Financial Shocks and Worry about the Future

Ann L. Owen
aowen@hamilton.edu

Stephen Wu*
swu@hamilton.edu

Hamilton College

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Abstract

Using data from the Health and Retirement Study and the Survey of Consumer Finances, we show that households that experience adverse financial shocks worry more about the adequacy of their financial resources in retirement, even after controlling for the effects of these shocks on overall wealth. We find supporting evidence that suggests that at least part of the increased worry about retirement is due to general pessimism rather than changes in an individual's own circumstances. Specifically, experiencing idiosyncratic financial shocks is also associated with greater pessimism about the general future of the economy. Finally, we present some suggestive evidence that links the increased level of worry to reduced consumption.

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*Corresponding Author: Department of Economics, Hamilton College, Clinton, NY 13323
Tel: 315-859-4645; Fax: 315-859-4477

1 Introduction

An important element of economic decision-making is expectations about the future. These expectations, however, may be influenced by both rational calculations of expected values as well as emotional assessments of the future. In this paper, we present evidence that the degree of concern about the adequacy of retirement income is in fact influenced by psychological factors, even after controlling for the effect on actual resources. Specifically, we show that after experiencing unexpected financial shocks, individuals worry more about the adequacy of their retirement income, even after controlling for changes in income and net worth. Furthermore, these idiosyncratic shocks are associated with greater pessimism about general macroeconomic conditions. We make a suggestive link between increased worry and economic behavior, providing some evidence that increased worry is associated with lower consumption expenditures.

Our findings are related to evidence in the psychology literature that people adjust their future expectations given their past experiences. For example, Wilson et al. (2001) find that negative experiences improve individuals' ability to gauge future reactions while Ross and Newby-Clark (1998) find that people's views of their past and future experiences are qualitatively different. It is also widely argued that individuals have inaccurate perceptions of health and safety risks. Viscusi (1993) asserts that individuals tend to systematically overestimate the probability of unlikely events and underestimate the probability of more common occurrences. In a complementary finding, Slovic (1987) argues that individuals overestimate the amount of risk they face relative to past risk. New information, however, may alter these expectations or change behavior because of a change in preferences towards risk or a re-evaluation of the amount of risk.

Because our work examines attitudes about retirement income and makes a suggestive connection to these attitudes and consumption, the paper is also related to a vast literature that documents savings behavior by many households that is difficult to explain with standard optimization models. For example, Venti and Wise (1998) show that there is a large dispersion in wealth holdings at retirement even among households that have had similar lifetime incomes, while Diamond and Hausman (1984) document that many enter retirement with very little savings. Banks, Blundell and Tanner (1998) show that the fall in consumption experienced by many households upon retirement cannot be completely explained by a forward-looking consumption smoothing model unless these households receive unexpected negative information as they retire. Consistent with this hypothesis, Gustman and Steinmeier (2004) show that many households do not have good information about their Social Security and pension benefits, especially households that rely the most heavily on Social Security income.[1]

Our work is in the same vein as several other authors who have used behavioral explanations such as lack of self control or an unwillingness to consider the future to unravel this seemingly puzzling saving behavior. Limited self control has been formally modeled with the use of hyperbolic discounting (e.g., Laibson, Repetto and Tobacman, 1998 or Diamond and Koszegi, 2000). Evidence that individuals procrastinate or engage in "participant inertia" can be found in Madrian and Shea (2001) who show that a substantial portion of individuals are unlikely to alter the default 401K contribution rate or investment allocation set by the employer. Similarly, Lusardi (1999) finds evidence for procrastination and shows that a significant portion of households nearing retirement have given little thought to it and that many low wealth households have no plans to

[1] See Browning and Lusardi (1996) for further discussion of savings theory and evidence.

increase savings prior to retirement.[2] In this paper, we contribute to this literature by empirically examining the link between financial shocks, increased worry, pessimism, and consumption behavior.

