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WORKERS' RESPONSE TO THE MARKET CRASH: SAVE MORE, WORK MORE?

By Steven A. Sass, Courtney Monk, and Kelly Haverstick*

Introduction

The stock market crash of 2008 significantly dimmed the retirement prospects of workers approaching retirement. These workers are heavily dependent on 401(k) plans, as opposed to traditional defined benefit pensions, as a source of retirement income. During the economic downturn, these plans lost about one-third of their value. Even before the crash, many older workers lacked the assets needed to enjoy a comfortable retirement.

The rational response to a sharp decline in retirement wealth is to spread the pain – save more, work longer, and consume less in retirement – to the point where the incremental pain from each response is the same. The extent to which workers are absorbing a portion of the loss by saving more and working longer is thus critical for assessing their retirement prospects.

To address these questions, in the summer of 2009, the Center for Retirement Research at Boston College (CRR) surveyed workers approaching retirement, age 45 to 59, on changes in retirement saving and expected retirement ages. The survey also collected data on the many factors that could affect how workers respond to the downturn, including financial and employment characteristics, emotional reactions to the downturn, and enhanced financial literacy. The result is a rich and unique data set for analyzing worker responses that can affect their retirement security.

This *brief* is organized as follows. The first section presents details of the CRR survey. The second section discusses the survey's findings on changes in saving and retirement expectations. The third section illustrates one of the many research opportunities the data set provides by analyzing the effect of enhanced financial literacy on responses to the downturn. The fourth section concludes.

The CRR Survey

The CRR surveyed 1,317 workers age 45 to 59 between July and August 2009; the group was drawn from a nationally representative panel maintained by Knowledge Networks. The survey oversampled workers with significant retirement savings to get more accurate estimates of responses to the stock market crash. Knowledge Networks, using statistical weights based on population benchmarks from the *Current Population Survey*, then produced estimates for all U.S. workers age 45 to 59.[1]

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The survey addressed a wide range of factors that could affect how workers might respond to the downturn. In addition to standard socioeconomic characteristics, the survey collected data on financial, employment, and behavioral factors, and included a financial literacy experiment.

Financial Factors

The survey asked respondents about their expected dependence on financial assets as a source of retirement income before the crash and the size of losses incurred. It also asked them to provide a self-assessment of their financial ability, their outlook for stock returns, and their confidence in that outlook. And it asked about the importance of retirement compared with other concerns and objectives. Such data allow an exploration of various issues, such as whether self-assessed financial ability is a reasonably accurate measure of actual financial ability and how the impact of the downturn on retirement income adequacy affects responses.

Employment Factors

The survey measured changes in job security and the extent to which health issues or availability of employment were considered impediments to continued work. It also captured the reasons for targeting a particular retirement age, specifically the importance of financial factors as opposed to social convention, the expected burdens of work, or the expected pleasures of retirement. These data allow an assessment of the appeal of a "work longer" response to the downturn, based on changes in job security and any other impediments to continued work.

Behavioral Factors

The survey covered topics such as the respondent's level of distress after the crash, the amount of thought given to short- and long-term financial concerns, and the extent of conversations about the downturn with relatives, peers, or a financial adviser. This information offers opportunities to analyze the impact of behavioral "reactivity" on financial decisions.

Financial Literacy Experiment

Finally, the survey included an experiment to see how respondents who suffered a significant loss of retirement savings might change their responses if they had better information. After the initial survey, such respondents were told, "Suppose a finance professor told you that implementing any ONE of the following should fully offset your loss" – for example, save an additional 11 percent of earnings; retire one year later; or live on 8 percent less income in retirement. The professor's advice was calibrated based on the share of retirement income respondents expected from financial assets and how close respondents were to retirement, among other factors (see Table 1).[2] They were then asked, assuming this information is "reasonably reliable," how might it change their response to the downturn. A preliminary analysis of these results is described in the third section.

