III

Financial Education and Retirement Savings

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Individual Responsibility for Retirement Savings

Over the past 25 years, the structure of retirement plans has changed substantially, and this evolution of employer-provided pension plans has significantly increased the role of workers in the determination of their retirement income. During this period, the proportion of the labor force covered by any type of pension plan has remained relatively stable at around 50 percent; however, the coverage rate in basic or primary pensions by defined-benefit plans has plummeted, while participation in primary defined-contribution plans has grown rapidly. In 1979, the share of primary pension coverage attributed to defined-benefit plans was 83 percent. By 1998, primary coverage by defined-benefit plans as a percentage of all pension participants had fallen to less than 50 percent. Therefore, at the dawn of the 21st century, defined-contribution plans had become the dominant plan type for primary employer-provided pensions in the United States.

In addition to the basic pension, many workers, especially those in large organizations, are covered by supplemental pension plans. These plans are almost exclusively some type of defined-contribution plan. The rapid transition to defined- contribution plans that include individual accounts has been driven by changes in government regulations and tax policy that have increased the administrative costs of defined-benefit plans and made defined-contribution plans more desirable (Clark and McDermed, 1990; Hustead, 1998). In addition, changes in the composition of the labor force that have increased the demand for more portable pensions and shifts in the composition of employment toward those sectors that have traditionally offered defined-contribution plans have accelerated the growth of defined-contribution plans (Gustman and Steinmeier, 1992; Ippolito, 1997).

In most defined-benefit plans, full-time employees are automatically included in the plan after meeting minimum participation standards. Future retirement benefits for participants in defined-benefit plans typically depend on earnings histories and years of service. Thus, participants in defined-benefit plans are not required to make any participation, contribution, or investment decisions. In contrast, defined-contribution plans are based on individual accounts into which the company and employees contribute funds. Participation in many defined-contribution plans, especially 401(k) plans, is voluntary. Therefore, each worker must decide whether to make any annual contribution and the size of that annual contribution. In addition, the participant must decide how to invest the annual contribution and how to invest all of the assets in his or her individual account.

The expanding use of employer-provided defined-contribution plans has placed increased responsibility on many individuals to set retirement goals and decide how to save sufficient funds to achieve these goals. Potential changes in the Social Security system may further increase the need for individuals to have a better understanding of financial markets and the retirement savings process. Some proposals to reform the Social Security system include the introduction of individual accounts as a component of retirement benefits. If adopted, the inclusion of self-directed individual accounts would place even greater responsibility on individual workers in the determination of their retirement income goals. Other reform proposals would retain the current benefit structure but would reduce future Social Security benefits. Lower replacement ratios from Social Security would also mean that individuals would be responsible for saving a greater portion of their retirement income.

Economic theory provides some structure for considering the allocation of time and resources over the lifetime. Under certain restrictive conditions, life cycle models can predict the age of retirement, annual savings rates, and the level of income in retirement compared to preretirement earnings. Most of these models assume that individuals understand the financial markets and know the risk-return distribution of all assets. With this knowledge, individuals can make consumption and savings decisions that determine their expected retirement income at their chosen retirement age. In truth, most individuals seem to have extremely limited knowledge of financial markets, the level of risks associated with specific assets, and how much they need to save to achieve a retirement income goal.

In the 21st century, individuals will have greater responsibility for their own retirement income. In this new environment, financial knowledge may be the key to achieving one's retirement objectives successfully. Recently, Federal Reserve Chairman Alan Greenspan (2001) commented that helping Americans understand basic concepts about budgeting and financial markets through financial education programs should enable them to make more appropriate short- and long-term savings decisions. Greenspan stated that…. education can play a critical role in equipping consumers with the fundamental knowledge required to choose among the myriad of products and providers in the financial services industry. This is especially true for populations that have traditionally been underserved by our financial system…. In addition, education can help to provide individuals with the financial knowledge necessary to create household budgets, initiate savings plans, and make strategic investment decisions for their retirement or children's education. Such financial planning can help families to meet their near-term obligations and to maximize their longer-term financial well being. While data available to measure the efficacy of financial education are not plentiful, the limited research available on the benefits of financial education programs is encouraging.

