

FINANCIAL LITERACY AND RETIREMENT FLUENCY

# New insights for improving financial well-being

The 2024 TIAA Institute-GFLEC Personal Finance Index

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# **Executive summary**

The TIAA Institute-GFLEC Personal Finance Index (P-Fin Index), now in its eighth year, annually assesses financial literacy among U.S. adults and examines the relationship between financial literacy and financial well-being. In addition to a robust measure of overall financial literacy, the P-Fin Index provides a nuanced analysis of personal finance knowledge across eight areas in which individuals routinely function. For the first time, the 2024 P-Fin Index also assessed basic retirement fluency, i.e., knowledge that promotes financial well-being in retirement.

Most individuals are making financial decisions with a generally poor level of financial literacy—U.S. adults correctly answered only 48% of the 28 index questions in 2024, on average. This figure has hovered around the 50% mark since the inaugural 2017 survey. Financial literacy also varies substantially by sociodemographic characteristics:

- Financial literacy among women has consistently lagged that of men. There is a 10-point gender gap in the percentage of index questions correctly answered in 2024.
- Financial literacy levels among Asian and White Americans are roughly equal. Likewise, financial literacy levels among Black and Hispanic Americans are roughly equal, albeit at lower levels.
- Financial literacy tends to be low across generations, but particularly so among Generation Z—on average, Gen Z correctly answered only 37% of the index questions in 2024.

Comprehending risk has consistently been the area of lowest functional knowledge. On average, only 35% of these questions are answered correctly in 2024.

 Analogous to overall financial literacy, functional knowledge levels among women tend to lag those of men, and the gap is statistically significant across all functional areas.  Functional knowledge is substantially lower among Gen Z compared with Generation Y, Generation X, and baby boomers in all eight areas examined. Comprehending risk is the area with the least generational variation in functional knowledge; even older adults with more experience in financial decision-making score low on risk-related questions.

It is evident again that greater financial literacy generally translates into greater financial well-being, and lower financial literacy is generally associated with lower financial well-being.

 Compared with those with a very high level of financial literacy, those with a very low level are twice as likely to be debt-constrained; three and one-half times more likely to be financially fragile; four times more likely to lack one month of emergency savings; three times more likely to be not at all confident in their retirement income prospects; and three times more likely to spend 10-plus hours per week on personal finance issues.

U.S. adults also struggle with retirement-related topics. Five questions were used to gauge retirement fluency, each covering a distinct subject: Social Security benefits, Medicare coverage of healthcare expenses, employment-based retirement savings, ensuring lifetime income, and life expectancy in retirement. The percentage of adults correctly answering each question ranged from 30% (Medicare coverage) to 53% (ensuring lifetime income). Respondents correctly answered two questions out of the five, on average. Furthermore, retirement fluency can be linked to retirement income security:

 Twenty-six percent of those who correctly answered 4 or 5 of the retirement fluency questions are very confident they will have enough money to live comfortably throughout retirement, while only 7% are not at all confident. These figures are essentially flipped among those who didn't correctly answer any of the questions (29% and 10%, respectively).

#### RETIREMENT FLUENCY

Knowledge that promotes financial well-being in retirement



### Introduction

The TIAA Institute-GFLEC Personal Finance Index (P-Fin Index) has served as a barometer of financial literacy (i.e., knowledge and understanding that enable sound financial decision-making and effective management of personal finances) among U.S. adults since 2017. The P-Fin Index is unique in its capacity to provide a robust measure of overall financial literacy using 28 questions plus a nuanced analysis of personal finance knowledge across eight areas in which individuals routinely function, and to do so across various demographic segments of the population.

In addition to the core set of financial literacy questions, the *P-Fin Index* survey contains questions that are indicators of financial well-being. This provides critical insights into the relationship between financial literacy and personal finance outcomes.

For the first time, five questions in the 2024 survey were used to gauge basic retirement fluency, i.e., knowledge that promotes financial well-being in retirement. Each question covered a distinct subject: Social Security benefits, Medicare coverage of healthcare expenses, employment-based retirement savings, ensuring lifetime income and life expectancy in retirement.

The 2024 *P-Fin Index* survey was completed online in January by a sample of 3,876 U.S. adults, ages 18 and older.<sup>2</sup> The 3,876 respondents included 576 Asian Americans, 604 Black Americans, 637 Hispanic Americans, and 1,934 White Americans, as well as 646 Gen Z (born 1997–2003), 935 Gen Y (1981–1996), 955 Gen X (1965–1980), 1,148 baby boomers (1946–1964) and 192 members of the Silent Generation (1929–1945). The survey data were weighted to be nationally representative. (Appendix Figure A1 provides the weighted distribution of the 2024 survey sample.)

#### This report:

- Examines financial literacy and functional knowledge among U.S. adults and across men and women, racial and ethnic groups, and generations in 2024.
- Compares financial literacy across the eight years of data collected thus far.
- Assesses retirement fluency within the U.S. population.
- Quantifies the relationship between financial literacy and financial well-being.

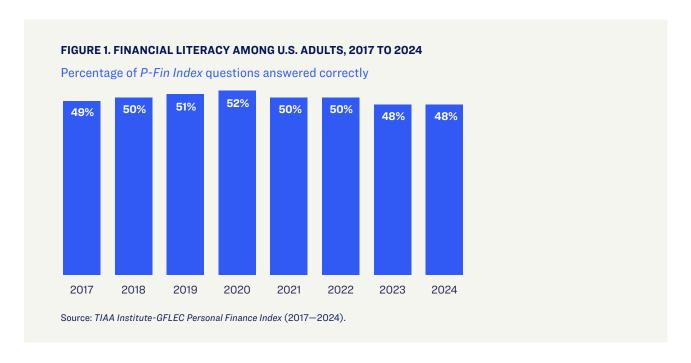


<sup>1</sup> See Lusardi et al. (2017) and Yakoboski et al. (2018–2023). These reports are available on the IIAA Institute and GFLEC websites.

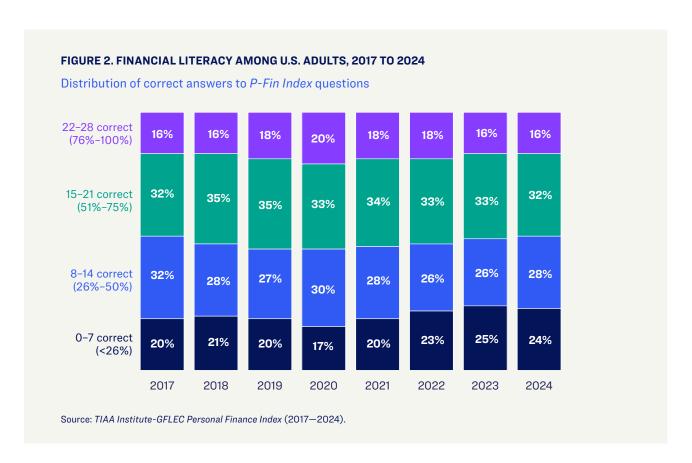
<sup>2</sup> The survey was fielded from January 3 to January 23, 2024, with a sample drawn from Ipsos's KnowledgePanel, a large-scale probability-based online panel.