Table 1. Changes Required in Wake of Financial Collapse, According to 'Finance Professor'

Years to retirement	Expected share of retirement income from financial assets: 25-40%	>40%
	Percent increase in saving rate	
3-5	50%	80%
6-12	11	18
13-20	5	8
	Additional years of work	
3-5	1	1.5
6-12	1	1.5
13-20	1	1.5
	Percent reduction in retirement income	
3-5	9%	14%
6-12	8	13
13-20	7	12

Note: The assumptions and calculations underlying this table are available upon request.
Source: Authors' calculations from *CRR 2009 Retirement Survey*.

Survey Results

The survey results are largely consistent with previous surveys. They indicate a pervasive loss of retirement wealth, with two-thirds of workers age 45 to 59 reporting less retirement savings than they had before the crash.[3] They also indicate significant distress, with more than a quarter reporting a level of distress in response to the downturn equal to or greater than that caused by the 9/11 terrorist attacks. In addition, the survey found:

- *A widespread rise in the expected age of retirement.* About 40 percent expect to retire later than they had before the downturn – somewhat more than reported in earlier surveys – with most of those who intend to work longer delaying retirement by four or more years.[4]

- *Relatively little change in retirement saving.* Two-thirds of respondents reported no change in how much they save for retirement in 401(k)s, IRAs, or other accounts. However, a substantial number of respondents – nearly 60 percent – reported that they are spending less (which is equivalent to saving more if income is unchanged). These results are reasonably consistent with previous surveys, reports from retirement plan administrators, and government statistics on saving.[5]

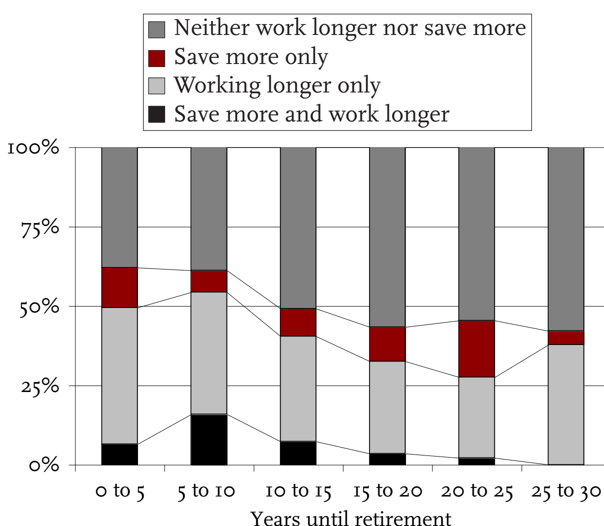
- *Some reallocation of retirement savings.* About 30 percent reported changing the allocation of assets in their accounts or contributions to these accounts, with most of these switchers (81 percent) reallocating away from stocks. This response is larger than that reported by retirement plan administrators with respect to 401(k) accounts only.[6]

- *A substantial minority did nothing.* Forty-three percent changed neither their planned retirement age nor how much they save for retirement. These households may have suffered little or no loss of retirement savings; may plan to only decrease consumption; may be too overwhelmed to take an active role in rectifying their financial situation; or may just be unaware of their options.

This survey also found that a number of factors are related to individuals' response to the financial downturn.[7] Not surprisingly, economic status is important. The average income of those taking no action in response to the downturn is higher, suggesting that they may feel better positioned to weather the storm. In contrast, those who lost more than 10 percent of their retirement assets and those who rely heavily on their financial assets to fund their retirement are more likely to work longer.

Interestingly, information that is not readily available in other surveys, such as the ability to adjust one's retirement plans and the psychological impact of the downturn, are highly correlated with responses to the downturn. Workers with more time to make adjustments, as measured by the years until their retirement age, are likely to respond differently than those close to their expected retirement age. Figure 1 shows that those with the most time to respond are, in fact, the least responsive. Individuals originally planning to retire within the next five years are more likely to be taking action than individuals whose remaining working life exceeds 15 years.

