

Financial Literacy and Well-Being: Evidence from Five Years of Data

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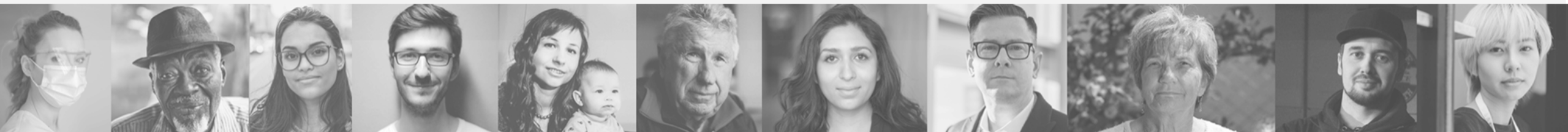
Academic Director, GFLEC

Director, Italian Financial Education Committee

December 16, 2021

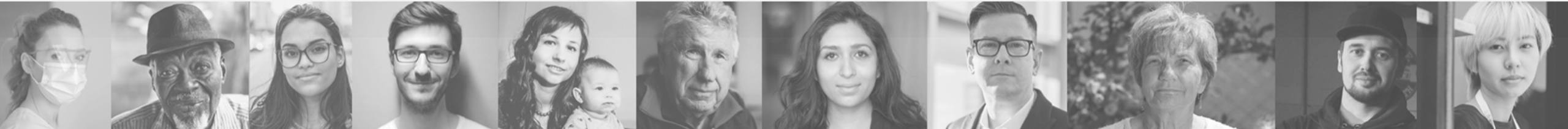
Topics I will cover

- 1 ▶ Measurement of financial literacy and well-being**
- 2 ▶ The importance of data collection on personal finance**
- 3 ▶ New research questions**

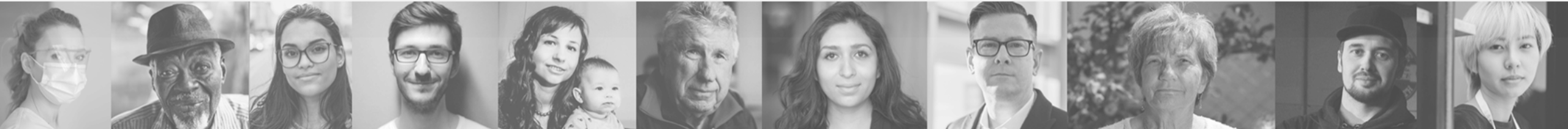
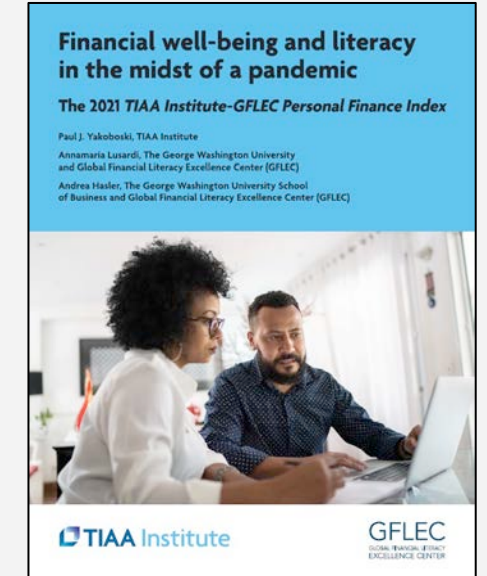
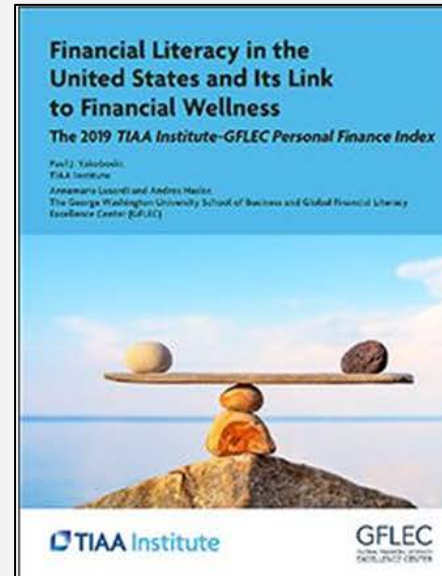
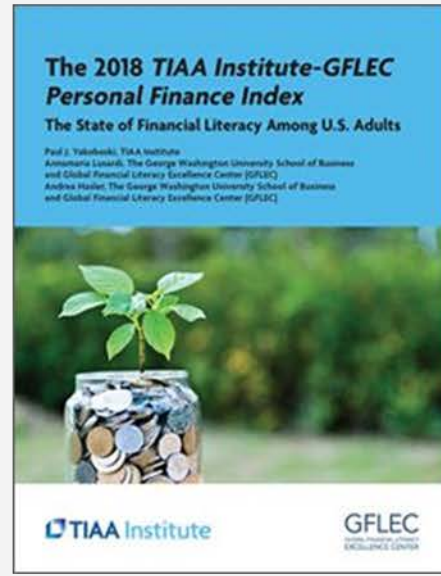
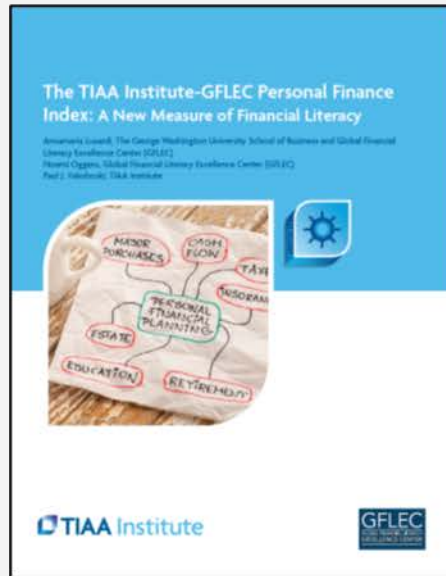


Measuring financial literacy and well-being

- 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 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 collected on a representative sample of about 1,000 respondents (age 18+).
- Data collection started at the end of 2016.



Five years of P-Fin Index data (2017-2021)



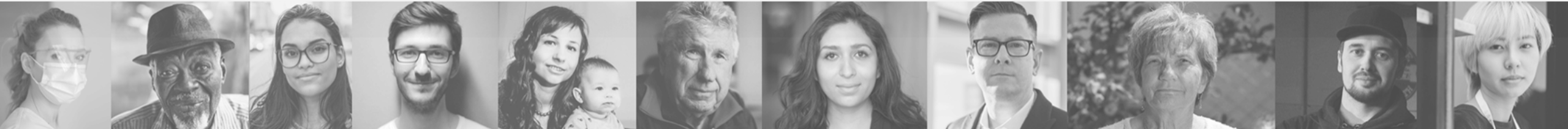
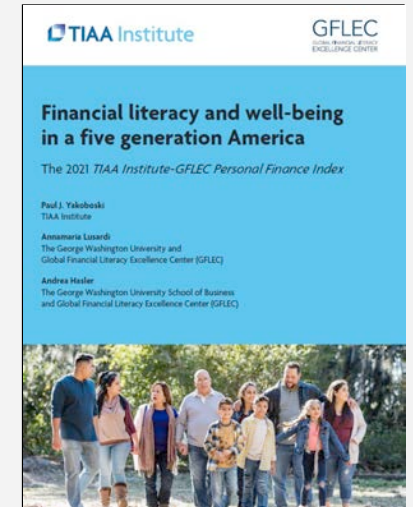
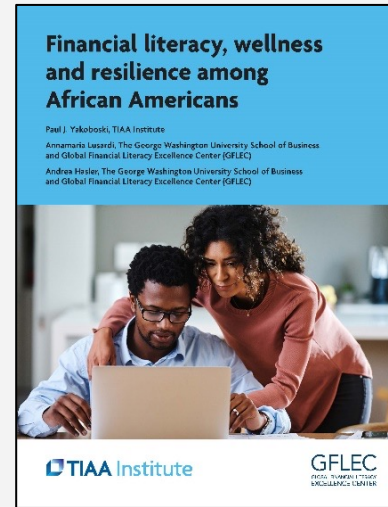
Zooming in into specific sub-groups

Each year, a specific demographic group is oversampled so we can provide a more detailed analysis of their financial literacy and wellness.

2017: Hispanics
2018: Millennials

2019: African Americans
2020: Women

2021: Age/Generations

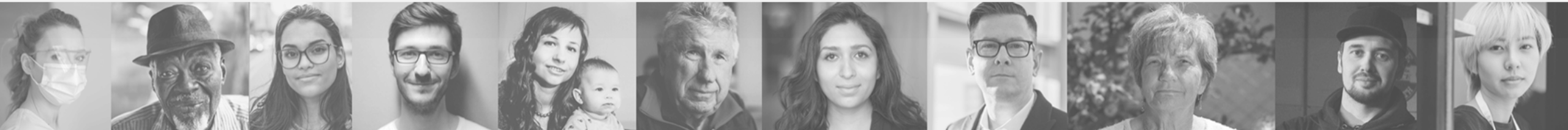


What is unique: 8 functional areas of personal finance

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



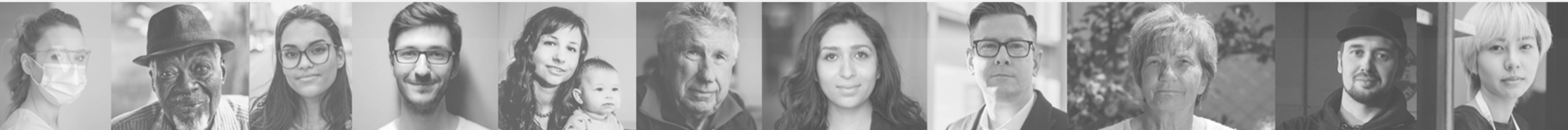
An example question

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

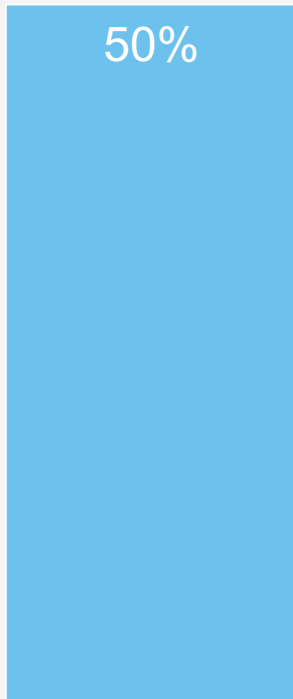
Results:	
Correct	53%
Incorrect	26%
Don't Know	20%
No Answer	0%

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

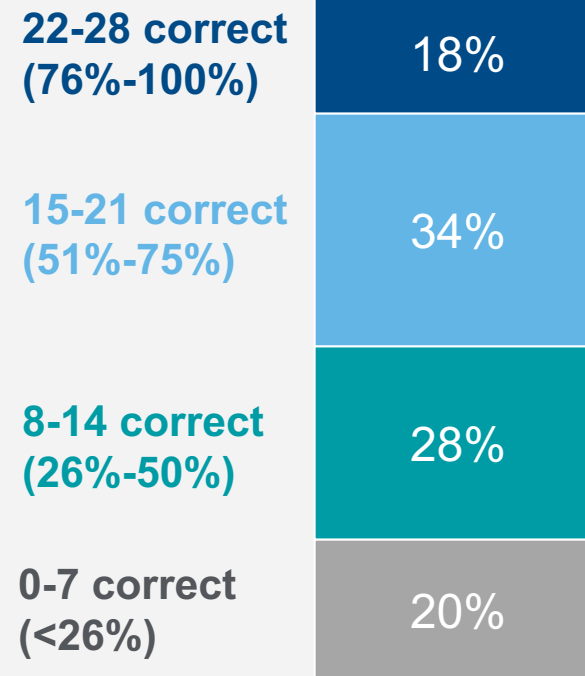


Financial literacy: A failing grade

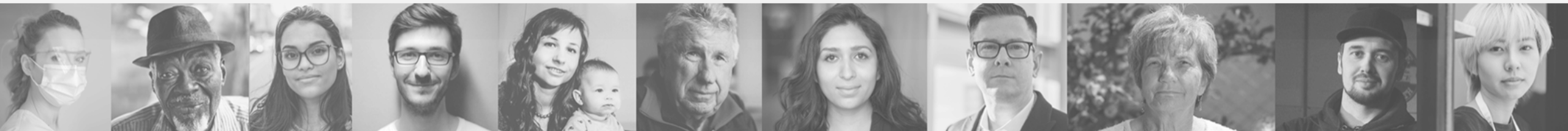
*% of P-Fin Index questions
answered correctly*