This paper is closely related to that of Lusardi (2003), who uses a cross-section of the HRS to investigate the effect of planning on net worth and financial wealth. Our results complement and extend these findings by shedding further light on the link from the experiences that individuals have to their economic behavior through a mechanism that causes them to re-evaluate their prospects for the future. Our work adds to the existing literature because our use of panel data allows us to document changes in attitudes about the future as a result of negative shocks. The rich data in the HRS also allows us to explore behavioral explanations for these attitude changes.

The paper is organized as follows. Section 2 describes our methodology and data, section 3 presents and interprets our main results, and section 4 concludes.

2 Methodology and Data

In order to gain understanding of how individuals form their expectations about the future, we examine the effect of unexpected financial shocks on the degree to which individuals worry about having sufficient retirement income. There may be unobserved characteristics that determine how much an individual worries about the future. Therefore, it is crucial to our analysis that we observe people over two periods, allowing us to focus on the effect of unexpected events after controlling for initial levels of worry. Specifically, we adopt the following specification:

[2] Interested readers should also see theoretical pieces by Akerlof (1991), Thaler (1994), and O'Donoghue and Rabin (1999).

$$(1) \qquad W_2 = \beta_0 + \beta_1 W_1 + \beta_2 \text{shock}_2 + \beta_3 X_1 + \varepsilon_2$$

where W_2 represents an index of worry in period 2 and W_1 is a vector of dummy variables, each indicating one of several different levels of worry in the first period. We estimate the effect of an unexpected event that happens between periods on second period worry, holding constant worry in the first period, as well as a host of other covariates. The control variables represented by *X* include first period net worth and household income, age, race, education, gender (for singles) and self-reported health status. We expect that individuals who worry more initially, have fewer financial resources, or who are in poor health are likely to worry more in the second period. Our index of worry is measured on a scale of 0 to 3, with 0 representing "not at all" and 3 representing "A lot". We estimate equation 1 using an ordered probit model.[3]

The primary data source for this study is the Health and Retirement Study (HRS), conducted by the University of Michigan's Institute for Social Research. The HRS is a nationally representative panel of approximately 7,000 households with a primary respondent between the ages of 51 and 61 during the first year of the survey. The first wave of the study was conducted in 1992, with subsequent waves conducted every two years, so the primary respondents represent cohorts born between 1931-1941. We analyze data from the first and second waves of the survey since certain questions are not asked across all waves of the data.[4] The survey collects detailed information on health status, retirement decisions, net worth, income, work history, family composition, health insurance, as well as a host of attitudinal variables regarding future expectations. One important aspect of the data is that for married households, information is collected for

[3] OLS estimation yields qualitatively similar results.
[4] In particular, the question about recent financial shocks is only asked in the first and second waves of the survey.

both spouses, allowing us to analyze the behavior of singles, as well as both married men and women.

Our index of worry is constructed from a question in the HRS that asks, "…for things that worry some people about retirement. Please tell me if they worry you a lot, somewhat, a little, or not at all – not enough income to get by." As mentioned above, we then create our index of worry, with 0 representing "not at all" and 3 representing "a lot." Although this question is specific to a concern about retirement income, given the age of the respondents in the HRS, this issue is likely to be significant to many individuals in our sample. Because this question asks respondents to indicate their future expectations about retirement years, the sample only includes individuals who are not already retired by the second wave of the survey.

To account for recent financial shocks, we use a variable that represents whether a household has had a recent event that has hurt them financially. Specifically, the survey asks the following question: "Thinking back over the last two years, (since the last survey interview), have you had any large unexpected expenses or events that have made it very difficult to meet your financial goals?" Respondents are then asked to provide a dollar amount of the money involved with this unforeseen event, as well as to detail the nature of the event. Some of these events include getting laid off, having unexpected medical expenses, unexpectedly high tax bills and major home or auto repairs. For our purposes, it is important that the question identifies events that were not expected in the first period, which allows us to assume these to be truly exogenous "shocks".[5]

[5] We should be careful to note, however, that different people may perceive the same type of event very differently. A "shock" for one person may not be a shock for a different individual.

