#### **TIAA-CREF** Institute



## Working Women's Financial Capability: An Analysis across Family Status and Career Stages

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### Introduction

Women contribute more to the US economy than ever before. Women now outpace men at every level of educational attainment and currently make up 47 percent of the workforce according to the U.S. Department of Labor (2012). As working women's earning power increases, so does their responsibility to make critical financial decisions for themselves and their household. These decisions are influenced by the unique financial challenges that women face; for example, women typically live longer than men, implying that they are more likely to live alone following the death of their spouse, and women often leave their career at the peak of their earning potential to take care of children or parents.

This study increases our understanding of the unique financial needs of working women by examining key factors associated with their personal finances and identifying issues that are critical to their financial future. The study provides an overview of working women's financial capability and documents how personal financial needs and financial behaviors vary by family status and career stage. The study concludes with a list of actions that would help to better serve working women's financial needs.



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#### Literature Review

In recent decades, women have claimed a larger place in the workforce and increased their involvement in financial matters. According to the U.S. Bureau of Labor Statistics (BLS), 47 percent of the labor force is female and the female labor force participation rate is growing faster than the male rate. In recent years, the BLS has consistently reported that women have lower levels of unemployment than men and higher levels of education (Department of Labor, 2012).

Women are disproportionately employed in the service sector and underrepresented in industry and agriculture. They are most commonly employed in education and health services, professional and business services, and leisure and hospitality industries. In light of the service sector's continued growing contribution to GDP in advanced economies, women are well represented in a sector that is displacing the economic significance of traditional industries. Women are also relevant economic agents outside the workplace, contributing to economic growth through unpaid work in the household (Elborgh-Woytek, Newiak, et al., 2013). Thus, women's contribution to the economic future of the United States (and the world) will become even more critical in the future.

Although women carry greater economic weight than in the past, their economic condition still lags behind that of men on average. Women are less likely than men to be employed full-time or selfemployed, and more likely to be employed part-time (Department of Labor, 2011)-despite their higher levels of education.<sup>1</sup> While the labor force participation rate of women is lower than that of men overall, this difference begins to disappear when motherhood and marriage are considered. Sixty-five percent of women with children under age 6 participate in the labor market. For women with children under 18, the figure rises to 70 percent. The participation rate of unmarried mothers with children under 18 is even greater at 75 percent, outpacing that of all men (Department of Labor, 2013). The effect of motherhood is not limited to labor force participation. According to a 2013 study by the Pew Research Center, mothers generate the primary source of income in 40 percent of all households with children under the age of 18. These families have income levels that are significantly higher than the national median (Pew Research Center 2013). Marital status is an additional factor to consider. Although marriage rates are dropping, a recent study from the Pew Research Center (2013) shows that married couples still fare better economically. But even though women's contributions to household income are increasing (Pew Research Center 2010), their median weekly earnings were only 81 percent of men's in 2012 (Bureau of Labor Statistics 2013).

#### Analysis of Data from the 2012 National Financial Capability Study

This report uses data from the National Financial Capability Study (NFCS) to examine the financial capability of working women. The first NFCS survey, supported by the FINRA Investor Education Foundation, was conducted in 2009 to assess and establish a baseline measure of financial capability among American adults. In 2012, the survey was updated to reassess key measures from 2009 and expanded to cover additional relevant topics such as student loans, mortgage debt, and medical debt. With a sample size of more than 25,000 observations, the overarching objectives of the NFCS are to benchmark key indicators of Americans' financial capability and evaluate how these indicators vary with underlying demographic, behavioral, attitudinal, and financial literacy characteristics. The NFCS is consistent with surveys on financial capability conducted in other countries as it seeks to examine multiple indicators of financial knowledge and capability (Atkinson, McKay, Kempson, and Collard, 2007). The NFCS survey is primarily focused on how people manage their resources, how they make financial decisions, and the skill sets they use in making those decisions.

<sup>1</sup> In 2010, women surpassed men in the share of college graduates (US Census, 2011).

Table 1 presents a set of descriptive statistics for the sample under consideration-women age 23 to 65 who are employed on a full-time or a part-time basis. Women who are homemakers, full-time students, unemployed, temporarily laid off, permanently sick, disabled, or unable to work are excluded. The sample is composed of 6,051 observations. Within this sample, 26 percent are single, 55 percent are married, and 18 percent are divorced, separated, or widowed. Most divorced, separated, or widowed respondents were single at the time of the survey (83 percent), and a minority were currently living with a partner (17 percent). Minorities (African-Americans, Hispanics, Asian-Americans, and respondents of other minorities) comprise 35 percent of the sample, and 50 percent of respondents have at least one financially dependent child.

Forty-five percent of working women have graduated from college, while 25 percent have a high school degree or less education. Working women's average education level is essentially equal to that of working men, among whom 44 percent have graduated from college and 24 percent have a high school degree or less. Fifty-seven percent of working women report annual household income of at least \$50,000, and 21 percent report an annual household income greater than \$100,000. Household income tends to be higher among working women who are older, white, married, and have a college degree.

Finally, 45 percent of working women indicated that they are the most knowledgeable one in their household regarding saving, investing and debt. An additional 39 percent reported being just as knowledgeable as another adult in their household. These perceptions contrast with those of working men among whom 64 percent indicated that they are the most knowledgeable and 27 percent reported being equally knowledgeable as another adult.

	Full Sample
Career Stage	
Early (Age 23-35)	30%
Mid (Age 36-50)	38%
Late (Age 51-65)	33%
Ethnicity:	
White	65%
African-American	16%
Hispanic	10%
Asian-American	5%
Other ethnicity	4%
Marital Status:	
Married	55%
Single	26%
Separated	2%
Divorced	14%
Widowed	2%
Number of Financially Dependent Children:	
1	21%
2	17%
3 or more	11%
No financially dependent children / Do not have any children	50%
Living arrangements:	
Only adult in the household	24%
Live with spouse/partner/significant other	63%
Live with parents, other family, friends, or roommates	13%

# Table 1Demographic Characteristics of the Working Women Sample

Employment status:	
Self-employed	12%
Work full-time for an employer	67%
Work part-time for an employer	21%
Income level:	
Income <\$35K	28%
Income \$35K-\$50K	16%
Income \$50K-\$75K	21%
Income \$75K-\$100K	15%
Income >\$100K	21%
Education:	
High school degree or less	25%
Some college	29%
College degree	29%
Postgraduate education	16%
Who in the household is most knowledgeable about saving, investing and debt: $^{st}$	
The respondent is the most knowledgeable	45%
Someone else is the most knowledgeable	39%
The respondent and someone else are equally knowledgeable	12%
Ν	6,051

Note: The sample is restricted to 6,051 respondents age 23-65 who are employed at least part-time. \*This variable has a high number of missing observations (36 percent).

## Challenges with Measurement and Interpretation of Results

An inherent challenge in using the NFCS data to draw a financial profile of working women is that the survey collects information from only one individual per household; the NFCS contains no information regarding other household members.<sup>2</sup> But in the case of married women, the dynamics of household finances and financial decision-making can be complicated. Decisions on some issues may be jointly made, while there is a division of labor in other areas. The survey design does not capture such household dynamics. For example, the decision to buy a house and the price to pay are likely a joint decision, while the choice of mortgage terms could be the responsibility of one household member.

In addition, the reporting of asset ownership and liabilities will be subjective to a degree. For example, a respondent will likely report home ownership and mortgage debt even if only the spouse's name appears on the title and mortgage documents. That same respondent may or may not consider the spouse's student loan debt when answer that question however.

The analysis addresses such concerns through separate descriptive statistics for married vs. single working women. Moreover, the multivariate analysis takes into account differences in financial behaviors among women who report that they are (or are not) the most knowledgeable about saving, investing and debt in the household.

<sup>2</sup> Only a few variables were measured at a household level— income, ownership of retirement accounts, and having an auto loan. These variables are indicated in the text.

## Financial Profile of Working Women

The following sections analyze working women's financial conditions and behaviors through a detailed examination of their assets, short and long-term liabilities, short and long-term saving behavior, financial literacy, and use of financial advice. The analysis begins with a discussion of descriptive statistics among different demographic groups and concludes with a multivariate analysis that seeks to identify the degree of association between particular socio-demographic characteristics and key financial behaviors.

#### Assets

Figure 1

The NFCS contains data on both asset ownership and asset management. Among working women, 95 percent report owning a bank account-either a checking account (93 percent) and/or a savings account (80 percent) (Figure 1). Almost two-thirds (63 percent) of working women report home ownership, and 16 percent own second homes or other real estate assets. More than one-third (37 percent) own stocks, bonds, mutual funds, or other securities.

#### 100% 93% 90% 80% 80% 70% 63% 60% 55% 50% 40% 36% 30% 20% 10% 0% Checking Savings Home Self-directed Stocks, bonds, and mutual account account retirement funds accounts

## Asset Ownership Among Working Women

Note: Percentages are calculated over the total sample of 6,051 observations.

