Pathways Between Health and Financial Well-Being

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Abstract

A better understanding of the relationship between health and financial well-being is necessary to guide education and public policy interventions. Poor health has the potential to impact financial well-being through multiple channels. The immediate costs of uninsured healthcare can deplete household resources, jeopardizing the ability to meet current and future consumption needs. Effects such as lower lifetime earnings and human capital accumulation may also make it more difficult to save adequately for retirement. This study uses data from the Understanding America Study to investigate how self-perceptions of health status and incidence of chronic conditions are related to financial well-being. We document these relationships and explore how individual characteristics, such as risk and time preferences, personality traits, and demographic background, influence the relationship between health and financial well-being. We find that poorer health is associated with lower CFPB financial well-being scores and lower self-assessed retirement preparedness. Chronic health conditions are associated with lower financial well-being both directly and through their relationship with self-perceived health. These results are robust across generations in our sample. The results of this study can be applied by individuals, financial advisors, and policymakers to improve financial well-being through health-related channels in addition to the traditional considerations of education, financial literacy, and financial behaviors.

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I. Introduction

Recent research on the factors influencing financial well-being suggests important relationships between aspects of physical and financial health. Individuals who suffer from chronic conditions, for example, likely spend more of their budget on health costs than healthier individuals. They may also experience negative impacts on work and earning potential. These factors combined may lower their ability to save and achieve lifetime goals such as retirement adequacy.

The purpose of this research study is to evaluate the relationship between health and financial well-being. Though there are many previous studies addressing various aspects of this question, our objective is to more comprehensively understand the effects of chronic conditions and health perceptions while controlling for a wide range of socio-demographic and individual characteristics. We focus on two measures of financial well-being: the CFPB Financial Well-being Score and self-assessment of retirement preparedness.

More specifically, this paper addresses the following research questions:
(1) How are the objective and subjective health variables related to financial well-being measures, including relationships that may operate indirectly through self-assessed health?
(2) Which objective health conditions and experiences are most strongly associated with self-assessed health?
(3) How are individual characteristics or traits, such as economic preferences, related to financial well-being both directly and through indirect pathways operating through self-assessed health?
(4) Is there evidence to support a causal relationship between health and financial well-being?

Using a large survey sample, we contribute to the existing literature by carefully examining the impact of health on financial well-being and perceived retirement preparedness. In addition to providing detailed descriptive analysis of health perceptions and health conditions, we use structural equation models to demonstrate that: 1) An

individual's self-perceived health is positively associated with financial well-being as measured by both their CFPB Financial Well-being Score and perceived retirement preparedness; 2) A factor index of negative health conditions has direct negative association with financial well-being as well as indirect associations through its effect on self-perception of health; 3) The factors that are significantly related to financial well-being are largely robust across generations. Most importantly, we show that, even after controlling for objective health conditions and socio-demographic factors, self-perception of health is strongly associated with both the CFPB measure and perceived retirement preparedness. In this study, we use several methods to address the potential endogeneity of control variables and the question of reverse causality.

In the next section, we review the literature on the relationship between health and financial well-being. We then describe the data, explain the empirical methodology, and summarize the results. The final sections provide discussion, conclusions, and implications for the results of this study.

I. Literature: The Relationship Between Health and Financial Well-being

An individual's or a family member's health can impact financial well-being through several mechanisms. The direct costs of poor health include reduced employment earnings and uninsured medical costs for providers, medications, and caregivers. Indirect costs can include depletion of savings, accumulation of medical debt, lost career opportunities, financial stress, and other mental health effects. Capatina (2015) emphasizes the relative importance of adverse consequences of health risk on productivity and time endowment. De Nardi (2023) documents that the combined effects of these direct and indirect costs are large. Good health can also have positive effects on well-being, increasing general happiness and improving mental capacity for achieving life goals.

In this section, we provide an overview of the large literature that investigates the nuanced relationship between financial well-being and health, both physical and mental. A recent literature review by Swensen and Urban (2023) concludes that deteriorating health,

new health conditions, and health shocks all have negative consequences for household finances.

Most previous research in this area has focused on the relationship between health and employment, income, or wealth, all of which are factors that are positively related to financial well-being (Coats and Bajtelsmit, 2026b). A health shock, such as an injury or heart attack, can impact an individual's ability to work following the event, and can result in a temporary or permanent reduction in earnings, which, in some cases, may be offset by insurance transfers. Time out of work for recovery or caregiving due to illness or disability can deplete savings for retirement and can jeopardize qualification for public or private pensions.[1] New diagnoses of health conditions or deteriorating health from existing conditions can also result in reduced employment and income. All of these health issues have the potential to result in out-of-pocket health expenses or medical debt that can place stress on household finances.[2] Although such effects may be temporary, they can cause permanent reductions if earnings remain low.

A challenging aspect of this research topic is that the relationship between health and financial well-being is not necessarily unidirectional. While there is substantial evidence that poor health can negatively impact financial well-being, there is also the potential for financial problems to negatively impact a person's physical or mental health (Meer et al., 2003). In addition, there may be other factors correlated with both health and financial well-being, for example, being born in poverty or having a risk-taking personality.[3] Blundell (2023) also notes that studies employing cross-sectional data are more vulnerable to reverse causality and simultaneity, which can both lead to an upward bias in the association. Given the private nature of both health and financial data, randomized controlled trials cannot be used for causality tests. Health shocks are arguably random, so

[1] Guistinelli and Shapiro (2019) find strong links between subjective health measures and expected retirement.
[2] Based on a Kaiser Family Foundation survey, Lopes et al. (2022) report that nearly 40 percent of households have medical or dental debt and most of those with medical debt have had to use savings or cut back on spending as a result. Babiarz et al. (2013) use data from the Health and Retirement Study to document increases in unsecured debt following an adverse health event.
[3] If some health problems reduce life expectancy, less wealth will be needed to support lifetime consumption, so some well-being metrics (e.g. retirement wealth adequacy) will not be directly comparable to those for healthy individuals.

can be analyzed as compared to the control group that does not experience the shock, but this method does not work for physical and mental health conditions or self-reported health that lack clear starting points or diagnoses. In this study, we employ statistical techniques that have been shown to reduce biases from potential endogeneity and multicollinearity.

Financial Well-being. Financial well-being can be defined in a number of different ways, but common elements include the ability to meet current and ongoing financial obligations, feeling secure in one's financial future, and the ability to absorb shocks.[4] A more comprehensive definition characterizes financial well-being as the combined outcome of financial behaviors and decisions related to budgeting, borrowing, spending, saving, and investing, considering individual expectations, perceptions, and satisfaction. Although each of these aspects can be measured separately, composite measures of financial well-being, such as the CFPB Financial Well-being Score (FWB Score)[5], encompass financial behaviors, self-perceptions of well-being, and quantifiable financial outcomes in a single variable. Factors that influence individual components of financial well-being, such as retirement adequacy or financial satisfaction, have been individually studied,[6] but the CFPB measure has gained wide acceptance as a comprehensive measure and is a common reference point. Coats and Bajtelsmit (2026a) show that similar factors, including self-perception of health status, are significantly related to a wide range of financial well-being metrics. Mercado et al. (2024) document positive associations between the FWB Score and health-related measures. Because of its widespread use and availability, as well as evidence of construct validity,[7] the analysis in this paper uses the CFPB's financial well-being metric. The effects of poor health can impact financial behaviors, self-perceptions, and financial outcomes. Most obviously, immediate costs of poor health may deplete household resources, jeopardizing the ability to meet current and

[4] See for examples, see CFPB (2025), Boston University (2025), Bruggen et al. (2017).
[5] See Appendix A for a list of the CFPB survey questions. The response to each question is on a 10-point scale. The total of the ten responses are added to arrive at a score that ranges from 0 to 100.
[6] For a review of the FWB literature, see Coats and Bajtelsmit (2025a).
[7] Khashadrourian and Harrison (2024) validates the CFPB financial well-being scale by showing that the scores are directionally consistent with ranked FWB based on financial ratios.

future consumption needs. This will likely alter an individual's financial behaviors (e.g., saving) and their perceptions (e.g., financial stress), and ultimately may affect quantifiable financial outcomes (e.g., lower retirement wealth). Many of the long-term costs of poor health are related to labor market effects. Poor health and chronic health conditions can reduce a person's (or their caregiver's) ability to work, resulting in lower lifetime earnings and lower wealth. Family members may work less to provide caregiving or work more to help pay medical expenses and offset the patient's loss of income (Arrieta and Li, 2023). AARP (2025) reports that caregivers often have negative work impacts, such as reduced work hours, lost promotions, or early retirement.

Health and Employment/Income. Blundell (2023) studies the effect of poor health on employment for those nearing retirement and finds significant effects for a variety of objective and subjective health measures. De Nardi (2025) shows that monetary and welfare losses due to poor health are large and are primarily driven by negative labor market outcomes and reduced lifespan. Importantly, their research also finds that negative health outcomes can often be traced back to factors determined early in life, and are correlated with lifestyle decisions such as smoking, obesity, exercise, and educational attainment. Garcia-Gomez et al. (2013) identify the effect of a health shock on later employment and income by comparing individuals who have experienced a shock to those who did not and following the outcomes over time. They find that acute hospital admissions lower the probability of being employed two years later by 7 percentage points and result in a 5 percent loss of personal income. This result is consistent with Kwon (2018) who found that acute hospital admissions significantly reduced employment and earnings three years after the health shock for those aged 40-55, and Becksmannhagen and Koenig (2023), who document lasting negative employment effects impacting household net income. Using data from the Panel Study of Income Dynamics 1999-2013, Babiarz and Yilmazer (2017) find that mental health problems result in larger decreases in labor income and household consumption than physical health problems, with the latter often being offset by health insurance.

Health and Retirement. Poor health may necessitate early retirement or transition to part-time work, although this effect may be weaker than observed if some people exaggerate health conditions as a justification for retirement (Oksanen and Virtanna, 2012). Earlier retirement and reduced employment may impact Social Security and private retirement plan qualification and benefits. Blundell et al. (2023) find that health deterioration explains up to 15 percent of the decline in employment between ages 50 and 70. Lopez-Casasnovas and Saez (2020) examine retirement decisions and find that workers in Spain who reported poor subjective health were more likely to retire during the financial crisis. Rose (2020) uses data from England and finds no evidence of reverse causality (i.e., retirement does not result in poor health).

Health and Wealth. Using data from the Health and Retirement Study, Poterba et al. (2017) find that individuals with better health status in 1994 averaged 50 percent higher wealth in 2010 than those in the bottom third by health status. Using later data from the same survey and focusing on retired individuals, Wallace et al. (2017) reach a similar conclusion. Health shocks occur frequently during retirement and result in depletion of wealth at a faster rate than for those who do not experience health shocks. Comparing respondents who incurred health shocks to those with stable health, they find shocks are associated with 12-20 percent lower wealth after ten years.

Health and Debt. When households do not have the resources to cover out-of-pocket health-care costs, they often accumulate medical debt. Recent studies have documented that a significant proportion of households have outstanding medical debt and that this debt affects household finances for long periods of time (US CFPB, 2022). Medical debt has also been shown to result in reduced spending and saving, late bill payments, and delayed college and home purchases (Lopez, et al., 2022). Using the National Longitudinal Study of Youth, Houle and Keene (2015) show that changes in health limitations and

chronic conditions increased the risk of mortgage default and foreclosure during the Financial Crisis.

Chronic Conditions/Diseases. As compared to one-time health shocks, chronic health conditions are any diseases or conditions that last for longer periods of time. There is some variation in which diseases are defined as chronic. A common definitional element is that chronic conditions can be managed to limit their effects but cannot be fully cured. The CDC classifies the following diseases as chronic: heart disease and stroke, cancer, diabetes, obesity, arthritis, Alzheimer's, epilepsy, and tooth decay. (CDC, 2024) In contrast, the Chronic Conditions Data Warehouse run by the Centers for Medicare and Medicaid separately tracks 30 conditions that also include depression and mental illnesses, COPD, asthma, and HIV, among others. According to the National Health Council, the seven most common chronic conditions in the United States are heart disease, stroke, cancer, diabetes, COPD, hypertension, and mental illness. These are the leading causes of illness, disability, and death and the leading drivers of health care costs in the US (Hacker, 2024). Buttorff et al. (2017) estimate that sixty percent of all American adults have at least one chronic condition. Chronic conditions commonly occur as comorbidities, with approximately 12% of adults experiencing five or more of them. These conditions affect people of all age groups, genders, and ethnicities, but the prevalence tends to increase with age, with 81 percent of those age 65 and over having more than one chronic condition. Four categories of chronic health conditions—cardiovascular disease, cancer, diabetes, and chronic respiratory disease -- are the leading causes of death globally and across all income groups (WHO, 2025a). Behavioral risk factors such as tobacco use, unhealthy diet, physical inactivity, and excessive alcohol consumption tend to aggravate chronic conditions and increase the risk of obesity, high blood pressure, and high cholesterol (CDC, 2024). As with health shocks, chronic health conditions have been shown to be associated with adverse medical costs and financial outcomes (Ward et al., 2021; Becker et al., 2022), which we expect will also negatively impact financial well-being.

