The Behavioral Effects of Financial Shocks

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Abstract

We develop a model where agents are assumed to underestimate the value of prevention and planning for uncertain events. Individuals respond to financial shocks according to the degree to which the shocks are found to have been preventable or unpreventable. Empirical results show that shocks that are more preventable have more significant effects on attitudes toward retirement saving. These results are consistent with findings in the psychology literature that the effects of past experiences on the adoption of self-protective behavior are not limited to the specific event, but carry over to other areas.

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1. Introduction

Economists have traditionally assumed that decision makers respond rationally to new information that they receive. When an individual experiences an unexpected financial shock, current financial resources are diminished and expectations of future events may be updated if this event provides some informational content of future probabilities. The traditional assumptions imply that large monetary shocks will have greater effects on expectations and behavior than small ones. More recently as behavioral theories have become prevalent, researchers have been incorporating evidence from the field of psychology into models of economic behavior. Studies in the psychological literature show that the nature and circumstances surrounding past experiences are crucial in determining how an individual responds to an episode of bad luck. This suggests that the type of financial shock may be equally if not more important than the actual dollar value of a shock in determining the effects on future expectations and economic behavior.

Of particular interest for older individuals are the potential effects that financial shocks have on attitudes toward retirement and the adequacy of retirement savings. There is a growing literature documenting the low savings rates of many households approaching retirement. Diamond and Hausman (1984) show that many households enter retirement with insufficient savings, and Venti and Wise (1998) show that households enter retirement years with widely different wealth holdings, even for those with similar lifetime income patterns. There is evidence that a lack of information regarding planning may be the cause of this (Lusardi 2002). For example, Gustman and Steinmeier (2001) conclude 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. Duflo and Saez (2003) find that learning through social networks is an important mechanism through which people gather information about the importance of planning. Another line of research points to more behavioral explanations such as self-control problems and high degrees of myopia. Laibson, Repetto and Tobacman (1998) and

Diamond and Koszegi (2000) use hyperbolic discounting to formally model the self-control problem in relation to the empirical findings on household savings behavior. Madrian and Shea (2003) find that a significantly large portion of employees retain a default contribution rate and allocation for their retirement funds and do not reallocate their funds due to participant inertia.

Expectations about the future are intrinsically linked to planning, saving, and consumption. Recent empirical work has shown that people do not plan as frequently as a traditional rational expectations model would predict. Lusardi (1999) and Ameriks, Caplin and Leahy (2003) show that a significant percentage of survey respondents make financial plans infrequently or not at all. Reis (2003) assumes that there are non-trivial costs to gathering, absorbing and processing information. Because of this, consumers only infrequently revise their expectations and re-compute their optimal consumption plans. Expectations are still rational, but are only sporadically updated. Ameriks, Caplin and Leahy (2004) present evidence that many households do not have a very good sense of how much they spend on various consumption items and thus may engage in "precautionary spending".

Lusardi (2002) provides evidence that while planning behavior is an important determinant of accumulated savings, some of the variation in planning behavior can be explained by unexpected events or by experiences of older siblings. Presumably there is information and learning that are obtained through these events. An alternative explanation is that experiencing bad luck shocks individuals out of their myopia so that they stop procrastinating (O'Donoghue and Rabin 2001a). A related idea discussed by O'Donoghue and Rabin (2001b) is that people may be unaware of their own self-control problems. Perhaps a financial shock is a mechanism which makes people aware of their problems with self-control or procrastination. Owen and Wu (2004) show that households that experience adverse financial shocks change their consumption behavior, even after conditioning on prior consumption and past and current financial resources. They find that an important reason for this change in consumption behavior is that individuals worry more about the adequacy of their future income after experiencing bad luck.

In this paper, we contribute to the literature by examining how different types of financial shocks influence expectations about the adequacy of retirement savings differently. We model individuals who undertake prevention efforts based on a distribution of accidental expenses and then learn about the effectiveness of prevention efforts after an accident happens. The first prediction of the model is that the more individuals underestimate the marginal benefit of planning and prevention, the greater the degree to which they "under-prevent". Upon realizing that the benefits to prevention can actually be high for certain events, individuals revise their expectations/attitudes. The second hypothesis of the model, based on insights from the psychology literature, is that attitudes towards retirement savings will be more greatly affected when a household experiences financial shocks that are more preventable or controllable than when the household experiences shocks whose probabilities of occurring are not altered from preventive measures.

