

## EMPLOYER-PROVIDED RETIREMENT PLANNING PROGRAMS

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### ABSTRACT

As older workers approach the end of their working career, they face a series of important decisions that will determine their economic wellbeing during their remaining lifetime. They must decide when to retire, when to start Social Security and company pensions, whether to annuitize 401(k) balances and/or take lump sums from defined benefit plans. Lack of knowledge or insufficient financial literacy may lead to decisions that eventually will be regretted. This paper examines employer provided financial education and pre-retirement planning programs and assesses their effectiveness in increasing knowledge and altering retirement behavior.

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In the next decade, millions of baby boomers will make the transition from full time work into complete retirement. As retirement from a career job approaches, older workers must make a series of important decisions, some of which are irreversible. These choices will determine, in part, the level of income in retirement, the sensitivity of income to economic fluctuations, and the ability to maintain consumption through retirement. In order to successfully make the transition into retirement, individuals will need to rely on their financial literacy and knowledge about retirement programs offered by their employer and by the government. Without accurate information and sufficient financial literacy, individuals will tend to make inappropriate employment and investment choices that could have significant consequences in their retirement years.

Recently, economists and other social science researchers have examined the level of financial literacy and its role in economic decision making and attempted to determine whether and how individuals can improve their knowledge base. This study presents evidence from a unique new study of the retirement planning and financial literacy programs offered by employers to their older employees. The initial findings indicate that participants enhance their financial literacy and knowledge and on the basis of this new information, many tend to alter their retirement plans. Thus, employers can facilitate the transition into retirement by providing the means for workers to increase their understanding of key retirement concepts and thereby, enabling their employees to achieve a more desirable retirement.

### **Retirement Decisions and Knowledge Requirements**

When individuals enter the labor force, they must immediately begin making important choices that define their lifetime consumption and saving profiles. Lifecycle theory suggests that individuals set retirement goals or targets early on, and then select saving and investment

behavior that should allow them to achieve their goals. As new information becomes available, individuals re-optimize their consumption and savings behavior, and may alter their retirement expectations. The primary retirement goals that individuals set are the age that they will retire and the level of income they will have in retirement. A fundamental principle in retirement planning is that younger retirement ages and higher retirement income require more saving and less consumption throughout the working life.

As employees approach the end of their work life, they are likely to reassess their retirement plans. Individuals must decide when and how to enter into retirement and are often facing difficult choices that have significant repercussions for their financial security in retirement. Considerable attention has been given to the lack of saving by American workers; however, much less attention has been focused on how older workers make decisions concerning the allocation of their resources as they enter into retirement.

The most important decisions facing workers nearing retirement are no longer how to amass additional wealth for retirement; instead they must be focused on how to best use the resources available to them. The limited evidence available suggests that older workers do not have sufficient knowledge or financial literacy to make the many choices that must be made as individuals make the transition from work to retirement (Bernheim 1995, 1998; Hilgert and Hogarth 2002; Lusardi and Mitchell 2006, 2008). Incorrect or insufficient knowledge can lead to suboptimal choices. Thus, programs that increase financial literacy and retirement program knowledge can improve retirement decisions and produce better retirement outcomes (Clark and d'Ambrosio 2003; Clark et al. 2006; Lusardi 2008). In addition, pre-retirement planning seminars can efficiently address the numerous questions and concerns that individuals approaching retirement share, thereby reducing the Human Resources (HR) costs.

Some of the most important decisions older workers must make are:

- When to retire from their career jobs
- Whether to take a lump sum distribution from a defined benefit pension plan or to accept the annuity option
- When to claim Social Security benefits
- Whether to annuitize all or part of 401(k) and/or 403(b) account balances
- How to manage investments in retirement

For workers to make optimal choices to these important questions, they must have an appropriate level of financial literacy, understand financial mathematics, and also have correct knowledge about the retirement programs of their employer and national retirement programs. While these are different concepts, sufficient knowledge and literacy are both important to achieving a successful retirement. Workers can acquire the needed knowledge to make these key decisions in various ways and one resource available to some workers is employer-sponsored pre-retirement planning programs. Many large employers offer some type of planning seminars for retirement eligible employees.

Sabelhaus et al. (2007) report that 46 percent of pension participants covered by defined contribution plans work for companies that provide resources to assist participants in retirement choices. Thirty percent of participants have the opportunity to attend employer seminars and workshops and almost 85 percent of these relied on this information to ‘some’ or a ‘great’ extent in making their retirement decisions. Using a survey of plan sponsors, Wray (2008) finds 31 percent of the employers offer seminars focusing on retirement assets and income planning. While not universal, employer-provided retirement planning programs are common and the studies by Sablehaus et al. (2007) and Wray (2008) indicate that perhaps one third of the labor

force has access to such programs. These programs allow companies to efficiently provide detailed information to their employees that are nearing retirement. These programs vary substantially in length, content, and presentation. Although many believe this type of program is beneficial to employees, relatively little is known about the effectiveness of these programs in enhancing the knowledge of, and altering the retirement decisions of, employees.

This chapter examines the pre-retirement programs of five large national employers and assesses whether they are successful in improving the knowledge base of workers nearing retirement. We also assess whether, on the basis of this learning, employees alter their retirement plans. Further, we explore the employees' views of these programs, including whether they thought the programs were worthwhile and whether the seminars are a valuable employee benefit.

## **Methodology**

To examine the importance of employer-provided pre-retirement planning programs, we assembled a team of five large employers ranging in size from 8,000 to 40,000 employees. Our employer partners are Becton, Dickinson, and Company (BD), North Carolina State University, Progress Energy, Weyerhaeuser, and the Williams Companies.<sup>1</sup> Four of the employers have sites throughout the United States, with home offices in New Jersey, North Carolina, Oklahoma, and Washington. Each of the employers offers defined benefit plans (three employers have cash balance plans), each offers health insurance to active and retired workers, and each offers supplemental plans (although not all have an employer match). The employee populations of these employers differ substantially by gender, education, and earnings, as well as geographic location.

Each of the employers offered a series of pre-retirement planning programs to their older employees during the second half of 2008. The general process is that retirement eligible employees are individually invited to participate in these programs. The employers keep track of attendance and may limit participation by employees in the programs to one every five years or so. Attendance at these programs is by invitation from the employer. The objective of the employers is to reach all retirement-eligible employees over a period of time. Invitations are issued, attendance is tracked, and the employers report high participation rates. The programs are on-going and the employers expect that over a number of years most of the eligible employees will attend one of these programs. Thus, the participants in the programs we observe should reflect the population of older workers at these employers.

In the financial education literature, there has been much discussion concerning selection bias associated with these programs by economists examining the impact of financial education seminars. In general, this discussion has focused on programs with open invitations where attendance is voluntary and few, if any, records of attendance are kept. The programs that we are examining are more structured and while attendance is voluntary, employees are responding to specific invitations from their employers and attendance is recorded. Given that most eligible employees attend one of these company provided programs once they become retirement eligible, the selection bias should be considerably less in our study.<sup>2</sup> However, it should be noted that in this study we observe only seminars offered between June and December 2008, and we are not monitoring programs over say a 5 year period. Thus, there could be some factors that resulted in these programs have a non-representative sample of the employer's workforce.

We worked with each employer in the spring of 2008 to develop an evaluation process for their pre-retirement planning programs. The basic methodology included the development of

two surveys.<sup>3</sup> The first was to be completed by each participant prior to the start of the program. The objective was to obtain baseline socio-economic data about the individual and his/her household, as well as information concerning their retirement plans and investment strategies. Employees were also asked to complete questions about their financial literacy and their knowledge concerning employer and national retirement programs. Two financial literacy questions similar to those developed by Lusardi and Mitchell (2006) for the Health and Retirement Study were included along with a series of knowledge questions about Social Security and Medicare and the characteristics of company retirement plans.