3 Empirical Results

Table 1 provides summary statistics for the key variables in the HRS used in this study. The average age of singles is slightly over 55, while the average ages of married men and married women are 57 and 53, respectively. Singles seem to worry the most about retirement, with 43 percent indicating that they worry a lot. Thirty percent of married women also say they worry a lot about retirement, but only 25 percent of married men report the highest level of worry. Almost 20 percent of all households experience some type of major financial setback between the two periods of the survey, and the average dollar value for these shocks (given the presence of one) is approximately $8,600 for singles and $23,000 for couples.

3.1 Financial Shocks and Worry about Future Retirement

Table 2a shows the results of the estimation of equation 1 for singles. In this table, the shock variable is simply a dichotomous variable indicating the presence of a recent large unexpected expense. The specification in the first column includes demographic controls as well as net worth and household income in the first period. As expected, the results in Column 1 of Table 2a show that individuals that worried more in the first period or had lower household income in the first period, worried more in the second period. Importantly for our study, however, these results also show that having an unexpected financial shock between periods is associated with an increase in the level of worry about retirement income.

Of course, one channel through which unexpected financial shocks might affect the level of worry in the second period is by lowering overall wealth in the second period, either due to lower household income and/or increased expenses from the shock. To

account for this channel, the second column adds controls for second period income and net worth. Interestingly, the result continues to hold that an unexpected financial shock increases a household's level of worry. Even after accounting for the change in net worth and income, there is an independent effect of the household's major event on its concern for the future.

We present the analogous results for married couples in Table 2b. Once again, the first column in each set of estimations includes controls for first period financial information, while the second column adds second period net worth and income as independent variables. These results mirror those in Table 2a: For both married men and married women, experiencing an unexpected financial shock increases the level of worry about retirement income, even after controlling for second period financial resources.

The fact that individuals adjust their level of worry in a manner disproportionate to the change in financial assets is an interesting conclusion from our results. Of course, our treatment of the incidence of a shock as a binary event may be at fault. To follow up on this observation, we also modify equation 1 by substituting the dollar amount of the shock (as a percent of net worth) and estimate this equation on the sample of individuals who have experienced a shock. Although we do not report the detailed results here, we do find corroborating results: larger shocks elicit more worry, even after controlling for the level of financial resources before and after the shock.

To further corroborate these findings from the HRS on the relationship between expectations about the future and financial shocks, we also use data from the 1998 Survey of Consumer Finances (SCF). The Survey of Consumer Finances (SCF) is conducted every three years by the Federal Reserve Board and provides information on

net worth, income, pensions and other demographic characteristics of U.S. families. The survey also gathers information on the use of financial institutions and asks several attitudinal questions regarding consumption and savings behavior. Unlike the HRS, which is a panel study, the SCF is a series of independent cross-sections. An advantage of the SCF, however, is that it samples from a broader age range of households, which allows us to test whether our results are generalizable to households that are not near retirement years.[6]

While the SCF does not have a question identical to the one in the HRS regarding an unexpected event that causes financial hardship, they do ask whether the previous year's income is unusually low or unusually high. Thus, we categorize households with "unusually low" income as having a negative financial shock and those who report "unusually high" income as having a positive financial shock.[7] In addition, the SCF asks respondents the following question: "how would you rate the retirement income you (receive or expect to receive) from Social Security and job pensions? (Totally inadequate, enough to maintain living standards, very satisfactory)". Therefore, we are able to categorize households into two groups—those that think that Social Security and pension income will be adequate (either "enough to maintain living standards" or "very satisfactory") and those that do not.

Table 3 shows the marginal effects for a probit estimation with independent variables similar to those in equation (1). In this case, the dependent variable represents

[6] The SCF oversamples very wealthy households. So that our results are not overly influenced by these unrepresentative observations, we drop from our sample households with labor income in excess of $300,000 (or less than $10,000), net worth greater than $2,000,000, as well as individuals who are older than 64.