The paper proceeds as follows. Section 2 discusses the psychological background of attitudes towards prevention and planning. Section 3 introduces a simple theoretical model. Section 4 explains the empirical strategy and data employed. Section 5 presents the empirical results and Section 6 concludes.

2. The Psychology of Counterfactuals, Controllability, and Behavior

Counterfactuals are alternative representations of the past – a typical "what might have been" mode of thinking.[1] The psychological literature has extensively analyzed the nature and the effects of counterfactual thinking. Mandel and Lehman (1996) suggest that counterfactuals are important in determining the perceived cause of an event or outcome. Roese (1997) states that while counterfactuals may have both positive and negative aspects, the net result is an overall benefit for the individual. He writes that the key to this conclusion is that "upward counterfactual

[1] There are two basic types of counterfactuals. Upward counterfactuals contemplate circumstances that are better than reality, while downward counterfactuals focus on alternatives that are worse than what actually occurs.

comparisons may suggest causal conclusions that illuminate paths to future success," an idea that is consistent with O'Donoghue and Rabin (2001b). Thus, it is not simply the fact the individuals will dwell on "what could have been", but may be spurred on to prevent future accidents or enhance performance through their learning from past experiences. Hypothetically, a student may realize that studying more for a test would have improved his performance greatly, which may inspire him to work harder the next time. Similarly, someone who undergoes serious auto or home repair expenses may realize, after the fact, that a small dose of prevention would have eliminated many of these unnecessary costs. There is a great deal of empirical support for these ideas. Research by Mulilis et al. (2003) shows that individuals significantly increase their tornado preparedness levels immediately following tornados. Sattler, Kaiser and Hittner (2000) also find that prior exposure to natural disasters is a strong predictor of hurricane preparedness.

A crucial element to how people respond to negative experiences is whether they perceive them to be preventable or not. Current theories of self-protective behavior suggest people need to believe that a threat is serious as well as controllable in order for behavior to be affected (Norris et al., 1999; Weinstein, 1989,1993; and Maddux and Rogers, 1983). Davis et al. (1996) find that individuals react differently depending on whether the event is preventable or unavoidable and that self-blame is positively related to individuals' belief that they could have prevented the accident. McClure, Allen and Walkey (2001) show that people are less likely to prepare for earthquakes and other disasters if they believe that their preparedness levels will not have a meaningful effect on the expected damages that actually occur. Likewise, Norris et al. (1999) show that the effects of exposure to a deadly hurricane (Hurricane Hugo in 1989) on future preventive behavior were largely dependent on the perceived usefulness of those behaviors. Interestingly, the effects of the exposure generalized to self-protective acts other than hazard preparedness. In a related finding, reaction to a California earthquake predicted response to a different type of natural disaster – a slow onset El Niño weather pattern (Siegel et al. 2003).

In sum, the psychological literature consistently suggests that (1) the propensity to prepare and plan for unexpected events is a function of the perceived benefits and costs of the precautionary measures; (2) individuals respond differently depending on whether an accident is preventable or unpreventable; and (3) the effects of past experiences on the adoption of self-protective behavior are not limited to the specific event, but carry over to other areas. These ideas form the basis of our theoretical model as well as our empirical test.

3. The Model

Accidents create expenditures Y, which are stochastic and take on any value in the interval $[0,\infty)$ and depend on prevention efforts c. It is assumed that increased prevention efforts reduce the likelihood of large accidental expenses and increase the likelihood of small (or zero) accidental expenses. To fix ideas, we assume that Y follows an exponential distribution: $f(Y/c) = \lambda(c)e^{-\lambda(c)y}$ where the scale parameter $\lambda(c)$ represents the prevention technology. It is assumed that $\lambda'(c)>0$, and $\lambda''(c) \leq 0$ so that prevention efforts reduce the expected value of accidental expenses $1/\lambda(c)$ at a non-increasing rate.

A risk-neutral individual chooses a level of preventive care c that minimizes the sum of prevention costs and expected accidental expenditures:

$$c + \frac{1}{\lambda(c)}.$$

The first-order condition shows that the optimal prevention effort c^o is given by

$$1 = \frac{\lambda'(c^o)}{\lambda^2(c^o)}.$$

The condition indicates that at the optimum the marginal cost of prevention effort equals the marginal benefit of reducing expected accidental expenses. The second order condition implies c^o is indeed a minimum:

$$-\frac{\left[\lambda''(c^o)\lambda^2(c^o)-2\lambda(c^o)\lambda'(c^0)\right]}{\lambda^4(c^o)}>0.$$

Suppose the prevention technology is linear in prevention efforts[2] and ex-ante the individual does not perceive accurately the impact of care on expected expenses so that the ex-ante technology is $\lambda(c)=a+bc$ but the ex-post "true" prevention technology, which is realized after a financial shock occurs, is given by $\lambda^*(c)=a+b^*c$.