Greenspan's remarks suggest that financial education would be helpful to workers engaged in retirement planning and that such programs would be most useful to lower- and middle-income families. His observation about limited research on the link between financial education and retirement savings is correct and can be viewed as an implicit call for additional research on this important topic. Lusardi (2000) concurs with Chairman Greenspan's view that financial literacy is a key to retirement savings and concludes that lack of planning and not understanding the savings process are two of the primary reasons that Americans have such a low savings rate.

It seems obvious that increased financial awareness would be beneficial to individuals considering how to save for their retirement. However, the linkage between financial education and the setting of retirement goals, and the impact of enhanced financial education on the likelihood of achieving the necessary savings to reach these goals, has gone virtually unexplored. Very few studies have examined the link between financial education and retirement savings. This paper examines the impact of participation in financial education seminars offered by TIAA-CREF on retirement goals and savings behavior. Specifically, we determine whether participants in these seminars revise their expected retirement age and the level of income they desire in retirement after participation in a seminar that provides an overview of the retirement savings process. In addition, we observe whether the participants indicate that they expect to change their savings behavior by making specific changes in the amounts they save, how they invest their retirement assets, and whether they intend to acquire additional information about their retirement income needs and the retirement savings process.

Does Financial Education Influence Savings: What Do We Know Now?

If individuals have insufficient knowledge concerning the retirement savings process, they are unlikely to be able to make optimal retirement savings decisions. A lack of financial education may result in workers starting to save too late in life and saving too little to achieve their stated retirement goals. In addition, a lack of information concerning the risk-return distribution of various investments might lead workers to misallocate their retirement portfolios. Bernheim (1998) presents evidence that questions whether the typical household has enough financial literacy to make appropriate savings decisions for their employer-provided pension plans. Recognizing this lack of financial knowledge, many employers now provide financial education programs for their workers. Employer-provided financial information consists of written communications that explain company retirement savings options, general information about financial markets and economic conditions, and financial education or retirement seminars led by pension providers or in-house staff. Other firms provide monies so that their employees can purchase a financial plan.[1] Some of the programs are provided with the specific goal of increasing participation and contribution levels to help the company meet nondiscrimination standards.

Relatively few studies have attempted to estimate the effectiveness of these programs in altering retirement goals or retirement savings behavior. Using the KPMG Peat Marwick Retirement Benefits Survey, Bayer, Bernheim, and Scholz (1996) estimated that workers employed by firms that offered financial education programs had higher participation rates in and contribution rates to 401(k) plans compared to firms that did not provide this type of program.[2] Their analysis indicated that seminars were the most effective type of communication. Sponsorship of financial education seminars was associated with a 12 percentage point increase in the participation rate of non-highly compensated workers and a 6 percentage point increase among highly compensated employees. Company-sponsored retirement seminars produced a 1 percentage point increase in the contribution rate of the non-highly compensated and no significant increase among highly compensated employees. This increase in the contribution for non-highly compensated is quite large given that the average contribution rate for these employees is only 3 percent.

Clark and Schieber (1998) examined employment records gathered by Watson Wyatt Worldwide from 19 firms covering more than 40,000 employees. They estimated the effect of company-provided written communications describing the retirement savings process, the need for workers to save, the national economic environment, and the characteristics of the company retirement plan. This type of financial information played a significant role in increasing the probability of employees participating in a 401(k) plan and in increasing the contribution rate to that plan. Providing written documents to workers about retirement savings increased the probability of participating in the 401(k) plan between 15 and 21 percentage points. In addition, they found that the provision of information concerning the company's 401(k) plan increased the annual contribution rate by 2 percentage points, while generic financial and economic information did not have any significant influence on the contribution rate.

