

Financial Well-being among Black and Hispanic Women

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This paper provides an in-depth examination of the financial well-being of Black and Hispanic women and the factors contributing to it, using the 2018 wave of the National Financial Capability Study. We document meaningful differences between Black and Hispanic women versus White women, in that the former are more likely to face economic challenges that depress financial well-being. Controlling for differences in socio-demographic characteristics, there are important differences in the factors that contribute to financial well-being for Black and Hispanic women compared to White women. This includes distinct impacts of education, family structure, employment, and financial literacy. Our results imply that extant financial education programs inadequately address the needs of Black and Hispanic women.

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Individuals regularly face complex short- and long-term financial decisions such as coping with income loss and other shocks and saving for retirement. Challenges have also grown with the economic recession caused by COVID-19. Moreover, the impact of the pandemic has brought to light deeply rooted inequalities, particularly among women and minorities who are more likely to face complex financial challenges. This is apparent among Black and Hispanic women, who face a double disadvantage because of their sex and race/ethnicity. Strategies that help them overcome economic challenges and achieve financial well-being are more likely to be effective if targeted to their specific needs and circumstances. Nevertheless, little is known about the financial well-being of Black and Hispanic women as underrepresented female minorities; this paper aims to fill this gap by providing an in-depth analysis of the factors contributing to their financial well-being.

Challenges to women and minorities have been well documented in the social science literature. Women are more likely to take on household responsibilities which can limit their earning potential and make financial security more elusive. The term “second shift” was coined to refer to the unpaid household labor done by women in addition to their paid labor market work (Hochschild, 1989). Obstacles faced by women have grown worse during the COVID-19 pandemic. As schools and childcare centers closed, working parents have been forced to take on greater caregiving responsibilities, and mothers have taken on a greater portion of this burden. Among dual-earner households, working mothers have been four to five times more likely to reduce their working hours than fathers (Collins et al., 2020).

Such inequalities have been longstanding, particularly regarding wage inequality. Recent decades have seen a narrowing of the male-female educational gap as women increasingly invest in schooling, yet large pay gaps persist (Blau and Kahn, 2017). Though the gap in pay cannot be fully explained by economists, workforce interruptions and shorter work hours do play an important role. Fulfilling a family caregiver role is a common cause of workforce interruptions for women and limits their ability to save for retirement and qualify for an employer-provided retirement plan (Weller and Tolson, 2020). Even among career employees covered by retirement plans, women are more likely to be in financial distress in retirement (Clark and Liu, 2019). Marital status is also a major factor to be considered, with unmarried women tending to have

lower incomes and greater financial difficulties. Women and unmarried workers have been shown to have less knowledge of employer- and government-sponsored retirement programs (Clark, Morrill, and Allen, 2012). There is also mounting evidence of a consistent and significant sex difference in financial knowledge not only in the United States but also around the world (Lusardi and Mitchell, 2014; Klapper and Lusardi, 2020). Women are more likely to be financially fragile, feel they have too much debt, and lack savings compared to men (Hasler and Lusardi, 2019; de Bassa Scheresberg and Lusardi, 2017). Existing research has not been able to fully explain the factors that contribute to these persistent gaps in financial literacy and capability between women and men.

There is also a literature on minorities which has documented financial struggles and a persistent gap in wealth across race and ethnicity. In the United States, Blacks and Hispanics are underrepresented in the top income quantiles, and they are more likely than Whites to be low income and experience economic immobility (Akee et al., 2019). Overall, households with lower income levels and higher income volatility tend to prioritize saving for immediate and basic needs, limiting their ability to save for emergencies or the long term (Yoong et al., 2019). Employment disparities are also apparent. Research shows that, after the Great Recession, Black public service workers were more likely to experience job loss compared to White workers, even after accounting for differences in education and occupation (Laird, 2017). Black and Hispanic workers are also less likely to have access to employer-sponsored benefits, including healthcare and retirement benefits, which of course depresses their ability to save for the long term (Gould and Wilson, 2020; Gould, Perez, and Wilson, 2020). It is also now clear that the COVID-19 pandemic has exacerbated these longstanding inequalities, with Blacks and Hispanics losing employment at a disproportionate rate. According to the 2020 Current Population Survey, unemployment in August rose 3.8 percentage points for Blacks, from 6% in February to 9.8%. Similar although slightly higher rates were observed for Hispanics, with unemployment rising 4.4 percentage points, from 4.3% in February to 8.7% in August. Whites also experienced rising unemployment but to a significantly lesser degree: Their unemployment rate rose from 3% in February to 5.7% in August, a 2.7 percentage point increase (Economic Policy Institute, 2020).

Alongside income and employment, money-management knowledge is an important contributor to financial well-being. Unfortunately, Blacks and Hispanics are more likely to score lower on financial literacy measures. Previous work on financial literacy shows that, across eight areas of personal finance in which individuals routinely function, Blacks and Hispanics have knowledge gaps. This is evident even when it comes to borrowing, which is the functional area which Blacks and Hispanics are most knowledgeable about (Hasler, Lusardi, and Yakoboski, 2017; Hasler, Lusardi, and Yakoboski, 2019). Moreover, Blacks and Hispanics are more likely to use alternative financial services and less likely to use formal financial institutions. This could be due to a number of barriers including distance to institutions, credit history, account fees, language barriers, or minimum balance requirements (Yoong et al., 2019).

While many challenges to achieving financial security are the same regardless of race and ethnicity, it is also important to note meaningful differences. Income volatility is higher among Blacks and Hispanics compared to Whites, and highest among Blacks. According to the 2018 National Financial Capability Study (NFCS), 32% of Blacks experienced a large and unexpected drop in their income in the year prior to the survey. This is significantly higher than Hispanics (25%) and Whites (17%). Additionally, the same data showed that Hispanics are more financially literate than Blacks: Only 18% of Hispanics could correctly answer three basic financial literacy questions on inflation, interest compounding, and risk diversification; this was higher than the 11% of Blacks who answered the same questions correctly (NFCS, 2018). It is also worth noting that there are also differences within these sub-groups, regarding sex differences in particular. Black and Hispanic women are likely to face a double disadvantage, experiencing inequalities due to both sex and race/ethnicity. Black and Hispanic women have experienced the largest employment loss from the COVID-19 downturn, much larger than that of Black and Hispanic men (Gould and Wilson, 2020; Gould, Perez, and Wilson, 2020). Moreover, Black and Hispanic women face the financial challenge of obligations in the workforce and at home while providing for their families at a lower salary and with greater financial instability. Income volatility is most pronounced among Black, single-mother households (Hardy and Ziliak, 2014).

While many have studied the economic challenges facing women and minorities, there is much less research on how these challenges may influence financial well-being for these sub-populations. Of course, financial well-being is an abstract concept and can be measured in several ways. Some people may seek to amass retirement wealth; others wish to provide for their children's education; and still others may simply want to get out of debt. Nevertheless, achieving financial well-being is seen as the "ultimate goal of financial education" and financial wellness programs by the U.S. Consumer Financial Protection Board (CFPB, 2015:11), which is the regulatory authority that oversees financial products and services offered to consumers. This agency has developed a Financial Well-Being (FWB) Scale, which it believes provides a broad indicator of financial success. The agency defines financial well-being as "a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life" (CFPB, 2015:18). Rather than focusing on an objective financial behavior such as borrowing, financial well-being is a measure of how people perceive their financial skills, behavior, and situations. The FWB score provides an indicator that financial education and wellness programs can use to evaluate their success. Moreover, its creators argue that it offers greater insights into the financial needs of individuals and informs the development of effective educational programs.

Previous research using the FWB score has shown that financial well-being is influenced by many factors including socio-demographic characteristics, financial behaviors, and financial knowledge. For instance, financial well-being tends to rise with age, education, and income (Lusardi, 2019), and it is lower among unmarried and unemployed individuals (CFPB, 2017b). Wealthier individuals are more likely to have a higher FWB score, while debt negatively impacts peoples' scores. In terms of financial behaviors, people who employ alternative financial services such as pay-day lending and are unable to cope with unexpected expenses exhibit lower FWB scores, while those who plan ahead and have effective debt management practices tend to score higher on financial well-being (CFPB, 2017b; Burke and Perez-Arce, 2019).

Though the research on factors conducive to financial well-being is growing, little attention has been devoted to date to understanding vulnerable sub-groups' FWB, and this is important inasmuch as factors contributing to financial well-being may differ across racial and

ethnic groups. Research on the Native Americans' (American Indian and Alaska Native) financial well-being has been positively associated with more education. Yet the benefit of education to financial well-being is lower for Native American individuals than for other racial or ethnic groups (Stoddard, 2019). Additional research on vulnerable populations is needed to understand how financial well-being may differ across racial and ethnic groups; this understanding can inform the development of more targeted and effective financial education programs.

