Demographic and Psychosocial Predictors of Financial Strain in Older Adults

Dawn Alley[1] and Joan R. Kahn[2]

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[1] Department of Epidemiology and Public Health, School of Medicine, University of Maryland Baltimore
[2] Department of Sociology and Maryland Population Research Center, University of Maryland College Park

Abstract

Financial strain is an important indicator of well-being that is strongly related to mental and physical health. Financial strain varies independently of objective measures of socioeconomic status, and the sources of this variation are not well understood. Additionally, few studies have examined whether the factors that predict financial strain vary across race and gender groups, despite higher reporting of financial strain among women and minorities. Using nationally representative data from the 2006 Health and Retirement Study (N=6,287), we demonstrate that psychosocial characteristics are important predictors of financial strain, accounting for more variation than is explained by objective economic measures. Economic resources, psychosocial resources, and health explain much of the variation in financial strain across demographic subgroups.

Introduction

Financial strain refers to perceived income inadequacy, or the subjective assessment of financial resources as inadequate with respect to needs. Financial strain is strongly related to income and wealth, but varies independently of objective measures of socioeconomic status (Litwin & Sapir, 2009; Mayer & Jencks, 1989). Financial strain likely represents an important source of chronic stress and a contributor to health disparities (Kahn & Fazio, 2005; Lantz, House, Mero, & Williams, 2005; Pearlin, Menaghan, Lieberman, & Mullan, 1981). However, little research has fully examined the factors that influence financial strain among older adults. Additionally, few studies have examined whether the factors that predict financial strain vary across race and gender groups, despite higher reporting of financial strain among women and minorities. The purpose of this paper is to examine predictors of financial strain in a nationally representative sample of older adults and to examine the extent to which the predictors of financial strain vary across demographic subgroups. This analysis is the first step in a larger research project examining the association between financial strain and health over time using newly available measures in the Health and Retirement Study.

Conceptual framework

Our conceptual framework draws from models of the stress process (Pearlin et al., 1981) and recent work on sources of reserve capacity (Matthews, Gallo, & Taylor, 2010). As described by Pearlin (1981), the stress process includes sources of stress, mediators of stress, and manifestations of stress. Sources of financial stress may include unemployment and low income and assets relative to needs. However, financial strain varies independently from income, assets, and employment status, suggesting that not all individuals with limited financial resources appraise this experience in the same way. Social resources, such as a large social network, and psychosocial resources, such as mastery and optimism, may provide reserve capacity that influences the appraisal process and buffers individuals from financial stress. We view self-reports of financial strain as a manifestation of stress, distinguishing between the manifestation of stress (self-reported strain) and health outcomes associated with the stress process.

Demographic variation in financial strain

Prior research has demonstrated that age is negatively associated with financial strain (Krause & Baker, 1992; Krause & Bastida, 2011; Litwin & Sapir, 2009; Mirowsky & Ross, 2001). Results are less consistent regarding the role of gender. Several studies have reported that women are more likely to experience financial strain (Antonucci et al., 2002; Ferraro & Su, 1999; Keith, 1993; Ross & Huber, 1985), but this association appears to be accounted for by controlling for economic and other characteristics (Litwin & Sapir, 2009). Additionally, gender may moderate the effects of other personal characteristics on financial strain. In an analysis of gender variation within married couples, Ross & Huber (1985) found that income appeared to be a stronger predictor of financial strain in men than in women.

Financial strain varies by race, with African Americans reporting higher rates of financial strain (Hall et al., 2009; Lincoln, Chatters, & Taylor, 2003; Szanton et al., 2008), although race differences may vary by gender (Ross & Huber, 1985). Education is associated with lower financial strain (Krause & Baker, 1992; Krause & Bastida, 2011; Rios & Zautra, 2011). Marriage is also generally associated with lower financial strain (Keith, 1993), but marriage may also moderate the effects of other variables, including age and income (Keith & Lorenz, 1989)

Little research in older adults has specifically evaluated the role of cumulative disadvantage on perceptions of financial strain in adulthood, but evidence from younger samples suggests that early life experiences may be important determinants of financial strain. For example, higher mother's education was associated with lower financial strain in adulthood in a sample of single mothers receiving welfare benefits (Jackson, Brooks-Gunn, Huang, & Glassman, 2000). More generally, "intrabiographic referencing," or self-comparison to earlier experiences, has been identified as an important theoretical contributor to the process of financial appraisal (Hazelrigg & Hardy, 1997). Additionally, persistence of disadvantage and lifetime financial strain have been shown to be important predictors of later life health (Kahn & Fazio, 2005; Szanton, Thorpe, & Whitfield, 2010).