There are notable differences among working women in the ownership of some, but not all, assets. For example, while there are no differences in the ownership of bank accounts, working women who are older or married<sup>3</sup> are more likely to report home ownership than those who are younger or single. Forty-two percent of early-career women (age 23 to 35) reported owning homes compared with 77 percent of late-career women (age 51 to 65). The variation in home ownership is significant across family status also. Seventy-three percent of married women or women living with a partner reported home ownership compared with 44 percent of single women.

A similar pattern exists with financial investments. While almost half (46 percent) of late-career women own investments in stocks, bonds, mutual funds, or other securities, only 35 percent of mid-career women age (35 to 50) and 28 percent of early-career women have such investments. Likewise,

<sup>3</sup> The report employs a broad definition of "marital." The term represents not only married respondents but also those respondents who lived with a partner or significant other at the time of the survey.

married working women or women living with partners are more than 10 percentage points more likely (41 percent vs. 28 percent) to own such assets than are single working women.

These differences are not surprising since older women and married women tend to have higher household incomes. Given the variation in financial status with age and marital status, further analysis will be conducted to better understand the relationship between personal finances and these two demographics.

Two-thirds of working women have retirement accounts through current or previous employers (Table 2). Such accounts can be defined benefit (DB) plans or defined contribution (DC) plans, the latter including Thrift Savings Plans (TSPs) and 401(k) plans. Among women with employment-based retirement accounts, 67 percent report a plan where participants choose how the money is invested, i.e., they have a DC plan. In addition, 30 percent of working women have retirement accounts separate from work, such as IRAs.

### Table 2 Retirement Plan Ownership Among Working Women

Respondents with retirement plan(s) through a current or previous employer	66%
Respondents with a defined contribution plan among those with employment-based plan	67%
Respondents with retirement account(s) NOT through an employer	30%
Respondents with retirement plan(s), through an employer or not	71%
Respondents currently making regular contributions among those with an employment-based DC plan or a non-employment based plan	80%
Respondents currently making regular contributions among all respondents	44%
Note: Percentages are calculated over the full sample of 6,051 observations.	

There are again important differences linked to age and marital status. A married woman or a woman living with a partner is 16 percentage points more likely to have an employment-based or an independent retirement account than a single woman. Older working women are substantially more likely to have a retirement account than their younger peers.

In addition, working women with college degrees are 17 percentage points more likely to have an employment-based or an independent retirement account than those without degrees. The impact of employment status is more dramatic: women employed full time are 25 percentage points more likely to have a retirement account than women employed part time.

#### **Long-term liabilities**

Examining liabilities in addition to assets is necessary for a complete understanding of working women's financial status and capabilities. The NFCS allows examination of both long-term liabilities (car loans, mortgages, home equity loans, student loans), and short-term liabilities (credit card debt).

Home mortgages are the most common source of long-term debt among working women, followed by auto-loans. Forty-six percent of working women (72 percent of those reporting home ownership) have a mortgage. Forty percent of working women indicate that they or their household have an auto loan.<sup>4</sup> In addition, more than one-quarter of working women reported an outstanding student loan. Finally, a small but increasing<sup>5</sup> source of long-term debt is home equity loans, held by over 10 percent of respondents.<sup>6</sup>

<sup>4</sup> In the NFCS, auto loans are measured at the household level, while the other sources of long-term debt are measured at the individual level.

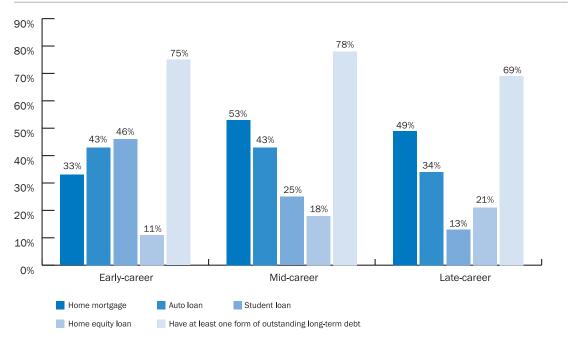
<sup>5</sup> Wall Street Journal, "Home Equity Line of Credit Finances Some Fun," August 22 2013. http://online.wsj.com/news/articles/SB10001424127887323477604578654202739158398

<sup>6</sup> Among homeowners alone, 18 percent have a home equity loan.

A concurrent analysis of long-term debt shows that 74 percent of working women have at least one source of long-term debt and 37 percent have at least two. This is troubling considering that aggregate consumer debt in the U.S. totals \$11.52 trillion according to the Federal Reserve (2014),<sup>7</sup> for an average of \$47,600 for every American adult.<sup>8</sup>

- Seventy-four percent of working women have at least one source of long-term debt, such as a home mortgage, student loan, car loan, or home equity loan.
- Thirty-seven percent have at least two sources of long-term debt.

The distribution of long-term debt source can vary greatly by demographics. Mid-career women are more likely to have a mortgage than younger or older women, and married women are more likely than unmarried women to have a mortgage (Figure 2). Auto loans are widespread, but especially common among married women and women who have financially dependent children (both at 46 percent). The likelihood of having an auto loan increases with household income up to \$150,000. Student loans, meanwhile, are concentrated among women at the beginning of their career; 46 percent of early-career women have student loans compared with 25 percent of mid-career women and 13 percent of late-career women.



## Figure 2 Long-Term Debt Among Working Women

Note: Percentages are calculated over the total sample of 6,051 observations. Percentages related to home mortgages and home equity lines are not conditional to home ownership.

<sup>7</sup> The figure includes mortgages, auto loans, student loans and credit card debt.

<sup>8</sup> Assuming a total US adult population of 242 million people, as estimated by the US Census Bureau (2012). https://www.census.gov/popest/data/national/totals/2013/index.html

The likelihood of having a mortgage peaks among women in mid-career, while the frequency of home equity loans increases in the later career stage. Only 5 percent of women age 23 to 35 reported having a home equity loan. This more than triples to 16 percent among older working women. The pattern of decreased use of some debt and increased use of other debt through working women's careers generates a debt cycle for millions. Put another way, even if the *components* of debt change with age and marital status, long-term debt follows most working women for their entire career.

The regular periodic payments required to service outstanding debt may negatively impact financial wellbeing. Because of this, responses to four questions assessing levels of financial distress associated with debt are examined:

- Are you concerned that you might not be able to pay off your student loans? (Y/N)
- 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)
- 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)

Responses reveal that the vast majority of working women worry about their long-term debt and struggle to make debt payments. Approximately one in five with mortgages think they owe more than they could sell their home for today. About the same proportion report being late with one or more mortgage payment in the past two years.

Student loans are also a concern. Even among working women with household income greater than \$75,000, one-third are concerned about their ability to pay off student loan debt. This concern remains steady for years into women's careers; 49 percent of late-career women with student loans express concern about repaying them.

Many working women struggle to meet other debt obligations as well. For example, nearly 30 percent have unpaid medical bills; this rises to 44 percent among those without health insurance. Interestingly, women without retirement plans are more likely to have unpaid medical bills (40 percent vs. 26 percent).

#### **Short-term liabilities**

Short-term liabilities are also significant contributors to the total debt held by working women. Almost 80 percent of working women have at least one credit card, and nearly six in ten cardholders do not always pay the full amount due—a behavior that exposes them to high fees (Table 3). The data also reveal other troubling behaviors by credit card holders: 40 percent pay only the minimum due, 21 percent incur late-payment fees, 9 percent exceed their credit limit and incur a charge, and 10 percent use their credit cards to obtain cash advances. Altogether, almost one-half (46 percent) of working women with a credit card report at least one expensive credit-card behavior.

These behaviors are key contributors to debt and delinquent balances. According to data from the Federal Reserve Board of New York (2013), individuals typically have a higher percentage of balances past due more than 90 days on credit cards than on long-term loans such as mortgages and student loans.

Early and mid-career women engage in expensive credit card behavior more commonly than latecareer women (51 percent vs. 36 percent). Working women with financially dependent children report expensive credit card behavior at a much higher rate than those without dependent children (55 percent vs. 38 percent), and unmarried women are 6 percentage points more likely to engage in expensive credit card behaviors than married women (50 percent vs. 44 percent).

## Table 3 Credit Card Practices Among Working Women

Have at least one credit card	78%
Among card holders:	
Always paid credit card in full	41%
Carried a balance and was charged interest in some months over previous year	57%
Card holder engagement in expensive credit card behavior in some months over previous year:	
Paid the minimum payment only	40%
Was charged a late fee for late payment	21%
Was charged an over the limit fee for exceeding my credit line	9%
Used the cards for a cash advance	10%
Any expensive credit card behavior	46%
Ν	4.718

Note: The table reports 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 (4,718 women).

Alternative financial services (AFS) are another source of short-term debt. The short-term lending practices of AFS are defined in related research as "high-cost" because they carry unusually high fees (Lusardi and de Bassa Scheresberg, 2013). In the NFCS survey, respondents were asked a set of questions about high-cost borrowing methods, specifically:<sup>9</sup>

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 (This is 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)

Twenty-eight percent of working women reported using one or more of these borrowing methods in the past five years. Early-career women are more than twice as likely to engage in AFS high-cost borrowing as late-career women (37 percent vs. 17 percent) (Figure 3). This behavioral divide by age was first highlighted by de Bassa Scheresberg and Lusardi (2013).<sup>10</sup>

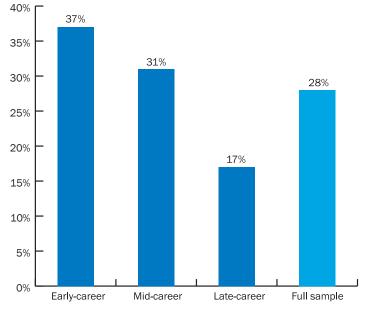
High-cost borrowing is also related to education level. Working women with college degrees are 15 percentage points less likely to engage in AFS borrowing than women without a degree (20 percent vs. 35 percent). This educational divide is relevant as women may underestimate the costs attached to alternative financial services.