[7] Having unusually low income does not necessarily imply that one has experienced an unexpected financial shock since an individual may have had perfect foresight about this drop in income. However, this should generate a downward bias on the coefficient on financial shock since expected drops in income would seemingly have a smaller effect on the increase in worry.

whether or not an individual is worried about the adequacy of Social Security and job pension income, and the two types of financial shocks are characterized by a household having unusually low income or unusually high income during the past year. The SCF only asks the household head this question, who is almost always coded as the husband for married couples; thus we are unable to report separate results for married men and women. Instead, we pool the entire sample and include controls for sex and marital status.[8] Column 1 of Table 3 reports results for the incidence of a shock and Columns 2 and 3 show the results using the absolute value of the size of the shock and the size of the shock as a percentage of the household's usual income, respectively (both conditional on having a shock).[9]

Column 1 shows that the presence of a negative income shock corresponds to a respondent being less likely to think that Social Security and job pension income will be sufficient for their retirement years. The results in columns 2 and 3 suggest that the bigger the shock, the more likely a household is to be worried, even after controlling for net worth and usual income. As noted earlier, the SCF is a cross-sectional study, so the interpretation of these results is not as strong as those of the HRS. It is more difficult to establish the causal link going from a financial shock to increased concern about their future retirement years.[10] However, the results of Table 3 are consistent with our earlier

[8] We obtain qualitatively similar conclusions when we separately analyze singles and married men.

[9] Because we study income shocks with the SCF data, column 3 uses the size of the shock as a percent of the household's self-reported "usual" income. In the HRS data, we examined expense shocks and normalized these across households by examining them as a percent of net worth. Our earlier results using the HRS data are robust to examining the expense shock as a percent of income as well. We obtain insignificant results on the shock variable in the SCF data when we divide by household net worth after removing observations for which net worth is negative (since many of the households with negative income shocks have negative or zero net worth.

[10] One might argue that certain individuals tend to be more or less pessimistic about how they view things, which would affect the way they answer the question regarding whether income is unusually high or low. To address this, we also include a variable that indicates whether respondents consider themselves

findings that unexpected financial shocks lead to a change in attitudes toward the future. In addition, the results suggest that even after controlling for its effect on a household's financial resources, the presence of a financial shock influences one's perceptions about the future.

Interestingly, we find that the effects of income shocks on expectations for the future are not symmetric. Namely, we find no evidence that a positive income shock (where income is unusually high for a particular year) leads to less worry about the future of Social Security and job pension income. Bad luck seems to lead to individuals revising their expectations downward, but good luck does not make people have rosier projections of the future. There is some evidence in the psychology literature that is consistent with this finding. Teigen (1991) finds that lucky events are not always positive to the same degree as unlucky events are negative. Alternatively, if individuals do not save because they are overly optimistic about future pension income (e.g., Banks, Blundell and Tanner, 1998), then having good luck will not cause them to update prior beliefs and change their behavior. In other words, good luck is not unexpected by optimists.

So far, using two different data sets, we have demonstrated that individuals increase their level of worry about retirement when they experience an unexpected financial shock, even after controlling for the level of financial resources after the financial shock. One possible explanation for this result is that the unexpected expense is associated with a trajectory of increased future expenses so the immediate impact on financial resources does not completely capture the total financial impact. In this case,

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generally "lucky" with financial affairs or not. While this variable is statistically significant, including it does not change the coefficients on the financial shock variables.

the increased worry is a rational response to the deterioration in future financial position which we are unable to observe. On the other hand, the disproportionate response in worry may in fact be an overreaction—the shock of the unexpected major expense might cause increased anxiety not associated with a rational calculation of future expenses and income streams. While it is not possible to present evidence on the first possibility because of the difficulty of determining what the rational assessment of future expenses would be for each individual, we are able to present some indirect evidence on the second hypothesis. Specifically, in the next section, we examine how experiencing an idiosyncratic negative shock may influence an individual's general level of anxiety about the future.

3.2 Worrying about Future Retirement and General Pessimism

The results in Tables 2 and 3 document a strong relationship between having bad luck (receiving a negative financial shock) and worrying about the future. To gain a better understanding of these results, we further explore the effect of financial shocks on expectations and worrying about the future. As we mentioned above, a behavioral explanation of our result is that large unexpected shocks increase one's general level of anxiety or pessimism about the future, even though the idiosyncratic shock has no predictive value.