Financial strain and health

Financial strain has been prospectively associated with depression (Mirowsky & Ross, 2001), functional status (Lantz et al., 2005), and mortality (Szanton et al., 2008). However, prior health status also predicts financial strain. Numerous studies demonstrate cross-sectional associations between self-rated health and financial strain, and both presence and number of chronic conditions are associated with greater financial strain (Szanton et al., 2008).

Psychosocial characteristics and financial strain

Few studies in older adults have evaluated the broad range of psychosocial characteristics that may influence financial strain. Drawing on models of reserve capacity (Matthews et al., 2010), both intra- and inter-personal resources such as social integration, personality, mastery, and optimism may influence whether an individual experiences a situation as stressful. Greater social integration and larger social networks are usually thought of as a buffer against stress (Cohen, Underwood, & Gottlieb, 2000), but may not always be. In particular, social networks may be a source of strain for women with low resources, who may have difficulty responding to the needs of network members (Kawachi & Berkman, 2001). Although a large body of research has examined the role of families and social networks as potential financial resources in the form of family transfers, little research has specifically assessed the role of social relationships on assessment of financial strain.

Personality, conceptualized based on the "Big Five" personality traits (Roberts, Duckworth, Jackson, & Von Culin, 2011), has been shown to be associated with financial strain in unemployed young adults (Creed, Muller, & Machin, 2001). Specifically, neuroticism was positively associated with financial strain (Creed et al., 2001). Additionally, previous research has shown that neuroticism is associated with lower lifetime earnings (Duckworth & Weir, 2010), while conscientiousness is associated with greater lifetime earnings and better health (Duckworth & Weir, 2010; Hill & Roberts, 2011). However, the associations between personality and financial strain have not been examined in older adults.

Research has also demonstrated an association between sense of control or mastery and financial strain (Krause & Baker, 1992; Pearlin et al., 1981), although it is unclear whether low mastery contributes to perceived strain or whether financial strain results in a loss of mastery. Additional research has found an association between income and mastery, with low income adults reporting lower mastery and higher perceived constraints (Lachman & Weaver, 1998). Finally, optimism and pessimism represent important traits related to expectations, a key factor in the evaluation of financial strain (Litwin & Sapir, 2009).

Contributions of this analysis

Beginning with the addition of new psychosocial measures in 2006, the Health and Retirement Study provides a unique opportunity to evaluate potential sources of variation in financial strain. Strengths of this analysis include: 1) detailed information on objective economic status, including wealth and housing tenure in addition to current income and employment status; 2) a wide variety of psychosocial measures, which may be particularly important in understanding the associations between financial strain and health outcomes; and 3) a large, nationally representative data set, allowing for analysis stratified by key variables (sex, race, and age).

Methods

Sample

The Health and Retirement Study (HRS) is a nationally representative panel study of Americans age 50 years and older.(Juster & Suzman, 1995; Soldo, Hurd, Rodgers, & Wallace, 1997) In 2006, a random half-sample of HRS respondents were selected for a face-to-face interview. Respondents who participated in the face-to-face interview received the Psychosocial Leave-Behind Participant Lifestyle Questionnaire and were asked to return the completed questionnaire by mail. This questionnaire greatly expanded the psychosocial variables available in the HRS, and many of the variables used in this analysis were collected for the first time in 2006. Among the 8,045 eligible respondents assigned to the face-to-

face interview, 7,168 completed the leave-behind questionnaire, and 6,287 had nonmissing data on all variables used in our analysis.

Outcome measure: Financial strain

The 2006 leave-behind questionnaire included four items tapping financial strain (Table 1). These questions assess the respondent's: 1) satisfaction with their current financial situation, 2) difficulty meeting monthly expenses, 3) distress caused by ongoing financial strain, and 4) degree of control over their financial situation. An exploratory common factor analysis suggested that a single factor explained substantial variance in the financial strain items, and a single factor solution provided an Eigenvalue of 2.32. Therefore, we proceeded to create a single financial strain score, by first standardizing and then averaging each of the four financial strain variables.

