

# How is subjective financial (in)security related to household stress prevalence and intensity?

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## Abstract

Stress has a significant impact on health outcomes. And while the connection between health and wealth is well studied, the connection between financial security and stress is less studied.

We examine how self-reported financial security is related to reported stress across 11 household areas with survey evidence. We find subjective financial security is highly correlated to self-reported stress. Individuals reporting relatively lower financial security are significantly more likely to report stress and do so across more areas and with greater intensity. When controlling for financial security, there are limited stress differences between males and females on the extensive margin, with some differences in intensity. There are no significant financial security differences by age, but younger individuals are more likely to report stress with greater intensity. Differences across age groups may be explained by younger workers having greater lifecycle uncertainty compared to older workers. Household income has little explanatory power once controlling for financial security. Our results highlight the importance of subjective measures, and how subjective financial measures impact life in other domains, and the importance of benefit programs that promote financial security and stress management.

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## 1. Introduction

The interconnection between health and wealth is well established (Meer et al., 2003; Kim & Lyons, 2008), spawning a voluminous literature over the past two decades.<sup>1</sup> Health shocks also have large economic consequences affecting individuals' financial security (Michaud & van Soest, 2008; Dobkin et al., 2018; Babiarz & Yilmazer, 2017), and conversely, wealth differences are related to health and retirement outcomes (Bavafa et al., 2023). Unlike wealth and income, financial security is a broader measure of an individual's financial situation,<sup>2</sup> and can be an objective or subjective measure. Households across the income and wealth distribution can exhibit financial insecurity. And similar to the relationship between health and wealth, financial security is significantly related to health outcomes (Dilmaghani, 2017; Baumbach & Gulis, 2014; Karanikolos et al., 2016).

Stress is also connected to negative health outcomes (O'Connor et al., 2021) and is common in everyday life (Van der Klink et al., 2001), with downstream effects on economic preferences and decision-making (Haushofer & Salicath, 2023). However, the relationship between financial security and stress is less studied. Haushofer and Fehr (2014) document that poverty is related to psychological outcomes, stress, and economic preferences. But poverty is a specific objective income measure. Individuals across the income spectrum could feel less financially secure and greater stress from household balance sheet pressures or experience with economic shocks, such as unemployment (Malmendier & Shen, 2024) or recessions (Malmendier & Nagel, 2011).

In this paper, we examine the relationship between subjective financial security and stress on both the extensive and intensive margins. Specifically, we examine how the percentage of adults reporting stress across 11 household categories varies with self-reported financial security. The different categories reflect various aspects of daily life, incorporating work, work-life balance, finances and health dimensions. This allows us to examine if subjective financial security is not only related to stress in financial domains but also non-financial areas, such as stress with caregiving or physical health needs. We use data from the 2022 Employee

Benefit Research Institute (EBRI)/Greenwald Research Consumer Engagement in Health Care Survey (CEHCS), which elicited self-reported financial security and stress along with general demographic information.

We find individuals reporting lower financial security are 9% to 43% more likely to report stress. The largest marginal effects of financial security on stress are paying for long-term finances, everyday expenses, and medical care. Individuals with relatively low financial security report stress across two to three more areas and with greater intensity on average than individuals with relatively high financial security. Females are significantly more likely to report financial insecurity compared to males, even at higher income levels. While females are more likely to report higher stress levels across most household areas compared to males, these differences diminish significantly when controlling for financial security status. Household income has little to no significant impact on the likelihood of reporting stress or its intensity. This may seem counterintuitive but it could reflect differences in household balance sheets or labor market risk across income levels, and may not be dissimilar from the complicated relationship between income and happiness (Clark et al., 2008; Easterlin, 2001). Further research would need to examine if this result is robust to using objective financial security measures. While there are no significant differences in financial security reports by age, younger individuals are more likely to report stress and do so across more household categories with greater intensity. This could be because younger workers face greater uncertainty to future labor markets, household formation, and retirement than older workers and have less experience managing stress throughout life, even when controlling for self-reported financial security.

While these results are not causal, they add to the literature on financial security and stress. Given the impact of stress on physical health generally, and the subsequent relation of physical health and financial security, we view these results as important to highlight the need for new research on the relationship of stress, health, and household finance.

1 There is a large literature on the health-wealth connection, including causality (Adams et al., 2003; Michaud & von Soest, 2008), parental and child health impact (Currie, 2009), inequality (Hurd & Kapetyn, 2003), market changes (Schwandt, 2018), and lottery winnings (Cesarini et al., 2016), among others.

2 The Consumer Financial Protection Bureau (CFPB) defines financial security as a state where an individual "can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life." <https://www.consumerfinance.gov/consumer-tools/educator-tools/financial-well-being-resources/#:~:text=Financial%20well%20being%20describes%20a,allow%20them%20to%20enjoy%20life.> (Accessed Sep. 26, 2024.)

The results also demonstrate how subjective financial measures can affect other domains of life such as health, work-life balance, and caregiving. Moreover, because objective financial security measure has little correlation to life satisfaction (Chen and Wettstein 2025), better understanding subjective financial security can provide further insights into households’ wellbeing. Finally, as many Americans experience financial fragility (Lusardi et al., 2021), our results also speak to how employer benefits, guidance and programming on both health and wealth may be able to improve well-being.

We first discuss summary statistics of the survey respondents, then overview the relation between financial security in section 2. Section 3 examines stress reports on the extensive margin, followed by the intensive margin in section 4. We provide some discussion points in section 5.

## 2. Sample and summary statistics

We use data from the 2022 Consumer Engagement in Health Care Survey (CEHCS), a survey of adults conducted by the Employee Benefit Research Institute and Greenwald Research (EBRI, 2022). The survey was conducted online in 2022 with 2,015 Americans between the ages of 21 and 64 who have private health insurance. The survey asks participants various demographic questions and their current financial security. It also asks whether they experience stress across 11 areas of life, focusing on financial, health and work.

We report analysis on direct, unweighted responses.<sup>3</sup> Table 1 shows descriptive summary statistics of the respondent sample. Most survey respondents were women, college-educated, and employed full time. The sample is relatively well balanced by age, with a higher proportion of respondents being in the 55–64 age group. The median respondent earned between \$70,000 and \$99,999, and seven in 10 have a workplace retirement plan.

When reporting financial security status, 22.3% indicated they were *very secure*, 49.2% *somewhat secure*, 19.9% *not too secure*, and 8.5% *not at all secure*.<sup>4</sup> We group those reporting they are either very or somewhat secure as having relatively high financial security and record them as relatively low otherwise. Table 2 shows relative financial security status across select demographic measures. Individuals with at least a college degree or are in higher income households are also significantly more likely to report relatively high financial security status. We also see a large disparity between those with a workplace retirement plan and those without, a 19-percentage point (pp) gap in relatively financial security reports. Automatic enrollment and regular contributions to retirement accounts may reduce feelings of financial insecurity as individuals are able to see their account balance grow. This may be especially important because Chalmers et al. (2021) document that only 8% of individuals without a workplace retirement plan actively contribute to an Individual Retirement Account (IRA).

