# Financial Education

## I. Introduction

The National Commission on Consumer Finance viewed financial education as closely allied with the subject of disclosure and its recommendations to make disclosure more effective.[1] The commission maintained that consumers who lack understanding of financial products may not be able to obtain the full benefits of a competitive market. For a market to function properly, the consumers must possess information necessary to make intelligent decisions and know how to use the information to evaluate alternatives. Disclosure regulations may provide useful information, but they do not ensure that consumers understand or use the information provided in disclosures. Financial education aims to improve consumers' ability to assess benefits, costs, and risks of using credit. In addition to increasing the effectiveness of existing financial protections, the Commission believed that financial education also would promote competition and lessen the need for further regulation. Financial education enjoys broad support, both financially as well as a matter of public opinion. However, recent research raises questions about the effectiveness of financial education programs (Fernandez, Lynch, and Netemeyer 2014; Kaiser and Menkoff 2017; Miller et al. 2015, Kaiser and Menkoff 2019). This research finds that participation in financial education programs is associated with generally small improvements in financial decisions. The literature provides some suggestions for improving the effectiveness of financial education but it also calls for further research on how financial education and disclosures can be made more effective.

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[1] Cite to chapter 11 of the report.



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The CFPB estimates that government and private entities in the United States directly spend hundreds of millions of dollars every year to provide consumer financial education. The CFPB estimate does not include substantial indirect costs, such as the opportunity cost for the large investment in time spent by students and teachers in financial education classes instead of other subjects.[2] Yet the literature to date suggests that levels of financial literacy remain low and that the country has little to show for its large investment of resources. The need for greater levels of financial literacy has only increased as the complexity of the consumer credit products and the variety of options being offered to consumers has proliferated.

The Taskforce enthusiastically endorses the potential value of consumer education as a crucial tool of financial empowerment and individual flourishing. Poor financial management skills can lead to psychological, emotional, and even physical distress. Poor financial skills can also lead to greater reliance on public welfare systems and externalization of costs onto other consumers. But the Taskforce also shares the frustration of many observers with the lack of quality assessments of the value of financial education interventions. The Taskforce calls on the CFPB and others engaged in the task of consumer financial education to redouble their efforts to evaluate the marginal benefits and marginal costs on investments in consumer financial education and to recommend improvements and more effective approaches if and where warranted.

This section is organized as follows: The next section discusses the financial education landscape today. A third section distinguishes between two types of financial education studies, financial literacy and financial education intervention studies. The section that follows then

[2] The Consumer Financial Protection Bureau estimated that government and private entities in the United States incurred $670 million in direct expenses for providing financial education in 2013 (CFPB 2013). Total expenses for financial education are greater. See discussion of the financial education environment below for details.

discusses empirical evidence on the effectiveness of financial knowledge for improving consumers' financial decisions. The final section discusses the implications of empirical findings for improving the effectiveness of financial knowledge for improving outcomes and suggests additional research to guide financial education and disclosure policy.[3]

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**The Role of Financial Literacy in Consumer Empowerment**

Consumers making informed choices promote the efficient functioning of markets. By exercising choice, consumers making informed decisions provide stimuli to move prices and allocations in the market toward competitive equilibrium. The goal of financial education is to give consumers tools to make better decisions. The tools include both facts and skills to make intelligent decisions, which together with disclosure and regulation produce a transparent market that enables consumers to choose products that best satisfy their needs at the lowest prices. In facilitating more competitive markets, effective financial education benefits all consumers, not just those consumers whose decisions benefit directly from greater financial knowledge.[4]

As noted in Chapter 6, financial education and literacy is one of the "functions" specifically granted to the CFPB in Dodd-Frank Act. This aspect of the bureau's mission is reflected in numerous provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) that charge the bureau with researching, developing, promoting, and implementing financial literacy programs and activities. Indeed, financial education is the first function listed among the CFPB's regulatory tools, which although perhaps

[3] An appendix to this section summarizes the recommendations of the National Commission on Consumer Finance (1972) for financial education policy.
[4] A similar process is suggested in theoretical work in the economics of information, which shows that all consumers need not search for a market to be competitive (Schwartz and Wilde 1979, Wilde and Schwartz 1979). Competitive outcomes are possible even when only a fraction of consumers are informed.

coincidence, may also indicate the importance many people place on financial literacy today.[5] In addition to needing a safe, transparent marketplace, which the bureau addresses through our supervision, enforcement, and rulemaking, consumers need the financial capability3 to navigate that marketplace effectively to serve their own life goals.

The act tasked the CFPB with substantial responsibilities for financial education to increase financial literacy and improve consumers' ability make intelligent financial decisions. The bureau's initiatives cover a wide range of topics and decisions that arise in consumers' financial lives. In its 2019 Financial Literacy Annual Report, the CFPB reported that it reached 12 million individuals through digital and print media (CFPB 2019). The bureau's financial education initiatives reached individuals in the general population as well as specific groups such as parents with young children, college students, older individuals, and military families. The bureau delivered training and materials to support financial education providers. The bureau also conducted research on effective financial education and financial well-being. Notable among the CFPB's initiatives is research (discussed later in this chapter) into how to define and measure the success of different financial literacy strategies (CFPB 2015).

**The Financial Education Landscape Today**

A wide variety of entities provide financial education programs. They include educational institutions, non-profit organizations, consumerist organizations, financial firms, employers, state and local governments, and the federal government. Programs deliver education through classroom instruction, one-on-one counseling, technology interventions, and self-study.

**1. Major Entities Providing Consumer Financial Education**

[5] Dodd-Frank §1021(c).



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State mandates for economics or personal finance education in schools are common. The specific requirements differ. Most states require a single comprehensive course. In 2020, 24 states required schools to offer a course in economics, and 23 required that students take a course in economics (Council for Economic Education 2020). Twenty-four states required schools to offer a course on personal finance, and six states required that students take a course in personal finance. Fifteen states allowed schools to satisfy a financial education mandate through personal finance instruction in a related course that dedicated a portion of the curriculum to personal finance.[6] Only five states and the District of Columbia did not include personal finance in their school standards.

Homeownership counseling has long been required by the US Department of Housing and Urban Development in conjunction with a variety of affordable housing programs (HUD 2008). Requirements for homeownership counseling have largely focused on lower income consumers and first time homebuyers. The counseling aims to prepare these consumers to take on the responsibilities of homeownership.

Turmoil leading to the financial crisis in 2008-9 stimulated the growth in counseling to address mortgage delinquency and to provide guidance for refinancing. As mortgage credit standards became tighter and fewer lower income consumers qualified for mortgages, pre-purchase counseling declined.[7]

Fostered by its trade association, the National Foundation for Credit Counseling (NFCC), the traditional, non-profit credit counseling industry emerged in the second half of the 20th

[6] Personal finance might be integrated in of curricula such as home economics, economics, business, mathematics, or social science. The National Commission on Consumer Finance recommended this approach to financial education in schools (see the appendix to this chapter). The commission argued that this approach would seem more relevant to students than a single course that is of little immediate use.

[7] Interest in reverse mortgages by older consumers has also stimulated growth in homeownership counseling.

century (Hunt 2005). NFCC-member credit counseling agencies provided consumers several services—consumer financial education, budget counseling, negotiating debt relief, and, when appropriate referring, consumers to other support organizations.

The debt relief service, called the debt management plan (DMP), finances the traditional NFCC-member non-profit counseling agencies and provides some relief to distressed borrowers. For the debt management plan, a counselor reviews a borrower's budget and provides financial advice. If the borrower is deemed to have ability to permit repayment of a significant amount of the borrower's unsecured debt, the counselor seeks to set up a voluntary agreement between the borrower and the borrower's creditors to lower monthly payments. In some cases, the agreement may include concessions on finance charges and repayment terms. Lender "fair share" payments provide most of the financing for NCCF-member agencies. The fair share amounts to about 12 percent of debt payments that the counseling agency helped to facilitate.

NFCC-member counselling agencies also have provided credit counseling without a DMP, financial guidance for first time homeowners, reverse mortgage counseling, instruction for understanding credit reports and credit scores, guidance for repaying student debt, foreclosure prevention counseling, and bankruptcy counseling. In addition, the foundation certifies agency counselors for a variety of educational and remedial services.

The credit counseling industry grew rapidly in the early 1990s, from about 200 in 1990 to 1,200 in 1994 (Hunt, p. 15). Increased demand for counseling and use of technology to reduce the cost of delivering counseling fueled this growth. The new counseling agencies focused on DMPs, however, and provided less or no financial education. They also relied more heavily on consumer fees than traditional NCCF-member agencies. The new counseling agencies put downward pressure on fair share rates and took market share from traditional agencies.



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The new counseling agencies stimulated changes in the industry. Traditional agencies turned to communications and information technology to reduce their costs for delivering counseling services. Creditors made greater efforts to screen the counseling agencies for effectiveness. High consumer fees, lack of transparency, and low DMP completion rates for some new agencies also attracted legislative and regulatory scrutiny.

The federal bankruptcy law (effective in October 2005) requires that all consumers receive credit counseling from a court-approved nonprofit agency before filing for bankruptcy and another round of counseling before receiving a discharge of their debts under either Chapter 7 or Chapter 13 of the Bankruptcy Code. Each of these counseling requirements seems to envision either a rehabilitative or preventive role for credit counseling to avoid future financial problems.

The Financial Literacy and Education Commission (FLEC) was created by statute in 2003 "to oversee federal programs seeking to improve the financial literacy and education of persons in the United States."[8] (FLEC 2000) The FLEC comprises 23 federal government entities, reflecting a wide array of government functions, and is chaired by the Secretary of the Treasury with the Director of the Consumer Financial Protection Bureau serving as Vice-Chair. The FLEC was charged with creating, implementing, and regularly reviewing and updating a national strategy to promote basic financial literacy and education among American consumers.[9]

As indicated, the FLEC oversees the role of the federal government to support, inform, and improve the broader financial education field. With this goal, it works to equip consumers with the skills, knowledge, and tools to make decisions that enhance their financial well-being. Approaches include policy development, research coordination, and focused program and

8. 20 U.S.C. § 9702.
9. 20 U.S.C. § 9702(b).

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resource development. The FLEC reflects the belief that the federal government can help facilitate a vibrant and efficient marketplace that empowers individuals to make informed financial choices.

### 2. Expenditures for Financial Education

As mentioned, investments in financial education in the United States are substantial. According to a 2013 CFPB estimate, annual *direct* spending on training in financial literacy all together amounted to approximately $670 million per year, of which about two-thirds of that total ($472 million) was through various non-profit entities. This estimate includes housing counseling, credit counseling, school-based financial education, financial counseling and coaching, and community based financial education. Not included are expenses for financial education related to retirement savings, investments, insurance, and student loans. Also not included are fee-based financial education paid directly by consumers, purchases of books providing financial advice, and opportunity costs for time spent by students, teachers, adults, and financial education providers in financial education.[10]

**Commented [EK(2]:** This study found a disparity in spending levels on education and marketing—$670 million annually for financial education compared to $17 billion for financial services marketing. This finding indicates that more than 25 times as much is spent on marketing financial products and services to consumers each year than on providing them with financial education.

In comparison, financial education expenditures were substantially smaller than direct to consumer marketing. This creates a crowded marketplace for non-biased and neutral consumer education to compete with product and brand specific information to consumers.

## Research on Consumers' Financial Literacy

Research on financial literacy and education often starts with a formal economic life-cycle model of consumption over time (see Jappelli and Padula 2013 or Lusardi and Mitchell [ HYPERLINK \l "Ref50" \o "Lusardi, Annamaria and Olivia S Mitchell. The Economic Importance of Financial Literacy: Theory and Evidence. Journal of Economic Literature, 52 (March 2014): 5–44." ], for example). The details of the research differ, but the basic structure of the various models is similar: Individuals receive an income stream and seek to achieve

[10] Direct costs alone exceeded the entire budget of the CFPB in 2013 ($479 million). CFPB. 2013 Budget.

highest valued possible time pattern or consumption over their lifetimes. They may borrow when young, when income is relatively low and returns on household investment in durables are high, pay down debts and save during high earning years, and rely on social security and savings to support consumption in retirement. Decisions may be influenced by a variety of factors including borrowing constraints, mortality risk, demographic factors, stock market returns, tax considerations, and earnings and health shocks. In some models, individuals may incur costs for acquiring financial knowledge to improve the financial outcomes, which allow them to obtain a higher-valued distribution of intertemporal consumption. An important implication of allowing individuals to choose the amount of financial information and knowledge to acquire is that they will choose different types and amounts depending on their circumstances. For example, Lusardi and Mitchell hypothesize that individuals with limited education might rationally choose not to incur the costs of increasing financial knowledge because, having few assets or discretionary income to invest and anticipating receipt of social security income in old age, they would obtain little benefit from such knowledge.

Lusardi and Mitchell ([ HYPERLINK \l "Ref50" \o "Lusardi, Annamaria and Olivia S Mitchell. The Economic Importance of Financial Literacy: Theory and Evidence. Journal of Economic Literature, 52 (March 2014): 5–44." ]) argued that knowledge of several concepts is fundamental to making saving and investment decisions in a life-cycle framework. Key concepts include effects of interest compounding, inflation, and risk diversification. They developed three test questions for these concepts to measure individuals' basic understanding in these areas, and contended that correct answers indicated financial literacy. They also developed an expanded set of test questions on financial knowledge specifically for savings and investment decisions (Lusardi and Mitchell, [ HYPERLINK \l "Ref49" \o "Lusardi, Annamaria and Olivia S Mitchell.



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How Ordinary Consumers Make Complex Economic Decisions: Financial Literacy and Retirement Readiness. CFS Working Paper No. 2010/11. Frankfurt: Goethe University, Center for Financial Studies, 2010." ]) and knowledge relevant for borrowing decisions (Lusardi and Tufano, [ HYPERLINK \l "Ref52" \o "Lusardi, Annamaria and Peter Tufano. Debt Literacy. Financial Experiences, and Overindebtedness. CFS Working Paper No. 2009/08. Frankfurt: Goethe University, Center for Financial Studies, 2009." ]).

Lusardi and Mitchell's three test questions were included in the 2004 Health and Retirement Study, which surveyed a representative sample of individuals in the US aged fifty years or older. Large percentages of respondents provided incorrect answers to the questions about the three concepts or said that they did not know the correct answer. (Incorrect or "do not know" answers were accounted for 33, 25, and 48 percent for the test questions on interest compounding, inflation, and risk diversification, respectively).[11] Responses to these questions by other population groups produced similar large percentages of individuals who were unable to provide correct answers (see Lusardi, Mitchell, and Curto, [ HYPERLINK \l "Ref51" \o "Lusardi, Annamaria and Olivia S Mitchell, and Vilsa Curto. Financial Literacy and Financial Sophistication in the Older Population. Journal of Pension Economics and Finance, 13 (October 2014): 347–366." ]; Lusardi and Mitchell, [ HYPERLINK \l "Ref49" \o "Lusardi, Annamaria and Olivia S Mitchell. How Ordinary Consumers Make Complex Economic Decisions: Financial Literacy and Retirement Readiness. CFS Working Paper No. 2010/11. Frankfurt: Goethe University, Center for Financial Studies, 2010." ]). The inability of large percentages of

[11] Sixty-six percent gave incorrect answers or said that they did not know the correct answer for two or more questions. Ten percent gave incorrect answers or said that they did not know the correct answer for all three questions.



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individuals that did not correctly answer questions about financial concepts led Lusardi and Mitchell to conclude that the level of financial literacy is quite low.

### 1. CFPB Research on Financial Knowledge and Ability

As part of its research responsibilities, the CFPB reviewed much of the literature on financial education and literacy, including but not limited to the work of Lusardi and Mitchell (CFPB 2015). The Bureau's review noted considerable heterogeneity among studies. Results seem inconsistent, with different studies appearing to point in different directions, but several general conclusions emerged. Financial literacy (measured as correct answers to Lusardi and Mitchell's test questions on financial concepts) is correlated with behavior generally viewed as good financial practice. However, when personal traits and actions including confidence, ability to search, propensity to plan, and willingness to take prudent investment risks are examined, the effects of measures of financial literacy are smaller.

Further, the review found (?) that participation in financial education programs does not necessarily lead to improved financial knowledge. It even appears that education based on general behavioral concepts or "rules of thumb" (heuristics) may be more effective than that based on financial concepts, although research on causal relationships between financial knowledge and behavior is quite limited. Few studies have combined large samples, long time spans, and control populations. In many cases, the relevant concepts have been loosely defined. The Bureau also found a lack of generally-accepted definitions and measurements of financial knowledge, behavior, and well-being.

The report discussed Bureau research aimed at providing standards for future research, leading to proposing improvement in in individual financial well-being as the goal of financial literacy. Financial well-being involves having control over day to day finances, capacity to

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withstand financial shocks, meeting financial goals, and freedom to make choices that contribute to enjoyment of life. The Bureau sought to identify specific types of knowledge, behavior, and personal traits that are associated with financial well-being.

The Bureau hypothesized that the financial knowledge that supports financial well-being consists of a set of skills. The set of skills identified as necessary to make effective decisions involve knowing when and how to find reliable information, how to process the information, and how to implement the decision. Knowing facts alone is not enough. Consumers need these skills to achieve financial well-being. The Bureau also hypothesized that certain personal traits facilitate achievement of financial well-being. They include an ability to develop one's own standards, persevere, plan for the future, control impulses, and be confident in one's ability to influence financial outcomes. Such traits have widely been recognized to be associated with financial behavior and outcomes but may not be susceptible to financial education. [12] Personal characteristics may impose non-trivial constraints on our ability to move the needle of financial education, and that we should take that into account in thinking about how we deliver financial literacy interventions and weighing the marginal benefits and marginal costs of financial literacy investments.

In sum, as a country the US spends vast amounts of money and time for financial education but has little to show for it. Further, the CFPB's literature review revealed critical gaps in existing research from the perspective of the CFPB's specific need for broadly applicable, evidence-based measures through which to identify effective financial education approaches. Its report underscored the need for widely agreed-upon definitions and measures of financial well-being and its key drivers as a necessary first step toward research into effective education strategies. The Task Force endorses the

[12] A significant body of research finds correlation between finances and personal characteristics. For example, credit score and propensity to file bankruptcy are correlated with risky characteristics such as one's likelihood of smoking and not exercising enough Zywicki (2017).



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bureau's efforts to develop criteria for measuring the effectiveness of interventions in raising financial well-being going forward.

**Evaluating Efforts at Financial Literacy and Financial Education Intervention: What Works?**

Because of the importance of outcomes in the area of financial literacy, it seems worthwhile to look at more of the research and its implications. The heavy dedication of resources to financial literacy training and financial education programs considerably stimulated studies seeking to assess the effectiveness these efforts on consumers' financial behavior. Basically, researchers have measured consumer financial knowledge in one of two ways: (1) measuring general financial literacy such as understanding *basic knowledge of financial concepts* like compound interest, inflation, or risk diversification (the Lusardi-Mitchell approach) or (2) measuring specific *knowledge acquired through financial education initiatives*, participation in financial education programs such as financial education classes or credit counseling. Effects measured include differences in financial decisions and behavior associated with the measures of financial literacy or participation in a financial education initiatives.

Other studies sometimes called "intervention studies" look at the impact of participation in various financial education programs. Financial education intervention studies are generally experimental or quasi-experimental assessments of the effects of financial education on subsequent financial outcomes. Again, the intent is to look for outcomes consisting of behavior that is generally considered good financial practice.[13] Simply knowing facts, such as knowing correct answers to test questions, however, does not ensure that an individual is capable of

[13] Good financial practices are easier to identify in some cases than in others. An increase in savings would generally be considered good financial practice in most cases. An increase in debt is not as clearly good practice because the debt may be used to finance the acquisition of productive household assets like housing or durable goods but not always.

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making sound financial decisions. Individuals must be able to use their knowledge effectively. Thus, much of financial literacy efforts have focused on not merely improving levels of abstract knowledge of financial concepts, but effecting tangible changes and improvements in behavior and real-life decision-making. A large number of papers has examined whether financially literate individuals achieve better financial outcomes than financially illiterate individuals. Several studies have used a statistical method called meta-analysis to survey this vast literature (Fernandez, Lynch, and Netemeyer 2014; Kaiser and Menkoff (2017; Miller et al. 2015, Kaiser and Menkoff 2019).

Meta-analysis is statistical technique for combining data from other studies to estimate the effect of a common variable—such as in this case measured financial literacy or participation in a financial education program—on an outcome, in this case behavior that is good financial practice. In a meta-analysis of this kind, Fernandes, Lynch, and Netemeyer (2014) reviewed the findings of 168 such papers containing 201 non-redundant studies, which were systematically selected to produce a representative sample.[14] They also conducted original analyses.

Fernandes, Lynch, and Netemeyer examined the two types of studies already introduced here assessing the effects of financial knowledge on outcomes of financial decisions. First they assessed outcomes of the financial literacy of individuals defined by the percentage of correct answers on test questions on financial knowledge, such as the test questions of Lusardi and Mitchell. These studies Fernandes, Lynch, and Netemeyer called *measured financial literacy* studies. The other type were the studies that compared outcomes of individuals who participated in various financial education programs, which they called *financial education intervention*

[14] If two papers analyzed the same data, they included the paper with the most inclusive sample. Pre-test/post-test studies were included only if the post-test was at least two weeks later than the pre-test. They excluded studies that did not provide sufficient information to calculate effect size.

studies. As indicated earlier, financial education intervention studies are experimental or quasi-experimental assessments of the effects of financial education on subsequent financial decisions.