Muller (2000) estimated the effect of financial education seminars on the allocation of investments in defined-contribution plans using the Health and Retirement Survey (HRS). She employed only the 1992 wave of the HRS that asks whether the respondent has ever attended a retirement seminar. She reported no general effect of seminar attendance on the allocation of retirement funds. However, her measure of investment allocation was very broad. The question in the HRS asks whether the household's assets are mostly or all in stocks, mixed, or mostly or all in bonds. This measure would obviously miss small and even medium-size adjustments to pension investments. She did find that individuals with a high degree of risk aversion tend to adjust their portfolios after participation in a seminar. This finding is somewhat odd because "high degree" of risk aversion is the second-highest of four risk aversion categories used in the analysis, and individuals with "extreme risk aversion" (the highest category) did not have any significant reaction to financial education.

Lusardi (1999, 2000) also examined data from the Health and Retirement Survey. Her focus was on the role of planning and the lack of financial literacy in the retirement savings. She found that individuals who do not plan for retirement have lower net wealth and are less likely to invest in assets with higher expected returns, such as equities. She argued that existing studies of retirement savings are based on models that assume that there are no planning costs associated with retirement savings and little or no differences in how households obtain and use information needed to establish an optimal savings plan (Lusardi, 2000). Lusardi (1999) stated that extensive information is needed to plan adequately for retirement, and the financial education programs are important to the planning process. Finally, she argued that more research is needed "to determine why households do not plan for retirement, and whether the provision of information … can play a role in affecting household decision making and, ultimately, the financial security of many American households." (Lusardi, 2000).

The general conclusion of this limited literature is that financial education provided by employers can increase retirement savings and potentially alter the investment of assets in retirement accounts. The mechanism for how education alters retirement savings and investment decisions is unclear. Maki (2001) provided three possibilities. First, financial education could increase household savings by causing the family to reduce its discount rate. Second, increased knowledge could lead the household to become less risk-averse and thus increase investment in assets with a greater level of risk and expected return. Finally, financial education programs could change the household's knowledge of its investment choice set. For example, the information may reveal to workers that it is impossible to achieve the current goal of retiring at a specific age with a certain level of income using the existing saving and investment strategy. Maki dismissed the first two possibilities and argued that greater knowledge of what is possible is the primary mechanism through which these programs alter household decision making.

TIAA-CREF Financial Education Seminars

Throughout the year, the Consulting Services division of TIAA-CREF conducts Financial Education Seminars at educational institutions and other nonprofit organizations. Seminars are open to all employees of these institutions. Thus, participants at colleges and universities may include administrative, technical, clerical, and service workers, as well as faculty. Coverage in other nonprofit institutions also tends to include the full range of employees. The basic pension plan of seminar participants may be TIAA-CREF, a defined-contribution plan from another pension provider, or a defined-benefit plan. Seminars are also given in community settings, with participants coming from many different institutions. These seminars are presented all across the country. Thus, respondents in our study are not limited to college faculty.

TIAA-CREF consultants present a variety of seminars aimed at audiences in different life stages, including newly hired employees, midcareer workers, and preretirees. They also conduct special seminars developed for female employees.

The objective of all of these seminars is to provide financial information that would assist individuals in the retirement planning process. Consultants discuss such retirement goals as the amount of money needed in retirement to maintain the same level of consumption as during the working years and the relationship between the age of retirement and the annual amount of savings needed to achieve the retirement income goal. Consultants also devote considerable time in a seminar to examining the risk-return characteristics of alternative investments. Although they differ somewhat in content, all of the seminars provide this basic information concerning retirement savings. Brief descriptions of the primary types of seminars included in this analysis are presented below.

The Investment Education Seminar is designed to establish the importance of identifying personal financial goals and ways to utilize employer-provided retirement plans, as well as voluntary saving plans to meet these goals. Participants are educated on developing an investment strategy, including discussions of diversification, risk tolerance, time horizon, and investment preferences.

The Retirement Education Seminar is designed to answer questions about how much money is needed in retirement, sources of retirement income, income distribution options available, tax considerations, and the effects of inflation.

The Women's Investment Forum is designed to provide women with the tools, resources, and information necessary to manage their own finances. Women examine differences in life expectancy; career interruptions; and the impact of marriage, divorce, death of a spouse, and other variables impacting retirement planning.