At the conclusion of the seminar, participants were asked to complete a second survey. This time participants answered questions concerning the pre-retirement planning program and the employee's assessment of the seminar and its value. The knowledge and literacy questions were repeated, to see if the participants' overall knowledge of retirement programs and financial markets had improved. Seminar participants were also asked if they had changed any of their important retirement related decisions.<sup>4</sup>

Some of the employers used hard copy surveys (BD, Progress Energy, and Weyerhaeuser). The program leaders at each of these companies extended the length of their programs to allow participants 15 to 20 minutes prior to the start of the seminar to complete Survey One and similar time at the end of the program to complete Survey Two. Other employers (North Carolina State University and Williams) chose to use electronic surveys. For these employers, a link to the electronic Survey One was sent via email to participants about a week prior to the seminar. Then, a link to Survey Two was e-mailed to the participants immediately following the seminar. Attendees were given approximately two weeks to complete Survey Two before the survey was closed to responses. This chapter reviews the results of all of

the seminars that incorporated our surveys into their programs between June and December 2008. To date, we have evaluated 28 seminars in total. In general, invitations to attend the seminars were limited to employees approaching retirement or who were eligible to retire under the employer pension plan. For this report, we have restricted the sample to participants born between 1943 and 1959 (i.e., those approximately ages 50 to 65 at the time of the seminars).<sup>5</sup> This yields a total sample with usable responses of 395 employees (see Appendix Table 1).

In the following sections, we describe these employers and their pre-retirement programs and examine the response of seminar participants. The analysis highlights three areas. First, we examine how the participants evaluated the program. Second, we determine whether these employees improved their basic understanding of employer retirement programs, Social Security, and Medicare. Finally, we determine whether on the basis of the program individuals altered their retirement plans.

Key findings from the study indicate that participants learn, alter retirement behavior, and appreciate the programs from their employers. Specifically, participants demonstrate substantial learning after the seminar. The baseline level of knowledge and the amount of knowledge gained varies based on demographic characteristics such as age, gender, income level, education, tenure, and wealth. Based on their enhanced knowledge, participants report changes in retirement plans such as altering their expected age of retirement, plans concerning the acceptance of lump sum pension payouts, and when they anticipate claiming Social Security benefits. The quality of programs offered by all of our employer partners is rated very highly by the participants and quality instruction facilitates learning in the programs. Employees appreciate and value these programs and participants report that the programs increase their opinion of their employer.

## Survey Design

A similar survey framework was used to evaluate the pre-retirement planning programs of all participating employers, but the surveys were customized for each employer. For example, the survey mentioned the specific employer by name in many of the questions where appropriate and asked about employer-specific retirement plans. Questions concerning retirement savings accounts differed somewhat between private sector employers and public and nonprofit employers (i.e., questions concerned 401(k) plans in the private sector and 403(b) and 457 plans in the public sector). In addition, several employers requested that specific questions be added to the survey to help them better understand how their employees were using the human resource programs and accessing the help lines offered by their 401(k) and 403(b) providers. Employer specific reports are being prepared to assist each of our employer partners in evaluating the full range of their informational programs and the impact of these programs on worker behavior.

The objectives of Survey One are to determine the employees' level of understanding of their employer's pension and health plans, their knowledge about national retirement plans such as Social Security and Medicare, their financial literacy, and their current retirement plans. To assess the current level of knowledge regarding national retirement plans, the survey asks about the early and normal retirement ages of Social Security, early retirement penalties, cost of living increases, and the age of eligibility for Medicare. In addition, participants are asked benefit and eligibility questions concerning their employer defined benefit plans and their own 401(k) or 403(b) accounts. This survey also includes several questions related to basic financial literacy.

Prior to attending the seminar, employees had made retirement plans, either implicitly or explicitly. Survey One asks participants the age that they expect to retire, when they expect to start Social Security benefits, what the expected level of benefits are, and what benefits they

expect to receive from their employer-provided retirement plans. Questions probe the employee's intentions concerning annuitization of pension assets and work plans after they have retired from their current employer. Finally, Survey One contains a series of economic and demographic questions concerning current income, wealth, age, marital status, and the work, income, and retirement benefits of any spouse or partner.

The primary objectives of Survey Two are to determine how participants evaluated the seminar, whether they enhanced their knowledge of retirement programs, and whether on the basis of the new information they changed their retirement plans. To assess the employees' impression of the seminars, the first section of Survey Two asks respondents if the program provided useful information, if the information was presented at the right level for them, if the presenters were of high caliber, if they will be better able to make retirement decisions after completing the program, and whether they value the program as an employee benefit. The next two sections of Survey Two repeat many of the questions in Survey One concerning retirement intentions and knowledge. By comparing the answers given in Survey Two to those in Survey One, we can assess the change in the respondent's knowledge about retirement programs and financial literacy and determine whether participants have now changed their retirement plans.

### **Did Participants Increase their Financial Literacy in These Programs?**

There are two fundamental questions associated with employer financial education programs for pre-retirees: (1) are these programs effective in increasing financial literacy and knowledge about company and national retirement programs? and (2) if financial literacy is increased, does this affect worker behavior? To assess the impact of these financial education programs, the responses from seminars of the five employers are merged into a single data file.<sup>6</sup> The means of various demographic and economic characteristics and their retirement plans are shown in Table

1. The sample is composed of workers age 50 to 65 with a mean age of 57.8 years. Two thirds of the employees are men, 82 percent are married, and they have an average of almost 25 years of service with their current employer. In general, these are relatively high earners with above average wealth.

[Table 1]

To examine the level of financial literacy and knowledge of retirement programs prior to the seminar, the participants were asked several questions. We selected 10 of these questions to analyze here. The questions are shown in Table 2 along with a summary of correct answers. The average number of correct responses prior to the seminar was 7.1. After participation in the event, the average number of correct answers rose to 8.4 indicating a substantial level of learning on the part of the participants in the programs. The average knowledge score after the seminar for the entire sample is significantly higher than the average score prior to the seminar and the improvement in knowledge and literacy for participants from each employer is significantly higher after the seminar. Figure 1 shows the distribution of the knowledge score, the number of participants by their number of correct answers. Prior to the seminar, 20 participants scored a perfect 10 while 57 participants had scores of 5 or lower. After the seminar, 61 participants gave correct answers for all 10 questions and only 7 had a score of 5 or lower.

[Figure 1]

[Table 2]

Figures 2A and 2B show the change in knowledge achieved during the seminar. Overall, 171 participants or 69 percent of the respondents improved their knowledge scores with the score remaining unchanged for 57 individuals or 23 percent of the sample. Figure 2B illustrates the knowledge gain by the base level of financial knowledge shown in Survey One. Most

importantly, those with initial low scores achieve substantial increase in their knowledge of retirement plans. Thus, we conclude that the pre-retirement planning seminars increased the level of financial literacy for almost all participants with large gains among those with relatively little knowledge prior to the event.

[Figure 2]

It should not be surprising that many older workers do not know the basic eligibility and plan characteristics of national retirement programs. Key parameters of Social Security, Medicare, and pension regulations are based on legislation passed at different points in time and have different objectives. As a result, many alternative ages are specified in these programs that determine access to retirement income. GAO (2007) summarized these retirement age-related rules which range from age 55, the age of eligibility for drawing certain pensions without penalties if leaving an employer, to age 70 and a half, the age for mandatory withdrawals from pension plans to avoid tax penalties. While confusion over these ages is understandable, the retirement income of workers depends on their knowledge of these ages and the timing of their retirement decisions.