## Financial literacy among U.S. adults

A consistent finding over eight years of the *P-Fin Index data* is that many individuals function with a poor level of financial literacy (Figure 1). On average, U.S. adults correctly answered only 48% of the 28 index questions in 2024. This figure has consistently hovered around the 50% mark since the initial 2017 survey. This low level of financial literacy is troubling since the *P-Fin Index* measures working knowledge related to financial situations encountered in the normal course of life. The lack of change is not surprising, however, as knowledge levels of the adult population will not change quickly. Continuous effort over time is needed to bring personal finance resources to everybody, from classes in school for the young to programs at the workplace or in communities for working-age adults and retirees.



The distribution of correct answers has also been relatively stable over time (Figure 2). While the share of U.S. adults demonstrating a very low level of financial literacy (i.e., they correctly answered seven or fewer of the 28 index questions) is greater in 2024 than in 2017 (24% versus 20%),<sup>3</sup> the percentage correctly answering one-half or fewer of the index questions is the same in 2024 and 2017 (52%). At the other end of the spectrum, the share of adults demonstrating a very high level of financial literacy (i.e., they correctly answered 22 or more of the 28 index questions) is the same in 2024 as it was in 2017 (16%).

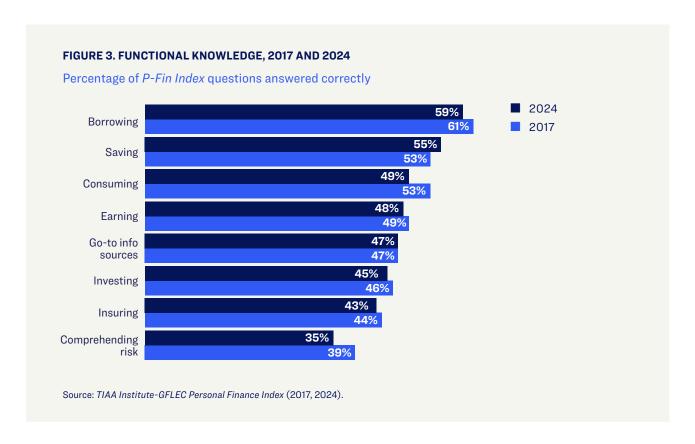


The *P-Fin Index* is a comprehensive measure that assesses financial literacy across eight functional areas.<sup>4</sup> Functional knowledge among U.S. adults has consistently been lowest in the realm of comprehending risk (Figure 3).<sup>5,6</sup> On average, 35% of these questions were answered correctly in 2024, a figure significantly below its 2017 level (39%). This is problematic because uncertainty is inherent in most aspects of personal finances and financial decision-making. The outcomes associated with most choices are rarely known with certainty when decisions are made, so individuals should be capable of making appropriate decisions in an environment of uncertainty.

<sup>4</sup> The eight areas are: earning (determinants of wages and take-home pay); consuming (budgets and managing spending); saving (factors that maximize accumulations); investing (investment types, risk and return); borrowing/managing debt (relationship between loan features and repayments); insuring (types of coverage and how insurance works); comprehending risk (understanding uncertain financial outcomes); and go-to information sources (recognizing appropriate sources and advice). These areas correspond to the National Standards for Financial Literacy outlined by the Council for Economic Education; see <a href="https://www.councilforeconed.org/wp-content/uploads/2021/10/2021-National-Standards-for-Personal-Financial-Education.pdf">https://www.councilforeconed.org/wp-content/uploads/2021/10/2021-National-Standards-for-Personal-Financial-Education.pdf</a>. Three or four survey questions cover each functional area

<sup>5</sup> Comprehending risk involves, for example, 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.

<sup>6</sup> This finding is consistent with other research identifying risk-related concepts as the most difficult for individuals to grasp. See Coppola et al. (2017) and Lusardi (2015).



At the other end of the spectrum, borrowing and debt management has been the area of greatest financial literacy each year. On average, 59% of the borrowing questions were answered correctly in 2024; the analogous 2017 figure was 61%. Debt tends to be a feature of personal finance common across the life cycle for many individuals; knowledge and understanding may emerge from confronting accumulated debt, often from the early stages of adulthood.

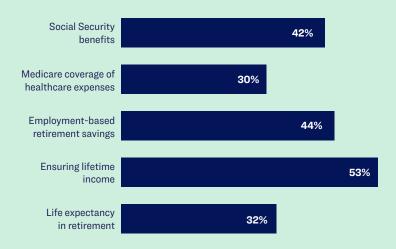
Saving and consuming are the two other areas where financial literacy is above average in 2024 (i.e., above the aggregate average correct—48%), while go-to information sources, investing, and insuring are other areas where financial literacy is below average. This rank ordering has been stable over the past eight years. The only areas where financial literacy in 2024 differs significantly from 2017 are consuming and comprehending risk.

# **Retirement fluency**

Five questions in the 2024 *P-Fin Index* survey are used to gauge basic retirement fluency, i.e., knowledge that promotes financial well-being in retirement. Each question covered a distinct subject: Social Security benefits, Medicare coverage of healthcare expenses, employment-based retirement savings, ensuring lifetime income and life expectancy in retirement. (Questions with response options appear in Appendix C.) Figure 4 shows the fraction of adults correctly answering each question. Respondents struggled most with the questions about Medicare coverage and life expectancy. Only 30% of U.S. adults have a general understanding of Medicare's average coverage rate of health care expenses in retirement. Only 32% know how long people tend to live upon reaching retirement age. On the other hand, slightly more than half of all respondents (53%) know that annuities provide lifetime income.

#### **FIGURE 4. RETIREMENT FLUENCY**

Percentage correctly answering retirement-related questions



Analogous to financial literacy, retirement fluency tends to be low among U.S. adults. On average, respondents correctly answered two questions out of the five (40%). Very few (4%) were able to correctly answer all five questions. On net, the share of adults who correctly answered none of the retirement fluency questions (19%) matched the share who correctly answered 80% or more (17%) (Figure 5).