This paper contributes to the literature by providing an in- depth examination of the financial well-being of Black and Hispanic women and the factors contributing to it. Our analysis uses the 2018 wave of the National Financial Capability Study. We find meaningful differences between Black and Hispanic women versus White women, in that the former are more likely to carry debt and exhibit costly borrowing behavior, which are both negatively associated with financial well-being. Despite these objective measures indicating differences in the financial situation of women across race and ethnicity, we find little to no difference in the average financial well-being score, a subjective measure. We examine this contrasting result and find important differences in the factors that contribute to financial well-being for Black and Hispanic women compared to White women. This includes differences in education, family structure, employment, and financial literacy. Our results imply that extant financial education programs inadequately address the needs of Black and Hispanic women.

In what follows, we first provide an overview of the CFPB Financial Well-Being score, along with additional measures or proxies for financial well-being. We also describe our data, after which we examine differences in socio-demographic characteristics, financial literacy, and financial well-being by sex. Next, we examine differences across Black, Hispanic, and White women using a wide set of measures, including socio-demographic characteristics, financial literacy, financial situation, financial behavior, and financial well-being. Additionally, we examine factors contributing to financial well-being for Black and Hispanic women and compare results for White women. Finally, we offer conclusions and lessons for financial education programs designed for a heterogeneous workforce with varying needs, challenges, and levels of financial knowledge.

Measures of financial well-being

The NFCS dataset contains two types of variables that we use to evaluate financial well-being among the subpopulations of interest here. In what follows, we first describe the FWB metric developed by the CFPB. Second, we describe four other measures we consider, each capturing a slightly different facet of financial well-being. By examining the proxies independently and comparing them to the FWB measure, we seek a clearer understanding of the factors that contribute to financial well-being.

Measuring financial well-being

The Financial Well-Being score developed by the Consumer Financial Protection Bureau is a single metric based on a set of five questions capturing individual responses to their financial circumstances.¹ Specifically, survey respondents are asked to assess the accuracy of the following statements to their circumstances: (1) “Because of my money situation, I feel like I will never have the things I want in life”; (2) “I am just getting by financially”; (3) “I am concerned that the money I have or will save won’t last”; (4) “I have money left over at the end of the month”; (5) “My finances control my life.” For the first three questions, respondents are prompted to choose a score on a five-point Likert scale that goes from “does not describe me at all” to “describes me completely.” For the remaining two questions, the five-point Likert scale goes from “never” to “always.” Respondents also have the option to answer each question with “do not know” or “prefer not to say.” Responses to these questions or “items” are then combined to produce a single score for each individual by employing Item Response Theory (IRT).²

It is argued that the IRT approach is a more precise measure than a simple summation of question responses since it examines how the questions relate to financial well-being and

¹ These five questions are an abbreviated version of the CFPB’s original 10-question Financial Well-Being Scale. The abbreviated version captures elements of financial well-being and is highly correlated with the full 10-question score, providing reliable results (CFPB, 2017a).

² IRT is a latent variable model used to predict an individual’s unobservable characteristic through scoring his or her responses to a set of instruments that are assumed to be related to the unobservable characteristic. See Edwards (2009) for further information regarding IRT models.

whether that relationship varies by respondent characteristics and survey method. The CFPB provides table-based and software-based scoring for researchers to use with datasets which include the full or abbreviated set of financial well-being questions.³ The score is presented in whole numbers; thus FWB scores range from 0, representing extremely low financial well-being, to 100, representing very high financial well-being.⁴

The FWB score is a relatively new measure, and research to date suggests that financial well-being is influenced by factors relating to respondents' assets and liabilities (CFPB, 2017b). That analysis also found systematic differences in responses between working-age adults (age 18-61) and older adults (age 62+). Additionally, meaningful differences are reported depending on whether the survey was self-administrated or whether questions were read to respondents, so the score adjusts for these differences (CFPB, 2017a). Nevertheless, though extensive analysis was conducted in designing the score, as yet little is known about the characteristics and financial behaviors contributing to financial well-being by sex and race/ethnicity.

Additional proxies for financial well-being

Given the relative novelty of the FWB score, we also use four additional variables from the NFCS to capture alternative metrics of well-being: financial dissatisfaction, financial anxiety, indebtedness, and financial fragility. We discuss each in turn.

Financial dissatisfaction is measured using responses to the following question: "Overall, thinking about your assets, debts, and savings, how satisfied are you with your current personal finance condition?" Financial dissatisfaction is a subjective measure related to each respondent's assets and liabilities; it is similar to the FWB score in that it assesses how respondents feel about their current situations. Responses are

³ Additional information regarding this score is available in Consumer Financial Protection Bureau (2017a).

⁴ "Do not know" or "prefer not to say" responses can be used to derive a score unless a respondent selects those answers to all five questions.

on a 10-point Likert scale, with 1 representing not at all satisfied and 10 representing extremely satisfied. Individuals who select 1, 2, or 3 are defined as being dissatisfied with their personal finances.

Financial anxiety is measured using responses to the following question: “Discussing my finances can make my heart race or make me feel stressed.” This is a subjective measure that can capture a more extreme condition than financial dissatisfaction, as people can be dissatisfied with their personal finances but not necessarily be anxious about their situations. Responses are on a 7-point Likert scale that goes from “strongly disagree” to “strongly agree.” Individuals who select 5, 6, or 7 are defined as being financially anxious.

Indebtedness is measured using responses to the following question: “I have too much debt right now.” This measure offers insight into the liability side of respondents’ balance sheets. While we cannot correlate feelings of indebtedness to actual debt levels using NFCS data, this measure provides insight into how feelings of indebtedness relate to financial well-being. Responses are on a 7-point Likert scale that goes from “strongly disagree” to “strongly agree.” Individuals who select 5, 6, or 7 are defined as indebted.

Financial fragility is measured using responses to this question: “How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?” Responses provide information about peoples’ ability to cope with an unexpected expense. The \$2,000 figure represents a typical mid-size shock, such as a medical expense or car repair. The one-month time frame allows for consideration of a variety of formal and informal financial resources that an individual might access to cover the expense; for example, taking money from a savings account, selling an asset, taking a loan from a bank, or borrowing money from a friend or family member. This measure was shown to be a good proxy for assessing households’ balance sheets. Respondents are given four answer choices: “I am certain I could come up with the full \$2,000,” “I could probably come up with \$2,000,” “I could probably not come up with \$2,000,” or “I am certain I could not come up with \$2,000.” Individuals who respond that they could certainly or probably not come up with \$2,000 are defined as financially fragile (Lusardi, Schneider, and Tufano, 2011).

These four proxies capture different aspects of an individual's financial condition, but all are reasonably strongly and negatively correlated with the FWB score (see Appendix A).⁵ Specifically, FWB and all of the four proxies have a correlation coefficient of at least -0.45. Financial dissatisfaction and indebtedness as well as anxiety are correlated at the +0.25 level or higher.

The dataset analyzed

The NFCS is a project supported by the FINRA Investor Education Foundation. The NFCS is a nationwide survey of approximately 27,000 adults, published every three years, providing unique information on how families manage their financial resources. These data are particularly useful in the present setting as they offer a rich set of information about individuals' financial situation, capability, and levels of financial knowledge. The 2018 NFCS also includes new questions regarding the quality of financial education, and responses to these questions are useful in understanding how financial education influences financial well-being. Additionally, the large number of observations permit research on population sub-groups such as those of interest here, Black and Hispanic women.

Our empirical analysis focuses on respondents from the 2018 National Financial Capability Study between the ages of 22 and 60. We exclude younger individuals because their FWB scores are more likely to reflect their parents' financial situations than their own. According to the 2018 NFCS, half of the respondents between the ages of 18 and 21 live with their parents, and this may cause their score to be inflated in comparison to other adults (NFCS, 2018). We also omit from analysis any older adults age 60+, as they are in a later life stage and their financial behaviors/needs are likely influenced by Social Security and retirement benefits.⁶

⁵ All four questions provide the option for respondents to select "do not know" or "prefer not to say."

⁶ Moreover, prior analysis suggested that older adults respond to well-being questions in a significantly different manner than younger individuals (CFPB, 2017a).