[Figure 3]

It is also worth noting that the gains in knowledge were observed across all economic and demographic characteristics of the participants. Table 3 shows the index of knowledge by various employee characteristics. There was a 1.38 gain in the mean score of the entire population. Younger participants, those aged 50 to 58, had a greater increase in their knowledge scores than the older participants and virtually eliminated the age difference in knowledge observed prior to the program. Women had larger gains in knowledge than men but still had a lower knowledge score after the program. Interestingly, individuals who had a lower self

assessed knowledge prior to the seminar had a much larger gain in mean score compared to those that had a higher self assessed level of knowledge (1.61 compared to 1.06). This is another indication that the programs were very beneficial to those with relatively little knowledge of their retirement plans. The improvements in the knowledge scores for the entire sample and for each of the various demographic characteristics are statistically significant.

[Table 3]

Next, we attempt to determine differences in initial knowledge and learning by estimating a series of regressions. The first two columns of Table 4 report the results of a regression with the dependent variable being the number of correct answers out of the 10 questions shown in Table 2.<sup>7</sup> Not surprisingly, the analysis in the first column indicates that prior to the seminar older workers (and presumably those closer to retirement) are more knowledgeable as are men and those with greater years of education. When several measures of earnings and wealth are included in the regression, we find that high earners are more knowledgeable and that the coefficient on men is no longer significantly different from zero. Similar results are found in the regression indicating the level of knowledge after event. The only statistically different coefficient between the before and after regressions is age, which is not statistically significant in the prediction of knowledge after the seminar.

[Table 4]

### **Did the Gain in Knowledge Result in Changes in Retirement Plans?**

These results indicate that the participants in these programs increased their level of financial literacy and knowledge of retirement programs, and that the degree of learning varies across employee characteristics and economic status. Does behavior change with an increase in learning? To explore this question, we examine the age of planned retirement from current

employer. We also considered plans for starting Social Security benefits, plans for working after retirement from the current employer, the desire to annuitize account balances in supplemental retirement plans, and expectations concerning lump sum distributions from defined benefit plans. Table 5 reports plans on each of these issues before the seminar began and after the event. The mean and median responses to expected retirement age and age for starting Social Security benefits are unchanged by the program. There is a 10 percentage point increase in the proportion of employees planning to work after retiring from their current employer.

[Table 5]

Prior to the seminar, there was considerable uncertainty concerning whether to annuitize account balances in supplemental retirement plans or take lump sum distributions from the defined benefit plans with about half the respondents indicating that they had not yet decided on these options. Before the seminar began, only 16.9 percent of the sample planned to annuitize some or all of their supplement plan funds; however, this increased to 26.6 percent after the seminar with the proportion that had not decided declining by roughly the same 10 percentage points. However, almost half of the participants were still undecided on annuitization. Nearly one third of the employees planned to take a lump sum distribution prior to the program and after the program, this percentage increased slightly. Once again, almost half of the participants were undecided on the choice of a lump sum. This implies that only about one quarter of these employees were certain that they want to receive a lifetime benefit from their defined benefit plan.

Table 6 presents the results of a series of regressions examining planned retirement ages before and after the seminar. The first two columns of the table report the estimates from Survey One and columns 3 and 4 include the estimated coefficients using data from Survey Two. Prior

to the seminar, the age of planned retirement is significantly higher for older employees and lower for those with more years of tenure. Neither of these effects is surprising. This reflects self-selection in the sample; those who wanted to retire early have already done so. On average, one would expect that older workers will have a higher expected retirement age than younger employees. Our sample of older workers consists only of workers that have chosen not to retire at younger ages, by definition. The tenure effect, once controlling for age, is a proxy for pension wealth from the defined benefit plans offered by all of the employers. Variation across the employers is captured by the employer dichotomous variables included in the regression. Adding earnings and 401(k) account balances to the regression does not affect the size or significance of these effects. The estimated coefficients are similar in the post-seminar equation as the age and tenure effects remain significant and have only small changes in magnitude.

[Table 6]

Higher knowledge scores are significantly associated with lower planned retirement ages among these employees. The relationship between knowledge and retirement plans is complex and depends on the direction of knowledge errors. For example, some employees believe that they can start employer retirement benefits or social security benefits or be covered by Medicare at younger ages than one can actually receive these benefits. Upon learning that their expectations are wrong and benefits are available only at a later age, these employees are now likely to plan to retire at an older age. Thus, this improvement in knowledge leads to a later retirement. Alternatively, if the employee believes that benefits are only available at an older age, then learning the true age of eligibility could lead to an earlier retirement. Thus, this improvement in knowledge would lower the planned retirement age. We are currently attempting to disentangle these effects.

## **Participant Assessment of the Programs**

Employers are providing these programs as an employee benefit. Obviously, they are concerned about the effectiveness of these programs and whether their employees appreciate and value the seminars. Table 7 indicates that employees in these programs had a very positive experience and believed that the seminars were very helpful to them. Across all of the seminars and employers, 97 percent of the respondents stated that the programs provided all or most of the information needed for them to make important retirement decisions. Ninety three percent rated the programs very good or excellent and 96 percent found the presenters and program leaders to be very good or excellent. Finally, 88 percent of these employees believed that they would be able to make better retirement choices after participating in the seminar. Importantly, for companies considering whether to provide such programs to their employees, 77 percent of the individuals reported that the programs raised their awareness of the benefits provided by their employers. Thus, the participants gave high marks to the quality of the programs, believed that the programs provided the information they needed, and gave their employers credit for offering these programs.

[Table 7]

## **Conclusion**

Millions of older workers are now approaching retirement. Considerable evidence indicates that many have a rather low level of financial literacy and understanding of their retirement programs. Limited or inaccurate information will lead individuals to make poor retirement decisions limit their ability to achieve their desired level of well-being in retirement. How can these employees enhance their knowledge and make better retirement choices?

This unique research project examined the pre-retirement planning programs of five large employers in various sectors of the economy. Our analysis reveals that participants in these programs exhibited substantial learning that increased their financial knowledge. Based on this new information, many changed their retirement plans by altering the expected retirement age, the age for starting social security benefits, the desire to annuitize account balances in supplement pension plans, and the desire to take a lump sum distribution from defined benefit plans.

Participants in these programs overwhelmingly believe that they have improved their financial literacy and will make better retirement decisions. They express strong satisfaction with the quality of the programs and credit their employers for offering the seminars. These findings are the first results reported from an on-going study, expected to continue for another two years. As we work with our employer partners, we are providing them with important feedback on their programs that will help them improve and modify their programs. A major objective of the research project is to develop a template for evaluating these programs so that other employers can monitor and improve their programs. The results of this study should also provide encouragement to employers considering whether to adopt pre-retirement planning programs. Based on our assessment of these initial data, employer provided financial education programs can increase employee knowledge of retirement programs and assist them in making better retirement choices.

## **Appendix A. Employer Characteristics and Overview of Survey Responses**

This appendix briefly describes each of the five employers, their retirement benefits, and their pre-retirement planning programs for retirement eligible employees. Mean responses from key survey questions for each employer are discussed; tables of full results by employer are available upon request. This information provides an overview of the type of workers included in the analysis and their employers. In comparing these results to other studies of financial knowledge and the impact of financial education programs, one should remember that all of participants in these seminars work for large employers who offer their employees retirement plans. In general, all employees of a given employer are covered by the same defined benefit pension, thus variation in pension wealth among participants at each employer is due to differences in annual earnings and tenure. Also participants from an employer are offered the same supplemental savings plan with the same characteristics; however, variation in the account balances in these plans also reflect individual choices to participate, the contribution rate, and the investment allocations of each employee.