Mental Health. Both mental and physical health have potential impacts on financial well-being. Mental health problems generally have been found to be more consequential for household finances than physical health, although causal inference is more difficult because the chronic nature of the condition makes it impossible to establish the date of onset. It often takes longer to get an appropriate diagnosis and treatment (Peterson, 2019). These studies, therefore, tend to be correlational and descriptive. Salokangas (2021) examined the impact of psychiatric admissions on lifetime income and found that, relative to a control group, those treated for any psychiatric reason earn 37 percent lower lifetime income (after controlling for socio-economic background). The effect was larger for those with psychosis and those with alcohol-related admissions. Biasi et al. (2021) and Mojtabai et al. (2015) document the adverse effects of mental health disorders on employment and earnings.

Personality traits. Certain personality traits have been associated with financial well-being, as well as health.[8] A standard survey methodology for assessing these individual characteristics results in scores in each of the "Big Five" personality traits: openness, conscientiousness, extroversion, agreeableness, and neuroticism (McCrae and John, 1992). Based on previous research, personality traits emerge as significant factors for financial well-being indicators.[9] This is consistent with intuition. For example, conscientiousness includes the tendency to plan and the ability to delay gratification, agreeableness includes generosity and lack of skepticism, and neuroticism is characterized by self-defeating and impulsive behavior. Measures of personality traits are recorded in some large-scale surveys, including the Health and Retirement Study and the Understanding America Study.

In addition to financial well-being, personality has also been associated with health outcomes. In reviewing the literature, Murray and Booth (2015) note that conscientiousness and neuroticism are especially linked to health. Jerram and Coleman

[8] See e.g. Asebedo et al. 2019; Coats and Bajtelsmit, 2025b; Becker et al., 2012; Nabeshima and Seay, 2015; Parise and Peijenberg, 2019; Strömbäck et al.,2020; Xu et al., 2015

[9] See Campbell, et al. (2023) for a review of the literature related to the Big Five and financial planning.

(1999) show that personality traits impact the tendency to report medical problems. In particular, women with high agreeability scores are significantly less likely to report medical problems and visit doctors compared to women with lower scores; and men with higher conscientiousness scores report more problems and have more doctor visits compared to men with lower scores. Luo, et al. (2023) examine the persistence of the personality and health linkages over the life cycle and show stronger relationships between these traits and health in middle adulthood and weakening effects in old age.

Cognitive Factors and Preferences. Financial well-being is also associated with risk and time preferences as well as several cognitive factors, including financial literacy, numeracy, and financial self-efficacy. This literature is summarized in Coats and Bajtelsmit (2026b). Risk and time preferences are additional predictors of future life outcomes, including those that significantly affect financial well-being (Almlund et al., 2011; Golsteyn et al., 2014). Individual discount rates elicited through survey or experimental research have been shown to be associated with lower health, wealth, and greater likelihood of financial fragility. Carton et al. (2022) investigated financial well-being in low-income households in Ireland and found it was linked to behaviors strongly indicative of lower individual discount rates (self-discipline, saving for emergencies, and "doing without".

Many studies have found a strong positive relationship between financial literacy and financial well-being (Lusardi, 2023). In addition, financial literacy is positively related to health-promoting behaviors and health status (Meyer, 2016). Coats and Bajtelsmit (2026a) find that the individual discount rate, or the rate at which a person is willing to forgo current consumption for future consumption, has a significant association with multiple financial well-being indicators. This individual characteristic is sometimes referred to as impatience. Individuals with high discount rates may be less likely to focus on long-term outcomes and may make financial decisions that sacrifice the future for present benefits. To the extent that individuals with higher discount rates might make suboptimal health decisions (e.g., failure to get regular checkups and immunizations, obesity), this characteristic may negatively impact financial well-being through multiple mechanisms.

For example, Wismans et al. (2021) found that impulsivity was negatively associated with compliance with public health measures during the COVID pandemic. High discount rates have also been linked to obesity and smoking (Lawless, et al, 2013).

Socioeconomic and Demographic Effects. Health outcomes vary by income and socioeconomic status. McMaughan, et al. (2020) review the literature on the relationship between access to care and healthy aging. They report numerous studies documenting that individuals with lower socioeconomic status face barriers to accessing health care, lower preventative care utilization, adverse health outcomes, and shorter life expectancy. Pickett and Wilkenson (2015) conduct a literature review, from which they draw a stronger conclusion of a direct causal relationship from lower incomes to adverse health outcomes. Studying the health perceptions of the Korean elderly population, Han et al. (2021) also find that individuals in lower socioeconomic groups tend to report lower subjective health status. We expect that lower disposable incomes and lower utilization of preventative care may contribute to broader lifestyle patterns, such as lower consumption of nutritious foods and lower rates of other health-promoting behaviors.

Researchers have documented patterns between health and demographic variables related to socioeconomic status. Grutman (2021) cites racial disparities in rates of smoking, obesity, and hypertension, arguing for the inclusion of health attributes in consideration of wealth transfers leading to inequality. Grutman ultimately attributes the racial wealth gap largely to racial differences in health. Similarly, Park and Yang (2021) use a longitudinal dataset and find that the relationship between health and wealth differed by race/ethnicity. Maharlouei et al. (2020) find that subjective reported health is higher for those who are employed, married, and have higher educational attainment. But these effects vary by gender. Employment is a stronger factor for men, whereas education and marital status are more important for women. Capatina (2015) and Hosseini et al. (2021) show that poor health contributes significantly to income inequality through adverse effects on productivity.

Although the studies cited above suggest the existence of a relationship between health and financial well-being, a better understanding of these concepts is necessary to direct public resources and provide appropriate and effective consumer education. Few existing studies integrate chronic conditions, subjective health perceptions, and financial well-being within a comprehensive framework. The patterns reviewed in the literature suggest a need for empirical approaches that encompass multiple pathways between health and financial well-being, including related individual traits. If chronic conditions and self-perceived health status shape financial well-being, then these elements are important considerations for public policy interventions aimed at improving financial well-being. A deeper understanding of the connections between health and financial well-being can also improve financial planning and advising processes, especially for populations disproportionately affected by health disparities.

II. Hypotheses

Based on the literature outlined in the previous section, we develop several hypotheses regarding the relationship between health and financial well-being

Hypothesis 1: Self-perceived health has a positive association with financial well-being, measured by:

A. FWB Score
B. Self-assessed retirement preparedness.

Hypothesis 2: Chronic health conditions are negatively associated with financial well-being.

A. They have a direct negative association with financial well-being.
B. They have an indirect negative association with financial well-being through their negative association with self-perceived health.

Hypothesis 3: Positive individual characteristics are associated with improved financial well-being both directly and through their relationship to health perceptions.

III. Data

To investigate the relationship between health and financial well-being, we analyze data from the Understanding America Study,[10] a nationally representative Internet panel of households. The survey data include measures of financial well-being, subjective health perceptions, health history, as well as measures of individual characteristics such as time and risk preferences, financial literacy, financial efficacy, personality traits, and sociodemographic background. The core survey, covering approximately 15,000 respondents in 5,000 households, includes full demographics, wealth, and income data (modeled after questions in the Health and Retirement Study), updated regularly. We use the UAS comprehensive file and include respondents who are ages 29-79 in wave 15, have a CFPB Financial Well-being Scale score, and answered the discount rate elicitation in wave 16.[11] The ages selected correspond to individuals who are in the generations commonly referred to as Early Baby Boomers (born 1946 – 1954), Late Baby Boomers (born 1955 – 1964), Generation X (born 1965-1980)[12], and Millennials (born 1981-1996). Our study does not include individuals born after 1997, who are more likely to still be in school or receiving parental support, or those born before 1946 who are likely to already be retired. Our sample includes 6,728 respondents who met these three criteria. We eliminated 1,157 respondents who were missing important variables on insurance coverage and chronic health conditions.

[10] The Understanding America Study (uasdata.esc.edu) is a probability-based Internet panel of U.S. adults administered by the Center for Economic and Social Research at the University of Southern California. The full panel includes more than 15,000 respondents representing the entire United States.

[11] Due to differences in timing of the surveys that include variables necessary for our study, we are using data from more than one survey year. Although the discount rate elicitation occurred one year after the other data we are using in this study was collected, we do not believe this is a problem. Although some studies have shown that individual discount rates decrease with age, they are relatively stable in the short term. Kureishi, et al. (2021)

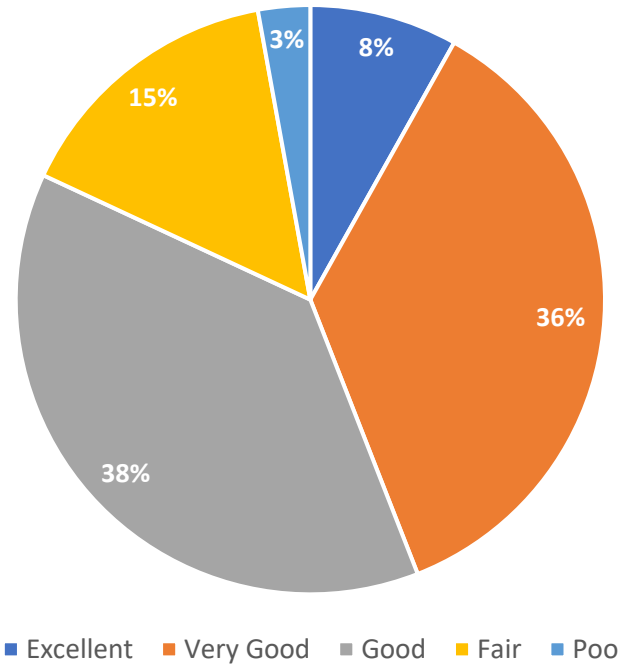
[12] It is common to treat early and late Baby Boomers separately because these subgroups were shaped by different key events and cultural climates. The post-war period was characterized by optimism and prosperity whereas the late baby boomers who were in their teens in the 1970s saw greater political and economic upheaval. See Beresford Research (2025)

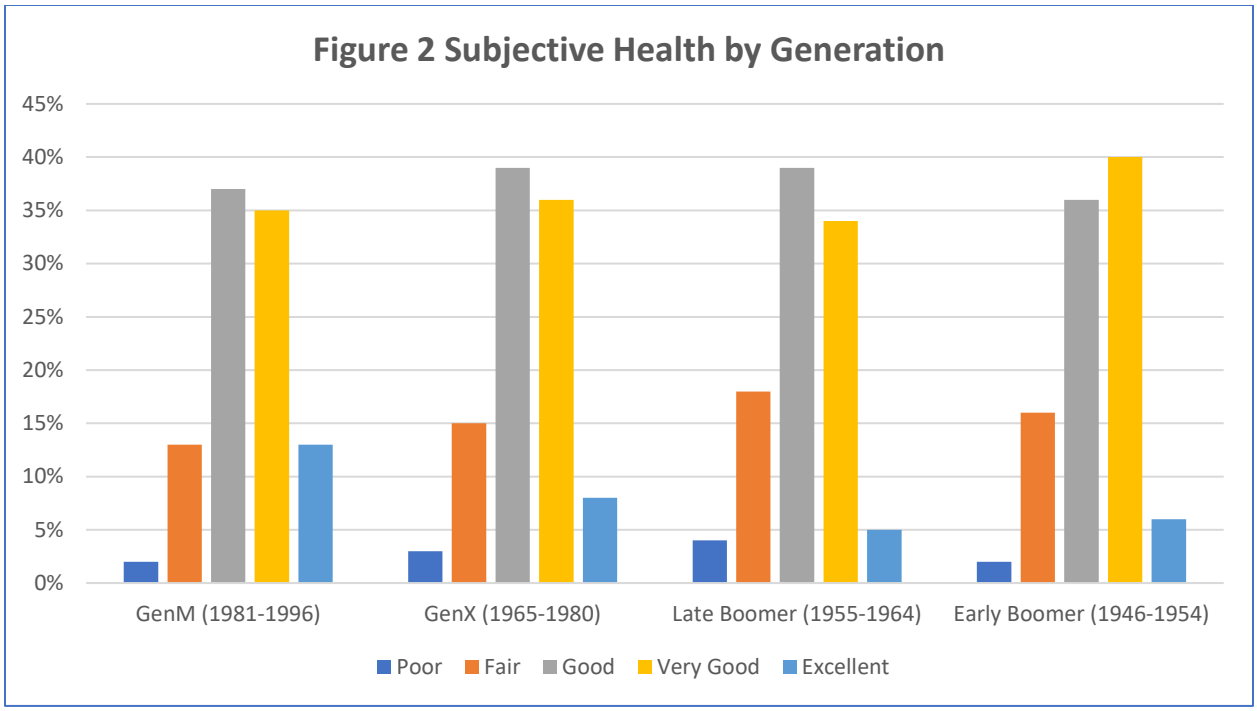
The final dataset of 5,571 individuals includes various objective measures of health that have been identified in the literature described above, financial well-being, self-perception of retirement preparedness, socio-demographic variables, and individual characteristics that have previously been shown to be important factors for financial well-being (Coats and Bajtelsmit, 2026a). In addition to the health variables described in more detail below, we include controls for individual characteristics and demographics.