Our analysis sample was constructed by first calculating an FWB score for the NFCS dataset using the scoring software provided by the CFPB. We exclude observations that lacked an FWB score, reducing the sample by 314 observations. We then restricted the sample to those between 22 and 60 years of age, resulting in 17,868 observations. This sample is sufficiently large for detailed analyses of race/ethnicity and sex-specific sub-groups.

Empirical findings: Univariate results

To introduce the situation of women in the NFCS, we first compare their situations to those of men. Next, we turn to an analysis of Black, Hispanic, and White women.

Comparing financial well-being: Women vs. men

It is clear in the 2018 NFCS that women have lower educational attainment and significantly lower household incomes on average compared to men. Women are also more likely to have financially dependent children, be out of the labor force, and have much lower levels of financial knowledge (see Appendix Table B1). A comparison of average FWB scores also confirms that women average significantly lower scores than men (see Appendix Table B2). The CFPB uses a rubric to gauge the scores, with six categories ranging from “very low” to “very high.” Thus, the agency reports that individuals in the very low category (scores from 0 to 29) are more likely to experience financial hardship and have difficulty making ends meet. Individuals in the very high category (scores from 68 to 100) are more likely to have savings (CFPB, 2019).

A comparison of FWB scores for men and women shows that women are significantly more likely to be found in the very low and low categories, whereas men are more likely to be found in the high and very high categories. Therefore, though the average scores are relatively close, the shape of the FWB distributions by sex differ. To further understand the factors that contribute to financial well-being for vulnerable sub-groups, we next turn our attention to women.

Financial well-being among Black and Hispanic women

Table 1 reports the socio-demographic characteristics of Black, Hispanic, and White women in the NFCS, in our age group. Here we see that Black and Hispanic women are more likely to have lower household income, be single, and have financially dependent children. These characteristics are all negatively associated with financial well-being, and they indicate that Black and Hispanic women are more likely to face financial challenges preventing them from experiencing financial well-being (Lusardi, 2019).

Table 1. Demographic characteristics of women by race and ethnicity

	(1) White ^a	(2) Black ^b	(3) Hispanic
Age			
Age 22-31	22%	28% ^a	35% ^{ab}
Age 32-41	25%	24%	29% ^{ab}
Age 42-51	25%	24%	21% ^a
Age 52-60	28%	23% ^a	15% ^{ab}
Education			
HS or lower	33%	32%	30% ^a
Some college	39%	43% ^a	42%
Bachelor's degree or more	28%	25% ^a	28%
Income			
<\$25K	23%	36% ^a	27% ^{ab}
\$25-49K	27%	31% ^a	33% ^a
\$50-99K	34%	26% ^a	28% ^a
≥\$100K	17%	6% ^a	13% ^{ab}
Employment			
Full time, part time and self employed	61%	63%	62%
Unemployed or temp laid off	5%	10% ^a	8% ^a
Retired	5%	4% ^a	2% ^{ab}
Homemaker, full-time student, sick/disabled	30%	23% ^a	28% ^b
Has other job beside main employment	26%	30% ^a	30% ^a
Marital Status			
Married	57%	31% ^a	50% ^{ab}
Single	26%	55% ^a	36% ^{ab}
Divorced or Single	14%	11% ^a	12% ^a
Widowed/widower	3%	2%	2% ^a
Financially Dependent Children			
No children	52%	45% ^a	43% ^a
1 or 2 children	36%	40% ^a	43% ^a
3 or more children	12%	15% ^a	14% ^a
Observations	7002	1037	1120

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. ^a indicates statistically significant difference from White females and ^b indicates statistically significant from Black females at p<0.05.

Looking across the socio-demographic characteristics, we note some differences in the levels of educational attainment but large differences in income, marital status, and financially dependent children by race and ethnicity. Black women are less likely than White women to have a bachelor's degree or higher. Hispanic and White women report similar levels of educational attainment. These small differences are likely due to differences in age. Black and Hispanic women in our sample are significantly younger than White women. The young may be more likely to have higher educational attainment than older age groups, thus we do not see large gaps in educational attainment across race or ethnicity in our sample. While there are some differences in educational attainment across race and ethnicity, income is significantly lower for Black and Hispanic women. There are also significant differences by race and ethnicity when examining marital status and financially dependent children. Black women are most likely to be single (55%), while White women are least likely (26%); Hispanic women fall in between (36%). Although Black and Hispanic women report differences in marital status, they have similar distributions when it comes to financially dependent children. Both Black and Hispanic women are more likely than White women to have children. Only 36% of White women have one or two financially dependent children, compared to 40% of Black and 43% of Hispanic women.

Black and Hispanic women also differ from White women in terms of their financial situations and behaviors (Table 2). Black and Hispanic women are less likely than White women to own assets: Only 35% of Black and 41% of Hispanic women own homes, and only 48% of Black and 52% of Hispanic women have retirement accounts. By contrast, 57% of White women own homes and 60% have retirement accounts. Differences in asset holdings may be the result of numerous factors: For instance, Black and Hispanic women are more likely to be unmarried parents, making saving and homeownership more difficult. They also tend to have lower-wage employment with fewer benefits, including employer-sponsored retirement accounts, again making saving and asset accumulation more problematic.

Table 2. Assets and liabilities of women by race and ethnicity

	White ^a	Black ^b	Hispanic
ASSETS			
Has a checking or saving account	90%	86% ^a	87% ^a
Owns a home	57%	35% ^a	41% ^{ab}
Has a retirement account	60%	48% ^a	52% ^{ab}
Has other investments aside from a retirement account*	24%	20% ^a	16% ^a
LIABILITIES			
Has carried over a credit card balance and paid interest**	57%	67% ^a	57% ^b
Has an auto loan	39%	31% ^a	35% ^a
Has a student loan	30%	46% ^a	35% ^{ab}
Has a mortgage**	67%	60% ^a	71% ^{ab}
Has a home equity loan**	13%	16%	12%
Observations	7002	1037	1120

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. Observations vary by category, *Proportion conditional on having a checking or savings account, **Proportion conditional on having the related asset. ^a indicates statistically significant difference from White females and ^b indicates statistically significant from Black females at $p < 0.05$.

While Black and Hispanic women are less likely than White women to have assets, they are more likely to have student loan debt (Table 2). One-third of White women have student loan debt, compared to 35% of Hispanic and 46% of Black women. This is an interesting result, considering the groups' similar educational attainment levels. Nevertheless, Black women are less likely to have auto loans, and Hispanic women are more likely to have mortgages, compared to White women.

In addition to assets and debt, there are also notable differences in other financial patterns (Table 3). Black and Hispanic women are more likely than Whites to engage in costly borrowing behavior, including making only the minimum payment on their credit card, using alternative financial services, and taking a loan from their retirement accounts. Most notable are differences in credit card behavior and the use of alternative financial services (AFS). About half of White women (49%) report at least one form of expensive credit card management behavior within the past year, including making only the minimum payment on their credit cards, being charged a late-payment fee, being charged an over-the-limit fee, or paying a fee for a cash advance. Such expensive credit card usage is even higher for Black (71%) and Hispanic (60%) women. Striking results are also seen in the use of alternative financial services such as

use of auto title loans, payday loans, pawn shops, or rent-to-own stores. Among White women, 28% report having used at least one of these alternative financial services in the five years prior to the survey, compared to 48% of Black and 37% of Hispanic women.

Table 3. Financial behaviors of females by race and ethnicity

	White ^a	Black ^b	Hispanic
SHORT-TERM BEHAVIOR			
Checking account management (in the past year)			
Occasionally overdraw checking account*	22%	31% ^a	24% ^b
Credit card management (in the past year)			
Has made only the minimum payment*	44%	64% ^a	53% ^a _b
Was charged a fee for late payment*	18%	33% ^a	23% ^{ab}
Was charged an over-the-limit fee*	8%	20% ^a	11% ^b
Was charged a fee for a cash advance*	9%	22% ^a	12% ^{ab}
Demonstrated at least one expensive behavior*	49%	71% ^a	60% ^a _b
Unpaid medical bills (currently)			
Has unpaid (past due) medical bills	31%	37% ^a	33% ^b
Use of alternative financial services (AFS) (in the past 5 years)			
Took out an auto title loan	9%	16% ^a	11% ^a _b
Took out a payday loan	11%	26% ^a	16% ^{ab}
Used a pawn shop	17%	29% ^a	23% ^a _b
Used a rent-to-own store	10%	22% ^a	12% ^b
Used at least one form of AFS	28%	48% ^a	37% ^a _b
LONG-TERM BEHAVIOR			
Retirement account (in the past year)			
Took a loan from their retirement account*	10%	20% ^a	14% ^{ab}
Made a hardship withdrawal from their retirement account*	5%	19% ^a	7% ^b
Made some form of withdrawal*	12%	26% ^a	16% ^b
Observations	7002	1037	1120

Note: Observations vary by category. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. The proportion of *Demonstrated at least one expensive behavior* represents those respondents that displayed at least one of the following behaviors in the 12 months prior to the survey: a) only made the minimum payment due on their credit card bill; b) made a late payment on their credit card bill; c) went over the credit limit set for their credit card; and d) required a cash advance on their credit card. The proportion of *Used at least one form of AFS* represents the percentage of respondents that used one of the following alternative financial services at least once in the five years prior to the survey: a) took out an auto title loan; b) took out payday loan; c) used a pawn shop; and d) used a rent-to-own store. The proportion *Made some form of withdrawal* represents the percentage of respondents with a retirement account that either took out a loan or made a hardship withdrawal from it in the 12 months prior to the survey. *Proportion conditional on having the related asset. ^a indicates statistically significant difference from White females and ^b indicates statistically significant from Black females at p<0.05.

