

Financial Capability among Young Adults*

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Introduction

Every generation influences the economy but Millennials, also known as Generation Y, is positioned to exert special impact. This largest generation in U.S. history comprises young, educated, ethnically diverse, and economically active individuals. Despite the fact that they have entered the workforce at a time of economic instability, they are energetic and highly optimistic, and are approaching critical junctures of financial decision-making.

Millennials' personal finances will more greatly affect the U.S. economy than the financial behavior of the generations that preceded them, yet it is becoming increasingly apparent that the financial position of Millennials is more fragile than expected.

This paper discusses key factors associated with Millennials' personal finances and identifies critical issues affecting their financial future. Respondents included in this sample are at key points in their long-term financial decision-making, on the verge of choices that carry serious implications for the future.

1. An Overview of Millennials

Distinct from its predecessors—the Baby Boomers and Generation X—Millennials is the largest, most diverse generation in American history, encompassing 70 million to 80 million individuals born between the late 1970s and the mid-1990s. Its racial composition also makes it distinctive: Minorities are more broadly represented among Millennials' most educated, high-achieving members, and 11 percent of all Millennials have at least one immigrant parent (National Chamber Foundation, 2012). In addition to being more ethnically diverse than previous generations, Millennials are “on course to become the most educated generation in American history” (Fry and Parker, 2012). Within the group of 25- to 29-year-olds alone, one-third has

earned at least a bachelor's degree. Furthermore, in the United States and abroad, Millennials will soon make up the largest share of the labor market. It is projected that by 2025, three out of every four workers globally will be Millennials (Schawbel, 2012).

Millennials are often referred to as the “instant-gratification generation,” with high expectations for their professional and personal lives (Bishop, 2006). The literature attributes this generation's buoyant optimism, supreme confidence, and high achievement to changed social values. Millennials grew up “in an era that placed a high value on children,” and their parents gave priority to their offsprings' personal development and self-esteem (Eubanks, 2006).

The confidence instilled in this generation has, indeed, informed its attitudes about professional achievement. A recent study by the research firm AgencySacks found that three-quarters of Millennial respondents felt confident about achieving their goals, and 80 percent reported high expectations for themselves (Bresiger, 2011). With such lofty—and perhaps unrealistic—aspirations, Millennials are also prone to higher-than-average levels of disappointment. A 2010 study by the Pew Research Center found that individuals in the Generation Y age range are the most dissatisfied with their current earnings with regard to their ability to lead desirable lifestyles (Taylor and Keeter, 2010).

Millennials are also the first truly “digital generation,” raised amid laptop computers, cell phones, and the other rapidly advancing technology that is changing the way individuals interact and conduct business. Among other things, technology is altering where and how Millennials get their information, with the Internet displacing newspapers and television as the source for news (National Chamber Foundation, 2012). Global interconnectedness has also left Millennials increasingly reliant on peers for information and motivation.

2. Evidence from the 2012 National Financial Capability Study

2.1 The Data

The first National Financial Capability Study (NFCS), supported by FINRA Investor Education Foundation, was conducted in 2009 to assess and establish a baseline measure of the financial capability of American adults.¹ The 2012 study updated key measures from the 2009 wave and covered highly relevant new topics such as student loans and medical debt. Working with a sample size of more than 25,000 observations, the overarching research objectives of the NFCS are to benchmark key indicators of Americans' financial capability and evaluate how these indicators vary given underlying demographic, behavioral, attitudinal, and financial literacy characteristics.

Consistent with surveys on financial capability in other countries (Atkinson, McKay, Kempson, and Collard, 2007), the NFCS looks at multiple indicators of both financial knowledge and capability. These indicators include how people manage their resources, how they make financial decisions, the skill sets they use in decision-making, and the search and information elaboration that goes into their choices. In other words, financial capability is assessed by looking at both short-term financial management and medium- and long-term financial planning.

Sources of debt—including student loans, medical debt, and mortgage debt—are richly illustrated in the data, and new questions added in 2012 provide even greater detail. Moreover, as in 2009, the NFCS provides subjective and objective measures of financial literacy that are key to understanding the extent to which individuals are equipped with the knowledge they need to make financial decisions. One of the new questions addresses exposure to financial education.

¹For a detailed analysis of the 2009 NFCS data, see Lusardi (2011). Lusardi was also part of the team of experts who designed the first (2009) and the second (2012) wave of the NFCS survey.

Our analysis uses data from the 2012 wave and focuses on individuals age 23 to 35. Even though the definition of Millennials can be broader, individuals who are 22 and younger may still be in school, making them less financially engaged than those who have already started careers.² Our final sample is composed of 5,525 observations.³

Nearly 60 percent of respondents in our sample are women, and the average age is 29 (see Table 1). Married respondents make up 47 percent of the sample; many of them have at least one child. About half (47 percent) are employed full time. Millennials in our sample are relatively well educated: Nearly 40 percent have at least a college degree, and 29 percent have some college education. Because of our age restriction, full-time students account for only 6 percent of the sample. Minorities make up two-fifths of the sample, a demographic that, as mentioned earlier, sets this generation apart from previous ones.

Respondents were asked to report their yearly household incomes using eight ascending categories. Since income tends to increase with age and experience, it is not surprising to find that our sample's average household income is lower than the national average. About 50 percent of Americans have an annual income above \$50,000, while for Millennial respondents it is 40 percent. Respondents with a college degree, however, tend to fare better. Sixty percent of respondents in this subgroup report annual income above \$50,000.

2.2 Assets of Millennials

The NFCS data allow researchers to track asset ownership and respondents' involvement in asset management. Among these indicators are whether respondents have bank accounts, real

² In addition, we excluded 16 observations in which respondents were recorded as retired.

³ Because we focus on a specific subgroup of the population, the statistics we report do not use the NFCS weights, which are calculated to make the NFCS data representative of the U.S. population.

estate, financial investments, and retirement accounts. Most Millennials own a variety of assets (Table 2). Indeed, although the percentage of unbanked Gen-Yers exceeds that of the general population,⁴ the vast majority—some 88 percent—of Millennials have either a checking account or a savings account at a bank or credit union. Moreover, 51 percent of respondents report having a retirement account, whether employer based or independent,⁵ and one-fourth of respondents have investments in stocks, bonds, or mutual funds. That latter statistic compares with a national average of 37 percent. Additionally, 40 percent of respondents own their homes, and nearly 10 percent own additional real estate, such as second homes, investment properties, or farms.

Disaggregating the data on assets by demographic characteristics, we show that a few subgroups are disproportionately more likely to have assets. Importantly, the analysis shows that those who have a full-time job are much better positioned than other respondents: they are 36 percentage points more likely to have a retirement account (70 percent vs. 34 percent), 19 percentage points more likely to have financial investments (36 percent vs. 17 percent), and 18 percentage points more likely to own their home (50 percent vs. 32 percent). Further, those who are married tend to have higher rates of asset ownership than single respondents, in particular they are more likely to have a house (54 percent vs. 28 percent). Finally, it is important to note that while women's rates of asset ownership tend to be similar to those of men, their rate of ownership of financial investments is much lower. Only 22 percent of female respondents report to have financial investments in stocks, bonds or mutual funds, compared to 33 percent of men.

If we consider human capital in addition to financial capital, it is important to note that Millennials have high levels of education. Millennials are increasingly investing in college

⁴According to a report by the Federal Deposit Insurance Corporation (2012), in 2011 the percentage of unbanked in the U.S. was approximately 8 percent.

⁵That compares with a 60 percent national average.

degrees or postgraduate studies hoping to secure better and higher-paying jobs. As we will show later, this increased level of investment in education is also associated with increased student debt. In this sample, 38 percent of respondents have a college degree, 29 percent report to have some college education but not a college degree, and 22 percent have a high-school diploma. Importantly, those who have a college degree tend to have significantly higher levels of income and are much more likely than other respondents to have a full-time job (54 percent vs. 25 percent). And as we saw earlier, those who have a full-time job tend to have more assets.

The statistics on assets and investment in education show that a notable percentage of Millennials is accustomed to making significant financial decisions, such as buying homes or choosing investment allocations.

However, the asset side of the balance sheet provides only a partial representation of Millennials' personal finances. Debt must also be taken into consideration. For example, home-owning Millennials may carry substantial mortgages on their properties, and those with retirement accounts may have borrowed against them. This report leverages unique NFCS data on debt and debt management, enabling us to present a comprehensive overview of Millennials' financial position and its relevance to financial institutions seeking to serve this generation.