Their review indicated that financial education intervention studies have statistically significant but inconsiderable effects on behavior. Measured financial literacy studies have larger significant effects than financial education intervention studies, but the effects of measured financial literacy are still very small. Results varied by the studies' research design, with stronger designs estimating smaller effects than weaker designs..[15]

Studies of measured financial literacy have used instrumental variables in efforts to account for possible bias from omitted variables, which may occur if an omitted variable is correlated with both financial literacy and financial behavior. For example, personal characteristics (such as confidence in information search, propensity to plan, willingness to take financial risks, and numeracy) might be correlated with financial literacy but also with positive financial behavior (such as saving for emergencies, planning for retirement, and avoiding overdraft or late fees). In their original analyses, Fernandes, Lynch, and Netemeyer found that measured financial literacy was significantly related to positive financial behavior after accounting for individuals' demographic characteristics. However, when they added personal characteristics to the model, measured financial literacy was statistically insignificant. These personal characteristics quite

[15] For instance, experimental studies of financial education interventions produced smaller effects than quasi-experimental studies, and studies of measured financial literacy using instrumental variables produced smaller effects than studies using ordinary least squares. These finding stand in sharp contrast to Lusardi and Mitchell ([ HYPERLINK \l "Ref50" \o "Lusardi, Annamaria and Olivia S Mitchell. The Economic Importance of Financial Literacy: Theory and Evidence. Journal of Economic Literature, 52 (March 2014): 5–44." ]), who pointed to selected studies that report larger effects for instrumental variable regressions than OLS regressions. As mentioned, Fernandes, Lynch, and Netemeyer's results are based on a systematically selected set of a large number of studies and likely is more representative of such studies than Lusardi and Mitchell's paper. Also, Fernandes, Lynch, and Netemeyer report standardized effects (partial correlation coefficients) to facilitate comparisons of effects across models.



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plausibly are related to the acquisition of financial knowledge and positive financial behavior, a conclusion that is consistent with these findings.

Fernandes, Lynch, and Netemeyer found that effects of financial literacy manipulated by intervention decay at a decreasing rate with the passage of time. The decay over time is greater for larger interventions (measured by hours of instruction) than for smaller interventions. However, after twenty-four months, the effect of the intervention is about the same regardless of the size of the intervention.

Meta-analyses by other researchers have found generally positive but small effects of financial education interventions on financial outcomes similar to those of Fernandes, Lynch, and Netemeyer. Miller et al. (2015) analyzed data from 188 studies to estimate effects of financial education interventions on four outcomes—increasing overall saving, contributing to retirement savings, defaulting on a loan, and keeping financial records. On balance, they found small, sometimes statistically significant positive effects on overall saving, retirement saving, and record keeping behavior but no effect on loan defaults. Miller et al.'s findings suggest that interventions are likely to be more effective influencing some types of outcomes than others. Due to limitations of the data, Miller et al. were unable to draw conclusions on what characteristics of interventions (delivery channel, location of the intervention, and hours of instruction, for example) contributed to better outcomes. [16]

In another meta-analysis, Kaiser and Menkoff (2017) examined 126 education interventions reporting 539 effect sizes. Outcomes considered concerned saving, borrowing, budgeting, insurance, remittances, and bank account ownership. They found somewhat small to moderate, statistically significant positive effects for saving and budgeting. Effects for

[16] Some of the interventions in Miller et al.'s study were interventions outside the US.



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borrowing, insurance, remittances, and bank account ownership were small and not statistically significant.[17] Kaiser and Menkoff's analyses indicated that the effects of interventions increase with the hours of instruction increase and are greater when they are offered at a teachable moment (that is, when motivation to learn is high because a decision is imminent). They found that effects of financial education interventions were smaller for low-income consumers than the effects for middle and higher income consumers. Low-income consumers were responsive to teachable moments, but less so than middle and higher income consumers.

Kaiser and Menkoff (2019) examined the 37 studies of the effects of financial education on school students. They found positive, statistically significant effects of financial education on financial literacy, measured by responses to test questions. These effects were comparable to effects of instruction for other school subjects. The effects of education on financial behavior, measured by an increase in savings or observed choices in an experimental task, were much smaller than the effects on financial literacy. It is notable that school students do not have the opportunity to make many financial decisions, though. Little or no immediate use of the financial knowledge may inhibit retention, and retained knowledge likely decays before students are ready to make significant, real financial decisions.

In sum, reviewing these studies and meta-studies suggests several conclusions about the effectiveness of current financial literacy programs:

1. The expenditure of public and private resources in financial literacy programs is large, $670 million in direct expenses alone in 2013.
2. The effects of financial education is positive but typically small.
3. Financial literacy education, once acquired, decays rapidly, just like other education unless it is reinforced through repeat usage.

[17] Kaiser and Menkoff's study included some interventions outside the US.



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4. Financial education aimed at improving decision-making at the time of a "teachable moment" (just in time education) is effective, but the knowledge also tends to decay without usage and over time.

5. The particular financial decisions consumers have to make evolve over their life-cycle, for example, younger consumers may need to focus on budgeting and how to use credit, middle age on investing, and older retirees on allocating their resources over the rest of their lifetime.

6. Not all elements of skills related to financial decision-making can be changed with equal effort. For example, learning basic budgeting and savings skills may be easier than deciding on the type of mortgage to finance acquisition of a house.

7. Financial literacy knowledge and demonstrated decision-making are highly correlated with many other underlying personal characteristics that might be difficult to change. This suggests that there may be external constraints on the realistic effectiveness of financial education.

Financial education is an important societal and governmental function and the potential returns are large. Yet to date there has been little serious effort to seriously assess the extent to which the return on those investments generate a positive return to the public or to determine whether the marginal benefits of particular investments exceed the marginal costs in terms of financial resources and the opportunity cost of time spent. There should be a better effort to determine more rigorously the marginal return to different investments at different times, such as the value of general financial literacy and the appropriate stage of a consumer's lifecycle as opposed to discrete just-in-time or "teachable moment" interventions. There also be care about adopting one-size-fits-all approaches in light of the correlation with personal characteristics.

**Implications of Findings for Improving Financial Knowledge and Decisions**

Fernandes, Lynch, and Netemeyer offered several possible explanations for the weak effects of financial education. They noted that financial education competes for consumers' attention with other information available in the market. Without a ready expected use, consumers'

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motivation to acquire knowledge may be weak. This argument favors just-in-time financial education tied to a particular decision over youth financial education interventions intended to affect behavior in the distant future.

Their finding that knowledge decays over time suggests that imminent use of acquired information aids retention. Time-sensitive content knowledge is especially likely to be forgotten. Over time, consumers are likely to forget information that is not used.

The content of a given financial education intervention may be useful in some situations but not in other situations. For example, teaching budgeting skills might be useful to consumers with limited resources. In contrast, consumers with significant surpluses in their budgets may not need to budget their expenses as carefully and therefore may obtain less benefit from such education (Xiao and O'Neill, [ HYPERLINK \l "Mental - Ref86" \o "Xiao, Jing Jian and Barbara O'Neill. " ]). Uncertainty also may affect the usefulness of financial education interventions. Stating normative behavior is difficult when neither instructors nor consumers can anticipate future circumstances.

Multiple-skill, multiple-behavior programs may be less effective than single-behavior programs. Consumers may perceive less relevance and give less attention to broad-based programs that address some future, as yet unanticipated, decisions than single-behavior programs addressing a specific known and imminent decision. Some studies suggest that interventions promoting traits such as propensity to plan, confidence to be proactive, and willingness to take financial risks may be more effective for achieving utility increasing outcomes than content knowledge about financial mathematics or financial markets, and instruments (see Hadar, Sood, and Fox, [ HYPERLINK \l "Subjective - Ref36" \o "Hadar, Liat, Sanjay Sood, and Craig R. Fox. " ]).

Financial education interventions appear to be more effective for some types of behavior (saving and budgeting) than others (credit use and payment behavior). Saving and budgeting may become routine. Behavior becomes habitual and require little ongoing cognitive effort. In many cases, repayment of debts also may become routine. Credit use and payment behavior seems more complicated. Greater use of debt may arise from greater household investment, but sometimes greater debt may be due to from greater risk tolerance or even improvidence. Debt repayment problems often are the result of unexpected adverse effects. Financial knowledge may not prevent payment problems, and financial education interventions (typically, credit counseling) may not help much when problems arise.

Financial knowledge needs are not homogeneous. Evidence indicating that education interventions have smaller effects for lower income consumers than middle and higher income consumers suggests that programs designed for middle and higher income may not serve lower income consumers very well. The National Commission on Consumer Finance recognized many years ago a need for education programs designed for lower income consumers. The recent evidence suggests that this commission recommendation has not been effectively implemented.

Further study of decision processes and outcomes is also needed to resolve differences in implications of behavioral analyses for financial literacy and education. For instance, the "heuristics and biases literature" beginning with Tversky and Kahneman (1974 and 1981) and that has become well known in other contexts does not find much of a role for financial education to improve financial decisions. According to this literature, consumers often use heuristics (rules of thumb) that simplify decisions but are error-prone.[18] Errors are systemic and

[18] In the heuristics and bias literature, errors are decisions that violate rules of statistics, logic, of mathematics. An example is concluding that the probability that an individual is a bank teller *and* feminist is greater than the probability that an individual is a bank teller. The probability of any one of two events is always greater than the



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hardwired in the brain. Consumers often do not realize their mistakes. Education (and also disclosure) can have little effect on behavior under this circumstance. In contrast, the "fast and frugal heuristics literature" (Gigerenzer, Todd, and the ABC Research Group 1999) views heuristics as experience-based decision-making shortcuts for specific environments. Actual choice environments are characterized by asymmetric, incomplete, and even false information. Heuristics enable consumers to make decisions quickly using limited information, especially when the future is uncertain. Evidence indicates that such heuristics perform well, sometimes better than methods involving extensive information and evaluation of tradeoffs among alternatives (Gigerenzer and Brighton 2009). Financial education interventions informed by understanding decision processes can improve outcomes by facilitating information acquisition and improving choice environments.

Public policy implications of the heuristics and biases program differ from those of the fast and frugal heuristics program. Heuristics and biases suggest that experts know desirable financial outcomes better than consumers. Regulation of products and nudges into decisions that are deemed in the best interest of consumers are the preferred policies. Fast and frugal heuristics generally respects differences in individuals' circumstances and preferences. The fast and frugal approach favors disclosure and financial education interventions that improve decision-making environments and facilitate achievement of better financial outcomes.[19]

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probability of the two events occurring together. See the discussion of the "Linda Problem" in Durkin et al. (2014, chapter 4) for additional information.

[19] See Altman ([ HYPERLINK "file:///C:/Users/m1gee00/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/GPQKIIN9/Implications" \l "Ref3" \o "Altman, Morris. " ]) for further discussion.

Improving the consistency of measurement, assessment, and accountability in financial education programs is needed. The diversity of program goals, providers, and participants poses makes measuring and assessing the effects of financial education difficult. For financial education to be more effective, it must move toward more rigor in assessment and respond better to findings about what works and what does not.

## Appendix

## The NCCF Report: Recommendations for Financial Education

Chapter 11 of the NCCF report discussed financial education programs in schools and programs available to adults. The discussion provided assessments and recommendations for school programs, adult education, and remedial education.

**School Programs**

The Commission noted a general agreement among educators that students should receive some financial education before they left school. However, educators differed widely in their views about the details of such education—when and where should it start, what emphasis should it have, whether it should be mandatory, what should be taught. A diversity of school programs reflected these differences.

The NCCF expressed several opinions about these issues. On the curriculum, the Commission suggested that financial education might deliver better results if spread across various courses—economics, business, mathematics, and social science, for example—rather than a special dedicated course. The Commission reasoned that one or another of these courses is taken by a large percentage of students. Many more students could be reached through these courses than through a single course that may appear to have little immediate value to many



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students. The Commission cautioned that this approach requires some coordination among courses to provide students adequate training but avoid unnecessary duplication.

On teachers and textbooks, the NCCF recommended that the consumer credit content include teaching the importance of establishing a good credit history, setting goals and values that suit individual needs, prudent use of credit, and budgeting credit payments within income constraints. The Commission advised teachers against teaching their own personal values regarding consumer credit. Different situations may warrant different goals. Instruction and materials aimed at middle and high-income students may not be useful or effective for lower income consumers, for example.

Finally, the Commission recommended increased government and also private funding to develop better curricula to prepare students for participation in the market, with adequate attention to consumer credit as one aspect of family budgeting. Financially literate consumers, the commission argued, would be better equipped to make informed decisions about using credit, choosing credit terms, and selecting lenders.

**Adult Education**

State and federal agencies should continue their support for adult education for low-income consumers. The commission also recommended that governments develop adult education programs for older consumers. Furthermore, federal resources should be used to support research to improve adult education

**Remedial Education**

In addition, the Commission recommended that businesses should support and encourage nonprofit credit counseling that benefits consumers and does not serve primarily as collection agencies. Private debt adjusting services should be regulated and supervised.



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The Commission also recommended that counseling should generally be required for obtaining a discharge for Chapter 13 and 7 bankruptcy. The Commission also suggested case-by-case exemption when counseling would be unnecessary or futile.

## II. Financial Issues Affecting Younger Consumers

Younger consumers today present a distinct profile from younger consumers of earlier eras as well as from older consumers today.[20] Younger Americans today face distinctive challenges to overcome, particularly as a result of large student loan burdens and regulatory and economic obstacles that have tended to delay their financial maturation into traditional financial products such as credit cards, mortgages, and bank accounts. At the same time, younger consumers have adopted new consumption and financial habits that have challenged traditional conceptions of how financial products are provided and used. They are much more tech-savvy and responsive to the adoption of new technologies, such as fintech and peer-to-peer payments. They are far less likely to use cash and checks as opposed to electronic payments and as a result less attached to the traditional banking system. Overall, the changing financial habits of younger

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[20] Although generational line-drawing is always somewhat arbitrary and blurry around the margins, dividing populations into generational cohorts is a generally-accepted practice as an analytically useful tool to help get general pictures of trends in society.[20] We focus here particularly on the two youngest adult generations in the American population today, generally referred to as the "Millennial generation" and "Generation Z." For current purposes we define the Millennial generation as including those born between 1981 and 1996 (the first cohort typically graduated from high school around the year 2000 giving rise to the name). Generation Z begins in 1997 and are expected to include those born until 2012. Generation X is conventionally defined as those born between 1965-1980 and Baby Boomers from 1946-1964. *See* Michael Dimock, *Defining Generations: Where Millennials End and Generation Z Begins*, PEW RESEARCH CENTER (Jan. 17, 2019).

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Americans reflect a variety of forces: changes in the financial challenges they face, changes in their usage and preferences for financial services, and changes in consumption habits that have changed the mix of financial products that they desire. It is likely that these general trends, especially trends impacted by fintech and electronic payments, will have a long-term impact, reshaping the financial services marketplace permanently.

This section of the chapter will focus on some of the financial prospects and challenges facing the younger generations. It is divided into four parts. The first looks at aspects of overall financial condition followed by longer discussion of a specific area of concern, student loan debt. A third part briefly discusses how changing preferences for financial services and the use of technological solutions among younger consumers may have long-run implications for financial-services providers and markets. Part four examines the effects of certain regulations on younger consumers, particularly provisions of federal law that have reduced access to credit cards by those under the age of 21. Although many of the rising issues in these areas are as yet not completely known or understood and they certainly will continue to evolve rapidly as pace of change continues to accelerate, the final part introduces an associated challenge in the regulatory area, the issue whether individuals should not be allowed to acquire credit cards before the age of twenty-one.

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**A. Overall Financial Well-Being Of Younger Consumers**

The personal finances of the millennial generation have been shaped by several unusual economic and social developments ~~Millenials~~Millennials were especially hard-hit by two major economic shocks: first, the 2008 financial crisis and subsequent Great Recession just as they were entering the workforce and second, the 2020 Covid-19 pandemic just a few years after the economy recovered from the earlier shock. [21] Millennials are the largest generation in American history and more racially diverse, more educated, and more likely to have deferred marriage than prior generations, although these characteristics are largely a continuation of prior trends. Millennial households also have lower earnings, fewer assets, and less wealth, but comparable debt to Generation X.

Compared to earlier generations, Millennials are marrying later or not at all. According analysis by Pew Research Trust, only 44 percent of Millennials were married in 2019, compared with 53 percent of Gen X'ers and 61 percent of Boomers at a comparable age, and those who married did so at a more advanced age.[22] The education gap in marriage—the higher rate of marriage by college graduates than others—is wider for Millennials than for prior generations. Unsurprisingly, Millennials are also having children at a later age than prior generations.

This tendency among Millennials toward later family formation has delayed many of their milestones toward financial maturity, including homeownership. Contrary to conventional belief, however, millennials do not appear to exhibit radically different consumption preferences from earlier generations. Even before the onset of the Covid pandemic, as millennials aged and started families, they were following the well-hewn path of earlier generations by moving to the suburbs in pursuit of quality schools, affordable housing, and family-friendly amenities and

[21] *See* Christopher Kurz, Geng Li, and Daniel J. Vine, *Are Millennials Different?*, Federal Reserve Board, Divisions of Research & Statistics and Monetary Affairs, Finance and Economics Discussion Series, No. 2018-080 (Nov. 2018).

[22] *See* Amanda Barroso, Kim Parker, and Jesse Bennett, *As Millennials Near 40, They're Approaching Family Life Differently Than Previous Generation*, PEW RESEARCH CENTER (May, 27, 2020).



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lifestyles.[23] The Covid pandemic has accelerated this migration by millennials out of large cities.[24] If these trends continue, they should bring with them many of the traditional patterns of usage of household financial products including not just mortgages, but automobile loans and financing of consumer durables, just reaching these milestones at later ages than in the past.

Generation Z is just maturing into early adulthood and it is too early to assess their long-term prospects.[25] However, early signs indicate that members of Gen Z are highly tech-savvy, relatively averse to consumer debt, and carry heavy student debt loads. They are still more racially and ethnically diverse than Millennials.[26] They are on track to become the best-educated generation in history, being less likely to drop out of high school and more likely to be enrolled

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[23] *See* Janet Adamy and Paul Overberg, *Millennials Continue to Leave Big Cities*, WALL ST. J. (Sept. 26, 2019), *available in* [ HYPERLINK "https://www.wsj.com/articles/millennials-continue-to-leave-big-cities-11569470460" ]; Valerie Bauerlein, *American Suburbs Swell Again as a New Generation Escapes the City*, WALL ST. J. (July 1, 2019), *available in* [ HYPERLINK "https://www.wsj.com/articles/american-suburbs-swell-again-as-a-new-generation-escapes-the-city-11561992889" ].

[24] *See* Diana Olick, *The Flight to the Suburbs is Real and Growing, as Coronavirus Changes the Way People Live*, CNBC.COM (Jun 18, 2020), *available in* [ HYPERLINK "https://www.cnbc.com/2020/06/18/coronavirus-update-people-flee-cities-to-live-in-suburbs.html" ]; Ian Bogost, *Revenge of the Suburbs*, THE ATLANTIC (June 19, 2020), *available in* [ HYPERLINK "https://www.theatlantic.com/technology/archive/2020/06/pandemic-suburbs-are-best/613300/" ].

[25] Generation Z is sometimes also referred to as "iGen" because of the central role played by smartphones in their lives and personal development. *See* JEAN M. TWENGE, IGEN: WHY TODAY'S SUPER-CONNECTED KIDS ARE GROWING UP LESS REBELLIOUS, MORE TOLERANT, AND LESS HAPPY—AND COMPLETELY UNPREPARED FOR ADULTHOOD—AND WHAT THAT MEANS FOR THE REST OF US (2017).

[26] *See* Kim Parker and Ruth Igielnik, *On the Cusp of Adulthood and Facing an Uncertain Future: What We Know about Gen Z So Far*, PEW RESEARCH CENTER (May 14, 2020), *available in* [ HYPERLINK "https://www.pewsocialtrends.org/essay/on-the-cusp-of-adulthood-and-facing-an-uncertain-future-what-we-know-about-gen-z-so-far/" ].



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in college. In 2018, 57 percent of post-high school Millennials were enrolled in a two-year or four-year college. They are also more likely to have a college-educated parent than previous generations were.

Older members of Gen Z have also been hit even harder by the Covid pandemic and the government's response to it than Millennials. According to a Pew Research Center survey, half of the oldest Gen Z'ers (18 to 23) reported they or someone in their household had lost a job or taken a cut in pay because of the outbreak, higher than Millennials (40%), Gen X'ers (36%), or Baby Boomers (25%).[27] Moreover, members of Gen Z were overrepresented in higher-risk service sectors of the economy, making them especially vulnerable to government-imposed shutdowns of retail and other service businesses.[28]

The overall financial condition of younger households improved in recent years, reversing losses over the prior decade. Although most age groups experienced income gains between 2016 to 2019, those under age 35 experienced the greatest gains, and those between the ages of 35-44 experienced the second-largest gains.[29] Net wealth generally increased more rapidly for younger households during this period as well.[30] Gains were greatest for younger adults with lower education levels. On the other hand, millennials have been especially hard-hit

[27] Pew Research Center, *Worries About Coronavirus Surge, as Most Americans Expect a Recession—or Worse* (Mar. 25, 2020).

[28] *See* Rakesh Kochhar and Amanda Barroso, *Young Workers Likely to be Hard Hit as COVI-19 Strikes a Blow to Restaurants and Other Service Sector Job*s, PEW RESEARCH CENTER (Mar. 27, 2020).

[29] *See* Neil Bhutta, Jesse Bricker, Andrew C. Chang, Lisa J. Dettling, Sarena Goodman, Joanne W. Hsu, Keven B. Moore, Sarah Reber, Alice Henrqiques Volv, and Richard A. Windle, *Changes in U.S. Family Finances From 2016 to 2019: Evidence from the Survey of Consumer Finances*, 106(5) FED. RES. BULLETIN 1, at 7 Table 1 (Sept. 2020).

[30] *Id.* at 11, Table 2.



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financially as a result of the Covid pandemic and government responses to it, thus it is not clear to what extent these recent gains will continue or reverse into the future.[31] Younger adults also made financial gains during the period from 2013 to 2016 but slightly more modestly.[32]

This recent economic success (prior to the 2020 Covid pandemic) reversed a downward trend from 2001-2013 in net worth among younger consumers.[33] The decline in net worth during this period was most dramatic for higher-educated and higher net worth households. The percentage of younger adults who reported owning homes also declined during this period from 39 percent to 34 percent.[34] Most of the decline in assets for younger households during this period resulted from declining home values during and after the Great Recession.

## B. Student Loans

### 1. Household and Macroeconomic Consequences of Student Loan Debt

Voluminous amounts of research over several decades have shown the potential economic value to individuals from investment in higher education. By enabling high-value investments in human capital formation through education, the opportunity to attend college is

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[31] *See* Claire Williams, *Millennials and the Economy: Coronavirus Is the Second Setback in a Generation*, MORNING CONSULT (Sept. 28, 2020), *available in* [ HYPERLINK "https://morningconsult.com/2020/09/28/millennials-economy-coronavirus-financial-impact-poll/" ].