#### **FIGURE 5. RETIREMENT FLUENCY**

Distribution of correct answers to retirement-related questions



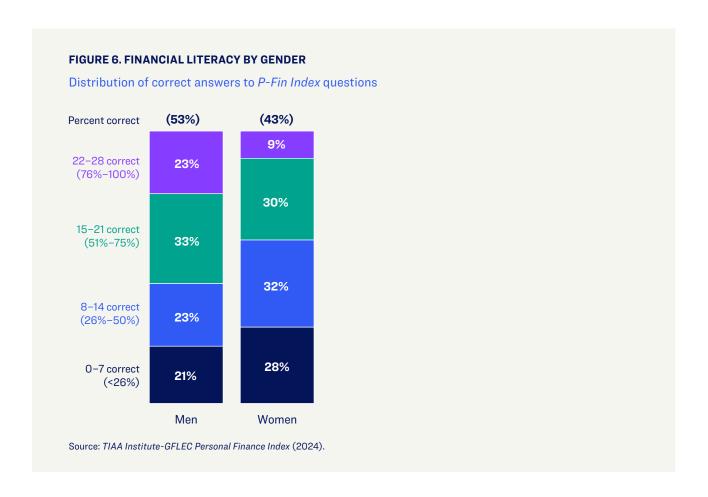
Average correct: 2 questions (40%)

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

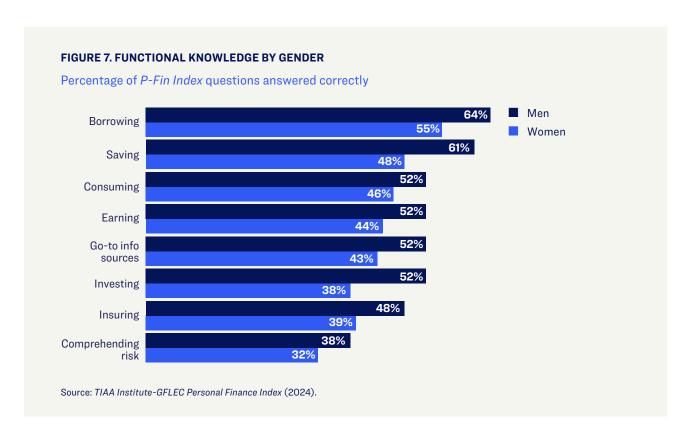
## Demographic variations in financial literacy

A consistent finding over eight years of the *P-Fin Index* is that financial literacy among women tends to lag that of men. In 2024, men correctly answered 53% of the index questions, on average, and 23% of men demonstrated very high financial literacy (Figure 6). The analogous figures among women are significantly lower at 43% and 9%, respectively. Regression analysis confirms the financial literacy gender gap is not simply due to demographic differences: women correctly answer a significantly lower percentage of the *P-Fin Index* questions even when taking various sociodemographic characteristics into account (Appendix Figure B1).

<sup>7</sup> U.S. adults aged 50 to 75 correctly answered 31% of the questions in the 2023 Retirement Income Literacy Study by The American College of Financial Services. The study covered a broader set of topics. See <a href="https://insights.theamericancollege.edu/rils-key-findings/">https://insights.theamericancollege.edu/rils-key-findings/</a>.

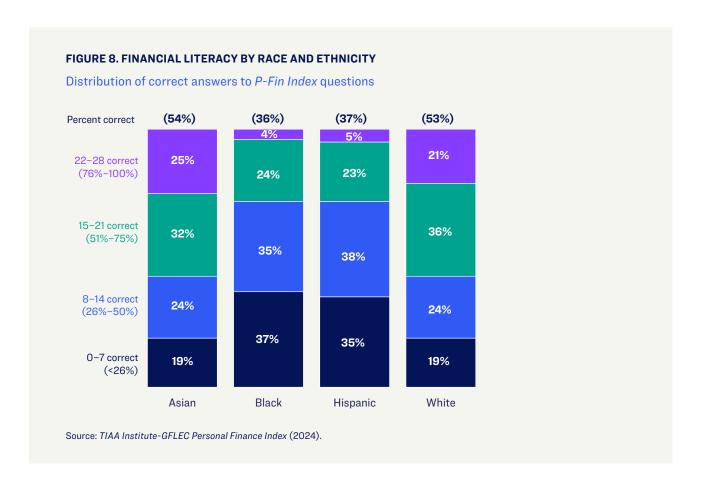


Analogous to overall financial literacy, functional knowledge levels among women tend to lag those of men (Figure 7). Gender differences across all functional areas are statistically significant and generally large, ranging up to 13 and 14 percentage points in the realms of saving and investing, respectively.



Financial literacy levels among Asians and Whites are roughly equal; in 2024 Asians correctly answered 54% of the index questions, on average, and Whites 53% (Figure 8). However, a slightly greater share of Asians demonstrated very high levels of financial literacy: 25% compared with 21%. Likewise, financial literacy levels among Blacks and Hispanics are comparable, albeit at significantly lower levels than Asians and Whites. Blacks correctly answered 36% of the index questions in 2024, on average, and Hispanics 37%. Over one-third of both Blacks and Hispanics demonstrated very low levels of financial literacy.<sup>8</sup>

<sup>8</sup> Top-level differences in financial literacy across race and ethnicity, as well as gender, do not mean inherent differences in capability. There are demographic differences across subgroups that matter, such as varying age, education and income. Beyond that, other dynamics the data do not capture are in play, including systemic factors. A more rigorous empirical analysis points to this. Regression results presented in Appendix Figure B1 show that financial literacy remains lower among Blacks and Hispanics relative to Whites after controlling for various socioeconomic factors such as age, education and income.



In line with overall financial literacy, functional knowledge levels tend to be greater among Asians and Whites relative to Blacks and Hispanics (Figure 9). At the same time, the rank ordering of functional knowledge areas is similar across the four groups. Interestingly, Asian functional knowledge is greater than that of Whites in the area of comprehending risk. Blacks and Hispanics do not differ in level of functional knowledge in any area.

