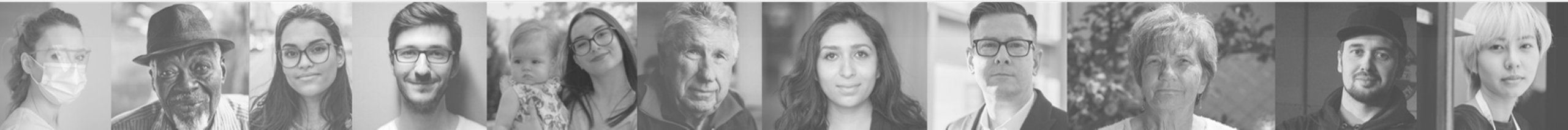

Source: TIAA Institute-GFLEC Personal Finance Index (2022).



# 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 |

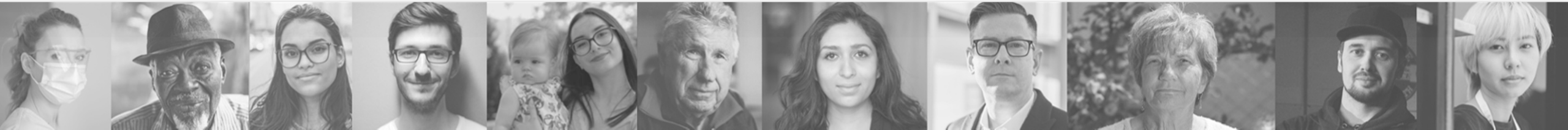
Source: TIAA Institute-GFLEC Personal Finance Index (2022); non-retirees.



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

| | **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 |

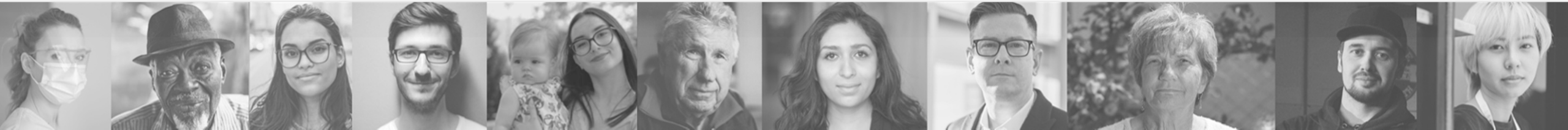
Source: TIAA Institute-GFLEC Personal Finance Index (2022).



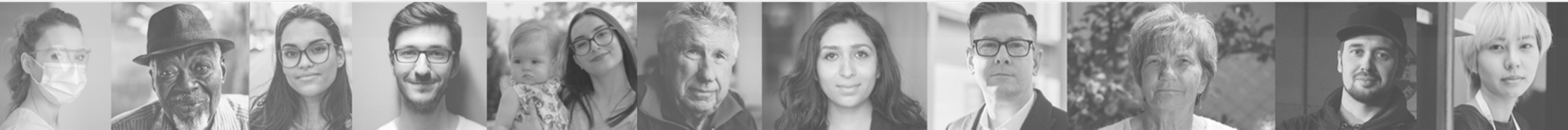
# The relationship between debt variable and financial literacy

| | **Model 1** *Not debt-constrained* | **Model 2** *Not debt-constrained* | **Model 3** *Not debt-constrained* |
|---|---|---|---|
| > 50% of P-Fin questions correct | 0.061*** | | |
| | (0.016) | | |
| Total # of questions correct | | 0.003** | |
| | | (0.001) | |
| Was offered financial education | | | -0.014 |
| | | | (0.015) |
| Demographic controls | Yes | Yes | Yes |
| Observations | 3,519 | 3,519 | 3,519 |
| R-squared | 0.108 | 0.106 | 0.104 |

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



# Implications for research, policy and programs



# Making financial education effective

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## We need large and scalable programs