2.3 Millennials Are Borrowing on Their Assets

Once we start to analyze debt in relation to assets, it becomes clear that many Millennials are heavily leveraged and are borrowing on their assets. Table 3 shows Millennials' borrowing behavior associated to five distinct assets and investments: checking accounts, real estate, cars, retirement accounts, and investment in education. Starting from the simplest asset, we find that nearly 30 percent of account holders overdrew from their checking accounts in the 12 months

prior to the survey. It is also significant that 40 percent of Millennials own their homes, however, over 70 percent of these homeowners have taken on mortgages to finance the purchase of their home.⁶ Further, 36 percent of Millennials who own cars have auto loans.

Millennials are even accustomed to borrowing from retirement accounts. Among those with self-directed retirement accounts,⁷ 17 percent took a loan from their accounts and 14 percent made hardship withdrawals from such accounts. In total, 22 percent of account holders tapped their self-directed retirement accounts in the 12 months prior to the survey.

Finally, Millennials are also heavily leveraged on their educational investment. Student debt is the most common long-term liability among Millennials. According to a report by the Federal Reserve Bank of New York (2013), 38 million Americans currently owe more than \$1 trillion in student debt, the largest form of consumer debt after home mortgages. For Millennials, student debt is particularly significant. Between 2007 and 2010, student loans significantly increased as a proportion of young household debt, rising from 34 percent to 40 percent (Fry and Parker, 2012). In our sample, nearly four of 10 respondents have student loans, whether private or federal.

Student debt is a transversal liability that crosses demographics such as gender, ethnicity, and income although, as expected, it disproportionately affects those with higher education. Fifty-five percent of college-educated respondents carry student loans. This has interesting implications, as we will address in more detail later. Higher education is typically associated with higher average income. However, because the costs of education are frequently financed

⁶ This corresponds to 29 percent among the full sample of Millennials.

⁷ Respondents with self-directed retirement accounts make up 36 percent of the sample.

through borrowing, college education may no longer be a guarantee of a better financial condition.

The data on mortgages, car loans, and student loans show that many Millennials have outstanding long-term liabilities associated with their assets. In order to understand to what extent these long-term liabilities are a burden for this generation, we analyze them in a single framework, obtaining an overview of the overall level of long-term indebtedness among Millennials.

2.4 Overall Long-term Indebtedness and Financial Distress

By combining the information on long-term obligations, we develop a comprehensive overview of Millennials' long-term obligations—and the results are striking. Two-thirds (66 percent) of all Millennials have at least one source of outstanding long-term debt, whether student loan, home mortgage, or car loan, and 30 percent have more than one source (Figure 1). College-educated members of Millennials are more likely to have long-term debt due to student loans. Among the 2,124 college-educated respondents in our sample, a staggering 81 percent have at least one source of outstanding long-term debt, and 44 percent have more than one source. In other words, a sizeable share (if not the major share) of young adults' financial decision-making has to do with debt and debt management.

Debt normally incurs higher interest rates than do assets, and servicing debt requires periodic payments that may severely impact young individuals' balance sheets and their ability to make ends meet or save. Because of this, we examined responses to a set of questions added to the 2012 NFCS. To identify potential indicators of financial distress, the survey asks:⁸

⁸Each of these questions includes as possible answers: “I do not know” and “I prefer not to say.”

- *Do you currently owe more on your home than you think you could sell it for today? (Y/N)*
- *How many times have you been late with your mortgage payments in the last 2 years? (Never/Once/More than Once)*
- *Are you concerned that you might not be able to pay off your student loans? (Y/N)*
- *Do you currently have any unpaid bills from a health care or medical service provider (e.g., a hospital, a doctor's office, or a testing lab) that are past due? (Y/N)*

These indicators show that the majority of Millennials have too much debt, struggle to make debt payments, and worry about it.

Nearly a third (32 percent) of homeowners believe they owe more than they could sell their homes for today, and 24 percent have been late with one or more mortgage payments within the past two years (Figure 2). Problems with home financing are even more significant among minorities: 37 percent of non-Asian minorities owe more on their homes than they could sell them for today, and almost a third (31 percent) have been late with one or more mortgage payments in the past two years.

When it comes to student debt, fifty-four percent of respondents with student loans expressed concerns about their ability to pay off the loans. This was especially true for women (57 percent), part-time workers (63 percent), and non-Asian minorities (60 percent), and respondents who have student loan debt but not a college degree (62%) (Table 4). Although respondents with lower income tend to be more concerned than higher-income earners, even 34 percent of Millennials with annual household income above \$75,000 doubt they will be able to repay their student loans. Moreover, the percentage of individuals worried about repaying student loans remains high even several years after college. Fifty-four percent of Millennials older than 30 are worried about repaying student loans.

Millennials also struggle to meet other payment obligations. Thirty-five percent of the respondents report unpaid medical bills. Although this percentage is highest among Millennials without health insurance (45 percent), women (38 percent), individuals with annual income below \$35,000 (42 percent), and even one-fifth of respondents with annual income above \$75,000 report having unpaid medical bills. All these indicators of long-term indebtedness show that many members of Millennials display signs of financial distress.

2.5 Short-term Liabilities

In addition to long-term debt, Millennials carry short-term debt. The most prevalent source is credit cards. The NFCS data show that 68 percent of Millennials have at least one credit card, and one card holder in five has four or more cards.⁹ The study also measures to what extent credit-card holders engage in behaviors that trigger interest payments and fees. Specifically, the survey asks:

In the past 12 months, which of the following describes your experience with credit cards?

I always paid my credit cards in full.

In some months, I carried over a balance and was charged interest.

In some months, I paid the minimum payment only.

In some months, I was charged a late fee for late payment.

In some months, I was charged an over-the-limit fee for exceeding my credit line.

In some months, I used the cards for a cash advance.

More than half (52 percent) of credit-card users report carrying over a balance—for which they were charged interest—in the 12 months prior to the study (Table 5). Forty-five percent report making only the minimum required payment on their balance. Moreover, a sizeable share of cardholders has been charged late fees (22 percent), over-the-limit fees (13

⁹Seventy-two percent of the total U.S. population are credit-card holders (as observed in the full NFCS data).

percent), and fees for taking cash advances (14 percent). When we look at those who borrow at potentially high costs (i.e., pay the minimum only and/or have been charged a late fee, an over-the-limit fee or used the card for a cash advance), we find that as many as 52 percent of Millennials with credit cards engaged in one or more potentially expensive credit card behaviors in the 12 months prior to the survey.

These results differ across demographics. Women are more likely than men to borrow in expensive ways (54 percent vs. 48 percent). While 48 percent of whites and Asian Americans engaged in such behavior, 59 percent of non-Asian minority respondents did. Furthermore, even though expensive credit card use is more common among respondents with lower income and lower education, 40 percent of card holders earning above \$75,000 reported using credit cards in ways that generate high interest payments and fees. The same is true of 43 percent of card holders with college degrees.

The use of alternative financial services (AFS) represents another significant source of short-term debt for Millennials. These services carry steep fees and, as such, have been defined in related research as high-cost borrowing methods (Lusardi and de Bassa Scheresberg, 2013).

Regarding AFS use, the NFCS asks:¹⁰

Please tell me if you've done any of the following in the past five years:

Have you taken out an auto title loan? (Y/N)

Have you taken out a short-term "payday" loan? (Y/N)

Have you gotten an advance on your tax refund (sometimes called a "refund anticipation loan" or "rapid refund")? (Y/N)

Have you used a pawnshop? (Y/N)

Have you used a rent-to-own store? (Y/N)

More than two respondents in five (42 percent) used AFS at least once during the five years prior to the survey, meaning that AFS use is not a "fringe" behavior limited to a small

¹⁰Each of these questions includes as possible answers "I do not know" and "I prefer not to say."

segment of Millennials. Rather, it is a widespread method of borrowing that is common even for households generally referred to as “middle class.” Indeed, AFS products were used by more than a quarter of Millennials with annual household incomes higher than \$75,000, which is about four times the poverty line for a standard household of three (Table 6). Moreover, many Millennials use non-bank services on a recurrent basis. For example, 19 percent of Millennials reported using payday loans in the five years prior to the survey. Among these, 31 percent used them three or more times. Similarly, 27 percent of Millennials used pawnshops and, among those respondents, nearly half (47 percent) reported having used these products three or more times in the past five years.