Previous research shows that education and income are both positively associated with higher levels of financial well-being (CFPB, 2019). Additionally, being single and having financially dependent children has been shown to negatively influence financial well-being (Lusardi, 2019). Lower asset accumulation, the use of alternative financial services, and expensive credit card management are negatively associated with financial well-being for younger adults (Lusardi, 2019). Our analysis shows these relationships are consistent for women: Black, Hispanic, and White women who engage in expensive borrowing behaviors have significantly lower financial well-being scores than those who did not.⁷

Univariate analysis of Black and Hispanic women indicates that they face greater obstacles to achieving financial well-being compared to White women. They have lower incomes, are less likely to be married, and are more likely to have financially dependent children. Additionally, they are less likely to have assets, and they exhibit costly money management behavior at a higher rate. These characteristics are all associated with lower levels of financial well-being.

Financial literacy and financial education

While financial knowledge is an essential component of achieving short- and long-term goals and financial security, it appears that financial knowledge among Black and Hispanic women is strikingly low (see Table 4). Here we define individuals as financially literate if they can answer three basic financial literacy questions correctly covering understanding of inflation, interest compounding, and risk diversification. These three questions, known as the Big Three, are strong predictors of financial literacy (Lusardi and Mitchell, 2014).

⁷ Analysis of financial well-being scores by assets, debt, and financial behavior for Black, Hispanic, and White women is available upon request.

Table 4. Financial literacy and financial education of women by race and ethnicity

		(1) White ^a	(2) Black ^b	(3) Hispanic
Financial Literacy				
Interest rate question	Correct	69%	60% ^a	65% ^{ab}
	Do not know	15%	20% ^a	19% ^a
Inflation question	Correct	47%	31% ^a	40% ^{ab}
	Do not know	29%	33% ^a	32% ^a
Risk diversification question	Correct	35%	25% ^a	27% ^a
	Do not know	56%	59%	63% ^a _b
Big Three questions correct (interest, risk, inflation)		21%	9% ^a	13% ^{ab}
Financial education				
Was offered financial education		24%	28% ^a	27% ^a
Participated in financial education [*]		74%	76%	71%
Received financial education in high school [*]		60%	48% ^a	54%
Received financial education in college ^{**}		56%	74% ^a	65% ^a
Received financial education from an employer [*]		28%	29%	26%
Received less than 10 hours of financial education [*]		33%	43% ^a	47% ^a
Observations		7002	1037	1120

Note: Observations vary by category. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. ^{*}Proportion conditional on having participated in financial education. ^{**}Proportion conditional on having participated in financial education and having an educational attainment of some college or more. ^a indicates statistically significant difference from White females and ^b indicates statistically significant from Black females at p<0.05.

Financial knowledge is quite low among White women, with only 21% displaying financial literacy; nevertheless, Black and Hispanic women have even lower literacy levels, with only 9% of Black and 13% of Hispanic women deemed financially literate. These low financial literacy levels are partly driven by many “do not know” responses; and compared to men, women are more likely to respond “do not know” to financial knowledge questions. This response indicates that women may lack confidence in their answers (Bucher-Koenen et al., 2016). Slightly over half of Black, Hispanic, and White women in our sample responded “do not know” to the question about risk diversification, indicating that most lack confidence in their answers to more complex questions. Of course, it may also indicate that they are aware of what they do not know.

This awareness of their lack of knowledge could spur participation in financial education programs and knowledge acquisition.

Table 4 also reports financial education offerings to women, showing whether respondents had been offered financial education in school or college, or in the workplace. Interestingly, more Black (28%) and Hispanic (27%) women have been offered such programs than White women (24%). Of course, this measure reflects what was offered but not necessarily whether the individuals partook; when we compare participation levels, they are quite similar, with 76% of Black, 71% of Hispanic, and 74% of White women participating in financial education. Unfortunately, then, the racial gap in financial knowledge persists despite people being offered and participating in the programs. To investigate why financial education seems to pay off less for Black and Hispanic women, we examine the quality of financial education received and find an important difference: Black and Hispanic women were more likely to be offered shorter (less than ten hours) financial education programs, whether through a high school, college, or employer, than White women. This is important because previous research showed that more rigorous financial education programs are more likely to significantly improve financial knowledge (Urban et al., 2015). While length is not a necessary element of quality education, longer programs provide more opportunity for students to learn, practice money management skills, and are more likely to result in meaningful improvements in financial knowledge.

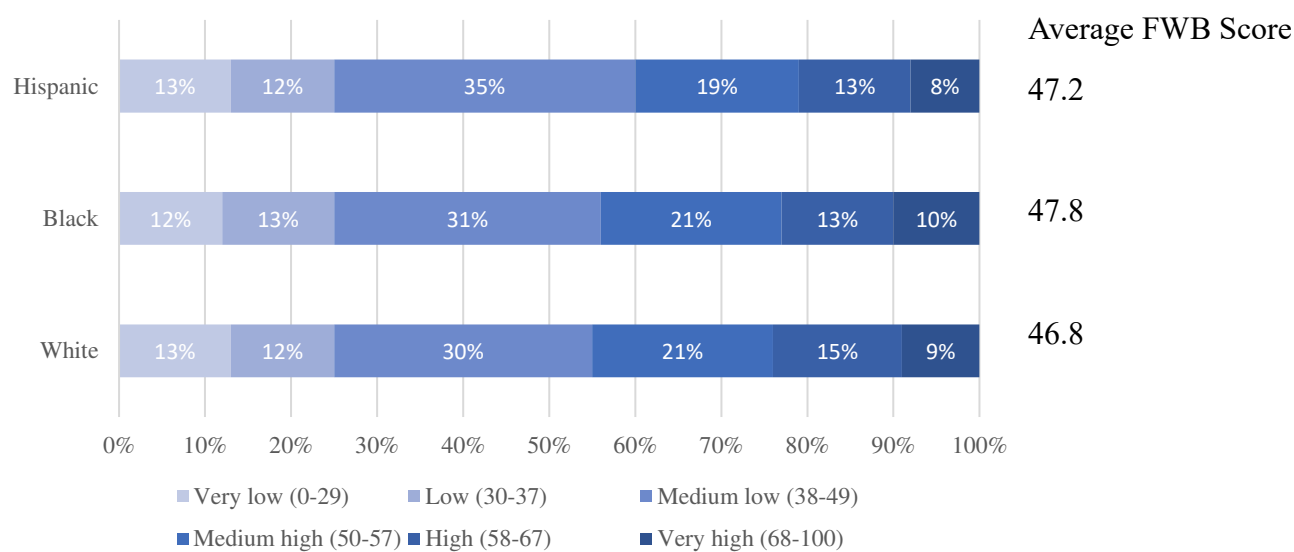
While financial education participation rates are high when that education is offered, it is important to note that few women overall had the opportunity to participate in financial education. In the United States, financial education tends to be offered in high school or college; fewer than one-third of Black, Hispanic, and White women were offered financial education from their employers. Evidently, employers have a unique opportunity to increase the availability of financial education and to improve their education or wellness programs, particularly for those who are economically vulnerable.

Black and Hispanic women are less likely to have assets than White women, which is positively associated to financial well-being. They are also more likely to exhibit costly

borrowing behaviors and have lower financial knowledge, both of which can negatively influence their financial well-being. These results indicate that Black and Hispanic women face a set of financial challenges that increase their likelihood of being economically vulnerable and make achieving financial well-being more difficult.