**Becton, Dickinson, and Company (BD).** Becton, Dickinson, and Company (BD) is a global medical technology company. According to their website, their focus is on “improving drug delivery, enhancing the diagnosis of infectious diseases and cancers, and advancing drug discovery.” BD develops, manufactures and sells medical supplies, devices, laboratory instruments, antibodies, reagents and diagnostic products through its three segments: BD Medical, BD Diagnostics, and BD Biosciences. It serves healthcare institutions, life science researchers, clinical laboratories, the pharmaceutical industry and the general public. BD was founded in 1897 and is headquartered in Franklin Lakes, New Jersey. BD employs approximately 28,000 people in approximately 50 countries throughout the world.

BD converted its traditional defined benefit plan to a cash balance plan in April 2007. The traditional plan was integrated with Social Security and had a formula of 1 percent per year of service for earnings up to the average final covered compensation plus 1.5 percent times years of service times any average excess earnings over the Social Security earnings limit. All employees hired prior to the conversion date were given a choice to remain in the old plan or shift to the new plan. This recent pension choice may have stimulated employees to learn more about their retirement benefits and enhanced financial literacy among BD employees. BD also offers a Saving Income Plan with a company match that was increased from \$0.50 per each dollar of employee contribution up to 6 percent of salary prior to 2007 to a match of \$0.75 per dollar of employee contributions up to 6 percent of salary. Retirees are eligible to participate in the company health plan provided they are age 55 with 10 years of service or age 65 with 5 years of service.

BD offers a pre-retirement planning program that is presented by the Ayco Company. The typical program is 4 hours long and has on average 20 employees attending per session. Thus far, our evaluation tool was used in conjunction with 4 seminars completed in September 2008. From these programs, we have 69 completed surveys. The median age of the respondents was 58, 64 percent were women, 70 percent were married, 62 percent had a college degree, and more half had 24 or more years of service. Among these employees, the median annual earnings were between \$75,000 and \$100,000. All of the participants were enrolled in the savings incentive plan and had a median account balance equal to three to five years of salary. In addition, the participants reported a median financial wealth of \$100,000 to \$250,000 and 91 percent reported owning their own home with a median equity value of over \$200,000. In

general, the seminar participants represented middle and upper income households who had substantial assets as they approached retirement.

The participants gave the seminar and the presenter high marks for developing and executing a valuable event. Ninety three percent of respondents indicated that the program included all or most of the information they needed, 99 percent stated that the material was present at a level that they could understand and that they could incorporate into their retirement planning, and 93 percent rated the program as very good or excellent in terms of increasing their understanding of the retirement decision they were facing. Eighty four percent of the participants indicated that they could now make better retirement choices, and 83 percent stated that they would now change some of their retirement choices. Participants thought the seminar was a valuable benefit, that it enhanced their positive feelings about BD, and that it raised their awareness of the benefits that BD provides.

One key question in evaluation these programs is whether the participants learned. We might expect that an individual's improved understanding of the level of pension benefits should facilitate better retirement planning. To assess the learning acquired during the seminars, the surveys included eight general financial knowledge and Social Security and Medicare questions and two questions specific to BD benefits. By comparing the answers to the 10 questions concerning the BD retirement programs, Social Security, Medicare, and general financial literacy given before the seminar to those after the seminar, we are able to assess whether the respondents substantially increased their knowledge of these issues. In addition, by comparing their before and after responses to planned retirement decisions, we are able to determine if based on the new knowledge, participants altered their retirement plans.

Virtually all of the participants correctly answered the two general financial knowledge questions before the seminar. This indicates that BD employees had a much higher level of knowledge compared to the general population (Lusardi and Mitchell 2006). In general, BD workers were fairly knowledgeable of the characteristics of Social Security and Medicare; however, substantial learning did occur. There were large increases in the proportion of participants that correctly answered the questions on the normal retirement age for Social Security (a 21 percentage point increase in correct answers), the age of eligibility for Medicare (an 18 percentage point increase), and the reduction for starting Social Security benefits early (33 percentage point increase). The mean number of correct answers increased from 5.5 before the seminar to 6.6 after the seminar.

Prior to the seminar, 56 percent of the sample indicated that they did not know how large their pension benefits would be relative to their final salary. After the seminar, this declined to 31 percent. Based on the information gained during the seminar, individuals were more optimistic with 42 percent stating that they expected to be able to maintain their standard of living in retirement. This is compared to only one third of the participants prior to the seminar, with nearly an identical number unsure before and after. This increased optimism is reflected in the higher expected income replacement rates reported after the seminar as well.

Median planned ages for retirement from BD (age 62) and starting Social Security benefits (age 65) did not change; however, the proportion of participants who anticipate working after retirement from BD rose from 35 to 50 percent. An interesting result we find here is that after the seminar more individuals planned to annuitize funds in the Savings Incentive Plan but more also planned to take a lump sum distribution from their pension.

**North Carolina State University.** With more than 31,000 students and nearly 8,000 faculty and staff, North Carolina State University (NC State) is a comprehensive, public land grant university. NC State is located in Raleigh, NC. Faculty and staff of NC State are employees of the state of North Carolina and are eligible to participate in Teachers' and State Employees' Retirement plan (TSERs). The benefit formula is 1.82 percent per year of service times the average salary in the employee's high four years of employment. Faculty also have the option of enrolling in an Optional Retirement Plan, a defined contribution plan, instead of the state plan; however, the seminar was restricted to employees enrolled in TSERs. The University offers employees several supplemental retirement plans (401(k), 457, and 403(b) plans) but does not provide any employer match. Retirees are eligible to remain in the state health plan after retirement without any retiree premium as long as they are receiving a monthly pension benefit. Prior to the start of this project, the HR division of NC State offered several short retirement planning programs; however, an all day program was developed in 2008 for employees enrolled in the state retirement plan. In the fall of 2008, two day-long pre-retirement planning programs were offered to participants in TSERs.

The median age of the respondents was 59, 73 percent were women, 60 percent were married, 57 percent had a college degree, and the median tenure was 28 years of service. Among these employees, the median annual earnings were \$25,000 to \$50,000. In addition to being covered by the state defined benefit plan, 67 percent of the participants had established a 403(b) or 457 accounts; however, these balances tended to be relatively small with the median account balance averaging less than one year of salary. Most of these employees made annual contributions but they were less than the maximum contribution allowed. The participants had a median financial wealth of between \$50,000 and \$75,000 and 87 percent reported owning their

own home with a median equity value of between \$100,000 and \$150,000. In general, the seminar participants represented middle income households in North Carolina.

The participants reported strong approval of the seminar and the presenters. Ninety eight percent of respondents indicated that the program included all or most of the information they needed, 100 percent stated that the material was presented at a level that they could understand and that they could incorporate into their retirement planning, and 95 percent rated the program as very good or excellent in terms of increasing their understanding of the retirement decision they were facing. All of the participants indicated that they were better informed about their retirement programs, 88 percent thought that they could now make better retirement choices, and 67 percent stated that they would now change some of their retirement plans. Participants thought the seminar was a valuable employee benefit, that it enhanced their positive feelings about NC State, and that it raised their awareness of the benefits that the university provides.

Did the participants learn? The survey responses show that 76 to 87 percent of the participants correctly answered the general financial knowledge questions before the seminar. In general, many of these employees lack basic knowledge of the characteristics of Social Security and Medicare; however, substantial learning occurred. There were large increases in the proportion of participants that correctly answered the questions on the normal retirement age for Social Security (a 23 percentage point increase in correct answers), the age of eligibility for Medicare (a 29 percentage point increase), and the reduction for starting Social Security benefits early (13 percentage point increase). The mean number of correct answers increased from 4.5 before the seminar to 5.7 after the seminar.