This study confirms the findings by Lusardi and de Bassa Scheresberg (2013), who documented a strong educational divide in AFS use among Millennials. While 28 percent of Millennials with a college degree have used AFS, 50 percent of respondents with high school education or less have relied on AFS. Notable demographic differences also emerge when AFS use is examined in the context of ethnicity. While 38 percent of White and Asian-American respondents use high-cost borrowing methods, 49 percent of African Americans, Hispanics, and other ethnicities engage in such behavior.

Much of the literature on AFS has focused on the need to provide access to the unbanked, but the NFCS data show that having a bank account or a credit card is not a panacea. Thirty-nine percent of Millennials with a bank account used an AFS product in the five years prior to the survey, as did 35 percent of credit card users.

To summarize, Millennials are burdened by short-term debt as a result of expensive credit card behavior and high-cost borrowing through alternative financial services. Many Millennials also overdraw their checking accounts and take loans from their retirement accounts. This

accumulation of short-term debt, in tandem with long-term debt burden, puts Millennials in a position of potential financial distress.

2.6 Over-indebtedness and Satisfaction with Current Personal Financial Condition

There are also other, more encompassing, measures of financial stress. To gauge overall debt levels and respondents' satisfaction with their personal financial condition, the survey asks:

- *How strongly do you agree or disagree with the following statement? Please give your answer on a scale of 1 to 7, where 1 = "Strongly Disagree," 7 = "Strongly Agree," and 4 = "Neither Agree Nor Disagree." You can use any number from 1 to 7. "I have too much debt right now."*
- *Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition? (Answer on a scale of 1 to 10, where 1 = "Not At All Satisfied" and 10 = "Extremely Satisfied.")*

Given the findings about short-term and long-term debt, it is perhaps not surprising that 53 percent of Millennials agreed with the statement "I have too much debt right now" (Figure 3). Perceived over-indebtedness is similar across demographic groups. More than half (51 percent) of college-educated Millennials feel that they have too much debt, as do 46 percent of respondents with annual incomes higher than \$75,000.

Only 21 percent of Millennials reported that they are very satisfied with their current personal financial condition (8–10). Forty-four percent gave neutral marks (4–7), and 34 percent gave low marks (1–3) (Figure 4). Interestingly, satisfaction with one's current personal financial condition tends to be higher among respondents with long-term debt (perhaps because this debt, in many cases, is due to education) and much lower among those with short-term debt, those with expensive credit card behaviors, and those who borrow through AFS products. Satisfaction is also inversely related to over-indebtedness: Only 16 percent of those who agreed with the statement "I have too much debt" reported being financially satisfied.

In other words, the majority of Millennials start their professional careers with different sources of debt, and most of them feel they have too much debt.

2.7 Financial Fragility

Since debt obligations leave Millennials in a potentially vulnerable financial position, we look at different measures of financial fragility to better understand the degree of that vulnerability. The data reveal that despite the prevalence of economic shocks, many Millennials do not have emergency or “rainy day” funds. Less than a third (32 percent) report setting aside sufficient funds to cover three months of expenses in the event of an unexpected shock. Furthermore, those who do not save for the long run also do not save for the short run: Among those without retirement plans, only 19 percent report having emergency funds. Responses to another question—How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?—confirm Millennials’ vulnerability to an unfavorable economic occurrence. Lusardi, Schneider, and Tufano (2011) were the first to propose this question as an indicator of financial fragility. The measure was piloted in a small survey in 2009, revealing that in the midst of the financial crisis, about 50% of Americans were certainly or probably not able to cope with an unexpected \$2,000 expense. This measure was then added to the 2012 NFCS, making it possible to study young adults’ ability to cope with shocks and unexpected expenses. Among Millennials, 48 percent report that they either probably or certainly could not come up with the funds (Figure 5). Millennials are thus unprepared for short-term economic shocks, having neither savings nor alternative sources of funds to handle expenses in such a situation.

The ability to cover expenses in the event of an unexpected economic shock varies across subgroups. As we show in other parts of the study, having a full-time job is one of the most important indicators of financial stability. While 35 percent of those who have a full time job report that they certainly could come up with \$2,000 in one month, only 17 percent of those who do not have a full time job report to be certain about their ability to come up with such funds. Moreover, respondents at higher levels of education show much lower levels of financial fragility. Thirty-six percent of college-educated Millennials and 52 percent of post-graduates are certain about their ability to come up with \$2,000 in one month.

Ultimately, household income is also an important determinant, with 55 percent of those earning above \$75,000 per year, 26 percent of those earning between \$35,000 and \$75,000 per year, and 12 percent of those earning below \$35,000 per year being certain that they could come up with \$2,000 if needed.

2.8 Financial Literacy, Confidence in Financial Knowledge, and Self-perceptions

Many Millennials carry large amounts of debt and engage in behaviors that generate costly interest payments and fees, yet they give themselves high marks on their personal financial management skills. NFCS data show that most Millennials are confident about their ability to make financial decisions, and they perceive themselves as having a good handle on financial matters. Seventy-four percent of respondents in our sample agreed with the statement “I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses” (Figure 6).

Similarly, there is a disconnect between self-assessed financial literacy and actual levels of financial literacy. We saw this in the responses to questions that assess understanding of

fundamental concepts that underpin financial decision-making. Nearly 70 percent of respondents rated themselves as having high financial knowledge (Figure 7). That finding was even stronger for men: Seventy-five percent ranked themselves as highly knowledgeable. In stark contrast to this self-perception, responses to five financial literacy questions indicate that Millennials have a generally low level of financial literacy.

To measure financial knowledge, the survey included a set of financial literacy questions that were designed by Lusardi and Mitchell for the U.S. Health and Retirement Study and subsequently were included in other surveys in the United States and abroad (Lusardi and Mitchell, 2008, 2011a).¹¹ The questions, which were worded using the language of everyday transactions, test five fundamental concepts: numeracy and the capacity to do calculations related to interest rates; an understanding of inflation; an understanding of risk diversification and of stocks and mutual funds; an understanding of interest payments on a mortgage; and an understanding of the relationship between interest rates and bond prices.¹² All of these concepts are very important for Millennials, given that they are already active investors and carry both short- and long-term debt.

Roughly speaking, correct answers to the first three questions indicate a basic level of financial literacy. Correctly answering all five questions shows a high level of financial literacy. Despite high self-perceptions of financial knowledge, only 8 percent of Millennials answered all five questions correctly, and only 24 percent answered the first three questions correctly (Table 7).¹³ Not only is the percentage of correct answers low, but many Millennials indicated that they did not know the answers to the questions—a response that has been shown to indicate a very

¹¹For an international comparison of financial literacy, see Lusardi and Mitchell 2011b, 2014.

¹²See the appendix for the exact wording of the five financial literacy questions.

¹³The first three questions aim to measure basic financial knowledge.

low level of financial knowledge (Lusardi and Mitchell, 2008, 2011a,b, 2014). Financial illiteracy is widespread and particularly severe among specific subgroups. Women are much less likely than men to correctly answer the first three financial literacy questions, and minorities are less likely to answer correctly than Whites or Asians. Financial literacy also seems to increase with income. Respondents with annual income higher than \$75,000 are more likely to correctly answer the first three financial literacy questions than are respondents with annual income less than \$35,000.

Not only do Millennials demonstrate much lower levels of financial literacy than they think they have, but only 37 percent of college-educated Millennials correctly answered the most basic financial literacy questions. This means that even with high levels of education, Millennials demonstrate poor financial knowledge. It is important to note, however, that only 22 percent of all respondents and 29 percent of college-educated respondents report having received financial education through educational institutions or places of employment. The alarmingly low rates of financial literacy underscore the serious need to increase financial education.

2.9 Use of Financial Advice and Trust in Financial Professionals

Given their low levels of financial literacy, do Millennials seek the guidance of financial professionals? The NFCS included a number of questions designed to gauge whether respondents looked for financial advice. Specifically, respondents were asked to indicate whether in the five years prior to the survey they sought advice from a financial professional on any of the following:¹⁴

¹⁴The survey also includes information on the use of professional advice for insurance or tax planning. However, since these are not relevant in this context, we concentrate on the three measures reported in the text.

- Savings or investments
- Debt counseling
- Taking out a mortgage or a loan

Forty-one percent of Millennials sought at least one form of financial advice in the five years prior to the survey (Figure 8), most commonly related to savings and investments (27 percent). Advice on a mortgage or a loan was sought by 26 percent of respondents. The data also show that only 12 percent of respondents received advice from a financial professional about debt counseling. Even among those who feel they have too much debt, only 17 percent sought this type of advice.