1. Financial education in the workplace (for the adults)
2. Financial education in school and college

# Research says that financial education works

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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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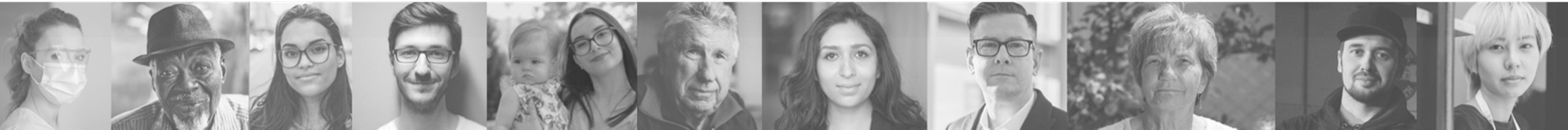
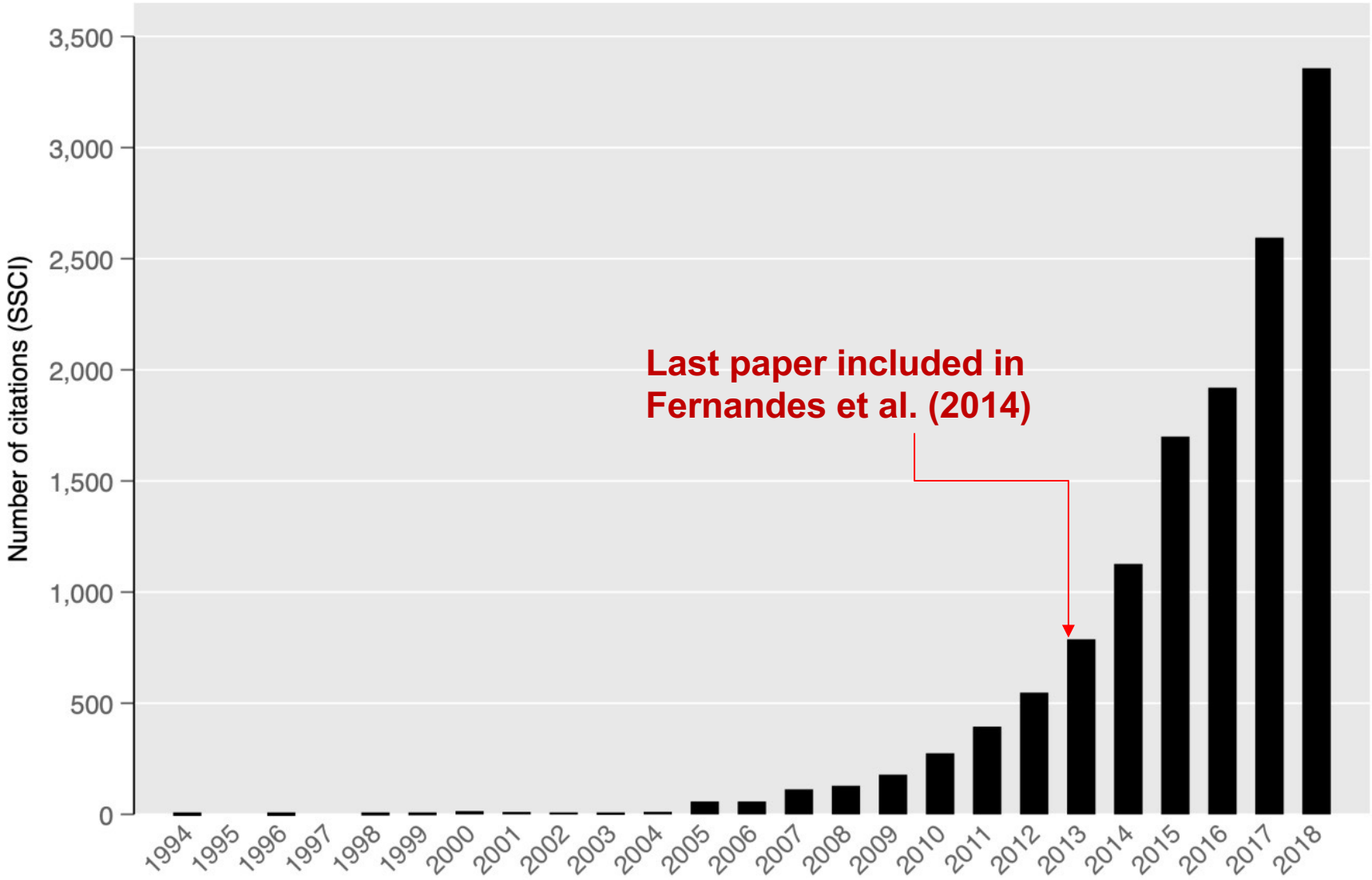
### Abstract

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.

