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EXECUTIVE SUMMARY

This report reviews and analyzes existing studies, surveys, and indicators to provide a systematic and comprehensive overview of the financial literacy landscape in the US. Our main objective is to clarify the debate on financial literacy, thereby offering policymakers and researchers guidance when developing their research agendas and policy objectives.

Our analysis paints a worrisome picture of the financial literacy landscape in the US. The empirical evidence suggests that many individuals in the US—both young and old—lack the basic knowledge and skills required to engage in sound financial decisionmaking, a situation that significantly threatens their prosperity and financial well-being. At the same time, our results indicate that financial literacy varies substantially across sociodemographic groups—more than in other similarly developed countries. We identify clear and persistent gaps in financial literacy along racial, socioeconomic, and gender lines, which, if unattended to, are likely to amplify existing inequalities across the population.

Moreover, despite the availability of a wide range of financial literacy programs by the US government, nonprofit organizations, and for-profit enterprises, our findings indicate that financial literacy levels have been stubbornly resistant to progress over time. This result is particularly worrying for young people, who are likely to face greater financial challenges than previous generations.

Improving financial literacy will take time and require long-term policies. Our study offers three policy recommendations:

- A common and updated definition is needed. We need to agree on what financial literacy means and how to measure it in today's society. In this respect, it is crucial to conceptualize financial literacy as more than just knowledge and skills, recognizing that attitudes and behavioral factors are equally critical for individuals to engage successfully in sound financial decision-making.
- **2. Systematic assessments and evaluations are needed.** We need more rigorous and systematic evaluations of financial literacy strategies in the US. Well-executed evaluations will provide critical insights on what does and does not work to improve financial literacy. This information can then be used to identify best practices and prioritize areas in which financial education resources can best be spent.
- **3. Technology can help tailor efforts to target specific audiences.** New financial technologies can complement and leverage traditional financial education approaches and be particularly useful to reach vulnerable and younger populations. However, the rapid adoption of financial technologies carries new risks, requiring greater knowledge on the part of consumers to avoid fraud, data-privacy issues, and other costly mistakes associated with these technologies.

INTRODUCTION

Over the past few decades, financial literacy has emerged as a key objective among policymakers in the US and other countries. On the one hand, financial literacy is crucial in allowing citizens to deal effectively with the consequences of shifting demographics (such as population aging in many countries), the increased sophistication of financial markets, and the proliferation of new financial technologies. On the other hand, financial literacy is regarded as a requirement for financial inclusion, which, in turn, is essential for driving economic growth and improving the well-being of historically excluded populations.

Financial literacy is particularly important in the US, where individuals are—to a large extent—solely responsible for ensuring their own financial security. Indeed, with Americans having more access than ever to increasingly complex financial products and services, financial literacy is crucial in preventing ill-informed decisions that could have negative long-term consequences on their financial well-being. This is, of course, also true in other countries, but it is especially so in the US for at least two reasons. First, compared with their peers in similarly developed countries, Americans are responsible for a greater number of major financial decisions, such as saving for their children's education and deciding what type of health insurance plan to acquire. Second, given the relatively weak social safety net of the US, Americans must assume most of the risk from their decisions, thus facing potentially disastrous consequences for any financial mistakes.

Unfortunately, despite the increased attention on financial literacy, there remains a fair amount of confusion surrounding its scope and definition, the appropriate approach to assess its current levels, and the most effective means to improve it. On reviewing a large number of studies on the topic, for example, Huston found that almost three-quarters (72 percent) lacked a formal definition of financial literacy, whereas about half (47 percent) used the terms "financial literacy" and "financial knowledge" interchangeably.¹

This report reviews and analyzes existing studies, surveys, and indicators to provide a systematic and comprehensive overview of the financial literacy landscape in the US. Our main objective is to clarify the debate on financial literacy, thereby offering policymakers and researchers some guidance in developing their research agendas and policy objectives. To establish common terminology, we begin by reviewing various definitions of financial literacy and classifying them into two categories: broad and narrow. We then examine various attempts to measure current levels of financial literacy across the US and efforts to compare financial literacy in the US and other countries. Next, we identify and analyze key efforts—both public and private—to improve financial literacy in the US, paying particular attention to policies directed towards young individuals. Finally, we look at how the emergence of new financial technologies is affecting the financial literacy landscape.

See Sandra J. Huston, "Measuring Financial Literacy," Journal of Consumer Affairs 44, no. 2 (2010), https:// doi.org/10.1111/j.1745-6606.2010.01170.x.

Our analysis paints a troubling picture of the current state of financial literacy in the United States. First, the empirical evidence suggests that many individuals in the US both young and old—lack the basic knowledge and skills required to navigate today's complex financial world successfully. Second, the report illustrates that financial literacy in the US varies significantly among sociodemographic groups—more than in similarly developed countries. There are clear and persistent gaps in financial literacy along racial, socioeconomic, and gender lines, which—if unattended to—are likely to amplify existing inequalities across the population. Finally, our findings indicate that despite a variety of financial literacy programs by the US government, nonprofit organizations, and for-profit enterprises, financial literacy levels have been stubbornly resistant to progress over time.

The report also highlights that the emergence of financial technologies can play a major role in advancing financial literacy, particularly among the younger and more vulnerable populations. By offering new, more engaging ways to teach financial and economic concepts and by making financial education, instruction, and training more affordable and accessible, financial technologies can be the catalyst needed to jump-start financial literacy education across the country.

However, the rapid adoption of digital financial services carries new risks and requires greater knowledge on the part of consumers to avoid fraud, data-privacy issues, and other costly mistakes associated with these technologies. It is, therefore, crucial to recognize that greater access to financial technologies must be supported by a new definition of financial literacy—one that incorporates the knowledge and skills required to use digital financial services effectively.

Overall, the report highlights the need for more systematic evaluations of the current efforts to address financial literacy in the United States. Rigorous evaluations offer critical insights for identifying the most effective and efficient means to improving financial literacy. Moreover, they are vital in demonstrating program effectiveness over time, which is essential to maintaining interest in the topic and ensuring that enough resources are devoted to financial literacy programs.

Our findings also underscore the need to conceptualize financial literacy as more than just knowledge and skills, recognizing that attitudes and behavioral factors are equally critical for individuals to engage successfully in sound financial decision-making. Adopting a broad definition of financial literacy—like the preceding description—will provide a useful framework for assessing its current levels and consequences and guiding the design and implementation of strategies to improve it.

WHAT IS FINANCIAL LITERACY?

Despite its growing popularity, there is no single, agreed-upon definition of financial literacy. That said, most existing definitions can be grouped into one of two categories: narrow and broad.

Narrow definitions focus on whether an individual has the knowledge (including an understanding of key financial concepts and of financial products and services) and skills (such as basic numeracy abilities and knowing how to find reliable information) to manage financial resources effectively. For example, according to the US Financial Literacy and Education Commission—created in 2003 to develop a national strategy on these issues—"[f]inancial literacy describes the skills, knowledge and tools that equip people to make individual financial decisions and actions to attain their goals."²

Broad definitions, on the other hand, emphasize that financial literacy is more than just knowledge and skills to deal with financial issues. According to these definitions, financial literacy involves two additional elements: 1) an individual's ability to apply such financial knowledge and skills across a wide range of real-life situations; and 2) the attitudes and behavior to engage in sound financial decision-making (such as the motivation and confidence to seek information and advice about participating in financial activities, and the ability to manage emotional and psychological factors that influence financial decision-making); see Table 1.