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

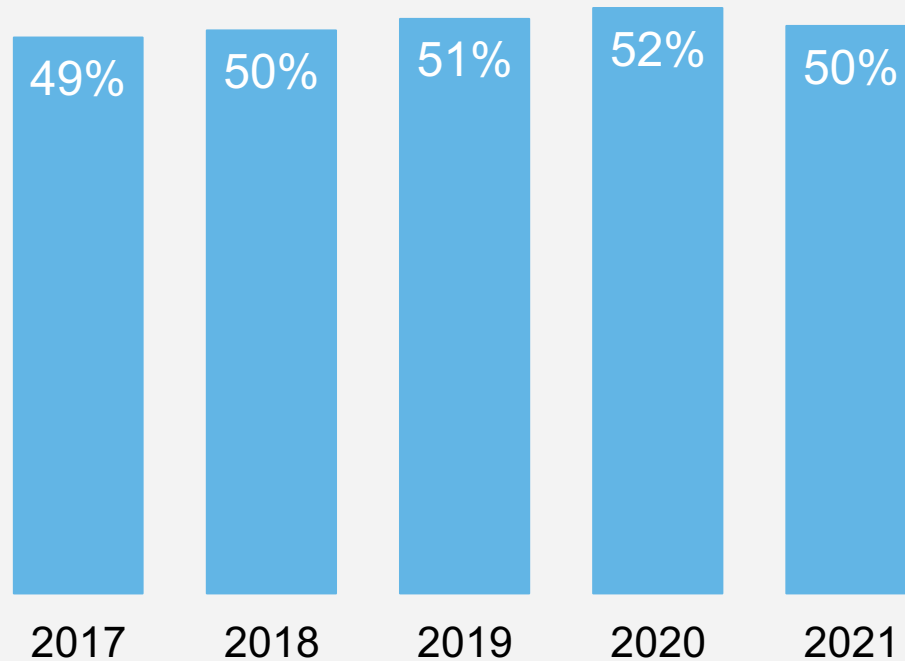


Source: TIAA Institute-GFLEC Personal Finance Index (2021).

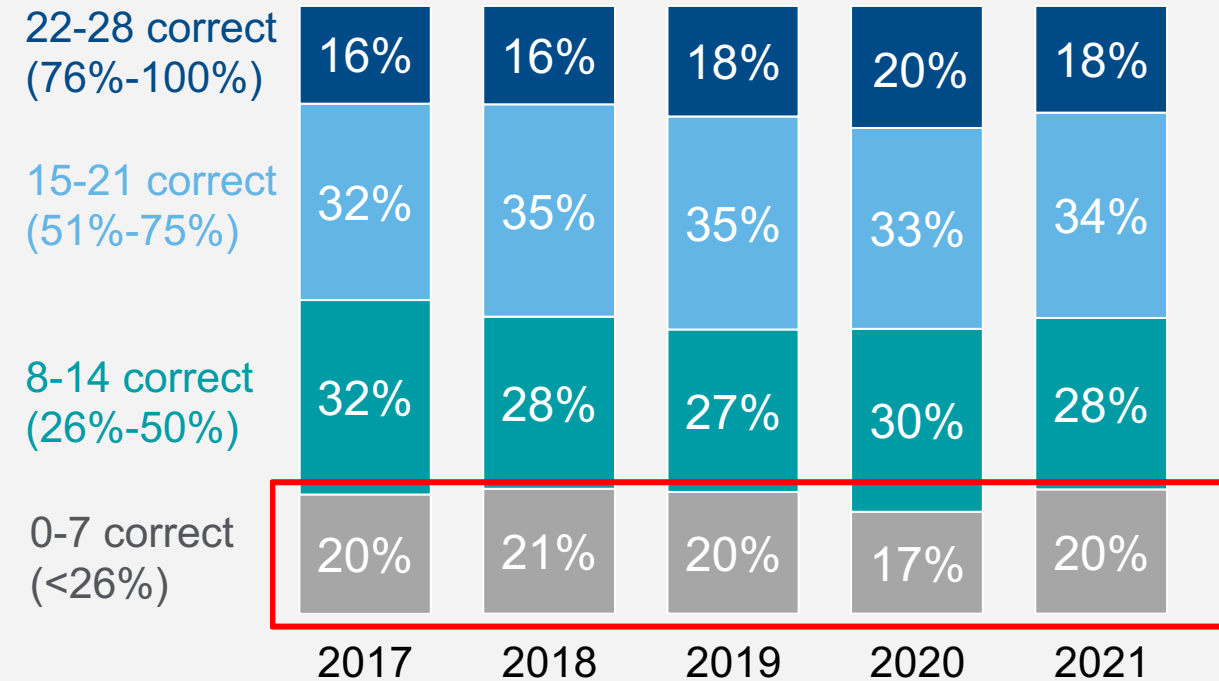


Financial (il)literacy is holding steady: 2017-2021

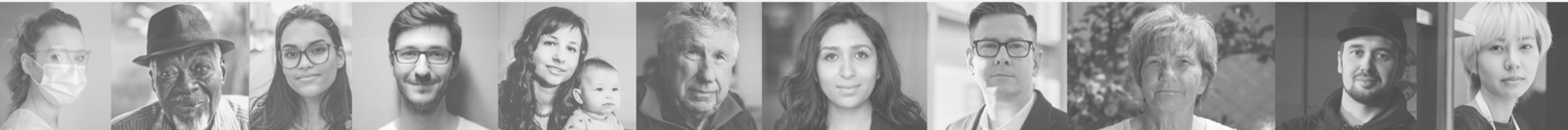
% of P-Fin Index questions answered correctly



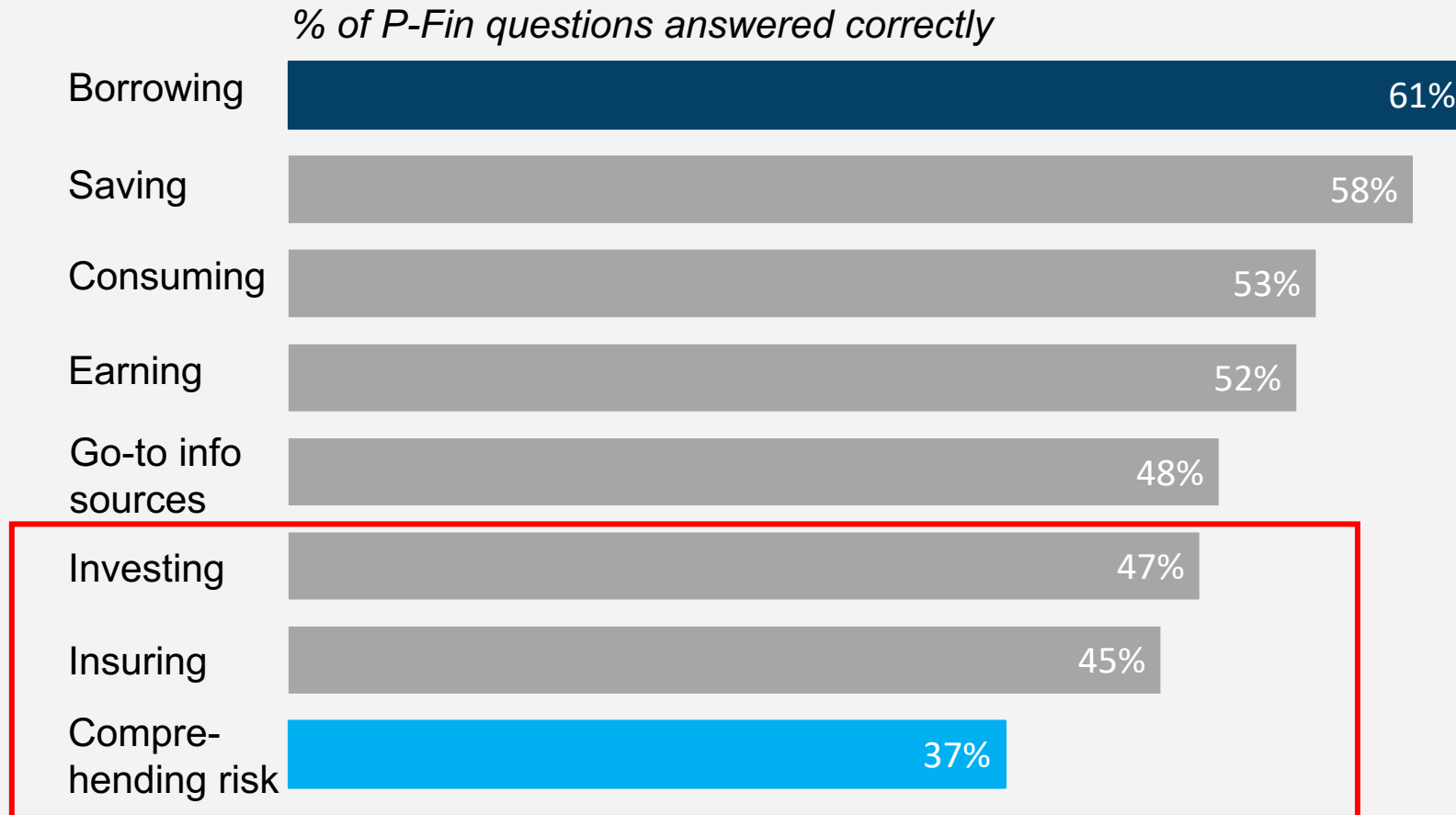
Distribution of correct answers to P-Fin questions



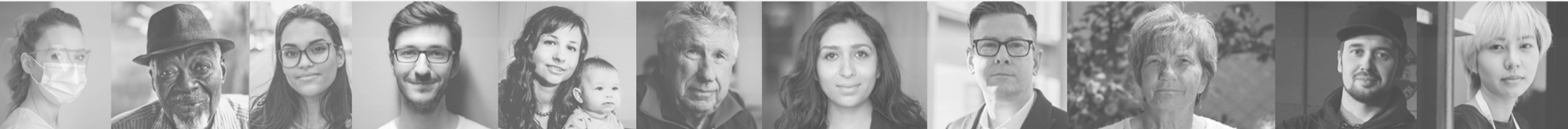
Source: TIAA Institute-GFLEC Personal Finance Index (2017-2021).