Table 1 about here

Predictors of financial strain

Our independent variables fall within 4 general categories: background characteristics, health indicators, economic resources and psychosocial resources. Background characteristics include age (measured in years), gender, race (white, black, Hispanic, other), education (recorded in years completed), and marital status (married, separated/divorced, widowed, never married). We also created an index of childhood socioeconomic disadvantage by summing indicator variables for the following retrospective reports of family circumstances from birth to age 16 (scale range 0-5): low socioeconomic status (poor vs. pretty well off or about average); moved because of financial difficulties; received help from relatives because of financial difficulties; respondent's father was unemployed for a period of several months or more; and respondent never lived with father.

Health indicators include self-rated health, recoded to distinguish between fair/poor responses and good, very good or excellent responses. We also include self-reported indicators of whether the respondent had ever been diagnosed with heart disease, cancer, stroke, lung disease, diabetes, or arthritis.

Measures of current economic resources include the poverty income ratio (based on the ratio of self-reported household income to the U.S. Census poverty threshold), and total non-housing wealth (as a measure of available assets). Both poverty income ratio and non-housing wealth were highly skewed and were therefore logged in the regression analysis. We also control for the respondent's current employment status (employed, retired or not in the labor force due to unemployment, disability or some other reason) and whether the respondent is a homeowner, a renter or has some other living arrangement.

Psychosocial resources include an indicator of social integration based on the size of the respondent's network of family and friends with whom they had a close relationship; social network size was skewed by a few very large networks and was therefore top-coded at 39, corresponding to three standard deviations above the mean. Personality was assessed using items from the Midlife Development Inventory (Lachman & Weaver, 1997). Participants were asked "how well does each of the following describe you" for a list of 26 attributes (e.g., worrying, responsible, calm, careless). Responses (a lot, some, a little, not at all) were used to score participants along five dimensions: Neuroticism, Extroversion, Agreeableness, Conscientiousness, and Openness to Experience. Final scores ranged from 1-4 and were missing if more than half of the items within each sub-dimension were missing values. Two aspects of sense of control were included: mastery and perceived constraints (Lachman & Weaver, 1998). Participants were asked to report how much they agreed or disagreed with a series of ten statements on a scale of 1 (strongly disagree) to 6 (strongly agree). Scores from the five mastery and five constraints items were averaged to create two scales ranging from 1-6; scores were assigned as missing if more than three items had missing values. Optimism and pessimism were assessed with six items from the Revised Life Orientation Test (Scheier, Carver, & Bridges, 1994) to create two subscales also ranging from 1-6.

Analysis

Bivariate relationships between financial strain and covariates were tested using chi-square tests for categorical variables and ANOVA for continuous variables. We used ordinary least squares regression to predict the summary financial strain score. Model 1 controlled for background characteristics. Models 2,3 and 4 each added health indicators, economic resources and psychosocial resources, respectively, to Model 1 covariates in order to test the marginal associations between each set of variables and financial strain, controlling for background characteristics. The final model (Model 5) was fully adjusted for all potential covariates. Additional regressions repeated Model 5 in analyses stratified by age (52-64, 65-84, 85+), sex, and race (white, black, Hispanic), respectively.
All analyses utilized sample weights specific to the leave-behind questionnaire to account for oversampling and nonresponse, and standard errors were corrected for complex sample design.

Results

Table 2 shows distributions on individual characteristics for the total sample as well as across tertiles of the financial strain scale. Results demonstrate strong and significant relationships between all of the covariates and financial strain. People who experienced higher levels of financial strain were more likely to be younger, female, nonwhite, less educated, from disadvantaged backgrounds, divorced, in fair/poor health, and to have more chronic conditions than people reporting lower levels of strain. Not surprisingly, they also had fewer financial resources in terms of income and non-housing wealth, and they were less likely to own their own home. Finally, they also had smaller social networks and more negative psychosocial profiles (e.g., more neurotic, less conscientious, lower mastery, more pessimistic).

Table 2 about here

Table 3 provides coefficients from regressions predicting financial strain score. Model 1 in Table 3 shows that, without any controls for health, economic or psychosocial resources, financial strain had the

expected negative relationships with age and education. Female, black, and unmarried participants reported higher levels of financial strain. Greater childhood disadvantage was also positively associated with financial strain. While all of these core demographic characteristics (except for being Hispanic) had significant effects, they explained only 12% of the variation in financial strain.

Table 3 about here

Controlling for current health status and the presence of chronic health conditions (Model 2) added to the explained variation in financial strain (the explained variance increases to almost 18%). As expected, individuals who rated their health as fair or poor, or who have ever been diagnosed with a serious health condition (other than cancer) were significantly more likely to report higher levels of financial strain. Of course, it is possible (and in fact likely) that current health may be compromised by past experiences with financial hardship, so we interpret these "effects" cautiously.