[32] *See* Jesse Bricker, Lisa J. Dettling, Alice Henriques, Joanne W. Hsu, Lindsay Jacobs, Kevin B. Moore, Sarah Pack, John Sabelhaus, Jeffrey Thompson, and Richard A. Windle, *Changes in U.S. Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances*, 103(3) FED. RES. BULLETIN 1 (Sept. 2017).

[33] *See* Lisa J. Dettling and Joanne W. Hsu, *The State of Young Adults' Balance Sheets: Evidence from the Survey of Consumer Finances*, 96 FEDERAL RESERVE BANK OF ST. LOUIS REVIEW 305 (Fourth Quarter 2014). Although net worth declined during this period for younger adults, it declined less dramatically than for older individuals during this period.

[34] *Id.* at 313. This decline, however, mirrored the decline in home ownership by older households during this period.



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highly valuable to consumers. Individuals with more education exhibit higher earnings, more resilience to economic downturns, and higher levels of wealth accumulation than those without higher education.[35] Some evidence indicates that the return to education increased rapidly from the 1970s through the 1990s and then leveled off in the 2000s and has remained steady since at a comparatively high rate of return.[36] Thus, despite the increasing cost of obtaining a college degree, available evidence suggests that for most people a college degree remains a worthwhile investment of time and money, especially for individuals from relatively disadvantaged groups.[37] Two-thirds of those who graduate with at least a bachelor's degree believe that attending college was worth the cost compared to only 30 percent of those who dropped out.[38] On the other hand,

[35] *See* Scott A. Wolla and Jessica Sullivan, *Education, Income, and Wealth*, ECONOMIC RESEARCH FEDERAL RESERVE BANK OF ST. LOUIS (Jan. 2017), *available in* [ HYPERLINK "https://research.stlouisfed.org/publications/page1-econ/2017/01/03/education-income-and-wealth/" ].

[36] *See* Jason R. Abel and Richard Deitz, *Do the Benefits of College Still Outweigh the Costs?*, 20 FED. RES. BANK OF NEW YORK CURRENT ISSUES IN ECONOMICS AND FINANCE 7 (2014); Mark C. Long, *Changes in the Returns to Education and College Quality*, 29 ECON. OF EDUCATION REV. 338 (2010). According to Abel and Dietz, the average return on a college degree is around 14-15 percent, compared to an average rate of return of 7 percent for stock investments.

[37] *See* NAVIENT, MONEY UNDER 35 (2020); Philip Oreopoulos and Uros Petronijevi, *Making College Worth It: A Review of Research on the Returns to Higher Education*, 23 THE FUTURE OF CHILDREN 41 (2013); Douglas Webber, *Is College Worth It? Going Beyond Averages*, THIRDWAY.ORG (Sept. 18, 2018), *available in* [ HYPERLINK "https://www.thirdway.org/report/is-college-worth-it-going-beyond-averages" ]; Jaison R. Abel and Richard Deitz, *The Value of a College Degree*, LIBERTY STREET ECONOMICS (Sept. 2, 2014), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2014/09/the-value-of-a-college-degree.html" ].

[38] BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, REPORT ON THE ECONOMIC WELL-BEING OF U.S. HOUSEHOLDS IN 2018 at 37 (May 2019).



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there are others for whom attending college is not a profitable investment.[39] For example, homeownership rates among college graduates are higher than those who never attended college, and homeownership rates are similar for those from high-income and low-income family backgrounds, which indicates that "college attendance appears to mitigate the importance of family background."[40] Overall, students who graduate from college with a Bachelor's degree are substantially more likely to own a home than those who never attend college or receive an Associate's Degree.[41]

On the other hand, over the last two decades student loan debt has also emerged as a potential source of household financial stress, particularly for younger Americans. Student loan debt obligations persist for extended periods of time, remaining high for many consumers well into their 40s.[42] Today, student loan debt balances amount to over $1.6 trillion and continue to increase. Student loan debt is now the second-largest debt holding on American balance sheets,

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[39] *See* Jaison R. Abel and Richard Deitz, *College May Not Pay Off for Everyone*, LIBERTY STREET ECONOMICS (Sept. 4, 2014), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2014/09/college-may-not-pay-off-for-everyone.html" ] (finding that the lowest 25 percent of college graduates earn a comparable income as the median high school graduate wages).

[40] *See* RAJI CHAKRABARTI, ANDREW HAUGHWOUT, DONGHOON LEE, JOELLE SCALLY, AND WILBERT VAN DER KLAAUW, FEDERAL RESERVE BANK OF NEW YORK PRESS BRIEFING ON HOUSEHOLD DEBT, WITH FOCUS ON STUDENT DEBT 44 (Apr. 3, 2017), *available in* [ HYPERLINK "https://www.newyorkfed.org/medialibrary/media/press/pressbriefing-household-student-debt-april32017.pdf" ].

[41] *See* RAJI CHAKRABARTI, ANDREW HAUGHWOUT, DONGHOON LEE, JOELLE SCALLY, AND WILBERT VAN DER KLAAUW, FEDERAL RESERVE BANK OF NEW YORK PRESS BRIEFING ON HOUSEHOLD DEBT, WITH FOCUS ON STUDENT DEBT 40 (Apr. 3, 2017), *available in* [ HYPERLINK "https://www.newyorkfed.org/medialibrary/media/press/pressbriefing-household-student-debt-april32017.pdf" ].

[42] *See* FEDERAL RESERVE BANK OF NEW YORK, STUDENT LOAN DEBT BY AGE GROUP (Mar. 29, 2013).



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trailing only mortgages, but is the largest single element of non-mortgage consumer debt holdings.

Student loan indebtedness is "top heavy" and unevenly distributed among American households. About 30 percent of undergraduate students graduate with no debt and about 25 percent have less than $20,000.[43] Only 5 percent of borrowers had more than $100,000 of debt in 2016, but they accounted for about 30 percent of total student loan debt. Many of these high-balance borrowers, it should be noted, also attended graduate school where they accumulated large debts.[44] In general, both the number of consumers with student loans and their student loan balances upon graduation have been increasing over time.[45] Between 2005 and 2015 student loan balances owed at graduation increased by about 70 percent. During the past decade, student loan balances are also higher for those living in Black-majority zip codes than in White zip codes, although they were similar prior to that period.[46] As shown in Figures 12-1 and 12-2, student loan debt has grown dramatically in recent decades, overtaking credit cards and auto loans as the largest non-mortgage debt obligation on household balance sheets.

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[43] *See* Adam Looney, Devis Sessl, and Kadija Yilla, *Who Owes All that Student Debt? And Who'd Benefit if it were Forgiven?*, BROOKINGS.EDU (Jan. 28, 2020), *available in* https://www.brookings.edu/policy2020/votervital/who-owes-all-that-student-debt-and-whod-benefit-if-it-were-forgiven/.

[44] *See* RAJI CHAKRABARTI, ANDREW HAUGHWOUT, DONGHOON LEE, JOELLE SCALLY, AND WILBERT VAN DER KLAAUW, FEDERAL RESERVE BANK OF NEW YORK PRESS BRIEFING ON HOUSEHOLD DEBT, WITH FOCUS ON STUDENT DEBT 20 (Apr. 3, 2017), *available in* [ HYPERLINK "https://www.newyorkfed.org/medialibrary/media/press/pressbriefing-household-student-debt-april32017.pdf" ].

[45] *Id.* at 21.

[46] Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw, *Just Released: Racial Disparities in Student Loan Outcomes*, LIBERTY STREET ECONOMICS (Nov. 13, 2019), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2019/11/just-released-racial-disparities-in-student-loan-outcomes.html" ].



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Figure 12-1: Household Debt Holding by Category

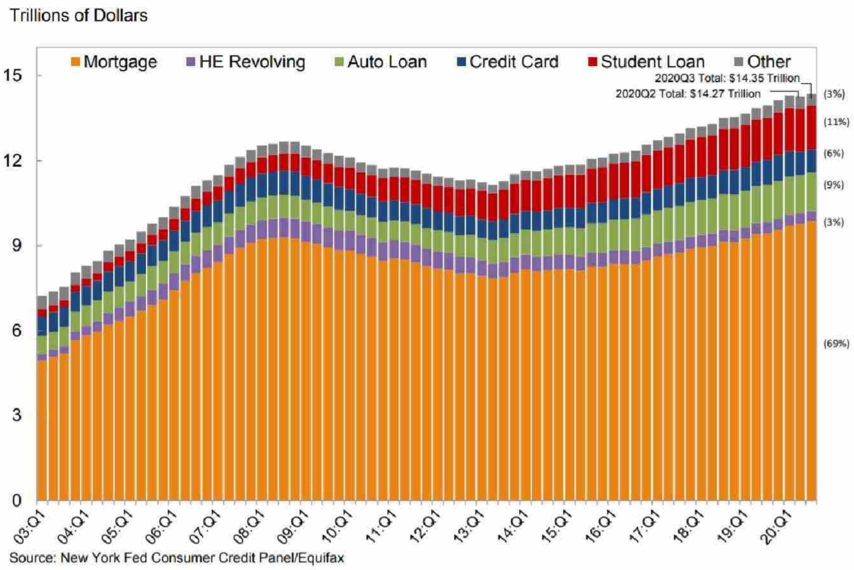


Figure 12-2: Household Debt Holding by Category, Consumer Non-Mortgage Debt

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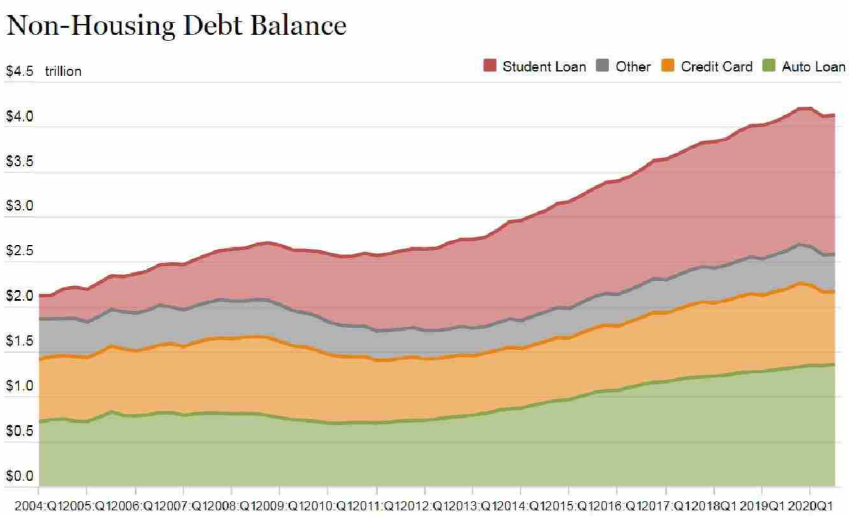


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Of possible concern beyond the direct cost and impact of student loans is the spillover effect of student debt burdens on young Americans' overall financial condition. A particular area of focus has been the question of whether student loan debt has restricted access to home ownership.

Research by Federal Reserve economists estimated that a 10 percent increase in student loan debt causes a 1 to 2 percentage point drop in the homeownership rate for student loan borrowers during the first five years after exiting school.[47] This negative relationship between college debt and homeownership appears to be only a short-run phenomenon.[48] Those with no

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[47] *See* Alvaro Mezza, Daniel Ringo, Shane Sherlund, and Kamila Sommer, *On the Effect of Student Loans on Access to Homeownership*, Federal Reserve Board (Mar. 2, 2016).

[48] Alvaro Mezza, Kamila Sommer, and Shane Sherlund, *Student Loans and Homeownership Trends*, FEDS NOTES (Oct. 15, 2014), *available in* [ HYPERLINK "https://www.federalreserve.gov/econresdata/notes/feds-notes/2014/student-loans-and-homeownership-trends-20141015.html" ].

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college education and those with college education and no student loan debt enter homeownership earlier, on average, than those with college education and student loan debt. By about five years after graduation (age 26), the home ownership rate of those with a college education catches up with and then surpasses those with no college education. By age 30, the home-ownership rate of those with college education and student loan debt catch up begins to catch up to college-educated individuals with no debt, and by age 34 their home ownership rates are essentially identical. Taken together, these results suggest that for those with college education, student loan debt more likely affects the timing of homeownership more than their eventual attainment of it.

**Figure 12-3: Effects of Student Loan Debt on Homeownership Rates**

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Other research has suggested that there might be similar effects on the relationship between student loan debt with other measures of financial well-being, such as automobile loans and individual credit scores.[49] Those data, however, do not distinguish between consumers who have no student loans because they did not attend college versus those who went to college but had no student loan debt. In short, more research is needed to determine the extent to which student loan debt is having adverse spillover effects on consumer balance sheets and the effects of student loan debt on overall household financial maturation.

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[49] Meta Brown and Sydnee Caldwell, *Young Student Loan Borrowers Retreat from Housing and Auto Markets*, LIBERTY STREET ECONOMICS (Apr. 17, 2013), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2013/04/young-student-loan-borrowers-retreat-from-housing-and-auto-markets.html" ].

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It also is not clear what might explain the dual findings that the presence of student loans reduces the frequency of homeownership for the first five years out of college and then increases it later. One possibility is tightened restrictions on maximum debt-to-income ratio limits for mortgage loans imposed after the 2008 financial crisis and imposed by the CFPB's "Qualified Mortgage Definition" and "Mortgage Ability-To-Repay" rules under Regulation Z. To qualify for regulatory treatment as a "qualified mortgage," the ratio of the consumer's total monthly debt to total monthly income cannot exceed 43 percent, as calculated by Appendix Q to the rule.[50] Higher student loan debt might also make it more difficult to save for a sizeable downpayment, thereby delaying one's ability to purchase a home until that point is reached.[51] It has also been suggested that the presence of student loan debt might reduce demand for home ownership by inducing recent graduates to move back home to live with their parents after graduation because they cannot afford to live on their own or prefer to live at home and pay down their loans.[52] Because marriage and family-formation is often a predicate step to home buying, to the extent the presence of student loan debt delays the timing of those life events it would also be expected

**Commented [EK(5]:** the report does not include the rising cost of homes as a barrier to home ownership particularly for young adults. Of course, home prices vary by location, the average home prices today are higher than during the peak of the housing boom in late 2006. There is also generally a lack of housing supply. With increased land and labor costs, new home construction has not kept up with growing demand. The lack of housing supply is driving up home prices beyond the reach of many young adults. There is a concern that delayed homeownership may have an impact on future wealth of this generation.

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[50] BUREAU OF CONSUMER FINANCIAL PROTECTION, ADVANCE NOTICE OF PROPOSED RULEMAKING, QUALIFIED MORTGAGE DEFINITION UNDER THE TRUTH IN LENDING ACT (REGULATION Z), 12 C.F.R. Part 1026, FED. REG., Vol. 84, No. 147 (July 31, 2019). 37156

[51] *See* Mark Andrew, *The Changing Route to Owner Occupation, the Impact of Student Debt*, 25(1) HOUSING STUDIES 39 (2010) (finding that the presence of student loan debt lengthened the time to save for a downpayment by two years).

[52] *See* Zachary Bleemer, Meta Brown, Donghon Lee, and Wilbert van der Klaauw, *Tuition, Jobs, or Housing: What's Keeping Millennials at Home?*, FEDERAL RESERVE BANK OF NEW YORK STAFF REPORTS, Staff Report No. 700 (rev. July 2017).

to delay home buying as well.[53] It has also been suggested that those with student loan debt might self-select not to purchase a house until they feel like they have their student loans somewhat under control, rather than taking on another large debt obligation.

Regardless of the reason why there might be a relationship between student loan debt, homeownership, marriage, and other behaviors, the best evidence to date suggests that the primary effect of student loan debt is to delay homeownership and other indicia of financial maturation, not to stop it completely.[54] As those with student debt age, they appear to follow the traditional financial lifecycle of prior generations, starting off their lives as borrowers before transitioning in middle age to a status as lenders and furnishers of financial capital through bank accounts and financial investments. As student loan debt continues to increase, however, it bears intense monitoring by policymakers and consideration of sensible ways to address problems that might develop over time.

All of this raises an obvious question: Why has student loan debt increased so dramatically over time and especially in the past decade? The answer seems equally obvious: Because college costs have risen equally dramatically during that same period. Less obvious, however, is the explanation for *why* college costs have risen so much over time.

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[53] *See* Robert Bozick and Angela Estacion, *Do Student Loans Delay Marriage? Debt Repayment and Family Formation in Young Adulthood*, 30 DEMOGRAPHIC RESEARCH 1865 (2014). The authors conclude an increase of $1,000 in student loan debt is associated with a reduction in the odds of a first marriage by 2 percent a month among female bachelor degree recipients during the first four years after college graduation, but that the effect attenuates over time.

[54] *See* Claire Callender, KC Deane, Ariane de Gayardon, and Stephen L. DesJardins, *Student Loan Debt: Longer-Term Implications for Graduates in the United States and England*, *in* CHANGING HIGHER EDUCATION FOR A CHANGING WORLD 101, 108 (Claire Callender, William Locke, and Simon Marginson eds., 2020).



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The cost of attending college has risen dramatically over time and the rate of change of college costs has far outpaced inflation for decades and has increased faster than virtually any other class of ubiquitous goods or services in the economy. According to Bureau of Labor Statistics, from 1980-2014 average college tuition increased by 260% compared to a 120% increase in the consumer price index.[55] In addition, tuition and other college costs have increased for all types of institutions, regardless of whether they are private or public institutions.[56] Multiple explanations have been provided for why college costs have risen so much over time, but canvassing those theories goes beyond the contours of the current report. Properly understanding the underlying causes of increased college costs, however, is essential to ensure that government policy interventions do not have unintended consequences that will exacerbate that underlying problem.

**2. Student Loan Default and Delinquency**

**a. Understanding Student Load Default and Delinquency**

Although student loan debt is only the second-largest category debt on the household financial balance sheet behind mortgages, student loans claim first place with respect to the

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[55] *See* Abby Jackson, *This Chart Shows How Quickly College Tuition has Skyrocketed since 1980*, BUSINESS INSIDER (Jul 20, 2015), *available in* [ HYPERLINK "https://www.businessinsider.com/this-chart-shows-how-quickly-college-tuition-has-skyrocketed-since-1980-2015-7" \l ":~:text=The%20average%20annual%20increase%20in,to%20the%20Department%20of%20Education" ].

[56] *See* NATIONAL CENTER FOR EDUCATION STATISTICS, TUITION COSTS OF COLLEGES AND UNIVERSITIES, https://nces.ed.gov/fastfacts/display.asp?id=76; *see also* Briana Boyington and Emma Kerr, *20 Years of Tuition Growth at National Universities*, USNEWS.COM (Sept. 17, 2020), *available in* [ HYPERLINK "https://www.usnews.com/education/best-colleges/paying-for-college/articles/2017-09-20/see-20-years-of-tuition-growth-at-national-universities" ].

amount of balances that are delinquent and in derogatory status, having passed mortgages and credit cards several years ago.[57] Default rates in Black-Majority areas are also higher than default rates in White neighborhoods.[58]

Figure 12-4 shows that default rates on student loans rose doubled from 2004 to 2011. Beginning in 2012, the Department of Education switched from a two-year to a three-year default rate measurement, as required by the Higher Education Opportunity Act of 2008, resulting in a one-time discrete jump in reported student loan default rates:

**Figure 12-4: Student Loan Default Rate**

[57] *See* Andrew F. Haughtwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw, *Just Released: Mind the Gap in Delinquency Rates*, LIBERTY STREET ECONOMICS (Aug. 13, 2019), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2019/08/just-released-mind-the-gap-in-delinquency-rates.html" ].

[58] Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw, *Just Released: Racial Disparities in Student Loan Outcomes*, LIBERTY STREET ECONOMICS (Nov. 13, 2019), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2019/11/just-released-racial-disparities-in-student-loan-outcomes.html" ].

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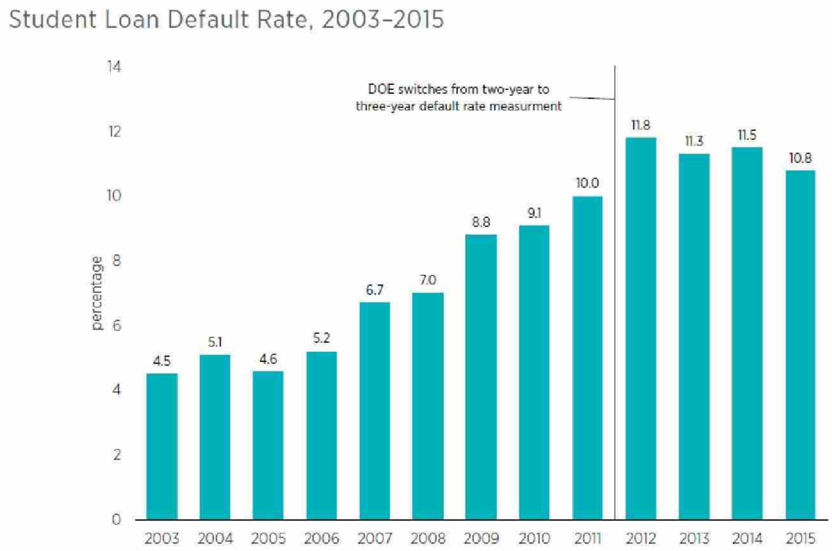


Source: US Department of Education, "Student Loan Default Rates," September 27, 2017, https://www.ed.gov/category/keyword/student-loan-default-rates.[59]

Since then default rates have remained relatively constant and have stabilized at a rate much higher than the delinquency rates on other types of consumer loans—except for a temporary drop in reported delinquencies as a result of pandemic-related collections and reporting forbearance beginning in the second quarter of 2020—as shown in Figure 12-5.[60]

**Figure 12-5: Delinquency Rates on Consumer Debt**

[59] Chart appears in Veronique de Rugy and Jack Salmon, *Reevaluating the Effects of Federal Financing in Higher Education*, MERCATUS CENTER POLICY BRIEF 3, Fig. 2 (Aug. 2019)

[60] *See* NEW YORK FEDERAL RESERVE BANK, HOUSEHOLD DEBT AND CREDIT REPORT (Q2 2020): PERCENT OF BALANCE 90+ DAYS DELINQUENT, *available in* https://www.newyorkfed.org/microeconomics/hhdc.html.