Knowledge	Skills	Attitudes	Behaviors
 Key financial concepts (inflation, compound interest, etc.) Awareness of financial products and services 	 Numeracy skills Literacy skills 	 Reasons for (or for not) saving, borrowing, investing, etc. Attitudes towards the future Confidence in own plans for retirement 	 Money management (managing day-to-day finances) Long-term planning (preparing for emergencies and retirement) Financial decision-making
 Practical know- how (how to make payments, open a bank account, etc.) 		• Proclivity towards budgeting, saving, lending, etc.	(ability to choose appropriate financial products)Seeking financial advice

Table 1. Components of Financial Literacy

Source: Zottel, Perotti, and Bolaji-Adio (2013)

^{2 &}quot;US National Strategy for Financial Literacy 2020" (US Financial Literacy and Education Commission, 2020), https://home.treasury.gov/system/files/136/US-National-Strategy-Financial-Literacy-2020.pdf.

An example of a broad definition is provided by the Organisation for Economic Cooperation and Development (OECD), which defines financial literacy as the "combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being."³ Similarly, in its 2008 annual report, the President's Advisory Council on Financial Literacy defined financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being."

To bring some clarity, the World Bank explicitly differentiates between financial literacy and financial capability. According to the World Bank:

"Financial literacy represents the level of aptitude in understanding personal finance. It often refers to awareness and knowledge of key financial concepts required for managing personal finances and is generally used as a narrower term than financial capability."⁴

On the other hand,

"**[F]inancial capability** is the ability of consumers to use the acquired financial literacy to make better informed decisions about managing their finances... [It] encompasses the knowledge (literacy), attitudes, skills, and behaviors of consumers regarding understanding, selecting, and using financial services and the ability to access financial services that fit their needs."⁵

^{3 &}quot;OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion" (OECD, May 2018), http://www.oecd.org/financial/education/2018-INFE-FinLit-Measurement-Toolkit.pdf.

^{4 &}quot;Financial Education Programs and Strategies. Approaches and Available Resources" (World Bank, January 2014), http://documents1.worldbank.org/curated/en/901211472719528753/pdf/108104-BRI-FinancialEduc ationProgramsandStrategies-PUBLIC.pdf.

⁵ Ibid.

Thus, according to the World Bank, the term "financial literacy" refers to the knowledge and awareness of financial concepts and products. In contrast, the term "financial capability" is broader, one that also includes behavior and the interaction among knowledge, skills, and attitudes, as well as the ability to access and engage with financial products and services. In practice, however, the distinction between financial literacy and financial capability has not been fully embraced, and the terms are often used interchangeably.

Finally, it is worth mentioning that the specific knowledge, skills, attitudes, and behaviors needed to engage in sound financial decision-making are likely to vary with an individual's age, economic activity, and other characteristics. The need for more specific frameworks has been recognized by the OECD, which has recently developed independent core-competencies frameworks on financial literacy for young people and adults and for owners and managers of small and medium-sized enterprises and potential entrepreneurs.⁶

⁶ See "OECD/INFE Core Competencies Framework on Financial Literacy for Youth" (OECD, 2015), https:// www.oecd.org/finance/Core-Competencies-Framework-Youth.pdf; "G20/OECD INFE Core Competencies Framework on Financial Literacy for Adults" (OECD, 2016), https://www.oecd.org/finance/Core-Competencies-Framework-Adults.pdf; "OECD INFE Core Competencies Framework on Financial Literacy for MSMEs" (OECD, May 2018), http://www.oecd.org/financial/education/2018-INFE-FinLit-Measurement-Toolkit.pdf.

FINANCIAL LITERACY IN THE US

Financial literacy is a complex concept, encompassing multiple aspects relating to how individuals manage their resources and engage in financial decision-making. To present an accurate and comprehensive view of the financial literacy landscape in the US, in this section, we look at multiple indicators and discuss various attempts to measure financial literacy levels across the country.

We begin by exploring the financial literacy levels in the US adult population. We then move on to the empirical evidence of financial literacy among youth. Finally, we discuss international evidence comparing financial literacy levels in the US with other countries.

Financial Literacy among Adults

Several studies and national surveys offer information on US adults' financial literacy levels, including Standard & Poor's (S&P) Global Financial Literacy Survey, the TIAA Institute-GFLEC Personal Finance Index, and the FINRA–National Financial Capability Study. Overall, the findings indicate that many US adults lack the basic knowledge and skills required to engage in sound financial decision-making.

Standard & Poor's Global Financial Literacy Survey

According to the 2014 S&P Global Financial Literacy Survey, only 57 percent of US adults are financially literate—as measured by those showing knowledge of at least three out of the four basic financial concepts assessed by the survey: risk diversification, numeracy, inflation, and compound interest (see Figure 1). Among the four concepts used to define financial literacy in the survey, risk diversification is the most understood (69 percent of adults correctly answered that survey question) and numeracy—in the context of interest-rate calculations—the least (only 52 percent of adults correctly answered that survey question).



Figure 1. Financial Literacy: Overall and by Financial Concept (S&P Global Financial Literacy Survey)

Note: The overall financial literacy rate is the fraction of respondents showing knowledge of at least three out of the four basic financial concepts assessed by the survey. Financial literacy rates by concept reflect the percentage of respondents who correctly answered the survey questions associated with that area.

Source: S&P Global Financial Literacy Survey (2014)

The S&P survey also indicates that financial literacy levels among US adults vary significantly across sociodemographic groups (see Figure 2). According to the results, for example, about 62 percent of men are financially literate, compared with about 52 percent of women. Similarly, the data show that about 64 percent of adults living in high-income households are financially literate, compared to about 47 percent of adults living in low-income households.



Figure 2. Financial Literacy by Gender and Income Group (S&P Global Financial Literacy Survey)

Source: S&P Global Financial Literacy Survey (2014)

The TIAA Institute-GFLEC Personal Finance Index (P-Fin Index)

Findings from the 2020 TIAA Institute-GFLEC Personal Finance Index (P-Fin Index)—an annual survey measuring US adults' financial literacy levels across eight functional areas—reveal a similar scenario.⁷ On average, US adults correctly answered only about half of

⁷ The P-Fin Index is available from 2017 to 2020 and is designed to measure knowledge and understanding that enable sound financial decision-making and effective management of personal finances among US adults (age 18 and older). It is based on an annual survey developed by the TIAA Institute and the Global Financial Literacy Excellence Center, which includes 28 questions across eight functional areas: earning, consuming, saving, investing, borrowing/managing debt, insuring, comprehending risk, and go-to information sources. In contrast to previous financial literacy studies, which use a limited set of questions to test the understanding of fundamental concepts, the survey frames questions around real-life scenarios to provide a more comprehensive view of individuals' knowledge and understanding (see Appendix B for examples of the questions asked in the survey). For more information, see Paul Yakoboski, Annamaria Lusardi, and Andrea Hasler, "The 2020 TIAA Institute–GFLEC Personal Finance Index: Many Do Not Know What They Do and Do Not Know" (Global Financial Literacy Excellence Center (GFLEC), 2020), https://gflec.org/wp-content/uploads/2020/04/TIAA-Institute-GFLEC_2020-P-Fin-Index_April-2020.pdf.

the survey questions (see Figure 3a). Thus, when the overall financial literacy levels are examined, the results confirm that many US adults are ill-prepared to engage in sound financial decision-making. Moreover, because the survey frames questions around real-life scenarios, the results also indicate that many US adults lack the ability to apply financial knowledge and skills across a wide range of relevant, real situations.

On the positive side, financial literacy among US adults appears to be (slowly) increasing. Each year since the inaugural survey in 2017, the percentage of questions answered correctly has risen by one percentage point, resulting in a statistically significant increase over the period.

When the distribution of individual responses is considered, the P-Fin Index indicates that only 20 percent of adults demonstrate a relatively high level of financial literacy—as measured by those correctly answering more than 75 percent of the survey questions—while about 17 percent show a relatively low level—as measured by those correctly answering 25 percent or less of the questions (see Figure 3b).



Source: Yakoboski, Lusardi, and Hasler (2020)

Across the eight functional areas evaluated by the survey, borrowing (i.e., the relationship between loan features and repayments) is the area where financial literacy tends to be highest (64 percent) and comprehending risk (i.e., understanding uncertain financial outcomes) is where it tends to be lowest (37 percent); see Figure 4.