Research Methodology

The primary objective of this research is to examine how financial education affects retirement goals and retirement savings behavior. The age of expected retirement and the ratio of retirement income to gross earnings prior to retirement are used to measure retirement goals. In order to achieve these goals, individuals must make certain savings and investment decisions. Optimal decision making requires that individuals understand the savings process, the expected risk-return distribution of various investments, and the magnitude of annual saving necessary to accumulate sufficient wealth to retire at the expected age with the desired level of income. Without adequate information or financial education, individuals will have an inadequate knowledge base to make important decisions for retirement. This study attempts to measure the impact of financial education on retirement goals and savings behavior by analyzing the responses by participants in TIAA-CREF Financial Education Seminars described in the previous section. This section describes the three surveys used to measure individual response to information provided in the seminars and the key questions addressed in the research. This is an interim report of a two-year research project. Over the next two years, we anticipate that approximately 100 seminars and more than 1,000 participants will be included in the study.

Survey Content

The analysis of retirement savings is based on information obtained from three surveys of participants in TIAA-CREF Financial Education Seminars. Survey One is given to participants at the beginning of the seminar, Survey Two is completed at the end of the seminar before participants leave the room, and Survey Three is sent to participants about three months after the seminar.[3] Survey One asks participants to indicate the age at which they hope to retire and the annual retirement income as a percentage of their final working year's earnings that they hope to have in retirement. Respondents are asked to indicate the likelihood of achieving this goal, how strongly committed they are to this goal, and whether other priorities might make it difficult for them to attain this goal. Individuals are asked whether their basic pension is a defined-benefit or a defined-contribution plan. Those in a defined-contribution plan are asked to report their account balance, annual contribution, and their allocation of funds in their account between equities and bonds. All respondents are asked if they have a supplemental retirement account and, if so, its current account balance, annual contributions, and investment allocations. Finally, individuals are asked to report their age, gender, employment, years of service, marital status, education, earnings, income, number of children, and occupation. The objective of Survey One is to provide baseline information on retirement goals and savings behavior prior to the educational intervention.

After completing the survey, individuals participate in a financial educational seminar for approximately one hour. These seminars include information on setting retirement goals, employer-provided savings plans, the risk and return properties of various assets, and the amount of annual savings needed to achieve certain retirement income objectives. At the conclusion of the seminar, participants are asked to complete Survey Two.

In Survey Two, respondents are asked to indicate whether they have changed their retirement age goal or revised the level of retirement income they desire. In addition, individuals are asked whether they intend to change their allocation of invested funds in their basic defined-contribution plan to include more equities or more bonds. If respondents have a supplemental retirement plan, they are asked if they intend to increase their contributions or change their investment allocation. Individuals who do not have a supplemental plan are asked if they plan on establishing one. A risk preference question asks whether individuals would describe themselves as conservative investors, moderately conservative investors, moderately aggressive investors, or aggressive investors. Finally, participants are asked a series of questions concerning other actions that they might take on the basis of their newly acquired financial information. Possible actions include using telephone services to amend investment decisions, telephone services to contact counseling centers, use of the World Wide Web to make financial decisions, and hire a financial planner. In addition, respondents are asked if they plan to establish passwords to access accounts on line, purchase long-term-care insurance, open an IRA or increase contributions to an existing IRA, or engage in other non-tax-deferred savings plans.

Survey Three is sent to participants about three months after their participation in the seminar. The survey is similar in content to Survey Two but asks what actions have actually been taken. The final research project will be based on seminars conducted from March 2001 to June 2002. The present paper is limited to the first round of surveys completed between March 15 and May 1. A total of 20 seminars at seven institutions along with seven community-based seminars have been completed thus far, and we have obtained 270 completed surveys. This paper analyzes the responses to Survey One and Survey Two from these respondents.[4]

Table 1 presents the mean values for demographic and economic variables for the sample of respondents who have already participated in the research project. The sample is reasonably diverse. The average age of the sample is 56, and 47 percent of the respondents are female. Educational status is 12 percent with a high school degree, 20 percent with a college degree, 32 percent with a master's degree, 30 percent with a doctoral degree, and 6 percent with a professional degree. Mean annual household income is $107,263, with $61,488 coming from the respondents' earnings. Average number of years of service with the current employer is 17.5 years, and the average number of children of the respondents is 1.9. About half of the respondents expect to continue working after retirement. Respondents indicated that they, on average, have a goal of retiring at age 64 and they hope to have about 80 percent of their final working year's income in retirement. Respondents indicated that they were about 70 percent sure that they would achieve these goals before the seminar.