A. Health of the Sample by Generation

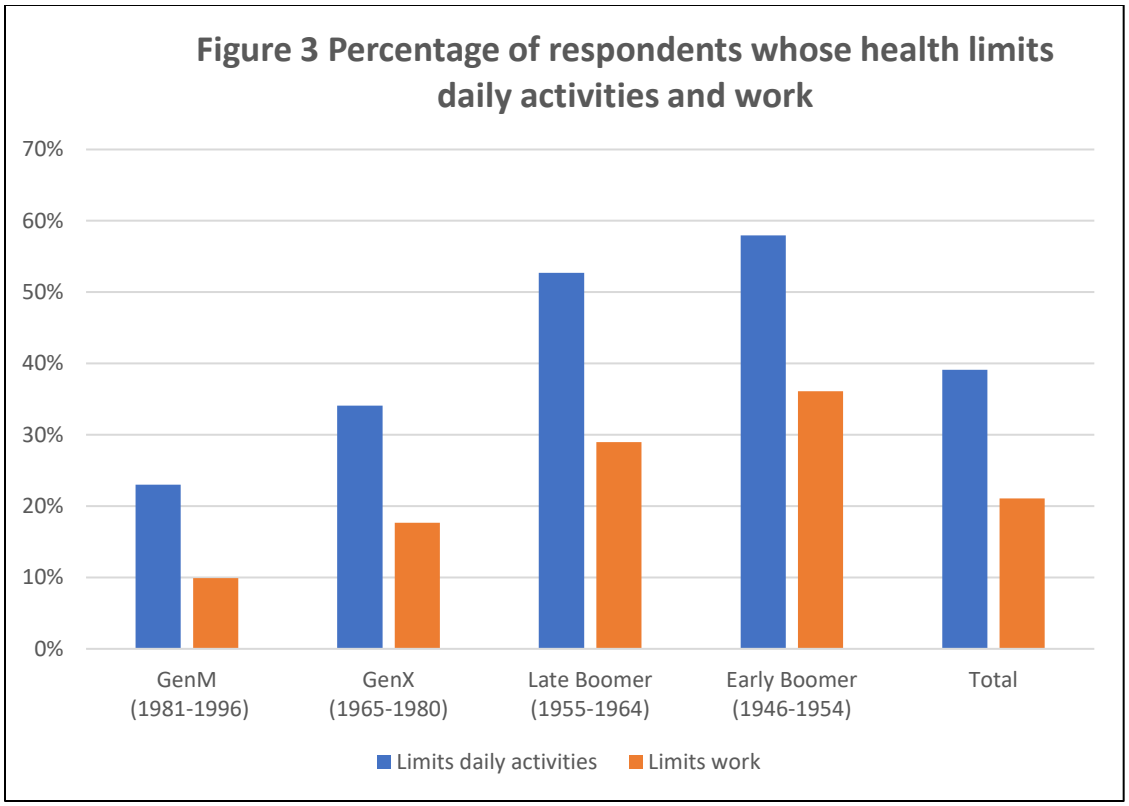
In addition to asking respondents to rate their own health, the UAS includes a wide range of health variables. Most of our sample rate their health as Good to Excellent, as summarized in Figure 1. As shown in Figure 2, the distributions of subjective health ratings are relatively similar across generations, with a slightly higher percentage of the youngest group rating their health as excellent.

Figure 1 Subjective Health of the Sample





Poor health can limit an individual's activities or ability to work. As shown in Figure 3, the percentage of people who indicate that their health impacts their activities increases with age category. Not surprisingly, these are more likely to be problems for the oldest respondents in our sample. However, even the youngest age group is impacted by health, with 23 percent of millennials indicating that health issues limit their ability to perform at least one daily activity and nearly 10 percent indicating that health affects their work.



Other health information in our data set includes incidence of chronic diseases, number of outpatient surgeries in the previous two years, number of hospital stays and nights in the hospital, and out-of-pocket medical expenses. The vast majority of the sample has health insurance, ranging from 74% of Millennials to 98% for the older Boomers. The UAS asks respondents if they have "ever had" the following conditions: obesity, stroke, heart problems, cancer, arthritis, high blood pressure, lung problems, diabetes, or psychological problems. These are binary variables, with "Yes" answers coded as 1. Table 1 summarizes the percentage of the sample, in total and by generation, that reports ever having had each of the chronic conditions. The incidence of most chronic conditions increases with age group, with the exception being psychological problems.

Table 2 provides more details on average out-of-pocket medical expenses, number of outpatient surgeries, and the number of overnight hospitalizations in the last 2 years. Not surprisingly, these tend to increase with age group. For those who were hospitalized, Table 3 details the number of hospital stays and the total number of nights.

Table 1: Percent Reporting Chronic Conditions, by Generation

Chronic Conditions	GenM (1981-1996)	GenX (1965-1980)	Late Boomer (1955-1964)	Early Boomer (1946-1954)	Total
Ever had diabetes	8.9%	17.5%	25.3%	28.1%	18.00%
N	*1511*	*1877*	*1296*	*865*	*5549*
Ever had stroke	0.6%	1.4%	3.2%	3.9%	2.0%
N	*1511*	*1880*	*1299*	*865*	*5555*
Ever had heart disease	3.6%	6.7%	13.3%	20.3%	9.5%
N	*1511*	*1882*	*1299*	*864*	*5556*
Ever had cancer	2.1%	4.9%	9.7%	19.5%	7.5%
N	*1512*	*1880*	*1299*	*865*	*5556*
Ever had arthritis	7.3%	23.4%	42.7%	55.4%	28.50%
N	*1510*	*1880*	*1299*	*866*	*5555*
Ever had high blood press	21.2%	36.5%	51.3%	60.0%	39.1%
N	*1515*	*1883*	*1300*	*866*	*5564*
Ever had lung disease	2.7%	3.9%	7.5%	8.0%	5.1%
N	*1512*	*1881*	*1299*	*865*	*5557*
Ever had psych probs	27.3%	23.3%	19.5%	12.9%	21.9%
N	*1510*	*1878*	*1299*	*866*	*5553*
Obese (currently)	40.60%	45.40%	39.60%	37.30%	41.50%
N	*1517*	*1886*	*1302*	*866*	*5571*

Source: UAS Survey response to questions asking if the respondent "ever had" each specific condition. Obese is equal to 1 if the respondent's body mass index (BMI) is 30 or higher.

Table 2: Out-of-Pocket Medical Expenses, Outpatient Surgery and Overnight Hospital Stays

Variables by Generation Group	Mean	Median	SD	Min	Max	N
GenM (1981-1996)						
Out of pocket expenses ($)	1,278	50	3,370	0	49,000	1,481
Reports outpatient surgery previous two years	11%	0	0.314	0	1	1,476
Reports overnight stay in hospital, previous two years	12%	0	0.327	0	1	1,476
GenX (1965-1980)						
Out of pocket expenses ($)	1,954	200	5,257	0	109,600	1,843
Reports outpatient surgery previous two years	16%	0	0.363	0	1	1,839
Reports overnight stay in hospital, previous two years	9%	0	0.286	0	1	1,839
Late Boomer (1955-1964)						
Out of pocket expenses ($)	2,188	500	4,587	0	47,600	1,279
Reports outpatient surgery previous two years	17%	0	0.380	0	1	1,278
Reports overnight stay in hospital, previous two years	14%	0	0.349	0	1	1,277
Early Boomer (1946-1954)						
Out of pocket expenses ($)	2,321	745	6,579	0	132,160	861
Reports outpatient surgery previous two years	23%	0	0.418	0	1	860
Reports overnight stay in hospital, previous two years	20%	0	0.397	0	1	860
Total						
Out of pocket expenses ($)	1,883	300	4,928	0	132,160	5,464
Reports outpatient surgery previous two years	16%	0	0.366	0	1	5,453
Reports overnight stay in hospital, previous two years	13%	0	0.333	0	1	5,452

Source: Summary of UAS Wave 15 variables r15oopmdo, r15outpt, and r15hosp for sample.

Table 3: Number of Hospital Stays and Nights (for those who reported hospitalization and one or more stays and nights)

Variables by Generation Category	Mean	Median	SD	Min	Max	N
GenM (1981-1996)						
Num. hospital stays, past 2 years	1.713	1	1.715	1	12	178
Num. hospital nights, past 2 years	4.152	2	6.650	1	70	178
GenX (1965-1980)						
Num. hospital stays, past 2 years	1.894	1	2.762	1	20	160
Num. hospital nights, past 2 years	5.794	2	10.708	1	100	160
Late Boomer (1955-1964)						
Num. hospital stays, past 2 years	1.514	1	1.082	1	8	175
Num. hospital nights, past 2 years	5.109	3	7.677	1	60	175
Early Boomer (1946-1954)						
Num. hospital stays, past 2 years	1.515	1	1.021	1	8	163
Num. hospital nights, past 2 years	5.640	2.5	10.552	1	100	164
Total						
Num. hospital stays, past 2 years	1.657	1	1.773	1	20	676
Num. hospital nights, past 2 years	5.148	2	8.999	1	100	677

Source: Summary of UAS Wave 15 variables r15hsptim and r15hspnit for sample.

B. Financial Well-being of the Sample

This study uses two measures of financial health: the FWB Score and subjective retirement preparedness. The range of potential FWB Score is from 0 to 100. For this sample, the scores are from 14 to 95 and are increasing with generational group. Figure 4 shows the distribution of FWB Score across the sample. Table 4 compares the average score by generation.

