Financial Literacy in the United States and Its Link to Financial Wellness

The 2019 *TIAA Institute-GFLEC Personal Finance Index*

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Executive Summary

The 2019 *TIAA Institute-GFLEC Personal Finance Index (P-Fin Index)* represents the third wave of a long-term project to annually assess financial literacy among the U.S. adult population. The *P-Fin Index* is unique in its capacity to produce a robust measure of overall personal finance knowledge and a nuanced analysis of knowledge across eight areas of personal finance in which individuals routinely function. Key findings for 2019 include:

- Many Americans lack personal finance knowledge that enables sound financial decision making. On average, U.S. adults answered only 51% of the *P-Fin Index* questions correctly.

- Comprehending risk is the functional area where financial literacy tends to be lowest. Given that risk and uncertainty are inherent in most financial decision making, this is particularly troubling. Personal finance knowledge is highest in the area of borrowing and debt management. Debt tends to be a feature of personal finance common across the lifecycle for many individuals; knowledge and understanding may emerge from confronting accumulated debt.

- The percentage of *P-Fin Index* questions answered correctly increased from 49% in 2017 to 50% in 2018 to 51% in 2019, while the percentage of adults answering more than one-half of the questions correctly increased from 48% to 51% to 53% in that time period. In addition, six of the eight functional areas saw small increases in the percentage of questions answered correctly. While noteworthy, these changes are too small, and the time period too short, to conclude that financial literacy levels are actually increasing.

- Financial literacy varies across demographic groups. Men tend to answer a greater percentage of the *P-Fin Index* questions correctly. Personal finance knowledge tends to increase with age, as well as household income. Financial literacy varies with employment status—those unemployed or disabled have markedly less personal finance knowledge than those employed and those retired. In addition, financial literacy is positively correlated with both general education and financial education.

- Some demographic groups experienced increases in the percentage of questions answered correctly between 2017 and 2019: men, those in the 30-44 age group, those with household income of at least $100,000, those with a college degree, and those who have received financial education. Thus it appears that any increases in financial literacy have been concentrated mostly among those with relatively high levels of literacy already.

- The *P-Fin* Index also highlights the link of financial literacy to financial wellness. The 2019 index survey contained several new questions indicative of financial wellness. In each case, greater financial literacy was positively associated with financial wellness indicators. For example, as the percentage of *P-Fin Index* questions answered correctly increases, individuals are more likely to have the capacity to handle a financial shock, more likely to save for retirement on a regular basis, and less likely to be debt constrained.

Introduction

How well individuals navigate the myriad of financial decisions they face is dependent, at least in part, on their knowledge and understanding of personal finances, typically referred to as financial literacy. Decisions made and outcomes experienced matter not only at the household level, but also for the economy as a whole. So what is the state of financial literacy in the United States? Are there areas where knowledge is particularly strong and, analogously, areas where it is particularly weak? How does financial literacy vary across different segments of the population? How does financial literacy correlate with financial behavior?

The 2019 *TIAA Institute-GFLEC Personal Finance Index (P-Fin Index)* represents the third wave of a long-term project to annually assess financial literacy among the U.S. adult population.[1] The *P-Fin Index* measures the knowledge and understanding that enable sound financial decision making and effective management of personal finances. The index relates to common financial situations that individuals encounter and thus can be viewed as a gauge of "working knowledge."

The *P-Fin Index* is unique in its capacity to produce a robust measure of overall personal finance knowledge *and* a nuanced analysis of knowledge across eight areas of personal finance in which individuals inherently function. The index is based on responses to 28 questions,[2] with three or four questions for eight functional areas:[3]

1. Earning—determinants of wages and take-home pay.
2. Consuming—budgets and managing spending.
3. Saving—factors that maximize accumulations.
4. Investing—investment types, risk and return.
5. Borrowing/managing debt—relationship between loan features and repayments.
6. Insuring—types of coverage and how insurance works.
7. Comprehending risk—understanding uncertain financial outcomes.
8. Go-to information sources—recognizing appropriate sources and advice.

1 See Lusardi, Oggero and Yakoboski (2017) and Yakoboski, Lusardi and Hasler (2018).

2 Each question is structured as multiple choice with four response options: the correct answer, two incorrect answers and "don't know."

3 These areas correspond to the National Standards for Financial Literacy outlined by the Council for Economic Education. See http://councilforeconed.org/resource/national-standards-for-financial-literacy/.

In contrast, other studies have been limited to a smaller set of questions focusing on fundamental concepts, such as numeracy, inflation and risk diversification.[4] In addition, the *P-Fin Index* survey collects information about household finances and financial behaviors; this enables examination of the relationship of knowledge with actions and outcomes.

The 2019 survey was fielded online in January with a nationally representative sample of U.S. adults, ages 18 and older, and completed by 1,008 individuals.[5] (Table A1, Appendix A shows the weighted distribution of respondents across various demographics.) This report differs from previous *P-Fin Index* reports in two ways. First, it compares financial literacy across the initial three waves of the index. Second, it analyzes the link between financial literacy and financial wellness. In addition, African-Americans were oversampled in fielding this year's index survey; an analysis of that population subgroup will be presented in a follow-up report.