Our specific form of $\lambda(c)$ implies the following solutions, where c^o is the ex-ante optimal choice of prevention and c^* is the ex-post optimal choice of prevention:

$$c^o=\frac{\sqrt{b}-a}{b},\ c^*=\frac{\sqrt{b^*}-a}{b^*}.$$

Ex-ante expected expenditures and true mean expenditures are, respectively:

$$\frac{1}{\lambda(c^o)}=\frac{1}{a+bc^o}=\frac{1}{\sqrt{b^o}},\text{ and}$$

$$\frac{1}{\lambda^*(c^*)}=\frac{1}{a+b^*c^*}=\frac{1}{\sqrt{b^*}}.$$

Whether the individual's ex-ante choice is greater than or equal to the ex-post optimal prevention level depends on whether the individual overestimates or underestimates the effect of prevention (evaluated at the "true" optimal c^*). This builds on the result from the psychological literature that the propensity to prepare and plan for unexpected events is a function of the perceived benefits and costs of the precautionary measures. Suppose the individual underestimates the influence of c^* on expected accidental expenses:

$$\frac{d\left(\frac{1}{a+b^*c^*}\right)}{dc^*}>\frac{d\left(\frac{1}{a+bc^*}\right)}{dc^*}.$$

[2] The assumption of linearity allows for a closed-form solution. A more realistic assumption would have λ increasing in c, but at a decreasing rate. However, we assume linearity for the sake of simplicity. Nonetheless, the choice of the prevention technology is not crucial to the substantive results.

Taking derivatives, this simplifies to the following condition:

$$\frac{b^*}{(a+b^*c^*)^2} > \frac{b}{(a+bc^*)^2}.$$

Since $c^* = \frac{\sqrt{b^*}-a}{b^*}$, the previous condition simplifies to: $1 > \frac{b}{(a+bc^*)^2}$. We may interpret this last condition as saying that the marginal cost of prevention, which is equal to 1, is greater than the perceived marginal benefit. Rearranging the previous condition, we have: $c^* > \frac{\sqrt{b}-a}{b} = c^0$. Thus, we obtain the fairly intuitive result that when individuals underestimate the marginal effectiveness of prevention on expected costs, they choose an ex-ante level of prevention that is less than the ex-post optimal choice of prevention: $c^* > c^o$.

It is also straightforward to show that the greater the degree of underestimation of the true value of prevention, the greater is the difference between ex-ante prevention and ex-post optimal prevention. The next step is to explain how attitudes towards savings will be more greatly affected when an individual experiences financial shocks that are relatively "controllable" versus ones that are unavoidable. Once an individual learns the true prevention technology, she asks herself to what extent more care would have made a difference, or in other words, whether there is a significant difference between her ex-ante choice of prevention and the ex-post optimal level. The answer to this question depends on the degree of control over the event. In the case of unavoidable accidents such as natural disasters or genetically related health problems, the individual can exert little control over the occurrence of these events. On the other hand, the individual has considerable control over situations such as home and auto maintenance (which will decrease the likelihood of many, but not all, future accidents), or making tax payments on time.

As discussed earlier, the psychological literature on controllability and self-protective behavior indicates that the larger this difference is, the more people will revise their expectations.

Furthermore, the change in expectations and behaviors are generalizable to other types of uncertain events (Norris et al. 1999 and Siegel et al. 2003). In the context of our theoretical model, what this implies is that when an individual learns that c^* and c are very far apart from each other, then for another distribution of expenses (either a related or unrelated event), she will revise the value of b to be closer to b^*. The hypothesis is that the greater $c^* - c^o$ is, the closer b will get to b^*.[3] For the purposes of our analysis, we study people's attitudes toward their retirement savings. This result provides the basis for a natural empirical test. We will test to see whether those events that are seemingly the most controllable (in an ex-post sense, at least) are the ones that lead to the largest change in attitudes towards future preventive behavior (in this case, savings for retirement).

