Americans' Financial Capability

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1. Introduction

Individuals are increasingly in charge of their financial well-being during their working lives and after retirement. With the rapid change in the pension landscape and the shift from Defined Benefit to Defined Contribution pensions, how much wealth people will have at retirement depends on how adequately they have contributed to retirement accounts and the allocation of retirement assets. Younger generations, in particular, will have to rely mostly on self-directed retirement accounts for their retirement. The cost of higher education has also been increasing steadily over time and can take up a large part of family finances, making it another important life event to plan for. And individuals have to make financial decisions while facing much more complex financial markets than in the past. The costs of not having the necessary skills to make financial decisions have become significant, as the financial crisis has shown. Managing day-to-day finances has become not only more difficult but getting it wrong poses greater risks today than in the past.

Much of the extant research work on financial literacy is based on sub-samples of the U.S. population. For example, the work of Lusardi and Mitchell (2006, 2007, 2009) and Lusardi, Mitchell and Curto (2010) covers samples representing older respondents (the Early Baby Boomers and those older than 50) and young adults (23-28 years old). Other work is representative of the entire population, but analysis is restricted to only a handful of survey questions measuring financial knowledge (Stango and Zinman, 2009; Lusardi and Tufano, 2009). The surveys that provide more detailed information about financial literacy, such as the Jump$tart Coalition for Personal Financial Literacy or the National Council on Economic Education (NCEE) survey provide little information about financial behavior. And while financial literacy is an important tool for making financial decisions, it can only provide limited descriptions of how capable individuals are and of the ways individuals make financial decisions.

This report aims to shed light on the causes of the financial crisis by looking at the following question: *How financially capable are Americans?* If people are ill-equipped to make financial decisions, there can be consequences for the individuals themselves and for the economy as a whole. A new survey fielded in the summer of 2009 provides timely insights on this important topic. Financial capability is measured in terms of how well people make ends meet, plan ahead, choose and manage financial products, and possess the skills and knowledge to make financial decisions.

The findings from this survey paint a troubling picture of the state of financial capability in the United States. The majority of Americans do not plan for predictable events such as retirement or children's college education. Most importantly, people do not make provisions for unexpected events and emergencies, leaving themselves and the economy exposed to shocks. To understand financial capability, we need to look not only at assets but also at debt and debt management, as an increasingly large portion of the population carry debt. In managing debt, Americans engage in behaviors that can generate large expenses, such as sizable interest payments and fees. Moreover, more than one in five Americans has used alternative (and often costly) borrowing methods (payday loans, advances on tax refunds, pawn shops, etc.) in the past five years. The most worrisome finding is that many people do not seem well informed and knowledgeable about their terms of borrowing; a sizeable group does not know the terms of their mortgages or

the interest rate they pay on their loans. Finally, the majority of Americans lack basic numeracy and knowledge of fundamental economic principles such as the workings of inflation, risk diversification, and the relationship between asset prices and interest rates. There is also a sharp disconnect between self-reported financial knowledge and financial knowledge as measured by financial literacy quizzes. Even those who give themselves high knowledge ratings score poorly on the quizzes. Moreover, while many believe they are pretty good at dealing with day-to-day financial matters, in actuality they engage in financial behaviors that generate expenses and fees: overdrawing checking accounts, making late credit card payments, or exceeding limits on credit card charges. Comparing terms of financial contracts and shopping around before making financial decisions are not at all common among the population.

Some groups display lower financial capability than others. The young, African Americans and Hispanics, and those with low education are more likely to display behaviors correlated with low financial capability. While low income and income shocks are important factors explaining why individuals do not have rainy day funds, do not have retirement accounts, or do not pay credit card balances in full, they are not the only determinants. It is, however, worrisome that those with the fewest resources are also those engaged in behaviors that generate some of the greatest expenses and fees.

In short, there are important gaps in the financial capability of Americans. When considered together with the economic difficulties many families in the United States are currently facing, the results from this survey highlight how important it is to give people the information and resources they need to make sound financial decisions.

2. Review of the Literature on Financial Literacy and Financial Decision-Making

Over the last two decades, researchers have started to explore whether individuals are well-equipped to make financial decisions. Bernheim (1995, 1998) was among the first to document that many U.S. consumers display low levels of financial literacy. More recently, Hilgert, Hogarth, and Beverly (2003) report that most Americans fail to understand basic financial concepts, particularly those relating to bonds, stocks, and mutual funds.[1] In a survey of Washington state residents, Moore (2003) finds that people frequently fail to understand terms and conditions of consumer loans and mortgages. This problem may persist for some time. The National Council on Economic Education's report (NCEE 2005) shows a widespread lack of knowledge regarding fundamental economic concepts among high school students, confirming similar findings by the Jump$tart Coalition for Personal Financial Literacy (Mandell, 2008).

Lack of financial sophistication is not only an American problem: The 2005 report on financial literacy by the Organization for Economic Co-operation and Development (OECD) and Smith and Stewart (2008) document low levels of financial literacy in several countries. Similarly, the Survey of Health, Aging and Retirement in Europe (SHARE) shows that respondents score poorly on financial numeracy and literacy scales (Christelis, Jappelli, and Padula, 2010).

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[1] Other surveys on smaller samples find similar results. See Agnew and Szykman, 2005.

Consistent with the findings of Moore (2003), Miles (2004) reports that U.K. borrowers have a poor understanding of mortgages and interest rates.

Lusardi and Mitchell's (2006, 2008) module on planning and financial literacy for the 2004 Health and Retirement Study (HRS) provides further evidence of financial illiteracy. They find that many older (50+) individuals cannot do simple interest-rate calculations, such as calculating how money would grow at an interest rate of two percent, and do not understand inflation and risk diversification. Similar results are seen in a sample of early Baby Boomers (ages 51–56): most respondents display low numeracy and very limited knowledge of the power of interest compounding (Lusardi and Mitchell, 2007). They also show that financial literacy is very low among women, those with low educations and African-Americans and Hispanics.