Financial distress may lead working women to borrow from retirement accounts. Sixteen percent of those with retirement accounts indicated that they or their spouse/partner took loans or hardship withdrawals from retirement accounts in the 12 months prior to the survey. This phenomenon is more common among working women with dependent children, as 21 percent reported loans or hardship withdrawals from retirement accounts.

<sup>9</sup> Each of these questions also includes as possible answers "I do not know" and "I prefer not to say."

<sup>10</sup> Lusardi and de Bassa Scheresberg (2013) also found that men tend to use these methods more than women.

## Figure 3 Use of Alternative Financial Services among Working Women



*Note:* Percentages are calculated over the total sample of 6,051 observations. The survey questions ask respondents whether they have used at least one of these five AFS products in the five years prior to the survey: rent-to-own, pawnshop, payday loan, tax advance, auto title loan.

For additional insight into overall indebtedness, survey respondents were asked to rate their agreement with the statement:

"I have too much debt right now." (Disagree=1-3, Neutral=4, Agree=5-7)

The findings are striking for working women as 49 percent agreed that they have too much debt (Table 4). About a third disagreed and only 16 percent felt neutral. In other words, one-half of the working women feel overburdened with debt. Not only is this a result of past choices, but it may greatly influence their current and future financial management choices and ability to weather unfavorable economic events.

Fifty-six percent of early-career women feel particularly burdened by debt. While the debt problem of younger women is pressing, the financial condition of older women also requires careful evaluation. Forty percent of late-career women report having too much debt and are thus likely to enter retirement carrying debt. This poses serious questions for their post-retirement financial security. Lusardi and Mitchell (2013) have shown that Baby Boomers are increasingly approaching retirement with large amounts of housing debt.

- One-half of working women indicate that they have too much debt.
- Over indebtedness is also frequent among older women, 40% of whom report having too much debt.

## Table 4 Debt Perceptions Among Working Women

	Full Sample	Early- career	Mid- career	Late- career	Married/ Living with Partner	Single	Separated, Divorced, Widowed	Has retirement plan	Does not have retirement plan
How stron	ngly do you	u agree d	or disagre	ee with th	ne following	statemer	nt? – I have to	o much debi	t right now.
Disagree (1-3)	34%	29%	31%	42%	34%	33%	34%	26%	37%
Neutral (4)	16%	14%	16%	17%	17%	15%	16%	17%	15%
Agree (5-7)	49%	56%	52%	40%	48%	51%	50%	55%	48%
N	6,051	1,805	2,268	1,978	3,908	2,143	1,119	1,502	4,327

Note: Answers are on a scale from 1 to 7, where 1 means strongly disagree, 4 is neither agree nor disagree, and 7 is strongly agree. Percentages are calculated over the full sample of 6,051 women respondents. Percentages do not add up to 100% because "do not know" and "prefer not to say" answers are not reported in the table.

Excessive debt leaves little room for saving. Inadequate short-term savings, in turn, can result in severe financial consequences in the event of an income shock. The relationship between indebtedness and financial security among working women, both short-term emergency fund savings and long-term financial planning, is examined next.

#### Short-term financial vulnerability

Debt puts working women in a potentially vulnerable financial position. Despite, or perhaps because of, the prevalence of economic shocks—30 percent of working women have experienced a large, unexpected drop in income within the last 12 months—many working women do not have emergency or "rainy day" funds. Only 38 percent report having sufficient funds set aside to cover expenses for three months in the event of an unexpected shock.

In addition, when asked how difficult it is to cover their expenses and pay their bills, nearly 60 percent of working women replied "very difficult" or "somewhat difficult".

Additional information regarding financial fragility was captured by the survey question: *How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?* Thirty-nine percent of respondents report that they either probably or certainly could not come up with the funds (Table 5). Many working women are thus vulnerable to unfavorable economic shocks, having neither the savings nor alternative source 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. The most important factor associated with an ability to deal with a financial shock is income. Only 14 percent of those with annual household income below \$35,000 are certain they could come up with \$2,000. In comparison, 57 percent of those with household income greater than \$75,000 are confident they could find the funds. Marital status also plays an important role in working women's financial fragility. Married women are approximately 15 percentage points more likely than their single, separated, divorced, or widowed counterparts to feel they could come up with the full \$2,000. These statistics illustrate the precarious financial position faced by many single, separated, divorced, and widowed women. Numerous studies have separately documented the financial fragility of unmarried women, especially those who are divorced. For example, Holden and Smock (1991) found that both divorce and widowhood have extensive and negative repercussions on women's financial situations.

## Table 5 Financial Fragility Among Working Women

	Certain to come up with the full \$2,000	Can probably come up with \$2,000	Probably cannot come up with \$2,000	Certain cannot come up with \$2,000
How confident are you that you could	d come up with \$2,00	00 if an unexpecte	d need arose within	the next month?
Full Sample	34%	23%	15%	23%
Early-career (age 23-35)	26%	23%	19%	27%
Mid-career (age 36-50)	32%	23%	16%	24%
Later-career (age 51-65)	44%	23%	12%	18%
White and Asian	39%	23%	14%	21%
Other ethnicity	24%	25%	18%	28%
Income between \$35K and \$75K	27%	26%	19%	23%
Income greater than \$75K	57%	25%	8%	7%
College degree	45%	24%	13%	15%
No college degree	25%	23%	18%	30%
Married or living with partner	39%	24%	14%	18%
Single	25%	22%	18%	31%
Separated, divorced, or widowed	24%	22%	19%	31%
Has children	28%	25%	18%	25%
No children	40%	22%	13%	21%
Has retirement plan	42%	25%	13%	17%
No retirement plan	13%	19%	21%	41%

Note: Percentages are calculated over the full sample of 6,051 observations on working women.

Percentages do not add up to 100% because "do not know" and "prefer not to say" answers are not reported in the table.

#### In focus: Are unmarried women more financially fragile than unmarried men?

Gender disparities come to light when comparing financial fragility among unmarried respondents. Thirty-seven percent of single working men report being certain that they could come up with \$2,000 in a month to meet an unexpected need, compared to 25 percent of single working women (Table 6). Single men are less financially fragile than single women and, perhaps, less dependent on marriage for financial stability.

Gender disparities in the financial fragility of separated, widowed, or divorced working men and women suggest that women are more likely to be left financially vulnerable by the dissolution of a marriage or death of a spouse. Twenty-four percent of such working women report being certain they could come up with \$2,000 in a month compared to 38 percent of men. This vulnerability is attributable, in part, to women's greater likelihood of spending time out of the labor force during marriage and experiencing a drop in earnings upon returning in the event of separation, divorce, or widowhood (Holden & Smock 1991). These women may also face supplementary financial burdens if they had higher-earning spouses and now must rear children or cover a mortgage alone. Irrespective of the factors causing this disparity, it is clear that unmarried women are more financially fragile than unmarried men.

## Table 6 Financial Fragility Among Working Women and Men

	Certain I could come up with the full \$2,000	Can probably come up with \$2,000		Certain cannot come up with the \$2,000
How confident are you that you could c	ome up with \$2,000	if an unexpected	need arose within t	he next month?
Working Women	34%	23%	15%	23%
Single	25%	22%	18%	31%
Married of living with partner	39%	24%	14%	18%
Separated, widowed, divorced	24%	22%	19%	31%
Working Men	45%	24%	13%	14%
Single	37%	24%	15%	20%
Married of living with partner	49%	24%	12%	12%
Separated, widowed, divorced	38%	24%	14%	20%

Note: Percentages are calculated over the full sample of 6,051 working women respondents. Data on financial fragility among men comes from a sample of 6,213 working men respondents from the 2012 NFCS. Percentages do not add up to 100% because "do not know" and "prefer not to say" answers are not reported in the table.

#### Long-term financial planning

Short-term saving behavior is intrinsically influenced by available resources and existing debt obligations. But to understand how and whether short-term financial challenges impact long-term saving behavior, it is important to look at the retirement planning behavior of working women. The survey asked the following question: *Have you ever tried to figure out how much you need to save for retirement?* This is important in light of prior research showing that planners accumulate far more retirement wealth than non-planners (Lusardi, 1999; Lusardi and Beeler, 2007; Lusardi and Mitchell, 2007a, 2007b, 2011). It is particularly significant for women, given that they have a longer life expectancy than men.

The data here confirm other research on the topic (for example, Lusardi and Mitchell, 2008) showing that women tend not to plan for retirement. Only 44 percent of working women have tried to figure out how much they should save for retirement, and this finding is pervasive across demographics. Younger women are the least likely to plan, but planning is not prevalent even among women closest to retirement. Barely one-half (53 percent) of late-career women report have tried to determine how much to save for retirement.