About one-third of the sample was engaged in teaching and research, while slightly more than one-fourth of respondents were in administrative and management. Secretarial and clerical workers comprised 7 percent of respondents, other professional and technical employees 14 percent, and maintenance and service workers 4 percent. Among those in teaching and research, 66 percent were tenured, 16 percent tenure track, and 17 percent non-tenure track. The rank of those in teaching and research positions was 13 percent instructor, 10 percent assistant professor, 28 percent associate professor, and 45 percent professor.

A little more than a fifth of the sample was currently working with a financial adviser, but many had previously attended some type of financial seminar. In describing their investment behavior, 14 percent stated that they were aggressive, 38 percent moderately aggressive, 39 percent moderately conservative, and only 9 percent were self-described conservative investors. The basic pension plan for 84 percent of the respondents was a defined-contribution plan, and they had an average account balance of $434,372 with 61 percent of the balance invested in equities. The mean employee contribution to these plans was 8 percent, while the average employer contribution was 8.5 percent. New contributions were also 58 percent-invested in equities. Slightly more than a third of the respondents were making contributions to a supplemental tax-deferred retirement plan. The average account balance was $131,356, with 65 percent of these assets invested in equities. The mean contribution to these plans was $5,878, or 7.5 percent of salary.

Key Questions

Workers must decide at what age they want to retire and how much income they desire in retirement relative to their final earnings. In order to achieve these retirement goals, individuals must decide how much to save and how to invest their retirement funds. The key question that we examine is whether financial education results in workers altering their retirement goals and/or their retirement savings behavior. By comparing the survey responses in Survey Two with those in Survey One, we are able to determine whether individuals alter their expected age of retirement or their desired level of income in retirement after participating in the seminar. Using these data, we are able to estimate how changes in retirement goals vary across individual characteristics. Next, we examine whether individuals alter their savings plans by increasing voluntary contributions to existing supplemental plans, opening new supplemental plans, or changing the investment mix of new contributions and account balances. Finally, we explore whether individuals expect to engage in other actions in response to the knowledge gained in the seminar. Actions include being more active in the investment process by using the Web or consulting a financial planner, opening an IRA or increasing contributions to an existing IRA, or by purchasing long-term-care insurance. Once again, we estimate how these actions vary across individuals.

Retirement Savings Responses to Financial Education

After completing the seminars, respondents indicated whether they were likely to change their retirement goals and savings behavior (see Table 2). The response of individuals obviously depends on how they viewed the quality of the information they received. In general, participants thought they had been part of a high-quality financial education program, with 30 percent rating the seminar excellent and 50 percent good. In response to the statement that the seminar had improved their understanding of the need for retirement savings, 28.5 percent strongly agreed with the statement and 56.7 percent agreed with the statement. Respondents also indicated that they now had a greater likelihood of achieving their retirement age goal and their retirement income goal.

Some respondents changed their retirement goals. Almost 5 percent of the sample increased their retirement age goal by an average of three years, and 4.4 percent of respondents reduced this goal by an average of close to three and a half years. There was a much greater tendency to adjust retirement income goals, with 17.8 percent increasing this goal and nearly 26 percent decreasing the income objective. The mean retirement income goal for those increasing the goal was only 71.9 percent before the seminar. These respondents increased their goal by an average of 15 percentage points. The mean retirement income goal for those decreasing their goal was 81.7 percent before the seminar. These respondents lowered their income goal by an average of 15.7 percentage points. In general, these responses represent a movement toward the income goal that would allow the respondent to have the same consumable income in retirement as in the final working year. This concept is discussed in the seminars.