To test whether there is a real effect on underlying preference parameters, we re-estimate equation (1), but use two general measures of worrying about the overall economy as dependent variables. In both Waves 1 and 2, the HRS asks respondents to provide a perceived probability that the U.S. economy will experience double-digit inflation or a major depression during the next 10 years. Since almost all of the financial

shocks are due to something not correlated with the general economy, then any relationship between past individual financial shocks and projections of the U.S. economy should reflect a shift in one's degree of general optimism, as opposed to a simple revision in expectations about probabilities of future financial shocks. [11]

Tables 4a and 4b show the results for these regressions. There is strong evidence that experiencing bad luck makes individuals more pessimistic and that a simple revision of expectations is not the entire reason for the effects of past financial shocks on current consumption behavior. Controlling for the standard covariates as well as the first period measure of worry about the economy (either the perceived likelihood of a major depression or the likelihood of double-digit inflation), a recent financial shock significantly increases this perceived probability in the second period. The first column of Table 4a shows that for singles, a recent financial shock increases the perceived likelihood of large inflation in the next 10 years by slightly more than 4 percentage points. When the measure of worry is the perceived probability of a major depression in the near future, the results are similar. The second column of Table 4b indicates that for married men, an unexpected shock raises the perceived probability by 3.6 percentage points. The results in Tables 4a and 4b hold for singles and married men, though they are statistically insignificant for married women. The consistent story is that negative financial shocks affect one's general degree of optimism toward the economy, even when there is no informational content related to actual future probabilities. This is consistent with evidence from the psychology literature that the formation of *perceived* probabilities

[11] The most common reason for the unexpected expenses were related to the health of the individual or a family member (44 percent of the shocks). An additional 18 percent were related to home/car expenses while 10 percent of the unexpected expenses were related to change in family status (e.g., divorce, marriage, death in the family). Less than 15 percent of the shocks might possibly contain information about the state of the macroeconomy (investment loss or job loss for any reason, including health). Removing these observations from the sample, however, does not materially affect our results.

often includes extraneous information not relevant to the particular situation (Parsons et al. 2001, Dibble 1998 and Edgell et al. 1996).

3.3 Worrying and Spending Behavior

So far, we have demonstrated a strong relationship between financial shocks and expectations about the future. If increased worry also affects consumption behavior, then the financial shocks and the anxiety they cause has implications for economists attempting to explain savings rates. Although the HRS does not have comprehensive data on consumption, there is one question that elicits information about the amount of money spent eating out (as a percent of total food budget). Increases in the amount of money spent eating out is likely to indicate that individuals have increased the total amount spent on food because of the relatively high cost of eating out. If worrying affects consumption, we are most likely to see the effects in a measure of discretionary consumption such as this because it may be one that individuals are able to alter the most easily. Admittedly, this measure is narrow and has imperfections. Food outside home represents a small share of one's overall budget and it is likely that an individual may change consumption behavior along other margins. Because of this, we present the evidence in this section only as suggestive.

To obtain evidence on the relationship between expectations about the future and actual consumption behavior, we estimate the following equation via OLS:

$$(2) \qquad C_2 = \alpha_0 + \alpha_1 C_1 + \gamma' \, worry_1 + \delta' \, worry_2 + \beta X_1 + \varepsilon_2$$

$worry_1$ and $worry_2$ are each vectors representing three possible categories – "worrying a little", "worrying somewhat", and "worrying a lot" about retirement – for periods 1 and 2, respectively. The omitted category is "worrying not at all". Since one might argue

that certain individuals may simply be more anxious or prone to worry in general, we control for the index of worry in the first period in order to better capture the exogenous effect of an increase in worry on the decrease in consumption in the second period.

The results of these regressions are shown in Tables 5. As before, we present results with and without controlling for second period financial information. For both singles and married men, these results suggest that there is a relationship between worrying about the future and spending habits as proxied here by the percent of the food budget spent eating out. Column 1 through 4 of Table 5 show that worrying a lot about retirement income in the second period strongly predicts the percentage of the food budget spent eating out for singles and married men. Although the signs on the coefficients in the married women estimations are negative as expected, they are insignificant. Interestingly, the effect occurs for singles and married men even after controlling for second period financial resources, suggesting that worrying has an effect on consumption independent of its relationship with financial resources.