#### In focus: Working Men vs. Working Women, differences in planning for retirement

Gender differences exist in retirement planning behavior. Working men are 6 percentage points more likely to have determined how much they need to save for retirement than working women (44 percent vs. 50 percent). This finding holds true also across each career stage.

- Only 53 percent of late-career working women (age 51 to 65) have attempted to figure out how much they need to save for retirement.
- Working women are 6 percentage points less likely than working men to have tried to determine how much they need to save for retirement.

#### **Financial Literacy**

Rapidly changing financial markets and increasing individual responsibility—in particular for retirement income—make informed financial decision-making of paramount importance. Financial knowledge is an essential tool for making good financial decisions. Yet empirical research shows that many people know little about the concepts underlying saving and investments. This may have important consequences for personal financial outcomes, especially as it relates to the accumulation of retirement wealth (Lusardi and Mitchell, 2011b).

Challenges posed by a lack of financial knowledge are compounded when individuals think they have high financial knowledge. This phenomenon applies to some extent to the population of working women. An overwhelming majority of working women consider themselves to be highly financially literate and capable of making good day-to-day decisions. Seventy-nine percent of working women 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 4). Agreement with this statement is similar to men (81 percent). While confidence with financial matters is relatively consistent across demographic groups, over 84 percent of working women with an undergraduate degree or an income over \$75,000 expressed this type of confidence. A second subjective measure confirms confidence in financial knowledge. Seventy-three percent rated their level of overall financial knowledge as "high" (Figure 5). In this case, however, there are some stark differences across demographics and gender. Married women are more likely to be confident in their financial knowledge than their unmarried counterparts. Similarly, 78 percent of women with a college degree rated their financial knowledge high compared to the 69 percent of women without a degree. The most glaring difference can be found when one compares selfperceptions of financial knowledge across income levels. Eighty-two percent of women with an income over \$75,000 rank their financial knowledge high compared with 63 percent of women who earn under \$35,000, a 19-percentage point spread. However, women are also likely to be less confident in their financial knowledge than men.

Such self-assessments are called into question not only by some of the financial behavior discussed earlier, but also by objective measurement of financial literacy via responses to a set of questions designed to test knowledge of basic concepts in economics and finance.<sup>11</sup>

The questions, worded using language of everyday transactions, test five fundamental concepts: numeracy and the capacity to do calculations related to interest rates; understanding of inflation; understanding of risk diversification and of stocks and mutual funds; understanding of interest payments on a mortgage; and understanding of the relationship between interest rates and bond prices.<sup>12</sup> Roughly speaking, correct answers to the first three questions indicate a basic level of financial literacy, while answering all five questions correctly indicates a high level of financial literacy.

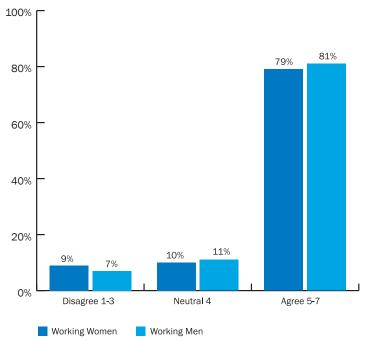
The level of financial illiteracy among working women appears to be particularly severe. Seventyseven percent were able to correctly answer the interest rate question, (which involves a 2 percent calculation), 60 percent correctly answered the inflation question, and about one-half correctly answered the risk diversification question. Eighty percent responded correctly to the mortgage question, and 26 percent to the bond pricing question. Examining responses across questions, 12 percent of respondents display high financial literacy (i.e., they answered all five questions correctly) and only 31 percent display basic financial literacy (i.e., they answered the first three questions correctly) (Table 7).

Working women are much less likely than working men to correctly answer the financial literacy questions. For example, while 68 percent of working men correctly answered the questions about interest rates and inflation, only 51 percent of working women were able to do so. Moreover, while 52 percent of working men correctly answered all three of the basic financial literacy questions, only 31 percent of working women did so. Even within demographic groups, men are more likely to answer correctly than.

<sup>11</sup> The financial literacy questions were originally designed by Lusardi and Mitchell for the U.S. Health and Retirement Study (2008, 2011a) and have subsequently been included in numerous surveys in the United States and abroad. For an international comparison of financial literacy, see Lusardi and Mitchell 2011b, 2014.

<sup>12</sup> See appendix for exact wording of the five financial literacy questions.

## Figure 4 Confidence in Day-to-Day Financial Management Ability by Gender



I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses.

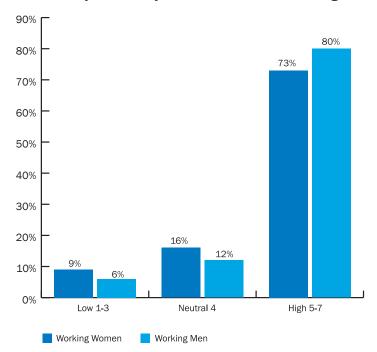
Note: The graph reports answers to the question: "On a scale from 1 to 7, how much do you agree with the following statement—*I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses.*" Percentages do not sum up to 100% because "I do not know" and "I prefer not to say" answers are not reported in the figure.

## Table 7 Financial Literacy Among Working Women and Men

	% of Working Women Answering Correctly	% of Working Men Answering Correctly	% of Women Answering "Don't Know"	% of Men Answering "Don't Know"
Numeracy question	77%	84%	9%	6%
Inflation question	59%	73%	21%	11%
Risk diversification question	46%	64%	46%	27%
Mortgage question	80%	84%	12%	9%
Bond prices question	26%	38%	44%	27%
Basic financial literacy*	31%	52%	-	-
Advanced financial literacy**	12%	24%	-	-
Answered at least 1 "don't know"	-	-	65%	44%

Note: Percentages are calculated over the full sample of 6,051 working women respondents. Data on financial literacy among men comes from a sample of 6,213 working men respondents from the 2012 NFCS. Question wording is reported in the Appendix. \*Answered the first three questions correctly. \*\*Answered all questions correctly.

## Figure 5 Confidence in Financial Knowledge by Gender



#### How would you assess your overall financial knowledge?

Note: The graph reports answers to the question: "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?" Percentages do not sum up to 100% because "I do not know" and "I prefer not to say" answers are not reported in the figure.

However, aggregate measures hide large differences in financial literacy among demographic subgroups. Women with a college degree are more than twice as likely as women with less educational attainment to have a basic or high level of financial literacy (Table 8). However, college-educated women have less financial knowledge than might be expected, given their relatively high educational attainment. In addition, women who are white or Asian-American are almost twice as likely to have high financial literacy compared with women of other ethnicities. Those with the highest household incomes have financial literacy levels that are five times those of the lowest income group. While 15 percent of those with retirement plans have high financial literacy, only 5 percent of those without retirement plans are as knowledgeable.

Finally, working women who are married or living with a partner have higher financial literacy levels than those who are single, separated, widowed, or divorced. Women without financially dependent children also exhibit higher financial literacy levels than women with dependent children. This finding is particularly disturbing when considering the potential implications for the family.

Another notable gender difference in responses to the financial literacy questions is that women are much more likely than men to respond "do not know." The proportion of "do not know" responses was particularly high on the risk diversification question; 46 percent of working women stated that they did not know whether a single company stock is riskier than a stock mutual fund. Moreover, 53 percent of working women responded "do not know" to at least one of the three basic financial literacy questions. Overall, 65 percent of women answered "do not know" to at least one of the five questions.

	Decis (increased literature	Advensed financial literature
	Basic financial literacy	Advanced financial literacy
Early-career (age 23-35)	21%	6%
Mid-career (age 36-50)	31%	13%
Late-career (age 51-65)	40%	18%
White and Asian	35%	14%
Other ethnicity	22%	8%
Income less than \$35K	16%	4%
Income between \$35K and \$75K	27%	10%
Income greater than \$75K	47%	21%
Married or living with partner	34%	14%
Single	27%	10%
Separated, divorced, or widowed	29%	11%
Has children	28%	11%
No children	35%	14%
Has retirement plan	37%	15%
No retirement plan	17%	5%
College degree	44%	19%
No College degree	21%	7%

## Table 8Working Women's Financial Literacy by Demographic Characteristics

Note: Percentages are calculated over the full sample of 6,051 working women respondents. Respondents answering all three basic questions (interest rate, inflation, risk diversification) correctly are considered to have basic financial literacy, while those answering all five questions correctly are considered to have advanced financial literacy. Question wording is reported in the Appendix.

The tendency of women to answer "do not know" to financial literacy questions has been observed in studies in countries as diverse as the Netherlands, the United States, Germany, Sweden, Italy, New Zealand, and Japan (Lusardi and Mitchell, 2011c). In a cross-country study on financial literacy, Bucher-Koenen, Lusardi, and Alessie (2012) suggest that women who answer "do not know" are likely to have low levels of financial literacy and low confidence in their financial knowledge.

 Women have lower financial literacy than men and are more likely to respond "do not know" to financial literacy questions. For example, 46 percent stated that they did not know whether a single company stock is riskier than a stock mutual fund.