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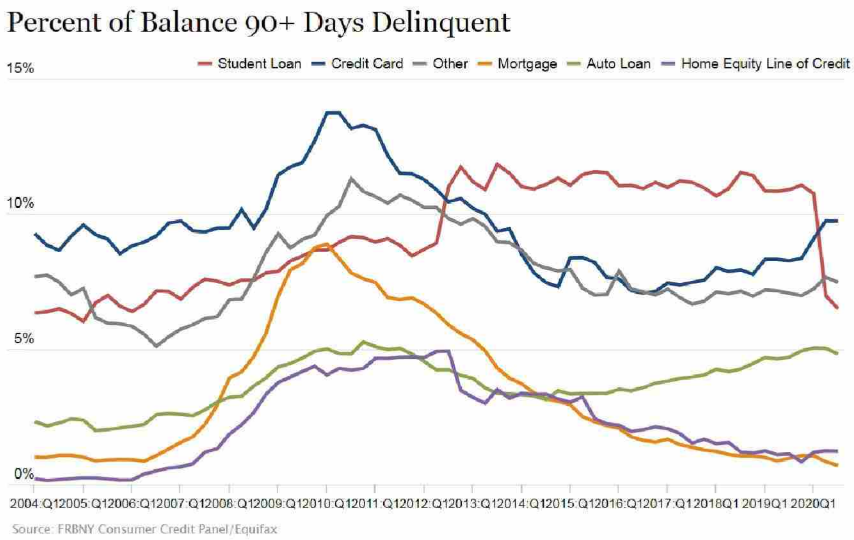


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Simply because a student loan is not delinquent or in default, however, does not necessarily mean the individual is paying it off. According to the New York Federal Reserve Bank using data from 2014, only 37 percent of student loan borrowers were current on their student loan and actively paying it down at that time.[61] Thirty-three percent of student loans were current but the balance was *increasing*, 13 percent were listed as current but with the same balance due, and 17 percent were listed as delinquent or in default. Defaults and delinquencies were centered in lower-income areas, where about 2/3 of borrowers were having some sort of payment difficulties compared to 1/3 of borrowers from higher income areas.[62] At that time,

[61] *See* Andres Haughwout, Donghoon Lee, Joelle Scally, Wilbert van der Klaauw, *Student Loan Borrowing and Repayment Trends, 2015*, at p. 27, Federal Reserve Bank of New York (Apr. 16, 2015), *available in* [ HYPERLINK "https://www.newyorkfed.org/medialibrary/media/newsevents/mediaadvisory/2015/Student-Loan-Press-Briefing-Presentation.pdf" ].

[62] *Id.* at 30.

borrowers from the lowest income areas had made almost no progress paying down their loans: five years after leaving school the aggregate balance of consumers in lower-income areas was still 97 percent of the amount when they left school compared to borrowers from higher-income areas, who have paid down nearly 30 percent of their balances.[63]

Unfortunately, most analyses of the causes of student loan default are based on descriptive statistics, not multivariate regressions, and data availability has been limited. Although arising from multiple factors, research has identified three factors that are particularly important in predicting default and delinquency on student loans: (1) Demographics and (2) Degree Completion, and (3) Post-Graduation Income. Other factors that might be expected to affect default, such as amount of indebtedness, type of school attended (controlling for demographic characteristics) or one's college major, have little or counterintutivie predictive effect on student loan defaults after controlling for other factors. Consider each factor in turn.

Default on student loans is most closely predicted with certain demographic characteristics of the borrower.[64] Factors such as whether the student was from a low-income background, minority status, financial independence, male sex, being a first-generation college student, financially independent, older age at the time of attending college, and whether the student is a parent while attending school, are relevant factors correlated with an increased likelihood of default on student loans. In addition, student loan default rates are higher for

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[63] *Id.* at 32.

[64] *See* Jacob P.K. Gross, Osman Cekic, Don Hossler, and Nick Hillman, *What Matters in Student Loan Default: A Review of the Research Literature*, 39 J. OF STUDENT FINANCIAL AID 19 (2009).



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borrowers with lower credit scores.[65] As summarized in a literature review that examined the causes of student loan default, "It is axiomatic that there is greater risk of default in providing loans to low- and moderate-income students—who often come from families with weak credit histories and who may be at greater risk of not graduating or of ending up in jobs with lower incomes."[66] Another summary concluded, "Defaulters are more likely to be older, be Pell Grant recipients, and come from underrepresented backgrounds than those who never default."[67] But because those students who are most at risk because of their backgrounds are those for whom the federal student aid program is designed to support financially so they may attend college, it would be counterproductive to simply declare students from higher-risk backgrounds ineligible for student loans.

Whether a student completes a degree is a second important factor associated with student loan default rates.[68] Those who complete their course of study and receive a degree are much as three to four times less likely to later become delinquent on their student loan

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[65] Alvaro Mezza and Kamila Sommer, *A Trillion Dollar Question: What Predicts Student Loan Delinquency Risk?*, FEDS NOTES (Oct. 16, 2015).

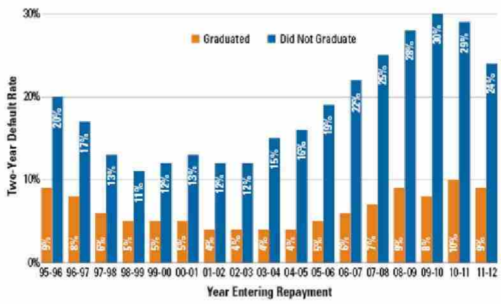
[66] *Id.* at 27.

[67] Ben Miller, *Who Are Student Loan Defaulters?* CENTER FOR AMERICAN PROGRESS (Dec. 14, 2017); *see also* Ben Miller, *The Continued Student Loan Crisis for Black Borrowers*, CENTER FOR AMERICAN PROGRESS (Dec. 2, 2019).

[68] *See* Dora Gicheva and Jeffery Thompson, *The Effects of Student Loans on Long-Term Household Financial Stability*, working paper (Oct. 18, 2013), *available in* [ HYPERLINK "https://www.urban.org/sites/default/files/2015/01/06/effects-of-student-loans-on-long-term-household-financial-stability.pdf" ]; Michael Itzkowitz, *Want More Students to Pay Down Their Loans? Help Them Graduate*, THIRD WAY (Aug. 8, 2018), *available in* [ HYPERLINK "https://www.thirdway.org/report/want-more-students-to-pay-down-their-loans-help-them-graduate" ]; Mezza and Sommer, *supra* note [ NOTEREF _Ref57042246 \h ].

obligations than those who drop out.[69] On the other hand, the propensity to complete one's course of study and receive a degree is also correlated with many of the same demographic factors that independently predict repayment success, thus it is not clear the extent to which degree completion is an independent predictor of repayment success. As shown in Figure 12-6, there is a dramatic difference in loan default rates between those who complete their course of study and those who do not.

**Figure 12-6. Degree Completion and Loan Default.** [70]




Two-Year Cohort Default Rates, Borrowers Entering Repayment in 2011-12

| | Public Two-Year | Public Four-Year | Private Nonprofit Four-Year | For-Profit | All |
|---|---|---|---|---|---|
| All Borrowers | 23% | 9% | 7% | 18% | 14% |
| Borrowers Who Graduated | 17% | 6% | 5% | 14% | 9% |
| Borrowers Who Did Not Graduate | 29% | 18% | 15% | 28% | 24% |

Controlling for student demographic characteristics and the school's student selectivity, the type of educational institution (four-year public, four-year private, community college, or for-profit college) that a student attends does not have a discernible effect on default rates.[71]

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[69] *See* Mezza and Sommer, *supra* note [ NOTEREF _Ref57042246 \h ].

[70] Source: The College Board.

[71] *See* Adam Looney and Constantine Yannelis, *A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and the Institutions They Attend Contributed to Rising Loan Defaults*, BROOKINGS PAPERS ON ECONOMIC

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**Commented [EK(6]:** the report should also acknowledge that borrowers who attend certain institutions, such as proprietary institutions, tend to default at higher rates than those who attend other institution types. The report cites that institution type does not have a "discernible effect on default rates." However, Department of Education data states that proprietary institutions have a higher default rate than other institution types at 14.6% of borrowers in default. [ HYPERLINK "https://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html" ].

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Four-year institutions, whether private or public, are usually somewhat selective in admissions and are more likely to attract students who are better-prepared for college; as a result, they have relatively low and comparable default rates. Highly selective colleges have lower student loan default rates than less selective colleges.[72] Community colleges and for-profit schools, by contrast, are typically nonselective in their student bodies, tend to attract students with at-risk demographic characteristics as described above, and as a result, have higher and similar default rates.[73] In addition to drawing a particularly large number of borrowers from higher-risk backgrounds, those who attend for-profit colleges also tend to have lower credit scores at the time of entering repayment.[74] In addition, the same demographic characteristics associated with a higher rate of default on student loans, such as being older and from a lower-income family background are associated with a higher likelihood of dropping out of college as well. Graduates of more selective colleges and graduate schools also have, on average, much higher post-graduation earnings and lower unemployment rates than graduates of community colleges and

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ACTIVITY 1, 58 (Fall 2015) ("Looking across columns, the association between school types and default drops when individual characteristics are included, which suggests that the school type indicators are capturing unobserved student-specific factors.").

[72] *See* Adam Looney and Constantine Yannelis, *A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and the Institutions They Attend Contributed to Rising Loan Defaults*, BROOKINGS PAPERS ON ECONOMIC ACTIVITY 1, 35 (Fall 2015).

[73] *See* Adam Looney and Constantine Yannelis, *A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and the Institutions They Attend Contributed to Rising Loan Defaults*, BROOKINGS PAPERS ON ECONOMIC ACTIVITY 1, 34 (Fall 2015); *see also* Jason Delisle, *The Left Gives Community Colleges Another Free Pass for Unpaid Student Loans*, AEIDEAS (Aug. 29, 2018), *available in* https://www.aei.org/education/the-left-gives-community-colleges-another-free-pass-for-unpaid-student-loans/.

[74] Mezza and Sommer, *supra* note [ NOTEREF _Ref57042246 \h ].

for-profit schools, which makes debt repayment easier even with higher debt loads.[75] Given these similarities between community colleges and for-profit colleges in terms of student demographic characteristics, it is not surprising that the default rates for students who attend community colleges and nontraditional and for-profit colleges are much higher than for four-year colleges (whether public or private) and are comparable to one another.[76]

Higher post-graduate income is correlated with a lower risk of student loan default but loan balances are *inversely* related, i.e., those with the *largest* loan balances also have the *lowest* default rates and vice-versa.[77] Although it may seem surprising that those who borrow more are less likely to experience repayment difficulties, those who borrow the most usually also completed their degree at a quality institution and many also attended graduate school. The overwhelming number of borrowers with the highest debt obligations attended graduate school and thus also have the highest incomes and lowest default rates. Thus, even though they incurred

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[75] Looney and Yannelis note that in 2013 the median borrower from a for-profit school had a 21 percent chance of being unemployed, had a median salary of $20,000, and a median loan balance of $10,500. Comparable community college borrowers had a 17 percent chance of being unemployed, a median income of $23,000, and $9,600 in median student debt. *Id.* at 38.

[76] *See also* Robert Clifford, *Student-Loan Debt, Delinquency, and Default: A New England Perspective*, FEDERAL RESERVE BANK OF BOSTON NEW ENGLAND PUBLIC POLICY CENTER Research Report 16-1, at p. 10, Fig. 6 (Sept. 2016); *see also* Looney and Yannelis, *Crisis*, *supra* note [ NOTEREF _Ref55775375 \h ], infographic, *available at* [ HYPERLINK "https://www.brookings.edu/wp-content/uploads/2015/12/Chart2_LooneyYannelis_StudentLoanDefaults.png" ] (showing slightly higher default rates for community college borrowers than for-profit colleges and both types having much higher default rates than four year colleges).

[77] *See* Mezza and Sommer, *supra* note [ NOTEREF _Ref57042246 \h ]; Miller, *Student Loan Defaulters*, *supra* note [ NOTEREF _Ref57042517 \h ] ("In almost every case, the median loan defaulter owed thousands of dollars less than their peers who did not default.").



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debt to do so, their increased earnings more than offset the financial cost of the loans used to fund that investment. As observed by Looney and Yannellis, "Traditional borrower tend to have higher incomes than the general population and to owe larger loan balances. Even traditional borrowers with large balances tend to do well, on average, mainly because they acquired their loan balances while attending selective schools or graduate and professional programs."[78] Those with lower debt balances, by contrast, are less likely to have completed their degree.

Students who attend selective colleges generally demonstrate lower default rates than students who attend nonselective colleges.[79] On the other hand, one's major generally matters less than whether a student attended a selective or nonselective college. For students who attend a selective college, major appears to matter little, as default rates are similar regardless of major. For those who attend nonselective colleges, however, those who studied STEM subjects or vocational training have lower default rates than students who studied Arts and Humanities.[80] Thus, for selective institutions, even though there are documented differences in earnings depending on one's major in college, it may be that the difference in earnings from pursuing one major instead of another is smaller than those between selective and nonselective institutions overall.

**Figure 12-7: Student Loan Default Rates by College Selectivity and Major**

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[78] *See* Looney and Yannelis, *supra* note [ NOTEREF _Ref57042920 \h ], at 64; *See* Adam Looney and Constantine Yannelis, *Borrowers with Large Balances: Rising Student Debt and Falling Repayment Rates*, BROOKINGS INSTITUTION (Feb. 2018).

[79] *See* Rajashri Chakrabarti, Nicole Gorton, Michelle Jiang, and Wilbert van der Klaauw, *Who is More Likely to Default on Student Loans?*, LIBERTY STREET ECONOMICS (Nov. 20, 2017), *available in* [ HYPERLINK "https://libertystreeteconomics.newyorkfed.org/2017/11/who-is-more-likely-to-default-on-student-loans.html" ].

[80] *See id.*



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Overall, there is a shortage of multivariate analysis of the causes of student loan defaults to control for these interrelated characteristics of demographics, credit score, completion rates, type of institution, and other factors that are relevant to predict defaults. Looney and Yanellis aptly summarize the complexity of these factors, "Regression analysis suggests that nontraditional borrowers experience higher rates of default in part because they are drawn from more disadvantaged backgrounds. For instance, nontraditional borrowers were older, more likely to be independent of their parents, from lower-income families, and living in more disadvantaged areas. They borrowed substantial amounts to attend institutions with low completion rates and, after enrollment, experienced poor labor market outcomes that made their debt burdens difficult to sustain."[81]

**b. Proposals for Addressing Student Loan Debt and Delinquency**

Examining the evidence, the Taskforce is persuaded that although the growth and burden is not dire for the economy as a whole, it is nevertheless is a matter of concern and extremely troubling in many specific instances. Although the largest debts overwhelmingly are held by those who graduated from selective institutions and graduate schools, there are some unfortunate individuals who have high debts despite low incomes or other issues that affect their ability to repay. Student loan relief programs can be complicated and cumbersome and not always effective at reducing the burden. As noted, some of the more problematic side-effects associated with student loan debt (such as making it more difficult to buy a house) appear to be largely

[81] Looney and Yannelis, *supra* note [ NOTEREF _Ref57042920 \h ], at 63.



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short-term in nature. It is not clear how one should way this effect of real, but temporary, financial hardship from student loan debt or whether it should be treated differently from any other type of debt.

Given the observed correlation between high incomes, high debts, and low default rates, research is divided on the value of student loan relief programs. Some researchers have concluded that student debt relief could have large beneficial economic consequences over the long run by leading to increased opportunities for geographical mobility, job changes, and higher income.[82] Others have doubted the economic benefits of student loan debt relief, noting that relief would provide little in the way of increased monthly cash flow to households ~~the~~ and that the benefits would be concentrated largely on the highest-earners in the economy who least need relief.[83]

In the course of analyzing the causes and consequences of student loan debt and default, the Taskforce came across certain high-profile proposals to address the burgeoning student loan problem. But based on our review of the evidence each of these proposals could have significant unintended consequences that policymakers should consider before moving forward. Leaving

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[82] *See* Marco Di Maggio, Ankit Kalda, and Vincent Yao, *Second Chance: Life Without Student Debt* (Mar. 2, 2020), *available in* [ HYPERLINK "https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3376245" ].

[83] *See* Committee for a Responsible Federal Budget, *Canceling Student Loan Debt Is Poor Economic Stimulus* (Nov. 18, 2020), *available in* [ HYPERLINK "http://www.crfb.org/blogs/canceling-student-loan-debt-poor-economic-stimulus" ] (estimating that student loan debt cancellation will increase household cash flow by only $90 billion per year at a cost of $1.5 trillion); Jeff Cox, *Erasing Student Debt would be a Small Stimulus but Would Create a "Moral Hazard," Moody's says*, CNBC.COM (Nov. 1, 2019), *available in* [ HYPERLINK "https://www.cnbc.com/2019/11/01/wiping-out-student-debt-would-be-small-boost-to-economy-moodys-says.html" ] (discussing Moody's Investors Service report that estimates benefits of canceling student loan debt would add about $86-$108 billion to GDP over a 10 year period).



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aside questions about the respective costs and benefits of these programs, the Taskforce offers a few thoughts on pitfalls to consider in deciding whether and how to move forward in responding to student loan policy.

Various policy recommendations have offered a variety of options for dealing with student loan issues. They include widescale loan forgiveness, amending the Bankruptcy Code to permit discharge of student loan debt more easily, or making colleges and universities partially responsible for their student's defaults. In considering any of these interventions, policymakers should be wary to avoid creating a moral hazard problem for colleges and universities that will encourage them to further raise costs or create perverse incentives with respect to administering the student loan program.

Proposals that would either eliminate borrowers' debt or permit them to discharge those debts in bankruptcy would tend to provide predominant benefits to those with the highest student loan balances, namely those who attend selective colleges, graduate, and attain higher-income status. Lower default and delinquency status indicates they have the least trouble paying their loans and are least likely to default on their loans. Proposals for student debt forgiveness or bankruptcy would thus seem to primarily benefit higher income consumers who have the fewest struggles paying their loans, especially those who borrowed to attend graduate school. These proposals would also have the curious equitable effect of effectively disadvantaging those Americans who chose not to go to college at all, attended a less-expensive school or earned scholarships, worked their way through, or lived frugally during and after college so as to payoff their student loans after graduation~~1~~. Forgiving student loan debt or allowing it to be discharged in bankruptcy could create a moral hazard problem for future college students by encouraging

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them to borrow more than necessary for college and then to file bankruptcy.[84] One possible compromise would be to cap student loan forgiveness at some lower amount (such as $5000) that would be targeted to grant relief to those in most danger of default and to provide an equivalent tax credit for those who either never went to college or have paid off their loans.[85]

Of perhaps greater concern is the incentives for moral hazard these proposals would create for colleges and universities. As noted, the underlying cause of rising student loan indebtedness is rising college costs. A major contributor to rising college costs has been the growing role of the federal government in providing subsidies to higher education over the past decade, which has essentially instilled a third-party payer system for higher education finance that has enabled universities to raise costs while concealing the full cost of their product. According to a study by economists at the Federal Reserve Bank of New York, approximately 60 cents of every dollar of increased subsidized federal loans and 20 cents on every dollar of unsubsidized student loans is passed through in higher tuition costs to students.[86] This finding

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[84] There is little evidence on the degree to which allowing student loan discharge in bankruptcy could create moral hazard problems by borrowers in large part because Congress amended the Bankruptcy Code swiftly when the idea first arose. For a summary of the available evidence and the potential limits on their applicability to the current context, *see* CONSUMER FINANCIAL PROTECTION BUREAU, PRIVATE STUDENT LOANS 75-76(Aug. 29, 2012); *see also See* Rajeev Darolia and Dubravka Ritter, *Strategic Default Among Private Student Loan Debtors: Evidence from Bankruptcy Reform*, 15 EDUCATION FINANCE AND POLICY 487 (2020). Permitting consumers to discharge student loans in bankruptcy would could lead to the unraveling of the student loan program as a result of this moral hazard as those with the highest debts would be most likely to file bankruptcy. To the extent that it did not lead to unraveling, some borrowers would be incentivized to take on higher levels of debt while in school with the expectation of being able to discharge it in bankruptcy later.

[85] *See* Beth Akers, *Forgive Student Loans, but Only a Little*, WALL ST. J. p. A15 (Nov. 23, 2020).

[86] David O. Lucca, Taylor Nadauld, and Karen Shen, *Credit Supply and the Rise in College Tuition: Evidence from the Expansion in Federal Student Aid Programs*, 32 REV. OF FIN. STUDIES 423 (2019); Looney and Yanellis, *supra*

suggests that eliminating student loan balances either by fiat or by allowing borrowers to file bankruptcy will attenuate any incentives for universities to hold down costs and instead encourage continued cost increases because of the ability of student loan borrowers to externalize some of the costs of attending college on other loan recipients or taxpayers.

Proposals to require colleges to bear some of the risk of their students' loan performance, often called "skin in the game" proposals, raises concerns of a different type.[87] Under this approach, the colleges and universities that a student attended would be responsible in part or in whole for the debts of students who default. The logic of the approach is that making colleges responsible for student loan repayment performance will provide incentives for colleges to restrain costs and provide more "useful" degrees in order to ensure that their students will obtain remunerative employment upon graduation. But this analysis fails to appreciate the dynamics of student loan default and delinquency described above—how student loan default rates are correlated with the demographic characteristics of student borrowers (i.e., "at-risk" borrowers) and whether the student graduates with a degree. One predictable response of colleges to becoming "cosigners" for their student's debts will be simply to admit fewer lower-income and other at-risk students in the first place, so as to keep down loss rates. This result would be ironic and counterproductive—those are precisely the type of students for whom the student loan program is intended to provide the resources to attend college in the first place. In addition,

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note [ NOTEREF _Ref57042920 \h ], at 64 (citing studies that conclude that "unqualified aid—particularly aid limited only by costs of attendance—contributes to laon burdens by increasing students' educational costs and their need to borrow").

[87] *See*, *e.g.*, Carlo Salerno, *Colleges Should Cosign Student Loans*, INSIDE HIGHER ED (June 18, 2019), *available in* [ HYPERLINK "https://www.insidehighered.com/views/2019/06/18/congress-should-obligate-colleges-help-repay-students-debt-opinion" ].