These statistics are quite telling. Our analysis shows that most Millennials are not equipped with the basic skills needed to make good financial decisions, yet the majority seeks no external guidance, particularly when it comes to debt and debt management.

To identify what financial institutions can do to better provide financial advice to Millennials, we analyze a set of questions that appeared in the 2009 NFCS but were not repeated in the 2012 wave. These questions looked at respondents' perceptions of and trust in financial professionals. Specifically, the 2009 NFCS asked:

How strongly do you agree or disagree with the following statements?

- *I would trust financial professionals and accept what they recommend.*
- *Financial professionals are too expensive for me.*
- *It is hard to find the right financial professional for me.*

All answers were measured on a scale from 1 to 7, where 1 means “Strongly Disagree,” 4 means “Neither Agree nor Disagree,” and 7 means “Strongly Agree.”¹⁵ Because the available age variable is categorical, we can only restrict the analysis to a narrower age bracket (25–34). The

¹⁵Possible answers also included “I do not know” and “I prefer not to say.”

total sample consists of 4,924 observations.¹⁶ We find that only two respondents in five in our sample (41 percent) would trust financial professionals and accept what they recommend (Figure 9).¹⁷ Interestingly, those with greater financial literacy tend to trust financial professionals *more* than those with lower financial literacy (46 percent vs. 39 percent). This creates a potentially vicious cycle in which those who are less financially literate do not seek financial advice.

Cost and lack of targeted services are additional barriers. Nearly 60 percent of these young respondents think financial professionals are too expensive for them (Figure 10), and 35 percent think that it is hard to find the right financial professional for their personal financial situation (Figure 11).

Financial Behavior and Associated Factors: A Multivariate Analysis

A range of factors influence financial behavior and status, including personal preferences, willingness to take risks, and economic circumstances. A deeper understanding of behavior and outcomes can be derived through multivariate analysis of the associated socio-demographic factors. This study undertook a multivariate analysis of four variables:

1. Indebtedness
2. Use of high-cost borrowing methods
3. Financial fragility
4. Financial advice regarding saving or investing

Each of the four indicators is a dummy variable. The variable measuring indebtedness refers to the question “On a scale from 1 to 7, how strongly do you agree with the following statement: I have too much debt right now?” Responses of 5, 6, or 7 are assigned a value of one; all other responses are assigned a value of zero. The variable measuring use of high cost borrowing methods

¹⁶We dropped 10 observations in which respondents were coded as “retired.”

¹⁷We calculate respondents who chose values greater than 5.

is assigned a value equal to one if the respondent reports having used at least one of five alternative financial services in the five years prior to the survey.¹⁸ Respondents' ability to come up with \$2,000 in one month in the event of an unexpected expense is used to measure financial fragility; this dummy variable takes a value of one if respondents indicate they are certainly unable or probably unable to come up with \$2,000, and zero otherwise. Similarly, the variable regarding professional advice is equal to one if the respondent has consulted a financial professional regarding saving or investment within the past five years.

The sample for the empirical analysis is composed of 4,999 observations. (About 500 observations from the original sample have been excluded because there is missing information in one or more of the variables included in the regressions, especially use of high cost borrowing methods).

The regression specification includes demographic characteristics, indicators for income, labor market shocks, risk preference, and additional indicators such as respondents' capacity to deal with shocks and respondents' level of financial literacy. In particular, the measurement of financial literacy is based on respondents' ability to correctly answer three basic financial literacy questions related to interest rates, inflation, and risk diversification.

The estimates show that both income and income shocks are important predictors of financial distress (Table 8). For example, those who are currently unemployed and those who experienced a large income shock in the twelve months prior to the survey are, respectively, 9 and 15 percentage points more likely to be financially fragile. Moreover, the multivariate analysis

¹⁸ Please refer to the short term liabilities section for a list of the five alternative financial services included in this study.

documents that only a few demographic variables are statistically significant when analyzing the likelihood of being highly indebted. This finding confirms what was highlighted previously: indebtedness appears to be a transversal characteristic that goes beyond the demographic differences in the sample and is widespread among different subgroups. An important exception are Asian-Americans, who are found to be 14 percentage points less likely than whites to feel that they had too much debt. Additionally, over-indebtedness appears to increase with education, suggesting an additional impact from student loans taken to finance graduate studies.

The multivariate analysis confirms the descriptive findings indicating that a number of demographic groups are more likely to be financially vulnerable. The regression results show that female respondents, individuals with two or more children, and the unemployed are less likely to be able to come up with \$2,000 in one month in the event of an emergency. Financial fragility is also much more likely among those who experienced an income shock (an additional 15 percentage points), which shows how past shocks can be important determinants of financial fragility. Moreover, the analysis shows that a few demographic groups are more likely to use high-cost methods of borrowing, especially respondents with one or more financially dependent children and African Americans, who are found to be 10 percentage points more likely than whites to use these methods. Further, the analysis confirms the existence of an educational divide in use of alternative of financial services. Respondents without some college education or a college degree are 5 to 7 percentage points more likely to use high-cost methods of borrowing.

Financial literacy is also a key determinant. Those who correctly answered all five financial literacy questions are 6 percentage points less likely to be financially fragile and 14 percentage points less likely to use high-cost borrowing methods. The coefficient related to financial literacy

remains significant even after controlling for education, indicating that financial literacy holds explanatory power beyond the effect of education.

Overall, fewer variables correlate with receiving financial advice. However, income, education, and income shocks play an important role, implying that lower earners or respondents without a college degree may also be more exposed to financial insecurity due to a lack of advice. This is particularly worrisome given that the lower income and lower educated groups also have, on average, lower levels of financial literacy.

3. Conclusions

This study has used the newest data from the NFCS to analyze salient features related to Millennials' financial capability and to identify the key financial challenges they face. It looks at perceived vs. actual readiness to tackle these challenges and builds a comprehensive outlook of the financial profile of the typical Millennial. Despite encouraging signs in terms of Millennials' assets, the analysis reveals that Millennials are deeply indebted and struggle to meet payments on both short- and long-term obligations. Furthermore, Millennials use credit cards in expensive ways, tap their retirement accounts and bank accounts, and rely on alternative financial services, often even if they have a bank account or a credit card. Even more troubling, their high level of financial engagement is not matched with a correspondingly high level of financial literacy. Most Millennials feel good about their financial knowledge, yet data show that they consistently lack the basic skills needed to make savvy financial decisions.

These findings suggest that there is a great need to promote financial capability among Millennials. Programs aimed at improving financial literacy could help Millennials minimize the costs incurred in managing its debt, improve its financial safety net in the event of emergencies,

and fortify its financial security. The gap between the amount of financial responsibility given to young Americans and their demonstrated ability to manage financial decisions and take advantage of financial opportunities is rapidly widening. Unless significant action is taken to alter this, financial illiteracy will remain a powerful obstacle to financial market efficiency and Millennials' use of traditional financial services.

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Table 1. Sample demographics

Male	41%
Female	59%
Age 23-29	50%
Age 30-35	50%
<i>Ethnicity:</i>	
White	61%
African-American	13%
Hispanic	15%
Asian-American	6%
Other ethnicity	5%
<i>Marital status:</i>	
Married	47%
Single	46%
Separated	2%
Divorced	4%
<i>Number of Financially Dependent Children</i>	
1	21%
2	18%
3 or more	15%
No financially dependent children	4%
Do not have any children	42%
<i>Living arrangements:</i>	
I am the only adult in the household	22%
I live with my spouse/partner/significant other	59%
I live in my parents' home	11%
I live with other family, friends, or roommates	9%
<i>Employment status:</i>	
Self-employed	7%
Work full time for an employer	47%
Work part time for an employer	11%
Homemaker	16%
Full-time student	6%
Permanently sick, disabled, or unable to work	3%
Unemployed or temporarily laid off	10%
<i>Income:</i>	
Income < USD 25k	30%
Income USD 25-35k	14%
Income USD 35-50k	16%
Income USD 50-75k	18%
Income USD 75-100k	11%
Income USD 100k	11%
<i>Education:</i>	
Did not complete high school	10%
High school graduate - regular high school diploma	15%
High school graduate - GED or alternative credential	7%
Some college	29%
College graduate	26%
Post-graduate education	13%
Financial decision-maker in the household	85%
<i>N</i>	5,525

Note: The sample is restricted to 5,525 respondents age 23–35.