TABLE 1. RESPONDENT SAMPLE, SUMMARY STATISTICS

Respondent characteristics, percentages reported

Characteristic	%	Age Group	%	Income	%
Female	58.3	21-34	19.6	< \$30,000	7.0
Married	61.9	35-44	22.9	\$30,000 to \$39,999	7.2
Four-year degree or higher	54.3	45-54	21.5	\$40,000 to \$49,999	8.8
Work full-time	70.3	55-64	36.0	\$50,000 to \$69,999	15.8
Married	61.9	Race	%	\$70,000 to \$99,999	23.8
Workplace retirement plan	70.3	White	82.2	\$100,000 to \$149,999	22.2
Ethnicity	%	Black of African-American	8.8	\$150,000+	15.2
Hispanic	11.7	Asian or Pacific Islander	6.7		
Non-Hispanic	88.3	Other	2.3		

Source: Analysis of 2022 EBRI Consumer Engagement in Health Care Survey data (EBRI, 2022), unweighted data reported. Notes: N = 2,015 except for income, which is 1,997.

3 We use unweighted responses for statistical analysis when interpreting the results, and this report is not attempting to match responses to a specific population—for example, being nationally representative with respect to income or race.

4 The question was: “Overall, how financially secure do you feel?”

Financial security decreases significantly by income from 47% reporting relatively low financially security when earning less than \$50,000 to 15% among respondents earning more than \$100,000. There is no difference in financial security reports by age group. In each of the four age groups, between 69% to 73% of respondents report relatively high financial security. There’s also no difference for financial security by age for high- and low-income groups. Self-reported financial

security may be driven more by income than lifecycle differences across age groups. Women are significantly more likely (15 percentage points) than men to report having relatively low financial security. This is not driven by lower incomes, as females report relatively lower financially security at all income levels except for individuals earning less than \$50,000 as shown in Table 3.

TABLE 2. PERCENTAGE OF RESPONDENTS WITH RELATIVELY HIGH FINANCIAL SECURITY ACROSS SELECT DEMOGRAPHIC CHARACTERISTICS

Demographics	%		%
Male	80.4	Retirement plan	
Female	65.2	Yes	77.1
White	71.5	No	58.4
Non-white	71.6	Household income	
Age		Income 70K+	80.1
21 to 34	69.1	Income <70K	57.6
35 to 44	72.5	Education	
45 to 54	69.8	Four-year degree	69.5
55 to 64	73.2	Less than four-year degree	34.0

TABLE 3. PERCENT REPORTING RELATIVELY LOW FINANCIAL SECURITY BY SEX AND INCOME

Income	Male	Female
\$150K+	4.0**	10.1
\$100K–\$149K	14.2**	25.9
\$70K–\$99K	19.8***	33.0
\$50K–\$69K	25.6***	41.4
<\$50K	49.8	41.4

\*\*, \*\*\* indicates significance at the 5% and 1% levels, respectively

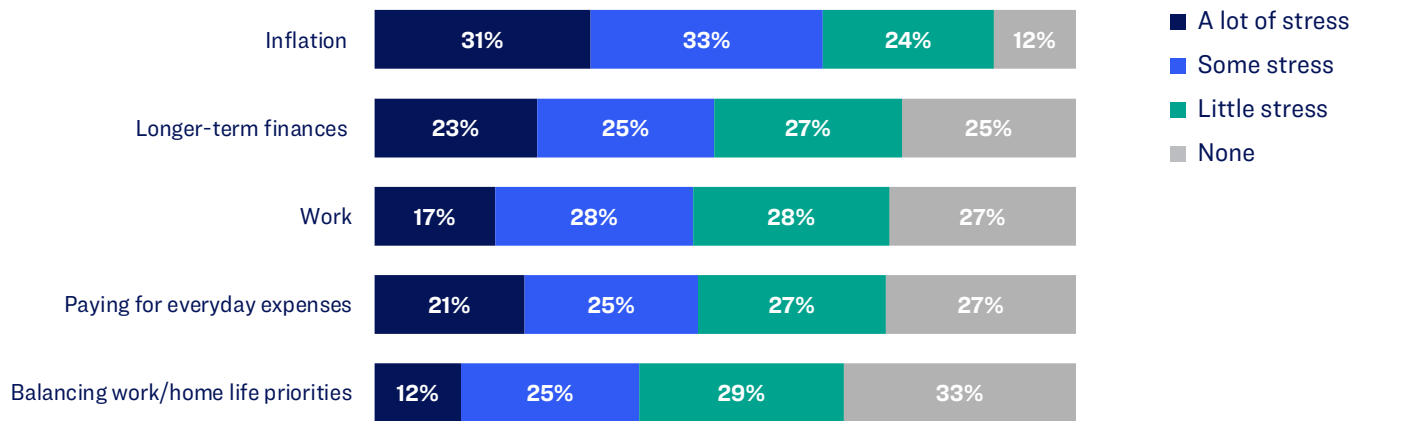
### 3. Household stress, the extensive margin

The 11 household stress categories are shown in Figure 1.<sup>5</sup> Categories surveyed included work, health, caregiving and finances. Respondents were asked, “Different people feel stress from different areas of their lives at different times. In the last year, how much stress have you experienced from each of these areas, if any?” Individuals could respond with the area that caused them a lot of stress, some stress, little stress, or none. We split stressors in Figure 1 into non-health financial and work areas in panel A and health areas in panel B and display the distribution of responses.

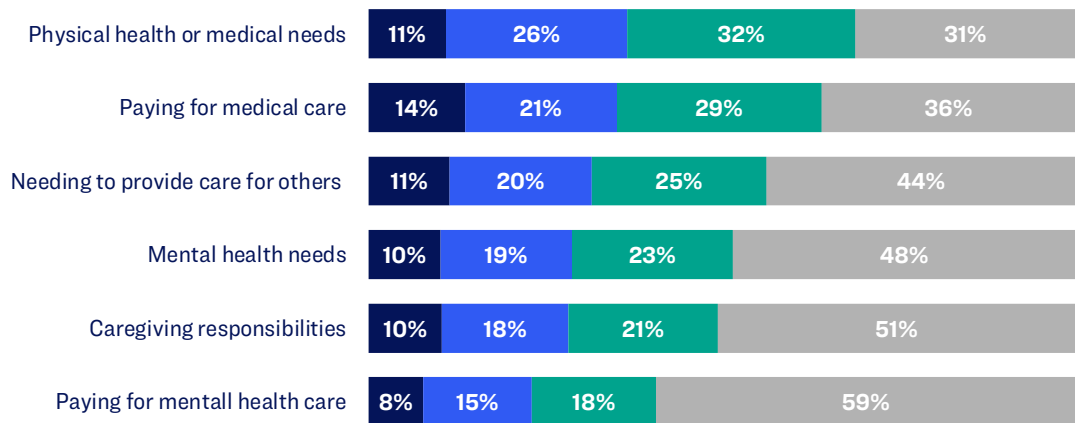
As EBRI (2023) reported, the top stress category was inflation, where 64% indicated some or a lot of stress, followed by long-term financial needs, where 58% indicated some or a lot of stress. Notably, the second-most stressful area in health is paying for medical needs, with 35% indicating some or a lot of stress. The bottom two categories were caregiving responsibilities and paying for mental health care. But the percentage indicating some or a lot of stress was still a substantial minority, 28% and 23%, respectively.

FIGURE 1. STRESS LEVEL BY CATEGORY

Panel A. Non-health financial and work stressors



Panel B. Health stressors



Notes: This information is also reported in EBRI (2023). Percentages differ from EBRI (2023) because they weight the responses compared with analyzing unweighted responses in this report.

5 We include responses to both caregiving and providing care because individuals perceptions of caregiving and providing care may differ depending on if they are providing childcare, eldercare, paying for care, or providing care themselves.