Figure 4: Distribution of Financial Well-Being Scores for the Sample (N=5,571)

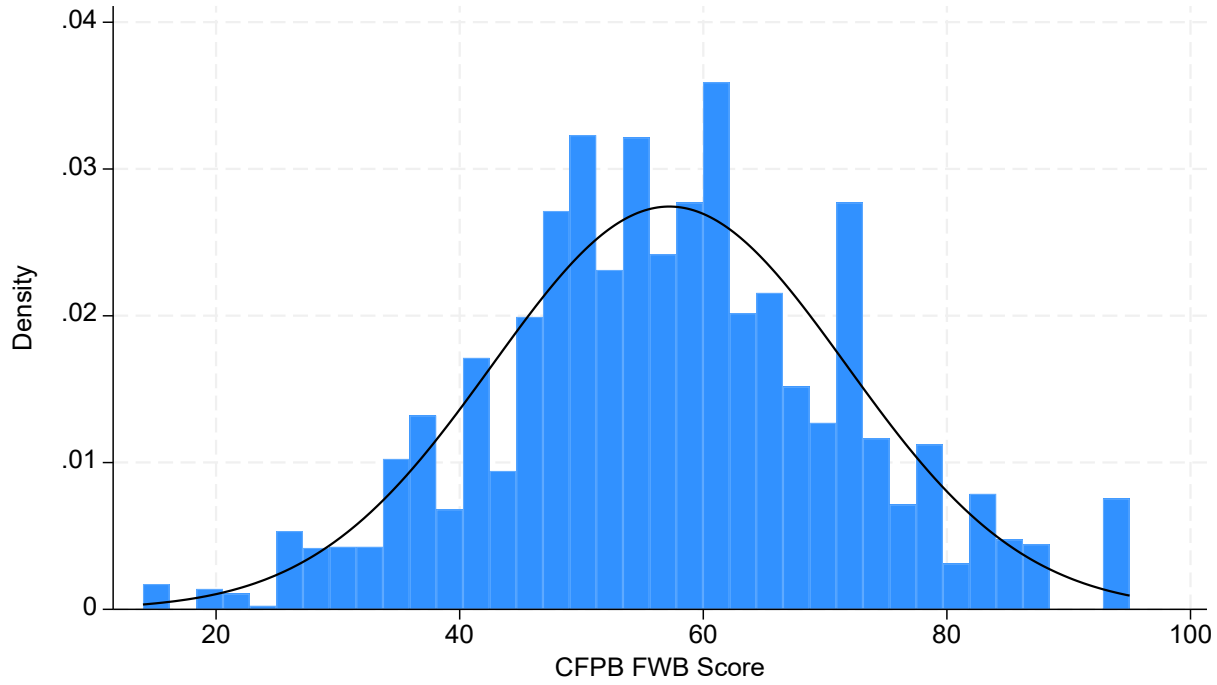


Table 4 Average CFPB Financial Well-being Score, by Generation

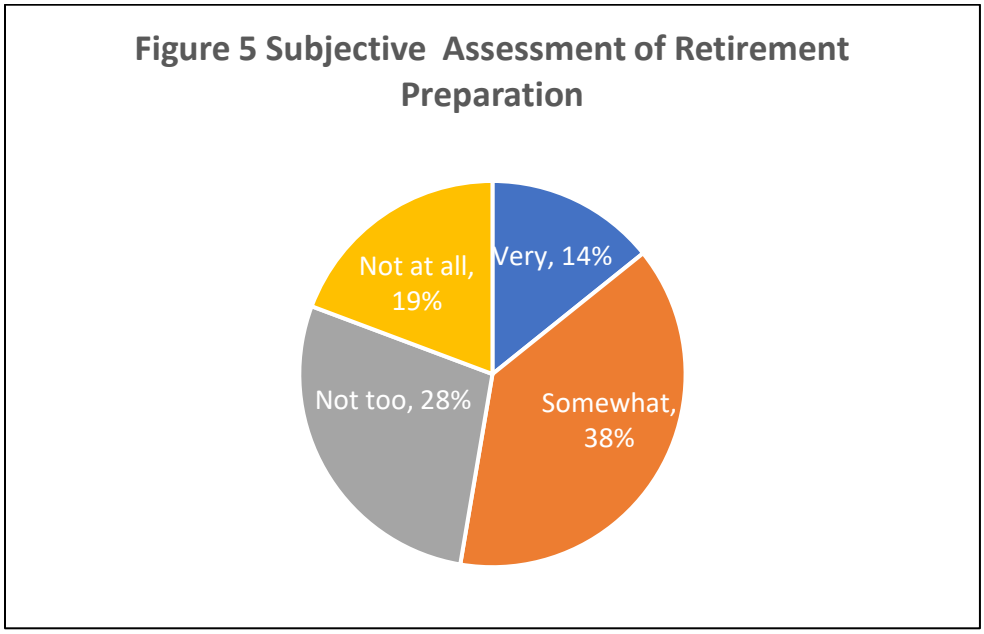
Generation Group	Average FWB Score
GenM (1981-1996)	52.44
GenX (1965-1980)	54.28
Late Boomer (1955-1964)	60.65
Early Boomer (1946-1954)	66.96
Total	57.24

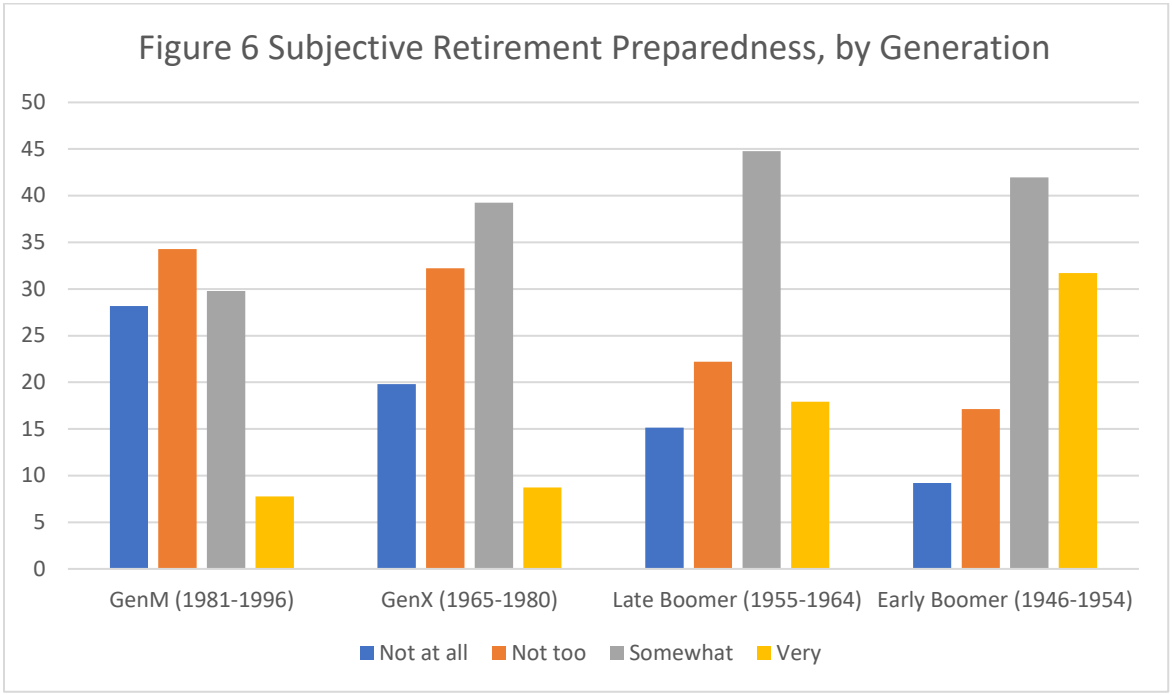
Note: UAS Survey 578, Wave 15, Variable c15wellbeingscore

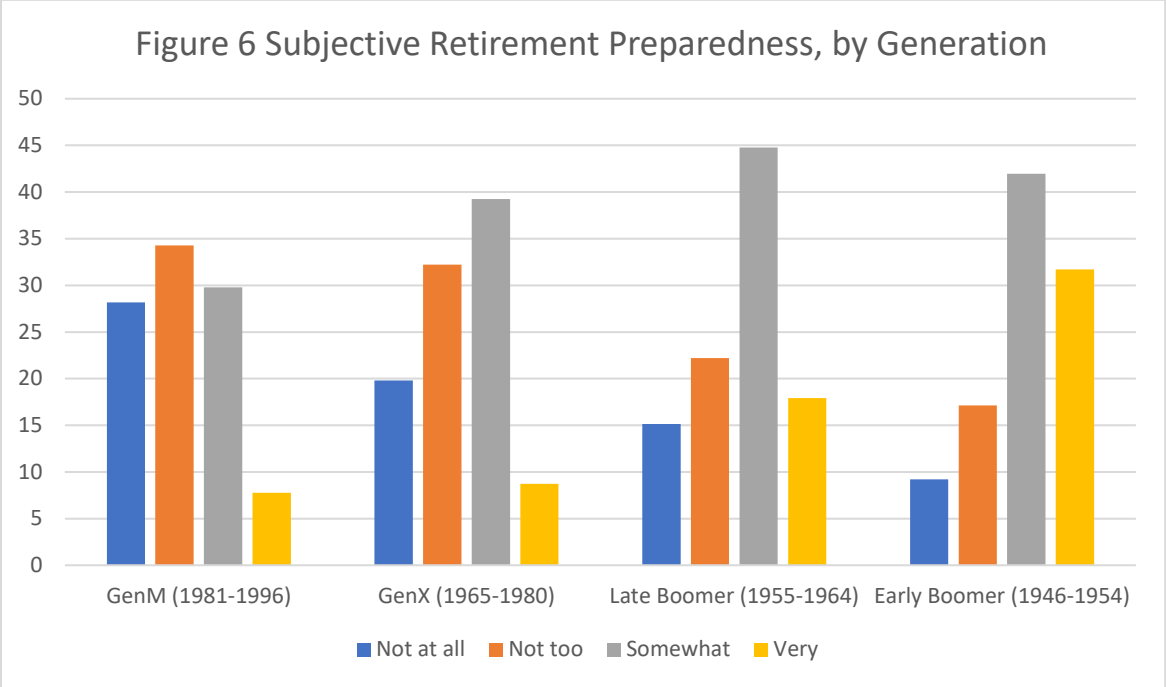
Retirement preparedness is based on a subjective assessment in which the respondents rated themselves as being Very, Somewhat, Not Too, or Not at All prepared for retirement. This variable is created using the following question from UAS 457:

How well prepared financially (are/were) you for retirement? Please give yourself a grade from A to D, where A means you are very well prepared and D means not prepared at all.

In our analysis, 1 = not prepared at all and 4 = very well prepared, as summarized in Figure 5. More than half of the sample report being somewhat or very well prepared for retirement. Figure 6 shows the distribution of retirement preparedness by generation. The percentage of respondents who indicate that they are very well prepared increases by generation.







C. Financial Well-being Measures by Subjective Health

Coats and Bajtelsmit (2026a) found strong associations between financial well-being and subjective health. As shown in Figure 7, this relationship holds within generational groups as well. The average FWB Score increases with age group. Within each age group, people who are in excellent health score 17 to 22 points higher on the FWB scale than those in poor health. We observe the same pattern for self-perceived retirement preparedness, as shown in Figure 8. For example, respondents in excellent health report retirement preparedness scores that are approximately 1.0 to 1.3 points higher (on a 4-point scale) across all 4 generations.