2019 *P-Fin Index* results

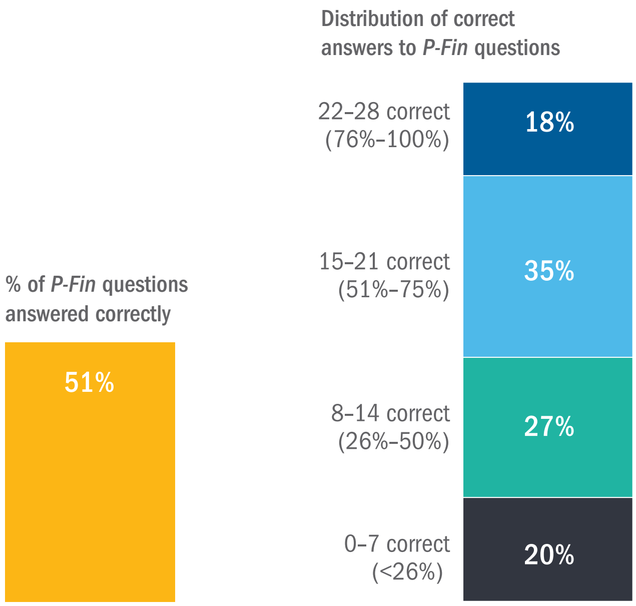
Many Americans lack personal finance knowledge that enables sound financial decision making. On average, U.S. adults answered 51% of the *P-Fin Index* questions correctly. In addition, there is close to a 50/50 split between those who were able to answer one-half of the index questions correctly (53%) and those who were not able to do so (47%) (Figure 1). Eighteen percent demonstrated a relatively high level of personal finance knowledge and understanding, i.e., they answered more than 75% of the index questions correctly, while 20% showed a relatively low level, i.e., they answered 25% or fewer of the questions correctly.

4 A standard set of three questions addressing the concepts of numeracy, inflation and risk diversification was developed by Lusardi and Mitchell (2008, 2011a) and has now been incorporated into multiple surveys to evaluate the level of financial literacy, both in the United States and abroad. (Note: These concepts are covered by questions in the *P-Fin Index* survey.) Subsequently, some surveys (e.g., the National Financial Capability Study) have added other questions addressing more sophisticated concepts—assets pricing and mortgage payments (Lusardi, 2011), and, more recently, knowledge of interest compounding in the context of debt. Others have addressed specific topics, such as debt and risk literacy. For a more complete discussion, see Lusardi and Mitchell (2014).

5 The sample was drawn from Ipsos' KnowledgePanel, which is a large-scale probability-based online panel.

Figure 1. 2019 *P-Fin Index*

U.S. adults answered 51% of *P-Fin Index* questions correctly, on average.



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

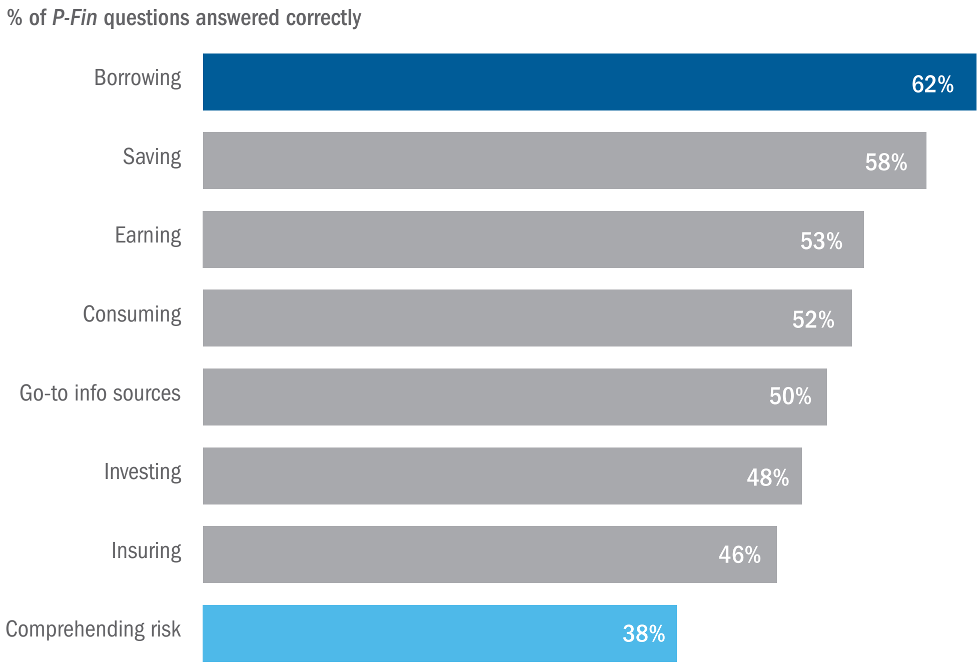
Functional knowledge

Comprehending risk is the functional area where financial literacy tends to be lowest. On average, survey participants answered only 38% of these questions correctly (Figure 2). This finding is consistent with other research identifying risk-related concepts as the most difficult for individuals to grasp.[6]

6 See Coppola, et al. (2017) and Lusardi (2015).

Figure 2. Functional knowledge

Borrowing is where financial literacy is highest; comprehending risk is where it is lowest.



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Given that risk and uncertainty are inherent in most financial decision making, this is particularly troubling. Comprehending risk involves understanding that the expected outcome in a given scenario depends on the range of possible outcomes, the financial implication associated with each outcome and the likelihood of each outcome occurring. Responses to the following question demonstrate the difficulty many individuals have in comprehending risk.

> *Investment A will deliver a return of either 10% or 6%, with each outcome equally likely. Investment B will deliver a return of either 12% or 4%, with each outcome equally likely. You can expect to earn more by investing in which?*
>
> - *Investment A (chosen by 20%)*
> - *Investment B (chosen by 11%)*
> - ***It does not matter—expected return is the same with each (correct answer; chosen by 34% of respondents)***

- *Don’t know (chosen by 32% of respondents)*
- *No response (2% of respondents)*

Understanding risk and its implications is integral to making appropriate decisions across the realm of personal finance, not just investments. Future conditions—employment status, health status, interest rates and future prices—are obviously unknown. Furthermore, the specific outcome associated with a given decision is often unknown at the time of the decision.

Insuring, investing and go-to information sources are the other functional areas where personal finance knowledge is at or below average, i.e., below the average of 51% correct answers for the entire *P-Fin Index* survey.