We report the percentage of respondents who report some or a lot of stress in each specified category by sex in Table 4. There are no categories where males report stress significantly more often, and females report significantly more stress in eight of the 11 areas. The top three areas of differences were longer-term finances where women were 14.4pp more likely to state some or a lot of stress, followed by everyday expenses (12.9pp) and inflation (10.7pp). But these extensive margin differences in stress reports diminish drastically when controlling for subjective financial security in Tables 6 and 8.

The percentage of workers indicating some or a lot of stress

in each category by age is shown in Table 5. Across each category, reported stress declines significantly by age after age 45. Inflation and longer-term finances are the top two stressors across each age group. Older individuals with more life experiences may report less stress over a similar situation due to having familiarity navigating related issues earlier in life. Greater stress in financial areas for younger individuals is expected as they are less established in their career and have not had as many years to accumulate assets. This group can also be more stressed due to caregiving or financing caregiving, especially if they’re “sandwich” caregivers (Lei et al., 2023) caregiving for both children and older relatives.

TABLE 4. PERCENTAGE OF WORKERS INDICATING SOME OR A LOT OF STRESS, BY SEX AND STRESS CATEGORY

	Males	Females
Non-health financial and work stressors		
Inflation	57.7	68.4***
Longer-term finances	40.0	54.4***
Work	44.2	46.4***
Paying for everyday expenses	38.6	51.4***
Balancing work/home life priorities	35.0	39.8
Health and health-financial stressors		
Physical health or medical needs	32.3	39.6***
Paying for medical care	29.9	38.9***
Needing to provide care for others	28.4	33.8***
Mental health needs	26.8	30.1**
Paying for mental health care	23.5	22.7
Caregiving responsibilities	25.6	30.2

\*\*, \*\*\* indicates significance at the 5% and 1% levels when testing across the full distribution, respectively.

3.1 Stress level by financial security status

Figure 2 displays the percentage of respondents indicating some or a lot of stress across each category by relative financial security status. Individuals indicating relatively low financial security are significantly more likely to report a lot or some stress, especially in financial domains. Among those reporting relatively high financial security, 35% and 32% indicate stress on longer-term and everyday finances, respectively. These percentages more than double to 83% and 81%, respectively, for individuals reporting low financial security. And while a majority (55%) of individuals with high financial security indicate stress on inflation, this jumps to 87% of individuals with low financial security who report stress in this category.

These significant and large differences extend to health areas in panel B but are lower in magnitude than in panel A, except for physical health needs, where the impact is large and similar to the three financial stressors discussed above. While significantly fewer respondents are stressed regarding caregiving responsibilities, we still find financial security has a significant impact on the likelihood to report stress in this category. This may seem counterintuitive because caregiving often has a large emotional or physical role—but, given the financial costs of caregiving (Skufca & Rainville, 2021) it is not surprising we find a significant relationship with financial security.

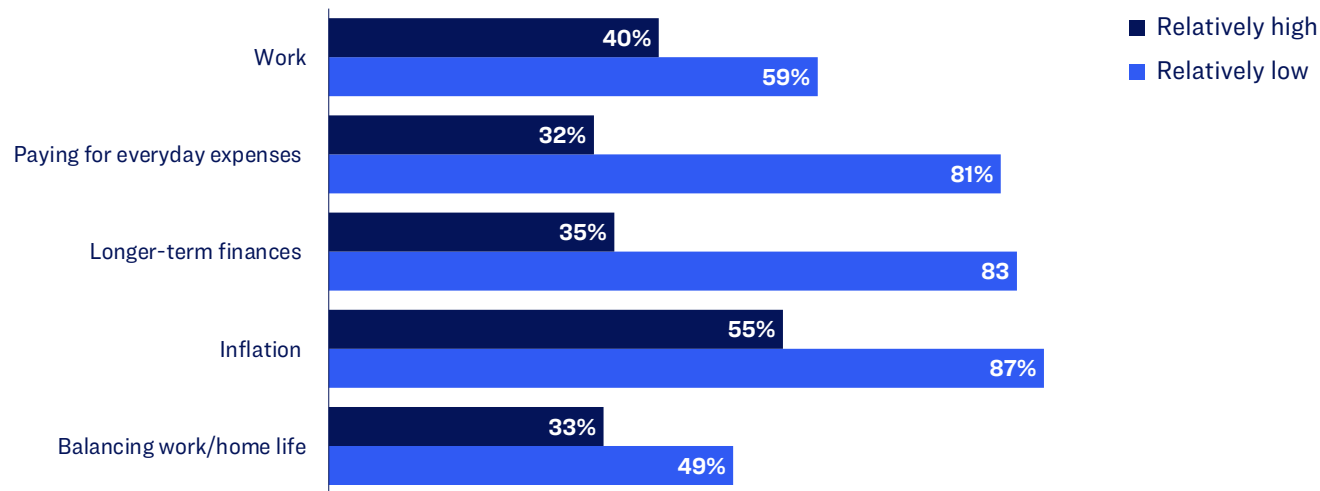
TABLE 5. PERCENTAGE OF WORKERS INDICATING SOME OR A LOT OF STRESS, BY AGE AND STRESS CATEGORY

	21 to 34	35 to 44	45 to 54	55 to 64
Non-health financial and work stressors				
Inflation	67.9	66.9	64.2	59.9**
Longer-term finances	62.5	55.6	46.2	37.5***
Work	58.5	56.2	44.3	32.1***
Paying for everyday expenses	58.7	55.8	43.4	34.6***
Balancing work/home life priorities	53.9	53.0	35.1	20.8***
Health and health-financial stressors				
Physical health or medical needs	46.3	44.2	33.0	28.6***
Paying for medical care	44.3	43.5	34.4	25.1***
Needing to provide care for others	44.8	43.7	31.0	16.8***
Mental health needs	47.6	40.7	25.4	12.8***
Paying for mental health care	38.2	36.8	18.7	8.7***
Caregiving responsibilities	41.0	40.5	25.9	14.9***

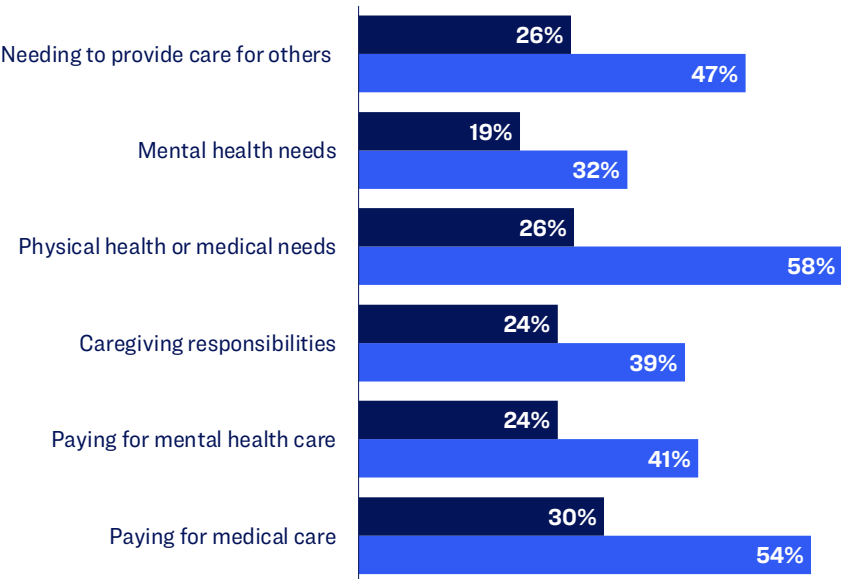
\*\*, \*\*\* indicates significance at the 5% and 1% levels, respectively

FIGURE 2. PERCENTAGE INDICATING SOME OR A LOT OF STRESS IN EACH CATEGORY BY RELATIVE FINANCIAL SECURITY STATUS

Panel A. Non-health financial and work stressors



Panel B. Health and health-financial stressors



In Table 6, we report stress incidence by sex across relative financial security status. The differences compared to Table 4 decrease substantially. Females with relatively high financial security are significantly more likely to report stress only in the three financial areas of inflation, longer-term finances and everyday expenses. We find no significant

differences on health stressors once controlling for financial security. Results are qualitatively similar when looking only at the proportion who report a lot of stress, which we show in Appendix Table A1. Subjective financial security appears to be a commonality with respect to stress incidence.