4. Data and Empirical Methodology

For our empirical analysis, we use the first two waves of the recent Health and Retirement Study (HRS), conducted by researchers at the University of Michigan. This survey 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 HRS collects detailed information on health status, retirement decisions, wealth, work history, family composition, and health insurance. There are also attitudinal and cognitive variables such as expectations of the future and preferences toward risk. Of particular importance for this paper is that the survey asks questions about unexpected financial shocks that have recently occurred. The specific question is worded, "Thinking back over the last two years, since (MONTH/YEAR OF WAVE-1 INTERVIEW), have you had any large unexpected expenses or events that have made it very difficult to meet your financial goals?". The survey then asks about the nature of these events as

[3] Note that under the assumption that an agent underestimates the marginal benefit of prevention, b can actually be greater or less than b*, so the actual hypothesis is that $c^* - c^o$ is inversely related to $\left|b^* - b^o\right|$.

well as the amount of the out-of-pocket expenditures. The types of events that are listed as possibilities include changes in family situation, home and auto expenses, health expenses, accidents, natural disasters, crime, large gifts or tax bills, loss of income due to unemployment, and legal expenses.

To test the effects of financial shocks on attitudes toward retirement saving, we estimate the following equation:

$$Worry_2=\beta_0 + \beta_1 Worry_1 + \beta_2 \text{shock}_2 + \beta_3 X_1 + \varepsilon_2$$

The variable *worry* is an index from 0-3 (with higher values signifying more worry) of the degree to which the respondent worries about the sufficiency of income during retirement years.[4] The control variables represented by *X* include quadratics in first and second period net worth and household income, age, race, education, gender (for singles) and self-reported health status. Since 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. We do separate analyses for singles and couples, given the difference between singular and joint retirement decisions.

We focus on whether different types of shocks lead to different levels of response in the *worry* variable. Following the work of Norris et al. (1999) and Mandel and Lehman (1996), we conduct an empirical test of whether individuals who have negative experiences that are somewhat preventable will be more likely to change their future behavior than those that have shocks that are unpreventable. As mentioned above, the survey lists a large array of possible events that lead to unexpected financial expenses including medical events, changes in family situation, crime, accidents, natural disasters, home or auto repairs, and tax or other debts. Expenses from events such as natural disasters, health problems, or crime, can be seen as very difficult to prevent in the sense that the marginal benefit of prevention may be low relative to the

[4] While we use OLS in the estimation of equation 2, results from ordered probit and ordered logit models yield similar results.

marginal costs. Others events such as home and auto expenses or tax bill may be seen as having a fairly large marginal benefit relative to the marginal cost. We enter each type of event as separate regressors to test whether certain shocks have larger effects on attitudes toward retirement savings than others. Given our hypotheses, unexpected events such as home and auto repairs or "surprisingly" high tax bills should be the ones that affect attitudes toward retirement savings the most.

5. Empirical Results

Table 1 shows summary statistics for the relevant variables used in the analysis. As mentioned previously, the individuals in the HRS are generally in their fifties at the time of the first period of the survey. Blacks are over sampled in the survey and account for 21 percent of singles and 12 percent of couples. Roughly 20 percent of singles and 17 percent of couples have experienced a major financial shock between the first two waves of the survey. The more common types of expenses include medical expenses and home and auto repairs.

To test whether financial shocks in general cause people to worry more about their retirement savings, we estimate equation (1) for singles. The results are presented in the first column of Table 2a. After controlling for a number of covariates including first and second period income and net worth, a recent financial shock greatly increases the index of worry (by about a quarter of a standard deviation) and the coefficient is statistically significant at the 5% level. In the second column, we group the types of shocks into three categories, medical expenses, lost income due to unemployment and all other events. Here we see that the only coefficient that comes in statistically significant is the one corresponding to non-medical and non-employment related events. To further explore the reasons behind this result, we use the separate categories that are provided by the survey. The results presented in the third column show that only the coefficient on home and auto repairs is statistically significant at the 5% level.

Categories of shocks such as changes in family situations, accidents/crime/natural disasters, and educational expenses are all statistically insignificant.

Table 2b presents the results for couples. In column 1, we see that for both married men and married women, the index of worrying about retirement is significantly affected by a recent financial shock. The coefficient for men is significant at the 5% level, though the coefficient for women is significant at the 10% level only. When the shocks are broken down into three categories (medical, loss of employment, and other), once again we see that only the non-medical and non-employment related events significantly affect individuals attitudes toward retirement saving. The third column of Table 2b shows the results for the equation when several different types of shocks are entered as separate regressors in the model. For men, taxes and other bills and debts is the only type of shock that is statistically significant. For women, home and auto repairs are the only type of expense that significantly affect attitudes toward retirement.