Model 3 confirms the strong relationship between objective financial circumstances and perceived financial strain. Having higher income and wealth, being a homeowner rather than a renter, and being currently employed rather than unemployed or disabled (but not retired), were all strongly protective against financial hardship. Taken together, these economic measures added significantly to the background model, raising the explained variance from 12% to 28%.

Perhaps most striking, however, was the strong relationship between psychosocial resources and financial strain (Model 4). Even without controlling for health or economic resources, the psychosocial measures explained more of the variance in financial strain (almost 31%), than did financial resources. Having larger networks of close family and friends, being more extroverted, conscientious, and optimistic, and having higher levels of mastery were all protective against feelings of financial strain. Being more neurotic, pessimistic, and feeling a higher degree of constraints were each associated with significantly higher levels of financial strain.

The full model in Table 3 shows that all four sets of variables have important and independent effects on financial strain. Taken together, they explained over 40% of the variation in financial strain, more than 10% more than any of the partial models. By comparing results across models, we can see that the effects of many of the background variables were "explained" by economic resources and, to a lesser degree, by psychosocial resources. For example, the greater financial strain experienced by blacks compared to whites was completely explained by their lower financial resources. Interestingly, after controlling for differences in financial resources, Hispanics appear to experience significantly lower levels of financial strain than do whites, suggesting greater reserve or resilience among Hispanics. The negative effect of education on financial strain became positive after we controlled for economic resources, suggesting that net of objective financial well-being, better educated individuals feel significantly more financial strain than do less educated individuals. Perhaps this reflects their higher levels of consumption or greater financial obligations. The greater strain felt by divorced and widowed compared to married individuals was completely explained by differences in financial resources. Interestingly, the greater financial strain felt by the never married was explained by both their financial resources and their psychosocial resources, suggesting that the never married may have personality attributes that raise their risk of feeling financial strain (attributes that may also explain why they never married).

The greater financial strain felt by individuals who have had illnesses such as stroke, lung disease and diabetes (in Model 2), was completely explained by their economic and psychosocial resources. Further analysis would be necessary to determine which set of factors is more important. The greater financial strain felt by retired relative to employed individuals (Model 3) was completely explained by their psychosocial attributes. Holding constant those measures of personality and social support, retired individuals actually reported significantly lower levels of financial strain than do employed individuals. It is also interesting that the greater strain felt by unemployed and disabled adults (compared to those who are currently employed) (Model 3) was completely explained by psychosocial resources and health.

The effects of all of the psychosocial resources remain significant even after controlling for the health and economic indicators, suggesting close linkages between personality and self-concept measures and perceptions of financial strain. Based only on these preliminary results, it is clear that psychosocial measures add significantly to our understanding of differentials in financial wellbeing.

Additional analyses explore the predictors of financial strain by considering differences by socio-demographic characteristics. Tables 4a-c provide a glimpse of these patterns by presenting stratified models by age, race and gender. Results are intriguing, and we plan to continue our analysis with additional models that test for interactions.

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Table 1. Financial strain questionnaire items and summary score: Health and Retirement Study, 2006 (N=6,287)

Question	Response Options	Percent	Mean	Standard Deviation
How satisfied are you with (your/your family's) present financial situation?	1 = Completely satisfied	10.49	2.82	1.08
	2 = Very satisfied	28.35		
	3 = Somewhat satisfied	38.70		
	4 = Not very satisfied	13.52		
	5 = Not at all satisfied	8.94		
How difficult is it for (you/your family) to meet monthly payments on (you/your family's) bills?	1 = Not at all difficult	36.45	2.04	1.01
	2 = Not very difficult	33.46		
	3 = Somewhat difficult	21.92		
	4 = Very difficult	6.02		
	5 = Completely difficult	2.14		
Indicate whether or not any of these are current and ongoing problems that have lasted twelve months or longer. If the problem is happening to you, indicate how upsetting it has been: Ongoing financial strain.	1 = No, didn't happen	59.99	1.68	0.95
	2 = Yes, but not upsetting	18.55		
	3 = Yes, somewhat upsetting	15.30		
	4 = Yes, very upsetting	6.15		
Using a 0 to 10 scale where 0 means "very much control" and 10 means "no control at all," how would you rate the amount of control you have over your financial situation these days?	0 = Very much control	23.28	2.81	2.66
	1	14.58		
	2	18.94		
	3	11.36		
	4	6.61		
	5	10.46		
	6	3.69		
	7	3.35		
	8	2.68		
	9	1.96		
	10 = No control at all	3.10		
Summary financial strain score*			-0.0049	0.82

*Summary financial strain score was created by first standardizing, and then averaging, each of the four individual financial strain measures.