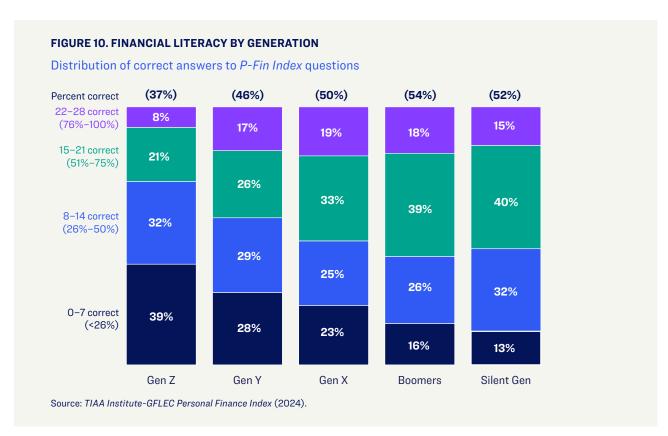
#### FIGURE 9. FUNCTIONAL KNOWLEDGE BY RACE AND ETHNICITY

Percentage of *P-Fin Index* questions answered correctly

	Asian	Black	Hispanic	White
Borrowing	64% (1)	45% (1)	48% (1)	65% (1)
Saving	62% (2)	41% (3)	44% (2)	60% (2)
Consuming	54% (3)	42% (2)	43% (3)	52% (5)
Earning	49% (6)	37% (4)	37% (4)	53% (3)
Go-to info sources	53% (4)	35% (5)	34% (5)	53% (3)
Investing	53% (4)	32% (6)	33% (6)	50% (6)
Insuring	47% (7)	30% (7)	27% (8)	50% (6)
Comprehending risk	44% (8)	30% (7)	31% (7)	36% (8)

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

The U.S. adult population spans five generations with Gen Z now ranging from age 18 to age 26. Unfortunately, financial literacy tends to be low across all generations, but particularly so among Gen Z (Figure 10). Gen Z correctly answered only 37% of the *P-Fin Index* questions, on average, in 2024. Financial literacy levels are progressively higher among older generations—Gen Y correctly answered 46% of the index questions, on average, while the other generations correctly answered 50% or more; yet, the highest is only 54% among baby boomers. Likewise, the share of each generation demonstrating very low financial literacy is progressively greater among younger generations, ranging from 13% of the Silent Generation to 39% of Gen Z.<sup>10</sup>



<sup>9</sup> Differences across Gen Z, Gen Y, Gen X and baby boomers are statistically significant. There is not a statistically significant difference between the Silent Generation and baby boomers, or between the Silent Generation and Gen X.

<sup>10</sup> There is not a statistically significant difference between baby boomers and the Silent Generation.

An eight-year time span of cross-sectional data is insufficient to differentiate between age and generational effects. Thus, greater financial literacy among older generations could reflect shared differences across the life cycle as well as differences specific to cohorts born in certain time spans. Nevertheless, these findings show that the typical individual begins adulthood with a very low level of financial literacy that tends to remain low even later in life.

The rank ordering of functional knowledge areas tends to be similar among Gen Z, Gen Y and Gen X, but somewhat different among baby boomers and the Silent Generation (Figure 11). Nevertheless, risk is the area people across almost all generations struggle with the most. Interestingly, insuring is where Gen Z functional knowledge is lowest and correspondingly where the gap with other generations tends to be largest. Gen Z has the lowest functional knowledge in all eight areas, which is unsurprising given their significantly lower overall literacy level.

#### FIGURE 11. FUNCTIONAL KNOWLEDGE ACROSS GENERATIONS

Percentage of P-Fin Index questions answered correctly

	Gen Z	Gen Y	Gen X	Baby boomers	Silent Generation
Borrowing	44% (1)	57% (1)	62% (1)	67% (1)	62% (1)
Saving	43% (2)	52% (2)	56% (2)	60% (2)	61% (2)
Consuming	40% (3)	48% (3)	51% (3)	53% (4)	49% (6)
Earning	37% (5)	45% (4)	50% (4)	54% (3)	51% (5)
Go-to info sources	39% (4)	45% (4)	49% (5)	51% (6)	49% (6)
Investing	32% (6)	42% (6)	47% (7)	51% (6)	53% (4)
Insuring	26% (8)	37% (7)	48% (6)	53% (4)	54% (3)
Comprehending risk	31% (7)	36% (8)	36% (8)	35% (8)	31% (8)

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

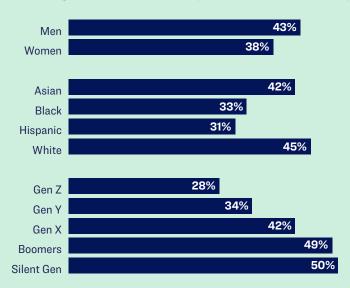
Financial literacy also tends to vary with other demographics in addition to gender, race and ethnicity, and generation. For example, financial literacy tends to be greater among those with more education, those who have received financial education, those employed or retired, and those with higher household incomes. (See Appendix Figure A2.) These patterns are consistent with variations identified in previous years of the *P-Fin Index* and other studies, as well as the regression findings shown in Appendix Figure B1.<sup>12</sup>

# **Retirement fluency**

Demographic variations in retirement fluency mirror those in financial literacy (Figure 12). Men correctly answered significantly more retirement fluency questions than women, on average. Likewise, Asians and Whites tended to correctly answer significantly more questions than Blacks and Hispanics, and so too older generations compared with younger generations. It's not surprising that generations closer to (and in) retirement are more knowledgeable on the retirement-related topics covered. Still, only one-half of the questions were answered correctly by baby boomers and the Silent Generation, signaling reason for concern. The univariate findings shown in Figure 12 are further strengthened by a multivariate regression analysis presented in Appendix Figure B2.

#### FIGURE 12. RETIREMENT FLUENCY

Percentage of retirement-related questions answered correctly



## The link between financial literacy and financial well-being

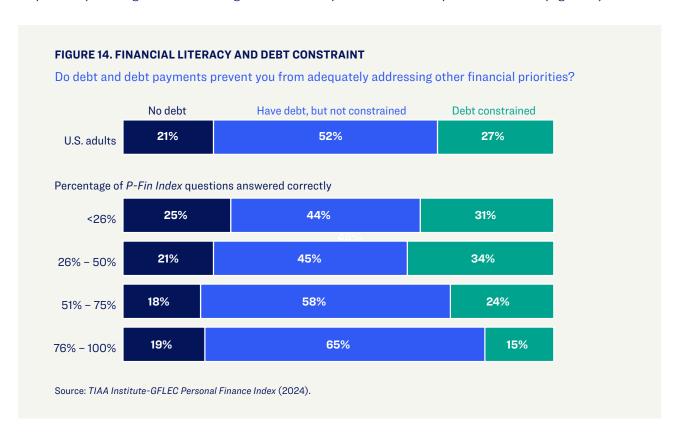
In addition to the core set of questions assessing financial literacy, the *P-Fin Index* survey contains questions that are indicators of financial well-being. This enables examining the link between financial literacy and financial wellness. Figure 13 shows five indicators of financial well-being across the U.S. adult population and across men and women, racial and ethnic groups, and generations. In January 2024, 27% of U.S. adults reported that their debt and debt payments prevent them from adequately addressing other financial priorities. An even higher percentage said they are financially fragile (i.e., they are not confident they could come up with \$2,000 if an unexpected need arose within the next month), and 39% don't have nonretirement savings sufficient to cover one month of living expenses. This points to the financial struggles many households in the U.S. face; therefore, it's not surprising that 20% of U.S. adults typically spend 10 or more hours per week thinking about and dealing with issues and problems related to their personal finances.