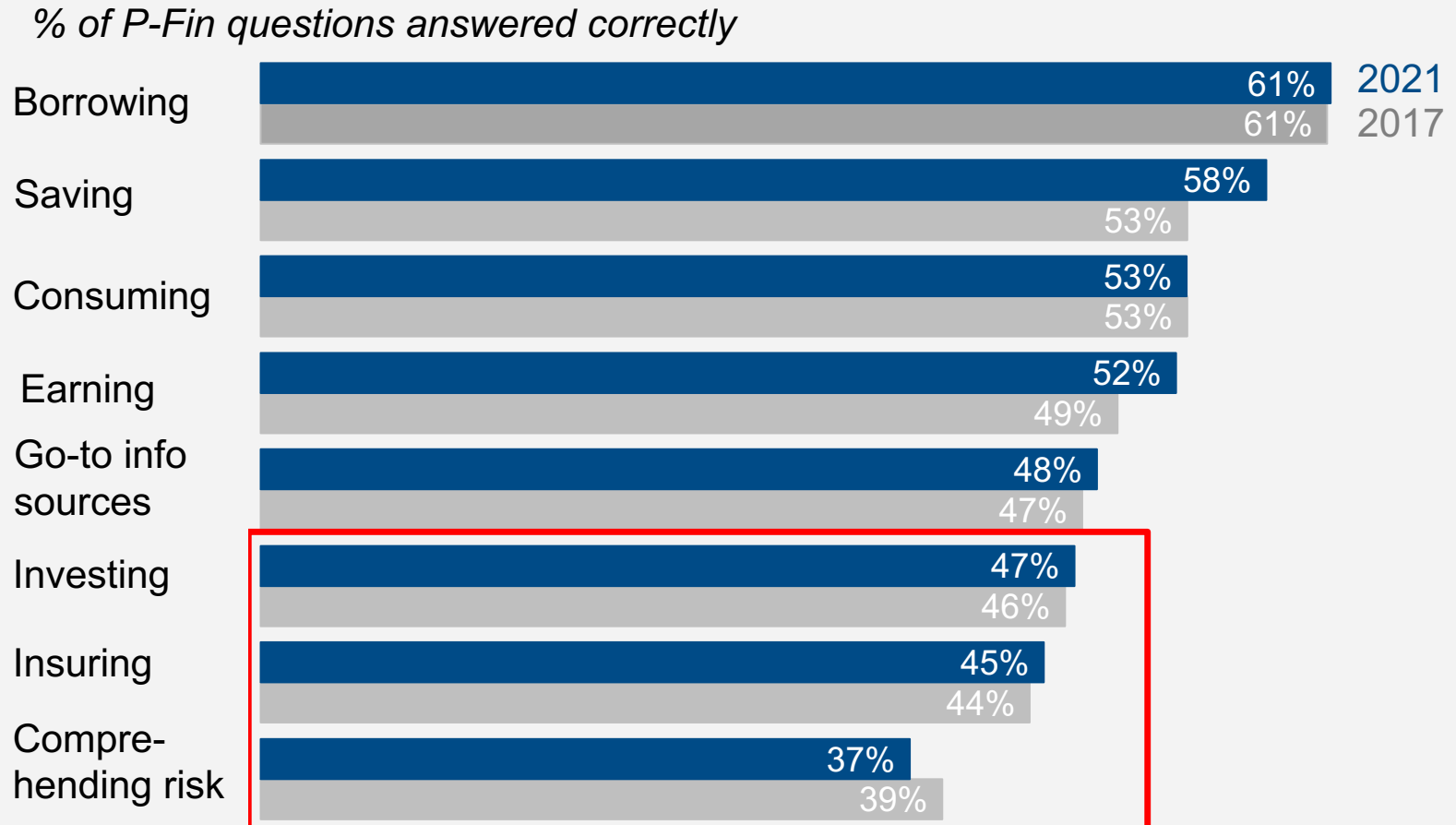
What do people know the most and the least



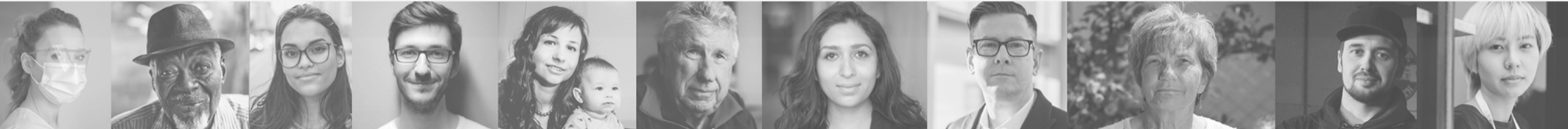
Source: TIAA Institute-GFLEC Personal Finance Index (2021).



What do people know and how it has changed over time



Source: TIAA Institute-GFLEC Personal Finance Index (2017, 2021).



“Calculated risk” ?

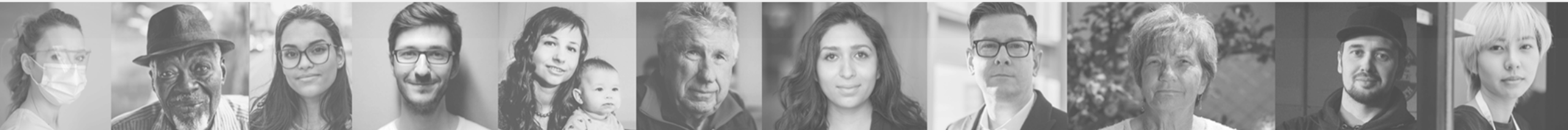
Which of the following indicates the highest probability of getting a particular disease?

- 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).



Differences in personal finance knowledge

Financial literacy and wellness among U.S. women *Insights on underrepresented minority women*

Paul J. Yakoboski, TIAA Institute

Annamaria Lusardi, The George Washington University and
Global Financial Literacy Excellence Center (GFLEC)

Andrea Hasler, The George Washington University School of Business
and Global Financial Literacy Excellence Center (GFLEC)



TIAA Institute

GFLEC
GLOBAL FINANCIAL LITERACY
EXCELLENCE CENTER

Financial Literacy among U.S. Hispanics: New Insights from the *Personal Finance (P-Fin) Index*

Andrea Hasler, The George Washington University School of Business and Global Financial Literacy
Excellence Center (GFLEC)

Annamaria Lusardi, The George Washington University School of Business and Global Financial
Literacy Excellence Center (GFLEC)

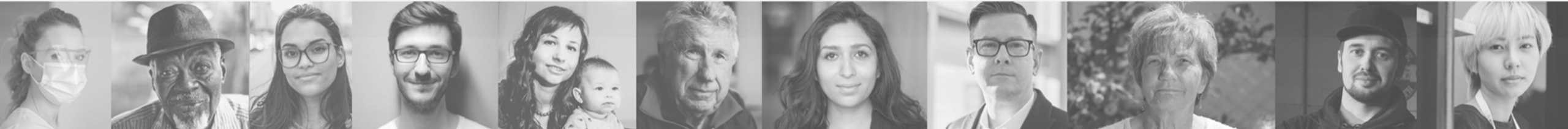
Paul J. Yakoboski, TIAA Institute



TIAA Institute

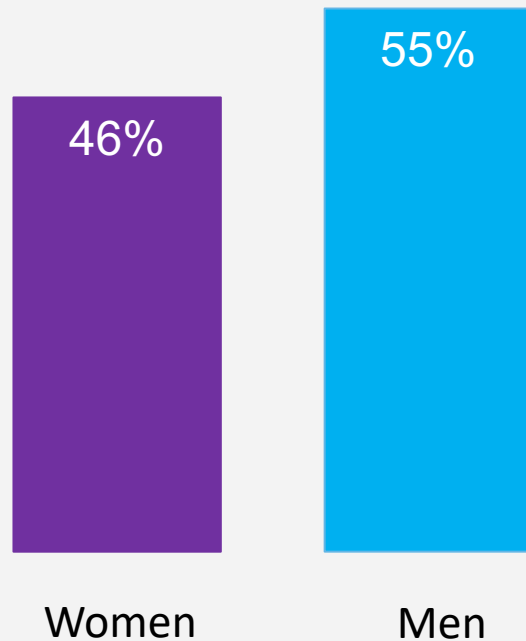
GFLEC
GLOBAL FINANCIAL LITERACY
EXCELLENCE CENTER

© Personal Finance Index (2021).