Personal finance knowledge is highest in the area of borrowing and debt management. On average, 62% of the borrowing questions were answered correctly (Figure 2). Debt tends to be a feature of personal finance common across the lifecycle for many individuals; knowledge and understanding may emerge from confronting accumulated debt, often from the very early stages of adulthood.

Saving, earning and consuming are the other areas where personal finance knowledge is above average, i.e., above the average of 51% answered correctly for the entire *P-Fin Index* survey.

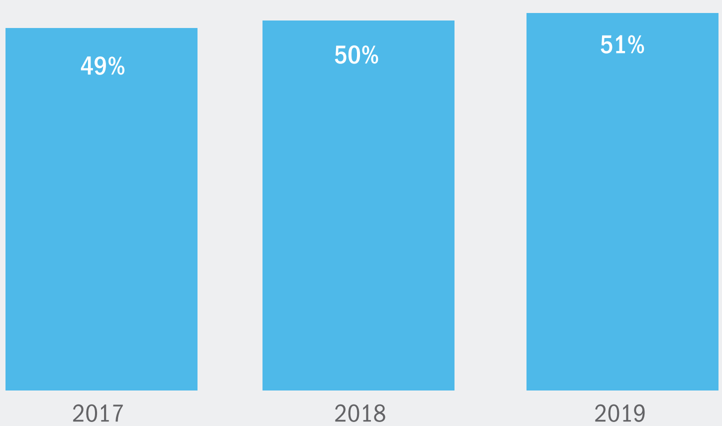
Is financial literacy improving?

The percentage of *P-Fin Index* questions answered correctly increased from 49% in 2017 to 50% in 2018 to 51% in 2019 (Figure 3), while the percentage of adults answering more than one-half of the questions correctly increased from 48% to 51% to 53% (Figure 4).[7] While these results are noteworthy given that they hint at the possibility of a slow increase in financial literacy, the changes are too small, and the time period too short, to conclude that financial literacy levels are actually increasing.[8]

Figure 3. 2017-2019 *P-Fin Indices*

Is financial literacy improving?

% of *P-Fin* questions answered correctly



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

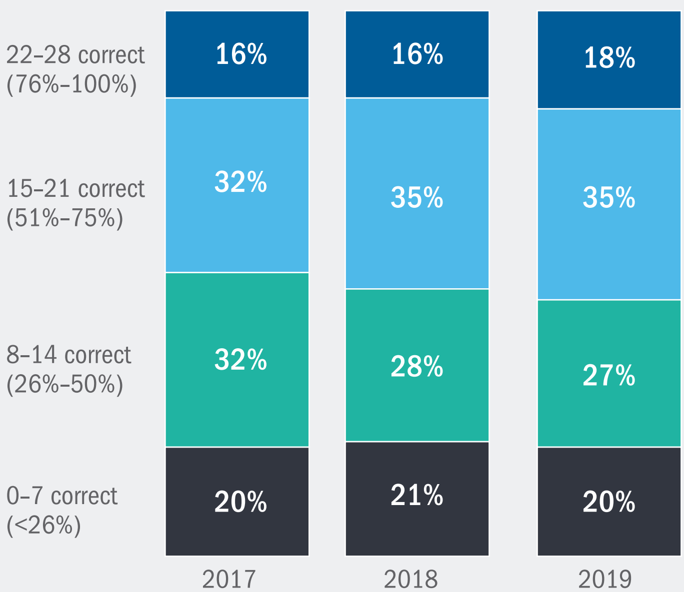
7 Data for the 2017 index were collected in September 2016. Data collection for the 2018 and 2019 indices occurred with survey fielding in January of the respective year; future waves will follow this timing.

8 Often, these changes are not statistically significant. Other surveys, such as the National Financial Capability Study, indicate that financial literacy has decreased over time. Note, however, that the *P-Fin Index* uses a different and much larger set of questions and concepts to measure financial literacy.

Figure 4. 2017-2019 *P-Fin Indices*

Is financial literacy improving?

Distribution of correct answers to *P-Fin* questions

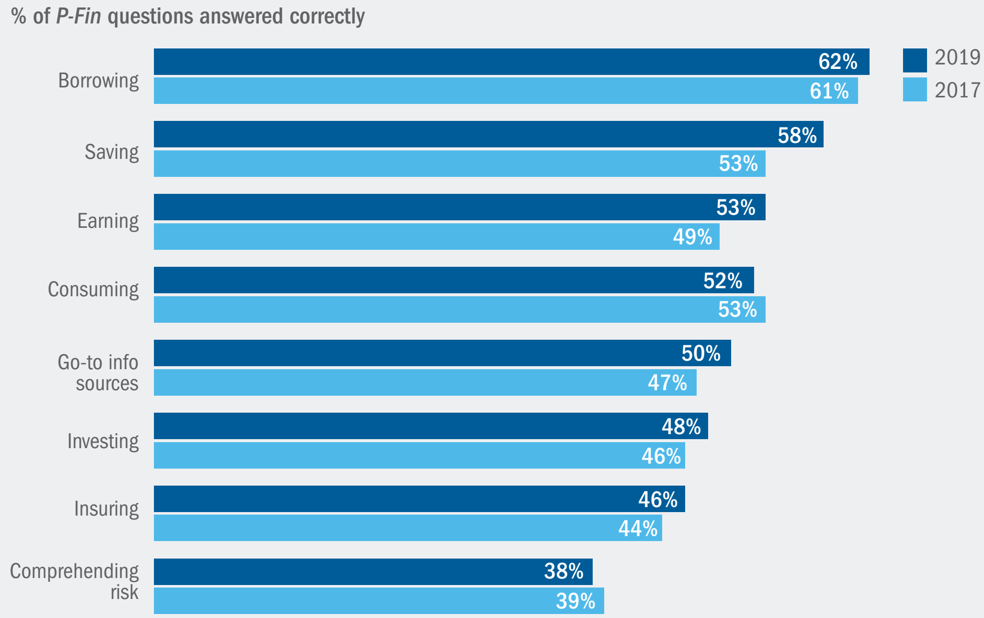


Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

While the relative rankings of knowledge across functional areas remains almost unchanged over the first three waves of the *P-Fin Index*—borrowing is where knowledge is highest and comprehending risk is where it is lowest—six of the eight functional areas saw small increases in the percentage of questions answered correctly (Figure 5). More sizeable changes occurred in the areas of saving, earning and go-to information sources. While small, these changes are in the right direction.