One of the reasons for the interest in financial literacy is not only the increase in individual responsibility but also the debate on whether people are saving enough for their retirement, the reasons for the large increase in debt and in personal bankruptcy rates, and the incidence of financial mistakes (Campbell, 2006).

Financial literacy has been linked to saving behavior and portfolio choice. For example, the less financially literate are found to be less likely to plan for retirement (Lusardi and Mitchell, 2006, 2008, 2009), to accumulate wealth (Stango and Zinman, 2009), and to participate in the stock market (van Rooij, Lusardi, and Alessie, 2007; Yoong 2008; Christelis, Jappelli, and Padula, 2010). Moreover, less literate individuals are less likely to choose mutual funds with lower fees (Hastings and Tejeda-Ashton, 2008).[2] There is also some indication that literacy may affect debt as well. Moore (2003) reports that respondents with lower levels of financial literacy are more likely to have costly mortgages. Similarly, Campbell (2006) reports that individuals with lower incomes and lower education levels—characteristics that are strongly related to financial literacy—are less likely to refinance their mortgages during a period of falling interest rates. Lusardi and Tufano (2009) show that individuals with lower levels of financial literacy tend to transact in high-cost manners, incurring higher fees and using high-cost borrowing. The less knowledgeable also report that their debt loads are excessive or that they are unable to judge their debt position. All of these papers raise warnings about the low levels of financial literacy.

3. The National Financial Capability Study

The National Financial Capability Study consists of three linked surveys: (1) National Survey: A nationally projectable telephone survey of 1,488 American adults; (2) State-by-State Survey: A state-by-state online survey of approximately 25,000 American adults (roughly 500 per state, plus the District of Columbia; (3) Military Survey: An online survey of 800 military service members and spouses. This report outlines the findings of the National Survey, administered to respondents between May and July 2009. The primary sample of 1,200 respondents was constructed to be representative of the general adult U.S. population. To ensure sufficient number of respondents for the analysis, African-Americans, Hispanics, Asian-Americans and adults with less than a high school education were oversampled. The total number of respondents

[2] Financial knowledge is also found to be linked to the ability to budget, save money, and control spending (Perry and Morris, 2005).

in the sample was 1,488. The results of the State-by-State Survey and the Military Survey will be released in Spring/Summer 2010. The data collection and design of the survey instruments was supported by FINRA Investor Education Foundation.[3]

It's worth noting that a handful of other countries have so far collected data on financial literacy/ financial capability. The United Kingdom was among the first to design a survey on financial capability, in 2005, and similar initiatives have been undertaken in New Zealand, Australia, Ireland, Canada, and the Netherlands. New Zealand is one of the few countries to have followed up with a second survey, with a 2009 survey designed to assess the changes in financial knowledge and behavior of New Zealanders over a three-year span.

The overarching research objectives of the U.S. financial capability survey were to benchmark key indicators of financial capability and evaluate how these indicators vary with underlying demographic, behavioral, attitudinal, and financial literacy characteristics. Financial capability cannot be judged simply by looking at one indicator. Rather, it covers several aspects of behavior. Consistent with the surveys that have been done in other countries, these behavior aspects include how people manage their resources, how they make financial decisions, the skill set they use in making such decisions, and the search and information elaboration that goes into those decisions.

While the survey data provide a richer set of information, this report focuses on four main areas to assess Americans' financial capability:

(1) Making ends meet

(2) Planning ahead

(3) Choosing and managing financial products

(4) Financial literacy and self-assessed skills

The findings reported below paint a picture of the current state of financial capability in the U.S. population and of who is less (or more) financially capable.

3.1. Making ends meet

A key building block of financial capability is the ability to make ends meet, which can be measured by examining how people deal with everyday financial matters and the extent to which people balance monthly income and expenses to avoid overspending. The data indicate several signs of financial strain among American adults.

- Almost half of Americans reported having trouble keeping up with monthly expenses and bills, with almost 14 percent of survey respondents stating it is very difficult to do so and 35 percent finding it somewhat difficult.

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[3] More information about this survey is provided at: http://www.finrafoundation.org/resources/research/p120478

- Nearly one-quarter (23 percent) of individuals with checking accounts reported overdrawing those accounts on occasion. Significantly, of those who overdrew their accounts, 73 percent reported finding it very or somewhat difficult to cover their monthly expenses and pay their bills.
- About 16 percent of mortgage borrowers reported having been late on a payment at least once in the last 2 years, including 10 percent who had been late more than once.
- A smaller but significant number of respondents who have self-directed retirement accounts (either an employer-sponsored defined contribution plan or a retirement account they manage on their own) reported tapping into their retirement savings. Specifically, nearly 9 percent have taken out a loan from their retirement accounts during the past 12 months, and almost 5 percent have taken a permanent hardship withdrawal. These depletions are most prevalent among those earning between $25,000 and $75,000 a year, with more than 10 percent of this income cohort borrowing against their retirement savings and nearly 8 percent taking hardship withdrawals.

The recent economic crisis has hit individuals hard, hindering their ability to make ends meet. One-third of respondents stated they had experienced a large and unexpected drop in income during the past year. Workers earning less than $25,000 a year and Hispanics appear to have been especially hard hit, with 41 percent and 43 percent, respectively, reporting a drop in income. Across all demographic groups, those who suffered large decreases in income were more likely to report having difficulties covering their expenses.

3.2. Planning ahead

There are several life events that families need to plan for, such as retirement and children's education. And because the future is inherently uncertain, families also need to make provisions to buffer themselves against shocks. Being able to weather shocks not only contributes to financial stability at the micro level but also increases the stability of the macro economy.

Rainy day funds

One important finding of the data is the lack of rainy day funds for a large part of the population. Only 49 percent of respondents have set aside emergency or rainy day funds that would cover expenses for 3 months in case of sickness, job loss, economic downturn, or other emergency. Thus, many families would not be able to draw on personal financial resources if hit by a shock.