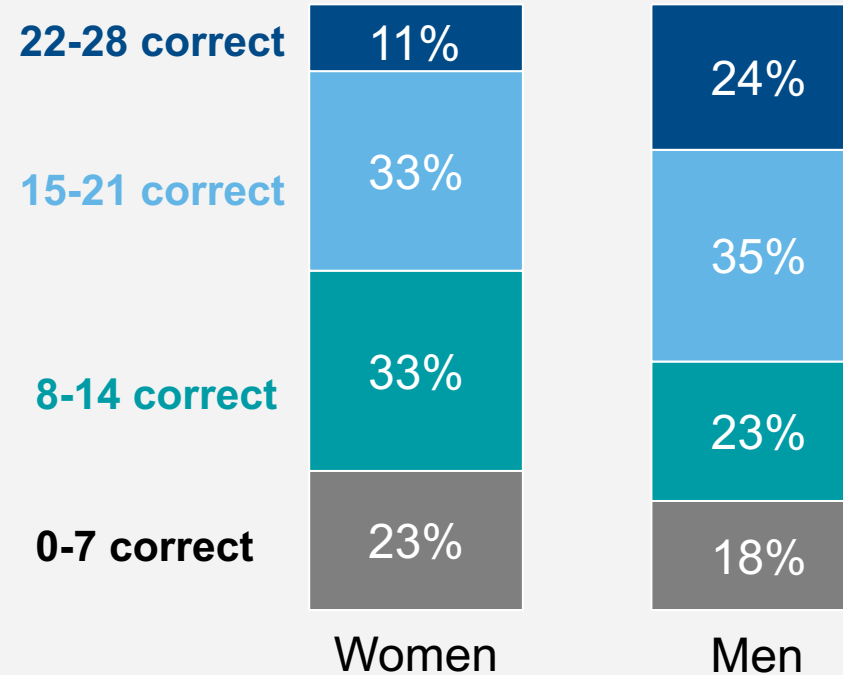


Demographic variation: Women and knowledge

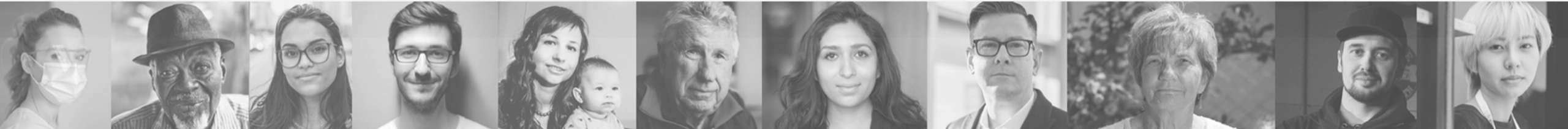
% of P-Fin questions answered correctly



Distribution of correct answers to P-Fin questions

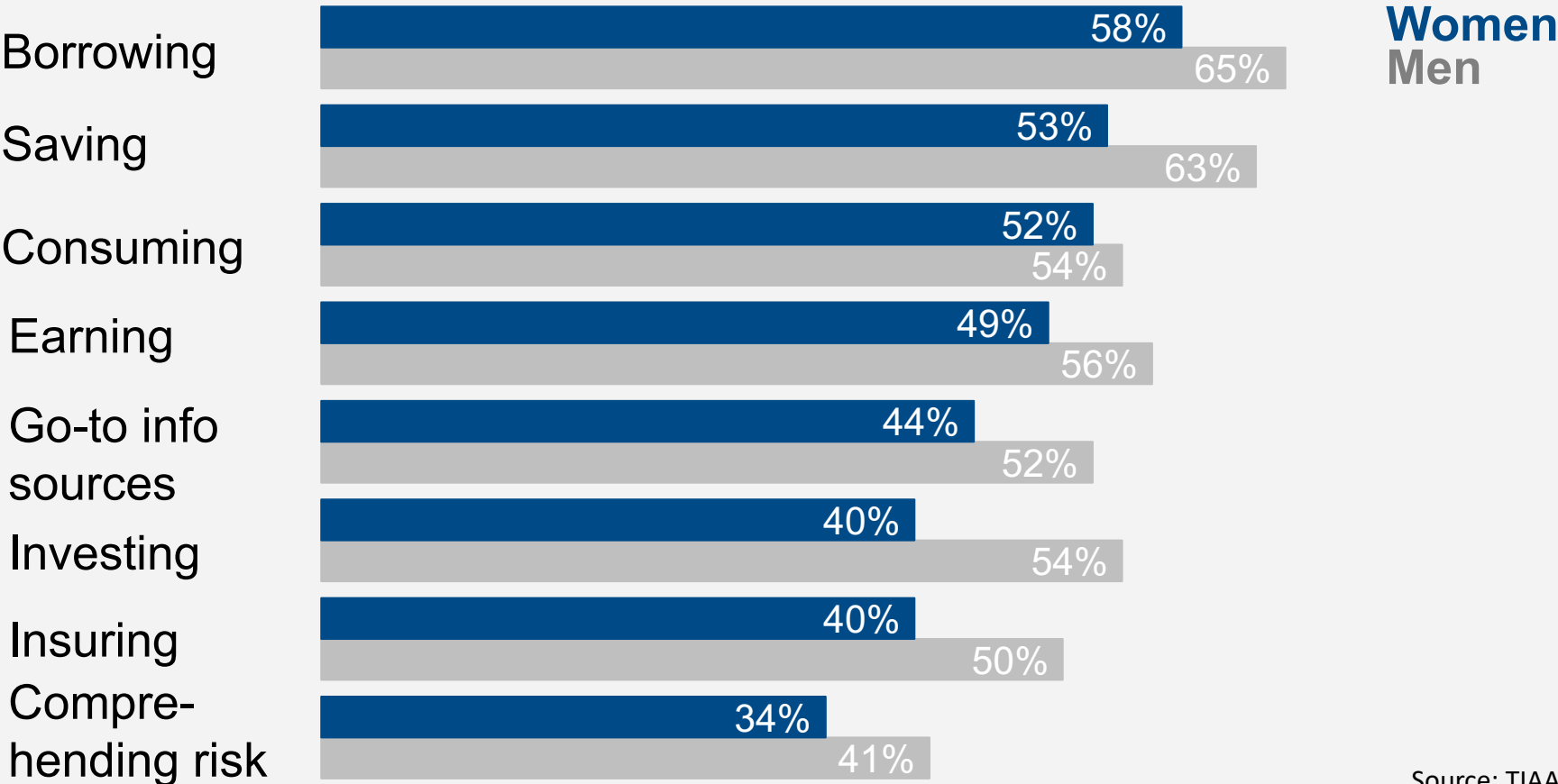


Source: TIAA Institute-GFLEC Personal Finance Index (2021).

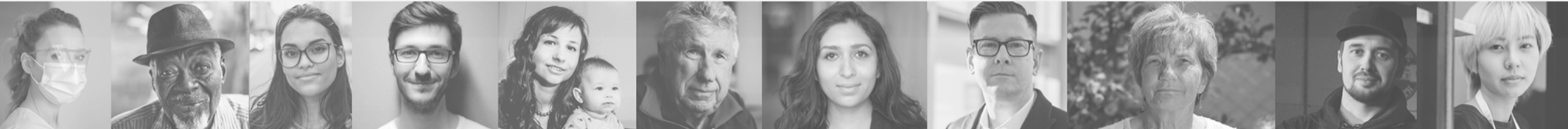


Financial literacy gender gap

% of P-Fin questions answered correctly

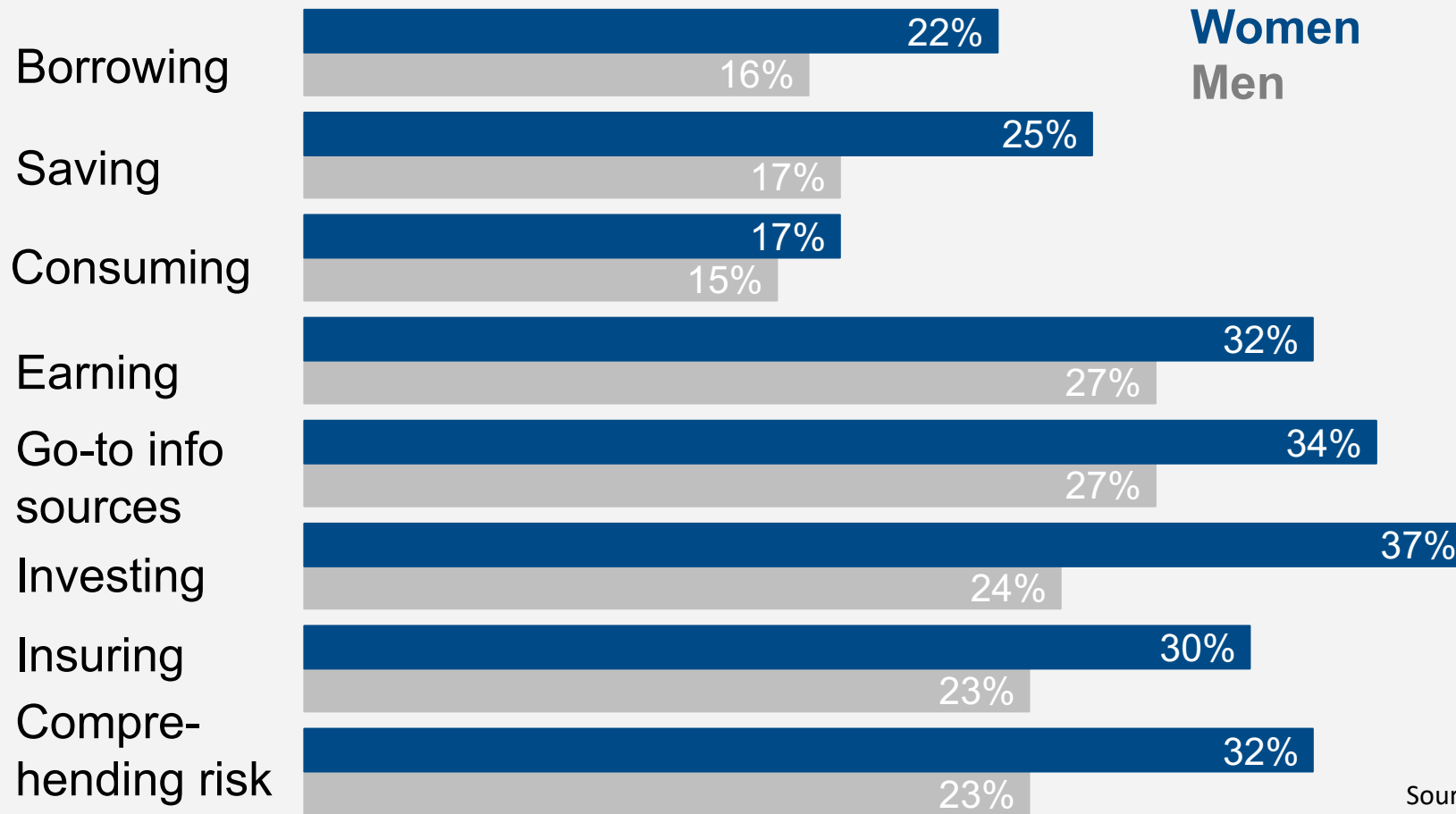


Source: TIAA Institute-GFLEC Personal Finance Index (2021).

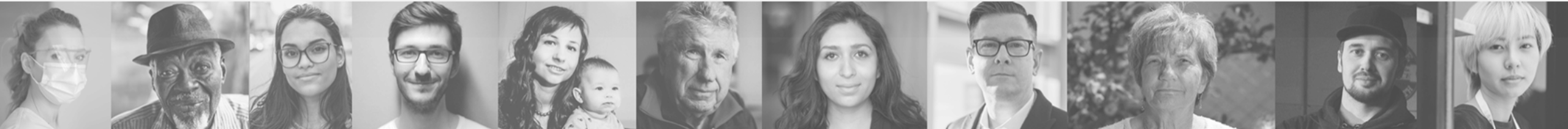


Don't know responses

% of P-Fin questions answered with "don't know"



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

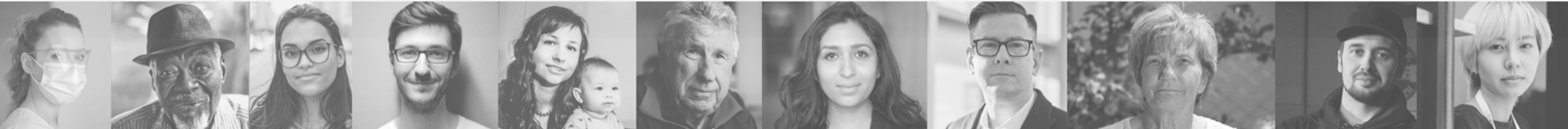


Focusing on the gender differences in financial literacy

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.

- 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



Fearless Woman: Financial Literacy and Stock Market Participation

Tabea Bucher-Koenen (ZEW, U of Mannheim)

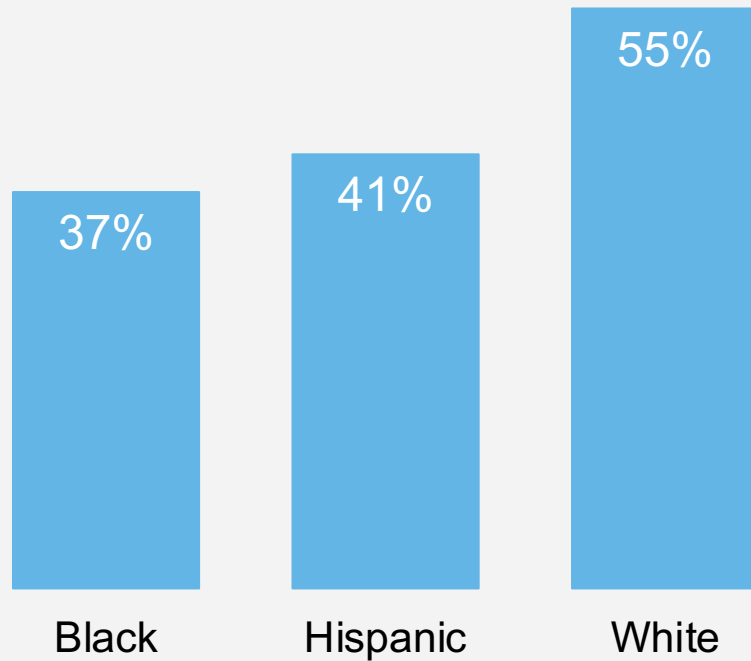
Rob Alessie (U of Groningen)

Annamaria Lusardi (The George Washington University and
GFLEC)

Maarten van Rooij (DNB)

Demographic variation: Racial/Ethnic groups

% of P-Fin Index questions answered correctly



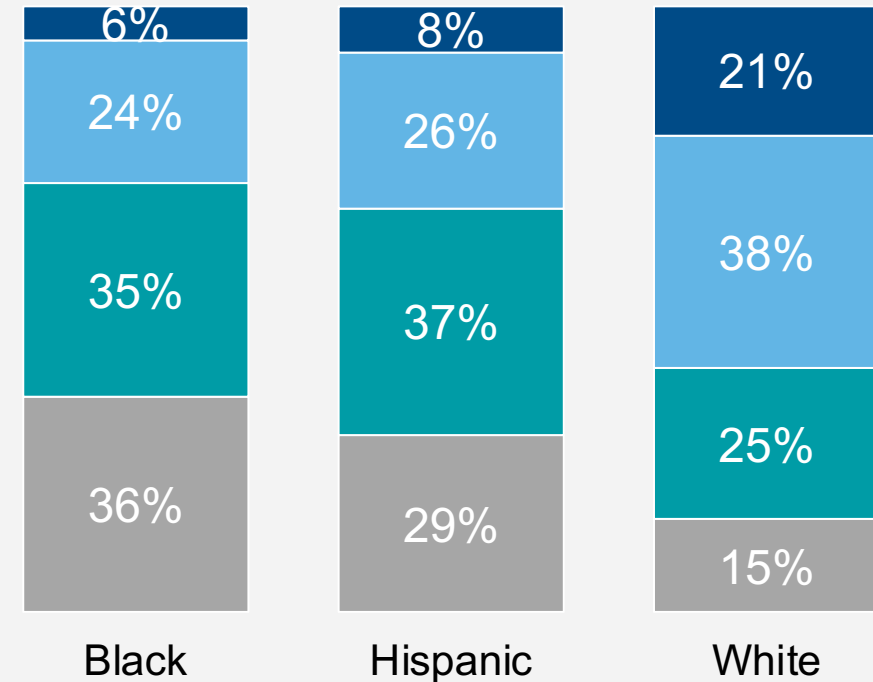
Distribution of correct answers to P-Fin Index questions