Figure 5. *P-Fin Index*: 2019 vs. 2017

Some increase in most functional knowledge.



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Demographic variations

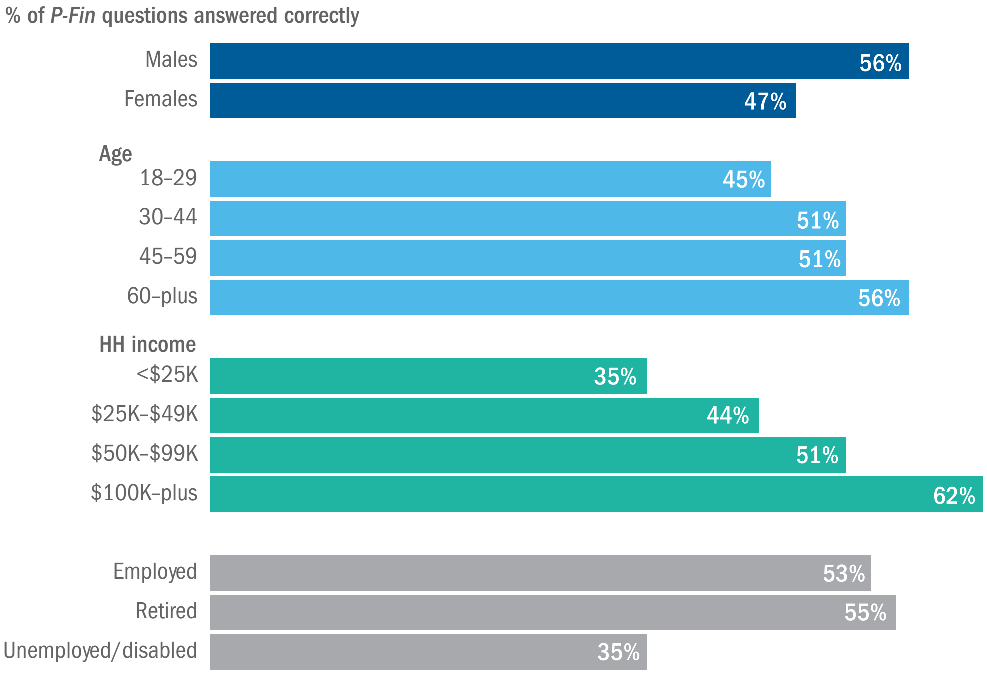
Financial literacy varies across demographic groups. Figure 6 shows the average percentage of *P-Fin Index* questions answered correctly by demographics. These findings are overall consistent with variations identified in previous studies, including previous waves of the *P-Fin Index*.[9]

- There is a nine percentage point difference between men and women in *P-Fin Index* questions answered correctly.
- Personal finance knowledge tends to increase with age. Forty-five percent of index questions are answered correctly on average among those ages 18 to 29, compared with 56% among those ages 60 and older.
- Personal finance knowledge tends to increase as household income increases. The gap between those with household incomes below $25,000 and those with household incomes of $100,000 or more is 27 percentage points.

9 See Lusardi, Mitchell and Curto (2010), Lusardi and Mitchell (2008, 2011a, 2011b, 2017), Lusardi, Oggero and Yakoboski (2017), and Lusardi and Tufano (2009, 2015).

- Financial literacy varies with employment status. In particular, those unemployed or disabled[10] have markedly less personal finance knowledge than those employed[11] and those retired.[12]

Figure 6. Demographic comparisons



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Figure 7 shows the percentage change in *P-Fin Index* questions answered correctly between 2017 and 2019. Again, the time period is short. In addition, sample size decreases as the sample of all adults is divided into subgroups, resulting in increased variance in the estimates. With those caveats, financial literacy levels are increasing among men, those in the 30-44 age group, and among those with household incomes of at least $100,000.[13] While these are encouraging findings, it appears that any increases in financial literacy have been concentrated mostly among those with relatively high levels of literacy already.

10 Includes those unemployed or on temporary lay-off, as well as those disabled and unable to work.

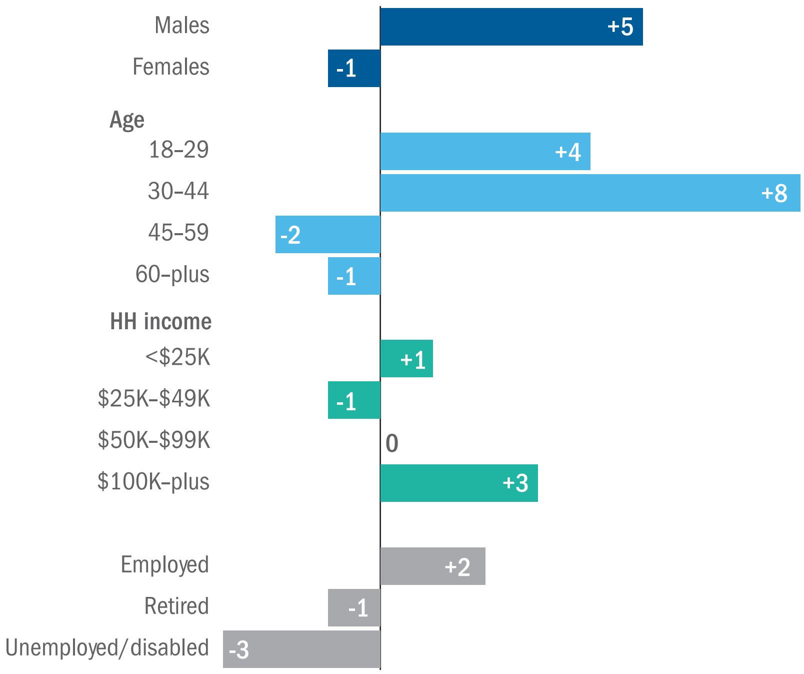
11 Includes those employed full time, part time and self-employed.