Table 2. Distributions on Individual Characteristics for Total Sample and by Financial Strain Tertile: Health and Retirement Study, 2006

	Tertiles of Financial Strain[a]							
	Total Sample (N=6,287)		**T1** (N=2,203)		**T2** (N=2,148)		**T3** (N=1,936)		pvalue[b]
Background Characteristics									
Age in years (Mean, SD, 52-104)	65.3	(10.1)	68	(11.0)	65.3	(10.0)	62.8	(8.8)	<0.001
Female (%)	54.0		52.4		53.1		56.4		0.042
Race (%)									
White	83.3		90.6		83.8		75.7		<0.001
Black	8.3		4.2		7.7		12.7		
Hispanic	6.3		3.8		6.2		8.9		
Other	2.1		1.4		2.2		2.7		
Education in years (Mean, SD, 0-17)	13.0	(2.9)	13.5	(2.8)	13.1	(2.9)	12.5	(2.9)	<0.001
Childhood Disadvantage (Mean, SD, 0-5)	0.9	(1.1)	0.7	(1.1)	0.8	(1.1)	1	(1.1)	<0.001
Marital Status (%)									<0.001
Married	69.1		72.3		72.1		62.8		
Divorced	12.2		6.9		11.4		18		
Widowed	15.1		17.5		13.7		14.3		
Never married	3.6		3.2		2.8		4.9		
Health Indicators									
Fair/poor self-rated health (%)	24.4		15.3		19.9		37.8		<0.001
Heart disease (%)	21.4		20.7		18.5		25.0		<0.001
Cancer (%)	12.9		14.4		12.7		11.8		0.073
Stroke (%)	6.1		5.5		5.0		7.7		0.001
Lung disease (%)	9.0		6.4		8.0		12.4		<0.001
Diabetes (%)	18.1		14.4		16.8		22.9		<0.001
Arthritis (%)	55.3		52.2		53.8		59.8		<0.001

Table 2. Distributions on Individual Characteristics for Total Sample and by Financial Strain Tertile: Health and Retirement Study, 2006 —Cont.

	Tertiles of Financial Strain[a]				
	Total Sample (N=6,287)	**T1** (N=2,203)	**T2** (N=2,148)	**T3** (N=1,936)	pvalue[b]
Economic Resources					
Poverty Income Ratio (Mean, SD)	6.1 (15.8)	8.5 (27.6)	5.8 (6.2)	4.0 (4.3)	<0.001
Wealth (Median, IQR)	47,000 (204,500)	163,000 (406,300)	51,000 (188,100)	5,000 (49,800)	0.001
Homeownership (%)					<0.001
Owner	83.7	90.9	85.9	74.6	
Renter	12.4	6.3	10.5	20.3	
Other	3.8	2.8	3.6	5.1	
Employment status (%)					<0.001
Employed	47.2	41.6	51.5	48.1	
Retired	42.9	50.7	39.8	38.5	
Other	10.0	7.7	8.7	13.4	
Psychosocial Resources					
Social network size (Mean, SD, 0-39)	9.2 (6.9)	9.8 (7.4)	9.2 (6.7)	8.5 (6.4)	0.001
Personality (Mean, SD, 1-4)					
Neuroticism	2.1 (0.6)	1.9 (0.6)	2.1 (0.6)	2.3 (0.6)	<0.001
Extroversion	3.2 (0.6)	3.3 (0.6)	3.2 (0.5)	3.2 (0.5)	<0.001
Agreeableness	3.5 (0.5)	3.6 (0.5)	3.5 (0.5)	3.5 (0.5)	<0.001
Conscientiousness	3.4 (0.5)	3.5 (0.4)	3.4 (0.5)	3.2 (0.5)	<0.001
Openness to experience	3.0 (0.5)	3.1 (0.5)	2.9 (0.5)	2.9 (0.6)	<0.001
Mastery (Mean, SD, 1-6)	4.8 (1.1)	5.1 (1.1)	4.8 (1.0)	4.4 (1.1)	<0.001
Constraints (Mean, SD, 1-6)	2.2 (1.2)	1.8 (1.0)	2.1 (1.1)	2.7 (1.2)	<0.001
Pessimism (Mean, SD, 1-6)	2.6 (1.3)	2.2 (1.2)	2.6 (1.2)	3.1 (1.3)	<0.001
Optimism (Mean, SD, 1-6)	4.5 (1.1)	4.8 (1.1)	4.5 (1.1)	4.2 (1.1)	<0.001