FIGURE 13. FINANCIAL WELL-BEING BY GENDER, RACE/ETHNICITY, AND GENERATION

	Debt prevents adequately addressing other financial priorities	Could not come up with \$2,000 for an unexpected need	Do not have one month of non-retirement savings (if nonretired)	Not confident in retirement income prospects	Spend 10+ hours per week on financial issues
All U.S. adults	27%	30%	39%	41%	20%
Men	26%	28%	34%	39%	20%
Women	28%	32%	43%	43%	21%
Asian	17%	14%	19%	36%	12%
Black	35%	42%	54%	40%	29%
Hispanic	37%	38%	52%	50%	27%
White	24%	27%	33%	39%	18%
Gen Z	23%	41%	50%	54%	22%
Gen Y	36%	35%	42%	49%	28%
Gen X	35%	29%	34%	47%	23%
Boomers	18%	23%	22%	25%	14%
Silent Gen	10%	18%		16%	9%

Consistent with *P-Fin Index* findings from previous years, the 2024 data demonstrate that financial well-being is strongly linked to financial literacy—greater financial literacy generally translates into greater financial well-being, and lower financial literacy is generally associated with lower financial well-being. For example, compared with those with a very high level of financial literacy (i.e., they correctly answered more than 75% of the *P-Fin Index* questions), those with a very low level of financial literacy (i.e., they correctly answered 25% or less of the questions) are:

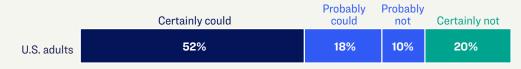
- Twice as likely to be debt constrained (Figure 14)
- Three and one-half times more likely to be financially fragile (Figure 15)
- More than four times as likely to lack emergency savings sufficient to cover one month of living expenses (Figure 16)
- More than three times more likely to be not at all confident about having enough money to live comfortably throughout retirement (Figure 17)
- Six times more likely to spend 20 hours or more per week (and three times more likely to spend 10 hours or more per week) thinking about and dealing with issues and problems related to personal finances (Figure 18)<sup>13</sup>



<sup>13</sup> Regression analysis confirms a statistically significant relationship between financial literacy as measured by the *P-Fin Index* and each of these financial well-being indicators. Appendix Figure B3 shows the results of the financial fragility, lack of emergency savings, and 10+ hours spend per week on financial issues regressions, for example.

#### FIGURE 15. FINANCIAL LITERACY AND FINANCIAL FRAGILITY

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



Percentage of P-Fin Index questions answered correctly



Source: TIAA Institute-GFLEC Personal Finance Index (2024).

#### FIGURE 16. FINANCIAL LITERACY AND EMERGENCY SAVINGS

Do you have nonretirement savings sufficient to cover one month of living expenses if needed? (among nonretirees)



Percentage of P-Fin Index questions answered correctly

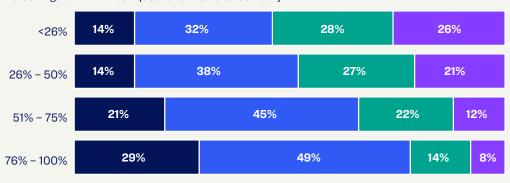


#### FIGURE 17. FINANCIAL LITERACY AND RETIREMENT INCOME CONFIDENCE

How confident are you that you will have enough money to live comfortably throughout your retirement years?



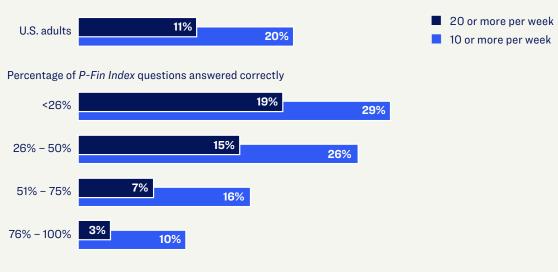
Percentage of P-Fin Index questions answered correctly



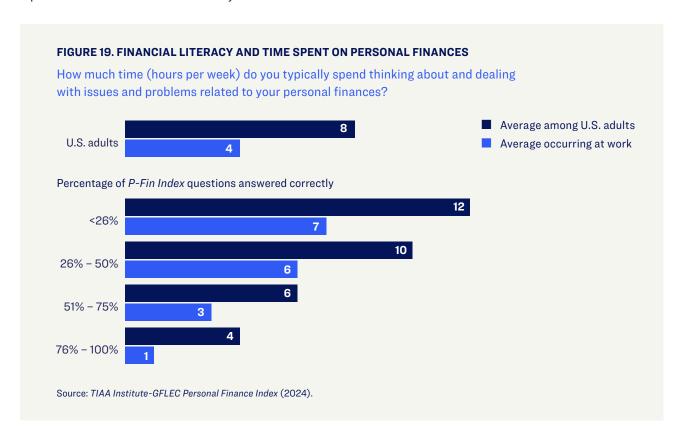
Source: TIAA Institute-GFLEC Personal Finance Index (2024).

#### FIGURE 18. FINANCIAL LITERACY AND TIME SPENT ON PERSONAL FINANCES

How much time (hours per week) do you typically spend thinking about and dealing with issues and problems related to your personal finances?



On average, U.S. adults typically spend eight hours per week thinking about and dealing with issues and problems related to personal finances (Figure 19). Again, this dynamic varies significantly with financial literacy—those with a very high level of financial literacy spend only about four hours per week compared with 12 hours among those with very low financial literacy. The survey also asks how many of these hours occur at work. On average, the time spent on personal finances in the workplace among those with very low financial literacy is seven hours per week, the equivalent of almost an entire workday.



The same relationships between financial literacy and financial well-being tend to hold across men and women, racial and ethnic groups, and generations. There is typically a double-digit decrease in the percentage of adults experiencing a poor outcome with each financial well-being indicator when comparing those with relatively high financial literacy (i.e., they correctly answered over 50% of the index questions) to those with relatively low financial literacy (i.e., they correctly answered 50% or fewer of the index questions). (See Appendix Figures A3–A5.)