TABLE 6. PERCENTAGE OF WORKERS INDICATING SOME OR A LOT OF STRESS ACROSS HOUSEHOLD AREAS, BY SEX AND FINANCIAL SECURITY STATUS

	Low Financial Security		High Financial Security	
	Males	Females	Males	Females
Non-health financial and work stressors				
Inflation	84.8	87.3	51.1	58.3***
Longer-term finances	78.7	85.1	30.6	38.0***
Work	62.8	58.0	39.7	40.3
Paying for everyday expenses	72.2	83.4**	29.4	34.4**
Balancing work/home life priorities	47.0	49.6	32.1	34.5
Health and health-financial stressors				
Physical health or medical needs	49.4	56.2	28.1	30.7
Paying for medical care	51.2	61.1	24.7	27.1
Needing to provide care for others	42.1	48.4	25.1	26.0
Mental health needs	37.2	42.1	24.2	23.7
Paying for mental health care	34.2	31.3	21.0	18.2
Caregiving responsibilities	34.2	41.3	23.5	24.3

\*\*, \*\*\* indicates significance at the 5% and 1% levels when testing across the full distribution, respectively

Unlike Table 6, we find many significant differences by age when controlling for financial security status in Table 7. Across most categories, older workers are significantly less likely to report being stressed, both at low and high relatively financial security levels. Financial security does not appear to be a main common element for stress differences across age. Younger workers facing more lifecycle uncertainty may have greater stress than older workers who have less uncertainty with their remaining lifecycle. We do not know if this result is due driven by lifecycle or generational differences (or both). That is, we do not know if the current individuals 45 years and older would have reported similar stress levels 20 years ago to those of the current younger respondents.

We conduct linear probability model (LPM) regressions to estimate if individuals indicated a lot or some stress for each category. In addition to financial security, we control for mental health status, gender, age, education, race, working full-time, having a workplace retirement plan, and income. Coefficients are displayed along with standard errors in parentheses clustered at the individual level. Table 8 displays summary results showing if there's a significant impact on reporting a lot or some stress by category for our target control variables.

Financial security is a highly significant predictor for each stress category with marginal effect sizes ranging from

9% to more than 40%. The largest marginal effects are for longer-term finance and paying for everyday expenses, where individuals with high financial security are 43% less likely to report some or a lot of stress in both of those areas. However, as in Figure 2, financial security status is significantly related to reporting stress in health areas, but the marginal impact is generally higher for financial stressors than non-financial health stressors. This illustrates that financial insecurity not only affects stress in financial domains but also significantly related to greater stress incidence in domains outside of purely financial areas, such as work/home balance, and physical and mental health worries.

When examining our control variables, females are only significantly more likely to report stress in three areas at the 5% level. And there are no significant effects by sex for the health stress categories except for paying for mental health care for which males are significantly more likely to report stress. Following our Table 7 result, for each stress category estimate, individuals 45 and older are significantly less likely to report some or a lot of stress compared to workers under 35, with a marginal difference ranging from 7% to 31%. Income has limited explanatory power and has a significant effect only for workers earning more than \$150,000 in three categories.

**TABLE 7. PERCENTAGE OF WORKERS INDICATING SOME OR A LOT OF STRESS ACROSS HOUSEHOLD AREAS, BY AGE AND FINANCIAL SECURITY STATUS**

	Low Financial Security		High Financial Security	
	Under 45	45 and older	Under 45	45 and older
<b>Non-health financial and work stressors</b>				
Inflation	87.6	85.9	59.1	52.0***
Longer-term finances	84.3	82.5	48.4	24.5***
Work	66.3	53.9***	53.6	30.0
Paying for everyday expenses	83.9	79.4	46.2	21.7***
Balancing work/home life priorities	62.3	38.9***	49.8	21.3***
<b>Health and health-financial stressors</b>				
Physical health or medical needs	57.8	51.7	40.0	21.9***
Paying for medical care	60.2	56.6	37.2	17.7***
Needing to provide care for others	57.4	38.2***	38.8	15.9***
Mental health needs	55.0	29.9***	39.3	12.7***
Paying for mental health care	45.4	22.2***	34.2	8.6***
Caregiving responsibilities	49.0	31.7***	37.3	14.1***

\*\*, \*\*\* indicates significance at the 5% and 1% levels when testing across the full distribution, respectively

TABLE 8. REGRESSION ESTIMATES OF REPORTING SOME OR A LOT OF STRESS

	Work	Everyday expenses	Longer-term finances	Inflation	Balancing work/life	Paying for medical care
Relatively high financial security	-0.173*** (0.027)	-0.428*** (0.025)	-0.428*** (0.025)	-0.280*** (0.023)	-0.109*** (0.027)	-0.266*** (0.028)
Relatively high mental health	-0.103*** (0.024)	-0.069*** (0.023)	-0.124*** (0.024)	-0.096*** (0.024)	-0.125*** (0.024)	-0.093*** (0.024)
Female	0.040* (0.023)	0.048** (0.022)	0.060*** (0.022)	0.035 (0.023)	0.047** (0.023)	0.005 (0.022)
Married	-0.002 (0.027)	0.086*** (0.024)	0.044* (0.025)	0.081*** (0.025)	-0.010 (0.026)	0.049* (0.025)
Working full-time	0.276*** (0.026)	0.060** (0.024)	0.044* (0.026)	-0.015 (0.026)	0.166*** (0.026)	-0.022 (0.026)
Retirement plan	0.031 (0.026)	-0.028 (0.025)	-0.001 (0.025)	0.013 (0.026)	-0.004 (0.026)	-0.005 (0.026)
College+	0.029 (0.023)	-0.037* (0.023)	-0.017 (0.022)	0.012 (0.023)	-0.026 (0.023)	0.019 (0.023)
White	0.006 (0.029)	0.073*** (0.028)	0.063** (0.028)	0.075** (0.029)	-0.024 (0.030)	0.081*** (0.028)
<b>Household income (baseline=&lt;\$50,000)</b>						
\$50K–\$69K	0.003 (0.036)	-0.030 (0.035)	0.024 (0.035)	-0.022 (0.035)	0.007 (0.036)	-0.032 (0.037)
\$70K–\$99K	0.035 (0.034)	0.013 (0.033)	0.020 (0.033)	0.017 (0.032)	0.051 (0.034)	0.035 (0.035)
\$100K–\$149K	0.024 (0.038)	-0.056 (0.036)	-0.011 (0.035)	-0.032 (0.036)	0.034 (0.037)	-0.027 (0.037)
\$150K+	0.013 (0.042)	-0.095** (0.039)	-0.029 (0.040)	-0.094** (0.042)	0.069* (0.041)	-0.105*** (0.039)
<b>Age (baseline=&lt;35)</b>						
35–44	-0.016 (0.035)	-0.013 (0.033)	-0.051 (0.033)	-0.003 (0.032)	0.005 (0.035)	0.002 (0.035)
45–54	-0.131*** (0.035)	-0.161*** (0.033)	-0.173*** (0.033)	-0.038 (0.033)	-0.175*** (0.035)	-0.102*** (0.035)
55–64	-0.183*** (0.033)	-0.230*** (0.030)	-0.227*** (0.031)	-0.074** (0.031)	-0.265*** (0.033)	-0.192*** (0.032)
Constant	0.464*** (0.051)	0.810*** (0.047)	0.855*** (0.048)	0.810*** (0.048)	0.534*** (0.050)	0.613*** (0.050)

Notes: OLS regressions with reported coefficients and standard errors in parentheses clustered at the individual level. \*\*\*, \*\*, \* indicates significance at the 1%, 5%, and 10% level, respectively. N=1,813.