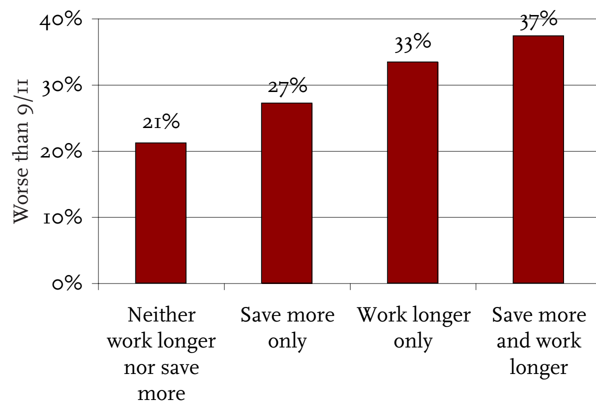
Figure 1. Initial Response to the Downturn, by Years Until Retirement



Source: Authors' calculations from *CRR 2009 Retirement Survey*.

In order to measure psychological factors, the survey asked respondents to compare the distress caused by the downturn with what they experienced during 9/11. Figure 2 on the next page shows that a larger percentage of those taking action in response to the downturn said their distress was equal to or greater than that associated with 9/11. This figure highlights that emotional reactivity is highly correlated with financial reactivity, and may be an important component that is missing from most analyses.

Figure 2. Percent Highly Distressed by Economic Crisis, by Type of Financial Response



Source: Authors' calculations from *CRR 2009 Retirement Survey*.

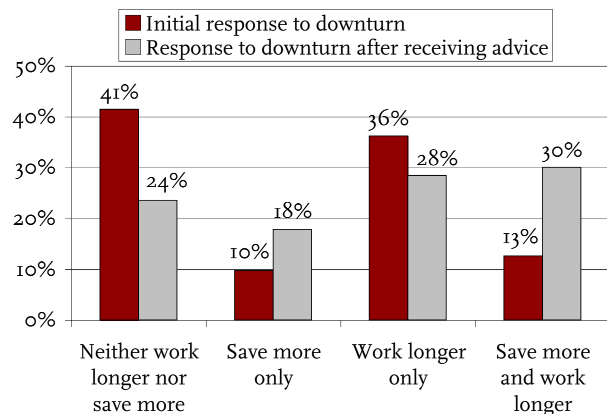
Results from Financial Literacy Experiment

For a taste of how the new data set could be used, we conducted a preliminary exploration of individuals' reactions to the downturn, both before and after receiving financial advice. The following analysis focuses on a sub-sample of 358 individuals with substantial financial losses that received advice from the "finance professor." We further cut 83 people from the sample whose responses seemed to be driven by current employment issues rather than a loss in financial assets (decreasing one's current savings or retirement age).

Figure 3 compares the distribution of responses to the downturn before and after receiving financial advice. As was apparent with the full sample, 41 percent of the sub-sample with large financial losses did not respond to the downturn, about half chose to work longer, and less than a quarter increased their savings.

The distribution of responses changes once respondents receive the professor's advice. Two things seem to be happening: initial non-responders reconsider their decision, and saving seems to be more attractive. Only about one-quarter of individuals are not making active choices to combat their financial losses, and almost half are saving more. This increase in the stated preference to save is of particular note. When left to their own devices, individuals often select working longer. This choice may be rational, especially since the necessary increase in saving is quite large for those close to retirement age. This general preference for work over saving is also consistent with behavioral economics theories that indicate a preference for deferring "pain" into the future. However, when the trade-off between increasing savings and working longer is clearly presented, as in the survey section with the "finance professor," the response at the margin seems to shift toward some increase in saving.