Prior to the seminar, 27 percent of the sample indicated that they did not know how large their pension benefits would be relative to their final salary. After the seminar, this declined to 3

percent. Based on the information gained during the seminar, individuals were more optimistic with 50 percent stating that they expected to be able to maintain their standard of living in retirement compared to only 37 percent of the participants prior to the seminar. Planned ages for retirement from NC State (age 56) and starting Social Security benefits (age 62 before, 63 after) changed only slightly; however, the proportion of participants who anticipate working after retirement from NC State rose from 67 to 83 percent. Interestingly, there was a drop in the proportion of participants planning to take a lump sum distribution from the state pension while there was an increase in those planning to annuitize some of the 403(b) or 457 account balances.

**Progress Energy.** Progress Energy is a Fortune 250 energy company with more than 21,000 megawatts of generation capacity and \$9 billion in annual revenues and has over 10,000 employees. The company has a cash balance pension plan that was established in 1998 for all new employees. Employees hired before the conversion were previously in a traditional defined benefit plan. They were moved to the cash balance and provided conversion credits from the old plan. The company also offers active employees a 401(k) plan with an employer match and health insurance, and they allow retirees to remain in the company health plan.

For some years, this employer has provided day long seminars to its retirement eligible employees. The programs are conducted by company personnel; however, several outside experts and representatives are used to augment the program. Retirement eligible employees are invited to attend the program; however, employees can attend a pre-retirement planning program only once every 5 years. Each year, the company offers a series of programs at various sites between July and September. In 2008, our survey was incorporated into all 15 programs offered by the company covering 201 employees participating in nine different locations. From all of the seminars, we received a total of 157 completed surveys for a response rate of 78 percent. Fifty

of the participants provided contact information and indicated that they would be willing to complete survey three.

The median age of the respondents was 57, 84 percent were men, 85 percent were married, 56 percent had a college degree, and more half had 30 or more years of service. Among these employees, their median annual earnings were between \$75,000 and \$100,000. Virtually all of the participants had established a 401 (k) account with a median account balance of between three and five years of salary. In addition, participants reported other savings and financial assets worth between \$50,000 and \$75,000 and 96 percent reported owning their own home with a median equity value of between \$100,000 and \$150,000. In general, the seminar participants represented middle and upper income households who had substantial assets as they approached retirement.

The participants strongly endorsed the seminars and presenters. Ninety eight percent of respondents indicated that the program included all or most of the information they needed, 98 percent stated that the material was presented at a level that they could understand and that they could incorporate into their retirement planning, and 91 percent rated the program as very good or excellent in terms of increasing their understanding of the retirement decision they were facing. Seventy percent of the participants indicated that they were better informed about their retirement programs, 91 percent thought that they could now make better retirement choices, and 80 percent stated that they would now change some of their retirement choices. Participants thought the seminar was a valuable employee benefit, that it enhanced their positive feelings about the company, and that it raised their awareness of the benefits that the company provides.

Did the participants learn? The survey responses show that 88 to 96 percent of the participants correctly answered the general financial knowledge questions before the seminar.

Prior to the seminar, many of these employees lacked basic knowledge of the characteristics of Social Security and Medicare; however, substantial learning occurred. There were large increases in the proportion of participants that correctly answered the questions on the normal retirement age for Social Security (a 21 percentage point increase in correct answers), the age of eligibility for Medicare (a 13 percentage point increase), and the reduction for starting Social Security benefits early (18 percentage point increase). The mean number of correct answers increased from 5.4 before the seminar to 6.3 after the seminar.

Prior to the seminar, 55 percent of the sample indicated that they did not know how large their pension benefits would be relative to their final salary. After the seminar, this declined to 33 percent. Based on the information gained during the seminar, individuals were more optimistic with 43 percent stating that they expected to be able to maintain their standard of living in retirement compared to only 37 percent of the participants prior to the seminar. Planned ages for retirement from the company (age 62) and starting Social Security benefits (age 62) did not change; however, the proportion of participants who anticipate working after retirement from the company rose from 50 to 59 percent. There was a small increase in the proportion of participants planning to take a lump sum distribution from the cash balance plan and a similar increase in those planning to annuitize some of the 401 (k) account balances.

**Weyerhaeuser.** Weyerhaeuser is one of the world's largest forest products companies. They have offices or operations in 13 countries and have customers worldwide. As of December 31, 2007, Weyerhaeuser had 37,900 employees, primarily in the United States and Canada. They employ a variety of workers, from scientists, engineers, architects and financial specialists to forestry, trade and craft workers. Weyerhaeuser offers a defined benefit pension plan that is integrated with Social Security. The benefit formula is 1.1 percent times final average salary

time years of service plus 0.45 percent times excess earnings over the Social Security integration level times years of service. Weyerhaeuser also offers retirees the opportunity to remain in the company medical plan. The company offers a 401(k) plan with a \$0.70 company match for each dollar of employee contributions up to 7 percent of salary. Weyerhaeuser has offered pre-retirement planning program for a number of years. The company offers two and a half day programs that are conducted by Weyerhaeuser personnel with outside experts used to complement the program. Programs are offered monthly. Our surveys have been incorporated into five seminars completed in 2008.

The median age of the respondents was 57, 35 percent were female, 81 percent were married, 79 percent had a college degree, and the median tenure was 23 years of service. Among these employees, their median annual earnings were between \$100,000 and \$150,000. All of the participants had established a 401 (k) account with a median account balance of between three and five years of salary and all were included in the company pension plan. In addition, they reported other savings and financial assets worth between \$100,000 and \$250,000 and 96 percent reported owning their own home with a median equity value of over \$200,000. In general, the seminar participants represented middle and upper income households who had substantial assets as they approached retirement.

The participants gave the seminar and presenters high marks for developing and presenting a valuable event. Ninety nine percent of respondents indicated that the program included all or most of the information they needed, 99 percent stated that the material was presented at a level that they could understand and that they could incorporate into their retirement planning, and 96 percent rated the program as very good or excellent in terms of increasing their understanding of the retirement decision they were facing. All of the participants indicated that they were better

informed about their retirement programs, 99 percent thought that they could now make better retirement choices, and 88 percent stated that they would now change some of their retirement choices. Participants thought the seminar was a valuable employee benefit, that it enhanced their positive feelings about Weyerhaeuser, and that it raised their awareness of the benefits that Weyerhaeuser provides.

Did the participants learn? Survey responses show that 92 to 100 percent of the participants correctly answered the general financial knowledge questions before the seminar. Prior to the seminar, many of these employees lacked basic knowledge of the characteristics of Social Security and Medicare; however, substantial learning occurred. There were large increases in the proportion of participants that correctly answered the questions on the normal retirement age for Social Security (a 25 percentage point increase in correct answers), the age of eligibility for Medicare (a 3 percentage point increase), and the reduction for starting Social Security benefits early (37 percentage point increase). The mean number of correct answers increased from 5.8 before the seminar to 7.5 after the seminar.

Prior to the seminar, 24 percent of the sample indicated that they did not know how large their pension benefits would be relative to their final salary. After the seminar, this declined to nine percent. Based on the information gained during the seminar, individuals were more optimistic with 53 percent stating that they expected to be able to maintain their standard of living in retirement compared to only 47 percent of the participants prior to the seminar. Planned ages for retirement from Weyerhaeuser (age 60 before, 62 after) increased but the age for starting Social Security benefits (age 65 before, 63 after) declined. The proportion of participants who anticipated working after retirement from Weyerhaeuser rose slightly from 53 to 60 percent. There is a small increase in the proportion of participants planning to take a lump sum

distribution from the cash balance plan and a similar increase in those planning to annuitize some of their 401 (k) account balances.