Table 2. Asset ownership

Percentage of respondents with:	
Checking accounts	85%
Savings accounts (% Banked)	69% (88%)
Any retirement accounts, employer-based or independent	51%
Investments in stocks, bonds, or mutual funds	26%
Home	41%
Some college education	29%
College degree	38%

Note: Percentages are calculated over the total sample of Millennials. The number of observations is 5,525. Ten percent of respondents did not answer the question on investments.

Table 3. Borrowing on assets

Have a checking account	85%
<i>Overdraw from their checking account in the 12 months prior to the survey</i>	29%
Own a home	41%
<i>Have a mortgage on their home</i>	72%
Own a car	N/A
<i>Have an auto loan</i>	36%
Have a self-directed retirement account	36%
<i>Took a loan from their retirement account in the 12 months prior to the survey</i>	17%
<i>Made a hardship withdrawal from their retirement account in the 12 months prior to the survey</i>	14%
<i>Either took a loan or made a hardship withdrawal</i>	22%
Have a college degree	38%
<i>Have an outstanding student loan</i>	39%

Note: Percentages are calculated over the total sample of Millennials. The number of observations is 5,525. Statistics relative to borrowing are conditional on having the associated asset.

Table 4. Student loan debt by demographic characteristics

	<i>% with outstanding student loan debt</i>	<i>% concerned about their ability to pay off the student loan</i>
Full sample	39%	54%
Age 23-29	43%	54%
Age 30-35	35%	54%
Male	37%	49%
Female	40%	57%
No undergraduate degree	29%	62%
Have undergraduate degree	55%	47%
Ethnicity - White and Asian	35%	50%
Ethnicity – other	46%	60%
Income < \$35K	35%	67%
Income \$35K - \$75K	42%	52%
Income >\$75K	42%	34%

Note: Percentages in the second column are calculated over the relevant subsample, i.e., those who have student loans. The number of observations for each column can be obtained from Table 1.

Table 5. Credit card use

I always paid my credit cards in full	47%
In some months, I carried a balance and was charged interest	52%
<i>Expensive credit card behavior:</i>	
In some months, I paid the minimum payment only	45%
In some months, I was charged a late fee for late payment	22%
In some months, I was charged an over the limit fee for exceeding my credit line	13%
In some months, I used the cards for a cash advance	14%
Engaged in any form of expensive credit card behavior	52%
<i>N</i>	3,757

Note: The table reports the answers to the question: “In the past 12 months, which of the following describes your experience with credit cards?” Percentages are calculated over the sample of credit card holders only. The first two items were not required to total 100 percent and may exceed it as a result of measurement error (for example, new credit card holders may be allowed to carry over a balance without being charged interest).

Table 6. Use of AFS by demographic characteristic

	<i>% of respondents who used AFS in the 5 years prior to survey</i>
Full sample	42%
Age 23-29	43%
Age 30-35	41%
Male	42%
Female	42%
No undergraduate degree	50%
Have undergraduate degree	28%
Ethnicity - White and Asian	38%
Ethnicity - other	49%
Income <\$35K	52%
Income \$35 - \$75K	40%
Income >\$75K	26%
Banked	39%
Credit card holder	35%

Note: The table reports answers to the question: “In the past 5 years, how many times have you...? Taken out an auto title loan; Taken out a short term 'payday' loan; Gotten an advance on your tax refund; Used a pawn shop; Used a rent-to-own store.” Percentages are calculated over a total sample of 5,319 observations for which information is non-missing.

Table 7. Financial literacy among Millennials

	<i>% Correct</i>	<i>% Don't Know</i>
Numeracy question	73%	13%
Inflation question	46%	27%
Risk diversification question	40%	48%
Mortgage question	72%	17%
Bond prices question	22%	42%
Answered the first three questions correctly	24%	-
Answered all questions correctly	8%	-

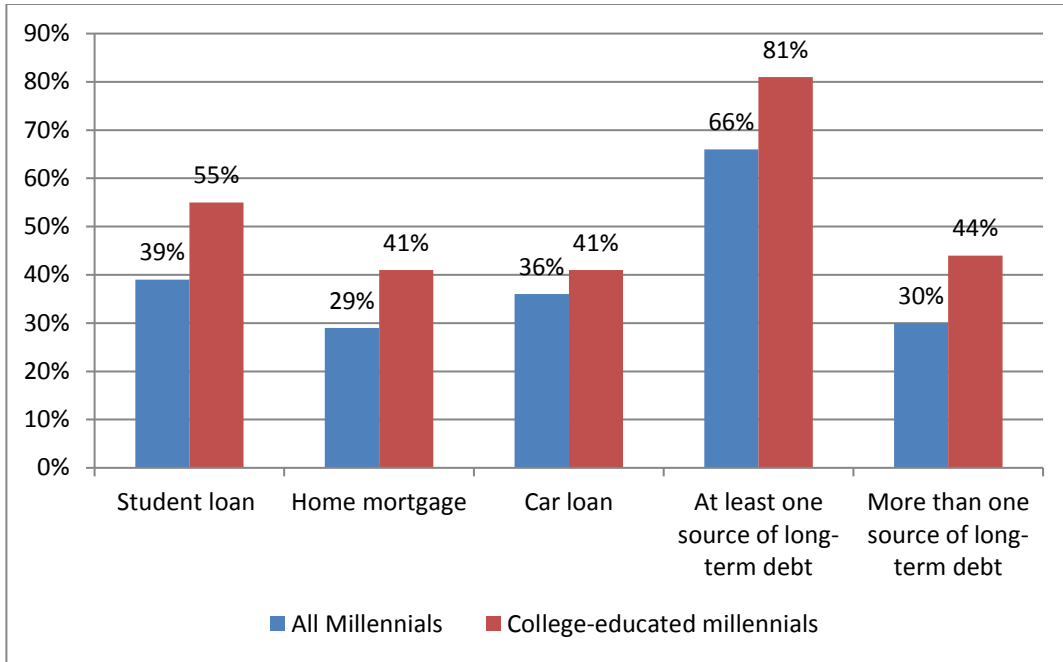
Note: Percentages are calculated over the total sample of 5,525 respondents.

Table 8. Multivariate regressions: debt, high-cost borrowing, financial fragility, and investment advice

	(1) Too much debt	(2) High-cost borrowing	(3) Cannot come up with \$2,000	(4) Advice on savings & investments
3 FL questions correct	0.005 (0.017)	-0.139*** (0.016)	-0.058*** (0.015)	-0.006 (0.015)
Female	0.044*** (0.015)	-0.063*** (0.014)	0.047*** (0.013)	-0.054*** (0.013)
Black non-Hispanic	0.012 (0.021)	0.100*** (0.020)	0.005 (0.019)	0.043** (0.019)
Hispanic (any race)	-0.019 (0.020)	0.031* (0.018)	-0.011 (0.018)	0.039** (0.017)
Asian non-Hispanic	-0.144*** (0.030)	-0.063** (0.028)	-0.089*** (0.027)	0.003 (0.026)
Other ethnicity	0.039 (0.033)	0.025 (0.031)	-0.044 (0.030)	0.012 (0.029)
Age 30 – 35	0.024* (0.014)	-0.009 (0.013)	0.011 (0.013)	-0.031** (0.013)
Single	-0.002 (0.017)	0.011 (0.016)	0.030* (0.015)	-0.014 (0.015)
Separated	0.088*** (0.031)	0.030 (0.028)	0.055** (0.027)	-0.009 (0.027)
Widow	0.068 (0.122)	0.257** (0.113)	0.015 (0.108)	-0.050 (0.106)
One kid	0.059*** (0.019)	0.166*** (0.018)	-0.009 (0.017)	0.022 (0.017)
Two or more kids	0.061*** (0.019)	0.216*** (0.017)	0.047*** (0.017)	0.020 (0.016)
Self-employed	-0.063** (0.028)	0.011 (0.026)	-0.136*** (0.025)	0.024 (0.025)
Unemployed	-0.060** (0.025)	-0.025 (0.023)	0.081*** (0.022)	-0.085*** (0.021)
Income USD 25-35k	0.010 (0.023)	-0.012 (0.021)	-0.077*** (0.020)	0.053*** (0.020)
Income USD 35-50k	0.022 (0.022)	-0.059*** (0.021)	-0.137*** (0.020)	0.087*** (0.020)
Income USD 50-75k	0.006 (0.023)	-0.065*** (0.021)	-0.204*** (0.020)	0.129*** (0.020)
Income USD 75-100k	-0.050* (0.027)	-0.148*** (0.025)	-0.321*** (0.024)	0.151*** (0.024)
Income USD 100-150k	-0.074** (0.032)	-0.153*** (0.029)	-0.370*** (0.028)	0.224*** (0.028)
Income more USD 150k	-0.056 (0.040)	-0.132*** (0.037)	-0.369*** (0.036)	0.238*** (0.035)
Some college education	0.073*** (0.018)	-0.071*** (0.017)	-0.030* (0.016)	0.053*** (0.016)
College degree	0.051*** (0.019)	-0.143*** (0.018)	-0.129*** (0.017)	0.144*** (0.017)
Risk preference: medium	-0.037** (0.017)	0.022 (0.016)	-0.112*** (0.015)	0.084*** (0.015)
Risk preference: high	-0.007 (0.018)	0.089*** (0.017)	-0.189*** (0.016)	0.197*** (0.016)
Income shock	0.193*** (0.015)	0.161*** (0.014)	0.154*** (0.014)	0.068*** (0.013)
Constant	0.396*** (0.029)	0.410*** (0.027)	0.692*** (0.026)	0.044* (0.025)
Observations	4,999	4,999	4,999	4,999
R-squared	0.064	0.181	0.258	0.133