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colleges would be likely to require students to indemnify them for any losses they would be required to cover, which could prompt more aggressive collection efforts against those students to reduce losses. As Looney and Yanellis observe, "[S]trengthened accountability can reduce defaults. However, such policies have trade-offs, because they may limite the educational opportunities of higher-risk or underserved students. Gauging whether such students (and taxpayers) would be better or worse off from accountability changes or whether policy changes would encourage new and better educational outcomes requires better measures of the returns to educational investments at different institutions."[88]

In raising concerns about these proposals, the Taskforce acknowledges the knottiness of the issue as well as the tradeoffs associated with any chosen course of action. Indeed, the current student loan fiasco is a tale that stretches back decades of unintended consequences that have resulted from trying to make higher education more affordable and accessible, especially to those from backgrounds historically excluded from higher education. Policymakers should be cautious in stepping into this complex web with simple solutions that could backfire with unintended consequences.

### C. Technological Adoption, Banking, and Payments

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From the dawn of the modern era of consumer finance, the institutions of consumer finance have been in constant change. In the early 20th century, installment sellers emerged to provide capital to the newly urbanized population to finance the purchase of consumer durables and small-dollar lenders, frequently illegal in nature, offered short-term cash loans to wage earners to meet the challenges of every day life. In response, financial reformers led by the Russell Sage Foundation supported regulatory reforms to enable small-dollar cash lenders to

[88] Looney and Yanellis, *supra* note [ NOTEREF _Ref57042920 \h ], at 64.

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make legal loans to wage earners. The great migration to the suburbs in the post-War era was fueled by an explosion of retail installment credit, automobile loans, and store-branded revolving credit cards. Following the effective deregulation of interest rates in the late-1970s by the Supreme Court's decision in *Marquette National Bank of Minneapolis v. First of Omaha Service Corp.*,[89] access to credit cards exploded, meeting the needs of a newly mobile and increasingly higher-income society. Abolition of long-standing regulatory restrictions on interstate branch banking catalyzed unprecedented levels of competition and innovation in retail consumer banking services. The late-1990s and early-2000s brought with it the rise of bank-issued debit cards, which quickly became America's favorite non-cash payment device. Formerly popular consumer payment technologies such as personal checks and traveler's checks, which once served valuable and important functions for consumer payments, have been rendered obsolete and replaced with more efficient, secure, and convenient payment mechanisms.

This dynamic process of change and innovation continues today as the millennial and Gen Z generations emerge into adulthood. In some ways, the preferences and behaviors of these groups reflect a continuity and gradual pace of change with older generations. But in other ways their behavior marks a dramatic break with the past. In addition, many observers point the financial crisis of 2008 and the subsequent Great Recession as a formative moment in shaping the worldview of the Millennial generation, much as the Great Depression shaped the generation that came of age during that traumatic era. At the same time, extraordinary technological innovations are shaking up the traditional delivery channels of consumer financial products but also raising heightened concerns about privacy and security with respect to those same

[89] 439 U.S. 299 (1978).

technologies. It will take some time to sort out the full implications of these forces to determine how the consumer financial system will change, but we offer some tentative observations here.

The financial habits of the Baby Boom generation have been studied for decades and are relatively well understood as they approach retirement age. Baby Boomers set the course for the prevailing consumer financial system. They were the first generation to gain widespread access to credit cards and were in their financial prime of life as debit cards emerged and were seen as a substitute for traditional checks. They have adopted new technologies, such as online banking and mobile payments, with a surprising degree of flexibility. At the same time, checks, cash, and debit cards remain popular with Baby Boomers.[90]

Generation X is often seen as the "credit card generation" by commentators because of the popularity of credit cards with this generation. Credit cards became widely available early in the financial lifecycle of Generation X consumers and these consumers embraced credit cards as both a transaction and credit vehicle. Generation X was also the first generation to receive intensive marketing touting credit card rewards for shopping and an expectation of avoiding fees for financial services, such as annual fees on credit cards and monthly maintenance fees for bank accounts. Debit cards are also popular with Gen X'ers and this generation has shown a surprising interest in adopting mobile and contactless payments as well as digital wallets.

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[90] *See* Reliance Star Payment Services, *Insights into Payment Preferences by Age Groups*, CREDIT CARD PROCESSING BLOG (Oct. 6, 2016), *available in* [ HYPERLINK "http://www.reliancestar.com/insights-into-payment-preferences-by-age-groups/" ]. American Express cards are especially popular with Baby Boomers, particularly higher income Baby Boomers, because of its perceived prestige. *See* Marie-Louise Dalton, *How do Different Age Groups Prefer to Pay?*, PAYMENTEYE.COM (May 3, 2016), *available in* [ HYPERLINK "https://www.paymenteye.com/2016/05/03/how-do-different-age-groups-prefer-to-pay/?utm_content=bufferf43a2&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer" ].



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Contrary to public perceptions that see millennial consumers as a transformative generation, in many ways exhibit characteristics of a gradual evolution from the behaviors and preferences of Gen X'ers. To be sure, millennials tend to be somewhat more tech-savvy than Generation X, but not radically more so, especially older Millennials. Having watched Generation X struggle with debt, as embodied in the 2008 mortgage market meltdown, millennials are wary of taking on excess debt. Moreover, this generation has withstood two financial calamities early in its financial lifecycle: the Great Recession beginning in 2008 which hit just as older millennials were entering the job market. Then just as it seemed the economy had fully recovered from that setback, the Covid pandemic of 2020 hit millennials and Gen Z harder in economic terms than older generations. More than earlier generations, millennials have also entered adulthood with student debt obligations that have shaped their work, living, and consumption habits. These shocks to their job prospects and economic security have shaped millennials in profound ways.

The financial preferences and behaviors of millennials reflect a gradual evolution from earlier generations, not a discrete break with the past. Debit cards are the preferred payment mechanism of millennials with credit cards second.[91] Members of the millennial and Generation

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[91] *See* LAURA KIM, RAYNIL KUMAR, AND SHAUN O'BRIEN, CASH PRODUCT OFFICE, FEDERAL RESERVE SYSTEM, 2020 FINDINGS FROM THE DIARY OF CONSUMER PAYMENT CHOICE at 8, Figs. 6-7 (July 2020); RAYNIL KUMAR AND SHAUN O'BRIEN, CASH PRODUCT OFFICE, FEDERAL RESERVE SYSTEM, 2019 FINDINGS FROM THE DIARY OF CONSUMER PAYMENT CHOICE at 8, Figs. 7-8 (June 2019); *see also* Worldpay Editorial Team, *How Consumer Payment Preferences are Shaping Commerce* (July 10, 2019), *available in* [ HYPERLINK "https://www.fisglobal.com/en/insights/merchant-solutions-worldpay/article/how-consumer-payment-preferences-are-shaping-commerce" ] (reporting that millennials are the only generation that prefers debit cards over all other payment types).



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X generations are substantially less likely to use cash for transactions than other generations and their usage of cash is virtually identical with each other.[92] Millennials have also gradually adopted mobile payments and digital wallets, but their uptake of these payment technologies more closely resembles Generation X than Generation Z.[93] Industry analysts claim that general purpose reloadable prepaid cards are especially popular with millennials.[94] It is not clear why prepaid cards are so popular with millennials, but one explanation may be that they provide an alternative to bank accounts and credit cards for millennials desiring electronic transactions. Bank accounts have become increasingly expensive for younger consumers following the enactment of the Dodd-Frank financial reform legislation (especially as a result of price controls on debit card interchange fees) and credit cards have become less accessible to younger consumers as a result of the Credit CARD Act of 2009.[95]

Unlike millennials, who appear to be more conventional in their use of financial products, evidence suggests that Generation Z may prove to be a discrete break in kind from the habits of earlier generations. In part this is because of the centrality of mobile devices to their

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[92] *See* KIM, *supra* note [ NOTEREF _Ref55820155 \h ]; KUMAR, *supra* note [ NOTEREF _Ref55820155 \h ].

[93] *See* PEW CHARITABLE TRUSTS, WHO USES MOBILE PAYMENTS? AT 3, Fig. 2 (May 2016) (finding that 39 percent of those who use mobile payments are millennials and 33 percent were Generation Xers); *see also id.* at 5 (finding similar rates of usage by millennials and Generation X consumers in use of mobile payments to make a purchase or pay bills).

[94] *See* Abby Hayes, *Why Are Millennials Using Prepaid Cards?*, DOUGHROLLER.COM (June 29, 2020), *available in* [ HYPERLINK "https://www.doughroller.net/credit-cards/why-are-millennials-using-prepaid-credit-cards/" ]; Reliance Star Payment Services, *Insights into Payment Preferences by Age Groups*, CREDIT CARD PROCESSING BLOG (Oct. 6, 2016), *available in* [ HYPERLINK "http://www.reliancestar.com/insights-into-payment-preferences-by-age-groups/" ].

[95] *See* discussion in Section II.D., *infra*.



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lives but may also reflect a backlash against some of the preferred technologies of earlier generations. Gen Z consumers are the first cohort for which mobile banking is preferred over online banking.[96] Gen Z'ers are especially likely to use digital wallets[97] and to conduct peer-to-peer money transfers.[98] To date, older Gen Z'ers have expressed skepticism toward credit cards and wariness about consumer debt, perhaps as a result of their youth experience living through the Great Recession or awareness of student loan debt. On the other hand, credit card usage tends to increase as consumers age, so it is possible that this generation's aversion to credit cards might attenuate over time. On the other hand, the demise of checks appears inevitable—30 percent of Gen Z and 20 percent of millennials report having never used a paper check in their life.[99]

Today, Generation Z has a great familiarity with various fintech products and providers and generally sees little difference between providers of tech-based financial services (such as Google, Venmo, or Paypal) and traditional banks in terms of trust or reliability. For example, Generation Z'ers are about equally concerned about fraud when using fintech versus a traditional

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[96] *See* Accenture, *According to Accenture: Gen Z Consumers Visit Bank Branches More Often than Ahy Other Age Group, Including Baby Boomers* (Oct. 17, 2017), *available in* [ HYPERLINK "https://newsroom.accenture.com/industries/banking/according-to-accenture-gen-z-consumers-visit-bank-branches-more-often-than-any-other-age-group-including-baby-boomers.htm" ].

[97] *See* Jean Blaney, *Gen Z is Leading the Way to Alternative Payment Options*, PAYMENTS JOURNAL (Feb. 20, 2020), *available in* [ HYPERLINK "https://www.paymentsjournal.com/gen-z-is-leading-the-way-to-alternative-payment-options/" \l ":~:text=When%20it%20comes%20to%20their,in%20stores%20offering%20contactless%20payments" ].

[98] According to one survey 79 percent of Gen Z reported using peer-to-peer payments at least once per month and they are more likely to use a digital wallet than prior generations. *See Billtrust's Generation Z and Digital Payments Study*, BILLTRUST.COM, *available in* [ HYPERLINK "https://www.billtrust.com/resources/blog/billtrusts-generation-z-and-digital-payments-study/" ].

[99] *Id.*

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financial provider.[100] On the other hand, when asked about receiving banking services from a general tech *company* (such as Google, Microsoft, Facebook, Amazon, or Apple) instead of a specialized fintech company, Gen Z seems far less comfortable.[101] This growth in mobile wallets, peer-to-peer transactions and other new payment technologies might also have been spurred by regulations that reduced access to bank accounts (because of their increased cost following the enactment of the Dodd-Frank financial reform legislation) and credit cards (because of the effects of the Credit CARD Act of 2009, as discussed below). Thus, the same economic and regulatory forces that prompted increased usage of prepaid cards by millennials might instead be pushing Generation Z toward mobile wallets and fintech products.

This rapidity of embrace of mobile and digital financial technologies by Generation Z is not surprising. What is surprising, however, is some reports suggest Generation Z is expressing some backlash against what they perceive as the excesses of this recent wave of technological innovation. Members of Generation Z express general concern about issues of privacy and data security in the digital world, a concern that carries over to their usage of financial services. Contrary to earlier generations, Gen Z'ers have been instructed from an early age to be careful about what they share online. They are also more adept at controlling their privacy settings.[102] It

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[100] *See* Billtrust, *supra* note [ NOTEREF _Ref55822504 \h ] (reporting that 60 percent of consumers have the same level of concern about both, 24 percent are more concerned about fintech providers, and 16 percent are more concerned about traditional providers).

[101] *See* Manole Capital Management, *What Gen-Z Thinks About Banks*, SEEKINGALPHA.COM (Jul. 16, 2020), *available in* [ HYPERLINK "https://seekingalpha.com/article/4358901-what-gen-z-thinks-banks" ].

[102] *See* Billtrust, *supra* note [ NOTEREF _Ref55822504 \h ]; *see also* Mueller, *Generation Z: Driving the Adoption of Online Cash*, PAYSAFECARD.COM (Nov. 4, 2019), *available in* *[ HYPERLINK "https://www.paysafe.com/en/blog/generation-z-driving-the-adoption-of-online-cash/" ]* (noting that two-thirds of

is unclear to what extent these factors indicated that Gen Z is more conscious and concerned about privacy than earlier generations, better at protecting their privacy, or some combination of both.

These concerns about privacy and security may explain an unexpected trend among Generation Z—their continued use of cash. Indeed, recent data reveals that consumers under the age of 25 use cash to conduct a higher percentage of transactions than any other age group, even slightly more than those who are 65 and older.[103] According to a study by Accenture, Gen Z consumers are more likely than any other age group, including Baby Boomers, to visit a bank branch at least weekly, "reflecting the heavy cash dependence within their age cohort."[104] On the other hand, there is a heavily bimodal distribution to branch usage by Gen Z—some visit branches frequently while others do so rarely or not at all.[105] The continued usage of branches may simply reflect the relative youth and financial immaturity of this cohort today—the most common reason why Gen Z visits a branch is to use an ATM (43% of respondents) and the second most-common reason is to deposit a check (26%).

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Generation Zers have adjusted the privacy settings on their social media accounts, 75 percent will only allow location sharing if its necessary for apps to function, and 87 percent consider online privacy to be more important than popularity or "likes").

[103] *See* KIM, *supra* note [ NOTEREF _Ref55820155 \h ].

[104] Accenture, *According to Accenture: Gen Z Consumers Visit Bank Branches More Often than Ahy Other Age Group, Including Baby Boomers* (Oct. 17, 2017), *available in* [ HYPERLINK "https://newsroom.accenture.com/industries/banking/according-to-accenture-gen-z-consumers-visit-bank-branches-more-often-than-any-other-age-group-including-baby-boomers.htm" ].

[105] *See* Manole, *What Gen-Z Thinks*, *supra* note [ NOTEREF _Ref57032187 \h ].



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Because of their youth, Gen Z has limited bank balances and doesn't carry around large amounts of cash in their wallet and thus they tend to make many smaller withdrawals.[106] The desire to visit a branch of one's own bank to use an ATM might reflect the desire to avoid fees from accessing out-of-network ATMs, which average $4.64 for out-of-network transactions, a large amount given the relatively small size and frequency of withdrawals by Gen Z consumers.[107] The use of ATM to deposit checks might reflect similar forces—whereas older consumers receive many of their payments by direct deposit and the like, Gen Z may still receive payments part-time jobs and gifts from relatives as checks. Although mobile deposit is more convenient than visiting a bank, funds deposited in an ATM generally are available for use more rapidly than for mobile deposit of a check image, which can take several days to clear and for funds to become available. Reforms that could speed up the availability of funds deposited by mobile deposit could substantially reduce the need for Gen Z to visit the bank to deposit checks.

The high level of cash usage by Generation Z consumers is especially surprising in that the millennial generation exhibits the *lowest* level of cash usage, approximately half as much as

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[106] *See* Laura Kim, Raynil Kumar, and Shaun O'Brien, *2020 Findings from the Diary of Consumer Payment Choice* at Fig. 9 (Jul. 31, 2020) (reporting that although consumers under the age of 25 make the largest volume of cash transactions they also have the smallest daily holdings of cash).

[107] *See* Mathew Goldberg, *Survey: Interest Checking Account Fees Hit Record High, While Average Yield Ties Record Low*, BANKRATE.COM (Oct. 21, 2020), *available in* [ HYPERLINK "https://www.bankrate.com/banking/checking/checking-account-survey/" ]. One contributor to the increase in average ATM fees over the past decade has been the "Durbin Amendment" to Dodd-Frank, which imposed price controls on debit card interchange fees, thereby displacing costs toward higher bank fees and reduced access to free checking but also appears to have contributed to increases in other fees such as ATM fees. *See* Todd J. Zywicki, Geoffrey A. Manne, and Julian Morris, *Unreasonable and Disproportionate: How the Durbin Amendment Harms Poorer Americans and Small Businesses* 12-13 (Apr. 25, 2017).



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Generation Z.[108] Indeed, Generation Z consumers are increasingly using a novel innovation known as "online cash" to conduct transactions.[109] Contrary to their perception as entirely digital shoppers, members of Generation Z are comparable to earlier generations in selecting their bank based on convenient access to a branch location and continue to use in-person services at bank branches with a similar frequency to their cohorts in earlier generations.[110] This reinvigoration of cash usage by Generation Z may stem from the value they place on the anonymity of cash usage, reflecting their heightened concern for privacy and security in financial transactions.

On the other hand, this high rate of cash usage by Gen Z might simply reflect their lack of financial maturity, rather than their preferences, and as they age they will reduce their cash usage. The 2020 Covid-19 pandemic appears to have accelerated this transition. According to one survey, 90 percent of Gen Z respondents to a survey conducted during the height of the pandemic in 2020 stated that they did not think it was "safe" to visit a bank branch at that time.[111] Eighty-two percent did not believe that ATMs were a sanity means of banking. Over half stated that they would be willing to consider banking with an entirely branchless bank.

Paper money itself provides a public health challenges. A study of circulating one dollar bills in New York City collected in 2013 identified 397 species of bacteria.[112] Another study

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108 KIM, *supra* note [ NOTEREF _Ref55820155 \h ].

109 *See* Udo Mueller, *Generation Z: Driving the Adoption of Online Cash*, PAYSAFECARD.COM (Nov. 4, 2019), *available in [ HYPERLINK "https://www.paysafe.com/en/blog/generation-z-driving-the-adoption-of-online-cash/" ]*.

110 *See* Elliot Anenberg, Andrew C. Chang, Serafin Grundi, Kevin B. Moore, and Richard Windle, *The Branch Puzzle: Why Are there Still Bank Branches?*, FEDS NOTES (AUG. 20, 2018).

111 *See* Manole, *What Gen-Z Thinks*, *supra* note [ NOTEREF _Ref57032187 \h ].

112 Julia M. Maritz, Steven A. Sullivan, Robert J. Prill, Emre Aksoy, Paul Scheid, Jane M. Carlton, *Filthy Lucre: A Metagenomic Pilot Study of Microbes Found on Circulating Currency in New York City*, 12(4) PLOS ONE (2017).



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found that 79 percent of one-dollar bills contained traces of cocaine.[113] Coins can also be robust transmitters of bacteria and disease—one study found that penicillin-resistant bacteria can survive on coins.[114] It seems plausible that the 2020 pandemic might make Americans more aware of the risks associated with using paper money. Greater awareness of the health risks associated with cash could also prompt reconsideration of state laws and city ordinances passed in some cities that prohibit establishments from adopting policies that prohibit the use of currency and require use of payment cards or contactless payments.[115]

### D. Regulatory Challenges

A particular challenge to younger consumers has resulted from provisions of the Credit CARD Act of 2009 that specifically impact younger borrowers. Title 3 of the CARD Act places limits on the ability of credit card companies to market credit cards to college students and prohibits sending preapproved card solicitations to individuals under the age of 21.[116] In order for an issuer to open a credit card account for a consumer under the age of 21, the consumer must either demonstrate an independent ability to pay for the charges on the card or have a co-signer

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113 Jonathan Oyler, William D. Darwin, Edward J. Cone, *Cocaine Contamination of United States Paper Currency*, 20 J. OF ANALYTICAL TOXICOLOGY 213 (1996).

114 *See* Emmanouil Angelakis, et al., *Paper Money and Coins as Potential Vectors of Transmissible Disease*, 9 FUTURE MICROBIOLOGY 249 (2014).

115 *See Cash or Credit? State and City Bans on Cashless Retailers Are on the Rise*, NATIONAL LAW REVIEW (June 5, 2020), *available in* [ HYPERLINK "https://www.natlawreview.com/article/cash-or-credit-state-and-city-bans-cashless-retailers-are-rise" ].

116 15 U.S.C. §1650(f)(2).



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who is at least 21 years old and can demonstrate independent ability to repay or demonstrate a reasonable expectation of access to the income or assets necessary to repay.[117]

The direct effects of the CARD Act have been as predicted. Marketing of credit cards to college students has declined since the enactment of CARD Act.[118] In addition, individuals under the age of 21 are less likely to have a credit card at all and those who do have cards have a fewer number on average.[119] Younger consumers are also now more likely to have a co-signed card than before the CARD Act's passage.[120]

But research has identified a variety of adverse unintended consequences of the CARD Act on younger Americans. Responsible access to and use of a credit card early in life has for generations been an important mechanism for consumers to build a credit experience and a positive credit report that will position them for financial success later. Younger consumers are far more likely than the average American to be considered "credit invisible," that is, lacking a sufficient credit record to be considered "scorable" by the major credit bureaus.[121] Minority consumers are more likely to be credit invisible than Whites. Moreover, being credit invisible earlier in life has a path-dependent effect, making it more likely that such indviduals will remain credit invisible or a "thin file" consumer later in life too. Surveys indicate that the most common

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[117] 15 U.S.C. §1637(c)(8); 12 C.F.R. §1026.51(b)(1).

[118] *See* UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE, REPORT TO CONGRESSIONAL COMMITTEES, CREDIT CARDS: MARKETING TO COLLEGE STUDENTS APPEARS TO HAVE DECLINED (Feb. 2014).

[119] Peter Debbaut, Andra Ghent, and Marianna Kudlyak, *The CARD Act and Young Borrowers: The Effects and the Affected*, 48 J. OF MONEY, CREDIT, AND BANKING 1495 (Oct. 2016).

[120] *Id.*; *see also* BUREAU OF CONSUMER FINANCIAL PROTECTION, THE CONSUMER CREDIT CARD MARKET 125-27 and 127 Fig. 1 (Aug. 2019).