On the basis of the information provided in the seminar, respondents indicated they plan to be more active in planning for their retirement. About 28 percent of respondents who currently do not have a supplemental pension plan are now planning on establishing such a plan with their employer. Among respondents who currently have a supplemental plan, 22 percent stated that they would increase their contribution rate to these plans. In addition, 12.6 percent indicated that they will increase the proportion of their investment held in equities, while an equal percent reported that they intend to increase their investment in bonds. Other actions that are now being planned by seminar participants include monitoring their accounts on the Web (60 percent of respondents), using a financial planner (32 percent), planning to contact a telephone counseling center (41 percent), and increasing other forms of non-tax-deferred savings (36 percent). After completion of the seminar, 19 percent of the respondents stated that they are planning to open a new IRA or increasing contributions to an existing IRA.

Conclusions and Implications

This paper presents preliminary results from a research project designed to determine the impact of financial education on retirement savings. Early findings indicate that high-quality financial education can be effective in altering retirement income goals. Specifically, we find that after receiving information on the level of income retirement needed to continue preretirement consumption, seminar participants amend their income goal toward this level. Individuals with relatively low retirement income goals (between 50 and 60 percent of final year's income) tend to increase their target retirement income, while those with income goals in excess of 90 percent tend to decrease their stated income targets. In addition, a high proportion of seminar participants indicate that they plan on being more active in determining their retirement savings. Close to 30 percent without supplemental pension plans expect to establish such a plan, more than one-fifth of those with existing supplemental plans expect to increase their contributions, about one-fifth expect to open an IRA or increase contributions to an existing IRA, and one-third indicate a desire to increase other forms of non-tax-deferred savings. Based on the information in the seminar, many participants report that they will reallocate the investment of their account balances and new contributions. These tentative early results suggest that financial education is an effective mechanism for improving the retirement savings process.

In the 21st century, American workers will be required to assume greater responsibility for determining their retirement income. Many workers will have to decide whether to participate in a company pension plan, how much to contribute, and how to invest these funds. In addition, workers may also have to respond to reductions in Social Security benefits or the introduction of individual accounts as part of Social Security. Such changes will place even greater responsibility on individual workers. Finally, individuals who feel that their expected income from Social Security and employer pensions is insufficient must consider other forms of savings. In order to achieve the desired level of retirement income, workers must make appropriate savings and investment choices. Similar choices are facing workers in many other countries as national retirement plans are restructured in response to population aging. This study illustrates how financial education can help individuals make better choices, including decisions about when to start saving for retirement, how much money needs to be saved each year, and how retirement accounts should be invested. Financial education leads to a greater understanding of financial markets, the risk-return properties of investments, the level of savings needed to achieve target levels of retirement income, and how various savings programs can be more appropriately utilized. In a world of defined-contribution retirement plans, companies and governments have an obligation to provide better financial education to their employees and citizens.

Table 1. Sample Means

Variable	Survey One	Survey Two
Age	56.1	
Percent Female	46.7	
Years of Service	17.5	
Number of Children	1.9	
Education Attainment		
Percent with High School Degree	12.4	
Percent with College Degree	19.7	
Percent with Master's Degree	32.2	
Percent with Doctoral Degree	29.9	
Percent with Professional Degree	6.2	
Annual Household Income (dollars)	107,264	
Earnings from Primary Employer (dollars)	61,488	
Type of Investor		
Conservative		9.4
Moderately Conservative		39.3
Moderately Aggressive		37.6
Aggressive		13.7
Retirement Age Goal	63.8	63.7
Likelihood of Achieving Retirement Age Goal (scale 1 to 10)	7.5	7.7
Retirement Income Goal: Percent of Final Working Year's Income	80.4	81.7