These results are consistent with findings from the literature on controllability and precautionary behavior that suggest that events that are perceived as most preventable are the ones that affect people's attitudes toward planning and preparedness. Among the events considered in the HRS data, home and auto repairs are often somewhat preventable with regular maintenance (though not always, of course). Likewise, if an individual states that taxes or other bills (including utility bills) are unexpectedly high, this seems to suggest a lack of awareness about the benefits of planning and prevention efforts. Tax bills and potential tax penalties are forecastable and households are able to prevent an "unexpectedly" high tax bill with sufficient planning. Since these are the only two events that significantly affect attitudes toward retirement savings, we have reasonable support for the hypothesis that controllability of events is an important determinant of attitudes towards retirement and hence future preventive behavior. While one might be able to prevent financial losses for such events as natural disasters, accidents, sudden unemployment, and changes in family situations, the marginal benefits relative to the costs are not necessarily as high as they are in the event of home and auto expenses, for example.

Health events could be perceived as preventable, but only due to long-term behavior such as healthy eating and exercise over one's lifetime. The return to a small amount of prevention is not as great as the potential return to something as simple as keeping track of quarterly tax payments in order to avoid penalties.

We interpret these cautiously, however, as one cannot reject a hypothesis of the equivalence between the coefficients on home/auto repairs or taxes/other debts and other categories of expenses. Although this may not be the only interpretation that could explain these results, it is consistent with findings from the psychological literature that the greater control one has to prevent an event (at least an ex-post realization of this), the more likely that the occurrence of this event will affect attitudes toward prevention in other areas.

6. Conclusion

In this paper, we have developed a model where individuals respond to financial shocks depending on the nature of the shock. The larger the difference between the ex-ante optimal amount of care and the ex-post level (after learning about the nature of the "prevention technology"), the greater people's expectations are affected. This is consistent with the psychology literature which shows that the more people realize the effectiveness of their prevention, the more likely they will change their future behavior.

Using panel data from the first two waves of the Health and Retirement Study, we find empirical support for the model. After controlling for first and second period household income and net worth, events that are relatively "preventable" such as major home and auto repairs (good maintenance might decrease these costs) and unexpectedly high tax bills (due to lack of planning or timely estimated payments) are the ones that most significantly increase worrying about retirement income. All other types of financial shocks (including medical, job loss, death of family member, accident) have a statistically insignificant effect on attitudes toward retirement.

While there may be alternative explanations for these results, they are consistent with the theoretical model developed in the paper as well as with evidence in the psychology literature.

How people process information and form expectations are crucial in understanding issues related to planning and saving for retirement. These results show that when analyzing the effects of major financial shocks, it is import to take into account the nature of events, not simply the dollar value of them. Economists and policymakers must take into account this peculiarity of human behavior when modeling retirement decisions and designing public policies to encourage savings.

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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
Unexpected Financial Shock Last 2 Years	0.20	0.17
Type of Financial Shock		
Medical Expenses	0.05	0.07
Lost Income from Unemployment	0.02	0.02
Change in Family Situation	0.02	0.02
Educational Costs	0.01	0.01
Crime/Accident/Fire/Natural Disaster	0.01	0.00
Travel Expenses/Lawsuits	0.01	0.01
Home/Auto Repairs	0.05	0.03
Taxes, Other Bills	0.03	0.02

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)