[121] *See* CONSUMER FINANCIAL PROTECTION BUREAU, DATA POINT: CREDIT INVISIBLES (May 2015)



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reason that consumers state they want a credit card is to build a credit history.[122] According to research by the CFPB on how consumers become "credit visible," more than one-third of previously credit invisible consumers under the age of 25 used a credit card as their "entry product" to becoming credit visible (35.6 percent of respondents), almost double the rate as the second most-common product, student loans (19.9 percent).[123]

Although the CARD Act has likely protected some younger consumers from making mistakes with credit card debt before they turn 21 years old, it has also deprived many other consumers of the opportunity to prove their creditworthiness and start on the path to financial maturation. Younger Americans today are much more likely to graduate from college having never had the responsibility of managing a credit card and instead have their first experience once they are on their own. Preventing consumers from gaining access to credit cards until they are 21 years old might not so much ensure that consumers will not make mistakes but rather might simply delay those mistakes for a few years. Indeed, there is little evidence to support the belief that consumers between the age of 18 and 21 are especially susceptible to campus-based marketing pitches or irresponsible financial behavior.[124]

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[122] *See* The Ascent, *Why Swipe? American Credit Card Preferences and Habits by Generation*, FOOL.COM (Mar. 5, 2019), *available in* https://www.fool.com/the-ascent/credit-cards/articles/study-why-swipe-american-credit-card-preferences-and-habits-by-generation/.

[123] *See* CONSUMER FINANCIAL PROTECTION BUREAU OFFICE OF RESEARCH, CFPB DATA POINT: BECOMING CREDIT VISIBLE 13-15 (2017) (retail store cards were the third most common response, with 13.7 percent of respondents).

[124] *See* Debbaut, *et al.*, *supra* note [ NOTEREF _Ref55727539 \h ], at 1512 ("At present there is thus little evidence that people who get a credit card early in life are particularly vulnerable borrowers, but there is evidence that the restriction on individuals under the age of 21 is not innocuous.").



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A study by economists at the Federal Reserve Bank of Boston confirms the concern that blocking access to credit cards early life increases the likelihood of a consumer remaining credit invisible.[125] Using data from the New York Fed Consumer Credit Panel provided by Equifax, the authors find "there are indeed fewer young adults in credit bureau data since the implementation of the CARD Act."[126] They further observe that while this effect exists across the board, "This finding appears to be driven at least in part by reduced credit supply to young individuals of less privileged backgrounds."[127] This differential impact on lower-income and minority consumers appears to result from the CARD Act. Younger consumers now are relatively more likely to have access to credit cards "if they are in socioeconomic groups deemed historically to be less of a credit risk, or if they have more affluent parents who can co-sign a card for them."[128] As a result, these provisions of the CARD Act have tended to exacerbate differences between demographic groups in their long-term access to financial products and wealth building.

Economic research also has tended to support the view that allowing access to credit cards earlier in life is useful to establish a credit record and to develop positive financial habits that pay off later. Debbaut, Ghent, and Kulyak, for example, conclude that those who obtain a credit card earlier in their financial lifecycle "are less likely to have a serious default and have higher credit scores later in life than those who get a card later."[129] Cooper, et al., find that

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[125] *See* Daniel Cooper, Olga Gorbachev, and Maira Jose Luengo-Prado, *Consumption, Credit, and the Missing Young*, Federal Reserve Bank of Boston (Aug. 5, 2020).

[126] *Id.* at 3.

[127] *Id.*

[128] *Id.*

[129] *See* Debbaut, *et al.*, *supra* note [ NOTEREF _Ref55727539 \h ], at 1496.



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consumers who turned 21 years old after the passage the CARD Act also were less likely to have access to mortgages and to pay higher mortgage prices than those of the prior generation.[130]

More troubling, a lack of access to credit cards might force younger consumers to turn to more-expensive alternatives to gain access to needed funds, such as payday loans, bank overdraft protection, or personal installment loans.[131] As shown in chapter 5, alternative financial products are more heavily used by credit-rationed younger, lower-income, and minority consumers already and shutting off access to credit cards might further induce higher demand for those products.[132] Secured credit cards are also unattractive or unavailable to younger credit invisible consumers as an entry product to greater credit visibility because of the need to post and hold up-front liquid deposits.[133] Moreover, good performance on credit card accounts can help a consumer establish a positive credit score, whereas usage of these substitute products has either no effect or a negative effect on one's credit score. Eliminating access to one source of supply, in this case credit cards, does not eliminate the demand for credit but often just shifts demand to other, less-preferred products.

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[130] Cooper, *et al.*, *supra* note [ NOTEREF _Ref55730471 \h ], at 12.

[131] *See* Gregory S. Elliehausen and Simona M. Hannon, *The Credit Card Act and Consumer Finance Company Lending*, 34 J. OF FIN. INTERMEDIATION 109 (2018) (finding substitution by higher-risk consumers to increased use of personal installment loans after the passage of the CARD Act).

[132] It is also possible that younger consumers who cannot gain access to credit cards might substitute increased student loan debt instead. The welfare consequences of such a substitution are unclear. Student loans typically feature a lower interest rates than credit cards but also face greater risk as a result of their nondischargeable status in bankruptcy. The Taskforce has located no evidence to determine whether such a relationship exists, but believes further research is warranted.

[133] *See* CONSUMER FINANCIAL PROTECTION BUREAU OFFICE OF RESEARCH, CFPB DATA POINT: BECOMING CREDIT VISIBLE 15 (2017) (noting that fewer than one percent of previously credit invisible consumers under the age of 25 used a secured credit card as an entry product to become credit visible).

**Part III: Savings**

As discussed in chapter 3, consumers borrow in order to shift the timing of consumption from a future period to the present. The ability to shift the timing of consumption forward in time is not merely zero-sum, however. Instead, borrowing can be used by households to take advantage of valuable investment opportunities to acquire capital goods, such as education, an automobile, a home, or consumer durables such as appliances and furniture. These goods have both a consumption value and a capital value for consumers as they provide a stream of benefits to the consumer that will usually exceed the cost of the product including the financing costs. In other situations, consumers use debt to cover unexpected emergencies and budget shocks that could lead to damaging consequences, such as to finance a car repair, medical bill, food, or to prevent foreclosure or eviction. By moving spending on large purchases that does not fit conveniently into monthly budgets forward in time, consumers can save for the purchases through loan repayments while simultaneously using the purchases. This obviates the need for expensive substitutes while cash accumulation takes place and provides a preferred time schedule for purchases.  For consumers, moving the schedule smooths both consumption and saving over their lifecycles.

By middle age, most Americans begin to transition toward less borrowing. Early in their life cycles, consumers have a high demand for credit in order to finance capital expenditures. But their current income is still low compared to the future and they have yet to compile substantial liquid assets. As individuals form families and take on associated costs, this puts additional strain on their budgets. Eventually, however, their balance sheet tends to turn right-side up and they begin to accumulate asset holdings. At this point consumers move from being net borrowers to being net lenders, i.e., toward *financial* "saving" and "investing."

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Through the process of financial intermediation described in chapter 4, consumers convert excess funds into *financial* capital through intermediaries like banks, pension intermediaries, and others. These financial institutions convert them into loanable funds for businesses, governments, and other consumers. As this change from financial borrowing to financial lending occurs,,consumers begin to develop a portfolio of financial assets, including demand deposits and short-term liquid savings, retirement investments, and other financial investments to go with their real investments like homes. Many consumers use their peak income earning years to build financial wealth as well as real wealth.

Later in their lives, most Americans retire and stop working and earning income from employment. Just as early in their working lives they were able to use credit to move consumption forward in time from their later years, asset accumulation enables consumers to move consumption from their income-earning years to a later time when they are retired and their income from current employment falls. Financial saving, like earlier net financial borrowing, is simply a way to smooth consumption across the lifecycle.

But just as there is a cost in the future to shifting income to an earlier time period through borrowing (reducing consumption today to make the payments), there is also a cost to financial saving—again reducing one's consumption today in order to provide for the future. Through the process of financial intermediation, the same people are usually on both sides of this transaction at different periods of their financial lifecycle.

This section of this chapter reviews the dynamics of the process of financial accumulation, typically called household financial "savings." Although technically the term "savings" should also take into account the process of investment in real assets and their depreciation over time, this common terminology is adopted here for the present discussion. It includes both long run financial savings (to finance retirement consumption) and short run financial savings (to finance capital investments and meet emergency needs for funds through short-term liquid savings instead of borrowing).

Just as with beliefs about how Americans use consumer credit, there are many myths and misunderstandings about household financial savings. Concern that Americans are spending too much and saving too little is as old as the country itself. Economist Lendol Calder refers to this recurrent opinion as "the myth of lost economic virtue"—the notion that earlier generations of Americans eschewed consumer debt and diligently saved for retirement and major purchases.[134] Writing in 1956Famed social critic William Whyte captured the idea in his iconic *Fortune* magazine essay, "Budgetism: Opiate of the Middle Class."[135] Writing of the abandonment of thrift by the American middle-class, he wrote, "More and more, people are saving not to accumulate but to spend; for no longer do they identify saving, as people once did, with morality. They save little not because they cannot save…. They save little because they do not really believe in saving." Instead of saving for unforeseen emergencies, Whyte complained that "young suburbanites" were saving "for some anticipated expense" and "For short-term emergencies [they] expect to take shelter under personal loans." Clearly, there has long been concern by social commentators that Americans are saving insufficient amounts for emergencies and retirement and instead relying too heavily on debt.

This Section of chapter 12 reviews current evidence on American savings habits with a particular focus on the adequacy of household's retirement savings. Because of tradeoffs inherent in saving for long-term retirement goals versus short and medium-term goals such as

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[134] LENDOL G. CALDER, FINANCING THE AMERICAN DREAM: A CULTURAL HISTORY OF CONSUMER CREDIT (1999).

[135] William H. Whyte, Jr., *Budgetism: Opiate of the Middle Class*, FORTUNE 133 (May 1956).



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building an emergency reserve fund or for investments in purchasing a home or college education, understanding the dynamics of retirement savings will require understanding those elements of savings as well. Before analyzing those tradeoffs, however, it is necessary to first understand the dynamics of savings behavior.

### A. How Do Consumers "Save"?

"Financial saving"is the shifting of income across time in order to smooth consumption across the lifecycle by holding financial assets or to maintain liquid funds to meet unexpected budget shocks in the future without borrowing. By shifting income from today to the future, financial saving also leaves less income available today in order to increase one's income in the future. Saving income today, therefore, tightens the household budget constraint in the short-run in order to better smooth income over the long run.

Because savings today tightens one's current budget constraint, *ceteris paribus* these savings can be financed in only three ways: (1) reduced consumption today, (2) increasing one's income today (by working more and reducing leisure), or (3) by borrowing more today in order to maintain the same level of consumption as would be the case had the household not saved more.[136] All three of these strategies involve substantial opportunity cost in a world of a binding budget constraint. Moreover, a household's level of financial resources is not the only constraint; consumers also face binding constraints on their available time and energy. Just as consumers must allocate their scarce current income across multiple competing expenditures every day, they must also allocate their scarce lifetime income across their lifetimes through borrowing and saving. Once it is recognized that there is an opportunity cost associated with saving, the

[136] *See* Todd J. Zywicki, *Do Americans Really Save Too Little and Should We Nudge Them to Save More? The Ethics of Nudging Retirement Savings*, 14 GEORGETOWN J. OF LAW AND PUBLIC POL'Y 877 (2016).



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question of the optimal allocation of income across the financial lifecycle becomes a somewhat challenging issue. Moreover, it become apparent that encouraging or "nudging" people to "save" more—so long as that is term is defined to mean saving out of current income—is not necessarily going to make them better off.

### 1. Consume Less Today to Consume More in the Future

Shifting income from today to the future could be financed by reducing consumption today.[137] Yet as has been stressed repeatedly throughout this report, consumption early in the financial lifecycle has a high marginal value, especially in exploiting positive-value investments in household capital expenditures such as an education, home, automobile, and consumer durable goods such as household appliances, furniture, a business wardrobe, and other similar expenditures. Starting a family and raising children presents huge budget pressures for increased spending on housing, food, clothing, transportation, housing and eventually higher education. Although financial investments also provide a positive rate of return, it is not obvious that the rate of return on a mutual fund investment or other financial investment is higher than the rate of return on an investment in education[138] or implicit rate of return from a household appliance such as a washing machine, automobile, or refrigerator.[139]

As a result, expenditures relative to income are typically much higher early in life than later.[140] Average household spending hits a peak at age forty-five and steadily declines in every

[137] Zywicki, *supra* note [ NOTEREF _Ref56017866 \h ], at 904-06.

[138] *See* discussion above estimating the rate of return for investments in higher education to be approximately double that of financial investments.

[139] *See* Chapter 3.

[140] Albert Ando and Franco Modigliani, *The "Life Cycle" Hypothesis of Savings: Aggregate Implications and Tests*, 53 AM. ECON. REV. 55 (1963).

category except for healthcare after that.[141] This hump shaped pattern of consumption is driven largely by the financial pressures of family formation and raising children and consumption levels fall after children leave home.[142]

In addition, consumers have lower income and tighter financial budget constraints early in their financial lifecycle than in middle-age. Thus, at the same time that they are offered the greatest number of positive investment opportunities—education, their first car, their first washing machine—they also face the tightest budget constraints. Until they gain greater employment experience their income is at it lowest point of their professional lives and can be expected to rise consistently into middle age. They have limited assets and, if they attended college, might have substantial student debt.

According to a recent analysis, households under the age of 25 spend 94.6 percent of their income and most younger households have consumer debt.[143] Those between 25-34 years of age spend 70.8 percent of their total income.[144] As households reach middle age (45-54 years old) they spend on 64.6 percent of their income.[145] By the time a household reaches 75 years of

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[141] *See* S. Katherine Roy, *Sparking Better Retirement Conversations and Outcomes*, JP MORGAN FUNDS (Jan. 2014).

[142] Jesus Fernandez-Villaverda and Dirk Krueger, *Consumption over the Life Cycle: Facts from Consumer Expenditure Survey Data*, 89 REV. ECON. & STATISTICS 552 (2007); *see also* Christopher D. Carroll, Lawrence H. Summers, *Consumption Growth Parallels Income Growth: Some New Evidence*, *in* NATIONAL SAVING AND ECONOMIC PERFORMANCE 305 (1991).

[143] Jeff Desjardins, *How Americans make and Spend Their Money by Age Group* (Aug. 26, 2019), *available in* [ HYPERLINK "https://www.visualcapitalist.com/how-americans-make-and-spend-their-money-by-age-group/" ] (Total average income of $32,893 and spending of $31,102).

[144] *Id.* People in this age bracket have average total income of $69,062, spend $48,928, and save $12,218.

[145] *Id.* These households save almost 20 percent of their income.



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age, spending rises again to 95.6 percent of income, even though average total spending falls from $64,781 per year to $40,211 annually.

But there is not only a tradeoff between current consumption and saving for the future. There is also a tradeoff between saving for long-term goals, such as retirement, and short and medium term goals, such as emergency savings or to purchase a home. Thus, households dramatically increase their retirement savings when their children leave home[146] and after making their final mortgage payment.[147] Cconsumers may also offset increased savings in the short-run by reducing future savings. Because of this offsetting behavior, researchers have found that policies that auto-enroll consumers in a company's retirement plan have been found a "negligible" effect on household long-term wealth.[148]

**2. Should Consumers Save More and Work More?**

Instead of reducing consumption or short-term savings today in order to shift income to the more distant future, consumers instead could theoretically increase their permanent income by increasing their income today, thereby enabling them to save more without reducing current consumption.[149] To increase income, however, requires working more hours—i.e., increasing labor and reducing leisure.

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[146] Irena Dushi, Alicia H. Munnell, Geoffrey T. Sanzenbacher & Anthony Webb, *Do Households Increase Their Savings When the Kids Leave Home?* (Ctr. for Ret. Res. at Bos. Coll., Working Paper No. 2015–26, 2015).

[147] Brahima Coulibaly & Geng Li, *Do Homeowners Increase Consumption After the Last Mortgage Payment? An Alternative Test of the Permanent Income Hypothesis*, 88(1) REV. ECON. & STATISTICS 10 (2006).

[148] *See* Taha Choukhmane, *Default Options and Retirement Saving Dynamics*, working paper (Jan. 2, 2019).

[149] *See* Zywicki, *supra* note [ NOTEREF _Ref56017866 \h ], at 908-10.

But time, like money, is a scarce resource, and the opportunity cost of more income is less free time to spend with family, exercise, sleep, or other personally rewarding activities.[150] Seventy-five percent of Americans "don't get enough sleep" relative to recommended levels.[151] Five percent of the working population already works two jobs.[152] Ninety-five percent of workers wish that they could spend more time with their families[153] and 76 percent of women say they wish they had more time in the day to get things done[154]. Seventy-five percent of single parents who work full time wish that they had more time available to spend with their children.[155] Many people also would like to engage in volunteer activities more often but blame a lack of time for their inability to do so.[156] The most frequently expressed reason for why people do not exercise more is lack of time.[157]

Working additional hours or an additional job when young and raising a family is presumptively inefficient as each hour worked has an increasingly higher opportunity cost in

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150 *Id.* at 908.

151 *National Survey Shows 75 Percent of Americans Don't Get Enough Sleep*, BUSINESS WIRE (May 1, 2015), http://www.businesswire.com/news/home/20150501005855/en/National-Survey-Shows-75-Percent-Americans-Don%E2%80%99t.

152 U.S. CENSUS BUREAU, PROFILE AMERICA: FACTS FOR FEATURES (July 7, 2010), https://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb10-ff15.html.

153 *See* KERBY ANDERSON, MAKING THE MOST OF YOUR MONEY IN TOUGH TIMES 25 (2009).

154 *Id.*

155 *See* Allison Sidle Fuligni & Jeanne Brooks-Gunn, *Meeting the Challenges of New Parenthood: Responsibilities, Advice, and Perceptions*, *in* CHILD REARING IN AMERICA: CHALLENGES FACING PARENTS WITH YOUNG CHILDREN 83, 96 (Neal Halfon, Kathryn Taaffe McLearn & Mark A. Schuster eds., 2002).

156 *See* MARC A. MUSICK & JOHN WILSON, VOLUNTEERS: A SOCIAL PROFILE 148–49 (2008).

157 Chrisanna Northrup, *"Not Enough Time To Exercise" Is Just an Excuse*, HUFFINGTON POST (Oct. 15, 2011), http://www.huffingtonpost.com/chrisanna-northrup/exercise-excuse-internet_b_927097.html.



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terms of foregone free time. Retirees, by contrast, have the opposite tradeoff—they have ample free time and minimal work obligations. Thus, instead working more to save greater amounts for retirement, for many people it makes more sense to extend their working career and retire later or work part-time in retirement. This approach of continuing to work longer at the end of one's career can be financially sensible as well. According to one analysis, "The basic result is that delaying retirement by 3-6 months has the same impact on the retirement standard of living as saving an additional one-percentage point of labor earnings for 30 years."[158]

### 3. Borrowing More to Save More

A final option for budget-constrained consumers would be to increase savings while at the same time increasing borrowing to maintain current levels of consumption. For example, a young person could save for retirement while simultaneously borrowing on credit cards or using high-cost credit to purchase consumer durables, financing a motor vehicle purchase, or paying for the expense of raising children, such as orthodontia, school expenses, athletics, and other costs.

Although this approach seems to make little economic sense, government efforts to try to promote higher savings rates can encourage such behavior. For example, when employees are automatically-enrolled in a company's retirement plan they can end up with greater levels of retirement assets but also simultaneously higher consumer debt levels.[159] For example, Beshears, et al., studied the financial behavior of a group of newly-enlisted army soldiers who were automatically enrolled in the federal government's Thrift Savings Plan ("TSP") at a default

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158 Gila Bronshtein, Jason Scott, John B. Shoven, and Sita N. Slavov, *The Power of Working Longer*, 18 J. OF PENSION ECON. AND FIN. 623 (2019).

159 *See* John Beshears, James J. Choi, David Laibson, Brigitte C. Madrian, and William L. Skimmyhorn, *Borrowing to Save? The Impact of Automatic Enrollment on Debt*, NATIONAL BUREAU OF ECONOMIC RESEARCH, NBER Working Paper 25876, *available in* [ HYPERLINK "http://www.nber.org/papers/w25876" ] (May 2019).



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contribution rate of 3 percent of their salary. Using a standard model specification, they found that increased levels of retirement savings was correlated with higher levels of auto and mortgage debt several years later.[160] But these findings also could also underestimate debt usage by their subject cohort, members of the military, by excluding debt that does not appear on a consumer's credit report, such as payday and other small-dollar loans and loans against retirement plans.[161] Notwithstanding the prohibitions of the Military Lending Act, which seeks to limit high-cost loans to active-duty military members, use of alternative financial products is estimated six to eight times higher among military families than among the general public, which suggests that excluding those types of consumer debt might underestimate the offsetting effect of higher consumer debt loads from increased retirement savings rates.[162]

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[160] An alternative regression specification that stipulated an interaction between employee tenure and demographics did not find such an effect. The authors provided no theory or explanation for why they would expect there to be an interaction effect between those two variables, however. *Id.*

[161] As with 401(k) plan loans in the private sector, borrowing against a TSP plan is not reported to credit reporting agencies.

[162] According to a 2018 analysis by Javelin Strategy & Research, 44 percent of active military members used a payday loan in the last year, 68 percent used a tax refund loan, 53 percent used a non-bank check casher, and 57 percent used a pawn shop. *See* Al Pascual, *How Can Military Personnel Escape the Clutches of the Pay Day Loan Trap*, JAVELIN STRATEGY & RESEARCH (July 5, 2018), *available in* [ HYPERLINK "https://www.javelinstrategy.com/blog/clone-are-auto-loans-next-amazon" ]. Usage for each of these categories of alternative financial products is about six to eight times higher than the general population. Members of the military might also make heavier use of bank overdraft protection than the general public, *see* Todd Zywicki, *Payday Lending and Overdraft Protection*, THE VOLOKH CONSPIRACY (Jan. 17, 2014), *available in* [ HYPERLINK "http://volokh.com/2014/01/17/payday-lending-overdraft-protection/" ], as well as bank deposit advance products, *see* CONSUMER FINANCIAL PROTECTION BUREAU, THE EXTENSION OF HIGH-COST CREDIT TO SERVICEMEMBERS AND THEIR FAMILIES (Dec. 2014), *available in* [ HYPERLINK "https://files.consumerfinance.gov/f/201412_cfpb_the-

Another study found that when consumers earmark funds to save for a particular purpose they are slow to reallocate those funds to meet other anticipated expenses. As a result, when confronted by an unexpected expense or emergency, they maintain savings in low-interest savings accounts while simultaneously carrying higher interest-rate consumer debt.[163] One possible explanation for this behavior is that many consumers have been socially conditioned that savings is "sacred" and should not be touched except for the intended purpose, therefore they associate their saving with their "own sense of self and personal responsibility." Thus, ironically, although the purpose of promoting savings is "to reduce reliance on costly consumer credit," the end result might be the opposite.[164]

Government policy penalizes early withdrawal of funds earmarked for retirement, even for emergency purposes known as "hardship withdrawals." The imposition of a penalty for early withdrawal is rationalized as a device for forcing people to "pre-commit" to creating a pool of retirement savings that is difficult for them to access for impulsive or irrational expenditures. Yet people face bounded rationality and uncertainty about the future, thus their beliefs about future household financial circumstances can be upended by a variety of life events, from an unexpected child to an unexpected need for a new roof. According to a survey of American workers by Transamerica in 2015, the reasons for which people take hardship withdrawals do not appear to be irrational: 28% did so to pay for medical expenses, 17% to avoid eviction or foreclosure on

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extension-of-high-cost-credit-to-servicemembers-and-their-families.pdf" ], which also are not reported to credit reporting agencies and thus would not appear in their data.