**The Williams Companies Inc.** Williams is an integrated natural gas company that produces, gathers, processes and transports natural gas to heat homes and power electric generation across the country. The company operates approximately 14,600 miles of interstate natural gas pipeline with a capacity of more than 11 billion cubic feet per day. Williams transports enough gas to heat 30 million homes on a winter day and delivers approximately 12 percent of natural gas consumed in United States. Prior to the start of this project, Williams did not offer a formal pre-retirement planning program. To assess the desire of their employees for such a program, Williams allowed us to survey all of their retirement eligible population. There was overwhelming support by their employees for a more comprehensive program. The findings from this survey are reported in Clark, Morrill, and Allen (2009). As a result, the HR staff developed a day long program and their first seminars were offered in November and December 2008. Our surveys were used to evaluate these initial programs.

Williams offers a cash balance pension plan to its employees with company credits as a percentage of compensation rising with age. Company contributions are greater on pay exceeding the Social Security taxable wage base. As such, the account balances are reported in a lump sum and not as a monthly benefit. Employees are eligible to participate in the Williams Investment Plus Plan, a 401(k) plan, and matches employee contributions dollar for dollar up to 6 percent of salary. Retirees are eligible to remain in the company health plan.

The median age of the respondents was 57, 47 percent were women, 69 percent were married, 78 percent had a college degree, and the median years of service was 10 years. Among

these employees, their median annual earnings were between \$100,000 and \$150,000. All of the participants had established a 401 (k) account with a median account balance of between one and two years of salary. In addition, they reported other savings and financial assets worth between \$100,000 and \$150,000, and 94 percent reported owning their own home with a median equity value of between \$100,000 and \$150,000. In general, the seminar participants represented middle and upper income households who had substantial assets as they approached retirement.

Even though the program was brand new, the participants gave very complimentary evaluations of the seminar and presenters. Ninety one percent of respondents indicated that the program included all or most of the information they needed, 100 percent stated that the material was presented at a level that they could understand and that they could incorporate into their retirement planning, and 86 percent rated the program as very good or excellent in terms of increasing their understanding of the retirement decision they were facing. Ninety eight percent of the participants indicated that they were better informed about their retirement programs, 79 percent thought that they could now make better retirement choices, and 77 percent stated that they would now change some of their retirement choices. Participants thought the seminar was a valuable employee benefit, that it enhanced their positive feelings about Williams, and that it raised their awareness of the benefits that Williams provides.

Did the participants learn? Survey responses show that 96 to 98 percent of the participants correctly answered the general financial knowledge questions before the seminar. Prior to the seminar, many of these employees lacked basic knowledge of the characteristics of Social Security and Medicare; however, substantial learning occurred. There were large increases in the proportion of participants that correctly answered the questions on the normal retirement age for Social Security (a 22 percentage point increase in correct answers), the age of

eligibility for Medicare (8 percentage point increase), and the reduction for starting Social Security benefits early (18 percentage point increase). The mean number of correct answers increased from 5.3 before the seminar to 6.3 after the seminar.

Prior to the seminar 45 percent of the sample indicated that they did not know how large their pension benefits would be relative to their final salary. After the seminar, this declined to 29 percent. Based on the information gained during the seminar, individuals were more optimistic with 43 percent stating that they expected to be able to maintain their standard of living in retirement compared to only 29 percent of the participants prior to the seminar. Planned ages for retirement from Williams (age 64 before, 65 after) increased slightly but the age for starting Social Security benefits (age 66) did not change. The proportion of participants who anticipated working after retirement from Williams rose from 35 to 55 percent. There was an increase in the proportion of participants planning to take a lump sum distribution from their plan and a larger increase in those planning to annuitize some of the 401 (k) account balances.

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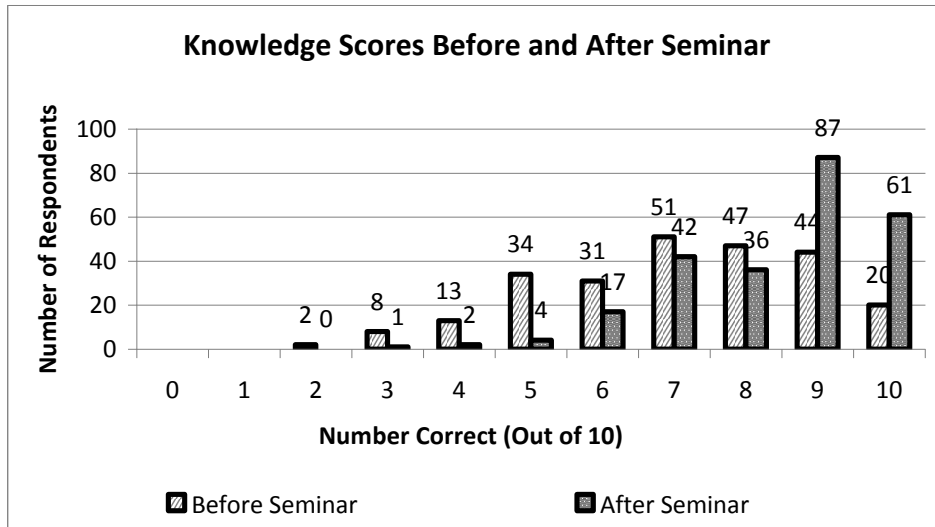
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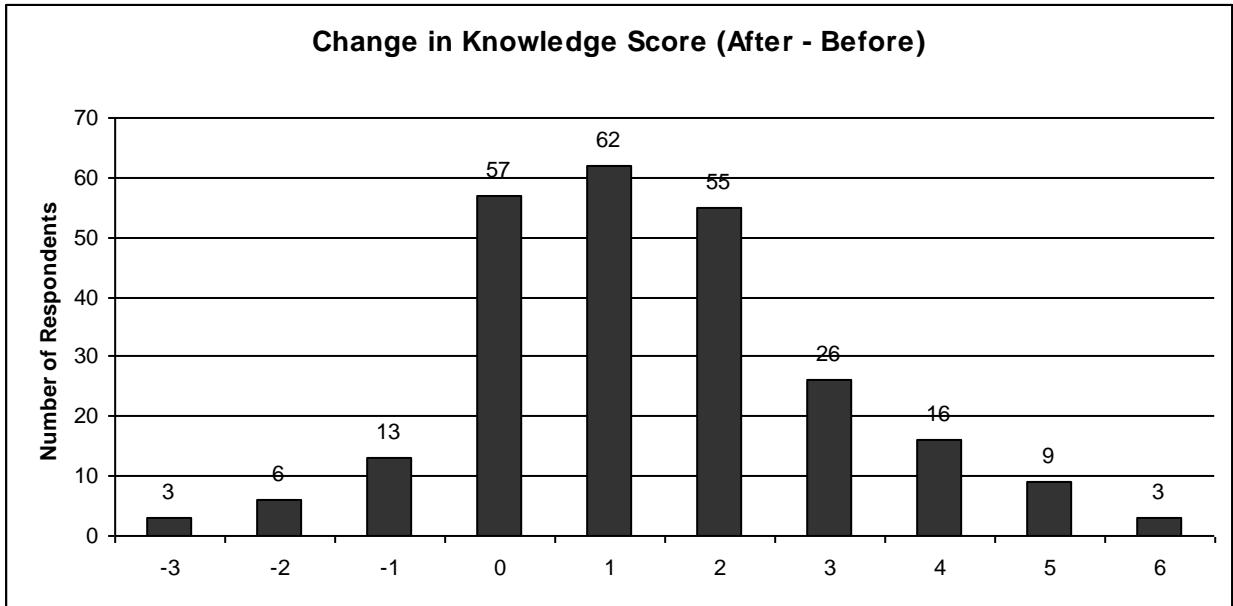
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**Figure 1: Knowledge Score Before and After the Seminar**