And those without rainy day funds are more likely to be hit by shocks. While in the overall respondent population, 33 percent reported having experienced a large decrease in income in the past 12 months, among those without rainy day funds, the proportion is 40 percent. Thus, while some may not have an emergency fund because a shock depleted their buffer stock of savings, the economy is fragile to shocks.

These findings are consistent with the results from the Global Economic Crisis survey, a survey fielded between June and September 2009 in thirteen countries including the United States by the survey research firm TNS Global. To assess Americans' confidence in their ability to cope with a small financial shock, respondents were asked how confident they were that they could come up

with $2,000 if an unexpected need arose within the next month. As many as 46 percent of Americans stated they cannot or are not confident they could come up with $2,000 in a month's time (Lusardi, Schneider, and Tufano, 2010). The widespread lack of modest buffer stocks of savings makes the current economy overly vulnerable to unexpected events.

Lack of saving among Americans is not a recent phenomenon. Starting in the mid-1980s, the saving rate in the United States has declined steadily and it has been hovering around zero for several years. The survey provides a crude measure of saving by asking respondents whether, over the past year, household expenses (not including the purchase of a new house or car or other big investments) have been greater, equal or less than income. Expenses have been greater than income for 12% of individuals and about equal to income for 36% of individuals. Thus, about half of individuals have not saved last year. When looking at both the stock of (precautionary) savings and the flow of saving, one finds that a large fraction of the economy is exposed and vulnerable to shocks.

The picture becomes somewhat worse if we combine information on rainy day funds with information on health insurance coverage. Families could buffer a health shock if they were covered by health insurance. However, about 81 percent of respondents report being covered by health insurance. If we consider the proportion of individuals that are covered by health insurance and also have emergency funds, we end up with a smaller fraction (45 percent) of individuals that have some provisions. Thus, more than half of the population could have difficulties dealing with health shocks. And a significant minority of the population (15 percent) is highly exposed to shocks: they do not have an emergency fund and are without health insurance.

Vulnerability to shocks is not only widespread in the population but it is particularly severe among some demographic groups. A small fraction of the young (age 18–29) and those with low income and have emergency funds. However, income and age are not the sole predictors of having rainy day funds. Even those with income above $75,000 and those who should be at the peak of wealth accumulation (age 45–59) do not always make provisions for shocks. Conversely, some low income individuals and young adults do make provisions. It is nevertheless problematic that those who are less likely to have rainy day funds are also less likely to be covered by health insurance, doubling their exposure to shocks.

	Total	Income			Age			
		<$25K	$25-75K	>$75K	18-29	30-44	45-59	60+
Have rainy day funds	49%	26%	53%	75%	31%	49%	50%	64%
Have health insurance	81%	61%	87%	97%	65%	78%	84%	93%

Planning for retirement

In addition to not preparing for unforeseen emergencies, people do not prepare for predictable events. Despite the changes in the pension landscape in the past twenty years and the increased individual responsibility for financial security after retirement, the majority of Americans have not done any retirement planning. Making decisions about how much to save in order to afford a

comfortable retirement requires collecting information about several important variables (including Social Security and pension benefits) and doing some, even rudimentary, calculations. Yet, when asked whether they have ever tried to figure out how much they need to save for retirement, only 42 percent of respondents who are not retired said they did.

Lack of planning is high not only among young respondents, but also among older adults: only 51 percent of respondents who are 45–59 years old and not yet retired have tried to calculate how much they need to save for retirement. Thus, while the proportion of planners increases with age, even close to retirement only a little more than half of older individuals have attempted to calculate how much they need to save. Among low income respondents, we see that retirement planning is low or even nonexistent. These findings are consistent with data on retirement planning from other surveys, such as the Health and Retirement Study and Retirement Confidence Survey. Those surveys as well document lack of retirement planning, even when retirement is not far away (Lusardi, 1999, 2009; Yakoboski and Dickemper, 1997).

	Total	Income			Age			
		<$25K	$25-75K	>$75K	18-29	30-44	45-59	60+
Have tried to figure out saving needs	42%	17%	45%	68%	23%	46%	51%	50%

Lack of planning does not occur because individuals already have retirement accounts that can support them at retirement. In fact, those who do not plan are much less likely to have retirement accounts. The majority of non-planners do not have retirement accounts: only 40 percent of non-planners have retirement accounts, versus 82 percent of planners. Thus, those who do not plan appear to be more likely to end up making fewer provisions for retirement.

Additional evidence about lack of retirement planning is provided by the very limited use of information on important components of retirement savings. Since 1995, Social Security has been mailing out personalized information about Social Security benefits. However, data from the survey show that only about 65 percent of individuals who are not retired acknowledge receiving a statement from Social Security and the large majority of those who received it did not make use of the information. Only between 21 and 25 percent of recipients say they have used the information sent by Social Security.

Planning for children's education

Lack of planning can also be witnessed when considering events closer at hand than retirement. It is widely reported that over the past decade tuition and fees at four-year public colleges and universities have increased more rapidly than they did during the 1980s or 1990s, rising by an average of nearly 5 percent each year (adjusted for inflation). With this trend unlikely to abate, an average American family with children can expect to dedicate a sizable share of their resources to paying college tuition. However, well below half (41 percent) of those who have financially dependent children have set money aside for college education. And even those who have set money aside may not have done it in the most tax-savvy way. Only 33 percent of those

who have set aside money for college education have used a tax-advantaged savings account such as a 529 Plan or Coverdell Education Savings Account.

Planning for children's education is much more prevalent among those with higher income and those who have a college degree. The share of individuals having set aside money for children's education is notably higher among respondents with a college education versus other education groups, including those with *some* college education. Even among those with high income and high education, the majority of those who save for their children's education do not use tax-advantage savings accounts.