12 These findings are consistent with what is reported in many other studies. See also the review by Lusardi and Mitchell (2014).

13 Only these changes are statistically significant.

Figure 7. 2019 compared with 2017

% point change in *P-Fin* questions answered correctly, 2017 to 2019



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Variations by education

Financial literacy is positively correlated with both general education and financial education. Figure 8 shows the average percentage of *P-Fin Index* questions answered correctly by general education level and by receipt of financial education. These findings are consistent with previous studies, including previous waves of the *P-Fin Index*.[14]

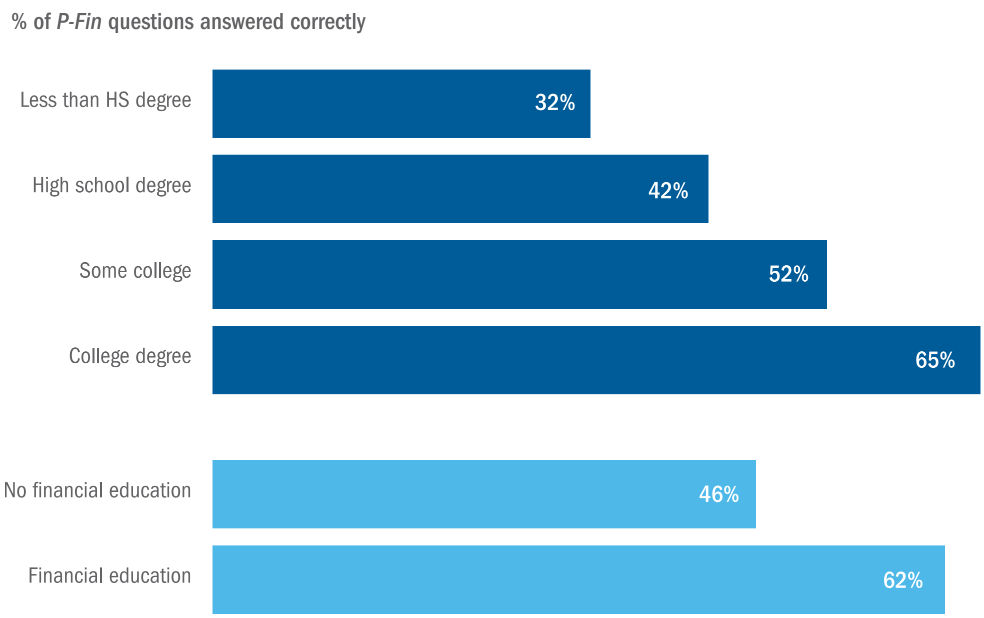
- Higher levels of general education are associated with greater financial literacy. Those with a college degree answer two-thirds of the index questions correctly on average, compared with one-third for those with less than a high school degree.
- There is a 16 percentage point differential in questions answered correctly between individuals who have participated in a financial education class or program and those who have not received financial education.[15]

14 See Lusardi and Mitchell (2007, 2011b, 2014) and Lusardi, Oggero and Yakoboski (2017).

15 See Lusardi and Mitchell (2014) for a discussion of existing research regarding the relationship between financial education programs and financial literacy levels, as well as the challenges inherent in empirically establishing causality and effectiveness.

Figure 8. Comparisons by education

Financial literacy increases with education.

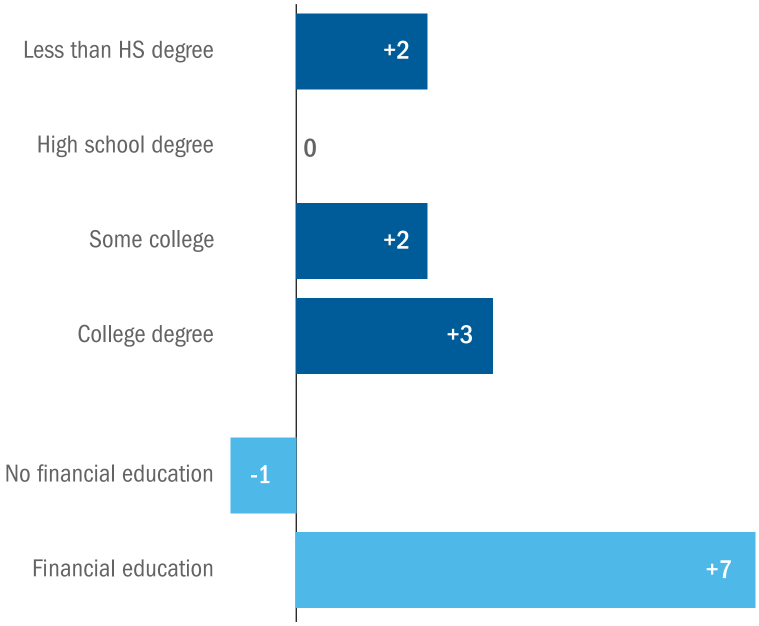


Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Figure 9 shows the percentage change in *P-Fin Index* questions answered correctly between 2017 and 2019 by general education level and receipt of financial education. Those who have a college degree and those who have received financial education display increases in financial literacy. In particular, the increase among those who have received financial education stands out.