4 Conclusion

We have shown that experiencing negative financial shocks causes individuals to worry more about retirement, even after controlling for changes in financial assets. We attribute at least part of this overreaction to bad luck to an emotional response and provide evidence that experiencing unexpected financial shocks makes individuals more pessimistic about the future in general. Although data limitations prohibit us from making a strong connection between increased worry and decreased consumption, we present some suggestive evidence that as worry increases, economic behavior is affected.

Specifically, individuals reduce a particular type of discretionary consumption, the share of the food budget spent eating out. Exploring the relationships among financial shocks, psychological responses and changes in consumption habits is an important avenue for future research.

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Table 1: Summary Statistics

Variable	Singles	Married Couples
Age (Singles)	55.96	...
Husband Age	...	57.51
Wife Age	...	53.47
Education (Singles)	11.79	...
Husband Education	...	12.14
Wife Education	...	12.18
Proportion Black (Singles)	0.21	...
Husband Black	...	0.12
Wife Black	...	0.12
Proportion Female (Singles)	0.47	...
Household Income (Wave 1)	17,728	37,175
Total Networth (Wave 1)	123,855	262,444
Financial Shock Last 2 Years	0.20	0.17
Size of Shock (Conditional on having one)	8,647	23,285
% Eating Out	0.192	0.202
Worry Not at All	0.16	...
Worry A Little	0.18	...
Worry Somewhat	0.24	...
Worry A Lot	0.43	...
Worry Not at All (Husband)	...	0.22
Worry A Little (Husband)	...	0.25
Worry Somewhat (Husband)	...	0.28
Worry A Lot (Husband)	...	0.25
Worry Not at All (Wife)	...	0.19
Worry A Little (Wife)	...	0.24
Worry Somewhat (Wife)	...	0.28
Worry A Lot (Wife)	...	0.30

Data source: Waves 1 and 2 of the Health and Retirement Study.

Table 2a: Financial Shocks and Worrying about Retirement (Singles)
Dependent Variable is Index of Worry Regarding Retirement Income (0-3)

	Singles	
Variable	(1)	(2)
Wave 1 Index of Worry		
A little	0.521**	0.529**
	(0.109)	(0.113)
Somewhat	0.721**	0.728**
	(0.105)	(0.110)
A lot	1.542**	1.518**
	(0.110)	(0.115)
Wave 1 Financial Info.		
Net Worth/10^6	-0.195	-0.082
	(0.170)	(0.374)
Net Worth Sq./10^12	0.004	0.074
	(0.026)	(0.138)
HH Income/10^6	-6.139**	-5.808**
	(2.524)	(2.626)
HH Income Sq./10^12	16.588	11.657
	(12.959)	(14.248)
Wave 2 Financial Info.		
Net Worth/10^6	...	-0.289
		(0.31)
Net Worth Sq./10^12	...	0.029
		(0.089)
HH Income/10^6	...	-0.803
		(1.448)
HH Income Sq./10^12	...	-0.795
		(1.946)
Recent Financial Shock	0.299**	0.303**
	(0.085)	(0.090)
Observations	1,421	1,327
Pseudo R-squared	0.13	0.13

Notes: All regressions are estimated using ordered probit models and include controls for age, education, race and health status. Omitted category for Wave 1 index of worry is "not at all". Standard errors are in parentheses. *Significant at 10%. **Significant at 5%.

Table 2b: Financial Shocks and Worrying about Retirement (Couples)
Dependent Variable is Index of Worry Regarding Retirement Income (0-3)