	Total	Income			Education			
		<$25K	$25-75K	>$75K	Less HS	HS	Some Coll.	College
Have set money aside for college education	41%	20%	35%	68%	27%	28%	41%	60%
If yes: Have used 529 or Coverdell	33%	18%	26%	41%	35%	29%	25%	40%

3.3. Choosing and managing financial products

I turn now to what we have learned about how individuals choose and manage financial products, examining how people manage their liquidity, how they borrow, and their exposure to financial market risks.

Banked and unbanked

One important feature to note first is that there is a group of individuals who have neither a checking nor a savings account. About 15 percent do not have a checking account and 28 percent do not have a savings account, a money market account, or Certificates of Deposit. Considering these two variables together, the proportion of the unbanked is 12 percent of the population. However, the proportion is vastly different across income and education levels. Close to one-third (31 percent) of those with low income are unbanked, and 36 percent of those without a high school degree are unbanked. The unbanked are also disproportionately African American and Hispanic. As many as 28 percent of African Americans and 30 percent of Hispanics are unbanked.

	Total	Income			Education			
		<$25K	$25-75K	>$75K	Less HS	HS	Some College	College
Have checking account	85%	63%	95%	98%	62%	79%	91%	97%
Have savings account	72%	43%	81%	94%	38%	64%	79%	91%
Are banked	88%	69%	97%	98%	64%	85%	93%	97%

Not having a bank account can make the management of liquidity and payments rather difficult and, in particular, can generate fees—for example, for the use of money orders or check-cashing services, which the unbanked use often. According to the data, 71 percent of the unbanked sometimes use money orders to pay bills and 47 percent use check cashing services.

However, even those who have bank accounts can engage in behavior that generates expenses and fees. As mentioned earlier, about one-quarter of individuals who have checking accounts (23 percent) overdraw their accounts occasionally. Considering all these groups together, at least one-third of Americans are likely to incur fees and expenses to manage their liquidity either because they lack a bank account or because they have overdrawn that account.

High-cost borrowing

A sizable share of Americans engage in alternative forms of borrowing, such as taking out an auto title loan, a "payday" loan, getting an advance on tax refunds, using pawn shops, or using a rent-to-own store. All of these borrowing methods usually charge high interest rates; much higher than are charged by banks or by credit card companies.

As described below, while a small fraction of the population has used each method of borrowing, as many as 23 percent have used one of these methods in the last five years. The use of these alternative methods of borrowing is also highly correlated: those who have used pawn shops are more likely to have used an advance on tax refunds or taken out a payday loan and vice versa. Most importantly, these alternative methods of borrowing are disproportionately—though not exclusively—used by those who are unbanked. Thus, lack of a bank account is likely to result in the utilization of high-cost borrowing. Many of the users of these alternative methods also do not have credit cards. Lack of formal ways of borrowing often translates into heavier use of high-cost borrowing.

The high interest rates and fee payments that high-cost borrowing generates are paid by the most frequent users of these methods, who are disproportionately the young, those with low income, those without a high school education, and African Americans and Hispanics.

In the past 5 years, have you	Total	Unbanked	Banked	No credit cards	Credit cards
taken out an auto title loan	7%	5%	7%	6%	8%
taken out a "payday" loan	5%	8%	5%	7%	4%
gotten an advance on tax refund	8%	16%	7%	12%	6%
used a pawn shop	8%	26%	6%	18%	4%
used a rent-to-own store	5%	15%	3%	11%	2%
used one of these methods	23%	44%	20%	34%	19%

Credit cards

A more traditional way in which many Americans borrow is through the use of credit cards. More than two in three (68 percent) reported having credit cards. In addition, among those who reported having credit cards, about 27 percent stated they had at least four credit cards.

As illustrated in the table below, most credit card holders have engaged in at least one behavior that results in interest charges or fees. Nearly one-third (33 percent) engaged in two or more such activities, and 17 percent engaged in three or more. Moreover, when looking at the subset of behaviors that are likely to generate sizeable interest or fees (paying the minimum payment, paying late fees, paying over-the-limit fees, or using the card for cash advances), I found that the borrowing habits of 41 percent of credit card holders resulted in either substantial interest payments, fees, or both. While the incidence of interest- and fee-generating behavior occurs across all income groups, the proportion of those who paid only the minimum amount due, used the cards for cash advances, and paid fees was higher for those earning less than $75,000 than for those earning more.

In the past 12 months…	Total	Income		
		< $25K	$25-75K	$75K+
I always paid credit card in full	54%	54%	52%	55%
In some months, I carried over a balance and was charged interest	51%	47%	52%	51%
In some months, I paid the minimum payment only	29%	36%	30%	22%
In some months, I was charged a fee for late payment	23%	26%	25%	19%
In some months, I was charged a fee for exceeding my credit line	8%	12%	8%	4%
In some months, I used the cards for a cash advance	8%	12%	8%	6%

There are also important patterns among age groups. While half of young credit card holders paid credit card balances in full each month, many (41 percent) paid only the minimum amount due. Young credit card users were also those most likely to use their cards for a cash advance or to be charged fees, particularly fees for exceeding their credit limit. On the other hand, individuals over age 60 were disproportionately more likely to pay in full and were also much less likely to engage in behaviors generating high interest payments and fees.

In the past 12 months…	Total	Age			
		18-29	30-44	45-59	60+
I always paid my credit cards in full	54%	51%	45%	44%	75%
In some months, I carried over a balance	51%	46%	62%	58%	33%
In some months, I paid the minimum only	29%	41%	35%	31%	11%
In some months, I was charged a fee for late payment	23%	24%	27%	29%	11%
In some months, I was charged a fee for exceeding my credit line	8%	14%	8%	9%	2%
In some months, I used the cards for a cash advance	8%	11%	10%	8%	5%

Mortgages

One significant source of borrowing people engage in is taking out a mortgage to buy a house. The data indicate that 61 percent of individuals own a home and, among homeowners, 61 percent have a mortgage and 21 percent have a home equity loan. There are significant differences in mortgage holdings among income groups. While the majority of those with average or high income have a mortgage, about 31 percent of homeowners who have low income have a mortgage. Low income homeowners are also much less likely to have a home equity line of credit.