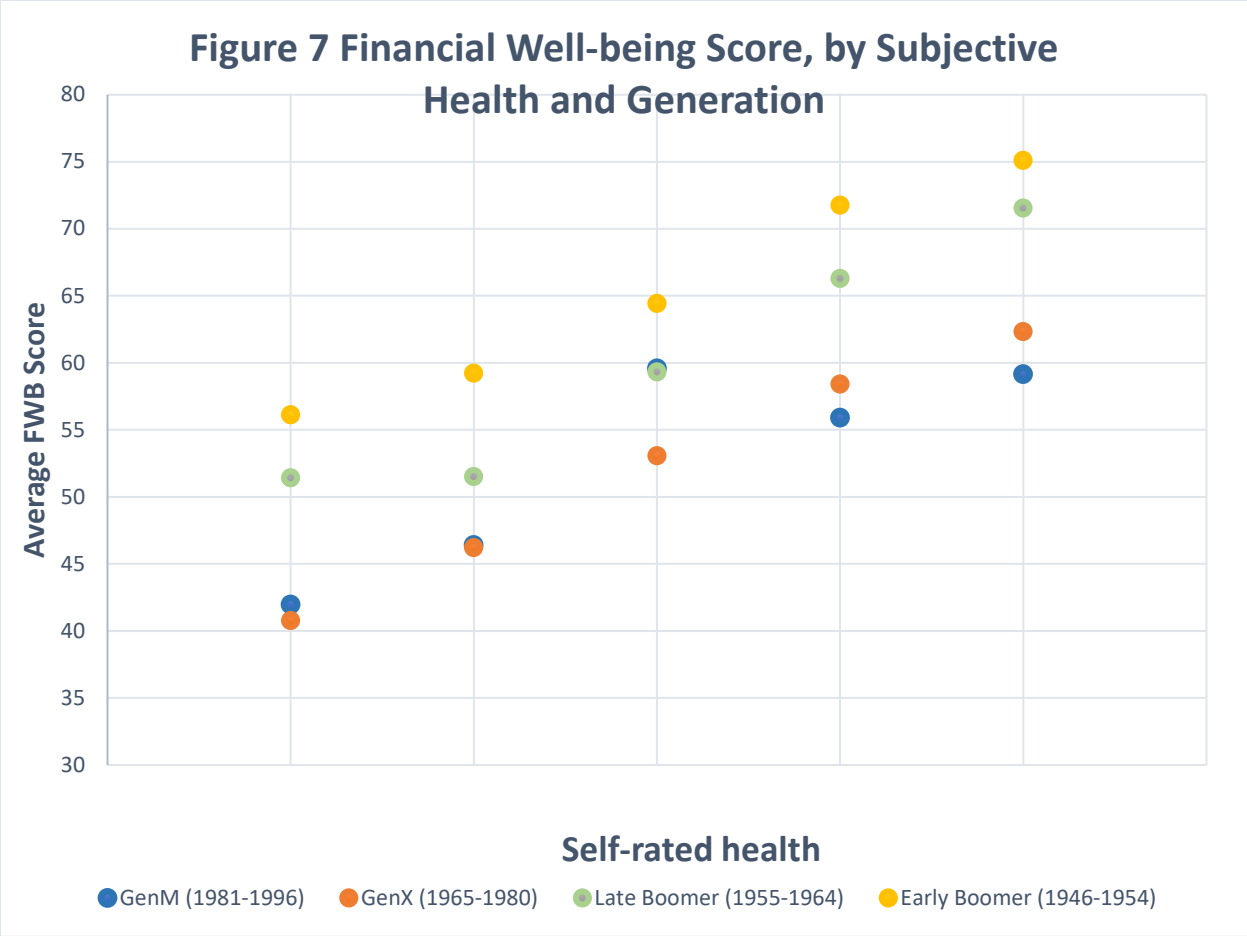
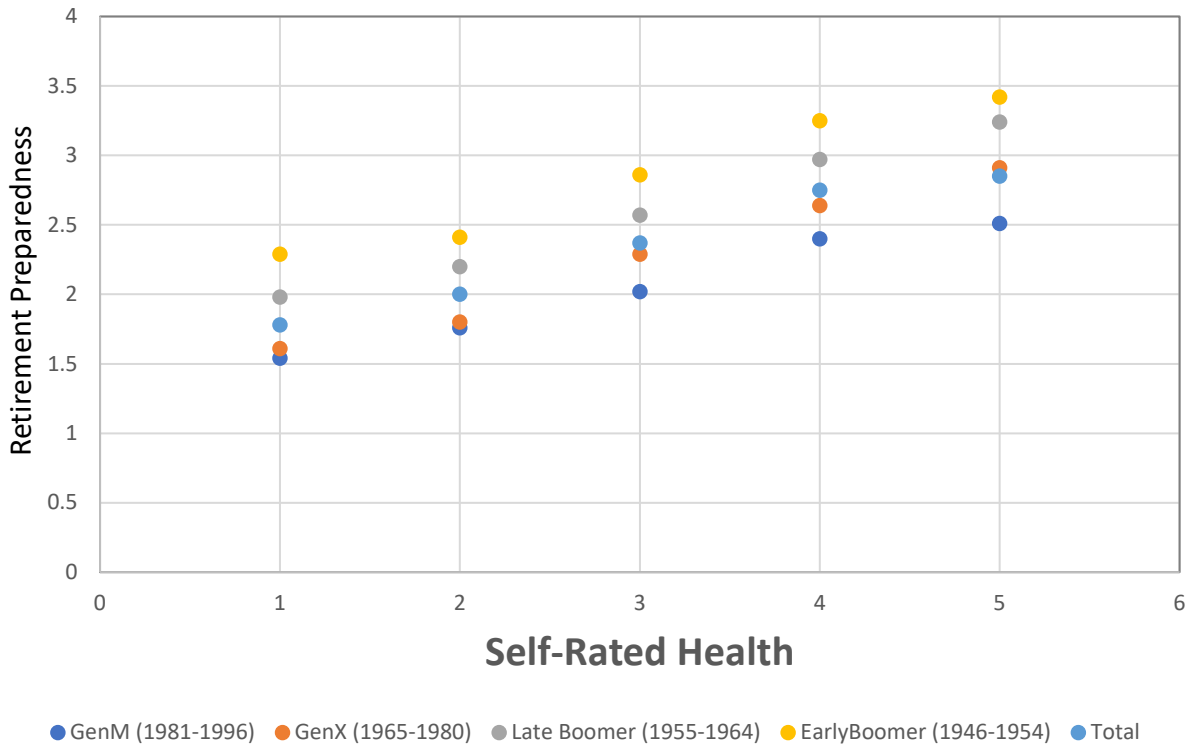

Figure 7 Financial Well-being Score, by Subjective Health and Generation
Average FWB Score
80
75
70
65
60
55
50
45
40
35
30
Self-rated health
GenM (1981-1996)
GenX (1965-1980)
Late Boomer (1955-1964)
Early Boomer (1946-1954)

Figure 8 Retirement Preparedness by Subjective Health and Generation



These descriptive observations motivate further exploration of the relationship between health and financial well-being. In the next section, we present an empirical model in which we control for a wide range of other potentially important factors.

IV. Variables, Methodology, and Results

Building on earlier analysis, we know that self-perceived health is strongly associated with financial well-being metrics. Our research questions focus on how chronic conditions are associated with financial well-being, both directly and indirectly through self-assessed health. To estimate these pathways simultaneously, we employ a set of structural equation models (SEMs). Structural equation modeling is well-suited for this context because it allows us to estimate direct and indirect effects within a unified framework. By modeling self-assessed health as a mediating pathway, the SEMs also enable us to

estimate the portion of a chronic condition's effect operating directly on financial well-being, net of its association with perceived health. These direct effects may capture mechanisms such as medical expenses, reduced work capacity, or other consequences of chronic illness that influence financial well-being independently of how respondents rate their overall health.

A. Variables

Our variable selection is based on examining the role of health in our previous findings of variables associated with financial well-being (Coats and Bajtelsmit, 2026a). To more comprehensively understand the relationship between health and financial well-being, we add 9 indicators of chronic health conditions: obesity, stroke, heart problems, cancer, arthritis, high blood pressure, lung problems, psychiatric problems, and diabetes. For ease of exposition, we refer to this set as "chronic condition indicators." In the analysis that follows, the association of chronic condition indicators with financial well-being is analyzed indirectly, through their association with self-perceived good health, and directly with financial well-being.

As discussed in the literature review, many chronic conditions occur as comorbidities. Therefore, we use factor analysis to identify their shared variation. Initial models using the binary variable *Obese* as the marker variable show that all chronic condition indicators load strongly on a common factor, except for cancer (loading=0.95) and psychological problems (loading = 0.64), which we therefore retain as standalone variables.[13] Preliminary analysis suggested variation in health for individuals near, but not exceeding, the obesity threshold, and this variation may contain important information. Therefore, we replace the binary *Obese* indicator with continuous BMI[14] and re-estimate the model. The resulting

[13] Because the chronic condition indicators are binary, factor loadings represent unstandardized discrimination parameters and are interpreted on a relative scale. Consistent with standard practice for constructing indices from binary indicators (e.g., Naveed et al., 2021), indicators with substantially weaker loadings are excluded from the index.

[14] Body mass Index (BMI) is the ratio of a person's weight to their height. A person with BMI>30 is considered obese

index reflects metabolic health and is constructed from BMI and the remaining chronic condition indicators (stroke, heart problems, arthritis, high blood pressure, lung problems, and diabetes). For future interpretation and comparison with other indices, the variable *Metabolic Index* is standardized to have a mean = 0 and a standard deviation = 1.[15]

Additional variables related to financial well-being include personality traits (for example, measured by the "Big Five:" openness, conscientiousness, extraversion, agreeableness, and neuroticism), the individual discount rate[16], risk tolerance, numeracy, financial literacy, financial self-efficacy, income, and demographic controls (age, gender, marital status, work status, race, and ethnicity). For ease of exposition, we refer to this set as "baseline indicators." Like chronic conditions, these indicators may reflect underlying latent factors. Based on the factor analysis of the baseline indicators, we determined that it was appropriate to create two indices, one for cognitive factors (numeracy, financial literacy, and education) and one for personality factors (conscientiousness, agreeableness, and neuroticism).[17] These factors are incorporated in the empirical analysis that follows solely as indicator variables in the indices *Cognitive* Index and *Personality* Index, which are standardized to mean =0 and standard deviation = 1 for easier interpretation.[18]

Ultimately, the analysis draws on 29 variables, 13 of which are incorporated as indicators in the three factor-based indices described above, and 16 standalone variables. Table 5 provides variable names and descriptive statistics. In addition to the indices, the remaining variables in Table 5 include the following. *FWB Score* is the respondent's score on the CFPB financial well-being scale. *Retirement Prep* is an ordinal variable in which the

[15] As compared with using the dichotomous obesity variable, using BMI in creating *Metabolic Index* resulted in lower correlations between health perceptions (-26.5%, as compared to 35.3%) and age (-34%, as compared to -37.6%).

[16] A subsample of respondents answered a series of questions designed to elicit their discount rate using an established protocol. They chose between receiving $100 today versus a larger amount of money in 12 months. Based on the point at which they switch their preference from receiving the money at the earlier versus later time, an individual discount rate is calculated, ranging in this sample from 1.5% to 115%. The UAS 226 survey was administered to individuals aged 44-77, and 2,887 individuals completed the discount rate elicitation task and are included in our analysis. This data in this survey is now included in the data for UAS Survey 378, which is a follow-up to the original survey.

[17] The factor analysis uses an oblique rotation (Stata's promax option). Oblique rotation improves interpretability by allowing factors to be correlated (e.g., cognitive abilities and personality traits are not required to be orthogonal). Indicators were selected based on the magnitude of their primary loadings, using conventional guidelines (Hair et al., 2015, as reported in Williams et al., 2010). The factor loadings for *Cognitive Index* are: .83 numeracy, .74 financial literacy, and .49 education. The factor loadings for *Personality Index* are: .63 conscientiousness, .63 agreeableness, and -.59 neuroticism. The other two personality variables are not significant factors so are excluded from the index. Notably, the magnitudes of loadings on all the other variables were considerably lower.

[18] The transformed distributions of these two index variables are approximately normal.

respondent ranks their preparedness for retirement on a scale of 1-5. *Good Health* is a binary variable indicating that the respondent rates their health as Good, Very Good, or Excellent. *Fin Efficacy* is a respondent's ranking of 1-10 in their confidence in making financial decisions. *Risk Tolerance* is a measure of risk tolerance in a hypothetical gamble, such that lower scores reflect higher risk aversion. *Impatience* reports the standardized values of the patience scale from 1 (lowest discount rate) to 32 (highest discount rate). *Income Cat* refers to 9 categories of income based on percentiles of household income within our sample. *Age* is the respondent's age at the time of their last completed survey in the wave sequence. *Gender* is a binary variable (1=male, 2=female). *Couple* is a binary variable, which is equal to 1 if the respondent is part of a married or partnered household. *Working for Pay* is a binary variable = 1 if the respondent reports working for pay. *Race Cat* is a categorical variable (1=white, 2=black, 3=other). *Hispanic* is equal to 1 if the respondent reports Hispanic origin.

In addition to addressing potential endogeneity through factor analysis and the construction of index variables, we also consider the possibility of multicollinearity among the explanatory variables. Preliminary correlation analysis of the index and other covariates indicates that the variables are sufficiently independent to include in the same model, with pairwise correlations ranging from 0.06 to 0.38 in magnitude. Regressing *FWB Score* on the full set of index and explanatory variables yields low variance inflation factors (average VIF=1.53 and the highest VIF = 2.71), further indicating that multicollinearity is not a concern in the data. We therefore proceed to analyze *FWB Score* and *Retirement Prep* as dependent variables, including the full set of covariates presented in Table 5.