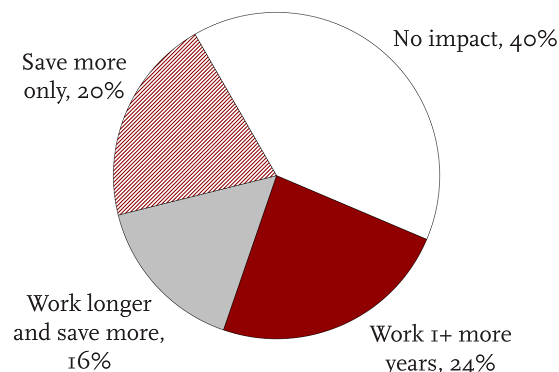
Figure 3. Responses to the Downturn, Initial and After Receiving Financial Advice



Note: All differences are significant at a 5 percent confidence level except for the "work longer only" response.
Source: Authors' calculations from *CRR 2009 Retirement Survey*.

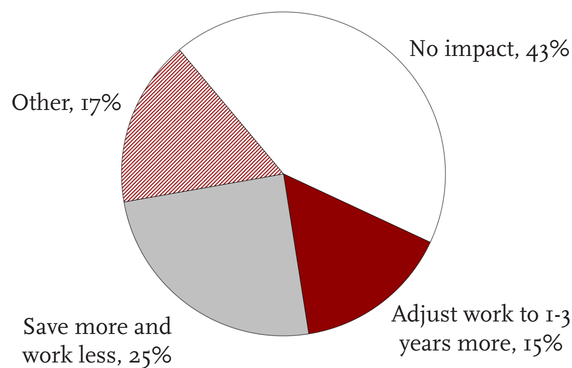
To further investigate how retirement plans change in response to financial advice, we focus on two groups of individuals based on their initial response to the downturn: those taking no action (41 percent of the sub-sample), and those stating that they will increase their working life dramatically (four or more years) without increasing their savings (22 percent of the sub-sample). Figure 4 on the next page describes the actions taken by the initial non-responders after receiving advice. A striking 60 percent reconsider their decision, with 24 percent saying they would increase their retirement age, 20 percent saying they would increase their savings, and 16 percent saying they would do both. This outcome suggests that credible information can substantially change both retirement and savings behavior.

Figure 4. Response to the Downturn After Receiving Advice, Initial Non-Responders



Source: Authors' calculations from *CRR 2009 Retirement Survey*.

Figure 5. Response to the Downturn after Receiving Advice, Respondents Initially Planning to Work Substantially Longer



Source: Authors' calculations from *CRR 2009 Retirement Survey*.

Figure 5 describes the actions taken after receiving advice for the group that originally indicated a dramatic increase in their working life and no change in their saving. Again, we see that half of this group changed their stated preferences between work and savings in response to the financial advice. Fifteen percent seem to be simply adjusting their estimates of how long they need to work to recoup their losses, suggesting they had incomplete information when they chose their initial retirement plan, but they maintain their preference for working longer as the way to respond to the downturn.

However, about one-quarter now prefer to save more and work only one to three years longer to address their financial losses. This response suggests that these individuals were not fully informed of the trade-offs between working longer and saving more when deciding on their initial response to the downturn.

Neither group of individuals initially planned to save more. Yet each group experienced a significant increase in the number of respondents willing to save more after hearing the financial advice. While this preliminary analysis is only suggestive and does not address the magnitude of the saving response, it does indicate that clearly explaining the work and savings trade-off can tilt some people toward saving more. The different impact of the financial advice on the subgroups also highlights the important role that one's prior attitudes play in determining behavior, even when receiving the exact same message.

Conclusion

The CRR survey offers a unique data set for analyzing responses to the financial and economic downturn of workers approaching retirement. The main results, which are largely consistent with earlier studies, show a significant rise in expected retirement ages, but little change in retirement saving. The intent to work longer is *potentially* a powerful response to the loss of retirement wealth. But many workers retire earlier than planned.[8] Increased saving is a more certain and immediate response to a large negative wealth shock. While contributions to retirement savings plans are little changed, workers approaching retirement are spending less and paying down debt, which strengthens their financial position and results in a less costly standard of living that will be easier to sustain in retirement.