Figure 9. 2019 compared with 2017

% point change in *P-Fin* questions answered correctly, 2017 to 2019



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Financial wellness and the *P-Fin Index*

Achieving and maintaining financial well-being, or financial wellness, is a goal shared across individuals. Financial wellness can be defined as a state of being wherein a person:

- Has control over day-to-day, month-to-month finances.
- Has the capacity to absorb a financial shock.
- Is on track to meet his or her financial goals.
- Has the financial freedom to make choices that allow enjoying life.[16]

[16] See Consumer Financial Protection Bureau (2015).

An increasing focus on financial well-being has manifested itself in the emergence and growth of employer-sponsored employee financial wellness programs. Such programs are more holistic in scope than predecessor programs which typically focused on a single aspect of personal finances, e.g., saving for a financially secure retirement. Financial literacy is typically a component of financial wellness programs as greater financial well-being is the ultimate objective of greater financial literacy.

But is there actually a link between financial literacy and financial well-being? Since the *P-Fin Index* provides such a comprehensive measure of financial literacy, it is well-suited for examining this question.

The 2019 *P-Fin Index* survey contained several questions, including new ones, indicative of financial wellness—either about behaviors that should promote financial wellness or about outcomes demonstrating financial wellness. These questions can be grouped under a wealth accumulation and debt rubric.

The wealth accumulation group includes questions related to:

- Money management.
  - *Do you track the things on which you spend money and the amount spent?*
- Planning and saving for retirement.
  - *Do you save for retirement on a regular basis?*
  - *Have you ever tried to figure out how much you need to save for retirement?*
- Non-retirement savings.
  - *Do you have any financial savings aside from retirement savings?*
- Capacity to handle a financial shock.
  - *How confident are you that you could come up with $2,000 if an unexpected need arose within the next month?*

The debt group includes questions related to:

- Debt management.
  - *Do you make your loan payments on time each month? This includes things like a home mortgage, auto loans, student loans and credit card balances.*
- Debt constraint.
  - *Do you agree or disagree with the following statement? Debt and debt payments prevent me from adequately addressing other financial priorities.*

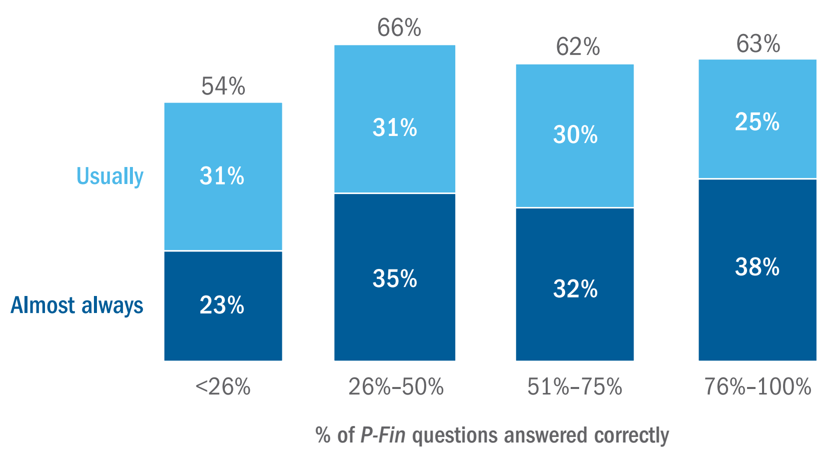
A strong link is found between *P-Fin Index* scores and these indicators of financial wellness. With regards to wealth accumulation, as the percentage of *P-Fin Index* questions answered correctly increases, individuals are more likely to:

- Track their spending (Figure 10).
- Save and plan for retirement (Figure 11).
- Have non-retirement savings (Figure 12).
- Have the capacity to handle a financial shock, i.e., they are less likely to be financially fragile (Figure 13).

Figure 10. Financial literacy → financial wellness

Those with greater financial literacy more typically track spending.

Do you track the things on which you spend money and the amount spent?



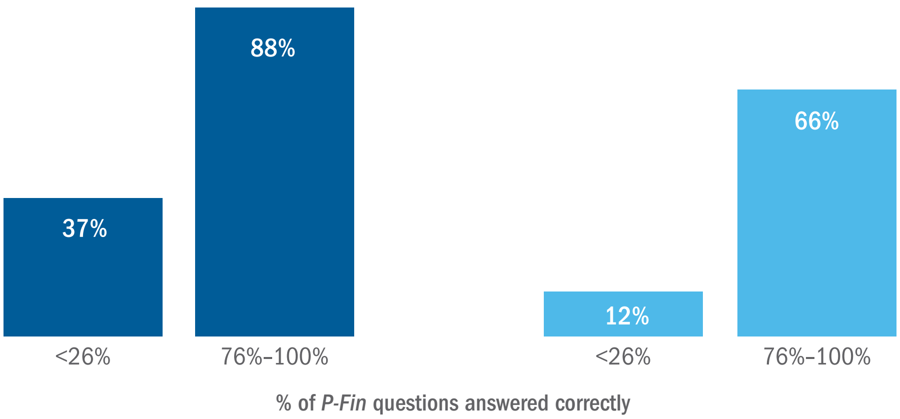
Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Figure 11. Financial literacy ➔ financial wellness

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

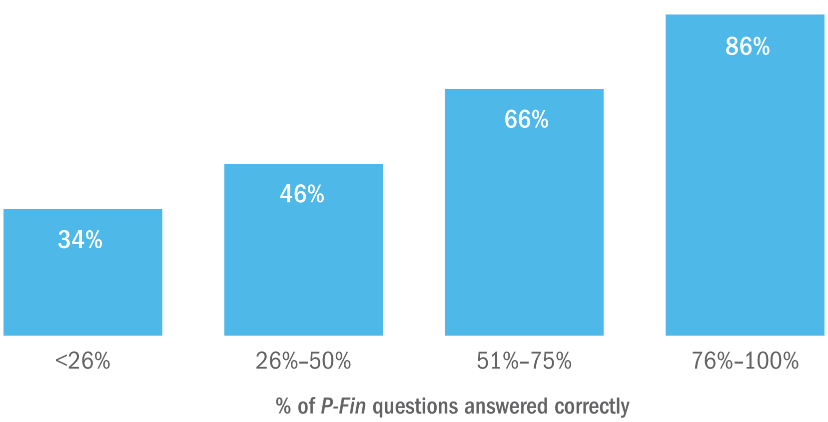


Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Figure 12. Financial literacy ➔ financial wellness

Those with greater financial literacy are more likely to have non-retirement savings.