These results have profound implications in light of the financial challenges that women face. Women live longer than men and are likely to spend at least part of their retirement in widowhood, thus their savings needs are different than those of men. Evidence from the United States suggests that the death of a spouse is an important determinant of old-age poverty among women (see Sevak et al., 2003/2004; Weir and Willis, 2000). Moreover, women tend to have less attachment to the labor market, with careers interrupted because of childbearing, and potentially fewer financial resources over the life cycle.

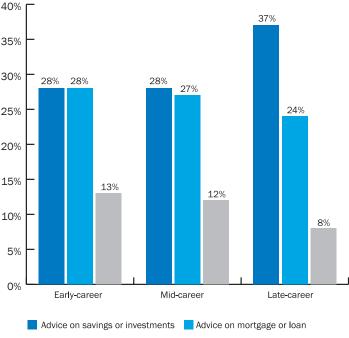
On the other hand, given that only 20 percent of working women receive financial education through school or work, perhaps low financial literacy is to be expected. This indicates a need for increased financial education for women at both younger and older ages.

#### **Financial Advice**

Low financial literacy might not be as problematic if women relied on objective, unbiased financial advice. Unfortunately, this does not tend to be the case. To evaluate whether working women seek professional financial management advice, the NFCS asked respondents "In the last five years, have you received any advice from a financial professional about any of the following (savings or investments; taking out a mortgage or loan; debt counseling)?" Overall, 47 percent of working women reported receiving advice in at least one of the three specified areas, with the greatest proportion of women receiving advice on savings or investment (31 percent). Twenty-six percent received advice on a mortgage or loan. Only 11 percent received general advice on debt, even though most working women have more than one source of debt and are worried about their debt.

There is little variation in the tendency for women to seek professional advice according to career-stage (Figure 6), but the type of counseling varies remarkably. Younger women are more likely to receive advice on debt, while older women tend to receive advice on savings and investments. This is expected as late-career women tend to have higher household incomes and are closer to retirement.

## Figure 6 Use of Professional Financial Advice among Working Women



In the last 5 years, have you asked for any advice from a financial professional about any of the following?

Note: The graph displays answers to the question "In the last 5 years, have you asked for any advice from a financial professional about any of the following? Debt counseling; savings or investments; taking out a mortgage or a loan." Percentages are calculated over the total sample of 6,051 observations.

Advice on debt counseling

In the 2009 wave of the NFCS respondents were asked about their perceptions of and trust in financial professionals.<sup>13</sup> Specifically, the 2009 NFCS asked:

How strongly do you agree or disagree with the following statements? (1 means "strongly disagree," 4 means "neither agree nor disagree," and 7 means "strongly agree.)<sup>14</sup>

- 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.

Only 35 percent of working women indicated that they would trust financial professionals and accept their recommendations (Table 9).<sup>15</sup> Those with higher financial literacy levels tend to trust financial professionals more than those who are less financially literate. This signals a potentially vicious cycle in which the less financially literate do not seek the advice they need. The finding also confirms previous research indicating that professional financial advice and financial literacy are complementary, not substitutes (Collins, 2012).

Perceived cost and difficulty finding a good match are additional barriers. Fifty-five percent of working women think financial professionals are too expensive for them, and 35 percent think that it is hard to find the right financial professional for their personal situation.

# Table 9Working Women Perceptions of Financial Professionals

	Trust financial professionals	Financial professionals are too expensive for me	It is hard to find the right financial professional for me
Disagree (1-3)	25%	15%	18%
Neutral (4)	35%	24%	36%
Agree (5-7)	35%	55%	35%
DK/PNS	5%	6%	10%

Note: Percentages are calculated from the sample of 6,249 female respondents of the 2009 NFCS ages 25 to 65. Answers measured on a scale from 1 to 7 address the following statements: "I would trust financial professionals and accept what they recommend," "Financial professionals are too expensive for me," and "It is hard to find the right financial professional for me."

#### Financial Behaviors and Associated Factors: A Multivariate Analysis

The analysis of working women's financial condition and financial management practices reveals areas where women may benefit from education, guidance, and advice. Of particular note is the long-term debt held by working women and the negative impact it may be having on other financial behavior and on overall financial vulnerability. A generally low level of financial literacy is also notable. Furthermore, most women do not seek professional advice about saving and investing, nor have they begun to make plans for retirement despite widespread ownership of retirement accounts.

Multivariate analysis can provide a clearer understanding of women's financial behaviors, identifying the relative importance of factors associated with such behaviors. It is evident that many variables, including demographics, influence the personal financial condition of working women at any age. For example, women have lower average earnings than men and face particular challenges due to

<sup>13</sup> For the 2009 wave, the sample includes only women age 25 to 65 who are currently employed part-time or full-time. Because the available age variable is categorical, the analysis is restricted to a slightly narrower age bracket (25–65). The total sample consists of 6,249 observations.

<sup>14</sup> Possible answers also included "I do not know" and "I prefer not to say."

<sup>15</sup> To calculate the statistics, we sum respondents who chose values greater than 5.

motherhood and longer life expectancy. Other personal factors such as financial literacy, willingness to take risks, and individual experiences can impact financial behavior. Long-term debt, itself the result of financial decisions, may drive financial management decisions and influence the accumulation of short-term debt.

A multivariate analysis of four financial indicators was conducted to understand the relative influence of socio-demographic and financial factors on women's financial behavior:

- 1. Indebtedness
- 2. Financial fragility
- 3. Retirement planning
- 4. Financial advice regarding saving or investments

Each of the four indicators are dummy variables equal to one or zero. The dummy variable measuring indebtedness relates 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*?" in which responses scoring 5, 6, or 7 are given a value of one and all other responses are assigned a value of zero.<sup>16</sup> The question regarding respondents' ability to come up with \$2,000 in one month in the event of an unexpected expense is used to measure financial fragility; the dummy takes a value of one if respondents indicate they are certainly unable or likely unable to come up with \$2,000, and zero otherwise. The variable measuring retirement planning is assigned a value equal to one if respondents report having tried to determine how much to save for retirement. Similarly, the variable regarding professional advice is equal to one if the respondent has sought advice from a financial professional regarding saving or investments within the past five years. All socio-demographic factors are then analyzed with respect to their impact on the likelihood of having too much debt, being financially fragile, planning for retirement, and receiving financial advice. The sample for the empirical analysis is composed of 5,805 observations.<sup>17</sup>

Table 10 reports coefficient estimates for indebtedness and financial fragility, which are indicators of financial distress. Table 11 reports estimates for retirement planning and financial advice.

To gain a comprehensive understanding of how socio-demographic factors affect financial outcomes, two distinct specifications are used. First, a parsimonious specification includes only demographic characteristics and indicators for income, experience of labor market shocks, and risk preferences. The second specification includes indicators of respondents' capacity to deal with shocks and future income, of financial resources, and of financial literacy. The latter is based on respondents' ability to correctly answer three basic questions on interest rates, inflation, and risk diversification.

Regression results show that income and experience of income shocks are important factors associated with indebtedness and financial fragility. Specifically, those who experienced an income shock in the 12 months prior to the survey are 17 percentage points more likely to struggle in these two areas. However, estimates also show that women who suffered an income shock are more likely to plan for retirement; indicating perhaps that income shocks have motivated women to be more financially proactive.

<sup>16</sup> In the survey, 1 is associated with strongly disagree, 4 with neither agree nor disagree, and 7 with strongly agree.

<sup>17</sup> Starting from a sample of 6,051 observations, 246 observations (4 percent of the total) were dropped because of missing information in one or more of the variables included in the regressions. Note that responses such as "I do not know" and "I prefer not to say" were coded as zeroes and therefore were not deleted from the sample.