Nonetheless, and rather surprisingly, the average financial well-being scores across Black, Hispanic, and White women are quite similar (see Table 5). White and Hispanic women have an average score of 47 and the score for Black women is 48; moreover, the pattern of scores indicates a similar distribution across groups. Most women fall within the medium-low to medium-high categories; there is, however, a sizable portion who experience very low or low financial well-being scores. This result indicates that there are differences in how women perceive their financial situation, despite numerous measures indicating that Black and Hispanic women are economically vulnerable and face greater economic challenges. The financial well-being score is an inherently subjective measure. Thus, two objectively different individuals may have the same subjective financial well-being score due to differences in how they evaluate and perceive their financial situation. This measure may be influenced by myriad internal and external factors, including socioeconomic status, culture, and family background. We examine if there are systematic differences in the demographic factors that contribute to financial well-being by race and ethnicity. These differences help provide insights into why subjective financial well-being scores may not appear to differ across race and ethnicity, despite objective measures, such as borrowing behavior, indicating strong differences. Findings from this analysis also provide a foundation for future research to examine potential social and emotional factors that may play a determinate role in financial well-being.

Table 5. Financial well-being of women by race and ethnicity



Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. There are 7,002 observations for White women, 1,037 for Black women, and 1,120 for Hispanic women.

Empirical findings: Multivariate results

Thus far, we have shown that Black and Hispanic women face more financial challenges than do White women: They accumulate fewer assets, are more likely to engage in costly borrowing behavior, and are less likely to be financially literate. Nevertheless, above we also showed that average FWB scores do not differ significantly across race or ethnicity. If we assume financial situation and behavior have a similar influence on financial well-being for Black and Hispanic women, as it does for White women, then the average FWB scores do not appear to depict the additional financial challenges facing Black and Hispanic women. This result may be due to differences in how financial well-being is influenced across race/ethnicity. To gain a deeper understanding of this result, we next conduct multivariate analyses of the factors that contribute to financial well-being.

Factors that contribute to financial well-being

Table 6 provides multivariate regression results of the factors shaping financial well-being measures for Black, Hispanic, and White women. Factors that are consistently statistically

significant are income and marital status across all three groups. Not surprisingly, having higher income is positively associated while being single or divorced is negatively associated with financial well-being for all three sub-groups of women.

Table 6. Financial well-being of women by race and ethnicity

FWB score VARIABLES	White ^a	Black ^b	Hispanic
<i>Age (Omitted variable: 22-31)</i>			
32-41	-2.075*** (0.463)	-1.768 (1.246)	0.217 (0.998)
42-51	-1.743*** (0.481)	-0.977 (1.285)	1.110 (1.131)
52-60	-0.142 (0.509)	2.064 (1.364)	-0.103 (1.328)
<i>Education (Omitted variable: HS or less)</i>			
Some college	-1.172*** (0.371)	0.459 (1.077)	-0.248 (0.952)
Bachelor's degree or more	0.399 (0.449)	2.087 (1.336)	2.346** (1.147)
<i>Income</i>			
\$25-49K	3.595*** (0.455)	4.000*** (1.180)	1.270 (1.085)
\$50-99K	8.490*** (0.475)	5.820*** (1.295)	3.963*** (1.198)
\$100 and above	15.334*** (0.596)	9.885*** (2.154)	9.861*** (1.589)
<i>Marital Status (Omitted variable: Married)</i>			
Single	-2.239*** (0.422)	-4.104*** (1.082)	-4.300*** (0.973)
Divorced/Separated	-3.161*** (0.495)	-2.832* (1.579)	-5.619*** (1.379)
Widowed	-5.447*** (0.964)	-5.547* (3.050)	-9.101*** (3.227)
<i>Financially Dependent Children (Omitted variable: No Children)</i>			
1 or 2 children	-3.763*** (0.358)	-2.525** (1.010)	-0.229 (0.904)
3 or more children	-4.652*** (0.535)	-1.713 (1.391)	-1.794 (1.283)
<i>Employment (Omitted variable: Employed)</i>			
Unemployed	-5.248*** (0.766)	-0.404 ^a (1.603)	-1.932 (1.512)
Retired	4.157*** (0.752)	-2.527 (2.492)	13.508*** ^b (2.896)
Not in the labor force	-0.310 (0.368)	-0.912 (1.165)	-1.513 (0.945)

Table 6. Financial well-being of women by race and ethnicity (continued)

FWB score VARIABLES	White ^a	Black ^b	Hispanic
Financial Literacy			
One out of Big Three correct	0.102 (0.446)	1.558 (1.114)	0.660 (1.046)
Two out of Big Three correct	0.630 (0.461)	2.044 (1.267)	0.704 (1.127)
Three out of Big Three correct	3.423*** (0.515)	-1.774 ^a (1.750)	2.956** (1.446)
Constant	44.421*** (0.682)	47.279*** (1.863)	45.502*** (1.610)
Observations	7,002	1,037	1,120
R-squared	0.237	0.101	0.175

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. For *Some college*, the value of 1 is assigned to those that have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree). For *Bachelor's degree or more*, the value of 1 is assigned to those that have earned a four-year degree (i.e., a bachelor's degree) or higher. The variable *Financially Dependent Children* is based on the question: "How many children do you have who are financially dependent on you or your spouse/partner? Please include children not living at home, and step-children as well." The variable *Income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. ^a indicates statistically significant difference from White females, ^b indicates statistically significant difference from Black females at $p < 0.05$. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

There are also differential effects of educational attainment for Black, Hispanic, and White women. White women who attained some college education are less likely to score highly on the FWB index; Hispanic women with at least a bachelor's degree score higher; and there is no statistically significant relationship between educational attainment and financial well-being for Black women. We offer two explanations for these differing relationships. The first is the influence of student loan debt. Women with some college, which includes those who went to college but did not receive a degree as well as those who attained an associate degree, may have taken on student loan debt but not ended up with the same earnings potential as those who completed at least a bachelor's degree. As a result, they are likely to have lower incomes and might be struggling to make student loan payments and be concerned about their ability to fully repay the loans, a factor decreasing financial well-being (Lusardi, 2019). While student loan debt is also common among women with at least a bachelor's degree, the higher income that results from a bachelor's degree might lead to less difficulty with loan repayment. According to the NFCS, women with at least a bachelor's degree are more likely than those with some college

to have a student loan but are less likely to be concerned about repayment. Therefore, having student loan debt is likely to differently affect women of different educational attainment, with a more significant influence for those with some college due to greater repayment difficulties.

A second explanation for different relationships between educational attainment and financial well-being among Black, Hispanic, and White women relates to different perceptions about and experiences of the benefits of higher education for one's financial situation. Women who perceive higher education as beneficial to their financial situations may feel positive about that education regardless of having student loans. According to the 2018 Financial Wellness Census, Hispanics had greater confidence in their ability to reach financial goals despite having a lower likelihood of owning financial products (Prudential, 2018), so better-educated Hispanics have a more positive perception of education and score higher on the FWB metric. Black women may experience lower returns on an investment in education and so they have a less-positive perception of its benefits. Additionally, Black women may not be as optimistic about the benefits of education since they tend to be more likely to have low incomes and come from lower socioeconomic family backgrounds do than Whites (Yoong et al., 2019).

Family structure also influences the financial well-being of Black, Hispanic, and White women in different ways. Table 1 showed that Black and Hispanic women are more likely to have financially dependent children, a result consistent with other datasets that show that family size and number of dependent children varies significantly by race/ethnicity. According to the 2019 Current Population Survey, average family size in the United States is largest among Hispanic households and smallest among non-Hispanic White households (CPS, 2019). Interestingly, though White women are less likely to have financially dependent children, Table 6 indicates that children are negatively associated with White women's financial well-being. There is a weaker relationship between financial well-being and having financially dependent children for Black and Hispanic women.

Two explanations for this negative relationship between children and financial well-being may be of interest. First, having children may incentivize some parents to save for child-rearing

expenses, particularly higher education. To do so, parents must lower or limit consumption, which is likely to reduce their financial well-being. But in some cultures, if parents instead expect that children will provide for them in retirement (Yoong et al., 2019), financial well-being would not be impacted. The negative correlation between financially dependent children and financial well-being for White women suggests that White women tend to be more heavily influenced by the first pathway. The lack of significant correlation between financially dependent children and financial well-being for Black and Hispanic women suggests they tend to be more influenced by the second pathway.