The 2020 P-Fin Index offers two additional important results. First, financial literacy varies significantly across sociodemographic groups, confirming the results of the S&P Global Financial Literacy Survey discussed in the previous subsection (see Figure 5). For instance, the number of correct answers in the P-Fin Index is positively correlated with age, income, and education. Financial literacy is also higher among men than among women.

Second, individuals with greater financial literacy spend less time on money management problems. Workers with low financial literacy spend six hours of work time per week, on average, dealing with financial issues compared with one hour per week among workers with high financial literacy. Among all adults, those with low financial literacy spend an average of 12 hours per week dealing with personal finance issues; those with high financial literacy spend three hours per week.



Figure 5. Financial Literacy across Sociodemographic Groups (P-Fin Index) Percent of Questions Answered Correctly

National Financial Capability Study

Perhaps the most comprehensive study on financial literacy among US adults is the National Financial Capability Study (NFCS), a triennial report designed to measure financial knowledge and a rich set of perceptions, attitudes, experiences, and behaviors.⁸ To accomplish this objective, the study includes detailed information on four different measures of financial capability: making ends meet, planning ahead, managing financial products, and financial knowledge and decision-making.

⁸ For more information on the study and survey methodology, see Judy Lin et al., "The State of US Financial Capability: The 2018 National Financial Capability Study" (FINRA Investor Education Foundation, 2019), https://www.usfinancialcapability.org/downloads/NFCS_2018_Report_Natl_Findings.pdf.



Figure 6. Financial Knowledge: Overall and by Concept

Note: The overall financial literacy rate is the fraction of respondents who correctly answered at least four out of the six questions.

Source: Lin et al. (2019)

The latest available data from the 2018 NFCS confirm the relatively low levels of financial knowledge in the US adult population (see Figure 6). Only about 40 percent of respondents, on average, were able to give correct answers to at least four of the six survey questions designed to measure basic concepts of economics and personal finance. Among the six concepts evaluated by the survey-which included compound interest, bond pricing, inflation, interest rates, mortgages, and risk-interest compounding and bond pricing were the two least understood, with correct response rates of 30 percent and 26 percent, respectively.



The results also confirm that financial knowledge varies significantly across sociodemographic groups (see Figure 7). Just as in the two previous studies, financial knowledge was higher among men than women and was positively correlated with age and income. Moreover, when results are evaluated across race/ethnicity lines, the data indicate that financial knowledge was considerably lower among Blacks and Hispanics than among Asians and Whites.

However, in contrast to the P-Fin Index, the National Financial Capability Study indicates that financial knowledge has been trending downwards (see Figure 8). According to the survey, financial literacy—as measured by the percentage of adults showing knowledge of at least four of the six financial concepts assessed—decreased by four points between 2015 and 2018. If we exclude the question on compound interest (which was not introduced until 2015), we see a similar pattern since 2009.



According to the study, most US adults also tend to overestimate their financial knowledge and their ability to manage financial products and services. Despite the low levels of financial knowledge reported by the study, more than 70 percent of respondents gave themselves high scores (5 to 7 on a 7-point scale, where 1 is "very low" and 7 is "very high") when asked to assess their financial knowledge. Similarly, about 77 percent of respondents gave themselves high scores when asked to evaluate their ability to deal with day-to-day financial matters (such as managing checking accounts and credit cards), despite evidence of their engagement in inefficient and costly credit card behavior.



Figure 9. Financial Capability in the US (National Financial Capability Study)

The results also suggest that a significant number of US adults struggle to make ends meet and are not planning for their future financial needs (see Figure 9a). According to the study, for example, just above 40 percent of respondents reported saving over the past year, while nearly half of US adults lack an emergency fund sufficient to cover at least three months of living expenses in case of an unexpected financial emergency. Similarly, only 41 percent of non-retired adults have tried to determine how much they need to save for retirement, and only 38 percent of adults with financially dependent children report setting aside money for their children's college education.

Finally, when evaluating individuals' ability to manage financial products and services, the study illustrates that many adults struggle to manage day-to-day financial matters (see Figure 9b). For example, a nontrivial fraction of responders (29 percent) reported not feeling comfortable going to a bank or credit union branch to ask questions about a financial product or service. Similarly, 29 percent of individuals reported using non-bank borrowing methods (such as taking out an auto title loan or a payday loan), which are likely to come with high interest rates and often attract individuals with poor credit histories, lack of access to more traditional sources of credit, or both. Among individuals with student loans, 51 percent reported that they did not try to estimate monthly payments before getting their loan, and 47 percent reported they wished they had gone to a less expensive college.

Financial Literacy among Youth (K-12)

Perhaps the most comprehensive measurement of financial literacy among young individuals in the US is the OECD Programme for International Student Assessment (PISA), a triennial survey assessing the extent to which 15-year-old students have acquired knowledge and skills in several key areas.

Since 2012, PISA has included a module on financial literacy designed to measure three different dimensions: a) knowledge and understanding of basic financial areas (i.e., money and transactions, planning and managing finances, risk and reward, and the financial landscape); b) cognitive processes related to a students' ability to recognize and apply relevant financial concepts; and c) the breadth of contexts in which financial knowledge, skills, and understanding are applied (i.e., education and work, home and family, individual and societal). In addition to financial literacy scores, the assessment includes information on each student's cultural, educational, and socioeconomic background.⁹



Figure 10. Financial Literacy Performance of 15-Year-Olds in the US (PISA)

Findings from the most recent PISA assessment (2018) suggest that, like their adult counterparts, many high school students in the US lack basic financial knowledge and skills (see Figure 10). On a 1,000-point scale, for example, the average score for US

⁹ For more information on the methodology and results, see "PISA 2018 Results (Volume IV): Are Students Smart about Money?" (OECD, 2020), https://doi.org/10.1787/48ebd1ba-en.

students was 506. Not only are the levels of financial literacy low, but they have been stubbornly resistant to progress throughout the six years from the initial 2012 assessment to the current wave. In fact, according to the study, the score for US students was statistically unchanged since the last time the financial literacy assessment was conducted in 2015 and since the first financial literacy assessment in 2012.

In addition to average scores, PISA describes students' financial literacy performance in terms of five proficiency levels designed to offer information on the specific types of financial tasks that students can accomplish. According to the results, only 12 percent of 15-year-old students in the US successfully demonstrated the highest proficiency level of 5 (defined by the report as students who can solve non-routine financial problems, analyze complex financial products and services, and look ahead to solve financial problems or make the kinds of financial decisions that will be relevant to them in the future), whereas 16 percent demonstrated low proficiency, scoring below level 2 (defined as students who are not yet able to apply their knowledge to real-life situations involving financial issues and decisions).



Figure 11. Average Performance of 15-Year-Olds in the US

Finally, findings from the PISA assessment suggest that financial literacy among young individuals varies significantly across demographic and socioeconomic groups, consistent with the results among the adult population discussed in the previous subsection. According to the survey, for example, socioeconomically advantaged students in the US (as measured by parents' education, household income, and household wealth) scored about 98 points higher than socioeconomically disadvantaged students. Similarly, Asian and White students in the US obtained significantly higher financial literacy scores (554 and 532, respectively) than the US average (506), while Hispanic and Black students received significantly lower scores (475 and 446, respectively); see Figure 11.

The results showed, however, that a student's socioeconomic background explains only about 14 percent of the variation in financial literacy performance, indicating that many other factors are influential in this area. In addition, the results did not demonstrate statistically significant gender differences in financial literacy performance among 15-year-olds in the US.

HOW DOES THE US COMPARE TO OTHER COUNTRIES?

Adults

Although relatively old, the 2014 S&P Global Financial Literacy Survey remains the largest and most comprehensive global measurement of financial literacy among adults, offering nationally representative information across more than 140 countries worldwide (see Figure 12).