Homeowners who	Total	Income		
		<$25K	$25-75K	>$75K
Have mortgage	61%	31%	61%	77%
Have lines of credit	21%	11%	20%	27%

To better understand some of the behavior that may have led to problems with mortgage borrowing, it is useful to note that of those who bought a home in the past five years, 17 percent report putting no money down as a down payment. Overall, 42 percent of mortgage borrowers who bought a house in the past five years had down payments that were less than 20 percent of the purchase price of the house and 25 percent had down payments that were five percent of the price of the house or lower. Note also that 12 percent did not know what their down payment was. Those who bought the house within the past two years had even lower down payments. For those recent mortgage borrowers, 19 percent put zero down, 32 percent put five percent or less, and 51 percent had down payments strictly lower than 20 percent, while 7 percent did not know what their down payment was. (Please note these statistics are based on small number of observations.) Thus, mortgage borrowers have been highly exposed to fluctuations in housing prices, and the sharp decreases in home prices experienced in some parts of the country since 2006 likely resulted in negative equity for some recent mortgage borrowers.

When asked about the type of mortgages they have, eight percent of mortgage borrowers stated their mortgages are adjustable rate mortgages, while the large majority hold fixed rate mortgages (and two percent did not know which type of mortgage they have). When asked whether they have an interest-only mortgages or a mortgage with an interest-only option, a rather large fraction (16 percent) stated they have an interest-only mortgage. Moreover, 20 percent did not know the answer to this question. This type of confusion is worrisome as mortgages, in particular mortgages that have been issued recently, are rather complex contracts and borrowers need to have a full understanding of the mortgage contracts they engage in. Another worry is that 10 percent of mortgage borrowers report not knowing the interest rate they are paying on their mortgage.

As far as meeting the payments on their mortgage, as reported before, one out of six mortgage borrowers (16 percent) reported having been late with their mortgage payment at least once in the past two years. However, those who state they have interest-only mortgages or who do not know whether they do are more likely to have been late in their payment (among those, 22 percent have been late). Similarly, those who do not know the interest rate they are paying on their mortgage have been more likely to be late in their mortgage payment. Thus, lack of full

understanding of mortgage contracts can have consequences on servicing the mortgage and meeting the mortgage payments.

Overall, two percent of respondents reported having been involved in a foreclosure process in the last two years.

Retirement accounts

An increasingly important asset is retirement savings. Recognizing that many Americans are not familiar with all of the technical terms and distinctions used to describe various retirement plans, the survey employed a few "plain language" questions to assess whether respondents have a retirement plan through an employer and, if so, which type (specifically, a defined benefit plan or a defined contribution plan, such as a 401(k) plan). In addition, the survey asked whether individuals have any retirement account plan they set up on their own, such as an individual retirement account (IRA), Keogh, SEP, or other type of retirement account.

More than half of respondents (51 percent) report having a pension through a current or previous employer. Differences across income and education groups become more extreme when considering this important asset. Only 13 percent% of those with low income have pensions versus a much higher share, 61 percent and 83 percent, for those in higher income groups. Similarly, those with low education are disproportionately less likely to have pensions. Differences are equally large when considering accounts such as IRAs, Keoghs, and SEPs. In this case, only a minuscule fraction of those who have low income and low education (four and seven percent respectively) report having such accounts, versus those with high income and high education (57 and 55 percent respectively).

	Total	Income			Education			
		<$25K	$25-75K	>$75K	Less HS	HS	Some Coll.	College
Have retirement plan via employer	51%	13%	61%	83%	22%	39%	54%	76%
Have other retirement account	28%	4%	27%	57%	7%	14%	26%	55%

As mentioned earlier and to stress again the importance of looking not only at asset building but also at debt, there is indication that some individuals have also started tapping into their retirement accounts. About 8.7 percent of respondents with retirement accounts have taken a loan from an account in the past 12 months and 4.7 percent have taken a hardship loan. These loans are more prevalent among those with average income (from $25k to $75K).

In the past 12 months, have you	Total	Income		
		< $25K	$25-75K	$75K+
taken a loan from retirement account	8.7%	9.1%	10.2%	7.3%
taken a hardship withdrawal from retir. Account	4.7%	2.9%	7.6%	2.1%

Responses to how the money in these accounts is invested reveal some lack of knowledge or perhaps lack of familiarity with some investment terms. For example, when asked whether and how much of their retirement portfolio is invested in stocks or mutual funds that contain stocks, 37 percent of those with self-directed accounts stated that more than half is invested in stocks, but as many as 17 percent did not know the answer to this question. When asked if retirement assets are invested primarily in a life-cycle or target-date fund, 22 percent stated they invested primarily in these funds, but 37 percent stated they did not know the answer to this question. And of those who do not invest in life-cycle or target-date funds, about half (47 percent) stated they rarely or never rebalance the investment in their retirement accounts.

Stocks, bonds, and mutual funds

Respondents have been asked about their investment in bonds, stocks, and mutual funds and other securities. About 46 percent invest in financial markets but, as for retirement accounts, there are vast differences in financial market participation across income groups. It is disproportionately those with high income who invest in the stock market. There are also sharp differences across education groups; those with a college degree are substantially more likely to invest in stocks than other education groups.

	Total	Income			Education			
		<$25K	$25-75K	>$75K	Less HS	HS	Some Coll.	College
Have stocks, bonds, mutual funds outside of retirement accounts	46%	17%	47%	72%	23.4%	34%	46%	66%

While investing in stocks and bonds exposes individuals to financial market risk, it also allows people to make their wealth grow and to take advantage of the higher returns offered by the markets. In the financial literature, lack of participation in the stock market is considered sub-optimal behavior and an indication of lack of financial sophistication (Campbell, 2006).