Differences in family support networks might also lead to dissimilarities in the relationship between having children and financial well-being. Family relationships can often provide financial support for basic needs or unexpected expenses, thus positively influence financial well-being. Family support, for example in the form of child care and transportation, can also provide essential services at lower-than-market cost (Scholz and Levine, 2003); again, such support could allow for greater financial well-being. While little research has examined differences in family support networks among White, Black, and Hispanic families, there is some evidence showing that Blacks and Hispanics are more likely than Whites to prioritize helping others financially and providing financial support to extended families (O'Brien, 2012; Prudential, 2018).

Employment also shapes FWB across the sub-groups in distinct ways. For White women, unemployment is negatively associated with FWB, consistent with expectations, yet there is no significant relationship for Black or Hispanic women. One possible explanation is that having a job has less of a positive effect on FWB for Black and Hispanic women. That is, even when they are working, Blacks and Hispanics have less access to employer-sponsored benefits including healthcare coverage and paid time off (Gould and Wilson, 2020; Gould, Perez, and Wilson, 2020). As a result, these groups may not experience large increases in their financial well-being from employment.

Univariate evidence of this can be found by comparing average FWB scores of employed and unemployed respondents. The average FWB score for White employed women is 48 and 38

for unemployed White women, for a significant difference of 10 points. Among Black women, the FWB score difference is only 4 points, with a score of 49 for those with jobs and 45 for those who are unemployed. Similarly, for Hispanic women, the FWB score difference is only 6, due to a score of 48 for those with jobs and 42 for the unemployed. In sum, unemployment appears to have a more detrimental effect on FWB for Whites than for Black or Hispanic women. Family support networks may also contribute to this difference, as stronger support networks could offset negative effects of unemployment.

Levels of financial literacy differ across Black, Hispanic, and White women; we also find that financial literacy shapes their financial well-being differently. We use three variables to measure financial literacy. The first is an indicator of very elementary financial knowledge and is defined by the ability to correctly answer one of three basic financial literacy questions. The second is an indicator of slightly more advanced knowledge, defined by the ability to correctly answer two out of three basic financial literacy questions. The third variable is an indicator of sound financial knowledge, or basic financial literacy, and is defined by the ability to correctly answer all three questions.

Results in Table 6 show that, of the three measures, only the third is significantly positively correlated with financial well-being for White and Hispanic women. There is a negative relationship for Black women, perhaps because they face systemic financial challenges: fewer financial resources, less access to employer-sponsored benefits, and greater income volatility (Hamilton, 2017). Even if they understand the predatory nature of alternative financial services, they may lack access to traditional avenues of credit due to low credit scores, minimum account balance requirements, or fees associated with traditional financial institutions (Yoong et al., 2019). This may also be true of Hispanic women but to a lesser extent, where financial literacy can still have a positive influence on financial well-being.

Factors that contribute to proxies for financial well-being

To gain greater insights into the sets of factors that contribute to FWB among Black and Hispanic women, we also analyze four variables which serve as proxies for financial well-being: *financial dissatisfaction*, *financial anxiety*, *indebtedness*, and *financial fragility*. The first two variables are subjective measures that relate to both assets and liabilities, as they indicate how respondents perceive their own financial situations. Though they are similar, the financial anxiety measure captures a more extreme condition in relation to one's financial situation, indicating whether thinking about or discussing personal finances makes a respondent's heart race or generates stress. The third captures the liability side of the individual balance sheet, measuring whether respondents feel they have too much debt. The fourth captures both sides of the balance sheet, assets and liabilities, by indicating whether respondents believe they have the capacity to cope with an unexpected expense.

Descriptive statistics on these proxies for Black, Hispanic, and White women appear in Table 7. On average, Black women are more financially dissatisfied than are White and Hispanic women, yet Black women are the least likely to be financially anxious. Hispanic women report financial dissatisfaction at a rate similar to that of White women, but they are significantly more likely to be financially anxious. This suggests that personal finances are viewed differently by Black and Hispanic women. We find no significant differences in terms of indebtedness across women, but we do note that holding debt is pervasive. Just under half of Black (49%), Hispanic (47%), and White (48%) women report feeling they have too much debt. Financial fragility is also prevalent with 40% of White women, 44% of Hispanic women, and 49% of Black women considered financially fragile. These results indicate that Black and Hispanic women are more likely than White women to face financial challenges due to financial fragility, yet the satisfaction and anxiety findings indicate that the factors contributing to FWB differ across race and ethnicity, similar to some of the earlier findings using the CFPB measure of well-being.

Table 7. Proxies for financial well-being of women by race and ethnicity

	White ^a	Black ^b	Hispanic
Financial dissatisfaction	34%	41% ^a	35% ^b
Financial anxiety	57%	48% ^a	61% ^{ab}
Indebtedness	48%	49%	47%
Financial fragility	40%	49% ^a	44% ^{ab}
Observations	7002	1037	1120

Note: The number of observations vary by category. All data from the 2018 NFCS dataset. Sample restricted to females age 22-60 who have a calculated financial well-being score; data are weighted. ^a indicates statistically significant difference from White females, ^b indicates statistically significant difference from Black females at $p < 0.05$. Financial fragility represents the population that said they either probably could not or are certain they could not come up with \$2,000 if an unexpected need arose within the next month, indebtedness represents the population that report they have too much debt, financial anxiety represents the population that say discussing their finances can make their heart race or make them feel stressed, financial dissatisfaction represents the population that report they are not satisfied with their current personal finance condition.

Tables 8-10 report findings from separate regressions on each of the four proxies for financial well-being. In each of these, education, family structure, employment, and financial literacy have effects similar to results found in the FWB models reported in Table 6. These regression results show that education again has differential influences by subgroup, which may be the result of the ability to make student loan debt payments and differing experiences of the benefits of higher education. Education is positively associated with financial dissatisfaction and anxiety for White women; this is likely driven by student loan debt, as education is positively correlated with indebtedness. Education is negatively correlated to financial fragility for White and Hispanic women, but not for Black women. Thus, Black women may not experience the same benefits of higher education.

Table 8. Women's financial dissatisfaction and anxiety, by race and ethnicity

VARIABLES	White ^a		Black ^b		Hispanic	
	Dissatis- faction	Financial anxiety	Dissatis- faction	Financial anxiety	Dissatis- faction	Financial anxiety
<i>Age (Omitted variable: 22-31)</i>						
32-41	0.067*** (0.016)	0.003 (0.017)	0.036 (0.042)	-0.014 (0.044)	0.034 (0.035)	0.007 (0.037)
42-51	0.067*** (0.017)	-0.036** (0.018)	0.089** (0.043)	-0.010 (0.045)	-0.033 (0.039)	-0.069 (0.042)
52-60	0.020 (0.018)	-0.045** (0.019)	-0.016 (0.046)	-0.148*** (0.048)	0.015 (0.046)	-0.039 (0.049)
<i>Education (Omitted variable: HS or less)</i>						
Some college	0.059*** (0.013)	0.064*** (0.014)	0.059 (0.036)	-0.016 (0.038)	-0.007 (0.033)	0.035 (0.035)
Bachelor's degree or more	0.009 (0.016)	0.073*** (0.017)	-0.016 (0.045)	0.003 (0.047)	-0.032 (0.040)	-0.008 (0.043)
<i>Income</i>						
\$25-49K	-0.093*** (0.016)	-0.026 (0.017)	-0.122*** (0.040)	-0.076* (0.041)	-0.025 (0.038)	-0.084** (0.040)
\$50-99K	-0.229*** (0.017)	-0.067*** (0.018)	-0.172*** (0.044)	-0.050 (0.045)	-0.069* (0.042)	-0.122*** (0.044)
\$100 and above	-0.350*** (0.021)	-0.202*** (0.022)	-0.287*** (0.073)	-0.117 (0.075)	-0.210*** (0.055)	-0.244*** (0.059)
<i>Marital Status (Omitted variable: Married)</i>						
Single	0.057*** (0.015)	0.055*** (0.016)	0.112*** (0.036)	0.023 (0.038)	0.126*** (0.034)	0.025 (0.036)
Divorced/Separated	0.129*** (0.017)	0.070*** (0.019)	0.062 (0.053)	-0.005 (0.055)	0.320*** (0.048)	0.037 (0.051)
Widowed	0.076** (0.033)	0.078** (0.036)	0.188* (0.103)	0.028 (0.107)	0.114 (0.112)	0.211* (0.120)
<i>Financially Dependent Children (Omitted variable: No Children)</i>						
1 or 2 children	0.044*** (0.012)	0.101*** (0.014)	0.061* (0.034)	0.055 (0.035)	-0.020 (0.031)	-0.010 (0.034)
3 or more children	0.048** (0.019)	0.091*** (0.020)	0.012 (0.047)	-0.016 (0.049)	-0.027 (0.045)	0.002 (0.048)
<i>Employment (Omitted variable: Employed)</i>						
Unemployed	0.180*** (0.027)	0.070** (0.029)	0.091* (0.054)	0.063 (0.056)	0.227*** (0.052)	0.020 (0.056)
Retired	-0.075*** (0.026)	-0.067** (0.028)	-0.004 (0.084)	-0.131 (0.087)	-0.201** (0.100)	-0.403*** (0.107)
Not in the labor force	0.028** (0.013)	0.006 (0.014)	0.078** (0.039)	-0.064 (0.041)	0.158*** (0.033)	-0.006 (0.035)