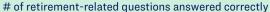
# **Retirement fluency**

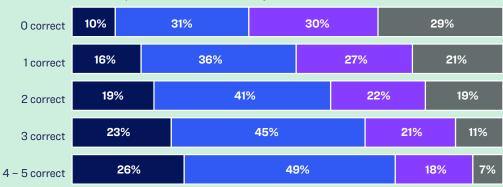
With retirement fluency, we focus on the relationship with retirement income confidence. Individuals demonstrating greater retirement fluency tend to be more confident about their retirement income prospects. Twenty-six percent of those who correctly answered four or five of the retirement-related questions are very confident they will have enough money to live comfortably throughout retirement, while only 7% are not at all confident (Figure 20). These figures are essentially flipped among those who correctly answered none of the questions—only 10% are very confident while 29% are not at all confident.<sup>14</sup>

#### FIGURE 20. RETIREMENT FLUENCY AND RETIREMENT INCOME CONFIDENCE

How confident are you that you will have enough money to live comfortably throughout your retirement years?







# **Discussion**

Findings from the 2024 *P-Fin Index* reinforce and expand upon a fundamental takeaway from the previous seven years of this research initiative—knowledge matters. Individuals with greater financial literacy tend to have better personal finance outcomes compared with those with lesser financial literacy. Building upon this, the 2024 study also found that individuals with a greater degree of basic retirement fluency tend to be more confident in their retirement income prospects.

This does not mean increased financial literacy is itself a panacea for poor financial well-being. Clearly, other factors matter, including resources and access to appropriate products and opportunities in the financial system, such as coverage by an employment-based retirement savings plan. But at the same time, an ability to make sound financial decisions matters as well.

Unfortunately, many individuals are functioning with a poor level of financial literacy. Another consistent finding of the *P-Fin Index* has been that U.S. adults can correctly answer only about one-half of the index questions. The figure is even lower among some demographic groups, such as women, Blacks and Hispanics, and younger adults. This is troubling since the *P-Fin Index* measures working knowledge in areas where individuals inherently function during the normal course of life. Furthermore, findings also indicate that retirement fluency tends to be low among U.S. adults which, in turn, doesn't bode well for retirement income security.

These results make clear the importance of targeted initiatives to improve financial literacy. The financial services sector, the education sector, community organizations, and nonprofits focused on promoting financial well-being all can promote such initiatives, especially programming and content targeting specific sociodemographic groups. One size does not fit all when it comes to financial well-being and financial literacy. In this vein, three points are particularly important from a policy perspective.

- It is important to equip young people with the knowledge necessary to make the many financial decisions they will face in life. One way to do so is to promote financial education in primary and secondary education.
- Some demographic groups—such as Blacks and Hispanics, as well as women—display much lower levels of financial literacy. It is important to design initiatives and programs specifically targeted to those populations.
- 3. Comprehending risk is an area where financial literacy is particularly low. This type of knowledge is also important in areas other than personal finances, such as health. Improved functional knowledge in this realm would have benefits beyond the financial and would benefit individuals and society at large.

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# **Appendix A**

#### **Additional cross-tabulations**

FIGURE A1. DISTRIBUTION OF RESPONDENT DEMOGRAPHICS IN THE 2024 P-FIN INDEX (WEIGHTED SAMPLE)

	All	Asian	Black	Hispanic	White
Generation					
Gen Z	15%	14%	17%	21%	13%
Gen Y (millennials)	27	32	31	30	25
Gen X	25	28	24	29	24
Baby boomers	28	24	26	17	32
Silent Generation	5	3	2	3	7
Gender					
Male	49%	48%	46%	50%	49%
Female	51	52	54	50	51
Education					
Less than HS degree	9%	4%	10%	24%	5%
High school degree	29	21	34	34	28
Some college	26	18	30	23	28
College degree	35	58	26	19	39
Household income					
Less than \$25,000	11%	8%	17%	12%	10%
\$25,000 to \$49,999	15	10	20	18	14
\$50,000 to \$99,999	28	21	31	33	28
\$100,000 and more	45	61	32	36	49
Employment status					
Employed	57%	66%	58%	61%	54%
Retired	26	18	23	16	30
Unemployed or disabled	8	6	12	8	7
Homemaker	4	5	1	8	3
Student	5	5	6	7	5
Ethnicity					
Asian	7%	100%	-	-	-
Black	12	-	100%	-	-
Hispanic	18	-	-	100%	-
White	61	-	-	-	100%
Other	2	-	-	-	-

#### FIGURE A2. FINANCIAL LITERACY BY OTHER SOCIODEMOGRAPHICS

Percentage of *P-Fin Index* questions answered correctly

Education	
Less than HS degree	30%
HS degree	35%
Some college	48%
College degree	63%
Financial education	
Received financial education	58%
No financial education	44%

Household income	
Less than \$25K	25%
\$25K to \$49K	37%
\$50K to \$99K	47%
\$100K or more	58%
Employment status	
Employed	50%
Unemployed or disabled	35%
Retired	52%

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

FIGURE A3. FINANCIAL LITERACY AND FINANCIAL WELL-BEING (BY GENDER)

	M	en	Women			
	% of <i>P-Fin Index</i> questions answered correctly					
	≤50% >50% ≤50% >5					
Debt prevents adequately addressing other financial priorities	31%	22%	34%	20%		
Could not come up with \$2,000 for an unexpected need	42%	18%	42%	18%		
Do not have one month of nonretirement savings (if nonretired)	51%	21%	53%	25%		
Not confident in retirement income prospects	52%	29%	50%	32%		
Spend 10+ hours per week on financial issues	27%	15%	28%	13%		

Source: TIAA Institute-GFLEC Personal Finance Index (2024).

FIGURE A4. FINANCIAL LITERACY AND FINANCIAL WELL-BEING (BY RACE AND ETHNICITY)

	Asian		Black		Hispanic		White	
	% of <i>P-Fin Index</i> questions answered correctly							
	≤50%	>50%	≤50%	>50%	≤50%	>50%	≤50%	>50%
Debt prevents adequately addressing other financial priorities	16%	17%	36%	34%	38%	35%	31%	18%
Could not come up with \$2,000 for an unexpected need	20%	10%	50%	24%	45%	20%	40%	18%
Do not have one month of nonretirement savings (if nonretired)	27%	12%	63%	32%	58%	34%	48%	21%
Not confident in retirement income prospects	42%	32%	44%	31%	55%	37%	51%	29%
Spend 10+ hours per week on financial issues	12%	11%	33%	22%	28%	24%	26%	12%

FIGURE A5. FINANCIAL LITERACY AND FINANCIAL WELL-BEING (BY GENERATION)