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

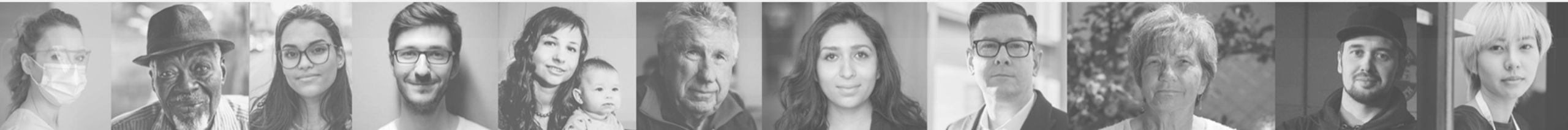
**15-21 correct
(51%-75%)**

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

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



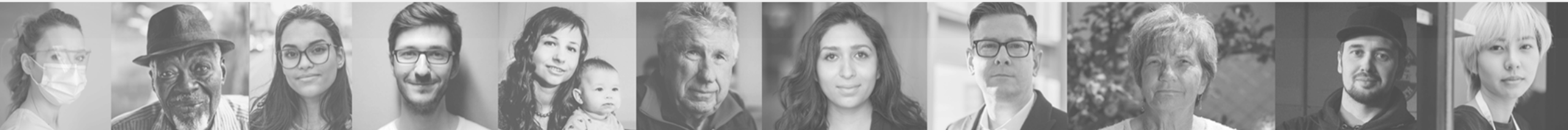
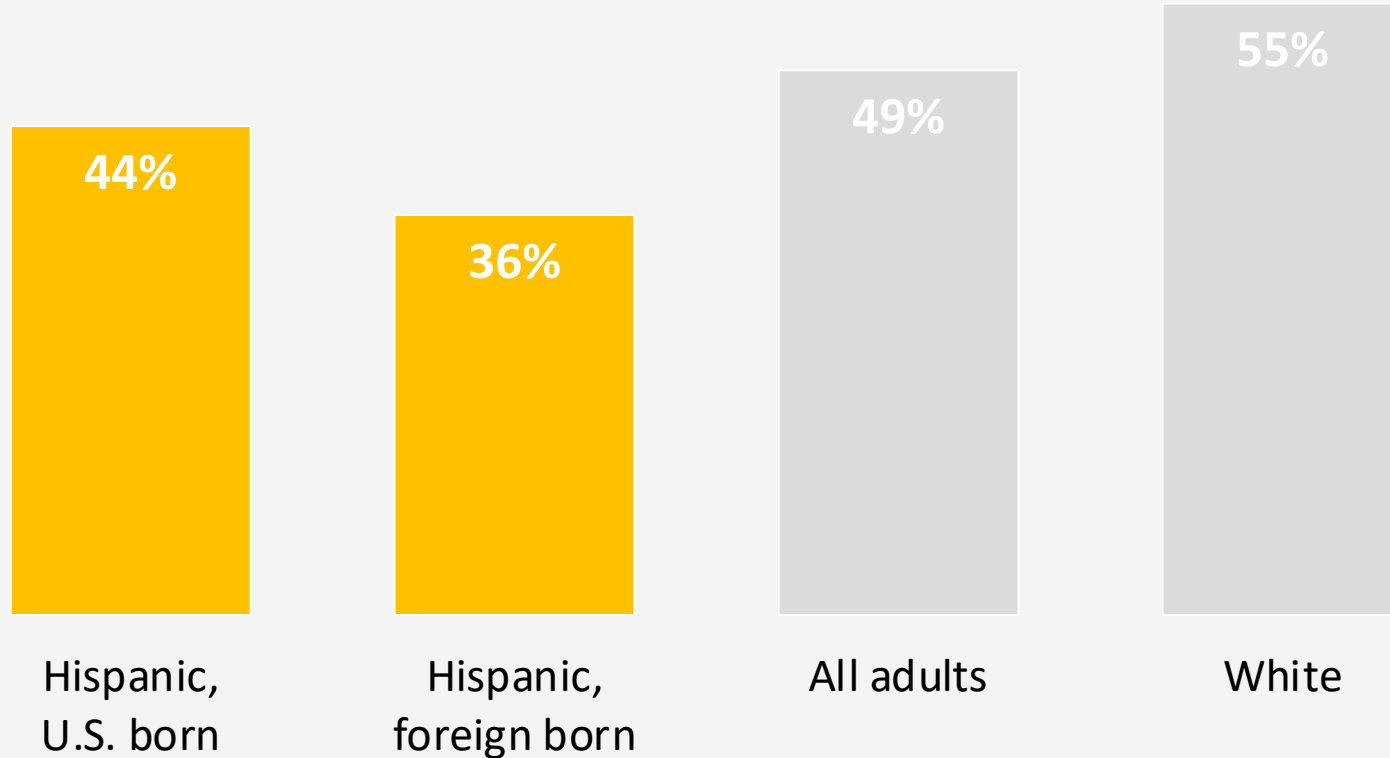
Source: TIAA Institute-GFLEC Personal Finance Index (2021).



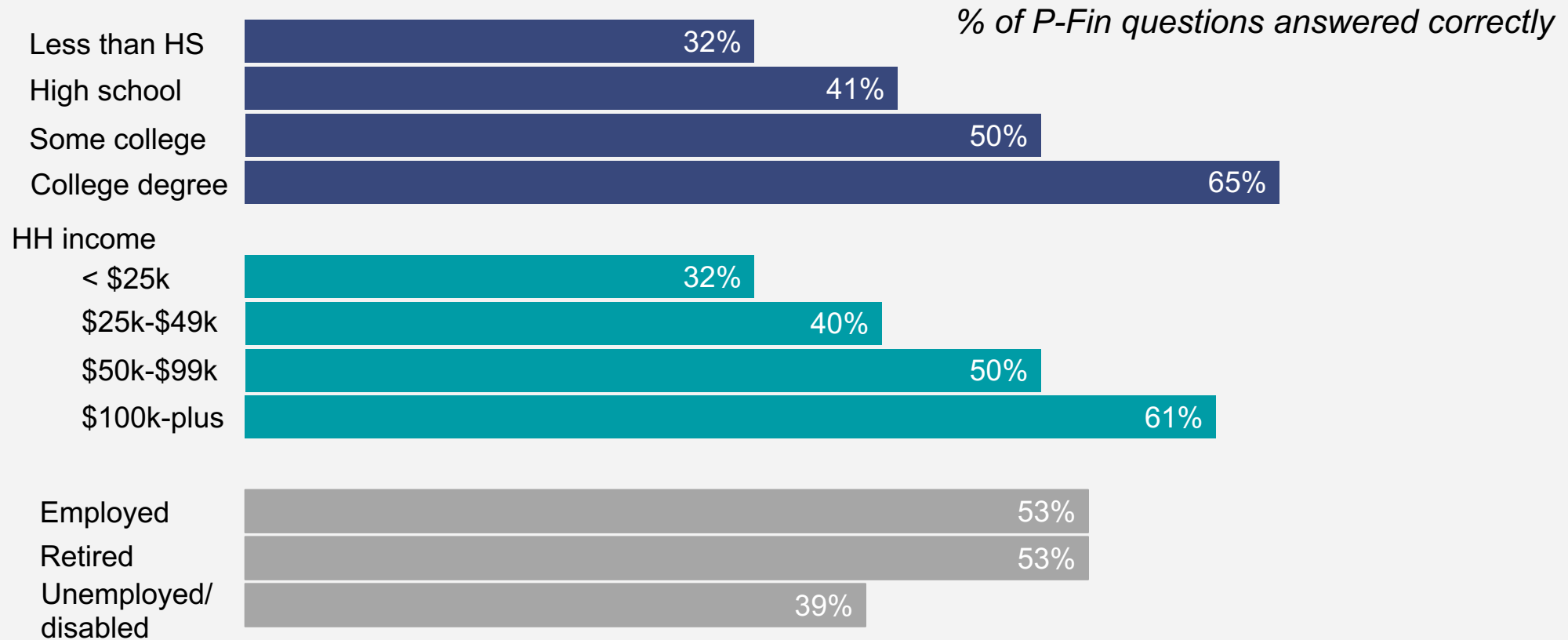
U.S.-born and foreign-born Hispanics

% of P-Fin Index questions answered correctly

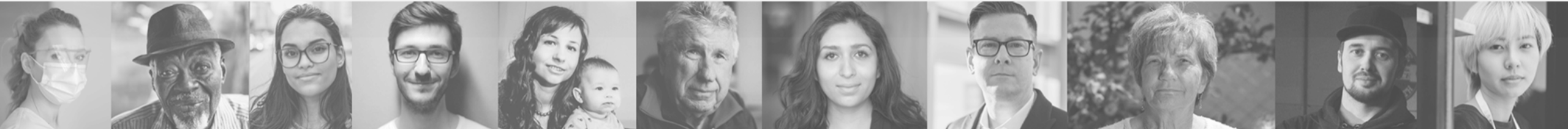
U.S.-born Hispanics have greater financial literacy than foreign-born Hispanics.
From 2017 P-Fin Index



Large variation in financial literacy across demographics

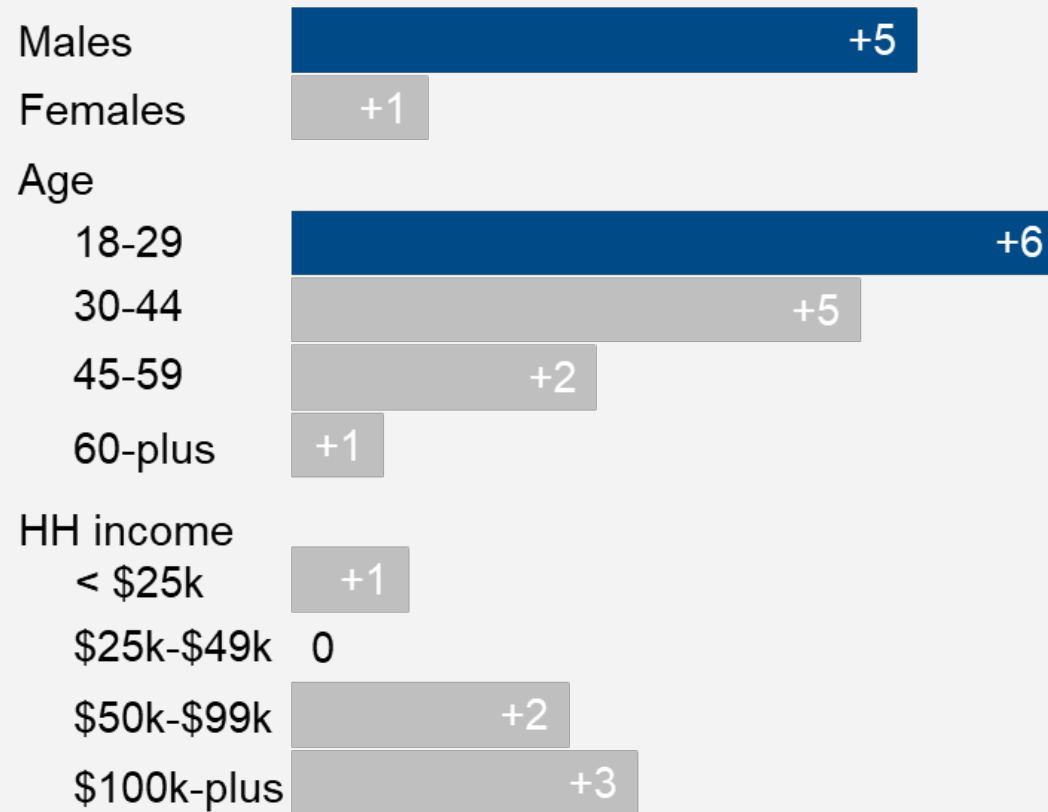


Source: TIAA Institute-GFLEC Personal Finance Index (2021).