Table 5: Descriptive Statistics

Variable	N	Mean	Std. dev.	Min	Max
FWB Score	5,571	57.213	14.536	14	95
Retirement Prep	5,464	2.476	0.959	1	4
Good Health	5,571	0.819	0.385	0	1
Fin Efficacy	5,565	8.098	1.979	0	10
Risk Tolerance	5,556	2.621	1.756	1	7
Metabolic Index	5,571	0.000	1.000	-1.838	4.072
Body Mass Index (BMI)	5,480	29.57	7.34	7.2	78.1
Ever had high blood pressure	5,560	0.39	0.49	0	1
Ever had stroke	5,555	0.02	0.14	0	1
Ever hada heart disease	5,556	0.10	0.29	0	1
Ever had diabetes	5,549	0.19	0.39	0	1
Ever had lung disease	5,557	0.05	0.22	0	1
Ever had arthritis	5,555	0.29	0.45	0	1
Hospital Nights in 2 yrs	5,451	0.640	3.596	0	100
Ever Psych	5,553	0.219	0.413	0	1
Ever Cancer	5,556	0.075	0.264	0	1
Cognitive Index	5,415	0.000	1.000	-2.975	2.118
Cognition Score	5,416	50.68	9.44	33.54	70.45
Financial Literacy Score	5,436	9.05	3.66	0	14
Highest education received	5,570	11.40	2.29	1	16
Personality Index	5,385	0.000	1.000	-4.064	2.327
Agreeableness Score	5,414	35.45	5.58	11	45
Conscientiousness Score	5,407	35.60	5.71	9	45
Neuroticism Score	5,408	21.85	6.55	8	40
Impatience	5,571	0.000	1.000	-1.343	1.531
Age	5,570	51.740	13.512	24	77
Gender (Female =2)	5,570	1.608	0.488	1	2
Couple	5,571	0.674	0.469	0	1
Working for Pay	5,512	0.634	0.482	0	1
Race (White =1, Black = 2)	5,571	1.383	0.722	1	3
Hispanic	5,571	0.149	0.356	0	1
Income Category	5,571	5.149	2.477	1	9
< $13k	531	3,975	4,495	0	13,000
$13k-$28.6k	505	20,614	4,618	13,001	28,601
$28.6k-$43.5k	530	35,941	4,243	28,680	43,500
$43.5k-$60k	546	51,664	4,733	43,551	60,000
$60k-$98.3k	1090	78,514	10,991	60,001	98,200
$98.3k-$121.6k	559	109,371	6,808	98,324	121,505
$121.6k-$155.2k	575	137,403	9,991	121,600	155,176
$155.2k-221k	575	183,462	18,861	155,210	220,346
>$221k	588	397,528	314,180	221,000	3,297,413

Note: Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Metabolic Index is constructed using the listed health problems. Cognitive Index is constructive using cognitive functioning, education and financial literacy. Personality Index is constructed using the personality traits listed. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles with 1 being least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident.

B. Empirical Model and Results: Structural Equations Modeling (SEM)

To analyze the relationship between health and financial well-being (measured by the FWB Score or retirement preparedness), we estimate SEMs in which the first equation models *Good Health* as a function of the standardized metabolic index, hospital nights, psychological problems, cancer, and the full set of controls described in the previous section, while the second equation models the *FWB Score*, or *Retirement Prep* as a function of *Good Health*, the same objective health conditions, standardized indices (cognitive, personality, and patience), financial self-efficacy, risk tolerance, and demographic controls. A key feature of this approach is that the two equations are estimated simultaneously, rather than in separate steps. Because *Good Health* is a binary variable, the first equation is modeled as a logit within a generalized structural equation modeling (GSEM) framework.[19] The specification of the second equation depends on the dependent. When the dependent variable is the continuous *FWB Score*, the second equation is estimated using a linear regression specification. When the dependent variable is *Retirement Prep*, which is ordinal, the second equation is estimated using an ordered logit specification.

Structural Equation Model:

$$\textbf{logit [Pr(GoodHealth}_i\textbf{=1)]} = \alpha + \beta_1\ MetabolicIndex_i + \beta_2\ Hospnights_i + \beta_3\ EverPsych_i + \beta_4\ EverCancer_i + \beta_5\ Cognitive\,Index + \beta_6\ Personality\,Index + \beta_7\ Impatience_i + \sum_{k=8}^{n}\beta_k\,(\text{Demographics})_{ki} \qquad \text{(Eq.1)}$$

[19] Generalized structural equation models (GSEM) are estimated in Stata using the gsem command, which is used to fit models with nonlinear responses, including binary outcomes (e.g., *GoodHealth* and ordinal outcomes (e.g. *RetirementPrep*).

Financial well-being measure $= \gamma_0 + \gamma_1 \ GoodHealth + \gamma_2 Efficacy_i + \gamma_3 RiskTol_i +$

$\gamma_4 \ MetabolicIndex_i + \gamma_5 Hospnights_i + \gamma_6 \ EverPsych_i + \gamma_7 \ EverCancer_i +$

$\gamma_8 \ CognitiveIndex_i + \gamma_9 PersonalityIndex_i + \gamma_{10} Impatience_i + \sum_{k=11}^{n} \gamma_k \ (\text{Demographics})_{ki} + \varepsilon_i$

(Eq. 2)

Where financial well-being is alternatively measured by the *FWB Score* and *Retirement Prep*. Self-assessed health enters the second equation as both a direct determinant of financial well-being and a pathway through which other variables influence it.

1. Financial Well-being Score Results

We report the results of the model using *FWB Score* as the dependent variable in Table 6. The estimation reveals that problems with metabolic and mental health both have strong direct and indirect negative effects on financial well-being. Having had psychological problems also has both direct and indirect negative effects on financial well-being. In contrast, cancer has a significant negative indirect effect through its effect on health perceptions, but a small positive total effect. These results are consistent with Hypothesis 1, which predicts a positive association between subjective health and financial well-being. They are also consistent with Hypothesis 2, which predicts a negative direct association between chronic conditions and financial well-being and an indirect negative association through chronic conditions' negative association with self-perceived health.

Table 6: Simultaneous GSEM Estimates of Health (Equation 1) and Financial Well-being (Equation 2)

Equation 1 Good Health	N=5274				Equation 2 FWB Score			
Coefficient	Coefficient	Std. Error	z	P>z	Coefficient	Std. Error	z	P>z
Good Health					4.127***	(0.448)	9.21	0
Financial Efficacy					1.968***	(0.0846)	23.3	0
Risk Tolerance					-0.0563	(0.0904)	-0.6	0.533
Metabolic Index	-0.866***	(0.0482)	-17.97	0	-1.146***	(0.183)	-6.3	0
Hospital Nights in 2 yrs	-0.0781***	(0.0137)	-5.7	0	-0.0354	(0.0444)	-0.8	0.426
Ever Psych	-0.591***	(0.0962)	-6.15	0	-2.446***	(0.401)	-6.1	0
Ever Cancer	-0.565***	(0.141)	-4	0	2.845***	(0.589)	4.83	0
Cognitive Index	0.147**	(0.0511)	2.88	0.004	1.786***	(0.193)	9.26	0
Personality Index	0.349***	(0.0453)	7.7	0	1.562***	(0.171)	9.14	0
Impatience	-0.00824	(0.0441)	-0.19	0.852	-1.805***	(0.165)	-11	0
Income Bin								
$13k-$28.6k	-0.345*	(0.165)	-2.09	0.036	-3.410***	(0.713)	-4.8	0
$28.6k-$43.5k	-0.181	(0.166)	-1.09	0.277	-1.075	(0.702)	-1.5	0.126
$43.5k-$60k	-0.00488	(0.172)	-0.03	0.977	0.0837	(0.704)	0.12	0.905
$60k-$98.3k	0.0751	(0.156)	0.48	0.63	1.452*	(0.625)	2.32	0.02
$98.3k-$121.6k	0.151	(0.190)	0.8	0.426	2.077**	(0.714)	2.91	0.004
$121.6k-$155.2k	0.255	(0.200)	1.28	0.202	2.774***	(0.725)	3.83	0
$155.2k-221k	0.305	(0.204)	1.49	0.136	4.036***	(0.734)	5.5	0
>$221k	0.516*	(0.224)	2.3	0.021	5.409***	(0.739)	7.32	0
Age	0.0195***	(0.0040)	4.82	0	0.229***	(0.0147)	15.5	0
Gender (Female =2)	0.0929	(0.0908)	1.02	0.306	-1.719***	(0.332)	-5.2	0
Couple	0.469***	(0.0881)	5.32	0	0.890**	(0.344)	2.59	0.01
Working for Pay	0.678***	(0.0946)	7.17	0	-2.434***	(0.369)	-6.6	0
Race = Black	-0.230	(0.139)	-1.66	0.097	0.160	(0.554)	0.29	0.773
Race = Other	-0.497***	(0.117)	-4.24	0	-0.223	(0.450)	-0.5	0.621
Hispanic	-0.319**	(0.121)	-2.63	0.008	-0.696	(0.462)	-1.5	0.132
Constant	0.350	(0.312)	1.12	0.262	29.05***	(1.371)	21.2	0

* = p<0.05, ** = p<0.01,
***=p<0.001

Note: This table reports estimates from a generalized structural equation model (GSEM) in which the health and FWB equations are simultaneously estimated. The first equation models the probability of self-assessed good health (logit), and the second models FWB as a function of self-assessed health and other covariates. Statistics are generated using the gsem command in Stata. Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Metabolic Index measures health problems, including some chronic conditions and obesity. Cognitive Index measures cognitive functioning, including numeracy, education, and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles, with 1 being the least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident.

The total effect of a particular explanatory variable in the model is interpreted as follows. In the first equation, the logit coefficient of the *Metabolic Index* on *Good Health* is -0.866, which shows the effect of metabolic health on the log-odds of reporting subjective good health. The linear coefficient of *Metabolic Index* on *FWB Score* in the second SEM equation is -1.146. This shows the direct effect of metabolic health on *FWB Score* net of its impact on health self-perceptions. For example, this effect could be capturing direct impacts on *FWB Score* due to lower employment earnings, foregone savings, or out-of-pocket medical expenses. The linear coefficient of *Good Health* on *FWB Score* in the second SEM equation is 4.127. This is the effect of *health perceptions*, independent of the effect of the underlying health conditions controlled for in the model. The product of the *Metabolic Index* logit coefficient in the first equation and *Good Health*'s linear coefficient in the second equation is -3.574 (-0.866 x 4.127). This is the indirect effect of metabolic health on *FWB Score* through *Good Health* within the model. The sum of *Metabolic Index's* direct and indirect effects is -1.145 + -3.574 = -4.719. This is the total effect of metabolic health on *FWB Score* within the SEM model.[20] Table 7 summarizes the direct, indirect, and total effects of the main health variables and individual characteristics on the FWB score.

[20] Although the interpretation of the coefficients in each of the SEM equations is standard, the total effect cannot be interpreted as a standard marginal effect because it combines parameters from a logit and a linear equation. Instead, it reflects the composite effect of *Metabolic Index* within this SEM.

T**able 7: Direct, Indirect, and Total Effects from Simultaneous GSEM Estimation of Health and Financial Well-being**

Covariate	Effect Type	Coefficient	Std. err.	z	P>z
Metabolic Index	Indirect	-3.574	0.436	-8.2	0
	Direct	-1.146	0.183	-6.25	0
	Total	-4.720	0.429	-10.99	0
Hospital Nights					
	Indirect	-0.322	0.066	-4.85	0
	Direct	-0.035	0.044	-0.8	0.426
	Total	-0.358	0.078	-4.59	0
Ever Psych					
	Indirect	-2.441	0.477	-5.12	0
	Direct	-2.446	0.401	-6.11	0
	Total	-4.887	0.606	-8.06	0
Ever Cancer					
	Indirect	-2.332	0.635	-3.67	0
	Direct	2.845	0.589	4.83	0
	Total	0.513	0.856	0.6	0.549
Cognitive Index					
	Indirect	0.607	0.221	2.75	0.006
	Direct	1.786	0.193	9.26	0
	Total	2.393	0.292	8.21	0
Personality Index					
	Indirect	1.439	0.244	5.91	0
	Direct	1.562	0.171	9.14	0
	Total	3.002	0.290	10.34	0
Impatience					
	Indirect	-0.034	0.182	-0.19	0.852
	Direct	-1.805	0.165	-10.95	0
	Total	-1.839	0.246	-7.49	0

* = p<0.05, ** = p<0.01, ***=p<0.001

Note: This table reports direct, indirect, and total effects from the generalized structural equation model (GSEM) in Table 6, in which the health and FWB equations are simultaneously estimated. Self-assessed health functions as a mediating pathway and also directly influences FWB. The direct effect reflects the association of each variable with FWB, holding constant the health pathway. The indirect effect operates through the variable's association with self-assessed health, and the total effect is the sum of these components. Statistics are generated using the gsem command in Stata. Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Ever Psych and Ever Cancer are binary variables indicating whether the respondent has ever had a psychological or cancer diagnosis, respectively. Metabolic Index measures health problems, including chronic conditions and obesity. Cognitive Index measures cognitive functioning, including numeracy, education, and financial literacy. Personality Index measures personality traits. Impatience is a standardized ranking based on individual discount rates from low to high.