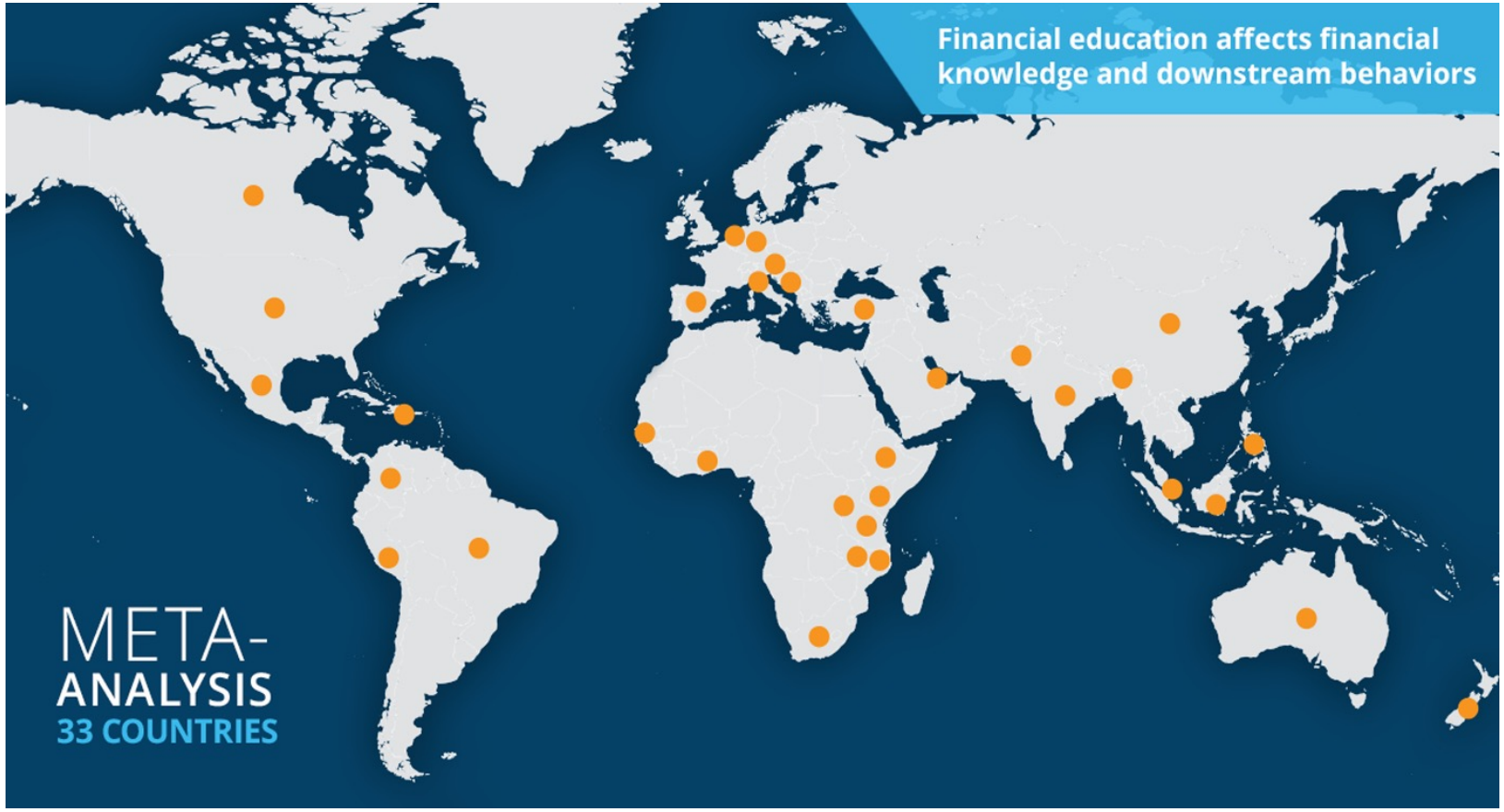


# Citations to the term “financial literacy” over time



# New meta-analysis

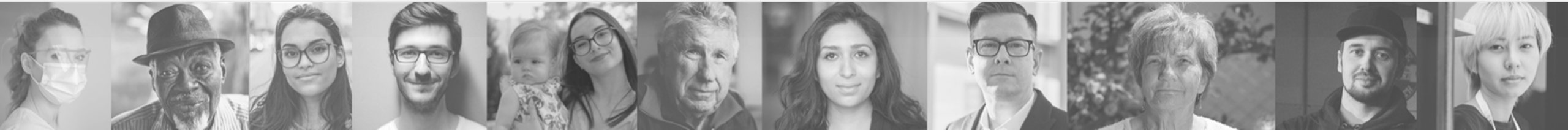
Our study includes 76 RCTs (vs. 13) from 33 countries (vs. 8) with over 160,000 (vs. 23,000) individuals across the lifespan.




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.