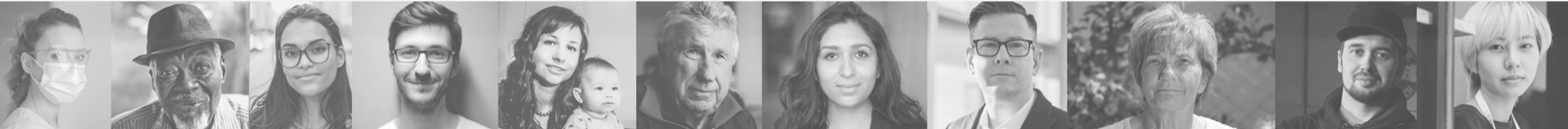


Where changes happened over time: Toward an unequal path

% point change in P-Fin questions answered correctly, 2017 to 2020

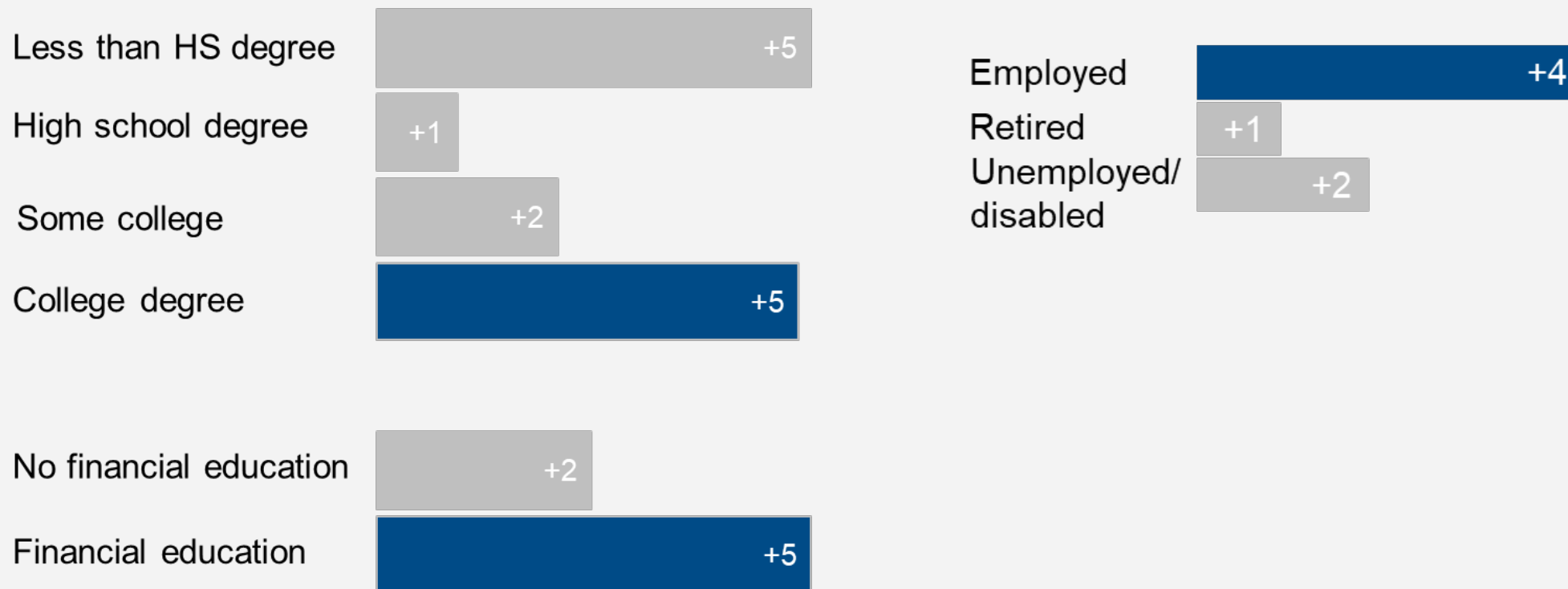


Source: TIAA
Institute-GFLEC
Personal Finance
Index (2017, 2020).

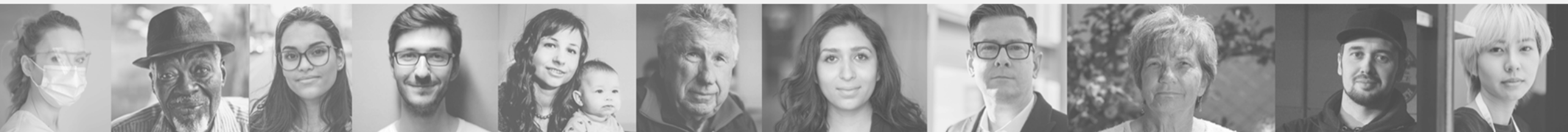


Where changes happened over time: Toward an unequal path

% point change in P-Fin questions answered correctly, 2017 to 2020



Source: TIAA Institute-GFLEC Personal Finance Index (2017, 2020).

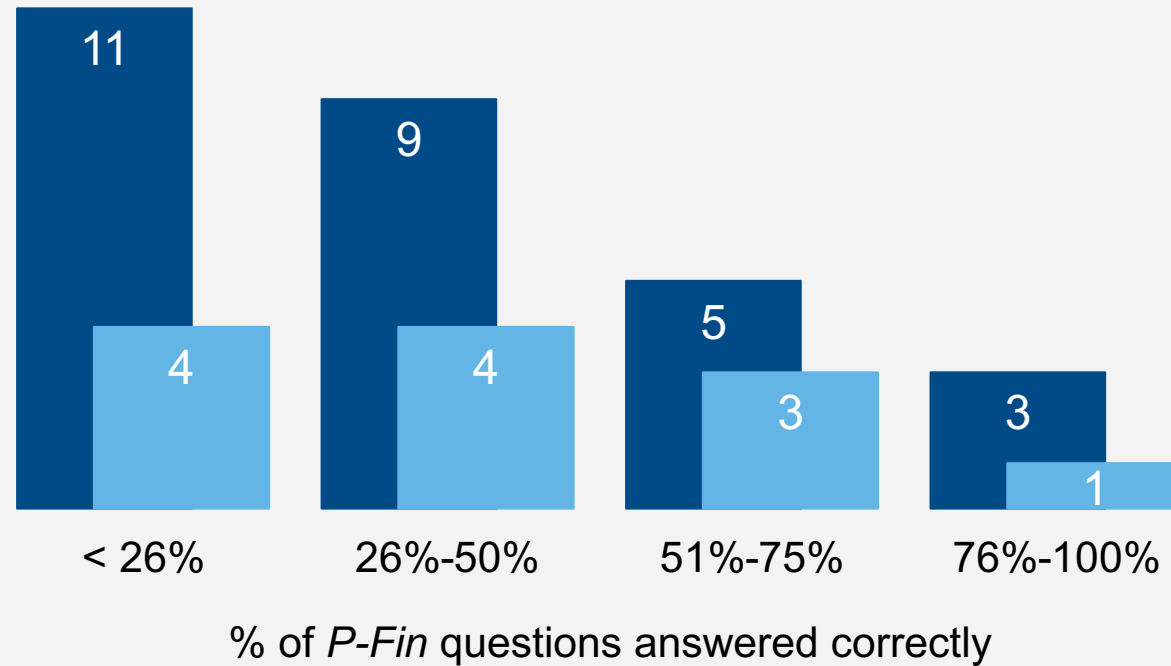


A simple measure of the cost of financial illiteracy

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

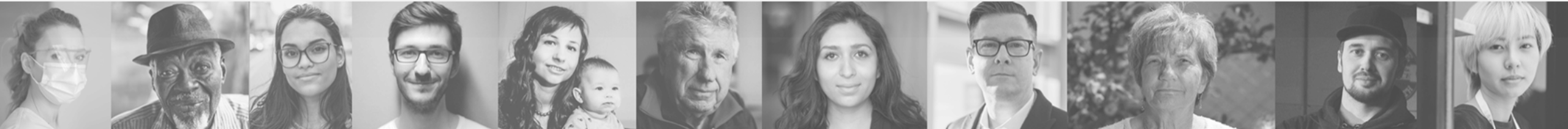
All adults

Workers
while on
the job



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 (2021).



Financial well-being in the midst of COVID-19



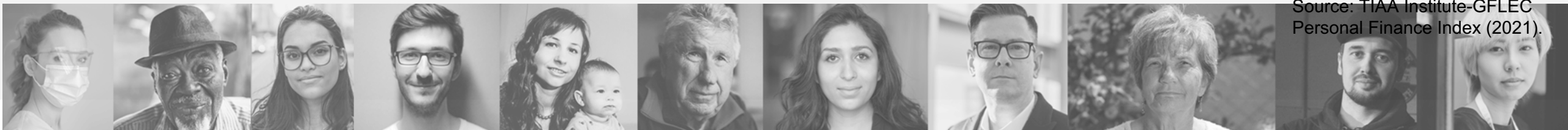
Could cope with a mid-sized financial shock of \$2,000 if an unexpected need arose within the next month.



Debt and debt payments did not prevent from addressing financial priorities.



Has ever tried to figure out how much to save for retirement



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

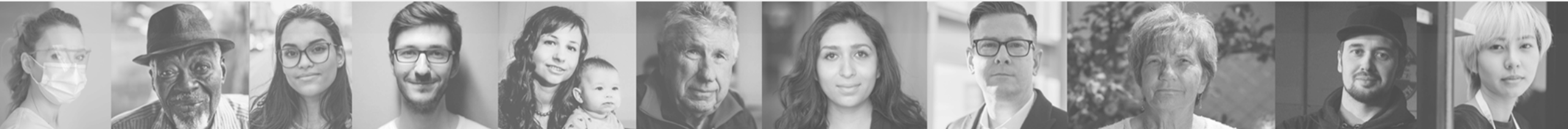
Measuring financial fragility

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.



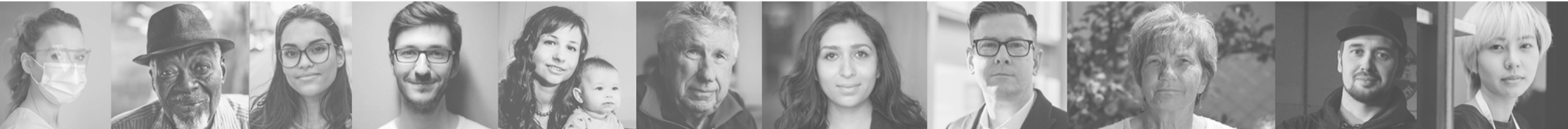
People with these responses are classified as financially fragile.