Risk preferences

A factor that affects how individuals make financial decisions is their attitude toward risk. This is an important determinant of portfolio choice and the type of assets into which people choose to invest their private and retirement wealth.

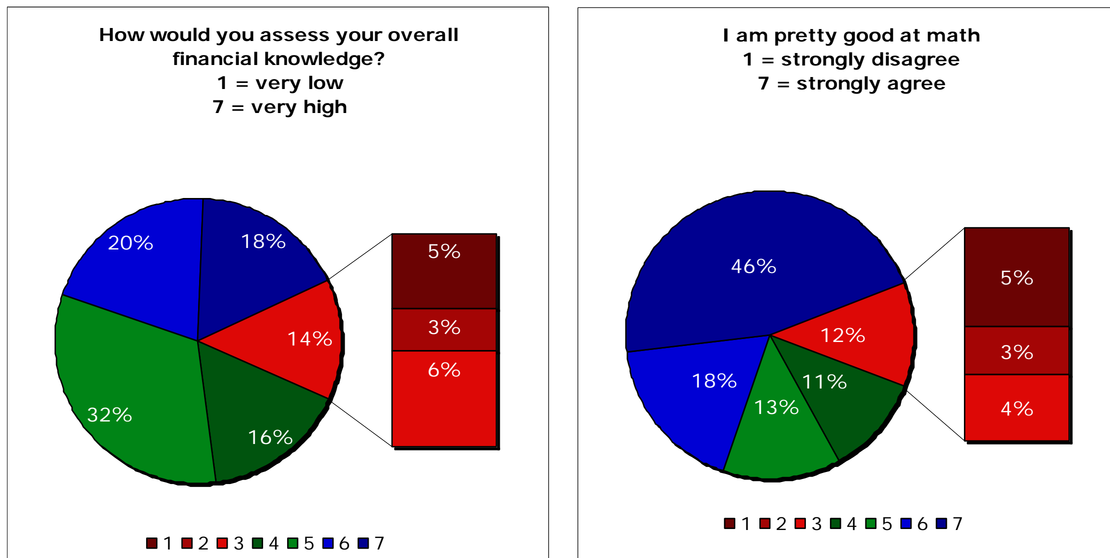
The data show a strong aversion to risk among Americans, with 26 percent of respondents stating they are unwilling to take any risk at all (rating 1 on a 10-point scale), and a total of 45 percent exhibiting low risk tolerance (rating 1 to 3). It is not yet possible to say whether this high aversion to risk has been influenced by the recent economic crisis. However, the data do reveal a strong correlation between aversion to risk and knowledge of risk. Specifically, 42 percent of the respondents who are very risk averse (rating 1 to 3) did not know the answer to a question about risk and diversification, compared with 33 percent in the general population and 27 percent of the less risk-averse respondents (rating 8 to 10).

3.4. Financial literacy and self-perceived skills

In order to make financial decisions, individuals have to be equipped with some skills that allow them to understand and process the information that is often a required input for decisions.

Self-perceptions of financial knowledge

When asked to assess their financial knowledge, most respondents give themselves high scores. As the chart below indicates, on a scale from 1 to 7, where 1 indicates very low and 7 very high financial knowledge, 38 percent of respondents rate their financial knowledge with scores of 6 or 7. Because many financial decisions require some knowledge of math, respondents are also asked to rate their math knowledge. And again, self-assessed knowledge of math is high, with 46 percent stating they are very good at math (score of 7). These findings are consistent with the results of other surveys, such as the TNS Survey and the American Life Panel. When asked to assess their financial knowledge, individuals gave themselves high rankings (Lusardi and Tufano, 2009; Lusardi and Mitchell, 2009).



Measuring financial literacy

To evaluate financial knowledge, respondents were exposed to a battery of questions covering fundamental concepts of economics and finance expressed in everyday life, such as simple calculations about interest rates and inflation, the workings of risk diversification, the relationship between bond prices and interest rates, and the relationship between interest payments and maturity in mortgages.[4]

While the correct response to individual question is sometimes high, less than half of respondents answered two questions about interest rates and inflation correctly and less than one-

[4] See the appendix for the exact wording of these questions.

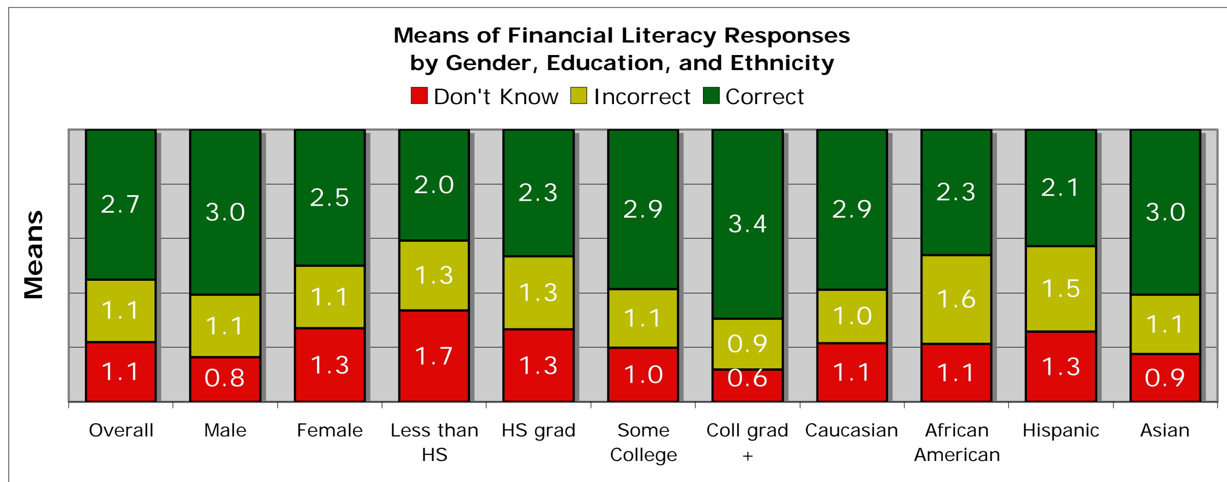
third answered those questions and a question about risk diversification correctly. Less than 10 percent of respondents are able to answer all questions correctly. This is consistent with the findings documented in a variety of other studies using the same questions or a sub-set of the questions used in this survey (Lusardi and Mitchell, 2006, 2009) and highlight not just that people lack financial literacy but how little they know about rather basic concepts in economics and finance.