Table 8. Women's financial dissatisfaction and anxiety, by race and ethnicity (continued)

VARIABLES	White ^a		Black ^b		Hispanic	
	Dissatis- faction	Financial anxiety	Dissatis- faction	Financial anxiety	Dissatis- faction	Financial anxiety
Financial Literacy						
One out of Big Three correct	-0.007 (0.016)	-0.012 (0.017)	0.018 (0.037)	0.009 (0.039)	0.050 (0.036)	0.024 (0.039)
Two out of Big Three correct	0.009 (0.016)	-0.000 (0.017)	0.045 (0.043)	-0.006 (0.044)	0.028 (0.039)	0.038 (0.042)
Three out of Big Three correct	-0.022 (0.018)	-0.082*** (0.019)	0.140** (0.059)	0.008 (0.061)	0.046 (0.050)	0.001 (0.054)
Constant	0.372*** (0.024)	0.552*** (0.026)	0.302*** (0.063)	0.548*** (0.065)	0.249*** (0.056)	0.683*** (0.060)
Observations	7,002	7,002	1,037	1,037	1,120	1,120
R-squared	0.122	0.054	0.078	0.036	0.141	0.057

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. The dependent variable *Financial Dissatisfaction* is based on the question: "Overall, thinking about your assets, debts, and savings, how satisfied are you with your current personal finance condition?" It takes the value of 1 if individuals respond 1-3 on a 10-point Likert scale. The dependent variable *Financial Anxiety* is based on the question "Discussing my finances can make my heart race or make me feel stressed." It takes the value of 1 if individuals respond 5-7 on a 7-point Likert Scale. For *Some college*, the value of 1 is assigned to those that have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree). For *Bachelor's degree or more*, the value of 1 is assigned to those that have earned a four-year degree (i.e., a bachelor's degree) or higher. The variable *Financially Dependent Children* is based on the question: "How many children do you have who are financially dependent on you or your spouse/partner? Please include children not living at home, and step-children as well." The variable *Income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. ^a indicates statistically significant difference from White females, ^b indicates statistically significant difference from Black females at p<0.05. Robust standard errors in parentheses. *** p<0.01, **p<0.05, *p<0.1.

Table 9. Women's indebtedness, by race and ethnicity

Indebtedness	(1)	(2)	(3)
VARIABLES	White ^a	Black ^b	Hispanic
<i>Age (Omitted variable: 22-31)</i>			
32-41	0.084*** (0.018)	0.054 (0.043)	-0.016 (0.038)
42-51	0.009 (0.018)	0.036 (0.045)	-0.115*** (0.043)
52-60	-0.050** (0.019)	-0.083* (0.047)	-0.040 (0.051)
<i>Education (Omitted variable: HS or less)</i>			
Some college	0.082*** (0.014)	0.118*** (0.037)	0.051 (0.036)
Bachelor's degree or more	0.043** (0.017)	0.146*** (0.046)	0.018 (0.044)
<i>Income</i>			
\$25-49K	0.000 (0.017)	-0.066 (0.041)	0.059 (0.042)
\$50-99K	-0.061*** (0.018)	-0.090** (0.045)	0.013 (0.046)
\$100 and above	-0.151*** (0.023)	-0.184** (0.075)	-0.077 (0.061)
<i>Marital Status (Omitted variable: Married)</i>			
Single	-0.002 (0.016)	0.010 (0.038)	0.070* (0.037)
Divorced/Separated	0.018 (0.019)	-0.059 (0.055)	0.088* (0.053)
Widowed	-0.048 (0.037)	-0.106 (0.106)	0.090 (0.123)
<i>Financially Dependent Children (Omitted variable: No Children)</i>			
1 or 2 children	0.088*** (0.014)	0.092*** (0.035)	0.015 (0.035)
3 or more children	0.082*** (0.020)	0.028 (0.048)	0.091* (0.049)
<i>Employment (Omitted variable: Employed)</i>			
Unemployed	0.000 (0.029)	-0.052 (0.056)	-0.034 (0.058)
Retired	-0.165*** (0.029)	-0.147* (0.086)	-0.284** (0.111)
Not in the labor force	-0.054*** (0.014)	-0.055 (0.040)	-0.045 (0.036)

Table 9. Women's indebtedness, by race and ethnicity (continued)

Indebtedness	(1)	(2)	(3)
VARIABLES	White ^a	Black ^b	Hispanic
Financial Literacy			
One out of Big Three correct	0.044*** (0.017)	0.041 (0.039)	0.097** (0.040)
Two out of Big Three correct	0.035** (0.018)	0.086* (0.044)	0.125*** (0.043)
Three out of Big Three correct	-0.006 (0.020)	0.101* (0.061)	0.122** (0.055)
Constant	0.435*** (0.026)	0.395*** (0.065)	0.339*** (0.062)
Observations	7,002	1,037	1,120
R-squared	0.054	0.055	0.041

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. The dependent variable *Indebtedness* is based on the question "I have too much debt right now." It takes the value of 1 if individuals respond 5 to 7 on a 7-point Likert scale. For *Some college*, the value of 1 is assigned to those that have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree). For *Bachelor's degree or more*, the value of 1 is assigned to those that have earned a four-year degree (i.e., a bachelor's degree) or higher. The variable *Financially Dependent Children* is based on the question: "How many children do you have who are financially dependent on you or your spouse/ partner? Please include children not living at home, and step-children as well." The variable *Income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. ^a indicates statistically significant difference from White females, ^b indicates statistically significant difference from Black females at p<0.05. Robust standard errors in parentheses. *** p<0.01, **p<0.05, *p<0.1

Table 10. Women's financial fragility, by race and ethnicity

Financial fragility	(1)	(2)	(3)
VARIABLES	White ^a	Black ^b	Hispanic
<i>Age (Omitted variable: 22-31)</i>			
32-41	0.050*** (0.016)	0.006 (0.041)	0.063* (0.035)
42-51	0.057*** (0.016)	0.072* (0.043)	0.029 (0.040)
52-60	-0.006 (0.017)	0.076* (0.045)	0.108** (0.047)
<i>Education (Omitted variable: HS or less)</i>			
Some college	0.008 (0.012)	-0.023 (0.036)	-0.031 (0.034)
Bachelor's degree or more	-0.095*** (0.015)	-0.006 (0.044)	-0.124*** (0.040)
<i>Income</i>			
\$25-49K	-0.147*** (0.015)	-0.128*** (0.039)	-0.073* (0.038)
\$50-99K	-0.356*** (0.016)	-0.279*** (0.043)	-0.175*** (0.042)
\$100 and above	-0.488*** (0.020)	-0.485*** (0.072)	-0.368*** (0.056)
<i>Marital Status (Omitted variable: Married)</i>			
Single	0.024* (0.014)	0.099*** (0.036)	0.163*** (0.034)
Divorced/Separated	0.081*** (0.017)	0.114** (0.052)	0.138*** (0.049)
Widowed	0.154*** (0.032)	0.096 (0.101)	0.148 (0.114)
<i>Financially Dependent Children (Omitted variable: No Children)</i>			
1 or 2 children	0.079*** (0.012)	0.023 (0.034)	-0.060* (0.032)
3 or more children	0.064*** (0.018)	0.027 (0.046)	0.050 (0.045)
<i>Employment (Omitted variable: Employed)</i>			
Unemployed	0.074*** (0.026)	0.096* (0.053)	0.012 (0.053)
Retired	-0.059** (0.025)	-0.110 (0.083)	-0.218** (0.102)
Not in the labor force	0.022* (0.012)	0.115*** (0.039)	0.059* (0.033)

Table 10. Women's financial fragility, by race and ethnicity (continued)

Financial fragility	(1)	(2)	(3)
VARIABLES	White ^a	Black ^b	Hispanic
Financial Literacy			
One out of Big Three correct	-0.044***	-0.013	-0.009
	(0.015)	(0.037)	(0.037)
Two out of Big Three correct	-0.064***	0.004	-0.028
	(0.015)	(0.042)	(0.040)
Three out of Big Three correct	-0.156***	-0.006	-0.152***
	(0.017)	(0.058)	(0.051)
Constant	0.641***	0.499***	0.522***
	(0.023)	(0.062)	(0.057)
Observations	7,002	1,037	1,120
R-squared	0.236	0.134	0.179

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. The dependent variable *Financial fragility* is based on the question: "How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?" The value is 1 if respondents answer they probably could not or certainly could not come up with \$2,000. For *Some college*, the value of 1 is assigned to those that have attended a post-secondary institution and earned, at most, a two-year degree (i.e., an associate degree). For *Bachelor's degree or more*, the value of 1 is assigned to those that have earned a four-year degree (i.e., a bachelor's degree) or higher. The variable *Financially Dependent Children* is based on the question: "How many children do you have who are financially dependent on you or your spouse/partner? Please include children not living at home, and step-children as well." The variable *Income* includes the total amount of a household's annual income, including wages, tips, investment income, public assistance, and income from retirement plans. ^a indicates statistically significant difference from White females, ^b indicates statistically significant difference from Black females at p<0.05. Robust standard errors in parentheses. *** p<0.01, **p<0.05, *p<0.1.