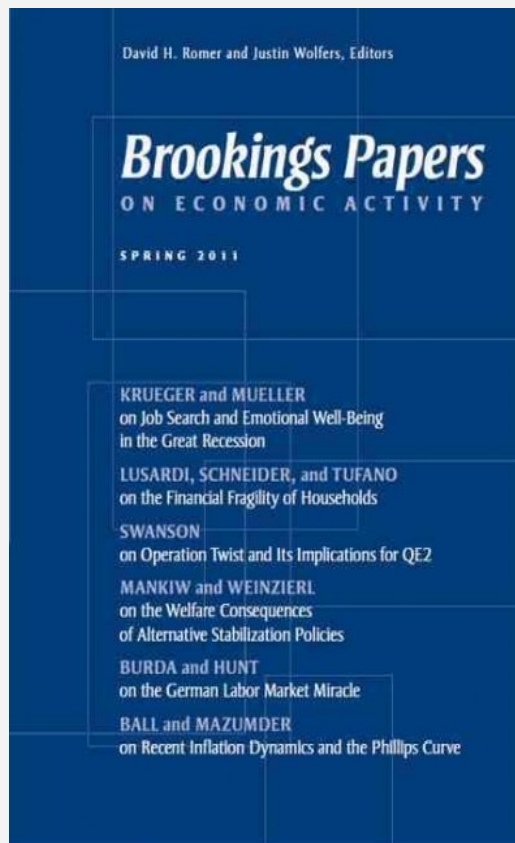
Financial fragility: What does it measure?

Is a symptom
of lack of
assets

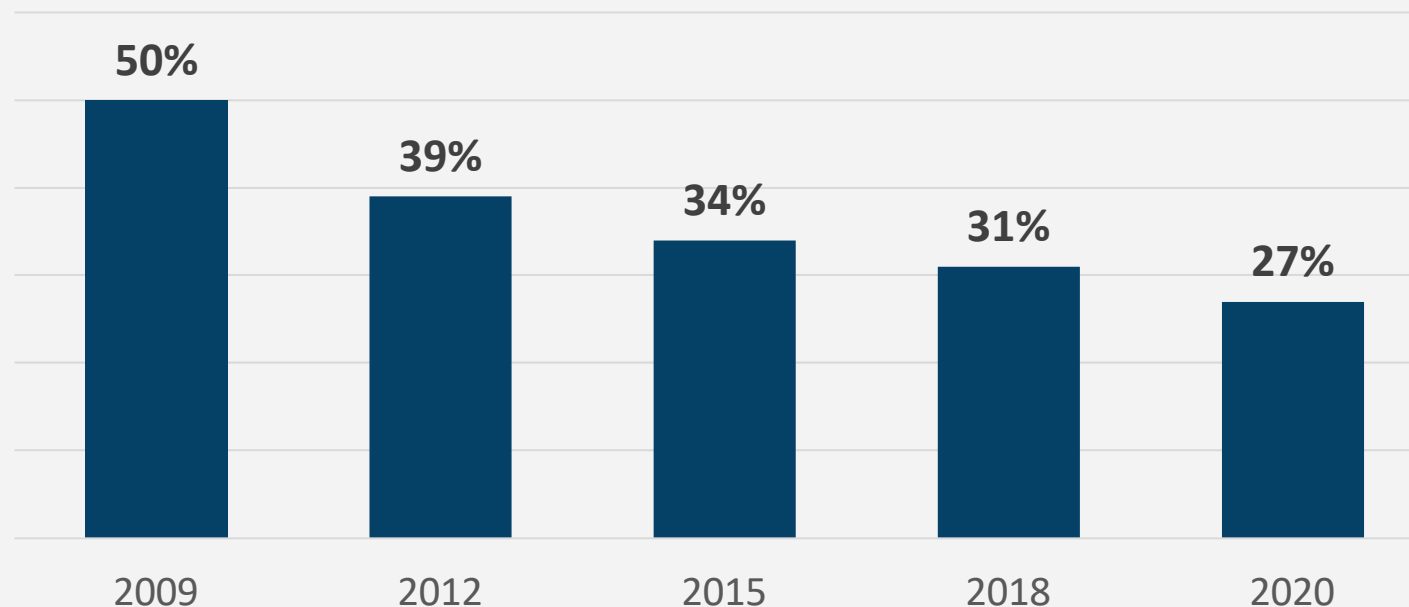
Indicates lack
of borrowing
capacity of highly
leveraged
households



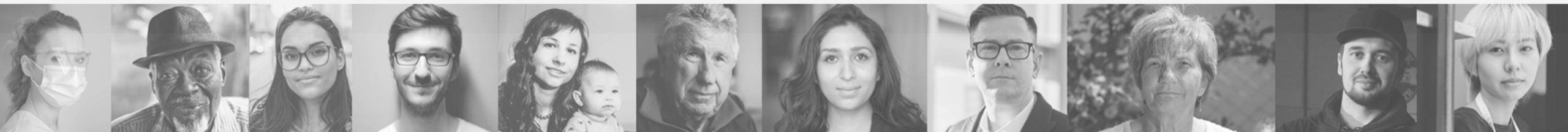
Financial fragility in America before the pandemic



Financial Fragility Over Time



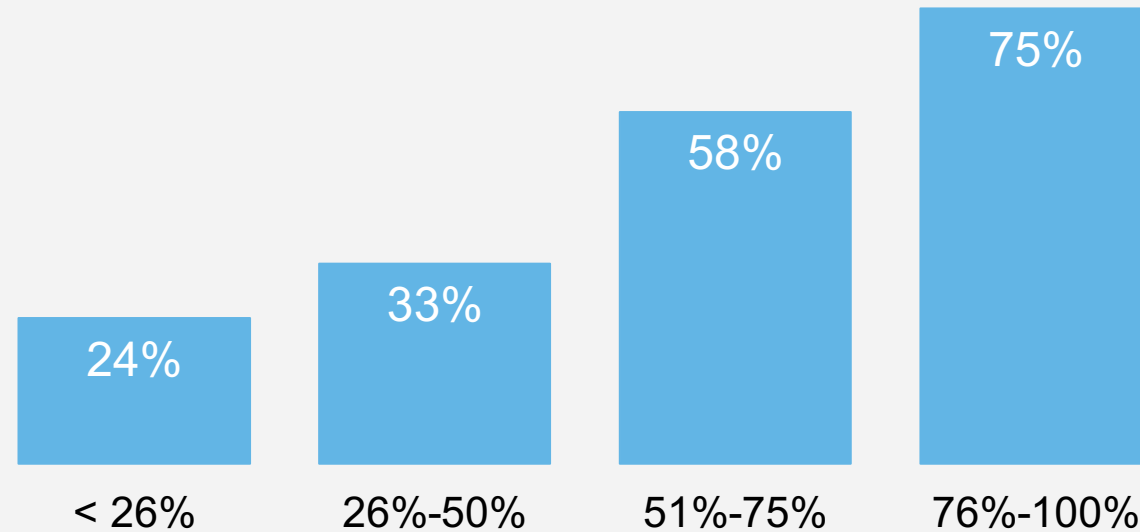
Source: 2009 TNS data, 2012, 2015 and 2018 NFCS data, and 2020 P-Fin data



Financial literacy and financial fragility

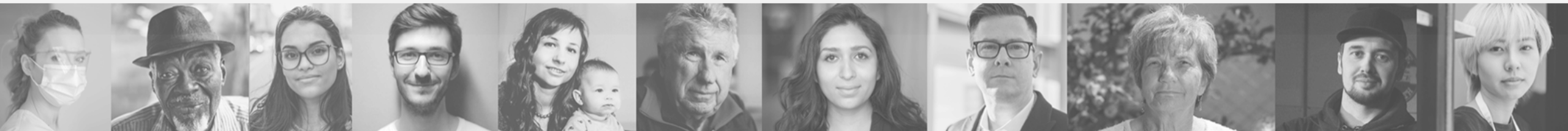
% who could certainly come up with \$2,000 if an unexpected need arose within the next month

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



% of *P-Fin* questions answered correctly

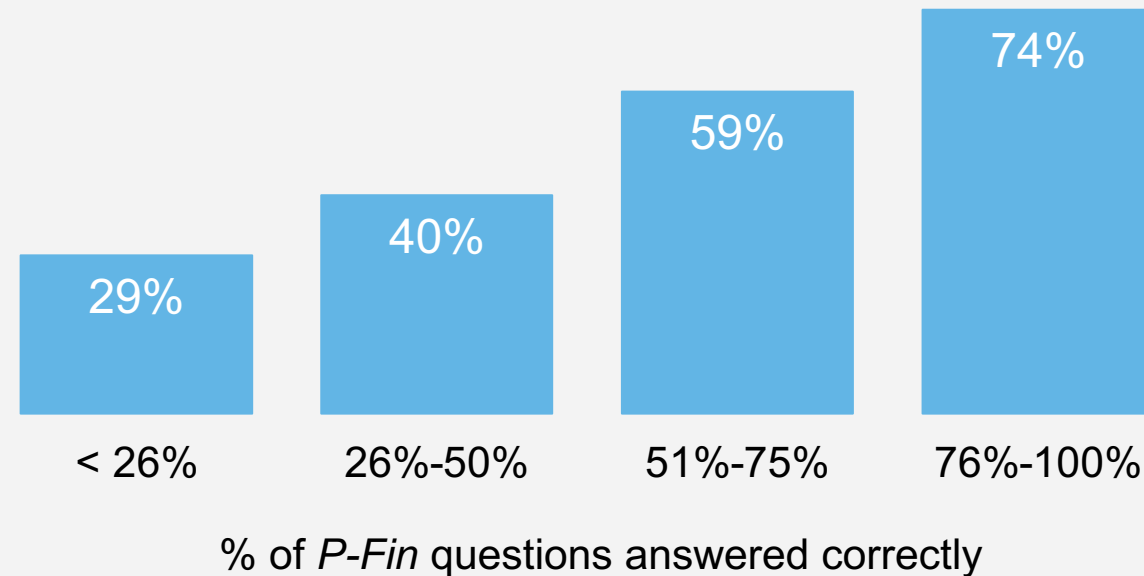
Source: TIAA Institute-GFLEC
Personal Finance Index (2021).



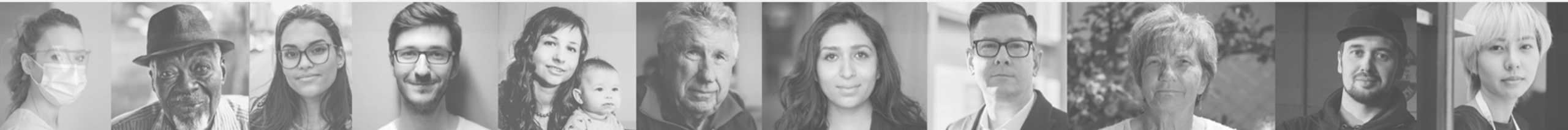
Financial literacy and being constrained by debt

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

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



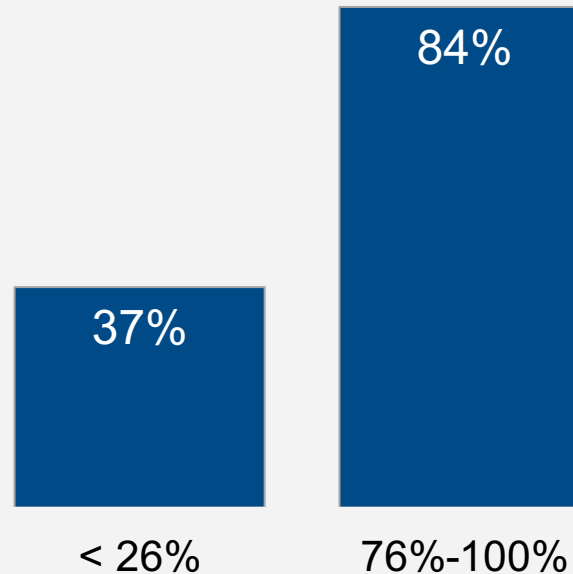
Source: TIAA Institute-GFLEC
Personal Finance Index (2021).