% who have non-retirement financial savings

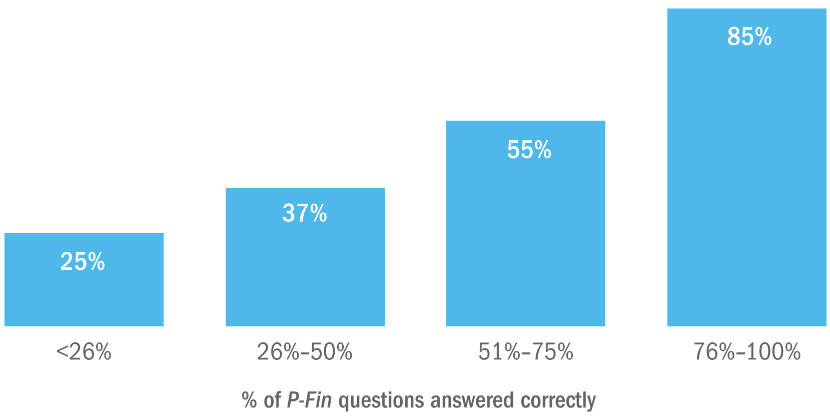


Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Figure 13. Financial literacy ➔ financial wellness

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



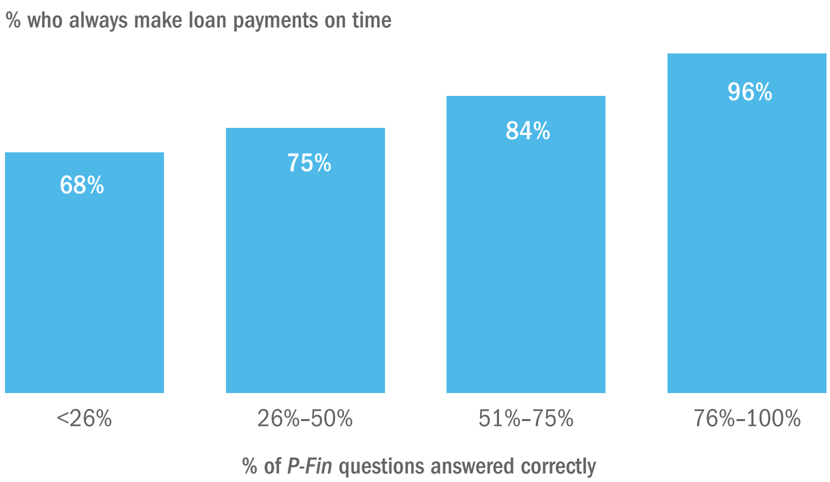
Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

With regards to debt and debt management, as the percentage of *P-Fin Index* questions answered correctly increases, individuals are:

- More likely to make loan payments on time (Figure 14).
- Less likely to be debt constrained (Figure 15).

Figure 14. Financial literacy ➔ financial wellness

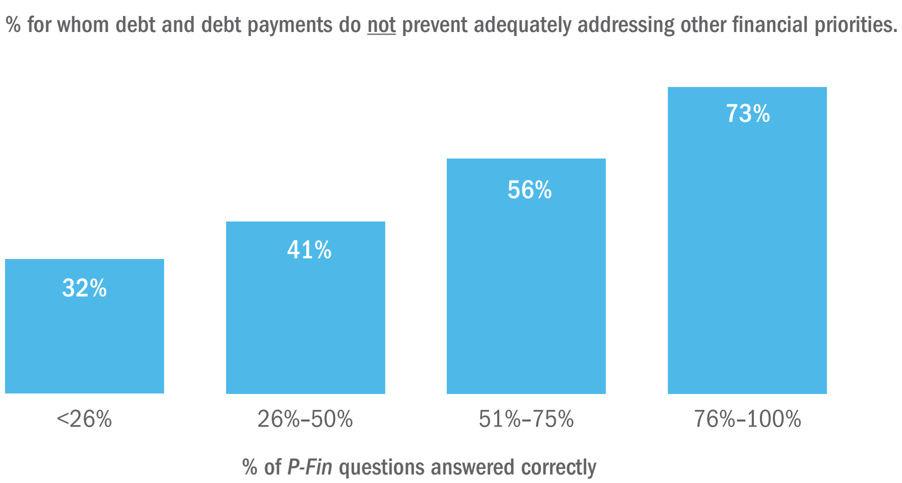
Those with greater financial literacy are more likely to make loan payments on time.