The survey's results show considerable variation based on an individual's asset losses, years to retirement, and psychological reaction. Those with significant asset losses and/or a greater reliance on financial assets are more likely to respond to the downturn, as are individuals closer to retirement. Psychological factors also appear influential, with those more distressed by the downturn more likely to react. Interestingly, standard demographic variables, such as race and gender, are not correlated with how one reacts to the downturn.

The preliminary analysis of the financial literacy questions indicates some grounds for hope that providing better information can improve individuals' retirement planning choices. Of those receiving "expert" advice, about 60 percent who initially did not plan to respond to the downturn reconsidered, suggesting that credible information can substantially change both retirement and savings behavior. Another potentially interesting finding is that, among those who had a strong initial preference for working longer to offset losses, receiving a clear explanation of the trade-off between working longer and saving may convince some to save more as well.

Endnotes

1 The main survey was fielded to 2,941 potential respondents; 2,221 completed the survey (76 percent), of which 1,317 were qualified (59 percent) and included in the data set. The financial literacy module was fielded to 406 qualified respondents from the initial survey and completed by 358 (88 percent). The survey data and detailed documentation are available on the Center for Retirement Research website.

2 The financial literacy questions were asked of respondents who had at least $50,000 in financial assets set aside for retirement before the downturn; reported their retirement savings at least 10 percent lower than a year earlier; and gave a target retirement age. 419 respondents met these criteria and 358 completed the module. The options, presented in Table 1, are based on the respondents' age; decline in retirement savings; expectations – prior to the downturn – of when they expected to retire; the adequacy of their retirement income; and the share of that income provided by financial assets. The derivation of the information provided is available upon request from the authors. If the respondents' estimates are reasonably accurate, the options the "professor" presented should reasonably reflect the respondents' actual situation.

3 Many reporting no decline in retirement wealth probably experienced investment losses, but their retirement savings, including their contributions, were little changed (19 percent) or higher (15 percent).

4 A Pew Research Center survey in May 2009 found 52 percent of workers age 50 to 64 expected to retire later, similar to the CRR survey result (Pew, 2009). EBRI's *2009 Retirement Confidence Survey* found a quarter of all workers intended to remain in the labor force longer – more than the jump recorded in 2003, the previous high, following the bursting of the Internet bubble and a similar stock market decline (Helman, et al., 2009).

5 EBRI's *2009 Retirement Confidence Survey* found that the same share of workers, 64 percent, had saved for retirement in 2008 as in 2006 (Helman, et al., 2009). A 2009 Vanguard study reports the following: "The saving and investment behavior of defined contribution (DC) plan participants changed only marginally. In many ways, DC plan participants' lack of response to 2008's volatility is striking and reflects the inertia that dominates much retirement savings behavior." (Vanguard, 2009). The government's National Income and Product Accounts and Flow of Funds Accounts show a rise in personal saving, though not from households using more of their income to acquire assets, but from using more of their income to pay down debt (Bureau of Economic Analysis, 2009). Financial Finesse, a firm offering financial counseling to employees, attributes the sharp rise of calls dealing with debt management – from 37 to 44 percent – to cyclic employment and financial pressures (Financial Finesse, 2009).

6 The 2009 Vanguard study reports that one in six participants changed the asset allocation in their accounts, much the same as in previous years, with the net result being a modest shift from stocks to bonds. The allocation of contributions was also largely unchanged (Vanguard, 2009).

7 Basic demographic characteristics, such as race and gender, had little correlation to individuals' responses.

8 Several studies support this conclusion. Half of the retired respondents in EBRI's 2009 *Retirement Confidence Survey* report retiring earlier than planned, with over half citing health issues as the reason (Helman, et al., 2009). In the 2008 *Health and Retirement Study*, about 30 percent of retirees reported poor health as a very important or moderately important reason for their retirement. One in five workers in their 50s has been laid off in the past 10 years (Johnson, Merman, and Murphy, 2007), and displaced older workers have a difficult time finding a new position (Chan and Stevens, 2001).

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About the Center

The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

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