Data from the survey indicate that financial literacy levels among adults are lower in the US than in other countries with similar levels of economic development (see Figure 13). With only 57 percent of US adults classified as financially literate—as measured by the number of respondents showing knowledge of at least three out of four basic financial concepts assessed by the survey: risk diversification, numeracy, inflation, and compound interest—the US ranked No. 14 in financial literacy levels worldwide. Norway, Denmark, and Sweden tied for first place, with 71 percent of their populations ranking as financially literate. Israel and Canada were next, with 68 percent. The other economies that performed better than the US were the United Kingdom, Netherlands, Germany, Australia, Finland, New Zealand, Singapore, and the Czech Republic. At the bottom of the spectrum was Yemen, with a financial literacy rate of just 13 percent, according to the S&P survey.



Figure 13. S&P Global Financial Literacy Survey: Top 20 Countries

Source: S&P Global Financial Literacy Survey (2014)

When financial literacy levels are viewed across sociodemographic lines, the findings also indicate that gaps are significantly wider in the US than in other countries (see Figure 14). According to the survey, for example, the financial literacy gap between men and women in the US is about 37 percent wider than the OECD average and about 59 percent wider than the world average. Similarly, the financial literacy gap between adults living in rich and poor households in the US is about 46 percent wider than the average among OECD countries and more than 100 percent wider than the average across all the countries in the sample. Both findings suggest that inequality in financial literacy among adults is relatively high in the US, compared not only with similarly developed nations but also with many emerging and developing economies.



Figure 14. S&P Global Financial Literacy Survey: Financial Literacy Gaps by Gender and Income

Note: The gender gap is the difference between the literacy rate among men and the literacy rate among women.

Source: S&P Global Financial Literacy Survey (2014)

Youth

Findings from the 2018 OECD Programme for International Student Assessment (PISA) the most comprehensive source of international data on financial literacy among young individuals—indicate that the average financial literacy performance among 15-year-old students in the US is not statistically different from the OECD average (OECD, 2020). Compared to the other 19 countries participating in the survey, the US average financial literacy score was lower than the average in four education systems (Estonia, Finland, Canada, and Poland), higher than the average in 11 education systems (Russia, Spain, Slovak Republic, Italy, Chile, Serbia, Bulgaria, Brazil, Peru, Georgia, and Indonesia), and not measurably different from the average in four education systems (Australia, Portugal, Latvia, and Lithuania); see Figure 15.





The latest PISA assessment reveals two other noteworthy results. First, between 2015 and 2018, the improvement in financial literacy performance among 15-year-old students in the US was lower than the average improvement across the other OECD economies participating in the surveys (see Figure 16). Indeed, of the nine other OECD countries for which data are available, four experienced a greater improvement in financial literacy scores than the US: Lithuania, Slovak Republic, Poland, and Spain. Brazil, which participated in both surveys but is not a member of the OECD, also experienced a greater improvement than the US.





The other noteworthy result is that the extent to which financial literacy depends on a student's demographic and socioeconomic characteristics—parents' education, household income, household wealth—is greater in the US than in similarly developed economies, consistent with the findings among the adult population discussed in the previous subsection. Figure 17, for example, shows that the financial literacy gap between socioeconomically advantaged and disadvantaged students is about 26 percent wider in the US than the average across OECD countries.¹⁰ In fact, among the other 19 economies participating in the survey, only Bulgaria and the Slovak Republic showed a narrower gap than the US.





¹⁰ Socioeconomic status is measured using "several self-reported values related to the student's family background, grouped into three components—parents' education, parents' occupations, and home possessions—that can be taken as proxies for material wealth or cultural capital"; "PISA 2018 Results" (OECD, 2020), https://doi.org/10.1787/48ebd1ba-en.

EFFORTS TO IMPROVE FINANCIAL LITERACY

Current efforts to address financial literacy in the US can be grouped into three broad categories: early education/adoption, mitigation, and retirement planning. Early education efforts focus on developing a baseline understanding of money and economic forces, ranging from a fundamental definition of currency and its role in society to the mathematics germane to finance. These early educational initiatives—and the required curriculum modifications—are often dictated by education standards boards and vary state by state. Mitigation efforts, on the other hand, aim to reactively address the negative impacts of financial illiteracy through education and alleviative tools. These tools can come in the form of personal financial advisory, loan consolidation, and general education to fill in the holes left by poor or nonexistent early education. Finally, retirement planning efforts focus on helping individuals set retirement objectives and identifying the actions and decisions they need to take to achieve those goals.

These initiatives are undertaken by various actors, including the US government (at the federal, state, and local levels), nonprofit organizations, and for-profit enterprises. The US government focuses most of its efforts and resources on educational programs while sometimes receiving unsolicited assistance from nonprofit organizations (in the form of resources such as teachers and curriculum) and for-profit enterprises (mostly funding). Nonprofit programs tend to emphasize qualifying issues of financial illiteracy—such as burdening debt, poor credit, and interest consolidation—while the private sector usually addresses retirement education and planning. Unfortunately, outside the K-12 classroom, most of these efforts are autonomous, lacking meaningful coordination across platforms and topic areas.

Federal Government

In 2003, Congress created the Financial Literacy and Education Commission (FLEC), the first federal agency dedicated to promoting financial literacy. Composed of the heads of 20 federal agencies and chaired by the secretary of the treasury, FLEC aims to coordinate financial education efforts throughout the federal government while also encouraging the synchronization of initiatives between the public and private sectors.

In 2006, three years after FLEC was established, the commission published "Taking Ownership of the Future: The National Strategy for Financial Literacy." The document, intended as a blueprint of sorts, provides an overview of specific topics and challenges concerning US financial education while suggesting calls to action with guiding principles outlined. Topics and challenges discussed included savings, homeownership, retirement, credit, consumer protection, taxpayer rights, investor protection, the unbanked, multilingual/multicultural populations, K–12 education, academic research, and coordination efforts. Each topic was structured as a chapter, with an overview of the issue and policy/planning recommendations as they related to the broader topic of financial literacy in the US.

In 2020, FLEC published an update to the 2006 document titled "U.S. National Strategy for Financial Literacy 2020." Within the document, FLEC identifies five priority areas of federal activity while assigning a specific governmental agency to coordinate activities and promote accountability for outcomes. The first priority area is to establish Basic Financial Capability by addressing "basic money management and financial skills and actions, including strategies for budgeting and savings, managing payment of bills and debts, understanding the appropriate use of credit and how that affects credit scores, credit reports, and future financing, and avoiding fraud and scams."11 The Consumer Financial Protection Bureau (CFPB) is the agency tasked with oversight of this effort. The second priority area is Saving for Retirement and Investor Education. The US Department of Labor oversees efforts to improve this initiative by helping Americans plan, save, and invest for retirement while avoiding scams and fraud. The third priority area, Housing Counseling, has long been a US government initiative and is overseen by the US Department of Housing and Urban Development. The US Department of Education is in charge of the fourth priority area, Post-Secondary Education, where FLEC will "focus on helping post-secondary students and their families avoid the pitfalls associated with financing higher education by helping them plan for and understand the costs and benefits of higher education, increasing transparency about the costs, and improving their understanding of options for paying for post-secondary education, including student loans."¹² Finally, the education of our Military veterans is the fifth priority area and is predictably covered by the Department of Defense, with the intent of better informing veterans of how to access federal resources dedicated to military financial education. The goal is to help veterans transition to civilian life after they have fulfilled their terms of service.

One of the larger and more pervasive tools to come from the establishment of FLEC is the national financial education website "MyMoney.gov," an educationally focused and government-operated website. The resource contains informative primers on financially structured topics related to banking, saving, borrowing, and spending. The website is commonly linked on State Treasurer or Department of Health web pages as a resource for financial literacy and the topic of the US financial system.

According to a recent report by the US Department of the Treasury, the federal government spends approximately \$300 million annually on initiatives designed to promote financial and economic literacy.¹³ Of this amount, more than a third (about

^{11 &}quot;US National Strategy for Financial Literacy 2020" (US Financial Literacy and Education Commission, 2020), https://home.treasury.gov/system/files/136/US-National-Strategy-Financial-Literacy-2020.pdf.