Using this method of analysis, we find that the standalone chronic condition variables *Ever Psych* and *Ever Cancer* have significant associations with the dependent variables in both equations. Psychological problems have a strong negative and significant association with *FWB Score*. The direct effect from the linear model in the second equation is -2.441. The indirect effect of psych problems on *FWB Score* through *Good Health* in the linear equation is –2.446, resulting in a total of direct and indirect effects equal to -4.887. Although having had cancer is strongly negatively associated with self-perceived good health, as expected, we find the unexpected result that having had cancer has a positive direct association with *FWB Score*. (coefficient 2.845). The indirect effect through *Good Health* in the logistic equation is -0.565 x 4.127 = -2.33. The total effect of cancer is insignificant. While the positive association between cancer and *FWB Score* is unexpected, previous literature suggests this may be due to a survivor bias. Respondents from higher socio-economic backgrounds are more likely to survive cancer. See, for example, Byers, et al. (2008).

Examining the baseline indicators in Tables 6 and 7 reveals that the variables included in both SEM equations largely display the expected associations expressed in the third hypothesis, which focuses on positive individual characteristics. The cognitive and personality index scores represent cognitive ability and personality through high scores on cognitive factors and combinations of high conscientiousness and low neuroticism, respectively. Higher scores on these indices are associated with indirect pathways to financial well-being through their positive association with *Good Health*, as well as direct positive associations with financial well-being. Respondents with higher cognitive and personality index scores are more likely to report being in good health, and net of good health, these attributes are strongly positively associated with higher FWB scores. These results are consistent with Hypothesis 3.

We observe two surprising outcomes. First, we would have expected respondents with higher levels of impatience to have a lower likelihood of reporting good health. Impatience (a high discount rate) is associated with behaviors linked to poor health outcomes, such as smoking and physical inactivity (Chabris et al., 2008). However, when

controlling for underlying health conditions in the first SEM equation, *Impatience* shows no association with *Good Health*. As expected, *Impatience* has a strong negative association with *FWB Score*, suggesting that a high discount rate may be linked to financial behaviors or decisions that reduce financial well-being.

Second, given the literature connecting income, employment, and health (for example, Blundell et al., 2023), we would have expected a positive association between income and self-assessed health. Table 6 shows that only the second-lowest and highest income categories differ significantly from the lowest category in the likelihood of reporting good health. In our model, which controls for underlying chronic conditions, income is not strongly related to self-assessed health. The largely positive association between income and financial well-being observed in the second SEM equation is therefore independent of *Good Health*.

The SEM results on the demographic controls produce several noteworthy results. *Age* and *Couple* both exhibit positive associations with *FWB Score*, through a combination of direct effects and indirect pathways mediated by *Good Health*. Being female has a negative association with *FWB Score* only through a direct path, but the mediating pathway through health perceptions is not significant. In contrast, for Hispanic respondents and those in the *Other* race category (not white or black), the direct path to *FWB Score* is not significant, but the indirect path operating through *Good Health* is. This indicates that differences in perceived health for these populations mediate their association with financial well-being.

The regression in Table 6 shows that the respondent's age has a significant positive association with health perceptions and financial well-being. To investigate the possibility of cohort effects, we divide the sample into four generational groups: Millennials, Generation X, Early Baby Boom, and Late Baby Boom, and rerun the structural equation model for each group. Table 8 reports the summary results, with income and demographic controls omitted for space constraints.

Table 8: Simultaneous GSEM Estimates of Health (Equation 1) and Financial Well-being (Equation 2), By Generation (Income and demographic controls are removed for space constraints).

	Equation 1: Good Health				Equation 2: FWB Score			
	Millennial	**Gen X**	**Late Boomer**	**Early Boomer**	**Millennial**	**Gen X**	**Late Boomer**	**Early Boomer**
N	1409	1778	1249	838				
Good Health					1.763*	3.912***	5.475***	2.843*
Financial Efficacy					1.731***	1.932***	2.369***	2.548***
Risk Tolerance					0.153	-0.203	-0.0434	0.0459
Metabolic Index	-0.892***	-0.765***	-0.954***	-0.911***	-0.783*	-0.717*	-1.560***	-1.604***
Hospital Nights	-0.0860**	-0.125***	-0.103***	-0.0485*	-0.225*	0.0116	0.000724	0.0419
Ever Psych	-0.0836	-0.553**	-0.767***	-1.171***	-2.604***	-2.095**	-0.920	-1.243
Ever Cancer	-0.507	-1.194***	-0.501	-0.417	2.822	1.307	2.763*	1.355
Cognitive Index	-0.0441	0.204*	0.246*	0.218	1.697***	1.249***	1.785***	2.045***
Personality Index	0.561***	0.344***	0.314***	0.185	1.316***	1.619***	1.538***	1.775***
Impatience	-0.0689	0.0113	0.0186	0.0144	-1.956***	-1.620***	-1.773***	-1.679***
Constant	0.363	1.730	-4.158*	-0.666	44.28***	31.20***	-6.800	26.63*

* = p<0.05, ** = p<0.01, ***=p<0.001; Standard errors and p-values available upon request

Note: This table reports estimates from a generalized structural equation model (GSEM) in which the health and FWB equations are simultaneously estimated. The first equation models the probability of self-assessed good health (logit), and the second models FWB as a function of self-assessed health and other covariates. Statistics are generated using the gsem command in Stata. Data are from Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles with 1 being least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident.

The results from the separate SEMs by generation show that the direct and indirect pathways connecting good health to financial well-being are not unique to older generations. The metabolic index has significant negative direct and indirect effects for all generational groups. There are some differences between generations in specific variables'

direct and indirect associations with *FWB Score*. Among Millennials, both hospital nights and *Ever Psych* have direct negative associations with *FWB Score*. For the Generation X group, all the health variables exhibit significant negative indirect effects through *Good Health*, and *Ever Psych* also has a negative direct association with *FWB Score*, whereas *Ever Cancer* does not. For both Boomer groups, Ever *Cancer* is not associated with health perceptions, but for Late Boomers, it is positively associated with *CFPB Score*.

Examination of the controls for individual characteristics shows that the direct effects of financial efficacy, cognition, and personality on *FWB Score* are positive and significant for all four generational groups. Across the generational groups, *Impatience* has the same negative and highly significant relationship with *FWB Score*, while having no significant association with perceptions of good health.

2. Retirement Preparedness SEM Results

Although the FWB Score is commonly used as a measure of financial well-being, it is not directly tied to retirement well-being. Based on the literature discussed above, we expect that good health throughout the lifespan should contribute to earnings potential and the ability to save for retirement. We therefore next estimate the SEM model in Equation 2 using retirement preparedness as the dependent variable. As explained previously, this variable represents a self-assessment of retirement preparedness ranging from 1 (not prepared at all) to 4 (very well prepared). The estimation results are reported in Table 9, with income and demographic controls omitted for space constraints. Table 10 reports the direct, indirect, and total effects of selected variables.

Table 9: Simultaneous GSEM Estimates of Health (Equation 1) and Retirement Preparedness (Equation 2). Income and demographic controls are removed for space constraints.

	Equation 1: Good Health				Equation 2: Retirement Prep			
	Coefficient	**Std. Error**	**z**	**P>z**	**Coefficient**	**Std. Error**	**z**	**P>z**
Good Health					0.697***	0.079006	8.82	0
Financial Efficacy					0.158***	0.015322	10.34	0
Risk Tolerance					0.00284	0.015856	0.18	0.858
Metabolic Index	-0.866***	0.04819	17.97	0	-0.132***	0.031911	-4.12	0
Hospital Nights in 2 yrs	-0.0781***	0.013695	-5.7	0	-0.00334	0.007948	-0.42	0.674
Ever Psych	-0.591***	0.096166	-6.15	0	-0.363***	0.069669	-5.22	0
Ever Cancer	-0.565***	0.14116	-4	0	0.242*	0.103213	2.34	0.019
Cognitive Index	0.147**	0.051137	2.88	0.004	0.376***	0.034051	11.03	0
Personality Index	0.349***	0.045278	7.7	0	0.134***	0.02989	4.5	0
Impatience	-0.00824	0.044108	-0.19	0.852	-0.227***	0.028923	-7.84	0

* = p<0.05, ** = p<0.01, ***=p<0.001; Standard errors and p-values available upon request

Note: This table reports estimates from a generalized structural equation model (GSEM) in which the health and retirement preparedness equations are simultaneously estimated. The first equation models the probability of self-assessed good health (logit), and the second models retirement preparedness (ordered logit) as a function of self-assessed health and other covariates. Statistics are generated using the gsem command in Stata. Data are from Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles with 1 being least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident.

Table 10: Direct, Indirect, and Total Effects from Simultaneous GSEM Estimation of Health and Retirement Preparedness

Covariate	Effect Type	Coefficient	Std. err.	z	P>z
Metabolic Index	Indirect	-0.603	0.076	-7.92	0
	Direct	-0.132	0.032	-4.12	0
	Total	-0.735	0.075	-9.79	0
Hospital Nights					
	Indirect	-0.054	0.011	-4.79	0
	Direct	-0.003	0.008	-0.42	0.674
	Total	-0.058	0.013	-4.28	0
Ever Pscyh					
	Indirect	-0.412	0.082	-5.05	0
	Direct	-0.363	0.070	-5.22	0
	Total	-0.776	0.105	-7.39	0
Ever Cancer					
	Indirect	-0.394	0.108	-3.64	0
	Direct	0.242	0.103	2.34	0.019
	Total	-0.152	0.147	-1.03	0.304
Cognitive Index					
	Indirect	0.103	0.037	2.74	0.006
	Direct	0.376	0.034	11.03	0
	Total	0.478	0.051	9.47	0
Personality Index					
	Indirect	0.243	0.042	5.8	0
	Direct	0.134	0.030	4.5	0
	Total	0.377	0.050	7.5	0
Impatience					
	Indirect	-0.006	0.031	-0.19	0.852
	Direct	-0.227	0.029	-7.84	0
	Total	-0.233	0.042	-5.51	0

* = p<0.05, ** = p<0.01, ***=p<0.001

Note: This table reports direct, indirect, and total effects from the generalized structural equation model (GSEM) in Table 9, in which the health and retirement preparedness equations are simultaneously estimated. Self-assessed health functions as a mediating pathway and also directly influences retirement preparedness. The direct effect reflects the association of each variable with retirement preparedness, holding constant the health pathway. The indirect effect operates through the variable's association with self-assessed health, and the total effect is the sum of these components. Statistics are generated using the gsem command in Stata. Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Ever Psych and Ever Cancer are binary variables that indicate if the respondent has ever had a psychological or cancer diagnosis respectively. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high.

The results from this analysis are remarkably similar to the estimation results for the FWB Score and, again, are consistent with our first three hypotheses. Both financial well-being metrics appear to be influenced by the same underlying framework in which chronic conditions inform perceived health, and through this variable, as well as directly, are associated with present financial well-being and, more specifically, with retirement preparedness. In both estimations, metabolic health and psychological problems exhibit significant and negative direct and indirect effects on self-assessed retirement preparation. Cancer again has a negative indirect pathway operating through health perceptions, but a positive direct association with retirement preparedness. These opposite effects offset each other such that the total effect of having had cancer is not significant. Cognitive and personality traits have positive and significant effects as before, and *Impatience* has a strong direct association with retirement preparedness, but no association through the *Good Health* pathway.

C. **Indirect evidence of causality.**

As with previous research investigating relationships between health status and various financial outcomes, the potential for endogeneity presents challenges. It is possible that financial health affects the prevalence and treatment of chronic health conditions, and it is also possible that health and financial well-being are both affected by one or more latent factors. In the empirical models above, we have thus far addressed one source of endogeneity. By modeling latent constructs with index variables of latent factors and applying structural equation modeling, we reduce the potential for endogeneity that is due to latent factors affecting multiple covariates. However, the problem of causality remains unaddressed. There is a longstanding question in the field regarding the causal direction between health problems and financial outcomes and perceptions. For example, in the previous section, low retirement preparedness can signal a compromised financial position, which can lead to health problems due to access to healthy lifestyle habits and practices, lack of resources for medical care, etc.