Variable	Survey One	Survey Two
Likelihood of Achieving Inc. Goal (1 to 10)	6.7	7.0
Percent Who Plan to Work after Retirement	49.3	
Financial Seminars Previously Attended	2.1	
Percent Currently Working with Financial Adviser	22.2	
Basic Pension Plan		
Percent with Defined-Contribution Pension	84.1	
Account Balance (dollars)	434,372	
Investment Allocation in Equities (%)	61.1	
Employee Contribution Rate	8.1	
Employer Contribution Rate	8.5	
Allocation of Contribution to Equities	57.9	
Supplemental Pension Plans		
Percent Currently Making Contribution	36.8	
Account Balance (dollars)	131,356	
Percent in Equities	64.6	
Annual Contribution (dollars)	5,878	
Contribution as Percent of Salary	7.5	
Allocation of Contributions to Equities	60.5	
Type of Employment (percent of respondents)		
Secretarial/Clerical	7.0	
Teaching/Research	34.1	
Administrative/Management	28.5	
Maintenance/Service	4.4	
Other Professional/Technical	13.7	
Other	4.1	
Retired	5.6	
Not Currently Employed	2.6	

Variable	Survey One	Survey Two
Tenure Status of Teaching/ Research (percent of those responding)		
Tenured	66.3	
Tenure Track, Nontenured	16.3	
Non-Tenure Track	17.4	
Rank of Teaching/Research (percent responding)		
Instructor	13.0	
Assistant Professor	9.8	
Associate Professor	28.3	
Professor	44.6	

Table 2. Response to Seminar

Variable	Mean Response
Evaluation of Seminar (percent)	
Excellent	30.0
Good	50.4
Fair	12.6
Poor	0.4
Seminar Improved Understanding of Need for Retirement Savings (percent)	
Strongly Agree	28.5
Agree	56.7
Disagree	7.0
Strongly Disagree	1.5
Changes in Retirement Age Goal	
Percent that Increased Goal	4.8
Mean Increase in Years	3.2
Percent that Decreased Goal	4.4
Mean Decrease in Years	3.4
Changes in Retirement Income Goal: Respondents Who Increased Their Goal after the Seminar	
Percent that Increased Goal	17.8
Mean Retirement Income Goal (percent of final year's income)	71.9
Mean Increase in Goal (percentage point)	15.2
Changes in Retirement Income Goal: Respondents Who Decreased Their Goal after the Seminar	
Percent that Decreased Goal	25.9
Mean Retirement Income Goal (percent of final year's income)	81.7
Mean Decrease in Goal (percentage point)	-15.7

Variable	Mean Response
Respondents with Basic Defined-Contribution Plan	
Percent Who Now Plan to Increase Investment in Equities	11.9
Percent Who Now Plan to Increase Investment in Bonds	12.6
Respondents Without Supplemental Plan Who Now Plan to Establish One	28.4
Respondents with Supplemental Retirement Plan	
Percent Who Now Plan to Increase Their Contribution Rate	22.0
Percent Who Now Plan to Increase Investment in Equities	12.6
Percent Who Now Plan to Increase Investment in Bonds	12.6
Respondents Now Plan to Use	
Automated Telephone Service	11.1
Telephone Counseling Center	40.7
The Web	60.4
Financial Planner	32.2
Increased Probability of Taking Action:	
Purchase Long-Term-Care Insurance	13.0
Open an IRA or Increase Contributions	19.3
Increase Other Forms of Non-Tax-Deferred Savings	35.6

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Endnotes

[1] Bernheim and Garrett (2000) and Bayer, Bernheim, and Scholz (1996) provide an assessment of employer-provided financial education programs.

[2] Other studies using this survey include Bernheim (1998), Bernheim and Garrett (1996), and Bernheim and Garrett (2000).

[3] Copies of the surveys can be obtained from the authors upon request.

[4] Surveys have been completed at Campbell University (two seminars), Duke University (three seminars), Center for Creative Leadership (two seminars), Furman University (two seminars), University of North Carolina at Charlotte (two seminars), Phillips Academy (two seminars), and Northeastern University. In addition, six community-based seminars were held in New Jersey and one in Boston. In total, 880 people attended part or all of these seminars, and 317 individuals completed some parts of the two surveys. The sample included in the analysis contains 270 observations. It is important to recognize that some individuals arrive after the seminar has begun and are not given either of the surveys. In addition, some participants who have completed Survey One leave the seminar early and do not complete Survey Two.