	Married Men		Married Women	
	(1)	(2)	(3)	(4)
Wave 1 Index of Worry				
A little	0.675**	0.692**	0.513**	0.521**
	(0.079)	(0.080)	(0.067)	(0.070)
Somewhat	1.019**	1.035**	0.794**	0.822**
	(0.078)	(0.079)	(0.066)	(0.068)
A lot	1.636**	1.664**	1.449**	1.484**
	(0.092)	(0.094)	(0.073)	(0.076)
Wave 1 Financial Info.				
Net Worth/10^6	-0.037	0.131	-0.087	-0.001
	(0.104)	(0.153)	(0.097)	(0.132)
Net Worth Sq./10^12	-0.001	-0.036	0.025	0.007
	(0.019)	(0.027)	(0.020)	(0.026)
HH Income/10^6	0.629	1.321	-0.572	-1.594
	(1.558)	(1.988)	(1.116)	(1.509)
HH Income Sq./10^12	-12.577	-16.514	1.308	10.723
	(8.371)	(10.317)	(4.196)	(6.643)
Wave 2 Financial Info.				
Net Worth/10^6	...	-0.234	...	-0.108
		(0.149)		(0.132)
Net Worth Sq./10^12	...	0.050*	...	0.014
		(0.027)		(0.026)
HH Income/10^6	...	-0.522	...	-0.285
		(1.489)		(1.061)
HH Income Sq./10^12	...	2.890	...	-0.206
		(4.755)		(1.267)
Recent Financial Shock	0.211**	0.212**	0.159**	0.119**
	(0.072)	(0.074)	(0.057)	(0.058)
Observations	2,161	2,087	3,064	2,886
Pseudo R-squared	0.11	0.11	0.22	0.10

Notes: All regressions are estimated using ordered probit models and include controls for age, education, race and health status. Standard errors are in parentheses. *Significant at 10%. **Significant at 5%.

Table 3: Income Shocks and Assessment of Adequacy of Social Security and Pension Income
Evidence from 1998 Survey of Consumer Finances

Variable	(1)	(2)	(3)
Net Worth/10^6	0.077	-0.158	0.008
	(0.099)	(0.165)	(0.108)
Net Worth Sq./10^12	-0.064	0.024	-0.001
	(0.56)	(0.102)	(0.014)
HH Income/10^6	0.285	0.961	0.025
	(0.339)	(1.192)	(0.310)
HH Income Sq./10^12	0.309	0.050	0.173
	(0.328)	(2.893)	(2.170)
"Lucky" With Financial Affairs	0.057**	0.021**	0.044
	(0.010)	(0.007)	(0.028)
Negative Income Shock	-0.077**	...	...
	(0.030)		
Positive Income Shock	-0.040	...	...
	(0.034)		
Size of Negative Shock/10^6	...	-3.640**	...
		(1.273)	
Size of Positive Shock/10^6	...	-0.104	...
		(0.741)	
Size of Negative Shock (% of income)	...	...	-0.176**
			(0.086)
Size of Positive Shock (% of income)	...	...	-0.002
			(0.019)
Observations	2,235	564	564
Pseudo R-squared	0.03	0.05	0.06

Notes: Estimation also includes controls for age, education dummies, sex, marital status, race, health and health insurance status. Income measure is respondent's "usual" income. Marginal effects of probit estimation are reported. Estimation drops individuals with networth greater than $2 million and annual labor incomes less than $10,000 or more than $300,000. Standard errors are in parentheses. *Significant at 10%. **Significant at 5%.

Table 4a: Financial Shocks and Worrying about Double Digit Inflation
Dependent Variable is Perceived Probability of Double Digit Inflation in Next 10 Years

Variable	Singles	Married Men	Married Women
Wave 1 Perceived Probability	0.236**	0.268**	0.283**
	(0.027)	(0.019)	(0.020)
Wave 1 Financial Info.			
Net Worth/10^6	1.337	-2.465	-0.711
	(3.259)	(2.013)	(1.650)
Net Worth Sq./10^12	-0.202	0.439	0.526
	(0.560)	(0.448)	(0.366)
HH Income/10^6	30	-55	10
	(51)	(31)	(20)
HH Income Sq./10^12	-290	206	-65
	(233)	(188)	(56)
Recent Financial Shock	4.089**	3.647**	-0.013
	(1.720)	(1.318)	(1.238)
Observations	1,920	3,584	3,983
Pseudo R-squared	0.06	0.08	0.07

Table 4b: Financial Shocks and Worrying about Major Depression
Dependent Variable is Perceived Probability of Major Depression in Next 10 Years