## Table 10 Multivariate Regressions – Indebtedness and Financial Fragility

	(1)	(2)	(3)	(4)
	Have	Have	Cannot come	Cannot come
	too much	too much	up with	up with
	debt	debt	\$2000	\$2000
3 FL questions correct	-0.007	-0.007	-0.052***	-0.049***
	(0.015)	(0.015)	(0.013)	(0.013)
Age 36-50	-0.039**	-0.034**	-0.026*	0.004
	(0.017)	(0.017)	(0.015)	(0.015)
Age 51-65	-0.120***	-0.111***	-0.084***	-0.031*
	(0.019)	(0.019)	(0.016)	(0.017)
Black non-Hispanic	0.023	0.022	0.044***	0.030*
	(0.019)	(0.019)	(0.017)	(0.016)
Hispanic (any race)	-0.045**	-0.047**	0.004	-0.005
	(0.022)	(0.022)	(0.019)	(0.019)
Asian non-Hispanic	-0.148***	-0.150***	-0.070***	-0.070***
	(0.030)	(0.030)	(0.026)	(0.026)
Other ethnicity	0.057*	0.054	-0.019	-0.032
	(0.033)	(0.033)	(0.029)	(0.029)
Single	-0.004	-0.009	0.011	-0.012
	(0.024)	(0.024)	(0.021)	(0.021)
Separated or Divorced	-0.011	-0.016	0.046**	0.024
	(0.025)	(0.025)	(0.022)	(0.022)
Widow	-0.078*	-0.079*	0.020	0.014
	(0.046)	(0.046)	(0.041)	(0.040)
One kid	0.076***	0.077***	0.058***	0.059***
	(0.017)	(0.017)	(0.015)	(0.015)
Two or more kids	0.084***	0.085***	0.090***	0.091***
	(0.017)	(0.017)	(0.015)	(0.014)
Education: some college	0.041**	0.042**	-0.033**	-0.038**
	(0.018)	(0.018)	(0.016)	(0.015)
Education: College degree or more	0.011	0.014	-0.080***	-0.078***
	(0.018)	(0.018)	(0.016)	(0.015)
Self-employed	-0.064***	-0.069***	-0.084***	-0.085***
	(0.020)	(0.020)	(0.018)	(0.018)
Employed part-time	-0.060***	-0.062***	-0.007	-0.009
	(0.017)	(0.017)	(0.015)	(0.015)
Income USD 25-35k	0.027	0.034	-0.072***	-0.048**
	(0.025)	(0.025)	(0.022)	(0.022)
Income USD 35-50k	0.042*	0.054**	-0.147***	-0.111***
	(0.024)	(0.024)	(0.021)	(0.021)
Income USD 50-75k	0.024	0.039	-0.217***	-0.170***
	(0.024)	(0.024)	(0.021)	(0.021)
Income USD 75-100k	-0.026	-0.007	-0.321***	-0.263***
	(0.026)	(0.027)	(0.023)	(0.024)
Income USD 100-150k	-0.039	-0.019	-0.418***	-0.356***
	(0.029)	(0.030)	(0.025)	(0.026)
	(0.023)	(0.000)	(0.020)	(0.020)

Income more USD 150k	-0.141***	-0.121***	-0.433***	-0.365***
	(0.032)	(0.033)	(0.028)	(0.029)
Risk preference: medium	-0.045***	-0.045***	-0.095***	-0.092***
	(0.015)	(0.015)	(0.013)	(0.013)
Risk preference: high	-0.071***	-0.069***	-0.140***	-0.131***
	(0.017)	(0.017)	(0.015)	(0.015)
Most fin. knowledgeable in the HH	0.047*	0.047*	-0.012	-0.014
	(0.026)	(0.026)	(0.023)	(0.022)
Equally fin. knowledgeable in the HH	0.002	0.001	-0.019	-0.023
	(0.026)	(0.026)	(0.023)	(0.022)
Income shock	0.172***	0.169***	0.178***	0.165***
	(0.014)	(0.014)	(0.013)	(0.013)
Has House		-0.030*		-0.166***
		(0.015)		(0.014)
No health insurance		0.028		0.064***
		(0.019)		(0.016)
2+ sources of long-term debt				0.075***
				(0.013)
Constant	0.493***	0.491***	0.692***	0.704***
	(0.036)	(0.037)	(0.031)	(0.032)
Observations	5,805	5,805	5,805	5,805
R-squared	0.086	0.087	0.251	0.272

Note: The dependent variable "Have too much debt" is equal to one if the respondent answered with a 5, 6, or 7 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?" and zero otherwise. The dependent variable "Cannot come up with \$2,000" takes the value one if the respondent is probably or certainly not able to come up with \$2,000 in one month, zero otherwise. The sample excludes 246 observations from the original sample for which there is missing information in one or more of the dependent variables. One dummy variable for missing information to the question "Who is more knowledgeable in the household about savings and investments?" was included in the regression but is not reported in the table. This dummy variable includes also "I do not know" and "I prefer not to say" answers, please see the text for additional information. Standard errors in parentheses. \*\*\*\*p<0.01, \*\*p<0.05, \*p<0.1

# Table 11Multivariate Regressions – Retirement Planning and Use of Professional Advice

	(1)	(2)	(3) Received savings/ investment advice	(4) Received savings/ investment advice	
	Planned for Retirement	Planned for Retirement			
3 FL questions correct	0.100***	0.100***	0.060***	0.059***	
	(0.014)	(0.014)	(0.013)	(0.013)	
Age 36-50	0.032**	0.023	-0.019	-0.030**	
	(0.016)	(0.016)	(0.015)	(0.015)	
Age 51-65	0.120***	0.104***	0.071***	0.050***	
	(0.018)	(0.018)	(0.017)	(0.017)	
Black non-Hispanic	0.033*	0.036**	0.028	0.031*	
	(0.018)	(0.018)	(0.017)	(0.017)	
Hispanic (any race)	0.001	0.005	0.014	0.018	
	(0.021)	(0.021)	(0.020)	(0.020)	
Asian non-Hispanic	-0.056*	-0.052*	-0.074***	-0.073***	
	(0.029)	(0.029)	(0.027)	(0.027)	
Other ethnicity	0.001	0.006	0.002	0.007	
	(0.032)	(0.032)	(0.030)	(0.030)	
Single	-0.010	0.000	0.009	0.019	
	(0.022)	(0.023)	(0.021)	(0.022)	
Separated or Divorced	0.032	0.041*	0.016	0.026	
	(0.024)	(0.024)	(0.023)	(0.023)	
Widow	0.070	0.073*	0.048	0.051	
	(0.044)	(0.044)	(0.042)	(0.042)	
One kid	-0.018	-0.021	-0.010	-0.012	
	(0.016)	(0.016)	(0.015)	(0.015)	
Two or more kids	-0.044***	-0.046***	-0.032**	-0.034**	
	(0.016)	(0.016)	(0.015)	(0.015)	
Education: some college	0.119***	0.117***	0.060***	0.058***	
	(0.017)	(0.017)	(0.016)	(0.016)	
Education: College degree or more	0.151***	0.146***	0.140***	0.134***	
	(0.017)	(0.017)	(0.016)	(0.016)	
Self-employed	-0.003	0.004	0.031*	0.043**	
	(0.019)	(0.019)	(0.018)	(0.018)	
Employed part-time	0.012	0.016	0.038**	0.045***	
	(0.016)	(0.016)	(0.015)	(0.015)	
Income USD 25-35k	0.097***	0.085***	0.068***	0.053**	
	(0.024)	(0.024)	(0.023)	(0.023)	
Income USD 35-50k	0.097***	0.078***	0.075***	0.050**	
	(0.023)	(0.023)	(0.022)	(0.022)	
Income USD 50-75k	0.194***	0.168***	0.131***	0.097***	
	(0.022)	(0.023)	(0.021)	(0.022)	
Income USD 75-100k	0.224***	0.192***	0.148***	0.109***	
	(0.025)	(0.026)	(0.024)	(0.025)	

Income USD 100-150k	0.293***	0.260***	0.175***	0.133***
	(0.027)	(0.028)	(0.026)	(0.027)
Income more USD 150k	0.379***	0.344***	0.270***	0.227***
	(0.031)	(0.032)	(0.029)	(0.030)
Risk preference: medium	0.083***	0.082***	0.142***	0.140***
	(0.014)	(0.014)	(0.014)	(0.014)
Risk preference: high	0.179***	0.176***	0.232***	0.227***
	(0.016)	(0.016)	(0.016)	(0.015)
Most fin. knowledgeable in the HH	0.068***	0.068***	0.050**	0.052**
	(0.024)	(0.024)	(0.023)	(0.023)
Equally fin. knowledgeable in the HH	0.069***	0.070***	0.057**	0.059**
	(0.024)	(0.024)	(0.023)	(0.023)
Income shock	0.028**	0.032**	0.018	0.026*
	(0.014)	(0.014)	(0.013)	(0.013)
Has House		0.053***		0.056***
		(0.015)		(0.015)
No health insurance		-0.042**		-0.075***
		(0.018)		(0.017)
2+ sources of long-term debt		0.001		-0.014
		(0.014)		(0.013)
Constant	-0.049	-0.048	-0.083**	-0.068**
	(0.034)	(0.035)	(0.033)	(0.033)
Observations	5,805	5,805	5,805	5,805
R-squared	0.159	0.162	0.130	0.135

Note: The dependent variable "Planned for retirement" is equal to one if respondent has ever tried to figure out how much to save for retirement, and zero otherwise. The dependent variable "received savings/investment advice" is equal to one if in the five years prior to the survey the respondent received advice from a financial professional on a topic related to savings or investments, and zero otherwise. The sample excludes 246 observations from the original sample for which there is missing information in one or more of the dependent variables. One dummy variable for missing information to the question "Who is more knowledgeable in the household about savings and investments?" was included in the regression but is not reported in the table. This dummy variable includes also "I do not know" and "I prefer not to say" answers, please see the text for additional information. Standard errors in parentheses. \*\*\*p<0.01, \*\*p<0.05, \*p<0.1

The multivariate analysis indicates that only a few demographic variables are associated at a statistically significant level with the likelihood of being highly indebted: career stage (age), ethnicity, having dependent children, and type of employment.<sup>18</sup> Marital status and education beyond the high school level are not significantly related to over-indebtedness. This confirms that financial distress in the form of indebtedness transcends most demographic differences to affect nearly all subgroups of working women. An exception are Asian-American women, who are found to be 15 percentage points less likely than whites to report having too much debt. Additionally, compared to those who have a high school level education or less, over-indebtedness appears to be higher among those who have some college education but not a college degree, suggesting that these women have taken out student loans to finance their undergraduate studies but are in financial trouble, perhaps because they did not finish their schooling. Likelihood of over-indebtedness decreases with age and increases among women with dependent children. Further, self-employed and part-time employed women are about 7 percentage points less likely to be overly-indebted than women employed full-time.