	Correct	Incorrect	Don't Know
Interest rate question	65%	21%	13%
Inflation question	64%	20%	14%
Bond price question	21%	44%	34%
Mortgage question	70%	16%	12%
Risk question	52%	13%	34%

** These figures do not sum to 100 because of rounding and because of refusal to answer the questions.

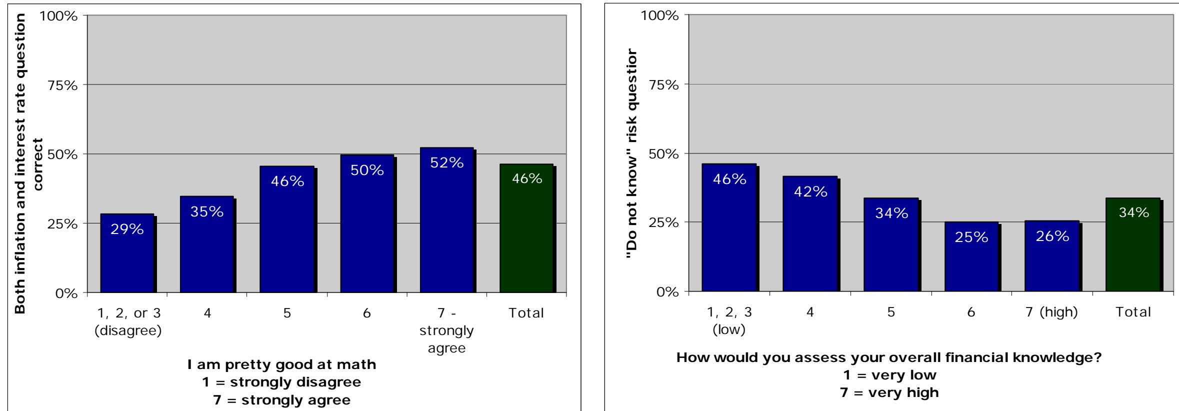
Both interest and inflation questions correct	Interest, inflation, and risk questions correct	All questions correct
46%	30 %	10%

Not only is financial illiteracy widespread in the population but it is particularly severe among some groups. As shown below, financial literacy is low among women, those with low education, and among African Americans and Hispanics, as reported in previous work as well (Lusardi and Mitchell, 2006, 2007, 2009; Lusardi, Mitchell, and Curto, 2010; Lusardi and Tufano, 2009).



While there is a correlation between self-perceived knowledge and actual knowledge, for many individuals, there is a sharp disconnect between perception of their financial and math knowledge and their responses to the questions measuring both numeracy and financial literacy. As the charts below indicate, even among those who gave themselves the high score of 7 in math, only 52 percent were able to do two calculations involving interest rates and inflation. Similar findings apply to the comparison of self-assessed financial knowledge versus the

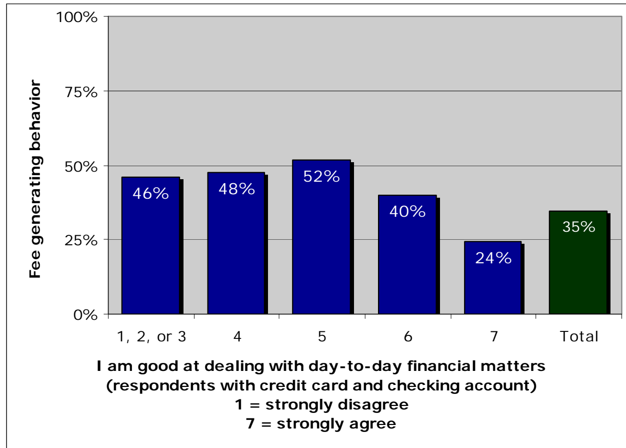
knowledge resulting from the answers to a set of financial literacy questions. Even among those who gave themselves a score of 7 in their self-assessed financial knowledge, about a quarter did not know the answer to a question about risk diversification that asked respondents whether investing in a single company stock is safer than investing in a stock mutual fund.

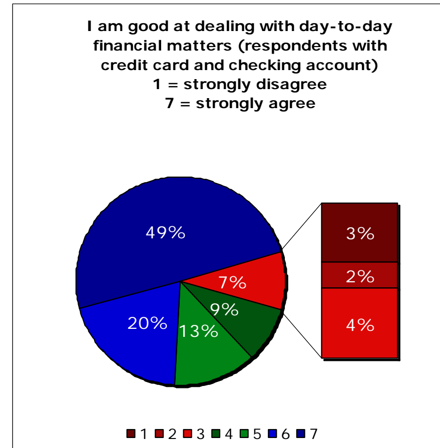


Financial literacy is strongly correlated with behavior that is indicative of financial capability. Even though these are simple correlations and do not control for other determinants of behavior, those with higher literacy are more likely to plan for retirement, are more likely to have an emergency fund, and are less likely to engage in credit card behavior that generates high interest payments and fees.

Financial literacy is also highly correlated with attitudes toward risk. Those who report being unwilling to take any risks (ratings of 1 to 3) are also more likely to say they do not know the answer to the question about risk diversification. Thus, responses to questions on attitudes toward risk may be a mixture of preferences toward and knowledge of risk.