¹² Ibid.

¹³ See US Department of the Treasury, "Federal Financial Literacy Reform: Coordinating and Improving Financial Literacy Efforts" (July 2019), https://home.treasury.gov/system/files/136/ FFLRCoordinatingImprovingFinancialLiteracyEfforts.pdf.

\$125 million) is dedicated to educating the military and veteran communities. Housing education receives a little more than \$50 million, while \$37 million is available for instilling basic financial capability through governmental resources and initiatives. Financially focused K-12 educational programs receive just under \$5 million from the federal level, roughly one-fourth of the \$19 million of funding allocated to post-secondary education (though most of this initiative is related to education about funding the cost of higher education).

To put the previous figures into context, the \$300 million spent by the federal government on financial literacy initiatives is approximately one-tenth of the total federal funding reserved for STEM (science, technology, engineering, and mathematics) education. It is also equivalent to just over half a percentage point (0.54 percent) of the federal government's entire education expenditure, most of which is directed to the National School Lunch Program, the Title 1 program, and special education support.¹⁴

State and Local Governments

There have been various initiatives to document financial education efforts at the state and local levels, including the Council for Economic Education Survey of the States, the National Report Card on State Efforts to Improve Financial Literacy in High Schools, and the NGPF–U.S. Access Reports. Although all three initiatives aggregate information by state, the first two concentrate on statewide efforts, while the last includes information from individual schools and school districts, thereby offering a more precise indicator of actual access to financial education.

2020 Survey of the States (Council for Economic Education)

Every two years since 1998, the Council for Economic Education (CEE) has taken a comprehensive look at the state of K-12 economic and financial education across the US, collecting data from all 50 states and the District of Columbia. The survey, known as the "Survey of the States," includes information on economic and personal finance course standards and requirements across each state—including whether economic and personal finance courses are part of the K-12 standards, whether high schools are required to offer those two courses, and whether states allow their students to graduate high school only after having taken a stand-alone course in personal finance and economics, or a related course that includes a portion of the curriculum dedicated to personal finance or economics.

¹⁴ The annual cost of operating the nation's public-school system is approximately \$720 billion. About 8 percent of this cost is covered by the federal government, and the rest is split rather evenly between the state and local levels (with the state level largely dictating curriculum standards and expectations).





According to the latest survey in 2020, 21 states now require high-school students to take a course that integrates personal finance content either as a stand-alone course or integrated into an existing class. This represents a net increase of four states since the previous survey in 2018, with five (Iowa, Kentucky, Mississippi, Ohio, and South Carolina) having added requirements and one (Florida) dropping the requirement. Only six states (Alabama, Iowa, North Carolina, Tennessee, Utah, and Virginia) require students to take a stand-alone personal finance course in high school. Five states (Alaska, California, Montana, New Mexico, and Wyoming) plus the District of Columbia still do not include personal finance in their K-12 curriculum standards. While more states are requiring at least a personal finance course to graduate high school, two fewer are testing students' knowledge in this area (Oregon and Texas). Figure 18 shows the progress of finance/ economic curriculum adoption from 1998 to 2020.

Source: Council for Economic Education–Survey of the States (2020)

National Report Card on State Efforts to Improve Financial Literacy in High Schools

Between 2013 and 2017, the Champlain College Center for Financial Literacy conducted a biennial report to evaluate all 50 states and the District of Columbia (DC) on their efforts to produce financially literate high school graduates. The report card focuses on each state's financial literacy education policy. States are graded from A to F (see Table 2). Grades are based on detailed reviews of high-school graduation requirements, academic standards, and assessment policies as they relate to personal finance, as well as state laws, regulations, and rules that relate to how each state delivers personal finance education in its public high schools. The report grades only the educational policies of state governments, not local school districts.

Table 2. National Report Card Grading Criteria

Grade	Description
A	The state requires personal finance instruction as a graduation requirement that is equal to a one-semester, half-year course (minimum of 60 hours of personal finance instruction in an academic year).
В	The state mandates personal finance education as part of a required course. In some of these states, local school districts determine whether the personal finance instruction requirement is met through a stand-alone course offering or is embedded in another course.
С	The state has substantive personal finance topics in its academic standards, which the local school districts are expected to teach. Implementation is left to local school districts with no material oversight by the state. There is no specific delivery mechanism identified for financial literacy instruction. A state may also receive a C grade if it requires a stand-alone personal finance elective course.
D	The state has modest levels of personal finance education in its academic standards that local school districts are expected to teach. Implementation is left to local school districts with no material oversight by the state. There is no specific delivery mechanism identified for financial literacy instruction. A state may also receive a D grade if it requires schools to offer an elective course that includes some personal finance education.
F	The state has virtually no requirements for personal finance education in high school. Students in these states can graduate without ever having the opportunity to take a course that includes financial literacy instruction.

Source: Center for Financial Literacy, Champlain College–National Report Card (2017)

The latest report shows that personal finance requirements at the high school level vary significantly across states (see Table 3 and Figure 19). The report also indicates that there has been slow but steady progress regarding the teaching of financial literacy in the country's public high schools. Eight states have made significant progress since the last report in 2015: Arkansas, Delaware, Illinois, Nevada, Texas, Virginia, Washington, and West Virginia. Unfortunately, two states—Idaho and Louisiana—appear to be moving in the wrong direction.

Grade	States	Public High School Student Population	Percent of Public High School Population in the US	Number of States (and DC)	Percent of States (and DC)
A	Alabama, Missouri, Tennessee, Utah, and Virginia	1,340,000	9.0	5	9.8
В	Arizona, Arkansas, Florida, Georgia, Idaho, Illinois, Maine, Maryland, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, South Carolina, Texas, and West Virginia	7,648,128	51.3	19	37.2
С	Colorado, Indiana, Iowa, Kansas, Kentucky, Mississippi, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, and Washington	2,215,482	14.8	12	23.5
D	Louisiana, Montana, Vermont, and Wyoming	289,677	1.9	4	7.8
F	Alaska, California, Connecticut, Delaware, District of Columbia, Hawaii, Massachusetts, Pennsylvania, Rhode Island, South Dakota, and Wisconsin	3,449,600	23.1	11	21.6

Table 3. Population and State Percentages (2017 National Report Card)

Source: Center for Financial Literacy, Champlain College-National Report Card (2017)



Figure 19. Final Grade by State (2017 National Report Card)

NGPF-US Access Report

The NGPF-US Access Report is a nationwide study that evaluates access to financial education among high-school students. Data and annual reports are currently available for the last three years: 2017-2018, 2018-2019, and 2019-2020. For each state and the whole country, the report includes the fraction of high schools and high school students in each of the following categories:

- **Gold**: Students are required to take at least one semester of a stand-alone personal finance course.
- **Silver**: Students have access to at least one semester of a stand-alone personal finance course.
- **Bronze**: Students have access to personal finance education embedded in another course.

Results from the latest report show that most high schoolers had some access to personal finance, with approximately 75.8 percent given the option to take at least a one-semester elective.¹⁵ However, only about 18 percent of high schoolers were required to take at least one semester of personal finance (see Table 4).

^{15 &}quot;2019-2020 Financial Education Access: Progress Report" (Next Gen Personal Finance, 2020), https://drive. google.com/file/d/1yUWPoTQQ0olzUUXOkquf85dC6HyCfuNv/view?usp=sharing.