Regression results also confirm that certain demographic groups are more financially fragile. Coming up with \$2,000 in one month in the event of an unexpected expense is likely to be more difficult for younger women, black women, and women with dependent children. Coefficients for marital status, on the contrary, are not significant. Once factors such as income, employment type, and number of dependent children are taken into account, marital status loses its predictive power and single, divorced, separated, or widowed respondents are found no more likely to be financially fragile than married respondents.

Respondents who have experienced an income shock are much more financially vulnerable than those who have not; regression estimates show that women who have experienced such a shock are 16 percentage points more likely to have difficulty raising \$2,000 in the event of a sudden need. Similar results hold for women with long-term debt and women who lack health insurance, with these women being 7 percentage points and 6 percentage points more likely to be financially fragile, respectively. Overall, these results confirm descriptive findings that income shocks and outstanding debt are important contributors to financial fragility.

A lack of financial literacy is also a key determinant of financial distress. Working women who correctly answered all three financial literacy questions are found to be significantly less likely to be financially distressed. Specifically, those who can answer these questions are 5 percentage points less likely to be financially fragile, as measured by anticipated difficulty in coming up with \$2,000 in one month. Although the coefficient on financial literacy in the indebtedness regression is not statistically significant, it does take the expected negative sign such that financial literacy would decrease the likelihood of having too much debt. Moreover, financially literate individuals are more likely to be active in preventing financial distress. For example, financially literate respondents are 6 percentage points more likely to seek investment advice from a professional and 10 percentage points more likely to plan for retirement. The coefficient on financial literacy maintains significance in both the reduced and extended specifications, even after controlling for levels of education, indicating that financial literacy reduces the likelihood of financial distress beyond the effect of schooling. Additional confirmation of these findings comes from the coefficient estimates on whether the respondent is the most knowledgeable about saving, investing and debt in the household. Compared to those who answered "someone else is more knowledgeable", those who are equally knowledgeable or are the most knowledgeable individual in the household are 7 percentage points more likely to plan for retirement and 5 percentage points more likely to receive investment advice.<sup>19</sup>

<sup>18</sup> Statistically significant variables are having children (positively associated with perceived over-indebtedness), being self-employed or employed part time (negatively associated), having higher financial risk tolerance (negatively associated), and having experienced an income shock (positively associated).

<sup>19</sup> The measure on household knowledge has missing observations for 36 percent of the respondents. For this reason, we included in the regression (but not reported in the Table) a dummy variable that is equal to one if: a) the respondent has a missing observation for this measure; b) the respondent answered "I do not know"; c) the respondent answered "I prefer not to say". The variable is zero otherwise. Thus, the excluded group on which the coefficient is calculated is the group of respondents who answered "Someone else is more knowledgeable than me".

The findings from the regressions for seeking professional advice on investments or savings and on planning for retirement are consistent with the statistics reported previously. Age is an important factor; i.e., older women are more likely to both seek advice and plan for retirement. Additionally, education and risk tolerance also matter. Having higher education and higher risk tolerance is strongly associated with both behaviors. Asian-American women are, respectively, 6 and 7 percentage points more likely to engage in retirement planning and financial advice, while women with two or more children are about 4 percentage points less likely to do so. Income is significantly correlated with retirement planning and receiving advice on investments or savings; the positive effect is almost four times stronger for individuals at the highest level of income (>\$150K) compared with those with household income equal to or below \$50K. While expected, these findings are worrisome because they confirm predictions that lower earners already experiencing financial fragility may be exposed to additional financial insecurity upon retirement due to a lack of planning and limited exposure to professional financial advice.

#### **Key Findings and Implications**

This report has documented the financial profile of working women and highlighted a widespread presence of long-term debt together with a systematic use of expensive credit-card borrowing and a lack of sound financial management and planning in both the short- and long-term. Key findings from the analysis include:

- Asset ownership varies greatly by asset type and career stage, family status, and type of employment. For example, almost all working women have some form of bank account, but women employed full time are 25 percentage points more likely to have a retirement account than women employed part time (80 percent vs. 55 percent).
- Over-indebtedness and concerns about debt repayment are pervasive among working women across career stages. Seventy-four percent of working women have at least one source of longterm debt and 37 percent have at least two. Forty-nine percent of working women indicate that they have too much debt.
- 3. Many working women are financially fragile due to inadequate short-term savings. Only 38 percent report precautionary savings sufficient to cover living expenses for three months in the event of an unexpected shock. Thirty-nine percent of working women report that they are probably or certainly unable to come up with \$2,000 if an unexpected need arose within the next month. Across demographic groups, younger women and women who are not married are more likely to not have emergency funds and to have difficulty coming up with \$2,000 if an unexpected need arose.
- 4. Many working women are approaching retirement carrying long-term and short-term debt, and without having planned for retirement. Only 53 percent of late-career women attempted to figure out how much they need to save for retirement. Only thirty-seven percent of late-career women have received professional financial advice on savings and investments.
- 5. Working women tend to have low levels of financial literacy, but are nonetheless confident in their level of financial knowledge and ability to manage day-to-day financial matters. Given that only 20 percent of working women received financial education through school or work, perhaps low financial literacy is to be expected.
- Despite their high levels of indebtedness, apparent financial fragility, and low financial literacy levels, working women do not frequently seek professional financial advice. Even though nearly 50 percent report being overly indebted, professional advice on debt has been used by only 11 percent.

## Financial Challenges by Career Stage

- Early career women are more likely to have student-loan debt, while mid- and late-career women are more likely to have home mortgages and home equity loan debt. This decrease of some and increase of other debt through career stages generates a debt cycle for millions of working women.
- Forty percent of late-career women report having too much debt; thus, these women are likely to enter retirement carrying debt.
- Early- and mid-career women engage in expensive credit card behavior at a much higher rate than late-career women (51 percent vs. 36 percent).

## Financial Challenges by Marital Status

- Married women or women living with a partner are 19 percentage points more likely to have a retirement account through an employer than a single woman.
- Single women are 6 percentage points more likely to engage in expensive credit card behaviors than married women or women living with a partner (44 percent vs. 50 percent).
- Married women are approximately 15 percentage points more likely than their single, separated, divorced, or widowed counterparts to be able to come up with \$2,000 within a month if an unexpected need arose.
- Women who are married or living with a partner have higher financial literacy levels than those who are single, separated, widowed, or divorced

Three implications emerging from these findings are:

1. Given working women's low level of financial literacy and unique financial challenges, financial education programs and financial advice services designed specifically for women would be especially effective.

Financial illiteracy affects women across all education levels and makes women particularly vulnerable to poor practices in financial management and retirement planning. Low financial literacy is highly correlated with most measures of financial distress and financial vulnerability. Even though financial literacy is very low, working women seek financial advice sparingly. Such findings are troublesome given the unique circumstances that women face, such as extended periods out of the workforce and longer life expectancy. A strategy to address women's unique financial challenges is to create professional financial education programs and financial advice services specifically designed for and made available to women. The workplace is an ideal venue for this intervention. Also, financial advice and financial education are complementary (Collins, 2012), thus, it can be expected that financial education programs will increase women's use of financial advice and vice versa.

2. In addition to advice on investments and savings, debt counseling can help working women face their immediate financial challenges and improve their ability to save.

Long-term and short-term financial liabilities make debt repayment a concern for many working women. Nearly 50 percent indicate that they have too much debt. Debt repayment prevents or limits saving for short-term and the long-term needs, leading to financial vulnerability in the present and financial insecurity in the future. Given these findings, working women would greatly benefit from assistance with debt management, especially if tailored to their changing needs over the course of their careers. Advice on mortgages is not enough; rather, advice on managing multiple sources of debt seems necessary. Also, women may greatly benefit from financial education and financial advice on debt and debt management during the early stages of their careers, even pre-career. For example, information regarding expected earnings related to different college majors combined with data on how loan amounts translate into required payments would be valuable to those entering college.

3. The financial situation of working women across career stages and marital status is distinct. In order to be effective, programs and initiatives should offer personalized, targeted services.

The financial profiles of women differ greatly across career stages and marital status. Younger women experience different challenges from women who are five to ten and fifteen to twenty years older. Additionally, women who are married or living with partners have significantly different financial situations than women who are single, separated, divorced, or widowed. Programs and interventions designed with those distinct challenges in mind will better equip women to deal with current and future challenges.

#### Conclusions

This study has examined working women's financial capabilities and practices across key demographic dimensions, such as family status and career stage. Working women face significant financial challenges associated with long-term debt and short-term financial vulnerability. Working women have difficulty saving for the short term and planning for their retirement. These challenges are associated with and likely exacerbated by the fact that working women have low financial literacy and use professional financial advice sparingly. This suggests three actions that can be undertaken to address working women's needs: increase the availability of financial advice and education targeted specifically to women, increase professional financial counseling on debt and debt management, and offer personalized services designed to address needs as they change with career stage and family status.