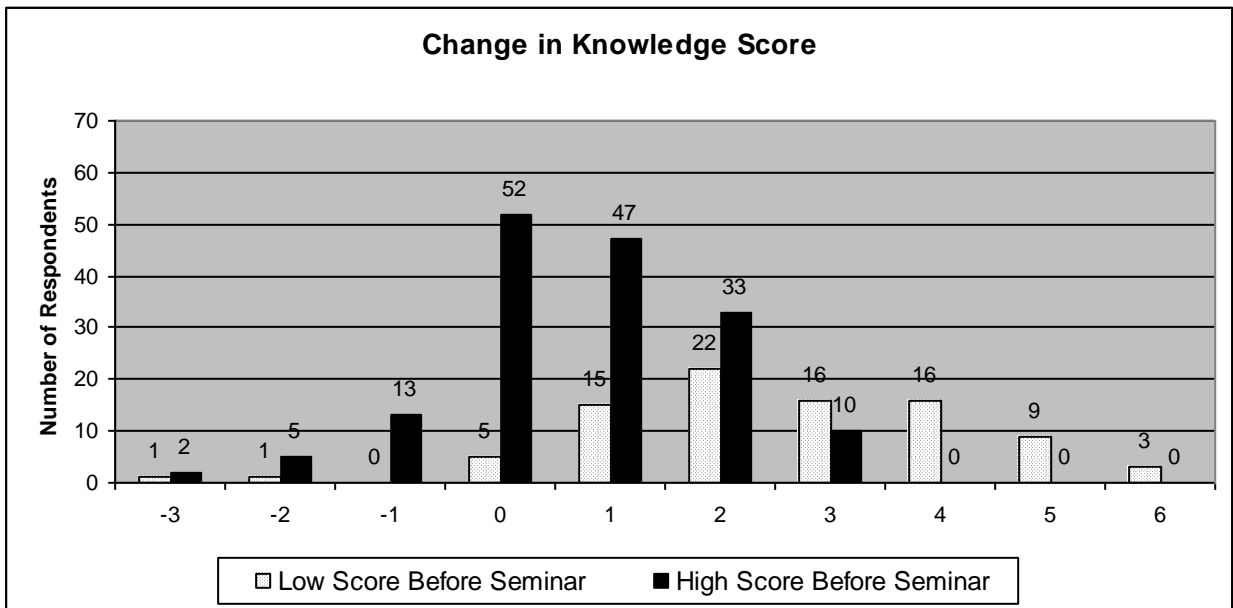
Source: Authors' calculation of survey responses by participants who attended employer-provided pre-retirement planning programs in 2008.

**Figure 2A: Histogram of Change in Knowledge Score – All Participants**



Source: Authors' calculation of survey responses by participants who attended employer-provided pre-retirement planning programs in 2008.

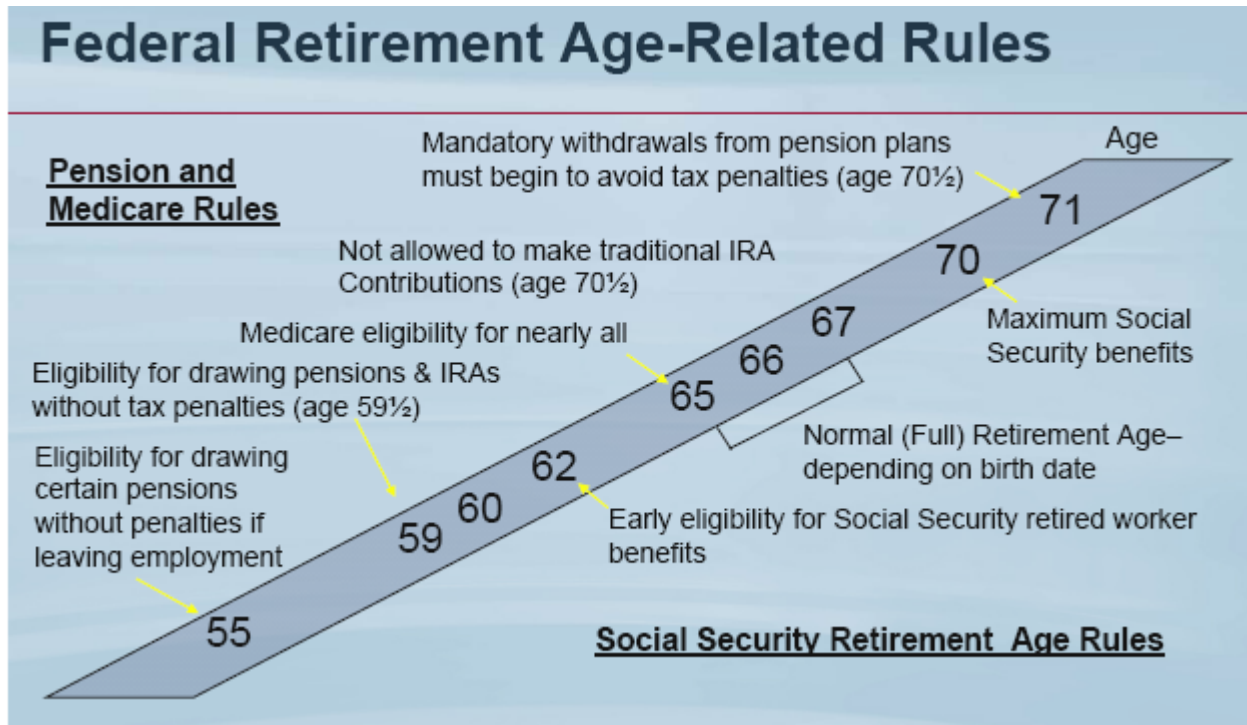
**Figure 2B: Histograms of Change in Knowledge by Score before Seminar**



Source: Authors' calculation of survey responses by participants who attended employer-provided pre-retirement planning programs in 2008.

Note: Low scores were 6 or less, high scores were 7 or more.

**Figure 3. Federal Retirement Age-Related Rules**



Source: US GAO (2007), page 12 as adapted by Sarah Holden (2008).

**Table 1: Means of Covariates**

	Mean or Percent
Age	57.8
Male	66.3%
Married	81.9%
Years of Service	24.6
Some College	89.2%
Covered by a Pension Plan	94%
Own Home	95%
Self-Assessed Knowledge (1-7)	4.3
Years from Planned Retirement	3.9
Wealth and Earnings Variables:	
Earnings -- Medium (\$50K-\$100K)	47.6%
Earnings -- High (\$100K+)	43.1%
401(k) Account Balance -- Medium (1-5 Years of Current Salary)	72.6%
401(k) Account Balance -- High (More Than 5 Years of Current Salary)	19.5%
Before Seminar Plans:	
Planned Retirement Age	62.0
Social Security Receipt Age	63.9
Work After Retirement	46.8%
Plan to Annuitize DC Plan	16.9%
Have Not Decided on Annuitization DC Plan	56.9%
Plan to Take Lump Sum Pension	30.7%
Have Not Decided on Lump Sum Pension	50.0%
After Seminar Plans:	
Planned Retirement Age	62.2
Social Security Receipt Age	64.1
Work After Retirement	56.9%
Plan to Annuitize DC Plan	26.6%
Have Not Decided on Annuitization DC Plan	46.0%
Plan to Take Lump Sum Pension	31.3%
Have Not Decided on Lump Sum Pension	46.1%

Source: The table presents the mean values for the questions in the surveys from participants that participated in the employer-provided pre-retirement planning programs in 2008.