TABLE 8. REGRESSION ESTIMATES OF REPORTING SOME OR A LOT OF STRESS (CONTINUED)

	Paying for mental health care	Caregiving responsibilities	Physical health needs	Mental health needs	Providing care for others
Relatively high financial security	-0.090*** (0.025)	-0.128*** (0.027)	-0.185*** (0.028)	-0.092*** (0.025)	-0.178*** (0.027)
Relatively high mental health	-0.112*** (0.021)	-0.064*** (0.023)	-0.181*** (0.025)	-0.220*** (0.023)	-0.069*** (0.024)
Female	-0.047** (0.019)	0.010 (0.021)	-0.002 (0.022)	0.001 (0.020)	0.014 (0.022)
Married	0.032 (0.023)	0.022 (0.025)	0.003 (0.026)	-0.015 (0.024)	-0.000 (0.025)
Working full-time	0.011 (0.023)	-0.049** (0.025)	-0.050* (0.026)	0.038* (0.023)	-0.004 (0.025)
Retirement plan	-0.010 (0.023)	-0.043* (0.026)	0.014 (0.026)	0.029 (0.023)	-0.034 (0.026)
College+	0.022 (0.021)	-0.015 (0.022)	-0.005 (0.023)	0.023 (0.021)	-0.011 (0.023)
White	0.038 (0.026)	0.002 (0.028)	0.088*** (0.028)	0.071*** (0.026)	0.050* (0.028)
<b>Household income (baseline=&lt;\$50,000)</b>					
\$50K–\$69K	-0.043 (0.033)	0.001 (0.036)	-0.069* (0.037)	-0.077** (0.033)	-0.019 (0.036)
\$70K–\$99K	0.015 (0.031)	0.026 (0.033)	-0.010 (0.035)	-0.023 (0.032)	-0.007 (0.033)
\$100K–\$149K	-0.033 (0.033)	-0.004 (0.035)	0.004 (0.037)	-0.012 (0.034)	0.002 (0.035)
\$150K+	-0.053 (0.035)	0.056 (0.039)	-0.049 (0.040)	-0.040 (0.037)	0.013 (0.040)
<b>Age (baseline=&lt;35)</b>					
35–44	-0.004 (0.034)	-0.002 (0.035)	-0.007 (0.035)	-0.053 (0.034)	-0.005 (0.035)
45–54	-0.197*** (0.032)	-0.157*** (0.034)	-0.132*** (0.034)	-0.206*** (0.033)	-0.155*** (0.035)
55–64	-0.268*** (0.029)	-0.273*** (0.031)	-0.166*** (0.032)	-0.304*** (0.031)	-0.284*** (0.032)
Constant	0.484*** (0.046)	0.584*** (0.049)	0.666*** (0.049)	0.568*** (0.046)	0.606*** (0.049)

Notes: OLS regressions with reported coefficients and standard errors in parentheses clustered at the individual level. \*\*\*, \*\*, \* indicates significance at the 1%, 5%, and 10% level, respectively. N=1,813.

3.2 Number of stress areas

Do individuals who indicate lower mental health status and financial insecurity report stress in more areas? Given our result that financial security is related to an increase in reporting stress in each category, we might expect heightened stress in more areas among those with relatively low financial security. Overall, individuals reported some or a lot of stress in 4.2 of the 11 areas on average. Individuals with relatively low financial security reported stress in 6.3 areas on average, compared with 3.4 areas for individuals with relatively high financial security.

One possibility is that there are some individuals who are not stressed at all, and some who are stressed in many areas, which would present itself as a bimodal distribution in the number of categories respondents reported stress. Figure 3 displays histogram on the number of categories respondents report some or a lot of stress by relative financial security. We do not see evidence of a bimodal distribution.

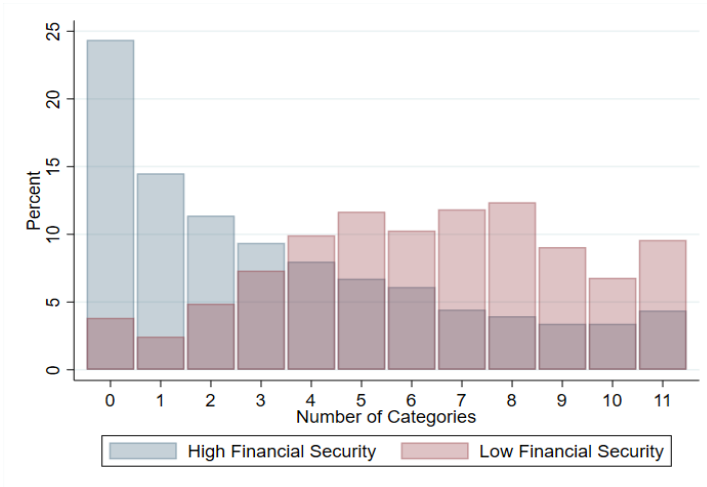
Table 9 provides regression estimates on the number of stress areas where individuals report some or a lot of stress. Estimates are from linear regressions with standard errors clustered at the individual level. Models 1 and 2 use relative financial security status, while model 3 examines all four responses. Individuals who report they have relatively high financial security are estimated to have reported stress in two to three fewer areas than individuals with low relative financial security, which translates to a 57% decrease from the mean. Those responding they were very secure are estimated to report stress in 3.4 fewer areas compared to those not at all secure.

Overall, males report stress in significantly fewer categories than females (3.8 compared to 4.6), but this is not significantly different when controlling for financial security

and our other controls in Table 9. There is a significant effect for age. Individuals under ages 45 to 54 report stress in 1.6 fewer categories than respondents under 35, which is 2.6 fewer categories for workers 55 to 64. Interestingly, the difference is not significant for workers 35 to 44. This difference along age 45 could indicate a shift in caregiving duties or labor income for individuals at the middle of their career generally. Finally, we find there is no significant impact of income in our regression models. Overall, this provides evidence that financial insecurity affects stress across many aspects of daily life.

Are there some common categories that respondents are more likely to report stress? And do these common categories differ by financial security? Examining correlations ( $\rho$ ) on the incidence of reporting stress correlations, we find that all categories are significantly positively correlated with each other (Appendix Table A2). The strongest correlations are for everyday expenses and longer-term finances ( $\rho=0.68$ ) and the two caregiving categories ( $\rho=0.64$ ). The weakest correlations are for the correlations between inflation and the caregiving and mental health areas ( $\rho<0.29$ ). The findings are similar when splitting the sample between relatively high and low relative financial security. However, for all but one pairing, the correlations decrease for the relatively low financial security subsample (Appendix Table A3). This could be because when someone with high financial security reports stress in one category they report stress in another similar category but not in other relatively dissimilar categories, as they report stress in fewer areas on average. But when the lower financial security group reports stress, they do so more broadly across both similar and dissimilar categories.