[163] *See* Abigail B. Sussman & Rourke L. O'Brien, *Knowing When to Spend: Unintended Financial Consequences of Earmarking to Encourage Savings*, 53 J. MARKETING RESEARCH 790 (2016).

[164] *Id.*



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their home, 14% to pay for college tuition and related fees, 12% to repair damage to their home, 7% to pay for burial expenses for a member of the family, and 7% to purchase a home.[165]

Instead of withdrawing funds early from a retirement plan workers can borrow against their retirement savings to meet unexpected emergencies . According to TIAA-CREF, the top five reasons why people borrow against their 401(k) plan, an act that is analogous to an early withdrawal, are the following: 46% said they borrowed to pay off debt, 35% to pay for an emergency expenditure, 26% for a home purchase or renovation, 24% to pay bills due to a job loss, and 20% for education costs for themselves or their children.[166] Borrowing against one's 401(k) plan entails paying up-front fees, repayment of the loan with interest, and the risk of default, especially if employment is terminated after taking out the loan, and unlike ordinary consumer credit, retirement plan loans are not subject to discharge in bankruptcy. Nevertheless, interest rates on 401(k) loans typically are lower than for other types of consumer credit, they are not adjusted for consumers risk profile (thus higher-risk consumers with lower income and less wealth on average are more likely to take out 401(k) loans), and default on a 401(k) plan loan typically is not subject to credit reporting. As a result, "taking plan loans—even with the possibility of defaulting—may well be optimal when workers are liquidity-constrained and have

[165] TRANSAMERICA CENTER FOR RETIREMENT SAVINGS, 16TH ANNUAL TRANSAMERICA RETIREMENT SURVEY: A COMPENDIUM OF FINDINGS ABOUT AMERICAN WORKERS 38 (Aug. 2015), https://www.transamericacenter.org/docs/default-source/resources/center-research/16th-annual/tcrs2015_sr_16th_compendium_of_workers.pdf. According to Transamerica, about 6% of American workers took an early withdrawal from their 401(k) plan in 2015.

[166] TIAA-CREF, *Should You Borrow Against Your Retirement Plan?*, [ HYPERLINK "https://www.tiaa-cref.org/public/advice-guidance/saving-for-retirement/borrow-from-retirement-plan" ].

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few other options for low-cost credit."[167] Still, many liquidity-constrained consumers end up using and carrying higher-cost consumer debt before turning to 401(k) loans. Li and Smith found that this results in a net loss of approximately $1-$2 billion annually to those households[168]

Consistent with with the prediction that budget-constrained consumers might offset higher retirement savings by taking on higher levels of debt, liquidity-constrained households—younger, lower-income, and lower wealth outside their retirement accounts—are most likely to borrow from their 401(k) plans.[169] One study found that 20 percent of workers borrow against their 401(k) plans at any given time and 40 percent borrow at some point over five years.[170] Moreover, 86 percent of workers who change jobs (usually because they were fired) after taking a loan end up defaulting, resulting in $5 billion annually in losses plus $1 billion per year in tax

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[167] *See* Timothy (Jun) Lu, Olivia S. Mitchell, Stephen P. Utkus, and Jean A. Young, *Borrowing from the Future? 401(k) Plan Loans and Loan Defaults*, 70 NATIONAL TAX J. 77 (2017).

[168] *See* Geng Li and Paul A. Smith, *401(k) Loans and Household Balance Sheets*, 63 NATIONAL TAX J. 479 (2010). The authors suggest that one explanation for why more consumers do not use 401(k) loans instead of consumer credit might be because of the risk associated with default, namely the inability to discharge those obligations in bankruptcy. It also seems possible that as suggested by Sussman, et al., consumers may have been socially conditioned to believe that they are not "supposed" to access retirement savings early and that these funds are "sacred" and to be used only for their originally intended purpose, notwithstanding unexpected changes in the household's financial condition.

[169] *See* Timothy (Jun) Lu, Olivia S. Mitchell, Stephen P. Utkus, and Jean A. Young, *Borrowing from the Future? 401(k) Plan Loans and Loan Defaults*, 70 NATIONAL TAX J. 77 (2017).

[170] *See* Lu, et al., *supra* note [ NOTEREF _Ref56148829 \h ]; *see also* Li and Smith, *supra* note [ NOTEREF _Ref56148904 \h ], at 504 ("We find that households that do hold 401(k) loans have more debt, fewer non-401(k) assets, and higher incidence of liquidity and borrowing constraints than households without 401(k) loans, suggesting that households tend to use 401(k) loans as borrowing of last, rather than first, resort.").

obligations for those who default.[171] Those who defaulted on their loans after leaving their jobs were generally younger, had shorter job tenure, lower income, lower balances, and less non-retirement wealth than those who repaid their loans after leaving.[172]

Inducing people to save more money for the future does not eliminate their budget constraint or the need to make tradeoffs among competing financial priorities at any given time or intertemporally. As a result, the Taskforce urges policymakers to act with caution before implementing policies designed to "nudge" or otherwise displace household's retirement or other savings patterns until all of their intended and unintended consequences of such policies are fully understood.[173] Of particular concern is the possibility that those nudged or pushed into retirement plans will offset this forced diversion of income into the future by increasing borrowing today, resulting in simultaneous holding of high-interest consumer debt with lower-yielding retirement plan assets.

### B. Are Americans Saving Enough for Retirement?

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[171] Lu, et al., *supra* note [ NOTEREF _Ref56148829 \h ].

[172] Lu, et al., *supra* note [ NOTEREF _Ref56148829 \h ].

[173] The Taskforce supports experiments by employers with respect to different approaches to employee benefits, including retirement plans, that will help to discover their employees' preferences but urge caution about imposing government mandates or preferences that could interfere with this discovery process. *See* Adam C. Smith and Todd J. Zywicki, *Nudging in an Evolving Marketplace: How Markets Improve Their Own Choice Architecture*, *in* NUDGE THEORY IN ACTION: BEHAVIORAL DESIGN IN POLICY AND MARKETS 225 (Sherzod Abdukadirov, ed., 2016).



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Conventional wisdom holds that there is a retirement savings "crisis" in the United States, risking future penury for many.[174] Available evidence, however, suggests that this concern is overstated with respect to both current and future retirees.

Current retirees appear to be in excellent financial condition. The poverty rate for Americans over the age of 65 is lower than for working-aged households.[175] Average net worth of older household is higher than for any other age group.[176] In addition, between 2000 and 2011, income among 70 year olds increased across all income brackets with income increasing faster among the lowest income brackets.[177] Other researchers have also found high levels of income and financial security among older Americans and low levels of poverty.[178] From 1989 to 2016 the median retiree household's income grew by 56 percent above inflation compared to only 4

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174 *See* ILANA BOIVIE AND NARI RHEE, THE CONTINUING RETIREMENT SAVINGS CRISIS (NATIONAL INSTITUTE FOR RETIREMENT SECURITY, Mar. 2015)

175 *See* JESSICA SEMEGA, MELISSA KOLLAR, JOHN CREAMER, AND ABINASH MOHANTY, INCOME AND POVERTY IN THE UNITED STATES: 2018 at 15, Fig. 10 (June 2020).

176 *See See* Neil Bhutta, Jesse Bricker, Andrew C. Chang, Lisa J. Dettling, Sarena Goodman, Joanne W. Hsu, Keven B. Moore, Sarah Reber, Alice Henrqiques Volv, and Richard A. Windle, *Changes in U.S. Family Finances From 2016 to 2019: Evidence from the Survey of Consumer Finances*, 106(5) FED. RES. BULLETIN 1, at 11 Table 2 (Sept. 2020).

177 *See* John Beshears, James Choi, David Laibson, and Shanthi Ramnath, *Trends in Retirement Income Adequacy*, NBER Working Paper 19-06 (Aug. 2019).

178 *See* Adam Bee and Joshua Mitchell, *Do Older Americans Have More Income Than We Think?*, CENSUS BUREAU Working Paper No. SEHSH-WP2017-39 (July 25, 2017), *available in* [ HYPERLINK "https://www.census.gov/library/working-papers/2017/demo/SEHSD-WP2017-39.html" ].

percent real growth for working-age households.[179] Overall, only 4 percent of retirees in 2018 said that they were "finding it difficult to get by."[180]

Moreover, income security has increased for lower-income households as well. According to economist Andrew Biggs, from 1989 to 2016, real income grew faster among the poorest 5th percentile of retirees than at the 95th percentile of the working-age population.[181] Among those with a high school education or less, only 7.25 percent of those aged 62 to 67 reported that they were "finding it hard to get by" compare to 12.5 percent of those aged 57 to 61.[182] The relative financial well-being of lower-income households in retirement stems from the progressive nature of Social Security benefits, under which the replacement rate of pre-retirement earners for lower-income workers is two to three times higher on average than replacement rates for higher-income workers.[183] Low-earning workers receive benefits from social security equal to about 84 percent of his career-average earnings, adjusted for inflation, while higher-earning workers receive only 43 percent.[184] Because low-income workers tend to have lower expenses and high replacement rates from government benefit programs, they suffer little reduction in their overall income when they retire, notwithstanding often holding limited

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179 *See* Andrew Biggs, *The Phony Retirement Crisis*, WALL ST. J. (Fe.b 28, 2019), *available in* [ HYPERLINK "https://www.wsj.com/articles/the-phony-retirement-crisis-11551398196" ] (citing Federal Reserve data).

180 *See* Andrew Biggs, *Rising Retiree Bankruptcies? It's a Myth*, WASHINGTON EXAMINER (Sept. 6, 2019) (citing Federal Reserve data).

181 *Id.*

182 *See* Andrew G. Biggs, *Stop Pushing Poor People to Save More for Retirement*, MARKETWATCH.COM (Sept. 12, 2019), *available in* [ HYPERLINK "https://www.wsj.com/articles/the-phony-retirement-crisis-11551398196" ].

183 *See* CONGRESSIONAL BUDGET OFFICE, SOCIAL SECURITY REPLACEMENT RATES AND OTHER BENEFIT MEASURES: AN IN-DEPTH ANALYSIS (Apr. 16, 2019), *available in* [ HYPERLINK "https://www.cbo.gov/publication/55038" ].

184 Biggs, *Stop Pushing*, *supra* note [ NOTEREF _Ref56161023 \h ].



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private savings.[185] In part, however, lower level of private retirement savings among lower-income households reflects counterproductive and perverse incentives within government means-tested social welfare programs that penalize those who build liquid and retirement savings through punitive reductions in means-tested government benefits.[186]

Indirect evidence of the robust household financial health is the finding from the 2019 *Survey of Consumer Finances* that 50 percent of individuals from families whose parents had a college degree have already received an inheritance bequest, trust, or gift and over 30 percent of those from families whose parents did not receive a college degree also have received or plan to receive an inheritance.[187] Those whose parents had college degrees have received or expect to receive averages gifts ranging from $92,00-$200,000 and those from families with non-degree parents have received or expect to receive gifts ranging from $76,000-$100,00.[188]

Overall, therefore, there is no obvious crisis among already-retired Americans. Poverty rates are low and income and net wealth levels are high. But what about future retirees?

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[185] *Id.* (Recent research by economists at the Internal Revenue Serve and the Investment Company Institute found that the median low-income retiree has a retirement income equal to 103% of earnings just prior to retirement. Other research from Census Bureau economists found similar results: retirees at the 25th percentile of the income distribution had incomes equal to 93% of their average earnings in the 15 years prior to retirement." (citations omitted)).

[186] *See* Biggs, *Stop Pushing*, *supra* note [ NOTEREF _Ref56161023 \h ].

[187] *See* Bhutta, *supra* note [ NOTEREF _Ref56156815 \h ], at 14-15, Box 3.

[188] Presumably this expectation of receiving a bequest affects the incentives of the presumed heirs to save from their own income as well.



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There is substantial methodological debate over how to measure future retirement security.[189] Overall, properly understood, the evidence indicates that a clear majority of Americans are saving enough or more than enough for future retirement. According to one prominent study by Gale, Scholz, and Seshadri, as of 2004 approximately three-quarters of households had accumulated sufficient wealth to maintain pre-retirement living standards in retirement.[190] This estimate is similar to that in a more recent study by Hurd and Rohwedder, who found that about 71 percent of households are able to maintain their path of consumption in retirement with financial insecurity concentrated among single, low-educated women.[191] Other studies, by contrast, found expected shortfalls in retirement savings to be more equally distributed among the population. Moreover, the magnitude of shortfalls varies by income group—the shortfall is smaller among lower-income households because of their lower baseline household budget and Social Security's higher replacement rates from government benefits whereas the shortfall might be larger in magnitude for higher-income households. Those who save less for retirement also on average, unfortunately, have shorter expected lifespans than those who save more, but this also means they typically need to accumulate fewer assets to sustain them through their retirement years.[192]

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[189] For a summary of the debate, *see* ANDREW G. BIGGS, IS THERE A RETIREMENT CRISIS? EXAMINING RETIREMENT PLANNING IN THE HOUSEHOLD AND GOVERNMENT SECTORS, Mercatus Research (2017).

[190] *See* William G. Gale, John Karl Scholz, and Ananth Seshadri, *Are All Americans Saving "Optimally" for Retirement?*

[191] *See* Michael D. Hurd and Susann Rohwedder, *Economic Preparation for Retirement*, *in* INVESTIGATIONS IN THE ECONOMICS OF AGING 77 (2012).

[192] *See* Zywicki, *supra* note [ NOTEREF _Ref56017866 \h ], at 911-13 (discussing studies).



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Many of the models that project shortfalls, however, rest on specific assumptions about the projected work habits of American families, but workers planning for retirement today have revealed different attitudes toward work and retirement than those in the past. Workers are working longer and retiring later than in the past. Workers, on average, are retiring three years later on average than in the 1980s.[193] From 1995 to 2018, the share of people aged 55 to 79 who were employed increased from 33 percent to 44 percent.[194] Further, these additional earning years typically come during a period of their lives where expenses are low as children have left home and housing and other expenses are much lower than during the prime of their child-raising years, enabling wealth accumulation. As indicated earlier, working a mere three to six months longer at the end of one's career is equivalent to a one percentage point increase in annual retirement savings contributions.[195]

Longer expected work careers are explained by multiple factors. First, eligibility for full Social Security benefits has increased to age 67, leading to longer work careers before retirement. Second, those approaching retirement are typically healthier and many find working more enjoyable than many jobs in the past. Work has also become less physically demanding for many, enabling more workers to extend their expected work careers. Third, as two-working couples have become the norm, older retirees have become more likely to postpone retirement

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[193] *See* Tara Law, *"I Need to Continue to Be Active." Why Americans are Retiring Later Than Ever* (Feb. 6, 2020), *available in* [ HYPERLINK "https://time.com/5778992/americans-retiring-later/" ]; *see also* NORTHWESTERN MUTUAL, 2018 PLANNING AND PROGRESS STUDY: LIVING LONG AND WORKING LONGER (2018) , *available in* [ HYPERLINK "https://news.northwesternmutual.com/planning-and-progress-2018" ] (noting that a higher percentage of current workers anticipate retiring at 70 years or older than the traditional 65-69 age range).

[194] *See* CONGRESSIONAL BUDGET OFFICE, EMPLOYMENT OF PEOPLE AGES 55 TO 79 (Sept. 26, 2019).

[195] *See supra* note [ NOTEREF _Ref56164656 \h ] and accompanying text.

until the age at which the younger spouse can retire as well, leading to increased numbers of people working past their traditional retirement age.

Overall, all of these trends have tended to increase worker's expected work lives leading to extended periods of earnings and delays in the period of drawing down financial assets. In addition, an increasing number of workers express an expectation of working part-time even after they technically retire. Higher-income households have lengthened their working careers more than lower-income households and are more likely to express a plan to continue working longer (and retiring later) than lower-income households.[196] This expectation of working longer, especially among higher-income households, has led them to reduce their savings rates earlier in life and to transfer savings to other purposes, especially saving for their children's college expenses and to purchasing homes.[197] The general transition in the economy from defined benefit to defined contribution plans has also encouraged longer work careers, as delaying retirement enables further contributions and growth in one's retirement portfolio as well as additional income, rather than beginning to draw down accumulated savings at an earlier date. Defined benefit plans, by contrast, provide an incentive to retire as soon as one is eligible for full benefits and not to delay retirement.

Other incentives have also pushed toward longer work careers. Because of the general upward trend in the time spent acquiring schooling, workers are starting their careers later in life but with higher human capital rates that generally depreciate more slowly over time. Staying in school longer also often means higher levels of student debt, which would be predicted to lead

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[196] *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ], at 58 (finding that 51% of respondents expect to continue working full-time or part-time in retirement).

[197] *See supra* note __ and accompany text (noting that retirement savings increases after children leave home and the mortgage is paid off).



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workers to plan on working longer as well. All of these trends toward longer working lives are generally ignored in models that predict substantial shortfalls in retirement savings in the years to come.[198] The decision whether to retire is itself determined in large part by the availability of sufficient resources to live comfortably.[199]

Another factor that generally leads to an overstatement of the rate of financial insecurity in retirement is that most models of retirement savings overestimate the expected amount of resources needed for retirement because they overestimate the amount of funds households need to live comfortably in retirement.[200] Most retirement savings models assume a certain level of income will be necessary for households to maintain their pre-retirement standard of living into retirement, with estimates ranging from 70 percent to 100 percent of pre-retirement income levels and remaining constant through retirement. But, in fact, most projections of retirement spending overstate the amount of income needed to retire comfortably. On average, spending drops about 27 percent between the ages of 55-64 and 65-75.[201] But then spending drops an *additional* 26 percent after turning 75. Other studies find similar results: for example, one study found that average expenditures fell 19 percent between ages 65 and 75, 34 percent by age 85,

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[198] *See* Zywicki, *supra* note [ NOTEREF _Ref56017866 \h ], at 891-92.

[199] *Id.*; *see also* Jan Ondrich & Alexander Falevich, *The Great Recession and the Retirement Decisions of Older Workers* (Ctr. for Ret. Res. at Bos. Coll., Working Paper No. 2013-24, 2013) (finding that the decline in home values and retirement assets as a result of the Great Recession reduced the probability of retirement by 15-19 percent).

[200] *See* Zywicki, *supra* note [ NOTEREF _Ref56017866 \h ], at 886-890.

[201] *See* Ty Bernicke, *Reality Retirement Planning: A New Paradigm for an Old Science*, J. FIN. PLANNING 56 (June 1, 2005), *available at* http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=08afa52b-8a28-420d-90e1-8c2067076338%40sessionmgr110&vid=1&hid=110



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and 52 percent by age 95.[202] "Overall, median household expenditures experience an almost constant liner decline from age 50 to 95, falling steadily from approximately $50,000 per year to under $20,000 per year."[203] A 2014 study by Morningstar Investment Management found that because people overestimate the amount of money they will need to retire, they oversave for retirement by about 20 percent, thereby diverting funds toward retirement that could have been used for current consumption or to avoid taking on other debt, such as for their children's college education.[204]

Spending typically declines in retirement for several reasons. First, as people retire, they typically substitute home production of many services (such as cooking, cleaning, lawn care, and home maintenance) for what they might have previously purchased in the market.[205] Second, consumers reduce their replacement rate of consumer durable investments such as appliances, clothing, automobiles, and others. Third, costs associated with working (such as transportation, food, and dry cleaning) fall as well. Finally, as people age they generally become less mobile, leading ultimately to reductions in spending on travel, recreational activities, and the like. As a

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202 Sudipto Banerjee, *Expenditure Patterns of Older Americans 2001–2009*, 2012 EMP. BENEFIT RES. INST. 368, at 5.

203 Zywicki, *supra* note [ NOTEREF _Ref56017866 \h ], at 889 (citing Banerjee, *supra* note [ NOTEREF _Ref56165732 \h ]).

204 Gene Chatzky, *You May Be Saving Too Much for Retirement*, FORTUNE (Jan. 6, 2014), http://fortune.com/2014/01/06/you-may-be-saving-too-much-for-retirement/.

205 Retirees spend much more time on household tasks such as house cleaning, yard work, shopping, meal preparation and home improvements than when they were working. *See* Michael Hurd & Susann Rohwedder, *The Retirement-Consumption Puzzle: Anticipated and Actual Declines in Spending at Retirement* (Rand, Working Paper No. 242, 2005).



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result of these spending reductions together with asset growth, many households today actually *increase* their wealth levels in retirement rather than drawing down resources.[206]

The shift in the economy from defined benefit pension plans to defined contribution plans has also generally increased financial well-being in retirement for most Americans. The adoption of defined contribution plans has dramatically increased the number of workers who are eligible for tax-preferred retirement plans compared to defined benefit plans. Defined benefit plans frequently offered generous benefits for retirees, but they were very expensive and risky for employers to operate because of the difficulties of predicting long-term payout obligations under the plan.[207] Because of their cost, even at their peak, only about 39 percent of employees participated in a defined benefit pension plan.[208] In the mid-1990s, only 35 percent of all private industry workers participated in a defined benefit pension plan with their employer almost all at large businesses.[209] Moreover, defined benefit plans usually had long vesting periods for eligibility. A majority of traditional plans required a minimum of 15 years' service to qualify for

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206 David A. Love, Michael G. Palumbo & Paul A. Smith, *The Trajectory of Wealth in Retirement*, 93 J. PUB. ECON. 1-2, 191 (2009), *available at* http://www.sciencedirect.com/science/article/pii/S004727270800131.