[a]Tertiles refer to the lowest, middle and upper thirds of the financial strain distribution, based on the summary score calculated by averaging standardized versions of the four financial strain measures described in Table 1. Sample n's are not equal across tertiles because of weighting.
[b]The bivariate relationships between financial strain and the covariates were tested using chi-square tests for categorical variables and ANOVA for continuous variables.

Table 3. OLS Regressions Predicting Summary Financial Strain Score: Health and Retirement Study, 2006 (N=6,287)

	Model 1: Background factors		Model 2: Plus Health Indicators		Model 3: Plus Economic Resources		Model 4: Plus Psychosocial Resources		Model 5: Full Model	
	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue
Background Characteristics										
Age in years (52-104)	-0.022	0.000	-0.025	0.000	-0.020	0.000	-0.021	0.000	-0.019	0.000
Female	0.038	0.147	0.047	0.061	0.031	0.201	0.040	0.077	0.044	0.037
Race										
White	—	—	—	—	—	—	—	—	—	—
Black	0.205	0.000	0.155	0.000	-0.153	0.000	0.217	0.000	-0.050	0.158
Hispanic	0.029	0.624	0.013	0.811	-0.234	0.000	0.031	0.608	-0.160	0.002
Other	0.232	0.059	0.195	0.089	0.119	0.256	0.177	0.125	0.094	0.353
Education in years (0-17)	-0.045	0.000	-0.029	0.000	0.015	0.000	-0.021	0.000	0.022	0.000
Childhood Disadvantage (0-5)	0.056	0.000	0.040	0.000	0.039	0.000	0.035	0.000	0.022	0.010
Marital Status (%)										
Married	—	—	—	—	—	—	—	—	—	—
Divorced	0.308	0.000	0.274	0.000	0.039	0.283	0.248	0.000	0.045	0.210
Widowed	0.178	0.000	0.160	0.000	-0.028	0.390	0.119	0.000	-0.034	0.253
Never married	0.234	0.008	0.208	0.012	-0.107	0.125	0.099	0.124	-0.139	0.018
Health Indicators										
Fair/poor self-rated health			0.349	0.000					0.069	0.006
Heart disease			0.118	0.000					0.078	0.002
Cancer			-0.015	0.619					0.031	0.230
Stroke			0.142	0.003					0.029	0.458
Lung disease			0.100	0.018					0.041	0.260
Diabetes			0.074	0.015					-0.002	0.911
Arthritis			0.093	0.000					0.036	0.049

Table 3. OLS Regressions Predicting Summary Financial Strain Score: Health and Retirement Study, 2006 (N=6,287) —Cont.

	Model 1: Background factors		Model 2: Plus Health Indicators		Model 3: Plus Economic Resources		Model 4: Plus Psychosocial Resources		Model 5: Full Model	
	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue
Economic Resources										
Poverty Income Ratio					-0.167	0.000			-0.118	0.000
Wealth					-0.082	0.000			-0.068	0.000
Homeownership										
Owner					—	—			—	—
Renter					0.144	0.000			0.094	0.009
Other					0.004	0.943			-0.009	0.856
Employment status										
Employed					—	—			—	—
Retired					0.066	0.210			-0.088	0.005
Other					2.047	0.000			-0.049	0.269
Psychosocial Resources										
Social network size (0-39)							-0.003	0.083	-0.003	0.029
Personality (1-4)										
Neuroticism							0.115	0.000	0.106	0.000
Extroversion							-0.065	0.038	-0.077	0.009
Agreeableness							0.104	0.000	0.067	0.005
Conscientiousness							-0.187	0.000	-0.103	0.001
Openness to experience							0.107	0.000	0.075	0.004
Mastery (1-6)							-0.100	0.000	-0.090	0.000
Constraints (1-6)							0.136	0.000	0.104	0.000
Pessimism (1-6)							0.064	0.000	0.034	0.009
Optimism (1-6)							-0.045	0.000	-0.046	0.000
R^2	**0.122**		**0.178**		**0.282**		**0.308**		**0.409**	