FIGURE 3. HISTOGRAM OF THE NUMBER OF CATEGORIES RESPONDENTS INDICATE SOME OR A LOT OF STRESS



## 4. Stress reports, the intensive margin

Thus far, we have only examined the percentage of respondents reporting stress in each category and the total number of categories in which they report stress. But financial security may also impact the intensity of stress reporting, i.e., moving from no stress to a little, or from some to a lot. To control for this, we employ ordered probit regressions, showing estimation results in Table 10 with standard errors reported clustered at the individual level with the same controls as Table 8. Financial security is significant for each area. Females are only more likely to report greater intensity of stress for work-life balance, inflation, and

everyday expenses. There is no significant effect for the health areas, except that males are significantly more likely to have an elevated response in paying for mental health. The impact of age follows our earlier results as with income. The exception is for those with household incomes more than \$100,000—they are less likely to have elevated responses about paying for everyday expenses at the intensive margin. Respondents with incomes more than \$150,000 are also less worried at the intensive margin about paying for physical or mental health care.

**TABLE 9. ESTIMATES ON THE NUMBER OF STRESS CATEGORIES**

	(1)		(2)		(3)	
Relatively high financial security	-2.876***	(0.151)	-2.356***	(0.165)		
<b>Financial security: Not at all secure (= baseline)</b>						
Not too secure					-0.959***	(0.266)
Somewhat secure					-2.965***	(0.253)
Very secure					-3.432***	(0.292)
Relatively high mental health			-1.255***	(0.155)	-1.158***	(0.155)
Female			0.211	(0.148)	0.177	(0.148)
Married			0.289*	(0.165)	0.290*	(0.164)
Work full-time			0.455***	(0.163)	0.442***	(0.162)
Retirement plan			-0.038	(0.166)	-0.032	(0.165)
College+			-0.007	(0.148)	0.004	(0.147)
White			0.523***	(0.198)	0.526***	(0.197)
<b>Household income (baseline=&lt;\$50,000)</b>						
\$50K–\$69K			-0.257	(0.233)	-0.212	(0.234)
\$70K–\$99K			0.173	(0.221)	0.210	(0.220)
\$100K–\$149K			-0.112	(0.238)	-0.034	(0.237)
\$150K+			-0.316	(0.274)	-0.181	(0.276)
<b>Age (baseline=&lt;35)</b>						
35–44			-0.146	(0.241)	-0.177	(0.240)
45–54			-1.630***	(0.232)	-1.698***	(0.231)
55–64			-2.467***	(0.209)	-2.524***	(0.208)
Constant	6.307***	(0.124)	6.994***	(0.333)	7.677***	(0.373)
N	2015		1813		1813	
R <sup>2</sup>	0.14		0.28		0.29	
Mean	4.3		4.3		4.3	

Notes: OLS regressions with reported coefficients and standard errors in parentheses clustered at the individual level. \*\*\* indicates significance at the 1% level.

TABLE 10. ORDERED PROBIT REGRESSION ESTIMATES ACROSS HOUSEHOLD CATEGORIES

	Work	Everyday expenses	Longer-term finances	Inflation	Balancing work/life	Paying for medical care
Relatively high financial security	-0.779*** (0.116)	-2.228*** (0.124)	-2.127*** (0.125)	-1.707*** (0.119)	-0.623*** (0.111)	-1.075*** (0.113)
Relatively high mental health	-0.506*** (0.096)	-0.386*** (0.095)	-0.613*** (0.095)	-0.490*** (0.096)	-0.591*** (0.096)	-0.498*** (0.095)
Female	0.257*** (0.092)	0.195** (0.092)	0.245*** (0.092)	0.228** (0.093)	0.233** (0.092)	-0.014 (0.092)
Married	-0.112 (0.108)	0.512*** (0.107)	0.372*** (0.110)	0.332*** (0.107)	0.042 (0.106)	0.284*** (0.110)
Retirement plan	0.198* (0.111)	-0.091 (0.108)	0.046 (0.109)	0.082 (0.108)	-0.097 (0.109)	-0.014 (0.109)
Work full-time	1.729*** (0.132)	0.279*** (0.108)	0.319*** (0.114)	-0.105 (0.110)	1.131*** (0.123)	-0.043 (0.109)
College+	0.068 (0.095)	-0.081 (0.096)	-0.076 (0.096)	0.039 (0.096)	-0.069 (0.097)	0.008 (0.093)
White	0.099 (0.115)	0.326*** (0.124)	0.324*** (0.126)	0.362*** (0.116)	-0.111 (0.118)	0.356*** (0.124)
<b>Household income (baseline=&lt;\$50,000)</b>						
\$50K–\$69K	-0.097 (0.148)	-0.343** (0.147)	-0.037 (0.146)	-0.134 (0.150)	0.027 (0.149)	-0.049 (0.150)
\$70K–\$99K	0.147 (0.142)	-0.057 (0.144)	0.012 (0.146)	0.161 (0.145)	0.209 (0.145)	0.056 (0.146)
\$100K–\$149K	0.114 (0.153)	-0.482*** (0.153)	-0.183 (0.150)	-0.103 (0.156)	0.179 (0.157)	-0.125 (0.154)
\$150K+	0.128 (0.167)	-0.737*** (0.177)	-0.318* (0.173)	-0.223 (0.167)	0.285 (0.178)	-0.445*** (0.172)
<b>Age (baseline=&lt;35)</b>						
35–44	-0.166 (0.132)	-0.069 (0.137)	-0.161 (0.140)	-0.003 (0.134)	-0.093 (0.135)	-0.071 (0.136)
45–54	-0.623*** (0.140)	-0.779*** (0.144)	-0.803*** (0.143)	-0.215 (0.141)	-0.951*** (0.139)	-0.530*** (0.142)
55–64	-0.930*** (0.132)	-1.139*** (0.129)	-1.036*** (0.135)	-0.306** (0.131)	-1.396*** (0.132)	-0.841*** (0.129)

Notes: Ordered Probit regressions with reported coefficients and standard errors in parentheses clustered at the individual level. \*\*\*, \*\* indicates significance at the 1% and 5% level, respectively.

TABLE 10. ORDERED PROBIT REGRESSION ESTIMATES ACROSS HOUSEHOLD CATEGORIES (CONTINUED)

	Paying for mental health care	Caregiving responsibilities	Physical health needs	Mental health needs	Providing care for others
Relatively high financial security	-0.469*** (0.118)	-0.570*** (0.113)	-0.801*** (0.107)	-0.441*** (0.114)	-0.781*** (0.113)
Relatively high mental health	-0.762*** (0.103)	-0.317*** (0.098)	-0.869*** (0.092)	-1.337*** (0.098)	-0.342*** (0.097)
Female	-0.245** (0.101)	0.039 (0.096)	-0.028 (0.091)	0.006 (0.097)	0.084 (0.094)
Married	0.315*** (0.117)	0.302*** (0.110)	0.044 (0.104)	0.002 (0.111)	0.181* (0.108)
Working full-time	-0.142 (0.122)	-0.227** (0.107)	-0.092 (0.103)	0.016 (0.112)	-0.151 (0.110)
Retirement plan	0.387*** (0.133)	-0.066 (0.113)	-0.017 (0.105)	0.272** (0.117)	0.130 (0.109)
College+	0.079 (0.107)	-0.053 (0.099)	-0.024 (0.092)	0.049 (0.102)	-0.030 (0.098)
White	0.188 (0.131)	-0.066 (0.118)	0.307*** (0.119)	0.246** (0.125)	0.046 (0.117)
<b>Household income (baseline=&lt;\$50,000)</b>					
\$50K–\$69K	-0.146 (0.164)	-0.209 (0.157)	-0.214 (0.142)	-0.206 (0.151)	-0.207 (0.154)
\$70K–\$99K	-0.046 (0.159)	0.003 (0.139)	-0.014 (0.136)	-0.136 (0.148)	0.048 (0.137)
\$100K–\$149K	-0.249 (0.164)	-0.061 (0.150)	0.039 (0.145)	-0.003 (0.157)	0.006 (0.151)
\$150K+	-0.358* (0.188)	0.031 (0.175)	-0.220 (0.168)	-0.178 (0.179)	0.056 (0.172)
<b>Age (baseline=&lt;35)</b>					
35–44	-0.100 (0.136)	-0.137 (0.129)	-0.050 (0.134)	-0.195 (0.138)	-0.088 (0.131)
45–54	-1.053*** (0.146)	-0.858*** (0.140)	-0.558*** (0.135)	-1.009*** (0.148)	-0.869*** (0.148)
55–64	-1.658*** (0.145)	-1.430*** (0.131)	-0.683*** (0.122)	-1.651*** (0.141)	-1.287*** (0.127)