Variable	Singles (1)	(2)	(3)
Index of Worry (Wave 1)	0.479**	0.480**	0.481**
	(0.033)	(0.032)	(0.033)
Wave 1 Financial Info.			
Asset/10^6	-0.135	0.120	0.113
	(0.417)	(0.336)	(0.336)
Asset Sq./10^12	0.094	-0.057	-0.055
	(0.176)	(0.094)	(0.094)
HH Income/10^6	-5.761**	-4.471**	-4.470**
	(2.870)	(2.036)	(2.036)
HH Income Sq./10^12	13.165	2.784	2.795
	(16.353)	(3.135)	(3.121)
Wave 2 Financial Info.			
Asset/10^6	-0.261	-0.332	-0.323
	(0.340)	(0.325)	(0.325)
Asset Sq./10^12	0.028	0.053	0.051
	(0.111)	(0.105)	(0.105)
HH Income/10^6	-0.492	-0.661	-0.716
	(1.695)	(1.696)	(1.697)
HH Income Sq./10^12	-0.967	-0.651	-0.583
	(2.672)	(2.619)	(2.615)
Financial Shock in the Past	0.043	0.044	0.044
	(0.071)	(0.071)	(0.071)
Recent Financial Shock	0.291**		
	(0.090)		
Reason for Recent Financial Shock			
Medical Expenses		0.212	0.211
		(0.162)	(0.162)
Lost Income - Unemployment		0.355	0.354
		(0.250)	(0.250)
Non-Medical/Non-Employment Related		**0.297****	
		(0.110)	
Change in Family Situation			0.443
			(0.271)
Educational Expenses			-0.120
			(0.824)
Crime/Accident/Fire/Natural Disaster			0.339
			(0.349)
Travel Expenses/Lawsuits			0.002
			(0.326)
Taxes, Other Debts and Bills			**0.316**
			(0.223)
Home, Auto Expenses			**0.309****
			(0.160)
R-squared	0.129	0.129	0.130
Observations	1,327	1,327	1,327

Notes: All regressions are estimated using ordered probit models and include controls for age, education, race and health status. Standard errors 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)	(1)	(2)	(3)
Index of Worry (Wave 1)	0.520**	0.520**	0.519**	0.466**	0.466**	0.466**
	(0.026)	(0.026)	(0.026)	(0.022)	(0.022)	(0.022)
Wave 1 Financial Info.						
Asset/10^6	0.162	0.152	0.146	0.019	0.017	0.021
	(0.169)	(0.168)	(0.168)	(0.134)	(0.134)	(0.134)
Asset Sq./10^12	-0.042	-0.040	-0.039	0.004	0.004	0.003
	(0.034)	(0.033)	(0.033)	(0.027)	(0.027)	(0.027)
HH Income/10^6	1.820	1.742	1.655	-1.610	-1.655	-1.586
	(2.006)	(2.005)	(2.006)	(1.502)	(1.503)	(1.504)
HH Income Sq./10^12	-18.610*	-18.260*	-17.537*	10.854	11.117	10.857
	(9.999)	(9.998)	(9.994)	(6.801)	(6.812)	(6.812)
Wave 2 Financial Info.						
Asset/10^6	-0.219	-0.213	-0.202	-0.109	-0.110	-0.114
	(0.157)	(0.157)	(0.157)	(0.126)	(0.126)	(0.126)
Asset Sq./10^12	0.047	0.046	0.043	0.013	0.013	0.014
	(0.029)	(0.029)	(0.029)	(0.023)	(0.023)	(0.023)
HH Income/10^6	-0.671	-0.636	-0.568	-0.264	-0.423	-0.438
	(1.435)	(1.432)	(1.435)	(1.036)	(1.036)	(1.036)
HH Income Sq./10^12	3.286	3.158	2.467	-0.307	-0.124	-0.126
	(4.226)	(4.221)	(4.244)	(1.856)	(1.857)	(1.857)
Financial Shock in the Past	0.099*	0.101*	0.109*	0.081*	0.088*	0.085*
	(0.057)	(0.056)	(0.057)	(0.049)	(0.049)	(0.049)
Recent Financial Shock	0.189**			0.111*		
	(0.072)			(0.059)		
Reason for Recent Financial Shock						
Medical Expenses		0.139	0.137		0.000	0.001
		(0.110)	(0.110)		(0.090)	(0.090)
Lost Income - Unemployment		0.195	0.195		0.207	0.206
		(0.182)	(0.182)		(0.172)	(0.172)
Non-Medical/Non-Employment Related		**0.242****			**0.151***	
		(0.097)			**(0.079)**	
Change in Family Situation			0.211			0.008
			(0.261)			(0.181)
Educational Expenses			0.255			0.239
			(0.336)			(0.294)
Crime/Accident/Fire/Natural Disaster			0.566			0.647
			(0.457)			(0.480)
Travel Expenses/Lawsuits			0.089			0.185
			(0.227)			(0.193)
Taxes, Other Debts and Bills			**0.580****			**-0.153**
			(0.221)			**(0.158)**
Home, Auto Repairs			**0.125**			**0.353****
			(0.147)			**(0.131)**
R-squared	0.111	0.111	0.111	0.099	0.099	0.100
Observations	2,087	2,087	2,087	2,886	2,886	2,886

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