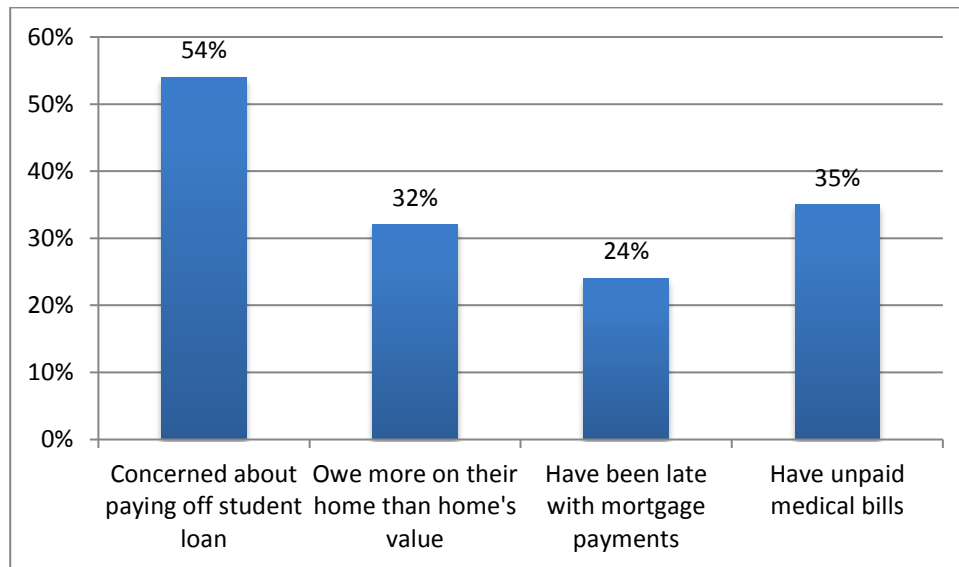
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 1. Sources of long-term debt



Note: Percentages are calculated over the total sample of 5,525 observations. The statistics relative to home mortgage and car loan are unconditional means.

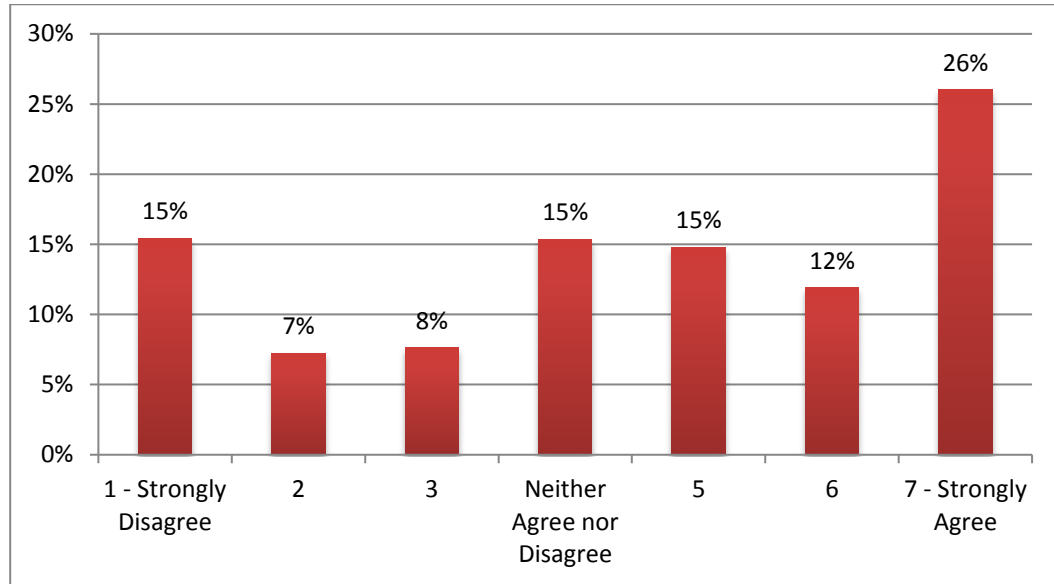
Figure 2. Indicators of financial distress



Note: Percentages are calculated over the relevant subsamples except for the statistic on medical debt that is calculated over the full sample.

Figure 3. Perceived over-indebtedness

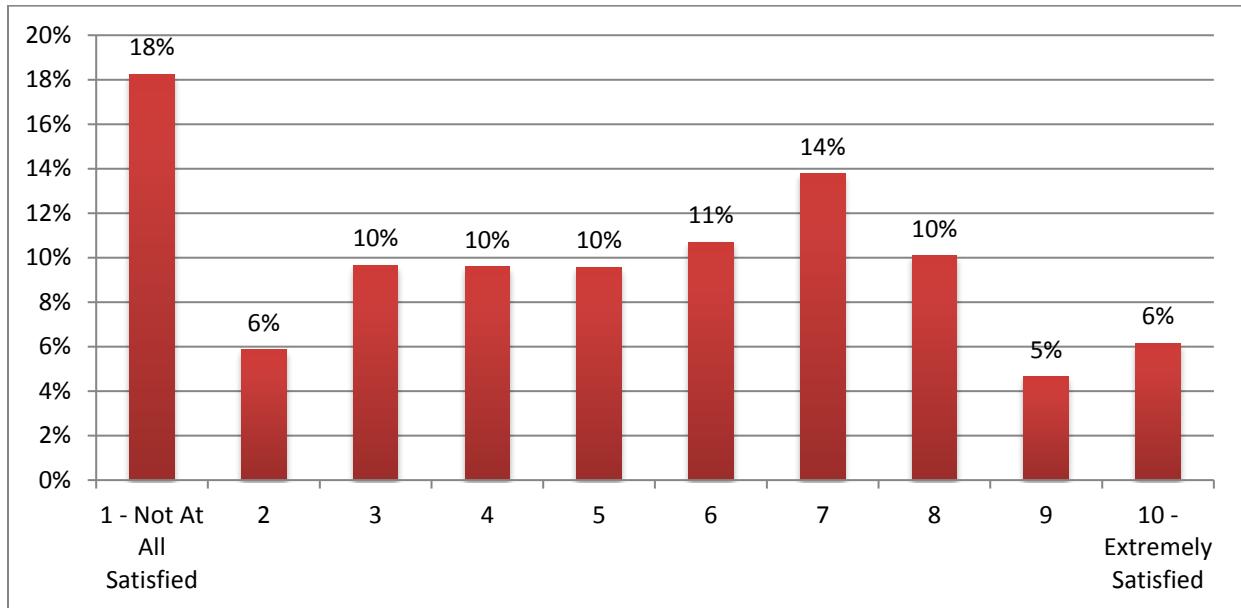
How strongly do you agree or disagree with the following statement? I have too much debt right now.



Note: Percentages calculated over the total sample of 5,525 observations. Percentages do not add up to 100% because “don’t know” and “prefer not to say” answers are excluded.

Figure 4. Satisfaction with current personal financial condition

Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition?