Notes: Ordered Probit regressions with reported coefficients and standard errors in parentheses clustered at the individual level. \*\*\*, \*\* indicates significance at the 1% and 5% level, respectively.

#### 4.1. Stress composite score

To examine both the prevalence across categories and the intensity, we create a stress composite score. For each stress category, we assign an individual a score of zero if they report no stress, one if they indicate a little stress for that category, two if they indicate some stress and three if they indicate a lot of stress and then sum across all categories. While this provides a simple and useful measure of overall prevalence and intensity, it assumes responses and increases in stress levels are the same across categories and individuals.

We provide regression estimates for stress composite scores in Table 11. We perform linear regressions clustering standard errors at the individual level. In our baseline model without controls, individuals with relatively high financial security are estimated to have a 7.2 lower composite score compared to

those reporting relatively low financial security, or 55.0% lower than the mean of 13.0. We see substantial increase in model fit when including controls, likely due to the large significant effect of age. Sex, income, and education have no significant effect. Workers 55 and older have an estimate composite score that is 6.4 lower than workers under 35. Interestingly, the intensive margin results for females in Table 10 does not translate into greater stress in more categories or a higher stress composite score overall. Model 3 includes the specific breakdown individuals answered for their financial security status. Compared with a baseline of not at all secure, up by each financial security response reduced estimated composite score by 3.1, 7.7, and 9.4, respectively. Again, in models 2 and 3 there is no significant difference between males and females once controlling for financial security report.

**TABLE 11. REGRESSION ESTIMATES OF STRESS COMPOSITE SCORE**

	(1)		(2)		(3)	
Relatively high financial security	-7.191***	(0.365)	-5.805***	(0.382)		
<b>Financial security: Not at all secure (= baseline)</b>						
Not too secure					-3.061***	(0.682)
Somewhat secure					-7.713***	(0.645)
Very secure					-9.381***	(0.741)
Relatively high mental health			-3.248***	(0.350)	-2.913***	(0.347)
Female			0.539	(0.338)	0.421	(0.333)
Married			1.026***	(0.381)	1.029***	(0.377)
Work full-time			1.635***	(0.385)	1.592***	(0.382)
Retirement plan			-0.179	(0.385)	-0.158	(0.381)
College+			-0.029	(0.341)	0.014	(0.336)
White			1.103**	(0.459)	1.114**	(0.457)
<b>Household income (baseline=&lt;\$50,000)</b>						
\$50K–\$69K			-0.704	(0.547)	-0.566	(0.549)
\$70K–\$99K			0.274	(0.514)	0.385	(0.510)
\$100K–\$149K			-0.326	(0.545)	-0.066	(0.539)
\$150K+			-0.838	(0.632)	-0.374	(0.634)
<b>Age (baseline=&lt;35)</b>						
35–44			-0.551	(0.536)	-0.650	(0.531)
45–54			-4.167***	(0.536)	-4.397***	(0.530)
55–64			-6.080***	(0.474)	-6.278***	(0.468)
Constant	18.157***	(0.304)	19.658***	(0.768)	21.833***	(0.911)
N	2015		1813		1813	
R <sup>2</sup>	0.16		0.31		0.32	
Mean	4.3		4.3		4.3	

Notes: OLS regressions with reported coefficient for financial security and standard errors in parentheses clustered at the individual level. \*\*\*, \*\* indicates significance at the 1% and 5% level, respectively.

Individuals who report they were not at all secure have a predicted score of 19.8. This is equivalent to indicating some stress in 9.9 categories or a lot of stress in 6.6 of the 11 categories. Predicted scores fall to 16.7 for those not too secure, 11.9 for somewhat secure individuals and to 10.2 for very secure individuals. A score of 10.2 is equivalent to indicating some stress in 5.1 areas or a lot of stress in 3.4 areas. For context, moving from a score of 10 to 17 could be from either reporting some stress in 3.5 additional categories or a lot of stress in 2.3 additional categories.

Estimated scores by financial security and sex are provided in Figure 4, showing no significant differences between males and females once controlling for subjective financial security. Stress scores are lower for each age group (Figure 5) as they report greater financial security, and the effect is greater for workers 45 and older compared to workers under 45. For example, stress scores for workers under 45 decreased from 23.6 among those reporting not at all secure to 13.5 for those reporting they were very secure (42.8% decrease), but for workers 45 years and older, their scores dropped from 19.2 to 6.1 (68.2% decrease).

FIGURE 4. PREDICTED STRESS COMPOSITE SCORES BY FINANCIAL SECURITY AND SEX

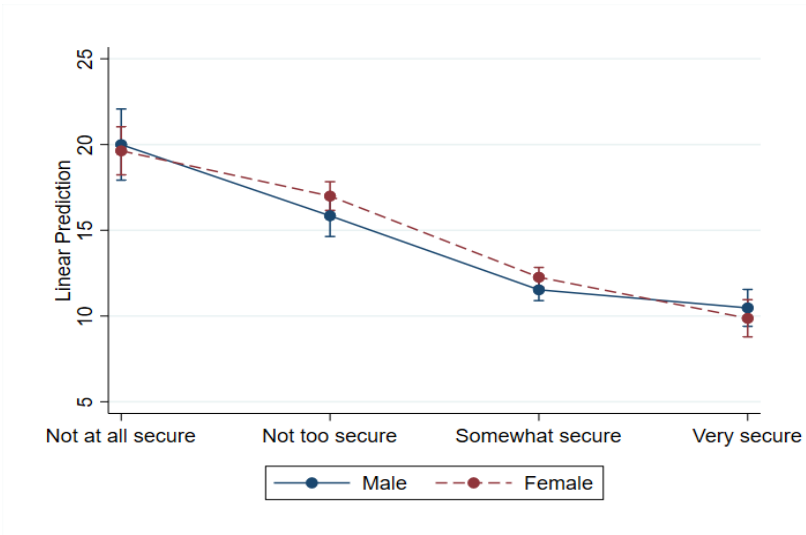
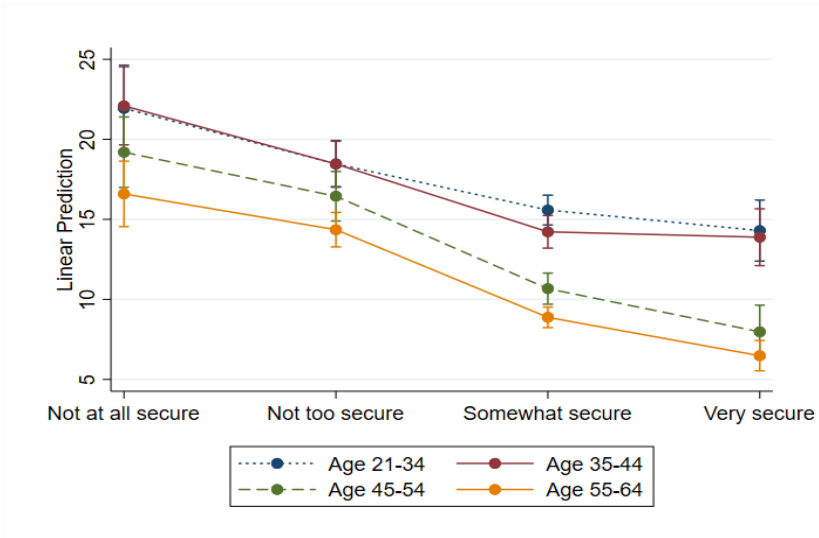