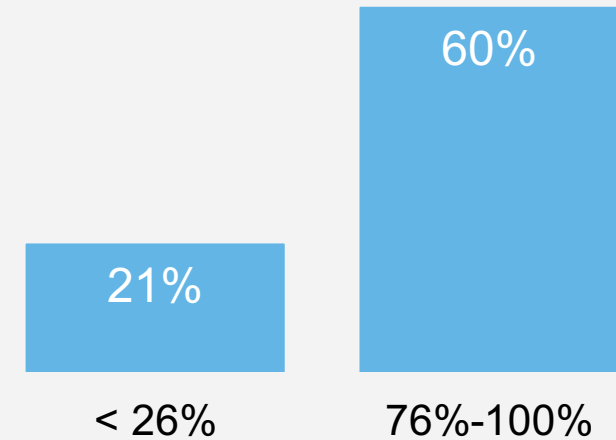
Financial literacy and retirement planning

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

% of non-retirees who save for retirement on a regular basis

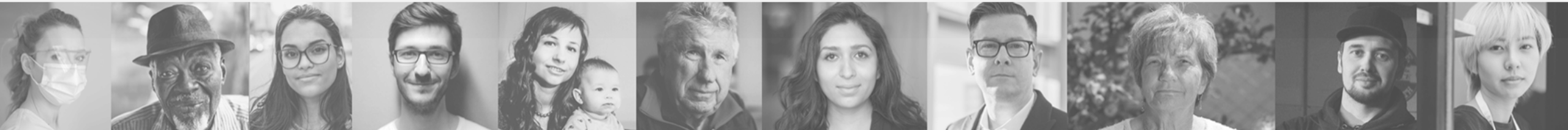


% of non-retirees who have tried to determine how much they need to save for retirement



% of P-Fin questions answered correctly

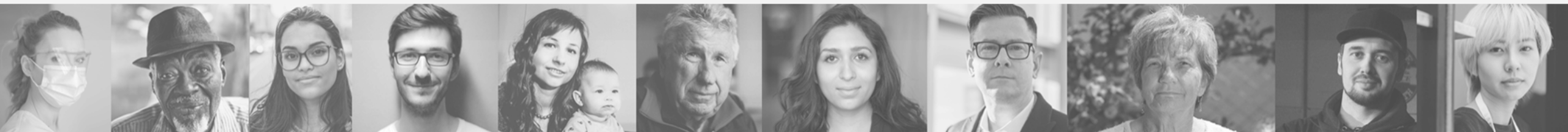
Source: TIAA Institute-GFLEC
Personal Finance Index (2021).



The relationship between financial resilience and literacy

VARIABLES	Model 1 <i>Financial Resilience</i>	Model 2 <i>Financial Resilience</i>	Model 3 <i>Financial Resilience</i>
> 50 % of P-Fin Index questions correct	0.130*** (0.0204)		
Total # of questions correct		0.00993*** (0.00149)	
Was offered financial education			0.0146 (0.0184)
Demographic controls	YES	YES	YES
Constant	0.360*** (0.0494)	0.294*** (0.0515)	0.377*** (0.0500)
Observations	2,892	2,892	2,892
R-squared	0.173	0.174	0.158

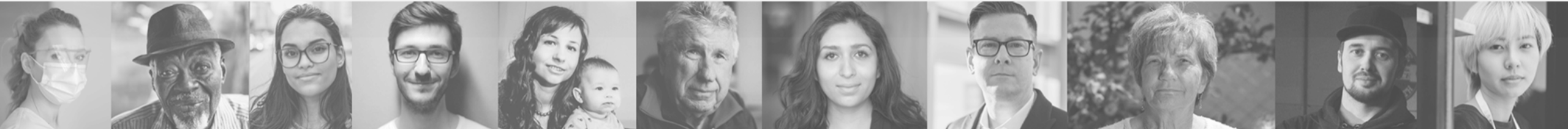
Source: TIAA Institute-GFLEC Personal Finance Index (2021).



The relationship between retirement planning and financial literacy

VARIABLES	Model 1 <i>Retirement Planning</i>	Model 2 <i>Retirement Planning</i>	Model 3 <i>Retirement Planning</i>
> 50 % of P-Fin Index questions correct	0.135*** (0.0214)		
Total # of questions correct		0.0122*** (0.00151)	
Was offered financial education			0.167*** (0.0198)
Demographic Controls	YES	YES	YES
Constant	0.103** (0.0454)	0.0251 (0.0466)	0.0652 (0.0453)
Observations	3,024	3,024	3,024
R-squared	0.172	0.179	0.183

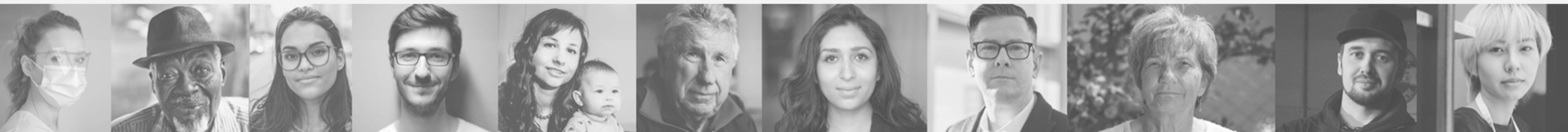
Source: TIAA Institute-GFLEC Personal Finance Index (2021).



The relationship between debt and financial literacy

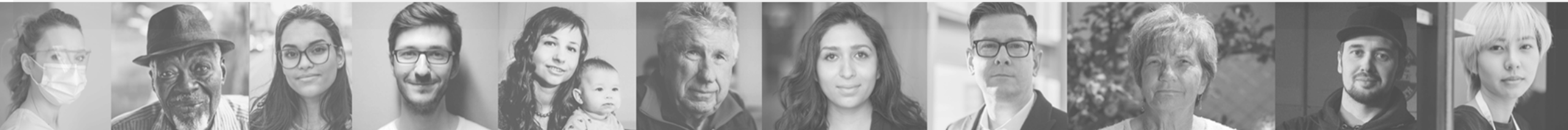
VARIABLES	Model 1 <i>Not debt- constrained</i>	Model 2 <i>Not debt- constrained</i>	Model 3 <i>Not debt- constrained</i>
> 50 % of P-Fin Index questions correct	0.164*** (0.0219)		
Total # of questions correct		0.0152*** (0.00152)	
Was offered financial education			0.0562*** (0.0198)
Demographic controls	YES	YES	YES
Constant	0.376*** (0.0493)	0.279*** (0.0514)	0.378*** (0.0498)
Observations	3,030	3,030	3,030
R-squared	0.153	0.167	0.136

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



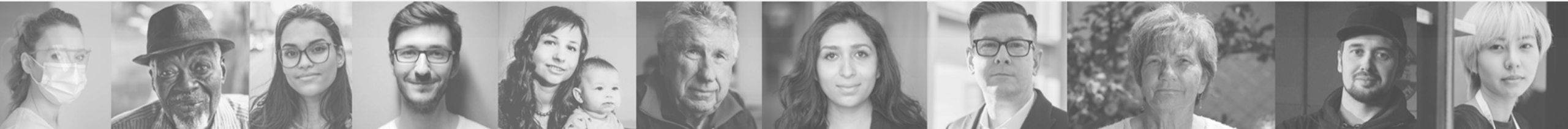
What we learn from research

- Need to improve levels of financial literacy
 - Levels of knowledge are critically low
- Some topics are particularly complex
 - Risk and risk diversification
- Large heterogeneity across demographic subpopulations
 - One size does not fit all
- Targeted programs
 - There is a need to target particularly vulnerable groups (e.g., women, minorities, young people).



Personal Finance course at the George Washington School of Business

- Personal Finance courses for all students
- Extensive coverage of risk and risk management
- Paying attention to gender differences in financial literacy
- Material available for free on our website: www.gflec.org



Research-based workplace financial education programs

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

<http://gflec.org/initiatives/workplace-financial-wellness>



Recent publication on workplace financial education



Cornell Law Review

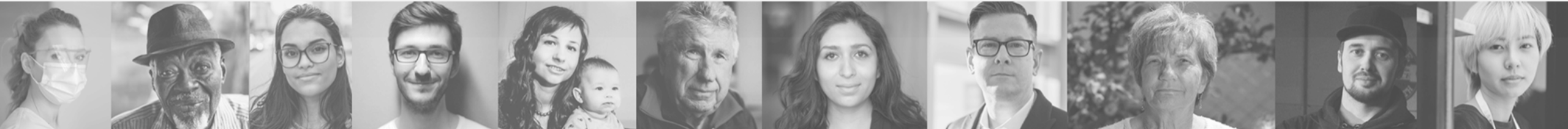
DEFINED CONTRIBUTION PLANS AND THE CHALLENGE OF FINANCIAL ILLITERACY

Jill E. Fisch,[†] Annamaria Lusardi[‡] & Andrea Hasler^{††}

Retirement investing in the United States has changed dramatically. The classic defined benefit (DB) plan has largely been replaced by the defined contribution (DC) plan. With the latter, individual employees' decisions about how much to save for retirement and how to invest those savings determine the benefits available upon retirement.

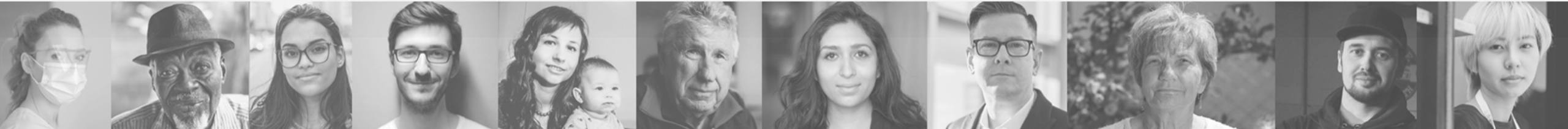
We analyze data from the 2015 National Financial Capability Study to show that people whose only exposure to investment decisions is by virtue of their participation in an employer-sponsored 401(k) plan are poorly equipped to make sound investment decisions. Specifically, they suffer from higher levels of financial illiteracy than other investors. This lack of financial literacy is critical because of both the financial consequences of poor financial decisions and a legal structure that relies on participant choice to limit the fiduciary obligations of the employer with respect to the structure and options

Defined Contribution Plans and the Challenge of Financial Illiteracy



Does financial education work?

- Our new study “Financial Education Affects Financial Knowledge and Downstream Behaviors” includes 76 RCTs from **33 countries** with over 160,000 individuals across the lifespan. It is forthcoming in the *Journal of Financial Economics*.
- We show clear evidence of **positive effects** of financial education on financial behaviors (+knowledge).
 - Statistical effect size is three to five times as large as the effect found in other meta-analyses.
 - Robust to a lot of different approaches to meta-analysis and even when accounting for publication selection for statistical significance.
- We do **not** find clear evidence of a **decay** of the effects of financial education over time. Effects persist up to two years after intervention.



New data collected in Italy

**New panel data set: data collected in
2020 and 2021**

**Has new questions on financial literacy
and financial fragility**

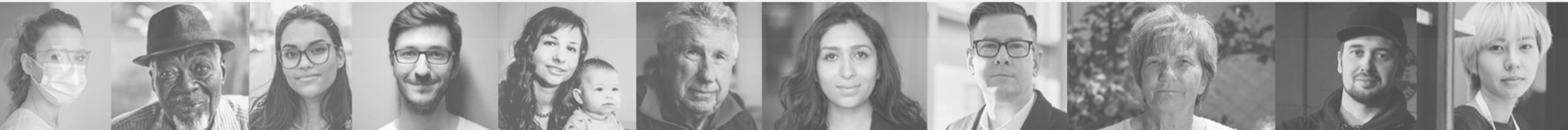
Can analyse many important questions

**Research findings can be useful for the
work of the Financial Education
Committee**



Concluding remarks

- The data on personal finance provide new and useful information
- We can use the data to design programs
- We can use to inform policy
- Looking forward to the new wave of data





Thank You!

More info at www.gflec.org or send me questions at alusardi@gwu.edu.