		Perc	cent of	
State	Gold	Silver	Bronze	No PF
National	18.3	49.3	26.5	
Alaska	0.2	69.4	30.4	0.0
Alabama	99.6	0.4	0.0	0.0
Arkansas	7.1	74.0	14.6	4.3
Arizona	0.4	47.6	51.6	0.4
California	0.8	25.5	48.6	25.1
Colorado	7.1	50.0	41.3	1.6
Connecticut	17.8	66.1	15.3	0.4
Delaware	2.6	27.5	69.9	0.0
Florida	0.0	32.6	65.1	2.3
Georgia	0.4	61.5	31.9	6.2
Hawaii	0.0	0.0	78.1	21.9
lowa	36.7	42.7	17.9	0.1
Idaho	3.9	46.0	38.4	11.7
Illinois	13.4	46.6	35.2	4.8
Indiana	10.7	71.0	14.4	3.6
Kansas	41.8	45.5	12.3	0.3
Kentucky	1.8	60.1	36.1	1.9
Louisiana	0.0	69.1	30.0	0.9
Massachusetts	4.9	67.3	23.6	3.5
Maryland	11.3	51.0	21.2	0.0
Maine	18.2	44.5	33.7	3.6
Michigan	1.5	69.1	28.0	1.3
Minnesota	5.9	72.6	18.7	2.8
Missouri	100.0	0.0	0.0	0.0
Mississippi	0.0	67.9	29.2	2.9

Table 4. Share of Students in Gold, Silver, and Bronze Schools by State (NGPF)

Source: NGPF-Annual Report (2020)
All three previous studies illustrate that financial education requirements vary significantly from one state to another. But financial education also varies greatly across states that have similar education standards. One important reason for this variation is the role played by nongovernmental organizations, often through the development of unofficial personal finance courses. These courses may still appear as electives in states without a curriculum requirement in those areas, and they do not always receive the same funding provisions for teachers and resources. Therefore, access to financial and economic instruction is dependent on school district action and ability.

There are also significant differences among states without official financial education requirements. The state of Wisconsin, for example, requires neither a personal finance class nor an economics course before graduation. However, the state recently created the Governor's Council on Financial Literacy (GCFL) with the explicit objective of addressing the issue among its citizens. The council's mission is organized through the Department of Financial Institutions (DFI) and assisted by the Department of Public Instruction (DPI). The GCFL researches the impact of financial literacy in the state while also advocating financial literacy programs (in the classroom and beyond) and providing grants to public schooling systems to institute financial literacy education. In July 2020, the DFI and the DPI announced 10 grants totaling more than \$140,000 to schools across Wisconsin to implement personal financial education through the GCFL. The Department of Financial Institutions funded the grant program through settlement dollars designated for financial literacy purposes.¹⁶

In February 2021, Wisconsin Governor Tony Evers expanded statewide financial literacy efforts with Executive Order #106. The expansion renames the GCFL to the existing Governor's Council on Financial Literacy and Capability while adding 10 additional members, bringing the total of advisors to 35. According to the Executive Order, "the Council will provide guidance and strategies to measurably improve the financial literacy, capability, and financial inclusion of Wisconsin's residents by taking focused actions that include...explor[ing] and identify[ing] best practices in implementing financial literacy and capability through individuals' life stages—pre-k to college, young adult, adulthood, preretirement, and retirement."¹⁷

¹⁶ See "DFI, DPI Announce More Than \$140,000 in Financial Literacy Grants Awarded to Wisconsin Schools," State of Wisconsin, Department of Financial Institutions and Department of Public Instruction, Press Release, July 31, 2020, https://dpi.wi.gov/sites/default/files/news-release/dpinr2020-53.pdf.

^{17 &}quot;Gov. Evers Signs Executive Order #106 Relating to the Creation of the Governor's Council on Financial Literacy and Capability," State of Wisconsin, Office of the Governor, Press Release, February 8, 2021, https://content.govdelivery.com/accounts/WIGOV/bulletins/2bfff6a.

Arkansas is an interesting case among the states that have recently enacted financial education requirements. In November 2017, Arkansas passed the Personal Finance and Job Readiness Act, calling for the integration of mandated personal and family finance standards into the curriculum for public high-school students in grades 10, 11, or 12, starting with the 2018–2019 school year.¹⁸ Each student must earn one credit in a course that includes personal and family finance. Districts are allowed either to institute already-designated curriculum criteria or to submit their own for approval.

Other states roll financial literacy initiatives into existing organizations or councils with separate goals. In Alaska, for example, financial and economic literacy topics are addressed with the Governor's Council on Disabilities and Special Education. The state does not require personal financial education in the public school system and only links several federally funded resources on the Disabilities and Special Education web page.

Nonprofit Sector

While the US government tends to focus on K-12 education, nonprofit efforts dedicated to addressing financial literacy in the US are much more varied in both structure and organizational aim. Some of these organizations, for example, are structured to help individuals struggling with the adverse effects of financial illiteracy, such as bankruptcy, poor credit, and overwhelming debt. These organizations look at individuals case-by-case, helping them to consolidate debt and develop budget plans. Other nonprofits take a broader approach, creating and disseminating educational material while publishing research on financial literacy programs and national statistics.

The National Foundation for Credit Counseling (NFCC) is the largest and longest-serving nonprofit financial counseling organization in the United States. The NFCC provides counselor certification for credit counselors, who are then employed by the NFCC member agencies in the areas of credit card debt, student loans, housing, and small to medium-sized enterprise owner coaching. These agencies set their fees, which vary based on state regulations. The NFCC also provides funding for scholarships based on the display of need by the consumer. Member offices are located in every state and US territory. According to the NFCC, its agencies assist millions of people annually by helping them understand their current financial state and rights as consumers, by establishing budgetary practices, and by working with creditors to manage unsecured debt. The organization receives support and funding from several financial institutions, including Truist Financial Corp., Wells Fargo, and TD Bank.

On the research and curriculum development side, the National Financial Educators Council (NFEC) is an organization dedicated to providing access to educational resources across all demographics in the US. The NFEC conducts financial literacy research to disseminate empirical data and professional opinions to the finance industry while also

¹⁸ See Dave Perozek, "Finance Lessons Now a Graduation Requirement," Northwest Arkansas Democrat-Gazette, November 13, 2017, https://www.nwaonline.com/news/2017/nov/13/finance-lessons-now-a-graduation-requir.

promoting advocacy initiatives towards literacy education and greater individual financial wellness. The NFEC also provides its own brand of Financial Literacy Certification. Certified instructors are licensed to present personal finance classes, workshops, and financial education materials and can be employed by anyone requesting financial literacy coaching/consulting programs. Common beneficiaries include educators, financial professionals, philanthropists, entrepreneurs, and community-based leaders. According to the NFEC, most of its initiatives are supported by its certification processing fees, ranging from \$1,295 to \$2,185 per person.

Other nonprofit programs aim to bridge the gaps among publicly available education, resources, and curricula. Already highlighted several times in this report, the Council for Economic Education (CEE) is a national organization that focuses on students' economic and financial education from kindergarten through high school. The CEE provides classroom resources to K-12 teachers and students, and professional development for educators, including webinars, standards, and impact assessment tools. According to the CEE's website, the council's in-person workshops reach 55,000 educators across all 50 states, serving more than 5 million students each year who would not otherwise receive personal financial and economic education through the public education system. The CEE also organizes a biennial survey designed to measure financial literacy education across the US to inform policymakers and the general public.

Additionally, the CEE holds an annual Financial Literacy and Economic Education Conference. The conference is a nationwide meeting of K-12 educators, CEE affiliates from across the country, Federal Reserve partners, and organizational sponsors. Each year a selection of workshops on economic and financial literacy geared for elementary, middle, and high school levels are featured. Topics include resource and instruction guidelines, curriculum strategy, teaching strategies, new programs, and best practices. The supplementary education and funding by the CEE are passed along to educators, who in turn pass them along to their students. The CEE displays an uncommon willingness to collaborate across agencies and platforms, maintaining operations through numerous corporate sponsorships and attracting funding from 3M, AT&T, Bank of America Charitable Foundation, the McGraw-Hill Companies, the NASDAQ Educational Foundation, the US Department of Education, and Wells Fargo, among others. The CEE also operates affiliative partnerships through the YMCA; the Council on Food, Agricultural and Resource Economics; Families in Schools; the Federal Reserve System's Centennial Advisory Council; and the National Academy Foundation.