FIGURE 5. PREDICTED STRESS COMPOSITE SCORES BY FINANCIAL SECURITY AND AGE



## 5. Discussion

Financial security and stress are well-studied areas separately. In this report, how financial security is related to the incidence and intensity of self-reported stress levels in 11 separate categories across of work, finance and health varies with overall financial security. More than a quarter (28.5%) of respondents reported low levels of financial security. Those with lower financial security report stress in two to three more household areas on average and at a higher intensity, compared with those with higher financial security.

Once controlling for financial security, there are few differences between males and females in the likelihood of reporting stress. While females are significantly more likely to report greater intensity of stress in some financial areas, this does not translate to greater prevalence and intensity across all areas measured. But younger individuals are more likely to report stress with greater intensity. Household income has little to no significant relation to stress levels once controlling for self-reported financial security.

This analysis has limitations. We rely on self-reports of financial security and stress in one survey at one point in time, and these findings are not casual. These survey reports could vary by time depending on individuals' responses to short- and long-term health and economic shocks. However, self-reported stress measures tend to match physiological measurements, such as by a cortisol reading (Chemin et al., 2013). Objective measures of financial security, such as using household balance sheets, could produce different results. It could be that some low subjective financial security measures are from a lack of knowledge of one's objective financial standing. Improvements to knowing one's objective financial security may improve subjective financial outlook and have downstream positive effects in other areas, such as stress management. This point would be an interesting avenue for future research.

There may also be a difference in how financial security is perceived. If financial security perception differs across groups, it could have a different relationship with household stress. Our results suggest there may be a different perception between older and younger individuals, because individuals under age 45 are more likely to report stress in all categories compared to individuals 45 years old and older at the same self-reported financial security level. Increased knowledge of what financial security means to individuals would be insightful to understand better household wellbeing. This would be an interesting avenue for future research given the importance and difference between subjective and objective financial measures (Davis et al., 2023; Chen & Wettstein, 2025). Future work could examine how stress impacts household savings and insurance decisions by subjective and objective financial security status.

From a practical standpoint, many employees spend substantial time on the job thinking about personal finance matters (Hasler et al. 2023), which may indicate high stress levels on this issue. The strong relationship between stress and financial security speaks to the need and use of programs aimed to improve individuals' financial security and stress management. This is especially important given that psychological and financial well-being are important predictors of workplace productivity (Donald et al., 2005; Meuris & Leana, 2018) and the quality of the productivity (Meuris & Gladstone, 2023). Our results have implications for employers, management and organizations, especially if benefit programs can improve financial security, financial self-efficacy (Tang, 2021), or stress management.

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Appendix

TABLE A1. PERCENTAGE OF WORKERS INDICATING A LOT OF STRESS, BY SEX AND FINANCIAL SECURITY STATUS

	Low Financial Security		High Financial Security	
	Males	Females	Males	Females
Non-health financial and work stressors				
Inflation	50.1	65.5	16.6	20.7**
Longer-term finances	47.6	57.0	9.5	11.8**
Work	29.3	28.4	10.9	14.4**
Paying for everyday expenses	43.9	57.7***	8.5	8.6
Balancing work/home life priorities	19.5	22.7	8.5	8.8
Health and health-financial stressors				
Physical health or medical needs	16.5	22.7	7.4	6.5
Paying for medical care	21.3	31.1	8.0	7.6
Needing to provide care for others	15.2	21.8	6.4	9.7
Mental health needs	17.7	18.1	5.7	8.1
Paying for mental health care	14.0	15.2	5.1	4.6
Caregiving responsibilities	12.2	18.3	7.6	8.2

\*\*, \*\*\* indicates significance at the 5% and 1% levels when testing across the full distribution, respectively

TABLE A2. CORRELATION MATRIX FOR STRESS INCIDENCE

	Work	Everyday expenses	Longer-term finances	Inflation	Balancing work/life	Paying for medical care	Paying for mental health care	Caregiving responsibilities	Physical health needs	Mental health needs
Everyday expenses	0.35									
Longer-term finances	0.35	0.68								
Inflation	0.29	0.47	0.47							
Balancing work/life	0.51	0.38	0.40	0.30						
Paying for medical care	0.30	0.48	0.47	0.35	0.35					
Paying for mental health care	0.32	0.38	0.37	0.26	0.37	0.52				
Caregiving responsibilities	0.26	0.35	0.32	0.25	0.38	0.34	0.40			
Physical health needs	0.30	0.40	0.42	0.32	0.36	0.48	0.42	0.35		
Mental health needs	0.35	0.36	0.35	0.27	0.40	0.41	0.57	0.37	0.50	
Providing care for others	0.31	0.40	0.37	0.28	0.40	0.40	0.44	0.64	0.43	0.43

All correlations significant at the 1% level. Examines incidence correlations for reporting some or a lot of stress in each category.

TABLE A3. DIFFERENCES IN CORRELATIONS BETWEEN HIGH FINANCIAL SECURITY AND LOW FINANCIAL SECURITY

	Work	Everyday expenses	Longer-term finances	Inflation	Balancing work/life	Paying for medical care	Paying for mental health care	Caregiving responsibilities	Physical health needs	Mental health needs
Everyday expenses	0.18									
Longer-term finances	0.18	0.04								
Inflation	0.05	-0.03	0.04							
Balancing work/life	0.02	0.16	0.17	0.11						
Paying for medical care	0.11	0.16	0.13	0.16	0.08					
Paying for mental health care	0.14	0.29	0.22	0.19	0.13	0.08				
Caregiving responsibilities	0.18	0.17	0.15	0.15	0.08	0.14	0.17			
Physical health needs	0.09	0.11	0.08	0.18	0.08	0.03	0.10	0.06		
Mental health needs	0.09	0.18	0.16	0.12	0.10	0.06	0.02	0.14	0.00	
Providing care for others	0.14	0.20	0.17	0.15	0.06	0.12	0.19	0.01	0.08	0.08

## About the author

**Brent J. Davis** is a director and senior economist at the TIAA Institute. His research interests include behavioral economics, behavioral finance, and household financial security. Before joining the Institute, he spent several years as a postdoctoral researcher and lecturer in the Department of Public Finance at the University of Innsbruck in Austria. Davis has taught a variety of courses and published several papers in behavioral economics. He is a member of the American Economic Association, the American Risk and Insurance Association, and the National Tax Association. He earned an MS and a PhD in economics from Florida State University, and a BS in mathematics and economics from St. Lawrence University.

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