To investigate the issue of causality, we segment our sample into *FWB Score* quantiles: top 25%, 25th-50th percentile, 50th-75th percentile, and bottom 25%. Table 11 summarizes the variable means for each of the quartiles. As expected, retirement preparedness and health perceptions increase with *FWB Score* quartile. The incidences of metabolic and psychological problems decline with *FWB Score* quartile. We also observe a positive relationship between *FWB Score* quartile and the positive individual characteristics cognitive, personality, and financial efficacy).

Table 11: Variable mean values by FWB Score Quartiles

	FWB Score Quartiles			
Variable	Top 25%	50% - 74%	25%-49%	Bottom 25%
FWB Score	76.099	61.450	52.984	40.115
Retirement preparedness	3.301	2.689	2.264	1.721
Good health	0.922	0.891	0.82	0.661
Fin Efficacy	9.23	8.50	8.73	6.95
Risk Tolerance	2.42	2.53	2.78	2.74
Metabolic Index	-.043	-.121	-.012	0.155
Hospital nights	0.546	0.441	0.632	0.913
Ever Pscyh diagnosis	0.120	0.180	0.197	0.359
Ever Cancer	0.125	0.066	0.048	0.062
Cognitive Index	0.508	.214	-.278	-.418
Personality Index	0.467	0.113	-207	-.351
Impatience	-.391	-.141	0.116	0.377
Income Bin (1-9)	6.069	5.584	4.800	4.234
Gender (Female = 2)	1.499	1.567	1.643	1.714
Couple	0.759	0.706	0.666	0.577
Working for Pay	0.550	0.696	0.708	0.595
Race Cat (2= Black, 3 = Other)	1.249	1.364	1.484	1.435
Hispanic	0.069	0.138	0.199	0.189

Note: Data are from the Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Ever Psych and Ever Cancer are binary variables that indicate if the respondent has ever had a psychological or cancer diagnosis respectively. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high.

We next estimate the SEM for retirement preparation separately for each quartile of the *FWB Score* distribution. To identify plausible causal impact, we are particularly

interested in the results for the top quartile. For respondents with the highest scores, it is less likely that financial vulnerability drives health problems, reducing concerns about reverse causality in this subgroup. If respondents in the top quartile still exhibit a significant association between health and retirement preparedness, this provides some evidence that the direction is not driven solely by financial vulnerability determining health outcomes.

Focusing on the results for the top quartile, Table 12 provides some evidence consistent with a causal relationship between health and retirement preparedness, with income and demographic variables removed for space constraints. For this group, *Good Health* retains a highly significant positive association with retirement preparedness. Negative health conditions (*Metabolic Index*, *Hospital Nights*, and previous psychological problems) each have significant indirect negative effects on retirement preparedness operating through their effect on health perceptions. For example, the *Metabolic Index* coefficient in the *Good Health* regression is -0.786 and the *Good Health* coefficient in the *Retirement Prep* regression is 0.482, resulting in an indirect effect in the model of -0.786 X 0.482 =-.38. Further, for respondents in the top *FWB Score* quartile, chronic conditions influence retirement preparedness only through *Good Health*- none of the health variables have a significant direct association with retirement preparedness. This evidence is consistent with interpreting the direction of influence as going from better health to better retirement preparedness, at least within the highest segment, where reverse causality is less likely.

For respondents scoring in the lower quartiles in Table 12, chronic conditions are associated with a lower likelihood of reporting good health, and *Good Health* remains positively associated with retirement preparedness for all but the 25th to 50th percentile group. For the lowest quartile of *FWB Score*, we find that metabolic health and psychological problems have both indirect and direct negative associations with retirement preparedness. While the full set of quartiles confirms the robustness of the SEM relationships, it is the top quartile that provides an environment where reverse causality is less likely and informs the directional pathway.

Table 12: Simultaneous GSEM Estimates of Health (Equation 1) and Retirement Preparedness (Equation 2), by FWB Quartile (income and demographic controls are omitted for space constraints)

	Equation 1: Good Health				Equation 2: Retirement Preparedness			
	FWB Score Quartiles				FWB Score Quartiles			
	Top 25%	50-75%	25-50%	Bottom 25%	Top 25%	50-75%	25-50%	Bottom 25%
N	1444	1224	1281	1325				
Good Health					0.482***	0.354*	0.298	0.756***
Financial Efficacy					-0.00355	0.0491	0.0842*	0.182**
Risk Tolerance					0.0222	-0.0377	-0.00158	0.0584
Metabolic Index	-0.786***	-0.861***	-0.901***	-0.863***	0.0327	0.000697	-0.0677	-0.231***
Hospital Nights	-0.0750**	-0.0489**	-0.0892*	-0.177***	-0.00755	0.00773	-0.0440	0.00155
Ever Psych	-0.498***	-0.366	-0.631**	-0.631*	-0.235	-0.0931	-0.280	-0.413*
Ever Cancer	-0.437	-1.427***	-0.226	-0.834**	0.0569	-0.183	0.375	0.0990
Cognitive Index	0.0891	0.309**	-0.114	-0.165	0.0845	0.199**	0.364***	0.556***
Personality Index	0.281***	0.352***	0.366**	0.152	0.0353	-0.0515	0.0117	0.204**
Impatience	0.110	-0.0690	0.0861	-0.0555	-0.175**	-0.0972	-0.119	-0.0984
Constant	0.706	0.885	0.919	0.704				

* = p<0.05, ** = p<0.01, ***=p<0.001; Standard errors and p-values available upon request

Note: This table reports estimates from a generalized structural equation model (GSEM) in which the health and retirement preparedness equations are simultaneously estimated. The first equation models the probability of self-assessed good health (logit), and the second models retirement preparedness (ordered logit) as a function of self-assessed health and other covariates. Statistics are generated using the gsem command in Stata. Data from Understanding America Study. Index variables are created using factor analysis and are standardized to mean =0 and standard deviation =1. Metabolic Index measures health problems including some chronic conditions and obesity. Cognitive Index measures cognitive functioning including numeracy, education and financial literacy. Personality Index measures personality traits. Impatience is a standardized measure of a ranking based on individual discount rates from low to high. Risk tolerance measures individual tolerance for large stakes gambles with 1 being least tolerant. Financial self-efficacy is a measure of confidence in financial decision-making ability, with 10 being the most confident.

VI. Discussion

Across multiple specifications, we consistently find that *Good Health* has a central mediating role in predicting both *FWB Score* and *Retirement Prep*. Perceived health is strongly linked to both metrics and. modeling it as the dependent variable in the first SEM equation, reveals that many of the variables associated with financial well-being also influence health perceptions in the first equation. This includes the chronic conditions that not only reduce perceived health but have separate direct financial consequences, possibly related to reduced work capacity, constraints on saving, and disruptions to financial planning. Similar patterns apply to the cognitive and personality indices that are strong predictors of *Good Health* and both financial well-being measures. Controlling for health conditions reveals that *Impatience* consistently affects the financial well-being measure directly, not through health self-perceptions.

One notable finding is that cancer exhibits a positive direct association with the financial well-being metrics after controlling for perceived health. This pattern has appeared in other studies (such as Byers et al., 2008). It raises important questions regarding health care access and the effects of disparities in survivorship at lower socio-economic levels. These issues warrant further investigation.

While the results clarify associations within the model, the long-standing question of directionality between health and financial status remains. Variation by *FWB Score* quartile provides additional insight. Isolating the top *FWB Score* quartile, there remains a strong negative association between chronic conditions and perceived health, and a strong positive association between perceived health and retirement preparedness, suggesting that in the top quartile (where reverse causality from financial fragility is less plausible), the results are consistent with better health contributing to higher retirement preparedness.

In addition to analyzing the data by *FWB Score* quartile, we considered several alternatives to assess the robustness of our findings. Motivated by Blundell, et al. (2023), who conclude that a subjective health index is a better choice for understanding the effect of health on employment than a single-item subjective measure, we also created a

subjective health problems index using factor analysis.[21] We estimated the SEMs replacing *Good Health* with this index as the mediator in the first equation, and the results were not materially different from those presented above, indicating the model results are robust to the subjective health measure used. We also explored estimation by insurance status and by retirement status. Again, we found no material differences in the results.[22] Our findings are robust to these alternative specifications. Chronic conditions and individual traits affect financial well-being by operating indirectly through health self-perceptions and directly on the financial well-being metric.

Some limitations remain in the study. The analysis is cross-sectional and cannot assess the impacts over time from health events or changes in financial status experienced by respondents. Retirement preparedness is limited to respondents' self-assessment, not captured objectively, and the FWB Score is just one metric of financial well-being. The data are limited to the U.S. adult population and may not generalize to other contexts. However, accounting for these limitations, we can draw meaningful implications and conclusions, discussed in the following sections.

VII. Conclusions and Implications

Our primary results show that chronic conditions are significantly related to financial well-being as measured by the CFPB-FWB Score and self-assessed retirement preparedness. An advantage of our methodological approach is the construction of indices from variables that might otherwise exhibit endogeneity, combined with the application of a SEM framework to estimate the direct and indirect associations between chronic health conditions and financial well-being.

In this study, we contribute to the existing literature by demonstrating that chronic health conditions have significant independent associations with financial well-being.

[21] The unique factors that determine the index came from questions about perceived health and daily activities contained in the UAS comprehensive data file. The factors include the self-assessment of good health (coded from 1= excellent to 5 = poor), whether health problems limit at least one daily activity (1 = Yes) , and whether health problems limit the ability to work (1= Yes).

[22] Results are available on request.

Chronic conditions and individual traits also are related to financial well-being through the mediating pathway of health self-perceptions. We confirm the importance of personality and cognition, and our research demonstrates that physical and psychological health are also important contributors to financial well-being.

Using a large survey sample from the Understanding America Study, we document the wide range of subjective health perceptions and health conditions for US adults. The results of SEM analysis demonstrate that, even after controlling for objective health conditions and socio-demographic factors, self-perception is positively associated with our financial well-being measures. Although other studies have examined the relationship between health and various financial and employment variables, this study is the first to our knowledge to control for a wide range of factors hypothesized to be important to financial well-being. We find that the factors that are significantly associated with financial well-being are largely robust across generations and by retirement status. These include cognitive ability, personality traits, the individual discount rate, financial self-efficacy, income, and several demographic indicators. In this study, we use several methods to address the potential endogeneity of control variables. While the cross-sectional nature of the data prevents causal inference between health conditions and financial well-being, we use a novel approach to isolate the plausible effect of causal inference in the segment of our sample with the highest FWB Scores. At least for those in the top quartile of the FWB Score distribution, our results are consistent with an interpretation that chronic health conditions have a negative impact on financial well-being. This finding contributes to the ongoing body of research investigating causality in the fields of household finance and health economics.

The effect of health on financial well-being is an important issue for both retirement policy and public health policy. Because income is a major factor in financial well-being, our work suggests that policies reducing health-related income volatility should be explored. Similarly, policies that promote health stability, such as paid leave and quality health care, may indirectly reduce financial planning burdens for households. Policies promoting preventive care are likely to contribute directly to financial well-being. Policies

fostering workplace wellness and disability accommodations may improve both income and self-perceptions of health. Higher income directly improves financial well-being, and improvements in self-perceptions provide an additional indirect pathway. To the extent that poor health negatively affects employment, income, household debt, and the ability to save for the future, preventive health policies and early treatment of chronic conditions very likely have secondary benefits of reducing future reliance on public assistance and the risk of old-age poverty.

Finally, our results may prove beneficial for financial planning and advising practitioners. Integration of clients' health conditions, beyond insurance and estate planning, can result in more tailored and comprehensive financial well-being guidance. For example, advisors who systematically collect health information may be more adept at anticipating clients' future income volatility or medical expenses. Improved information about clients' health perceptions may enhance retirement timeline planning and emergency fund targets. Considering health status, combined with perceptions, personality, and time preferences, will assist financial planners in preparing clients' optimal asset allocation. Findings such as ours may motivate the creation of planning tools that integrate health condition indices with health perceptions and different financial well-being metrics. Future research should develop guidelines for integrating health information into financial planning processes.

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Appendix A: Questions Used to Construct the CFPB-financial well-being Scale

How well does this statement describe you or your situation?
1. I could handle a major unexpected expense.
2. I am securing my financial future.
3. Because of my money situation, I feel like I will never have the things I want in life.
4. I can enjoy life because of the way I'm managing my money.
5. I am just getting by financially.
6. I am concerned that the money I have or will save won't last.
How often does this statement apply to you?
7. Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month
8. I have money left over at the end of the month.
9. I am behind with my finances.
10. My finances control my life.