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

Figure 15. Financial literacy ➔ financial wellness

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



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

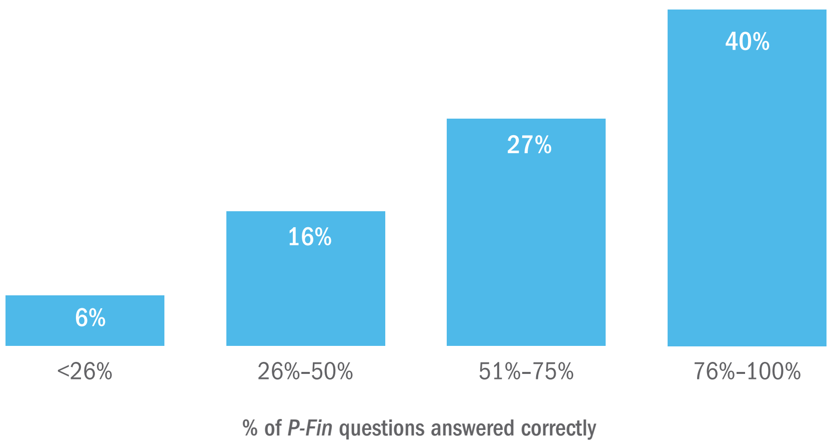
Financial advice and the *P-Fin Index*

Individuals may consult a financial advisor on their own or within the context of an employer-sponsored benefit (most typically, a retirement savings plan) or an employer-sponsored financial wellness program. Results from the 2019 *P-Fin Index* show that individuals with greater financial literacy are more likely to receive financial guidance from a professional advisor or advisory service (Figure 16). The positive correlation between financial literacy and the use of financial advice indicates that the two are serving as complements, as opposed to financial advice being a substitute for financial literacy. This is consistent with previous research that identified a complementary relationship.[17] Greater financial literacy positions individuals to be proactive participants in advice sessions, which is valuable since final decisions are ultimately up to them.

Figure 16. Financial literacy and advice

Those with greater financial literacy are more likely to seek financial advice.

% who received financial guidance from a professional advisor or advisory service within the past two years



Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

[17] See Collins (2012).

Discussion

How well individuals navigate the myriad of financial decisions inherent in the normal course of life and the level of financial wellness that they achieve depends, at least in part, on their financial literacy. Many Americans, however, lack personal finance knowledge that enables sound financial decision making and effective management of personal finances. In the 2019 *P-Fin Index*, U.S. adults answered only one-half (51%) of the index questions correctly, on average.

Over the first three waves of the *P-Fin Index*, the percentage of questions answered correctly increased from 49% in 2017 to 50% in 2018 to 51% in 2019, and the percentage of adults answering more than one-half of the questions correctly increased from 48% to 51% to 53%. While these results are noteworthy, the changes are too small, and the time period too short, to conclude that financial literacy levels are actually increasing.

In addition, while the relative rankings of knowledge across functional areas remains almost unchanged over the first three waves of the *P-Fin Index*—borrowing is where knowledge is highest and comprehending risk is where it is lowest—six of the eight functional areas saw small increases in the percentage of questions answered correctly. More sizeable changes occurred in the areas of saving, earning and go-to information sources.

The *P-Fin Index* also highlights why improving financial literacy levels is important, i.e., the link of financial literacy to financial wellness. The 2019 index survey contained several questions, some new, indicative of financial wellness—either about behaviors that should promote financial wellness or about outcomes demonstrating financial wellness. In each case, greater financial literacy was positively associated with the financial wellness indicator. For example, as the percentage of *P-Fin Index* questions answered correctly increases, individuals are more likely to have the capacity to handle a financial shock and to save for retirement on a regular basis, and less likely to be debt constrained.

The importance of financial literacy for financial well-being, combined with marginal changes in financial literacy to date, highlight the importance of increased focus on efforts, both in the workplace and in the education system, to improve financial knowledge and understanding among all Americans.

About the authors

Paul Yakoboski

Paul Yakoboski is a senior economist with the TIAA Institute where he is responsible for research on lifetime financial security, including topics related to defined contribution plan design, individual saving and investing, financial literacy and capability, and asset management during retirement, as well as research on work force issues in the higher education and non-profit sectors. Prior to joining the TIAA Institute, Yakoboski held positions with the American Council of Life Insurers, the Employee Benefit Research Institute and the U.S. Government Accountability Office. Yakoboski earned his Ph.D. and M.A. in economics from the University of Rochester and his B.S. in economics from Virginia Tech.

Annamaria Lusardi

Annamaria Lusardi is Denit Trust Chair of Economics and Accountancy at the George Washington University School of Business, and the founder and academic director of GFLEC. She has published extensively and in many leading economics journals and is the recipient of several prestigious awards. Lusardi was recently appointed as director of the newly established Financial Education Committee in Italy. In addition, she chairs the OECD's International Network for Financial Education Research Committee. She previously taught at Dartmouth College, Princeton University, the University of Chicago Harris School of Public Policy and Booth School of Business, and Columbia Business School. She also was a visiting scholar at Harvard Business School. She earned her B.A. from Bocconi University in Milan and Ph.D. from Princeton University. Lusardi is a TIAA Institute Fellow.

Andrea Hasler

Andrea Hasler is an Assistant Research Professor in Financial Literacy at GFLEC. She leads the team of researchers working on financial literacy and capability and develops analyses for educational and policy initiatives. Hasler has recently worked on projects focused on financial literacy levels of the young, women, entrepreneurs, investors, and minorities in the United States and around the world. She holds a Ph.D. in finance as well as an M.Sc. and B.A. in business and economics from the University of Basel. During her doctorate, she spent two years at the New York University Stern School of Business conducting research on household saving and financial decision making. She also has been a lecturer at the University of Basel for six years. Her professional experience includes the development of an online advanced studies course in financial market theory and work as an analyst conducting global equity market research.

Appendix A

Table A1. Distribution of respondent demographics in the 2019 *P-Fin Index* (weighted sample)

Age	
18 to 29	21%
30 to 44	25
45 to 59	25
60 and older	29
Gender	
Male	48%
Female	52
Ethnicity	
White	63%
African-American	12
Hispanic	16
Other	8
Education	
Less than HS degree	11%
High school degree	29
Some college	28
College degree	32
Household income	
Less than $25,000	15%
$25,000 to $49,999	19
$50,000 to $99,999	31
$100,000 and more	36
Employment status	
Employed	56%
Unemployed or disabled	7
Retired	27
Other not employed	10
Marital status	
Married	55%
Living with partner	7
Single	22
Divorced/widowed/separated	16

Source: *TIAA Institute-GFLEC Personal Finance Index* (2019).

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