Table 4a. OLS Regressions Predicting Summary Financial Strain Score by Age: Health and Retirement Study, 2006

	Age 52-64 (N=2,344)		Age 65-84 (N=3,564)		Age 85+ (N=379)	
	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue
Background Characteristics						
Female	0.050	0.117	0.069	0.006	0.040	0.636
Race						
White	—	—	—	—	—	—
Black	-0.038	0.470	-0.054	0.327	-0.067	0.694
Hispanic	-0.193	0.013	-0.052	0.311	-0.064	0.781
Other	0.167	0.185	-0.066	0.468	0.151	0.649
Education in years (0-17)	0.031	0.001	0.017	0.000	0.007	0.573
Childhood Disadvantage (0-5)	0.010	0.439	0.036	0.003	-0.010	0.725
Marital Status (%)						
Married	—	—	—	—	—	—
Divorced	0.045	0.271	0.056	0.273	-0.318	0.037
Widowed	-0.099	0.265	-0.044	0.162	-0.174	0.026
Never married	-0.085	0.339	-0.256	0.001	-0.329	0.286
Health Indicators						
Fair/poor self-rated health	0.098	0.022	0.062	0.049	0.003	0.966
Heart disease	0.138	0.006	0.035	0.187	-0.101	0.157
Cancer	0.018	0.735	0.012	0.626	0.024	0.724
Stroke	0.002	0.984	0.049	0.257	0.038	0.609
Lung disease	0.023	0.730	0.064	0.139	0.063	0.643
Diabetes	-0.034	0.412	0.002	0.950	0.186	0.012
Arthritis	0.015	0.647	0.031	0.252	0.022	0.692
Economic Resources						
Poverty Income Ratio	-0.109	0.000	-0.108	0.000	-0.176	0.003
Wealth	-0.070	0.000	-0.072	0.000	-0.072	0.000
Homeownership						
Owner	—	—	—	—	—	—
Renter	0.115	0.078	0.058	0.169	0.104	0.236
Other	0.060	0.531	-0.087	0.177	-0.097	0.419
Employment status						
Employed	—	—	—	—	—	—
Retired	-0.108	0.066	-0.178	0.000	-0.260	0.221
Other	-0.019	0.756	-0.190	0.002	-0.384	0.105
Psychosocial Resources						
Social network size (0-39)	-0.004	0.169	-0.003	0.038	-0.009	0.042
Personality (1-4)						
Neuroticism	0.119	0.000	0.103	0.000	0.109	0.080
Extroversion	-0.068	0.111	-0.088	0.012	-0.038	0.599
Agreeableness	0.086	0.009	0.034	0.378	0.034	0.652
Conscientiousness	-0.115	0.005	-0.103	0.006	-0.100	0.179
Openness to experience	0.094	0.024	0.070	0.034	0.022	0.800
Mastery (1-6)	-0.092	0.000	-0.073	0.000	-0.149	0.000
Constraints (1-6)	0.106	0.000	0.098	0.000	0.090	0.009
Pessimism (1-6)	0.055	0.009	0.004	0.730	-0.004	0.897
Optimism (1-6)	-0.065	0.000	-0.030	0.012	-0.004	0.880
R^2	**0.399**		**0.356**		**0.434**	

Table 4b. OLS Regressions predicting Summary Financial Strain Score by Race: Health and Retirement Study, 2006