207 They also raised a non-trivial risk of employer underfunding which could leave promised beneficiaries empty-handed if the firm went bankrupt. In fact, the enactment of ERISA, which imposed new regulations on employers to guarantee adequate funding of retirement plans, instead had the unintended consequence of leading employers to abandon them all together. *See* Richard A. Ippolito, *A Study of the Regulatory Effect of the Employee Retirement Income Security Act*, 31 J. L. & ECON. 85 (1988); Richard A. Ippolito, *Bankruptcy and Workers: Risks, Compensation and Pension Contracts*, 82 WASH. U. L. Q. 1251 (2004).

208 *See* Biggs, *Phony*, *supra* note [ NOTEREF _Ref56169536 \h ].

209 *See* William J. Wiatrowski, *The Last Private Industry Pension Plans: A Visual Essay*, MONTHLY LABOR REV. 4 (Dec. 2012).

full vesting and many also had minimum age requirements as well.[210] Defined benefit plans also restricted labor market mobility, encouraging workers to remain in their current job even if they would prefer to pursue an opportunity.[211]

Defined contribution plans, by contrast, are much less expensive and risky for employers to operate leading to many more businesses, especially small businesses, offering employer-sponsored retirement plans.[212] Moreover, eligibility and vesting requirements for defined contribution plans are shorter than for defined benefit plans, making them more fair and accessible for workers who move in and out of the workforce or change jobs more often, such as working parents and younger workers. Whereas the average vesting period for a defined benefit plan was five years, 60 percent of defined contribution plans provide for immediate vesting and 85 percent provide for vesting within one year or less.[213] Defined contribution plans also protect employees from the risks of employer insolvency, as employees have property rights in their amounts contributed, even if the firm goes bankrupt. Shorter vesting periods increase labor

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210 John W. Thompson, *Defined Benefit Plans at the Dawn of ERISA*, U.S. BUREAU OF LABOR STATISTICS (Mar. 30, 2005), *available in* [ HYPERLINK "https://www.bls.gov/opub/mlr/cwc/defined-benefit-plans-at-the-dawn-of-erisa.pdf" ].

211 For example, public employee defined benefit plans have been found to lead to the retention of some low-quality public school teachers who would prefer to move to alternative employment and the premature exit of some high-quality teachers would otherwise stay. *See* Cory Koedel, Michael Podgursky, and Shishan Shi, *Teacher Pension Systems, the Composition of the Teaching Workforce, and Teacher Quality*, 32 J. OF POL'Y ANALYSIS AND MANAGEMENT 574 (2013).

212 *See* Richard A. Ippolito, *Toward Explaining the Growth of Defined Contribution Plans*, 34 INDUSTRIAL RELATIONS 1 (1995).

213 VANGUARD, HOW AMERICA SAVES 2015: A REPORT ON VANGUARD 2014 DEFINED CONTRIBUTION PLAN DATA 4 (June 2015), *available at* [ HYPERLINK "https://pressroom.vanguard.com/content/nonindexed/FactSheet_HAS2015_060915.pdf" ].



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mobility and efficiency and relieve workers of the burden of staying at their current job and foregoing a better employment opportunity elsewhere. Minority and less-educated workers historically have had lower average tenure rates than white and higher-educated workers, thus they were less-likely to develop sufficient tenure to become eligible for a defined benefit plan, which tended to worsen the racial wealth gap in the economy.

As a result, over 60 percent of workers participate in retirement plans today, including about 40 percent of households with below-median income.[214] Eighty percent of *married* couples participates in one of the spouse's retirement plan.[215] According to the Department of Labor, the median job tenure at current employer today is only 4.1 years and the median tenure of younger workers is only 2.8 years.[216] Women, minorities, and less-educated workers, on average, have shorter average job tenures than men, White, and higher-educated workers. Thus, the largest beneficiaries of the transition to defined contribution retirement plans appears to be less stable workers such as women, minorities, and les-educated workers, who were substantially less likely ever to qualify for traditional defined benefit pension plans than higher-educated White men.

In addition, the replacement of defined benefit plans with defined contribution plans has increased the overall resources contributed to employee retirement funds. Defined benefit plans typically were financed only by the employer. Defined contribution plans, by contrast, are

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[214] *See* Bhutta, *supra* note [ NOTEREF _Ref56156815 \h ], at 20, Box 6.

[215] Irena Dushi and Howard M. Iams, *Pension Plan Participation Among Married Couples*, 73 SOCIAL SECURITY BULLETIN 45 (2013), *available in* [ HYPERLINK "https://www.ssa.gov/policy/docs/ssb/v73n3/v73n3p45.html" ]. In 37 percent of cases the husband was the only participate in a retirement plan and in 10 percent of cases the wife was the only participant.

[216] BUREAU OF LABOR STATISTICS, EMPLOYEE TENURE IN 2020 (Sept. 22, 2020), *available in* [ HYPERLINK "https://www.bls.gov/news.release/pdf/tenure.pdf" ].

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primarily financed by employees but employers often offer a "matching" contribution up to a certain percentage.[217] As a result, the total employer and employee contributions to retirement plans increased from 6 percent of employee wages in the 1970s to 8.3 percent today.[218] Many employers also give *non-matching* contributions to employee retirement plans in addition to matching contributions: according to one survey, the average contribution was 5.4% of salary and the median value was 3.9%.[219]

Overall, analysis by Boston College's Center for Retirement Research concludes that the shift from defined benefit to defined contribution plans has resulted in no net increase in the number of people saving inadequately for retirement:

> [I]f returns on accumulations are included, the annual change in pension wealth appears to have remained relatively steady. *In short, the . . . data suggest that people*

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[217] According to one estimate, in 2012 95.3% of employers with defined contribution plans made matching contributions, which was a ten percentage point increase from 2009. Employers increased the average size of their matching contribution to 4.5% of pay, an increase from 3.7% in 2010. *See* Bob Benish, *401(k) Plans ARE Working*, PLAN SPONSOR COUNCIL OF AM. (Oct. 17, 2013), [ HYPERLINK "http://www.psca.org/401-k-plans-are-working" ]. A survey by the Pew Trusts estimates that a little over 80 percent of employers offer a plan with matching contributions. *See* PEW, RETIREMENT PLAN ACCESS AND PARTICIPATION ACROSS GENERATIONS, pewtrusts.com (Feb. 15, 2017), *available in* [ HYPERLINK "https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/02/retirement-plan-access-and-participation-across-generations" \l ":~:text=When%20an%20employer%20contributes%2C%20about,the%20employer%20does%20not%20contribute" ].

[218] *See* Biggs, *Phony Retirement Crisis*, *supra* note [ NOTEREF _Ref56169536 \h ] (citing Labor Department data).

[219] *See* Ashlea Ebeling, *Employers to Chip in More 401(k) Dollars*, FORBES (Apr. 30, 2015), http://www.forbes.com/sites/ashleaebeling/2015/04/30/employers-to-chip-in-more-401k-dollars/#2715e4857a0b4b923c5133ff.

*are not accumulating less as the result of the shift from defined benefit to defined contribution plans.*[220]

The general findings of available research thus fail to identify any significant crisis in retirement savings, once changes in patterns of retirement improvements in access to retirement plans, and other changes in the economy are considered. Retirees today are far from destitute—on average, they have the lowest poverty rates of any group in society and higher incomes than at any time on record. Approximately three-quarters of Americans appear to be saving adequately for retirement, even ignoring these adjustments. Those who appear to be undersaving are either lower-income, in which case government benefits such as social security will replace a large amount of their income, or higher-income, in which case they express an expectation of working past a traditional retirement age. The transition to defined contribution plans has opened access to a much larger section of the workforce, but especially women, minorities, and younger workers who traditionally were unable to qualify for traditional defined benefit pension plans.

### C. Why Don't Some People Save More for Retirement?

The fact that three-quarters of Americans appear to be saving adequately for retirement, however, raises the question as to why approximately 25 percent of Americans appear to be falling short of their target for retirement. As noted, in large part this simply reflects a failure to appreciate the changing nature of retirement and the progressive nature of government social welfare benefits. Understanding why some people do not save for retirement is necessary as a predicate to determining what government policies, if any, would improve their financial well-being.

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[220] Alicia H. Munnell, Hean-Pierre Aubry, & Caroline V. Crawford, *How Has Shift to Defined Contribution Plans Affected Saving?* 1 (Ctr. for Ret. Res. at Bos. Coll., Working Paper No. 15-16, 2015).



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Start with the obvious point: the vast majority of workers who are eligible for an employer-sponsored retirement plan choose to participate, about 80 percent according to several estimates.[221] The rate of uptake among workers increases substantially when employers offer matching contributions.[222] Thus, among those who have access to a retirement plan, the overwhelming number contribute, and as discussed above, the average total contribution level (employer plus employee) is around 8 percent of pay. Of those who do not participate in an employer-sponsored retirement plan, the most common reason is that they are not eligible, had just started working at their new employer, or are employed only part-time.[223] Approximately 33 percent of families have IRA retirement plans.[224]

Leaving aside those who do not have access to a retirement plan or are not eligible, reasons for not participating in retirement savings plans generally boil down to three basic reasons: (1) They simply do not have money left over to save after meeting their current financial obligations, (2) They are paying down consumer debt, (3) they are saving for retirement in other ways or are saving for other priorities, such as a home, college, or some other investment. In other words, consistent with the idea that failure to save is largely a reflection of budget constraints not preferences, those who choose not to save are doing so because they would have to forego current consumption, some other household investment (such as college or a home), or

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[221] *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ], at 31; Craig Copeland, *Individual Retirement Plans: An Analysis of the 2013 Survey of Consumer Finances*, EMP. BENEFIT RES. INST. ISSUE BRIEF No. 406 at 6 (Nov. 2014) (reporting 78.7% participation rate in defined contribution plans by eligible employees according to the 2013 Survey of Consumer Finances); PEW, *supra* note [ NOTEREF _Ref56257144 \h ].

[222] PEW, *supra* note [ NOTEREF _Ref56257144 \h ].

[223] *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ], at 31.

[224] *See* THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, REPORT ON THE ECONOMIC WELL-BEING OF U.S. HOUSEHOLDS IN 2019, FEATURING SUPPLEMENTAL DATA FROM APRIL 2020 at 47-50 (May 2020).



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would have to borrow to finance retirement savings. Only a very small number of people suggest that they could actually be saving more for retirement but just haven't gotten around to it or otherwise reflect some lack of appreciation for the long-term value of retirement savings (often referred to as "hyperbolic discounting" or "present bias," or a lack self-control in failing to follow through on a plan to save (inertia or lack of self-control)). This suggests that the primary reason that many people do not save more is because they simply lack enough money to do so in light of other financial priorities, not because they irrationally fail to do so.

The most common reason why eligible workers state that they do not participate in their employer-sponsored retirement plan is that they believe they simply do not have enough money to do so. According to one survey, one-third of those who do not participate in their employer-sponsored retirement plan said they were "financially stretched with other financial priorities."[225] In the same survey, 21 percent of non-savers stated the reason they were not saving for retirement was because they were "just getting by" and "covering their basic expenses."[226] In a recent survey, the most common answer to the question "What's the biggest reason you aren't saving more money?" was "Expenses" (named by 38 percent of respondents" and tied for second was "Job isn't good enough" (named by 16 percent).[227] Thirteen percent of respondents listed "debt" as the reason. According to research by the Bureau of Labor Statistics, the strongest

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[225] *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ].

[226] *Id.*

[227] *See* Amanda Dixon, *Survey 21% of Working Americans Aren't Saving Anything At All*, BANKRATE.COM (Mar. 14, 2019), *available in* [ HYPERLINK "https://www.bankrate.com/banking/savings/financial-security-march-2019/" ].



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predictor of reduced contribution to an employee's defined contribution retirement plan during the Great Recession was reduced labor earnings.[228]

A second reason why many consumers state that they are not saving for retirement is that they are prioritizing paying down consumer debt. Twenty percent of respondents in Transamerica's survey stated that their highest financial priority was "paying down consumer debt," such as credit card debt. Twelve percent stated that paying off their mortgage was their highest financial priority and 4 percent stated that their highest priority was paying off their student debt.[229] Overall, 36 percent of respondents in the survey identified paying off consumer debt of one type or another as their highest financial priority, compared to 27 percent who stated that saving for retirement was their highest priority.

Third, many consumers are saving for other goals, such as building up an emergency reserve fund of liquid savings or for another priority such as to purchase a house or for their children's college education. Some households are choosing to maintain a higher level of liquid savings instead of tying up savings only in long-term illiquid retirement accounts that can be reached solely by paying a penalty or borrowing against the account.[230] In the face of rising

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[228] *See* Christopher R. Tamborini, Patrick Purcell, and Howard M. Iams, *The Relationship Between Job Characteristics and Retirement Savings in Defined Contribution Plans*, U.S. BUREAU OF STATISTICS *MONTHLY LABOR REVIEW*,(May 2013). In a similar vein, according to a survey of retirement plan participation by Pew, workers with children are substantially more likely to cite "affordability" as a reason for not participating in a retirement plan. *See* PEW, *supra* note [ NOTEREF _Ref56257144 \h ]. According to the Transamerica survey, six percent of respondents citied their highest financial priority as supporting or children financially. *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ], at 22.

[229] *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ].

[230] *See* discussion *infra* at notes [ NOTEREF _Ref56173608 \h ]-[ NOTEREF _Ref56261785 \h ] and accompanying text.



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economic uncertainty, many workers choose to scale back contributions to their retirement accounts and instead to harvest more resources in more liquid savings accounts, especially lower-income workers with lower job stability.[231]

Others are focused on intermediate-term financial goals, such as buying a house.[232] One survey of 25 to 39 year old consumers found that one-third of participants listed saving for a home down payment as their highest financial priority, followed by debt repayment (25%), an emergency fund, and coming in fourth, retirement savings, with travel coming in last. Of the list of five priorities, almost half of respondents listed retirement saving as fourth or fifth in line. Seventy-three percent stated they would hold off on saving for retirement if it meant they could buy a home sooner.

Many parents are focused on saving for their childrens' college education instead of retirement saving. According to a survey by T. Rowe Price, 53 percent of parents said saving for college is a higher priority than saving for retirement.[233] Sixty-eight percent said they would be willing to delay their own retirement to pay for their kids' college education. According to Sallie Mae, 14 percent of parents withdrew money from their retirement fund and 35 percent withdrew

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[231] *See* James Royal, *Survey: Less Than a Third of Americans Have Increased Their Retirement Savings Rate this Year*, BANKRATE.COM (Aug. 21, 2019), *available in* [ HYPERLINK "https://www.bankrate.com/surveys/financial-security-august-2019/" ].

[232] Alyssa Davies, *Millennials Prioritize Down Payment Funds and Debt Repayment*, ZOLO.CA (May 27, 2019), *available in* [ HYPERLINK "https://www.zolo.ca/blog/millennials-saving-goals" ].

[233] *See* Tanza Loudenback, *American Parents Are Putting College Savings Ahead of Retirement—Exactly the Trap Experts Warn Against*, BUSINESSINSIDER.COM (Aug. 12, 2019), *available in* [ HYPERLINK "https://www.businessinsider.com/personal-finance/saving-for-college-parents-top-priority-over-retirement-2019-8" ].



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money from other savings or investments to cover college costs.[234] Seven percent took a loan against their retirement account to help pay for college.[235] Many parents consider paying for their children's college—and helping them to avoid massive debt—to be a higher priority than immediate saving for retirement.

Many of those who do not participate in an employer's retirement plan are either saving for retirement in other ways or saving for other important financial priorities. As noted, although only a little over 60 percent of all workers state that they participate in a retirement plan, 80 percent of married couples participate in a retirement plan.[236] According to Transamerica's survey, 10 percent of workers state that they are saving for retirement in other ways, such as by owning a business, rental properties, or some other investment property.[237]

By contrast, very few consumers state the reason they failed to enroll in a retirement plan was because they had intended to enroll "but just hadn't taken the time to do it."[238] Overall, over eighty percent of workers not in a plan state that the reason they are not participating in an employer's retirement plan is because they are ineligible, already stretched by current financial obligations, saving for some other purpose (such as to purchase a home or education), saving for retirement in some other way (such as a spouse's plan), or are paying down consumer debt or

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234 SALLIE MAE, HOW AMERICA PAYS FOR COLLEGE 2020 at 8 (Apr. 27, 2020), *available in* [ HYPERLINK "https://www.salliemae.com/assets/research/HAP/HowAmericaPaysforCollege2020.pdf" ].

235 *Id.* at 23, Table 1.

236 Irena Dushi and Howard M. Iams, *Pension Plan Participation Among Married Couples*, 73 SOCIAL SECURITY BULLETIN 45 (2013), *available in* [ HYPERLINK "https://www.ssa.gov/policy/docs/ssb/v73n3/v73n3p45.html" ]. In 37 percent of cases the husband was the only participate in a retirement plan and in 10 percent of cases the wife was the only participant.

237 TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ].

238 *See* TRANSAMERICA, *supra* note [ NOTEREF _Ref56164199 \h ].

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student loans. None of these constraints on saving more for retirement appear to be irrational, nor are they inconsistent with a stated desire by consumers to save more. They are just unable or unwilling to do so for sensible reasons.

### D. Short-Term Savings

It is also often reported that there is also a short-term savings "crisis" in the United States and that Americans should be "saving more" for emergencies. This concern is often supported by reference to Federal Reserve data that finding that 63 percent of Americans would cover a $400 emergency expense completely using cash or its equivalent (defined as using a credit card paid off at the next statement).[239] The percentage of people saying they had this potential increased steadily from 50 percent in 2013 to 63 percent in 2019. During that same time period, the percentage of families that reported saving out of current income also rose across all income groups.[240]

Of those who responded that they would not cover the emergency expense with cash or its equivalent, the most common way they would cover the expense was by using a credit card and pay it off over time (15 percent).[241] Only twelve percent of respondents stated that they would be unable to pay for the expense in any way and only two percent stated that they would use a payday loan, deposit advance, or bank overdraft to cover the expense.

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[239] *See* THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, REPORT ON THE ECONOMIC WELL-BEING OF U.S. HOUSEHOLDS IN 2019, FEATURING SUPPLEMENTAL DATA FROM APRIL 2020 at 21-25 (May 2020).

[240] Bhutta, *supra* note [ NOTEREF _Ref56156815 \h ], at 13, Box 2.

[241] *See* THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, REPORT ON THE ECONOMIC WELL-BEING OF U.S. HOUSEHOLDS IN 2019, FEATURING SUPPLEMENTAL DATA FROM APRIL 2020 at 21-25 (May 2020).

But that 37 percent of respondents said that they "*would* not" use cash to pay the expense does not mean that they *could* not do so. Some households who could pay off the expense by cash choose not to do so, apparently in order to maintain precautionary liquid savings. In 2016, for example, 84 percent of families reported holding at least $400 in liquid accounts including transaction accounts (including checking and savings accounts), cash, prepaid cards, and directly held stocks, bonds, and mutual funds.[242] Approximately 20 percent of those who unable to cover three months of expenses out of their liquid savings actually have sufficient assets in "quasi-liquid" accounts such as retirement plans, certificates of deposit or savings bonds, or cash-value life insurance accounts.[243] Altogether, this suggests that the number of consumers in dire circumstances and would be unable to come up with $400 in cash is smaller than would seem to be the case at first glance. This suggests that some consumers hold sufficient assets to cover unexpected emergencies out of liquid funds, but choose to hold funds in higher-yielding, less-liquid accounts and to meet unexpected expenses by borrowing, rather than holding more liquid funds that generate limited yield.[244]

Unsurprisingly, lower-income households are much less likely to have $400 in liquid savings than higher-income households. In addition, households with children are least likely to

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[242] *See* Neil Bhutta and Lisa Dettling, *Money in the Bank? Assessing Families' Liquid Savings Using the Survey of Consumer Finances*, FEDS Notes (Nov. 19, 2018), *available in* [ HYPERLINK "https://www.federalreserve.gov/econres/notes/feds-notes/assessing-families-liquid-savings-using-the-survey-of-consumer-finances-20181119.htm" ].

[243] Bhutta and Dettling, *supra* note [ NOTEREF _Ref56173608 \h ].

[244] *Id.* This could also be consistent with the observation above that once consumers earmark savings for a particular purpose, such as retirement, they might have difficulty psychologically using those funds for an alternative purpose, leading them to instead use higher-cost consumer debt instead.



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have emergency savings at hand, and single parent households are especially likely to lack emergency savings.[245] This is consistent with a frequently-stressed point throughout this report—family formation and child-raising is a very expensive proposition that puts great financial stress on a household. Credit use, in general, is highest during the early age of family formation and, as these data indicate, is especially stressful for single parent households.

Thus, the grim reality is that those who are unable to come up with $400 in an emergency are most likely unable to do so simply because they simply do not have it because tThey are already financially pressed merely to cover their current ongoing expenses. For example, those who are less confident in their ability to access credit in the future were more likely to use their current credit and to retain some savings.[246] Forty-three percent of those who said they would have to borrow or sell something stated that they were financially struggling and 71 percent of those who reported they could not pay the bill were struggling to get by or just getting by financially.[247] Moreover, minority and less-educated households are more likely that White and more-educated households to report that they are not able to fully pay their current month's bills.[248]

In short, it appears that those who are not saving for emergencies are not doing so because they do not appreciate the value of saving or are spending recklessly. Most of them simply do not have excess income they can save and some have savings that are not liquid. Many

[245] *Id.*

[246] Olga Gorbachev and Maria Jose Luengo-Prado, *The Credit Card Debt Puzzle: The Role of Preferences, Credit Access Risk, and Financial Literacy*, 101 REV. OF ECON. AND STATISTICS 294 (May 2019).

[247] *See* BOARD OFF GOVERNORS, *supra* note [ NOTEREF _Ref56173654 \h ], at 23, Box 3.

[248] *See* BOARD OF GOVERNORS, *supra* note [ NOTEREF _Ref56173654 \h ], at 24, Fig. 16.

of those who say they would not cover the shortfall out of savings said they would use a credit card.[249] Solutions to these problems of insufficient income largely lie outside the consumer financial system.

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[249] One unexamined reason for why some households cannot meet an emergency expense or could do so only by selling something could be that they are unbanked and lack a safe and convenient location to save money.

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