Note: Percentages calculated over the total sample of 5,525 observations. Percentages do not add up to 100% because “don’t know” and “prefer not to say” answers are excluded.

Figure 5. Financial fragility

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

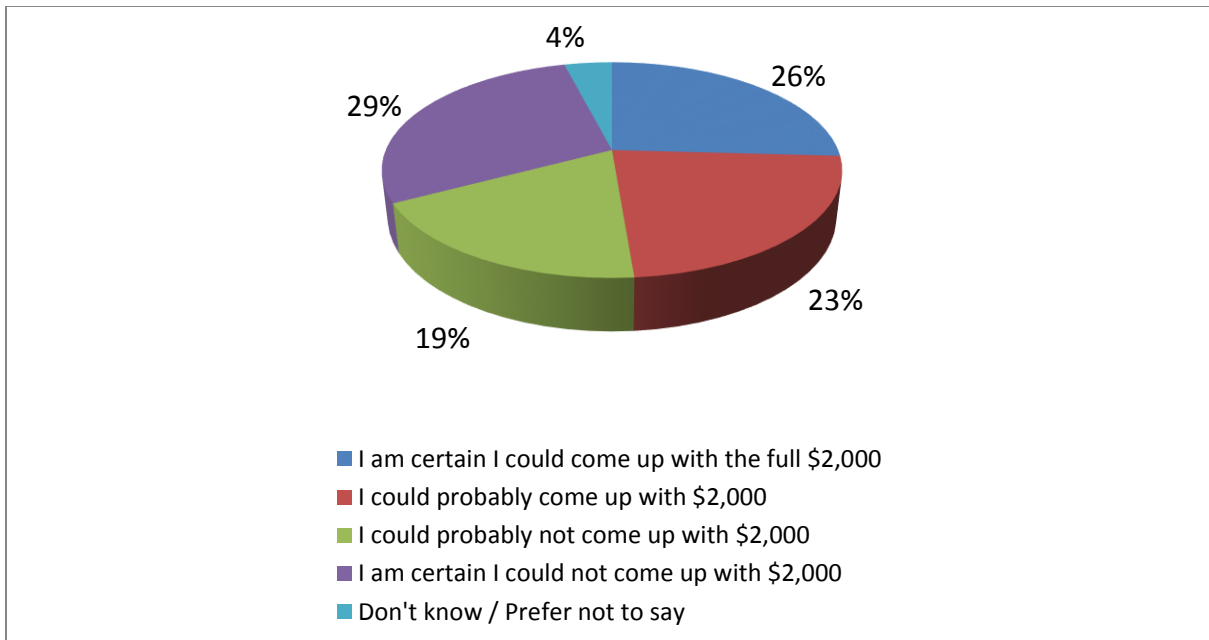
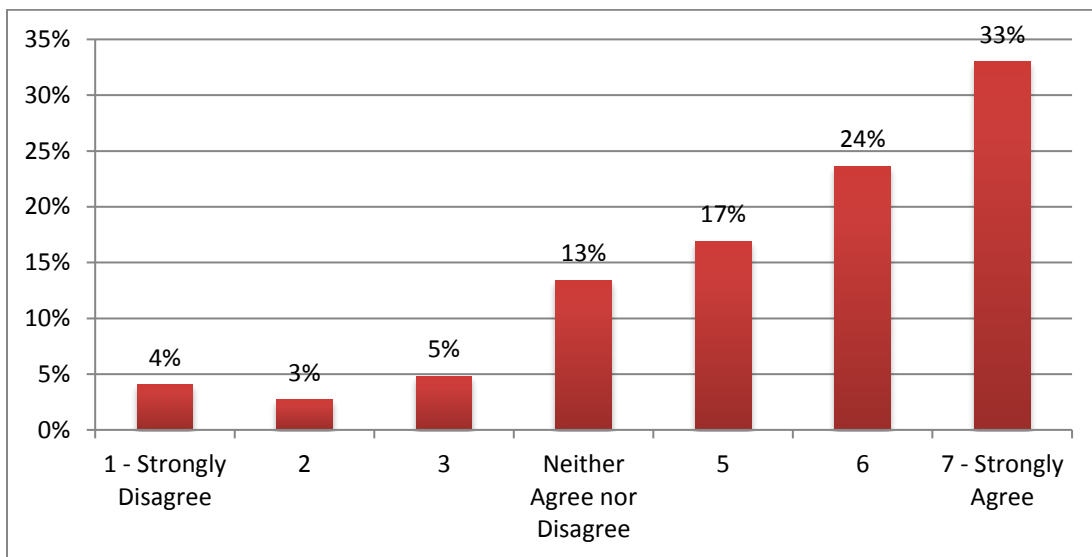


Figure 6. Confidence in dealing with financial matters

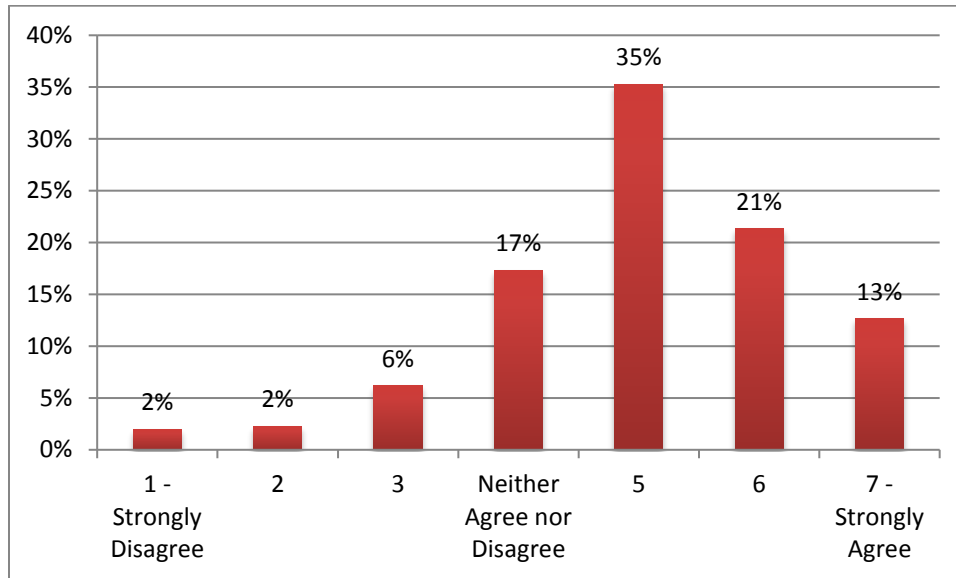
How strongly do you agree or disagree with the following statements? I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses.



Note: Percentages calculated over the total sample of 5,525 observations. Percentages do not add up to 100% because “don’t know” and “prefer not to say” answers are excluded.

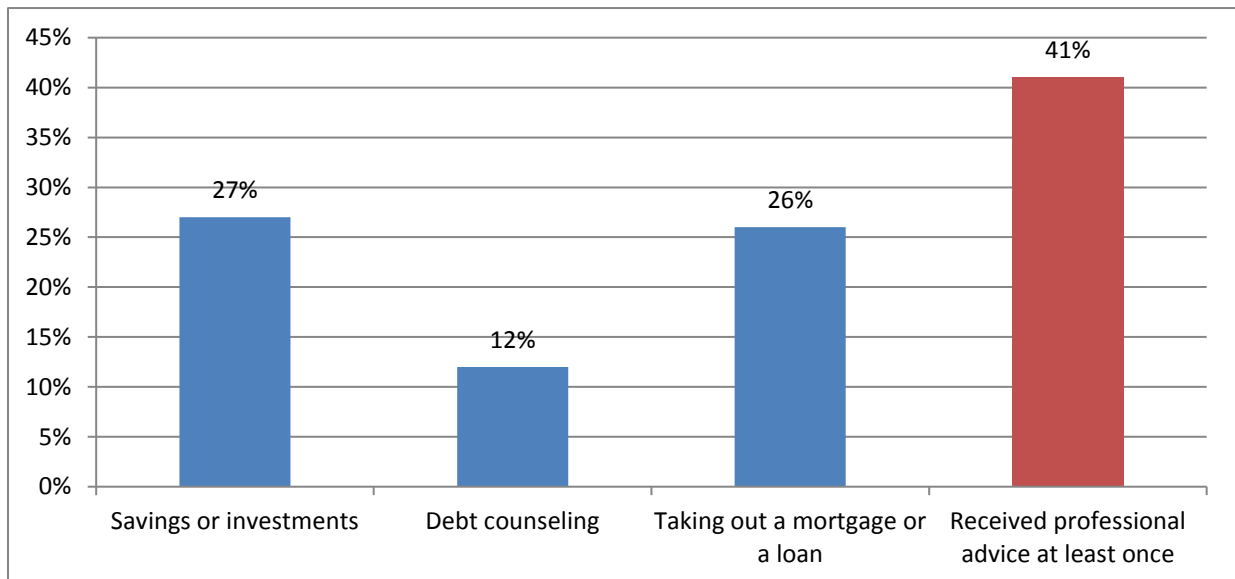
Figure 7. Confidence in personal financial knowledge

On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?