In 2019, the CEE merged with Invest in Girls (IIG). This is an extracurricular program designed to provide financial education and resources to girls of high school age while encouraging financial careers. Organized as a three-year high school program, the IIG curriculum explains budgeting and personal finance to sophomores; investing to juniors; and managing college debt, taxes, insurance, interviewing, and philanthropic giving to seniors.

Courses are generally taught before or after the typical high school day and utilize certified teachers to convey the material. As a result of the merger, IIG now operates as a distinct educational program under the CEE umbrella. Invest in Girls brings new visibility and a unique perspective to the service offerings of the CEE, while the CEE brings increased funding and an existing network of teachers and educators to IIG's curriculum.

Private Sector (For-Profit Enterprises)

Efforts by the private sector to improve financial literacy, particularly by financial service firms, tend to focus on retirement planning. In the US, most companies have transitioned from providing "defined benefit" retirement plans to "defined contribution" plans. This development effectively shifts the responsibility for retirement savings and investing from employers to employees, making the topic of financial literacy even more important for the well-being of our social security and retirement systems.

Under the supposition that an educated client is an easy client, it is common for the private sector (and financial services groups in particular) to provide financial literacy education pertaining to their products and services. Unfortunately, spending on financial education by the private sector is far outpaced by its spending on financial marketing.

In a recent report, the Consumer Financial Protection Bureau (CFPB) observed that for every dollar spent on financial education by financial institutions, more than \$10 went to financial marketing. According to the document, "the financial services industry spends approximately \$17 billion annually marketing consumer financial products and services (not counting marketing of products related to retirement, college loans, and other investments)."¹⁹ On the other hand, financial institutions invested only about \$160 million on financial education, with approximately \$31 million used to provide financial education materials and community-based educational programs—and \$129 million going to indirect efforts—such as funding other organizations that provide financial education (e.g., CEE, NFCC, and NFEC), technical assistance programs, training, and research.²⁰

The disparity in spending between education and marketing is a concern for the CFPB– particularly because the distinction between the two is sometimes opaque, which makes it difficult for consumers to find objective information.²¹ The report points out the challenges facing consumers by stating that "the current spending on financial education is very low compared to the amounts spent on marketing financial products. This raises

^{19 &}quot;Navigating the Market: A Comparison of Spending on Financial Education and Financial Marketing" (Consumer Financial Protection Bureau, November 18, 2013), https://files.consumerfinance.gov/f/201311_ cfpb_navigating-the-market-final.pdf.

²⁰ Ibid.

²¹ The CFPB defines financial marketing as any information intended to drive a purchase (credit cards, specified financial investment products, banking products, etc.) and financial educations as any information intended to generate the knowledge and skills required to maximize financial the well-being of individuals and society.

the importance of providing high-quality sources of unbiased financial information."²² The magnitude of resources marked for financial education as opposed to marketing of financial services also suggests the necessity of providing financial education and financial skill-building opportunities in homes, workplaces, libraries, and through community organizations as a way to distinguish marketing from education.

Finally, policymakers are clearly aware that collaboration between the government and the private sector could yield opportunities regarding financial literacy in the US. In a 2006 congressional hearing before the Subcommittee on Financial Institutions and Consumer Credit, for example, Representative Carolyn Maloney noted the importance of moving toward more collaborative solutions: "We must continue to work with our colleagues here on the Hill, work with the relevant Federal agencies, work with various associations, non-profits and community-based groups, and yes, especially with the private sector."²³ More recently, in its report, "National Strategy for Financial Literacy 2020," FLEC made a similar point, highlighting the need for coordination and collaboration among disjointed programs all working towards a similar goal:

"Given the wide array of state, local, non-profit, and private organizations providing financial literacy programs, it is essential to leverage private sector resources and coordinate federal activities with resources at the community level. The Commission should build on the progress it has made in recent years in promoting such partnerships. Federal collaboration with state and local governments may be crucial given the critical role that school districts can play in improving financial literacy among young people."²⁴

²² Ibid.

^{23 &}quot;Improving Financial Literacy: Working Together to Develop Private Sector Coordination and Solutions: Hearing before the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services," 109th Cong., 2nd sess. (September 28, 2006), http://archives-financialservices.house.gov/ pdf/ArchiveHearing/109-124.PDF.

^{24 &}quot;US National Strategy for Financial Literacy 2020" (US Financial Literacy and Education Commission, 2020), https://home.treasury.gov/system/files/136/US-National-Strategy-Financial-Literacy-2020.pdf.

DIGITIZATION OF FINANCIAL LITERACY AND DIGITAL FINANCIAL LITERACY

Financial Technology (FinTech) is a rapidly growing industry bridging the intersection of the financial and technological sectors of the economy. In 2019, the global FinTech vertical was valued at \$5.50 trillion (\$3.82 trillion in the US alone), with an expected compounded annual growth rate of 23.57 percent through 2025.²⁵ Viewed as a large-scale disruptor of the existent financial services industry, FinTech aims to provide novel digital solutions in the form of payment systems, online banking, insurance, and alternative finance—such as peer-to-peer (P2P) lending, supply chain finance, and wealth management.

The rise in FinTech has had a positive effect on financial inclusion and banking participation. This trend began with the rise of cheap money transfer services, and digital payments characterized the first wave of FinTech adoption in the late 2000s. Following closely behind, microfinance institutions began serving underbanked populations, allowing impoverished demographic sectors access to banking tools previously unavailable to them. These findings are backed up by the Global Findex database—the most comprehensive data set on how adults save, borrow, make payments, and manage risk—which shows that the availability of new financial technologies has been crucial in expanding access to the financial sector.²⁶

While FinTech adoption has great potential to reduce gaps in financial inclusion, it also requires greater knowledge on the part of consumers to avoid fraud, data issues, and other costly mistakes associated with these new technologies. In a policy brief to the Saudi T20 process, as a recommendation to the G20, the authors proposed that "Digital Financial Literacy includes knowledge in four main areas: (i) fintech products and services, their benefits and drawbacks; (ii) new kinds of risks associated with fintech products and services; (iii) ways to protect oneself from these risks; and (iv) methods of redress if losses or other damage from such risks arise."²⁷

A broader definition of financial literacy—one that incorporates the knowledge and skills required to use digital financial services effectively—has increasingly been recognized as a critical requirement for effective digital financial inclusion, and it has gained an important position in the policy agenda of many countries.

^{25 &}quot;Global Fintech Market, 2025" (TechSci Research, December 2020), https://www.techsciresearch.com/report/fintech-market/4235.html.

²⁶ Asli Demirgüç-Kunt et al., "Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution" (2018), https://openknowledge.worldbank.org/bitstream/handle/10986/29510/9781464812590.pdf.

²⁷ Peter J. Morgan, Bihong Huang and Long Q. Trinh, "The Need to Promote Digital Financial Literacy for the Digital Age" (T20 Policy Brief, 2019), https://t20japan.org/wp-content/uploads/2019/03/t20-japan-tf7-3-needpromote-digital-financial-literacy.pdf.

Unfortunately, digitization of the economy and digital financial literacy have not grown congruently. As recognized in a recent OECD report, "the growing digitalization of daily life and of financial decisions is not necessarily matched by increasing digital and financial literacy levels, and this is true even among the younger population."²⁸

A good example of the importance of digital financial literacy is smartphone use as a medium of access to banking, insurance, and investment products. Without the proper knowledge or experienced application, mistakes detrimental to one's financial standing can easily be made without much thought or recourse for action. This is especially true for apps providing investment product solutions and platforms, which have grown exponentially over the last few years. Figure 20 illustrates the growth in user base and total transaction value for the commission-free equity trading application Robinhood from 2015 to 2020. Robinhood is a FINRA-regulated broker-dealer registered with the US Securities and Exchange Commission that allows users to buy and sell whole and fractional securities with the push of a few buttons, putting the entire risk-reward outcome in the hands of the user alone. This rapid increase in adoption, coupled with the relative general stagnation of financial literacy in the US, is concerning. Without the necessary (and sometimes sophisticated) knowledge of investment horizon, risk, and liquidity, users have the potential to incur adverse personal financial outcomes.