# Research–based workplace financial education programs

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



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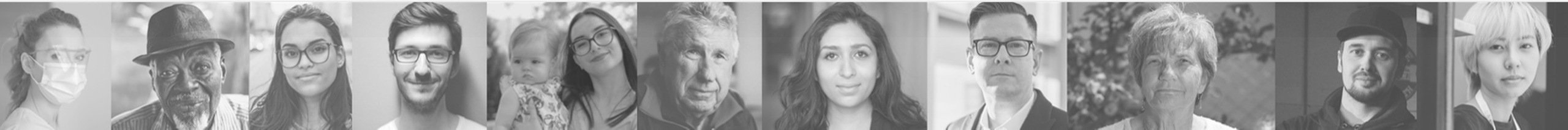
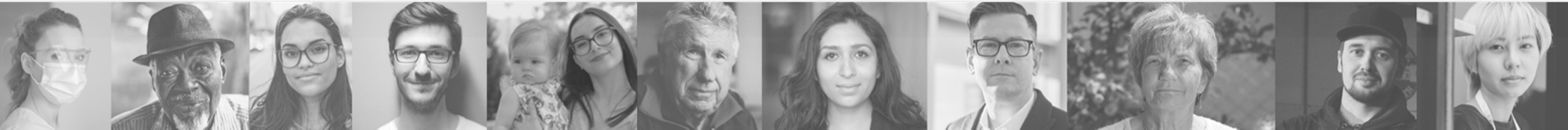
# Teaching personal finance



# Personal finance course at GW since 2013

- 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
- Material available on our website



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

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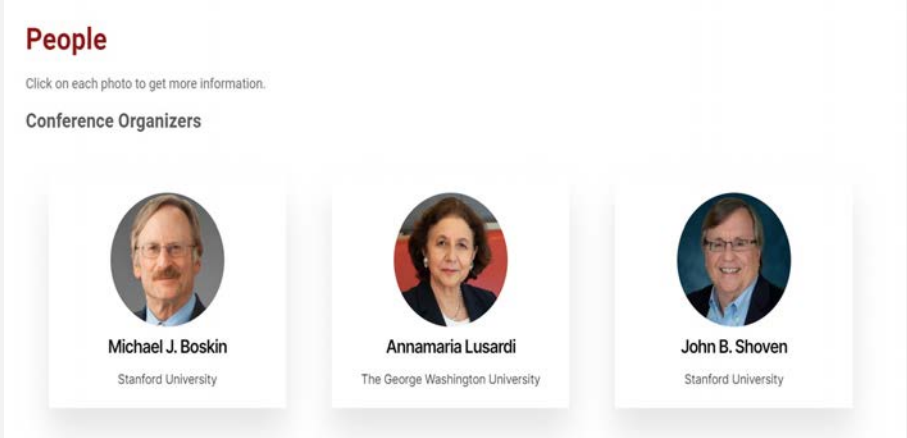
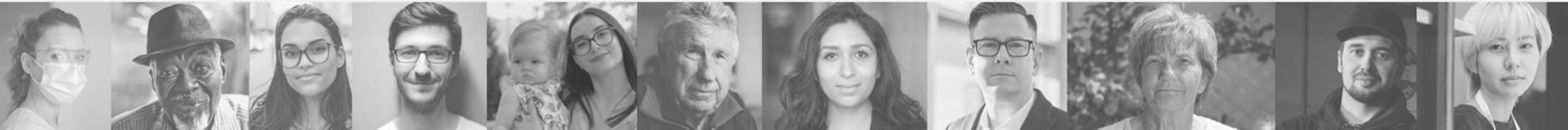



**PersonalFinanceTeaching.org**



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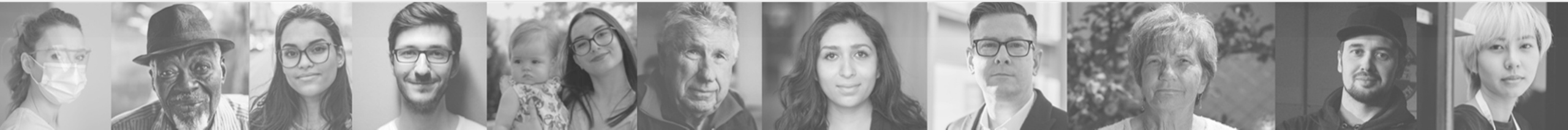
# We need more finlit research