Note: Percentages calculated over the total sample of 5,525 observations. Percentages do not add up to 100% because “don’t know” and “prefer not to say” answers are excluded.

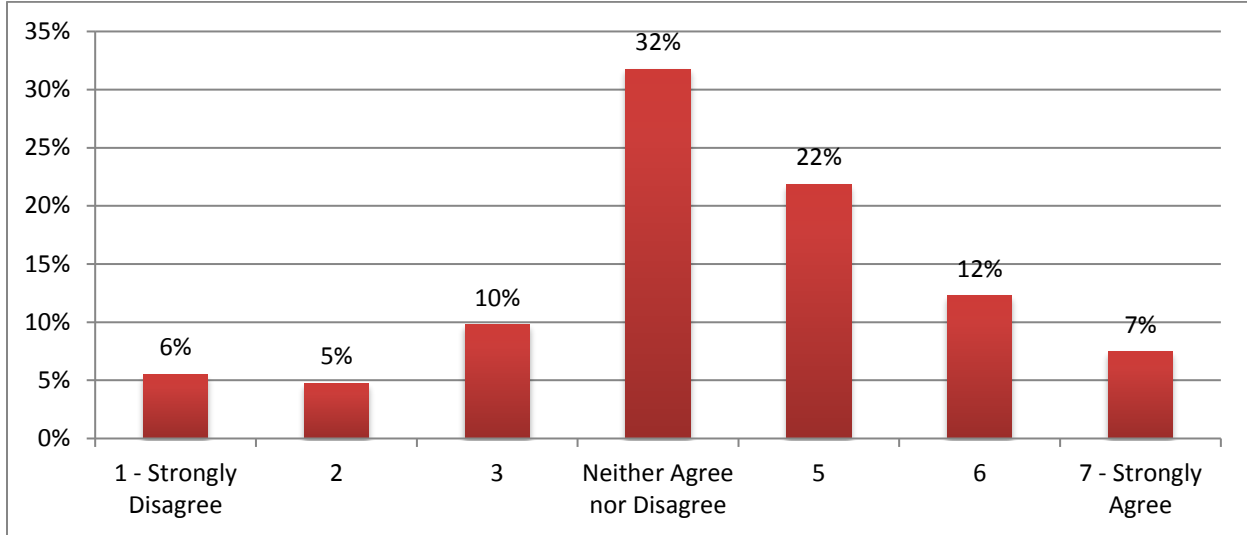
Figure 8. Use of financial advice from professionals



Note: Percentages calculated over the total sample of 5,525 observations.

Figure 9. Trust in financial professionals

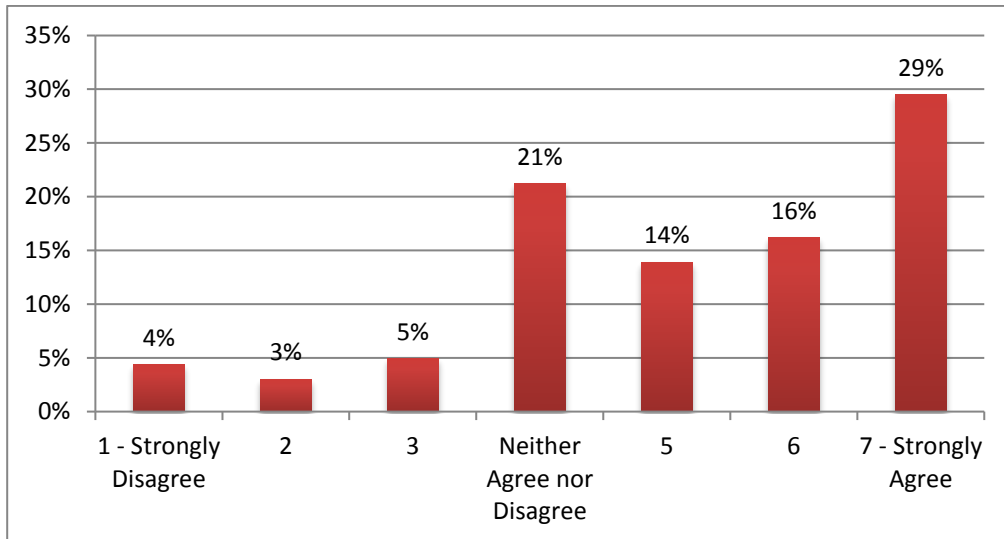
How strongly do you agree or disagree with the following statements? –I would trust financial professionals and accept what they recommend



Note: Percentages calculated over a sample of 4,924 observations from the 2009 NFCS. Percentages do not add up to 100% because “don’t know” and “prefer not to say” answers are excluded.

Figure 10. Perceived cost of financial professionals

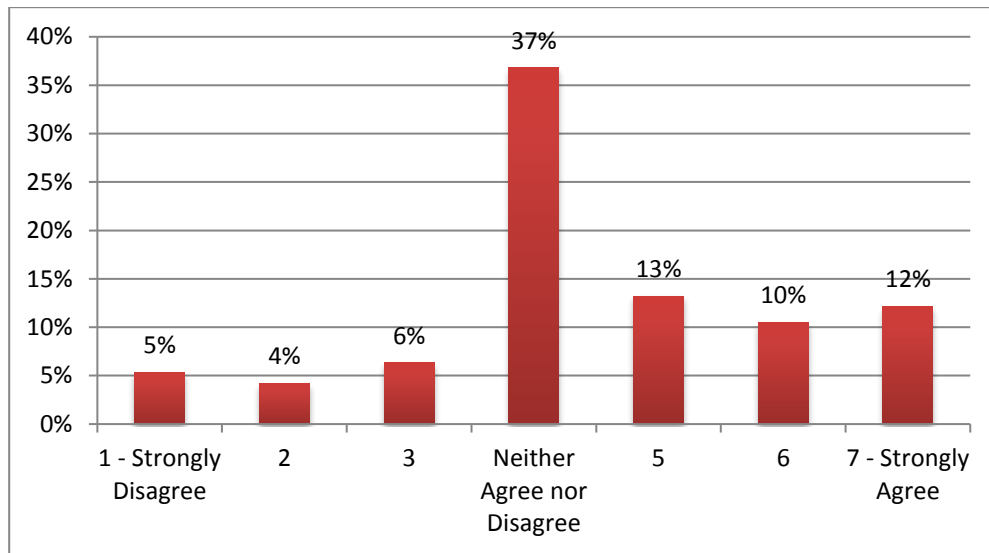
How strongly do you agree or disagree with the following statement? Financial professionals are too expensive for me.



Note: Percentages calculated over a sample of 4,924 observations from the 2009 NFCS. Percentages do not add up to 100 percent because “don’t know” and “prefer not to say” answers are excluded.

Figure 11. Difficulty in finding the right professional

How strongly do you agree or disagree with the following statements? It is hard to find the right financial professional for me.



Note: Percentages calculated over a sample of 4,924 observations from the 2009 NFCS. Percentages do not add up to 100% because “don’t know” and “prefer not to say” answers are excluded.

Appendix

Financial literacy questions

(**indicates correct answer)

1. Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

- More than \$102 ***
- Exactly \$102*
- Less than \$102*
- Do not know*
- Refuse to answer*

2. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

- More than today*
- Exactly the same*
- Less than today ***
- Do not know*
- Refuse to answer*

3. Please tell me whether this statement is true or false. “Buying a single company’s stock usually provides a safer return than a stock mutual fund.”

- True*
- False ***
- Do not know*
- Refuse to answer*

4. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.

- True ***
- False*
- Do not know*
- Prefer not to say*

5. If interest rates rise, what will typically happen to bond prices?

- They will rise*
- They will fall ***
- They will stay the same*
- There is no relationship between bond prices and the interest rates*
- Do not know*
- Prefer not to say*