Figure 20. Robinhood User Base and Aggregate Annual Transaction Growth

Source: David Curry, Business of Apps (2021)

^{28 &}quot;G20/OECD INFE Policy Guidance on Digitalisation and Financial Literacy" (OECD, 2018), https://www.oecd. org/finance/G20-OECD-INFE-Policy-Guidance-Digitalisation-Financial-Literacy-2018.pdf.

Although financial literacy in the United States has not quantifiably improved in some time, the advent and growth of FinTech may have some positive effects on efforts to remedy the issue. The accessibility of FinTech extends beyond underbanked individuals, and in recent years has grown to provide information for the younger population. Digitization and dissemination of financial literacy topics may be the catalyst needed to jump-start the adoption of financial literacy education.



Figure 21. Global FinTech App Investment and Funding for Children

Figure 21 displays the growth in deals and funding for global FinTech apps for children. In just the past five years, at least \$535 million has been invested in platforms offering savings and investment knowledge to children, young people, and parents. Of that, \$344 million was raised in 2020 alone. Greenlight Financial Technology, one of the endeavors leading the way, secured a \$1.2 billion valuation after closing \$215 million in Series C funding. Greenlight operates as the developer of a smart debit card that parents use to monitor children's spending habits, and that incorporates savings information and spending habit reports. In the same vein, Copper Banking, a Seattle-based FinLit-FinTech startup, claims an app-user median age of 14. The company, an all-digital bank specifically designed for teenagers, offers education-on bank accounts, debit/credit, saving, and spending-through partnerships with schools in Texas, California, and Florida. While both Greenlight Financial and Copper Banking are private companies and too new to publish the impacts of the curricula associated with their products, their novel business concepts regarding financial literacy education are promising.

CONCLUSION

Whether we can successfully assess current levels of financial literacy and its consequences, and identify the most effective means to improve it, will depend on our ability to develop a coherent framework to guide policymakers and researchers in developing their policy objectives and research agendas.

This report is one step towards such a framework. We review and analyze existing studies, surveys, and indicators to provide a systematic and comprehensive overview of the financial literacy landscape in the US. By doing so, we hope to clarify the importance of financial literacy and the need for new strategies to improve it.

The report paints a grim picture of the financial literacy landscape in the US. The empirical evidence suggests that many individuals in the US—both young and old—lack the basic knowledge and skills required to engage in sound financial decision-making, a situation that significantly threatens their prosperity and financial well-being. At the same time, our results indicate that financial literacy varies substantially across sociodemographic groups—more than in other similarly developed countries. Finally, we also find that despite the proliferation of financial education programs by the US government, nonprofit organizations, and for-profit enterprises, financial literacy levels have been stubbornly resistant to progress over time.

Our study also offers various policy recommendations. First, we need to agree on what financial literacy means and on how to measure it. In this respect, it is crucial to conceptualize financial literacy as more than just knowledge and skills, recognizing that attitudes and behavioral factors are equally critical for individuals to engage successfully in sound financial decision-making. Adopting a broad definition of financial literacy will provide a useful framework for assessing its current levels and consequences and for guiding the design and implementation of strategies to improve it.

Second, we need to know what does and does not work to improve financial literacy, which requires more rigorous and systematic evaluations of financial literacy strategies in the US. Well-executed evaluations will provide critical insights that can be used to identify best practices and prioritize areas in which financial education resources can best be spent.

Finally, our findings suggest that the emergence of new financial technologies can play a significant role in advancing financial literacy, particularly among the younger and more vulnerable populations. However, the rapid adoption of digital financial products and services must go hand-in-hand with greater knowledge on the part of consumers to prevent fraud, data-privacy issues, and other costly mistakes associated with these technologies.

APPENDICES

Appendix A. Standard & Poor's Global Financial Literacy Survey

Survey Questions (correct answers are in red)

Risk Diversification

Q1. Suppose you have some money. Is it safer to put your money into one business or investment or to put your money into multiple businesses or investments?

Options: one business or investment; **multiple businesses or investments**; don't know; refused to answer

Inflation

Q2. Suppose over the next 10 years the prices of the things you buy double. If your income also doubles, will you be able to buy less than you can buy today, the same as you can buy today, or more than you can buy today?

Options: less; the same; more; don't know; refused to answer.

Numeracy (Interest)

Q3. Suppose you need to borrow 100 US dollars. Which is the lower amount to pay back: 105 US dollars or 100 US dollars plus three percent?

Options: 105 US dollars; **100 US dollars plus three percent**; don't know; refused to answer.

Compound Interest

Q4. Suppose you put money in the bank for two years and the bank agrees to add 15 percent per year to your account. Will the bank add more money to your account the second year than it did the first year, or will it add the same amount of money both years?

Options: **more**; the same; don't know; refused to answer.

Q5. Suppose you had 100 US dollars in a savings account, and the bank adds 10 percent per year to the account. How much money would you have in the account after five years if you did not remove any money from the account?

Options: **more than 150 dollars**; exactly 150 dollars; less than 150 dollars; don't know; refused to answer.

Appendix B. TIAA Institute-GFLEC Personal Finance Index: Sample Questions

The following are some of the questions from the P-Fin Index survey (correct answers are in **red**).

Comprehending Risk

There's a 50/50 chance that Malik's car will need engine repairs within the next six months, which would cost \$1,000. At the same time, there is a 10% chance that he will need to replace the air conditioning unit in his house, which would cost \$4,000. Which poses the greater financial risk for Malik?

- The car repair (correct answer; chosen by 41% of respondents)
- The air conditioning replacement (chosen by 19% of respondents)
- There is no way to tell in advance (chosen by 19% of respondents)
- Don't know (chosen by 20% of respondents)

Saving

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 (correct answer; chosen by 44% of young adults)
- Anna and Charlie will have the same amount (chosen by 22% of young adults)
- Charlie (chosen by 6% of young adults)
- Don't know (chosen by 27% of young adults)

Borrowing/Managing Debt

Jose owes \$1,000 on a loan that has an interest rate of 20% per year compounded annually. If he makes no payments on the loan, at this interest rate, how many years will it take for the amount he owes to double?

- Less than 5 years (correct answer; chosen by 43% of respondents)
- 5 to 10 years (chosen by 20% of respondents)
- More than 10 years (chosen by 8% of respondents)
- Don't know (chosen by 28% of respondents)

Appendix C. PISA Financial Literacy Assessment: Sample Questions

PHONE PLANS

Ben lives in Zedland and has a mobile phone. In Zedland, there are two different kinds of phone plans available.

Plan 1

- You pay the phone bill at the end of the month.
- The bill is the cost of the calls you make plus a monthly fee.

Plan 2

- You buy credit for the phone in advance.
- The credit lasts for a maximum of one month or until all credit has been used.

Question 1. What is one possible financial advantage of using phone plans like Plan 2?

Ben decides to use Plan 1. He must now choose which phone company to use. The table below shows the details of the four different phone companies that offer Plan 1. All costs are shown in zeds.

	Company 1	Company 2	Company 3	Company 4
Monthly fee (zeds)	20	20	30	30
Cost of call per minute (zeds)	0.27	0.25	0.3	0.25
Number of free minutes per month	90	90	60	60
Cost of text message (zeds)	0.02	0.02	free	0.01
Number of free text messages per month	200	100	unlimited	200

Ben: "I speak on the phone for about an hour each day, but I very rarely send text messages."

Question 2. Which phone company offers the best financial deal for Ben? (Correct answer is in **red**)

- A. Company 1
- B. Company 2
- C. Company 3
- D. Company 4

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