#### References

- Atkinson, Adele, Stephen McKay, Elaine Kempson, and Sharon Collard. 2007. "Levels of Financial Capability in the UK: Results of a Baseline Survey." *Public Money & Management* 27(1): 29–36, February.
- Bernasek, Alexandra and Vickie Bajtelsmit. "Predictors of Women's Involvement in Household Financial Decision-Making." Financial Counseling and Planning 13.2 (2002): 39-48. Bureau of Labor Statistics.
  "BLS Reports: Women in the Labor Force." U.S. Bureau of Labor Statistics. February 2013.
- Bucher-Koenen, Tabea, Annamaria Lusardi, Rob Alessie, and Martin van Rooij. 2012. "How Financially Literate are Women? Some New Perspectives on the Gender Gap." Netspar Working Paper N. 31.
- Bureau of Labor Statistics. "Highlights of Women's Earnings in 2012." US Department of Labor. October 2013.
- Burns, Crosby, Kimberly Barton, and Sophia Kerby. "The State of Diversity in Today's Workforce." Center for American Progress. July 2012.
- Collins, Michael J. (2012). "Financial Advice: A Substitute for Financial Literacy?" Financial Services Review 21(4), 307-322.
- Davidson, Liz. "Gender Gap in Financial Literacy." Financial Finesse, Inc. 2012.
- Department of Labor. "Women's Employment during the Recovery." U.S. Department of Labor. May 2011.
- Department of Labor. "Labor force projections to 2020: a more slowly growing workforce". U.S. Department of Labor. January 2012.
- Department of Labor. "Economic News Release-Employment Characteristics of Families." U.S. Department of Labor. April 2013.
- Elborgh-Woytek, Katrin, Monique Newiak, et al. "Women, Work, and the Economy: Macroeconomic Gains from Gender Equity". IMF Staff Discussion Note SDN 13/10. September 2013.
- Fidelity Investments. "2013 Fidelity Investments Couples Retirement Study." FMR LLC. 2013.
- Fonseca, Raquel, Kathleen J. Mullen, Gema Zamarro, and Julie Zissimopoulos. "What Explains the Gender Gap in Financial Literacy?" RAND Population Research Center. June 2010.
- Federal Reserve Bank of New York. "Quarterly Report on Household Debt and Credit," August 2013. http://www.newyorkfed.org/research/national\_economy/householdcredit/DistrictReport\_Q22013.pdf
- FINRA Investor Education Foundation, "2012 National Financial Capability Study." May 2013. http://www.usfinancialcapability.org/.
- FINRA Investor Education Foundation, "2009 National Financial Capability Study." December 2009. http://www.usfinancialcapability.org/.
- Holden, Karen, and Pamela Smock. "The Economic Costs of Marital Dissolution: Why Do Women Bear a Disproportionate Cost?." Annual Review of Sociology. (1991): 51-78.
- Hung, Angela, Joanne Yoong, and Elizabeth Brown. "Empowering Women Through Financial Awareness and Education." OECD Working Papers on Finance, Insurance, and Private Pensions. No. 14. March 2012.

- Joint Economic Committee. "Women and the Economy 2010: 25 years of Progress But Challenges Remain." U.S. Congress Joint Economic Committee. August 2010.
- Lusardi, Annamaria (1999), "Information, Expectations, and Savings for Retirement," in Henry Aaron (ed.) *Behavioral Dimensions of Retirement Economics*, Washington, D.C.: Brookings Institution Press and Russell Sage Foundation, 1999, pp. 81-115.
- Lusardi, Annamaria and Jason Beeler (2007), "Saving Between Cohorts: The Role of Planning," in Brigitte Madrian, Olivia Mitchell, Beth Soldo (eds), *Redefining Retirement. How Will Boomers Fare?*, Oxford: Oxford University Press, pp. 271-295.
- Lusardi, Annamaria, and Carlo de Bassa Scheresberg. 2013. "Financial Literacy and High-Cost Borrowing in the United States." NBER Working Paper No. 18969. National Bureau of Economic Research, Cambridge, MA. http://www.nber.org/papers/w18969
- Lusardi, Annamaria and Olivia Mitchell. "Planning and Financial Literacy: How do women fare?" American Economic Review 98.2 (2008): 413-417.
- Lusardi, Annamaria and Olivia S. Mitchell (2007a), "Baby Boomer Retirement Security: The Role of Planning, Financial Literacy, and Housing Wealth," Journal of Monetary Economics, 54, pp. 205-224.
- Lusardi, Annamaria and Olivia S. Mitchell (2007b), "Financial Literacy and Retirement Preparedness. Evidence and Implications for Financial Education," Business Economics, January 2007, pp. 35-44.
- Lusardi, Annamaria, and Olivia S. Mitchell. 2011a. "Financial Literacy and Planning: Implications for Retirement Wellbeing." In *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*. Eds. O. S. Mitchell and A. Lusardi. Oxford, Oxford University Press: 17-39.
- Lusardi, Annamaria and Olivia S. Mitchell. 2011b. "Financial Literacy around the World: An Overview." Journal of Pension Economics and Finance, 10(4): 497-508.
- Lusardi, Annamaria and Olivia S. Mitchell. 2011c. Financial Literacy around the World: An Overview. *Journal of Pension Economics and Finance*, 10(4): 497-508.
- Lusardi, Annamaria and Olivia S. Mitchell. 2013. "Debt and Debt Management among Older Adults." Draft. Ann Arbor, MI: Michigan Retirement Research Center.
- Lusardi, Annamaria, and Olivia S. Mitchell. 2014. "The Economic Importance of Financial Literacy: Theory and Evidence." *Journal of Economic Literature*, 52(1): 5-44.
- Mottola, Gary R. "In Our Best Interest: Women, Financial Literacy, and Credit Card Behavior." FINRA Investor Education Foundation. April 2012.
- Wang, Wendy, Kim Parker, and Paul Taylor. "Breadwinner Moms." Pew Research Center, May 2013.
- Taylor, Paul, Richard, Fry et al. "Living Together: The Economics of Cohabitation." Pew Research Center. June 2011.
- Taylor, Paul, Kim Parker et al. "On Pay Gap, Millennial Women Near Parity For Now." Pew Research Center. December 2013.
- Taylor, Paul, Richard, Fry et al. "Women, Men, and the New Economics of Marriage." Pew Research Center. January 2010.
- Prudential. "2012-2013 Prudential Research Study: Financial Experience & Behaviors among Women." Prudential Financial, Inc. 2012.
- Schneebaum, Alyssa and Mader, Katharina (2013). "The gendered nature of intra-household decision making in and across Europe." Department of Economics Working Paper Series, 157. WU Vienna University of Economics and Business, Vienna.

- Schubert, Renate, Martin Brown, Matthias Gysler, and Hans Wolfgang Brachinger. "Are Women Really More Risk-Averse?" American Economic Review. 89.2 (1999): 381-385.
- Sevak, Purvi, David R. Weir, and Robert J. Willis (2003/2004), "The economic consequences of husband's death: Evidence from HRS and AHEAD," Social Security Bulletin, 65(3), pp.31-44.
- Twigg, Mark. "The Future of Retirement: Why Family Matters." HSBC Insurance Holdings Limited. 2011.
- US Census, "More Working Women Than Men Have College Degrees", Census Bureau Reports, April 2011. https://www.census.gov/newsroom/releases/archives/education/cb11-72.html
- Visa. "International Barometer of Women's Financial Literacy." Visa. April 2013. http://www.practicalmoneyskills.com/downloads/pdfs/FL\_Barometer\_2013.pdf
- Wall Street Journal, "Home Equity Line of Credit Finances Some Fun," August 22 2013. http://online.wsj.com/news/articles/SB10001424127887323477604578654202739158398
- Weir, David and Robert Willis (2000), "Prospects for widow poverty in the finances of married couples in the HRS," in *Forecasting Retirement Needs and Retirement Wealth*, edited by Olivia S. Mitchell, P. Brett Hammond, and Anna M. Rappaport. Philadelphia: University of Pennsylvania Press, pp. 208-234.
- Woolley, Frances, and Judith Marshall, "Measuring Inequality within the Household," Review of Income and Wealth, 40, no. 4 (1994): 415-431.
- Wood, Andrew, Kate Downer, Becky Lee, and Annalise Toberman. "Household financial decision making: Qualitative research with couples." Department for Work and Pensions. Research Report No. 805. 2012.

### Appendix I

## Financial Literacy Questions Included in the NFCS (\*\*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?
  - O More than \$102\*\*
  - O Exactly \$102
  - O Less than \$102
  - O Do not know
  - O 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?
  - O More than today
  - O Exactly the same
  - O Less than today\*\*
  - O Do not know
  - O 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."
  - O True
  - O False\*\*
  - O Do not know
  - $O \quad \text{Refuse to answer} \\$
- 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.
  - O True\*\*
  - O False
  - O Do not know
  - O Prefer not to say
- 5. If interest rates rise, what will typically happen to bond prices?
  - O They will rise
  - O They will fall\*\*
  - O They will stay the same
  - O There is no relationship between bond prices and the interest rates
  - O Do not know
  - O Prefer not to say

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