	Co	n Z	Ge	n V	Go	n X	Page	mara	Silen	t Gon
	Ge	11 Z	Ge	ПТ	Ge	11 A	Boomers		Silen	t Gen
			% <b>o</b> 1	f P-Fin Ind	dex questi	ons answe	ered corre	ctly		
	<b>≤50</b> %	>50%	≤50%	>50%	≤50%	>50%	≤50%	>50%	≤50%	>50%
Debt prevents adequately addressing other financial priorities	25%	17%	41%	28%	42%	28%	24%	13%	11%	9%
Could not come up with \$2,000 for an unexpected need	48%	24%	48%	21%	44%	15%	32%	17%	22%	15%
Do not have one month of nonretirement savings (if nonretired)	58%	30%	57%	23%	47%	23%	32%	15%		
Not confident in retirement income prospects	57%	47%	58%	37%	56%	39%	36%	18%	23%	11%
Spend 10+ hours per week on financial issues	27%	11%	37%	16%	29%	17%	17%	11%	7%	10%

# Appendix B

## **Multivariate findings**

#### FIGURE B1

Regression analysis	
Dependent variable: Percentage of <i>P-Fin Index</i> questions answered corre	ctly
Gender (Ref.: Male)	
Female	-7.503***
	(0.762)
Age (Ref.: Gen Z)	
Gen Y	-0.113
	(1.395)
Gen X	3.986***
	(1.478)
Baby boomers	7.303***
	(1.650)
Silent Generation	6.190***
	(2.312)
Race/Ethnicity (Ref.: White)	
Black	-10.614***
	(1.078)
Hispanic	-8.723***
	(1.110)
Asian	-1.850
	(1.355)
Other	-4.759**
	(2.150)
Education (Ref.: Less than HS)	
High school	1.191
	(1.525)
Some college	9.226***
	(1.589)
Bachelor's degree or higher	19.626***
	(1.678)
Income (Ref.: <\$25K)	
\$25 - 50K	7.928***
	(1.343)
\$50 - 100K	14.000***
	(1.297)
>\$100K	17.854***
	(1.380)

#### **FIGURE B1 (CONTINUED)**

Regression analysis  Dependent variable: Percentage of <i>P-Fin Index</i> questions answered correctly				
Work status (Ref.: Employed)				
Unemployed/disabled	-3.413***			
	(1.181)			
Retired	-0.385			
	(1.157)			
Marital status (Ref.: Married)				
Single	-2.895**			
	(1.137)			
Widowed/divorced/separated	-2.107*			
	(1.107)			
Children under age 18				
Yes	-0.255			
	(0.926)			
Constant	30.432***			
	(2.256)			
Observations	3,869			
R-squared	0.340			

Note: Estimated OLS regression coefficients are compared with the following reference values (Ref.): male for the gender variable, White for the race/ethnicity variable, Gen Z for the age variable, household income of less than \$25,000 for the income variable, having less than a high school degree for the educational attainment variable, employed for the work status variable, and being married for the marital status variable. Robust standard errors in parentheses: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

#### FIGURE B2

Regression analysis Dependent variable: Percentage of retirement fluency questions answered correctly				
Gender (Ref.: Male)				
Female	-4.226***			
	(0.907)			
Age (Ref.: Gen Z)				
Gen Y	-1.835			
	(1.532)			
Gen X	5.441***			
	(1.674)			
Baby boomers	10.792***			
	(1.907)			
Silent Generation	10.591***			
	(2.823)			
Race/Ethnicity (Ref.: White)				
Black	-6.735***			
	(1.270)			
Hispanic	-7.570***			
	(1.297)			
Asian	-4.397***			
	(1.519)			
Other	-7.849***			
	(2.235)			
Education (Ref.: Less than HS)				
High school	0.394			
	(1.881)			
Some college	6.751***			
	(1.956)			
Bachelor's degree or higher	14.552***			
	(2.042)			
Income (Ref.: <\$25K)				
\$25 - 50K	5.308***			
	(1.601)			
\$50 – 100K	9.598***			
	(1.530)			
>\$100K	14.299***			
	(1.579)			
Work status (Ref.: Employed)				
Unemployed/disabled	-2.895**			
	(1.324)			
Retired	2.650*			
	(1.459)			

#### **FIGURE B2 (CONTINUED)**

Regression analysis Dependent variable: Percentage of retirement fluency questions answered correctly			
Marital status (Ref.: Married)			
Single	-2.539*		
	(1.307)		
Widowed/divorced/separated	-1.575		
	(1.339)		
Children under age 18			
Yes	0.375		
	(1.091)		
Constant	24.172***		
	(2.651)		
Observations	3,768		
R-squared	0.221		

Note: Estimated OLS regression coefficients are compared with the following reference values (Ref.): male for the gender variable, White for the race/ethnicity variable, Gen Z for the age variable, household income of less than \$25,000 for the income variable, having less than a high school degree for the educational attainment variable, employed for the work status variable, and being married for the marital status variable. Robust standard errors in parentheses: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

FIGURE B3

Regression analysis			
	Could not come up with \$2,000 for an unexpected need	Do not have one month of nonretirement savings (if nonretired)	Spend 10+ hours per week on financial issues
Total # of <i>P-Fin Index</i> questions correct	-0.007***	-0.005***	-0.004***
	(0.001)	(0.001)	(0.001)
Gender (Ref.: Male)			
Female	-0.011	0.029	-0.010
	(0.015)	(0.018)	(0.014)
Age (Ref.: Gen Z)			
Gen Y	0.061**	0.012	0.062**
	(0.028)	(0.028)	(0.027)
Gen X	0.022	-0.055*	0.013
	(0.030)	(0.030)	(0.029)
Baby boomers	0.009	-0.138***	-0.042
	(0.033)	(0.034)	(0.031)
Silent Generation	-0.059	-0.019	-0.089**
	(0.047)	(0.085)	(0.040)
Race/Ethnicity (Ref.: White)			
Black	0.048**	0.114***	0.072***
	(0.023)	(0.026)	(0.023)
Hispanic	0.000	0.065**	0.031
	(0.022)	(0.026)	(0.022)
Asian	-0.119***	-0.090***	-0.053***
	(0.022)	(0.026)	(0.020)
Other	0.043	0.042	0.105**
	(0.046)	(0.049)	(0.043)
Education (Ref.: Less than HS)			
High school	-0.073**	-0.023	0.010
	(0.036)	(0.040)	(0.034)
Some college	-0.104***	-0.096**	-0.011
	(0.036)	(0.041)	(0.034)
Bachelor's degree or higher	-0.152***	-0.192***	-0.042
	(0.037)	(0.043)	(0.035)
Income (Ref.: <\$25K)			
\$25 – 50K	-0.096***	-0.040	0.044
	(0.033)	(0.037)	(0.032)
\$50 - 100K	-0.203***	-0.132***	-0.077***
	(0.031)	(0.035)	(0.029)
>\$100K	-0.299***	-0.282***	-0.128***
	(0.031)	(0.036)	(0.030)