	White (N=5,010)		Black (N=737)		Hispanic (N=421)	
	Coef.	pvalue	Coef.	pvalue	Coef.	pvalue
Background Characteristics						
Age in years (52-104)	-0.018	0.000	-0.022	0.000	-0.016	0.000
Female	0.062	0.003	-0.043	0.574	-0.105	0.098
Education in years (0-17)	0.027	0.000	0.022	0.044	0.016	0.124
Childhood Disadvantage (0-5)	0.022	0.016	0.046	0.086	0.005	0.874
Marital Status (%)						
Married	—	—	—	—	—	—
Divorced	0.023	0.543	0.074	0.452	-0.034	0.746
Widowed	-0.044	0.176	0.035	0.679	0.072	0.484
Never married	-0.159	0.035	-0.074	0.492	-0.219	0.322
Health Indicators						
Fair/poor self-rated health	0.040	0.153	0.092	0.120	0.201	0.008
Heart disease	0.068	0.015	0.164	0.022	0.130	0.219
Cancer	0.004	0.871	0.191	0.025	0.213	0.127
Stroke	0.009	0.810	-0.002	0.989	0.350	0.045
Lung disease	0.050	0.195	0.056	0.747	-0.092	0.596
Diabetes	0.017	0.545	-0.081	0.148	-0.093	0.225
Arthritis	0.037	0.070	0.050	0.446	0.019	0.768
Economic Resources						
Poverty Income Ratio	-0.131	0.000	-0.089	0.098	-0.079	0.077
Wealth	-0.075	0.000	-0.041	0.000	-0.053	0.000
Homeownership						
Owner	—	—	—	—	—	—
Renter	0.125	0.004	-0.125	0.170	0.234	0.012
Other	-0.035	0.519	0.132	0.437	0.117	0.383
Employment status						
Employed	—	—	—	—	—	—
Retired	-0.118	0.000	0.002	0.980	0.054	0.531
Other	-0.062	0.235	-0.089	0.518	0.193	0.017
Psychosocial Resources						
Social network size (0-39)	-0.004	0.020	0.003	0.504	-0.005	0.471
Personality (1-4)						
Neuroticism	0.078	0.001	0.275	0.000	0.144	0.009
Extroversion	-0.079	0.019	-0.161	0.004	-0.029	0.783
Agreeableness	0.067	0.008	0.142	0.207	0.074	0.440
Conscientiousness	-0.121	0.000	-0.068	0.464	-0.030	0.773
Openness to experience	0.099	0.001	-0.042	0.630	-0.119	0.086
Mastery (1-6)	-0.090	0.000	-0.065	0.086	-0.069	0.033
Constraints (1-6)	0.113	0.000	0.070	0.077	0.060	0.110
Pessimism (1-6)	0.043	0.003	0.007	0.758	-0.022	0.376
Optimism (1-6)	-0.051	0.000	-0.031	0.350	0.021	0.461
R^2	**0.417**		**0.334**		**0.411**	

Table 4c. OLS Regressions predicting Summary Financial Strain Score by Sex: Health and Retirement Study, 2006

	Male (N=2,661)		Female (N=3,626)	
	Coef.	pvalue	Coeff.	pvalue
Background Characteristics				
Age in years (52-104)	-0.018	0.000	-0.019	0.000
Race				
White	—	—	—	—
Black	0.019	0.745	-0.091	0.029
Hispanic	-0.144	0.022	-0.184	0.001
Other	0.007	0.963	0.146	0.259
Education in years (0-17)	0.025	0.000	0.020	0.003
Childhood Disadvantage (0-5)	0.023	0.046	0.019	0.127
Marital Status (%)				
Married	—	—	—	—
Divorced	-0.069	0.135	0.110	0.026
Widowed	-0.045	0.477	-0.024	0.431
Never married	-0.058	0.489	-0.211	0.016
Health Indicators				
Fair/poor self-rated health	0.066	0.086	0.079	0.032
Heart disease	0.056	0.143	0.094	0.002
Cancer	0.022	0.511	0.038	0.326
Stroke	0.053	0.391	0.012	0.808
Lung disease	-0.012	0.838	0.078	0.145
Diabetes	-0.050	0.167	0.033	0.261
Arthritis	0.017	0.561	0.054	0.038
Economic Resources				
Poverty Income Ratio	-0.106	0.000	-0.119	0.000
Wealth	-0.071	0.000	-0.066	0.000
Homeownership				
Owner	—	—	—	—
Renter	0.083	0.212	0.105	0.013
Other	0.031	0.747	-0.042	0.443
Employment status				
Employed	—	—	—	—
Retired	-0.064	0.106	-0.116	0.007
Other	0.177	0.025	-0.115	0.056
Psychosocial Resources				
Social network size (0-39)	-0.001	0.694	-0.005	0.012
Personality (1-4)				
Neuroticism	0.111	0.001	0.101	0.000
Extroversion	-0.047	0.174	-0.094	0.047
Agreeableness	0.088	0.009	0.026	0.464
Conscientiousness	-0.125	0.006	-0.084	0.038
Openness to experience	0.088	0.009	0.064	0.051
Mastery (1-6)	-0.065	0.000	-0.107	0.000
Constraints (1-6)	0.111	0.000	0.097	0.000
Pessimism (1-6)	0.049	0.005	0.022	0.129
Optimism (1-6)	-0.058	0.000	-0.037	0.007
R^2	**0.436**		**0.398**	