Variable	Singles	Married Men	Married Women
Wave 1 Perceived Probability	0.267**	0.299**	0.348**
	(0.025)	(0.018)	(0.018)
Wave 1 Financial Info.			
Net Worth/10^6	-3.414	-2.254	-1.823
	(2.872)	(1.571)	(1.463)
Net Worth Sq./10^12	0.947	0.382	0.686
	(0.634)	(0.307)	(0.299)
HH Income/10^6	-75	-80	-11
	(46)	(27)	(19)
HH Income Sq./10^12	26	293	-46
	(212)	143)	(52)
Recent Financial Shock	3.809**	3.643**	1.737
	(1.644)	(1.258)	(1.148)
Observations	1,990	3632	4,084
Pseudo R-squared	0.10	0.11	0.13

Notes: All regressions include controls for age, education, race and health status. Standard errors are in parentheses. *Significant at 10%. **Significant at 5%.

Table 5: Worrying about Retirement and Spending Habits (% Eating Out)

	Singles		Married Men		Married Women	
Variable	(1)	(2)	(3)	(4)	(5)	(6)
% Eating Out Wave 1	0.381**	0.380**	0.505***	0.508***	0.455**	0.465**
	(0.034)	(0.035)	(0.026)	(0.027)	(0.023)	(0.024)
Wave 1 Financial Info.						
Net Worth/10^6	0.051**	0.016	0.045***	0.025	0.053**	0.040**
	(0.025)	(0.053)	(0.015)	(0.020)	(0.014)	(0.019)
Net Worth Sq./10^12	-0.006*	0.005	-0.006**	-0.003	-0.010**	-0.007**
	(0.003)	(0.022)	(0.003)	(0.003)	(0.003)	(0.003)
HH Income/10^6	1.062**	0.910**	0.187	0.036	0.331**	0.086
	(0.422)	(0.431)	(0.197)	(0.220)	(0.134)	(0.220)
HH Income Sq./10^12	-0.874	-0.042	0.012	0.326	0.016	0.308
	(2.765)	(2.367)	(0.929)	(0.940)	(0.327)	(0.954)
Wave 2 Financial Info.						
Net Worth/10^6	...	0.038	...	0.033*	...	0.016
		(0.042)		(0.018)		(0.017)
Net Worth Sq./10^12	...	-0.015	...	-0.005*	...	-0.002
		(0.014)		(0.003)		(0.003)
HH Income/10^6	...	0.779**	...	0.245	...	0.399**
		(0.289)		(0.169)		(0.150)
HH Income Sq./10^12	...	0.035	...	-0.878**	...	-0.481**
		(0.307)		(0.416)		(0.194)
Wave 1 Index of Worry						
A little	0.015	0.019	0.010	0.011	0.016*	0.016*
	(0.017)	(0.017)	(0.009)	(0.009)	(0.009)	(0.009)
Somewhat	-0.012	-0.012	0.016*	0.018*	0.005	0.006
	(0.016)	(0.017)	(0.009)	(0.009)	(0.009)	(0.009)
A lot	0.001	0.002	0.004	0.004	-0.002	-0.003
	(0.016)	(0.017)	(0.011)	(0.011)	(0.009)	(0.010)
Wave 2 Index of Worry						
A little	-0.025	-0.024	-0.004	-0.006	-0.008	-0.009
	(0.016)	(0.016)	(0.010)	(0.010)	(0.009)	(0.009)
Somewhat	-0.013	-0.016	-0.009	-0.010	-0.007	-0.006
	(0.014)	(0.015)	(0.009)	(0.010)	(0.009)	(0.009)
A lot	-0.034**	-0.027*	-0.021**	-0.020*	-0.008	-0.008
	(0.014)	(0.015)	(0.010)	(0.010)	(0.008)	(0.008)
Observations	1,278	1,198	2,039	1,970	2,889	2,731
R-squared (Pseudo)	0.32	0.33	0.36	0.36	0.32	0.32

Notes: All regressions include controls for age, education, race, and health status. The omitted category for index of worry is "not at all". Standard errors are in parentheses. *Significant at 10%. **Significant at 5%.