#### **FIGURE B3 (CONTINUED)**

Regression analysis			
	Could not come up with \$2,000 for an unexpected need	Do not have one month of nonretirement savings (if nonretired)	Spend 10+ hours per week on financial issues
Work status (Ref.: Employed)			
Unemployed/disabled	0.096***	0.070***	0.023
	(0.025)	(0.024)	(0.025)
Retired	-0.027		-0.045**
	(0.023)		(0.021)
Marital status (Ref.: Married)			
Single	0.042*	-0.019	-0.083***
	(0.023)	(0.024)	(0.022)
Widowed/divorced/separated	0.015	0.076**	0.002
	(0.022)	(0.032)	(0.021)
Children under age 18			
Yes	0.061***	0.071***	0.046**
	(0.019)	(0.020)	(0.018)
Constant	0.662***	0.682***	0.347***
	(0.052)	(0.054)	(0.051)
Observations	3,687	2,816	3,655
R-squared	0.177	0.229	0.089

Note: Estimated OLS regression coefficients are compared with the following reference values (Ref.): male for the gender variable, White for the race/ethnicity variable, Gen Z for the age variable, household income of less than \$25,000 for the income variable, having less than a high school degree for the educational attainment variable, employed for the work status variable, and being married for the marital status variable. Robust standard errors in parentheses: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

#### FIGURE B4

Regression Analysis	
	Not confident in retirement income prospects
Total # of Retirement Fluency questions correct	-0.023***
	(0.006)
Gender (Ref.: Male)	
Female	0.006
	(0.016)
Age (Ref.: Gen Z)	
Gen Y	0.053*
	(0.029)
Gen X	0.080***
	(0.031)
Baby boomers	-0.043
	(0.035)
Silent Generation	-0.117***
	(0.045)
Race/Ethnicity (Ref.: White)	
Black	-0.101***
	(0.024)
Hispanic	-0.011
	(0.023)
Asian	-0.024
	(0.028)
Other	-0.020
	(0.045)
Education (Ref.: Less than HS)	
High school	-0.042
	(0.034)
Some college	-0.075**
	(0.035)
Bachelor's degree or higher	-0.148***
	(0.036)
Income (Ref.: <\$25K)	
\$25 - 50K	-0.041
	(0.031)
\$50 - 100K	-0.155***
	(0.029)
>\$100K	-0.323***
	(0.031)

#### **FIGURE B4 (CONTINUED)**

Regression Analysis		
	Not confident in retirement income prospects	
Work status (Ref.: Employed)		
Unemployed/disabled	0.046*	
	(0.024)	
Retired	-0.173***	
	(0.023)	
Marital status (Ref.: Married)		
Single	0.062***	
	(0.024)	
Widowed/divorced/separated	0.068***	
	(0.023)	
Children under age 18		
Yes	0.034*	
	(0.020)	
Constant	0.733***	
	(0.049)	
Observations	3,755	
R-squared	0.205	

Note: Estimated OLS regression coefficients are compared with the following reference values (Ref.): male for the gender variable, White for the race/ethnicity variable, Gen Z for the age variable, household income of less than \$25,000 for the income variable, having less than a high school degree for the educational attainment variable, employed for the work status variable, and being married for the marital status variable. Robust standard errors in parentheses: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

## **Appendix C**

#### Questions measuring retirement fluency

Which statement about Social Security is false?

- The amount someone receives in Social Security benefits depends upon his/her earnings during the last two years
  of full-time employment.
- 2. A worker receives Social Security benefit payments if he/she becomes disabled before retiring.
- 3. Social Security benefit payments will continue as long as an individual is alive, no matter how long he/she lives.
- 4. Don't know.

On average, Medicare and other government programs cover how much of an individual's health care expenses in retirement?

- 1. Over 90%.
- 2. About 2/3.
- 3. About 1/2.
- 4. Don't know.

Latisha plans to start saving for retirement by setting aside \$2,000 this year. Her employer offers a 401(k) plan and fully matches a worker's contributions up to \$5,000 each year. Under which scenario does Latisha have the largest amount in retirement savings at year-end?

- 1. She contributes \$2,000 to the 401(k) plan and invests the money in a mutual fund that earns a 5% return during the year.
- 2. She contributes \$2,000 to an IRA (individual retirement account) and invests the money in a mutual fund that earns a 5% return during the year.
- 3. It does not matter—she will have the same amount of year-end savings either way.
- 4. Don't know.

Susan worries about living a long life and running out of money. What is the best way for her to address that possibility?

- 1. Buy an annuity.
- 2. Buy life insurance.
- 3. There is nothing she can do about this.
- 4. Don't know.

[For men] On average in the U.S., how long will a 65-year-old man live?

- 1. About 14 more years (age 79).
- 2. About 19 more years (age 84).
- 3. About 24 more years (age 89).
- 4. Don't know.

[For women] On average in the U.S., how long will a 65-year-old woman live?

- 1. About 17 more years (age 82).
- 2. About 22 more years (age 87).
- 3. About 27 more years (age 92).
- 4. Don't know.

## About the authors

**Paul Yakoboski** is a senior economist with the TIAA Institute, where his research focus is lifetime financial security, including issues related to financial literacy and financial wellness, longevity literacy, retirement saving and investing, and asset management during retirement. In addition, he researches workforce issues in the higher education and healthcare sectors. He is director of the Institute's Fellows Program. 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 PhD and MA in economics from the University of Rochester and his BS in economics from Virginia Tech.

Annamaria Lusardi is a Senior Fellow at the Stanford Institute for Economic Policy Research (SIEPR) and the Director of the Initiative for Financial Decision-Making, a collaboration between the Graduate School of Business (GSB), SIEPR, and the Economics Department. She is also Professor of Finance (by courtesy) at the GSB. Previously, she was University Professor at The George Washington University and, before that, she was the Joel Z. and Susan Hyatt Professor of Economics at Dartmouth College. She has also taught at Princeton University, the University of Chicago's Harris School of Public Policy and Booth School of Business, and Columbia Business School, and was a visiting scholar at Harvard Business School. She holds a PhD in Economics from Princeton University and an honorary doctorate from the University of Vaasa in Finland.

Andrea Sticha is the Research Director for the Initiative for Financial Decision-Making at Stanford University's Graduate School of Business and the Deputy Academic Director at the Global Financial Literacy Excellence Center (GFLEC). Previously she was an Assistant Research Professor at The George Washington University School of Business (GWSB). With her research, which is dedicated to financial literacy and well-being of households in the United States and around the world, she seeks to inform policy as well as develop and promote financial literacy programs. Sticha holds a PhD in Finance as well as a MSc and BA in Business and Economics from the University of Basel (Switzerland). She has published her research in numerous journals and spent two years at NYU Stern School of Business before joining GFLEC in 2017.

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