When considering family structure, the results again indicate that financially dependent children influence the financial well-being of White women more negatively than for Black or Hispanic women. Having financially dependent children is positively associated with financial dissatisfaction, financial anxiety, indebtedness, and financial fragility for White women. By contrast, overall, having dependent children is generally not a significant influencer of Black and Hispanic women's outcomes.

Also, as before, we find that unemployment has a differential influence on peoples' self-assessed outcomes. For White women, unemployment is again positively linked to financial dissatisfaction, anxiety, and fragility; by contrast, for Black and Hispanic women, unemployment is strongly correlated only with financial dissatisfaction. Thus, unemployment again is a less significant factor for Black and Hispanic women than for White women across the range of outcomes evaluated. As discussed above, this may be because the advantages of employment are lower for Black and Hispanic women compared to White women.

Finally, we evaluate the influence of financial literacy on the financial well-being proxies. Poor scores on these questions are not significantly related to reported dissatisfaction and financial anxiety for most groups, though top-scoring White women are less financially anxious if they answer all financial questions correctly. Interestingly, there is no significant link between financial anxiety and literacy for Hispanics or Blacks. Low scores are linked to more indebtedness for Black women, and even Hispanics and Blacks who answer all three questions correctly are more likely to be in debt. Finally, financial literacy has no significant impact on Blacks' financial fragility, controlling on other factors, whereas it is most beneficial for White and Hispanic women. This could be due to financial or social constraints not fully controlled for in our multivariate model. Accordingly, these results suggest that there is no "one size fits all" solution for all women in terms of financial education. In particular, women of color and particularly Black women may require more targeted interventions.

Conclusions and discussion

Results from our in-depth analysis of the financial well-being of underrepresented female minorities reveal significant differences in financial situations and money management behaviors across race and ethnicity. Compared to White women, Black and Hispanic women are less likely to have accumulated assets and more likely to exhibit costly borrowing behaviors, both of which are negatively associated with financial well-being and which are likely to make achieving greater financial well-being difficult.

There are also important differences in the factors that contribute to financial well-being for Black and Hispanic women. The effect that education has on financial well-being appears to differ, with student loan obligations decreasing it and positive perceptions about the opportunities afforded by higher education increasing it. White women appear to be more influenced by the former, while Black and Hispanic women may be more influenced by the latter, though to a lesser extent for Black women. Having financially dependent children is negatively correlated with financial well-being for White women but not for Black or Hispanic women. This could be due to differences in family support structures and differing expectations

about financial obligations within the family. Unemployment is not a significant factor shaping the financial well-being of Black and Hispanic women, perhaps because the benefits of employment may be lower than for White women. There is a positive association of financial literacy to financial well-being for White and, to a lesser extent, Hispanic women. The advantages bestowed by greater financial literacy may be less for Black and Hispanic women due to additional financial or other constraints.

We have added to the literature on how financial challenges and disadvantages of Black and Hispanic women contribute to their financial well-being, and we have compared results with those of White women. We conclude that a “one size fits all” approach is unlikely to address financial well-being deficits across the board, in view of the very different patterns we have uncovered by race and ethnicity. Instead, targeted programs are likely to better serve people who differ in terms of financial sophistication. Specifically, financial education programs and research must direct more attention to the specific needs of Black and Hispanic women in terms of their financial well-being. For example, a financial education curriculum can inform participants about the costs associated with alternative financial services or credit cards, but it will succeed better if it acknowledges the particular constraints facing Black and Hispanic women, such as access. Programs could be designed with the knowledge that Black and Hispanic women may have economic needs and perspectives about personal finance that differ from those of White women.

Retirement savings may not be a major consideration for people who expect to be supported in retirement by their adult children, but precautionary savings could be more important. Moreover, while Black and Hispanic women may share some disadvantages, each group has unique needs in certain areas. This analysis provides insight into how financial well-being may be influenced differently across race and ethnicity. It also provides a foundation for future research to examine how social, cultural, and economic factors may determine financial well-being by race/ethnicity.

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Appendices

Appendix Table A. Correlation matrix of financial well-being with proxies

	FW B	Financial dissatisfacti on	Financi al fragilit y	Indebtedness	Financi al anxiet y
FWB	1				
Financial dissatisfaction	-0.4583	1			
Financial fragility	-0.4917	0.0229	1		
Indebtedness	-0.4458	0.2764	0.2598	1	
Financial anxiety	-0.5198	0.2459	0.2585	0.3614	1

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. Financial fragility represents the population that said they either probably could not or are certain they could not come up with \$2,000 if an unexpected need arose within the next month, indebtedness represents the population that report they have too much debt, financial anxiety represents the population that say discussing their finances can make their heartrate or make them feel stressed, financial dissatisfaction represents the population that report they are not satisfied with their current personal finance condition.

Appendix Table B1. Socio-demographic characteristics of the sample

	Total Population	Male	Female ^a
Sex			
Female	0.51		
Age			
Age 22-31	0.27	0.27	0.26
Age 32-41	0.27	0.28 ^a	0.26
Age 42-51	0.23	0.23	0.23
Age 52-60	0.23	0.23	0.24
Education			
HS or lower	0.29	0.27 ^a	0.31
Some college	0.40	0.41	0.40
Bachelor's degree or more	0.31	0.33 ^a	0.29
Income			
<\$25K	0.23	0.20 ^a	0.25
\$25-49K	0.25	0.22 ^a	0.28
\$50-99K	0.25	0.22 ^a	0.28
>=\$100K	0.33	0.34 ^a	0.32
Marital Status			
Married	0.51	0.49 ^a	0.52
Single	0.37	0.41 ^a	0.33
Divorced or Single	0.11	0.09 ^a	0.13
Widowed/widower	0.02	0.01 ^a	0.02
Financially Dependent Children			
No children	0.52	0.56 ^a	0.49
1 or 2 children	0.37	0.35 ^a	0.38
3 or more children	0.11	0.09 ^a	0.13
Employment			
Full time, part time and self employed	0.70	0.79 ^a	0.62
Unemployed or temp laid off	0.06	0.06	0.06
Retired	0.04	0.05 ^a	0.04
Homemaker, full-time student, sick/disabled	0.19	0.10 ^a	0.28
Has other job beside main employment	0.30	0.33 ^a	0.27
Financial Literacy			
Big Three questions correct (interest, inflation, risk)	0.26	0.34 ^a	0.18
Total correct	2.87	3.17 ^a	2.58
Was offered financial education	0.31	0.36 ^a	0.26
Observations	17868	7775	10093

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. ^a indicates statistically significant difference from females at p<0.05.

Appendix Table B2. Distribution of financial well-being by sex

Financial Well-being		Male	Female ^a
Average FWB score	49	50 ^a	47
Very low (0-29)	0.11	0.09 ^a	0.13
Low (30-37)	0.11	0.10 ^a	0.12
Medium low (38-49)	0.31	0.30 ^a	0.31
Medium high (50-57)	0.21	0.21	0.21
High (58-67)	0.16	0.18 ^a	0.14
Very high (68-100)	0.11	0.12 ^a	0.09
Observations	17868	7775	10093

Note: All data from the 2018 NFCS dataset. Sample restricted to individuals age 22-60 who have a calculated financial well-being score; data are weighted. ^aindicates statistically significant difference from females at $p < 0.05$.

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