# Financial literacy is a research field officially

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Resources

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

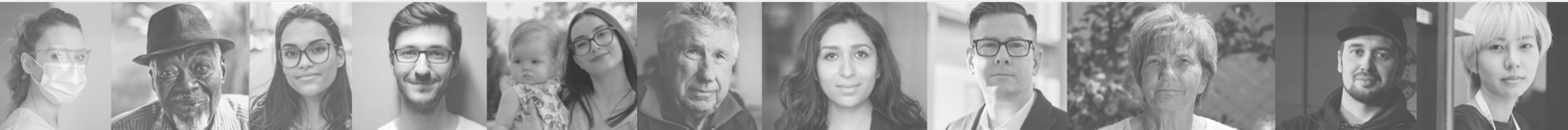
## JEL Classification Codes Guide

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**



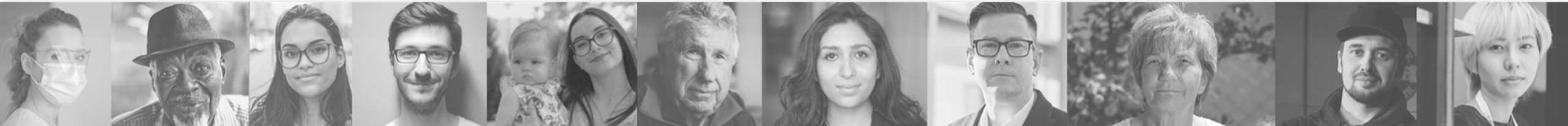
# The G53 Network

The G53 Network comprises a diverse group of researchers from all over the world with a track record of research excellence and promoting financial literacy and personal finance.

G53 Financial Literacy and Personal Finance Research Network

Discover more about our members here

Our members are appointed as Research Fellows or Research Associates, depending on their seniority in the field.



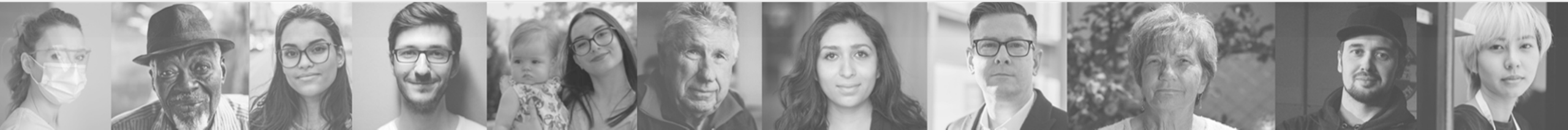
# The first journal for the financial literacy field

GFLEC GLOBAL FINANCIAL LITERACY EXCELLENCE CENTER 10 YEARS

First issue in 2023

- Submission is now available

- Special issues will be launched soon

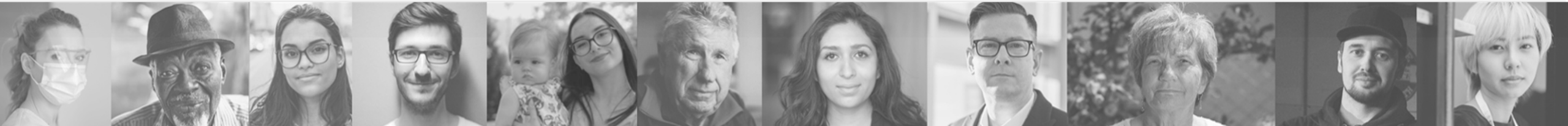


# Upcoming event in hybrid form

## THE ASIA PACIFIC FINANCIAL EDUCATION INSTITUTE

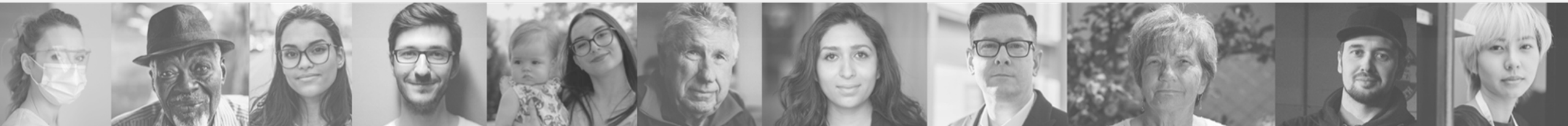
The Asia Pacific Institute is a new joint collaboration between the Sim Kee Boon Institute for Financial Economics (SKBI) at the Singapore Management University and GFLEC. The Asia Pacific Institute is modeled after GFLEC's Cherry Blossom Financial Education Institute held in Washington, D.C. every April. The research committee for the Asia Pacific Institute consists of David Fernandez (SKBI), Annamaria Lusardi (GFLEC), Michael Staten (University of Arizona) and William Walstad (University of Nebraska).

Look at the program
and register for the conference



# Concluding remarks

- Data tell us how critical low the level of financial literacy is, in particular among specific groups
- Financial literacy can be linked to financial well-being
- Research-based solutions are needed
- Submit your papers to the FLW Journal!



# Thank you!

**If you have any questions, please send them at alusardi@gwu.edu.**

**For more info visit www.gflec.org.**

Follow us on social media and stay informed.