There is also a disconnect between perceptions and actions in day-to-day financial matters. When asked how good they are at dealing with day-to-day financial matters such as checking accounts, credit cards, and tracking expenses, close to half of respondents who have credit cards and checking accounts (49 percent) gave themselves the top score of 7. However, one-quarter of these respondents engage in behavior that generates fees or high costs, such as using credit cards for cash advances, paying a late payment or over-the-limit fee, and overdrawing the checking account. Among those who gave themselves a score of 6, 40 percent engage in these fee- and cost-generating behaviors.





Comparison shopping

To assess the process that generates decision making and the inputs that go into it in addition to financial knowledge, respondents have also been asked about how much they shop around and compare offers and terms from different providers.

The findings support evidence of limited searches. Specifically, most respondents (63 percent) indicated that they don't shop around for credit cards. Half of those who got auto loans did not compare offers from different lenders. When looking for a financial professional, 43 percent did not talk to more than one advisor and 85 percent failed to check with a state or federal regulator on the background and credentials of that professional. For contracts of very significant financial consequences, such as mortgages, there is a lot more search and comparison. However, one-third (33 percent) of those with mortgages did not compare offers from different lenders.

Who are those that shop the least? When examining the distribution of shopping for two different products, such as credit cards and auto loans, we find that those with low income and low education shop the least, even though they may be those who benefit the most from getting good terms.

	Income		
	<$25K	$25-75K	$75K+
Don't shop for credit cards	70%	64%	57%
Don't shop for auto-loans	60%	50%	46%

	Education			
	Less than HS	HS	Some College	College
Don't shop for credit card	63%	69%	60%	62%
Don't shop for auto-loan	59%	51%	52%	45%

Obtaining credit reports and checking credit score

Many individuals are also not informed or have not sought information about their credit report and their credit score. While credit scores are a critical determinant of the interest rates one will be charged on mortgages, loans, and other instruments, only 38 percent have obtained a copy of their credit report and 36 percent have checked their credit score. Moreover, it is those who have higher credit scores who have sought out the information; about 17 percent of those who checked their credit score report scores below 620 while the large majority of those who checked their credit scores (52 percent) report scores higher than 720.

	Total	<$25K	$25-75K	$75K+
Obtained copy of credit report	38%	18%	43%	56%
Checked credit score	36%	15%	42%	55%

	Total	Less than HS	HS	Some College	College
Obtained copy of credit report	38%	25%	30%	39%	53%
Checked credit score	36%	22%	29%	35%	53%

Those with low income and low education are less likely to have obtained a credit report and to have checked their credit score, but they are also those more likely to benefit from such knowledge.

Understanding financial contracts

As already reported above, many individuals display limited knowledge of the terms of their financial contracts and often cannot state the interest rate they pay on their loans.

For example, about 20 percent of those who have auto loans do not know the interest rate they pay. About 10 percent do not know the interest rate on their mortgages. Of the 46 percent of credit-card holders who don't make their credit card payment in full, 12 percent don't know the interest rate on their credit card with the largest balance. Thus, for many consumers, decisions are made without full knowledge of the price they pay for the contracts they engage in.

As reported above, many individuals also display confusion about the type of mortgages they have and a large proportion do not know which terms they had. Moreover, many did not know how the funds in their self-directed retirement accounts are invested.

4. Discussion

The findings from the National Survey paint a troubling picture of the current state of financial capability in the U.S. adult population. The majority of individuals do not plan for retirement or make provisions against shocks. Borrowing and debt management often results in sizable interest

payments and fees and it is notable how many individuals have used high-cost methods of borrowing in the past five years. Levels of financial knowledge are strikingly low and, moreover, there is a sharp disconnect between how much people think they know and what they actually know.

The reason lack of planning is important is that many studies have shown that planning is a very strong predictor for wealth: those who do not plan get close to retirement with half the amount of wealth than those who have done some planning (Lusardi, 1999, 2009; Lusardi and Beeler 2007, Lusardi and Mitchell, 2007, 2009; Ameriks, Caplin, and Leahy, 2003). And the direction of causality runs from planning to wealth and not the other way around. While one could argue that it is wealth that *causes* more planning, in fact Lusardi and Mitchell (2007) show that exogenous shocks to wealth did not generate more planning, while planning ends up generating higher amounts of wealth.

Moreover, the "cost of ignorance" can be high. Lusardi and Tufano (2009) trace some of the behavior with credit cards back to *debt literacy,* i.e. lack of knowledge about the workings of credit cards and the principles of interest compounding. Looking specifically at the credit card behavior that gives rise to explicit fees or finance charges—paying credit cards late, going over the credit limit, using cash advances, and paying the minimum—they estimate the cost that can be attributed to lack of knowledge (after accounting for large set of demographics and individual characteristics, including income and wealth). According to their calculations, as much as one-third of the charges and fees paid by the low literacy individuals can be attributed to ignorance.

Contrasting the complexities of the mortgages offered in the market with the level of financial knowledge as measured by the simple quizzes in the survey raises the question of whether individuals understood the contracts that offered to them and fully appreciated the risks involved in adjusted rate mortgages and low or minimal down-payments. In fact, individuals often were not even able to report the interest rate at which they are borrowing. Lack of awareness about their low level of financial knowledge also makes individuals more vulnerable to scams.

It is also worrisome that behaviors leading to high interest payments or fees are most prevalent among those with low income and low education, i.e., those who can least afford them. It is possible that these behaviors will put greater strains on existing social safety nets. When people make poor financial decisions, the cost of those decisions can be passed on to all Americans through higher prices for financial products and the diversion of economic resources. Lack of financial capability matters not only for the individual but for society as a whole.

Appendix

Questions to measure financial literacy

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) 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
Refuse to answer

4) Please tell me whether this statement is true or false. 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
Refuse to answer

5) 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

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