**Table 2. Participant Knowledge Before and After the Seminar**

Percentage of Participants Answering Each Question Described Above Correctly and the Average Number of Correct Answers to the 10 Questions.

COMPANY*		F1 <sup>a</sup>	F2 <sup>a</sup>	P1 <sup>b</sup>	P2 <sup>b</sup>	P3 <sup>b</sup>	P4 <sup>b</sup>	P5 <sup>b</sup>	P6 <sup>b</sup>	C1 <sup>c</sup>	C2 <sup>c</sup>	SUM
BD N= 50	Before	100	86	86	62	28	72	44	76	90	58	7.0
	After	100	88	84	90	60	94	50	94	98	96	8.5
NCSU N=14	Before	93	79	86	64	21	79	43	86	22	86	6.6
	After	100	93	86	79	36	93	64	100	29	100	7.9
PE N = 95	Before	97	92	81	50	40	71	33	75	77	92	7.1
	After	98	95	93	72	50	82	57	86	84	99	8.2
WEY N=48	Before	100	92	73	38	46	85	58	92	83	79	7.5
	After	100	96	98	88	85	94	98	96	85	85	9.3
WLM N=42	Before	100	100	71	69	29	81	38	79	67	45	6.8
	After	100	100	81	88	50	98	50	86	90	76	8.2
TOTAL N=249	Before	98	91	79	54	36	76	42	80	76	74	7.1
	After	99	94	90	82	58	90	63	90	86	92	8.4

Source: Authors' calculation of survey responses by participants who attended employer-provided pre-retirement planning programs in 2008.

\* The employers included in the table are Becton, Dickinson, and Company (BD), North Carolina State University (NCSU), Progress Energy (PE), Weyerhaeuser (WEY), and The Williams Companies (WLM). The average knowledge score after the seminar is significantly higher for participants from all employers at the 1 percent level except for NCSU where the increase is significant at the 5 percent level.

a. Financial Knowledge Questions:

**F1:** True or false? "Buying a single company stock usually provides a safer return than a diversified portfolio."

Answer: *False*

**F2:** Assume that your retirement income increases by 2 percent per year and that the annual rate of inflation is 4 percent per year. After one year, will you be able to:

- a) buy more goods and services?
- b) buy fewer goods and services?
- c) buy exactly the same amount of goods and services?
- d) don't know

Answer: *b*

b. Public Programs Knowledge Questions:

**P1:** What is the earliest age that you can start Social Security benefits?

Answer: *62*

**P2:** What is the age that you can receive a full or unreduced Social Security benefit ("normal retirement age")?

Answer: *66*

**P3:** If you start Social Security benefits at the earliest possible age, you will receive a benefit that is \_\_\_ percent of the benefit you would have received at the normal retirement age. (multiple choice question)

*Answer: 75*

**P4:** Is the reduction in Social Security benefits for early retirement permanent or does the reduction end when you reach the normal retirement age?

*Answer: Permanent*

**P5:** After you start receiving Social Security benefits, these benefits are:

- a) the same for the rest of my life
- b) increased annually by the rate of inflation
- c) increased annually but by less than the rate of inflation
- d) increased annually but by more than the rate of inflation
- e) Don't know

*Answer: b*

**P6:** What is the earliest age that you will be eligible for Medicare?

*Answer: 65*

c. Company Specific Questions:

**C1:** Can you take a lump sum distribution of some or all of your pension plan (do not include income for your 401(k) account)?

*Answer: Yes (all five companies)*

**C2:** Does your company offer you the opportunity to stay in the company health plan after you retire?

*Answer: Yes (all five companies)*

**Table 3: Participant Index of Knowledge Before and After the Seminar**

Participant Characteristic	Categories	Before Seminar*	After Seminar*	Difference
Full Sample		7.06	8.44	1.38
Age	50-58	6.86	8.40	1.54
	59-65	7.37	8.50	1.13
Gender	Male	7.34	8.61	1.27
	Female	6.50	8.11	1.61
Education	HS or Less	6.00	7.41	1.41
	Some College	7.18	8.56	1.38
Earnings	50K or Less	6.34	7.88	1.54
	More than 50K	7.34	8.68	1.34
Years of Service	20 or Less	6.86	8.38	1.52
	More than 20	7.15	8.46	1.31
Self-Assessed Knowledge	1-4	6.56	8.17	1.61
	5-7	7.70	8.76	1.06
Years from Planned Retirement	Less Than 5	7.48	8.69	1.21
	Five or More	6.48	8.10	1.62
Number of Observations with Valid Index			249	

Entries in these columns are mean number of questions answered by the participants in each category. Sample sizes may vary for particular rows due to missing information on some characteristics. All differences are statistically significant at the 1 percent level.

Source: Authors' calculation of survey responses by participants who attended employer-provided pre-retirement planning programs in 2008.

**Table 4: Estimated Coefficients From Knowledge Equation Before and After the Seminar**

	Knowledge Score Before		Knowledge Score After	
	(1)	(2)	(3)	(4)
Age	0.100 (0.034)**	0.126 (0.036)**	0.021 (0.025)	0.029 (0.026)
Male	0.716 (0.281)*	0.297 (0.323)	0.521 (0.203)*	0.341 (0.234)
Married	0.014 (0.321)	-0.078 (0.331)	-0.063 (0.232)	-0.266 (0.240)
Tenure	0.010 (0.014)	0.010 (0.015)	0.010 (0.010)	0.006 (0.011)
Some College	1.003 (0.373)**	0.932 (0.388)*	0.971 (0.270)**	0.803 (0.281)**
Earnings Medium		0.552 (0.467)		0.733 (0.338)*
Earnings High		1.110 (0.505)*		0.951 (0.366)**
401(k) Account Balance Medium		0.400 (0.511)		0.584 (0.370)
401(k) Account Balance High		0.492 (0.603)		0.670 (0.436)
Number of Observations	249	239	249	239
R-Squared	0.13	0.15	0.19	0.22

Source: Regression analysis conducted by the authors using survey data described in text.

The coefficients are from a regression with the dependent variable being the knowledge index. The knowledge index indicates the number of questions out of 10 the participant answered correctly. Each of the equations includes dichotomous variables indicating the employer of the participant. Levels of significance are indicated by + indicates coefficient is significant at 10 percent; \* implies significant at 5 percent; and \*\* means that the coefficient is significant at 1 percent. Standard errors are in parentheses. Note that all specifications include company fixed effects and a constant term. Comparing across the corresponding columns, Column (1) versus (3) and Column (2) versus (4), only the coefficients on age and the company fixed effects are significantly different.

**Table 5. Retirement Plans of Respondents**

<b>Response</b>	<b>Before Seminar</b>	<b>After Seminar</b>
<i>24.4% of Respondents Changed Planned Retirement Age</i>		
<b>Median Retirement Age</b> Median Change in Planned Retirement Age	62	62
<b>Mean Retirement Age</b> Mean Change in Planned Retirement Age	62.0	62.2
<i>30.9% of Respondents Changed Planned Age to Start Receiving SS Benefits</i>		
<b>Median Age SS Benefits Begin</b> Median Change in SS Benefits Begin Age	64	63
<b>Mean Age SS Benefits Begin</b> Mean Change in SS Benefits Begin Age	63.9	64.1
<b>Plans for Working after Retirement</b>		
Expect to Work after Retiring	46.6%	56.9%
Have Not Decided on Working after Retirement	30.9%	21.5%
<b>Annuitization or Lump Sum Distributions</b>		
Planning to Annuitize Some or all 401(k) Balance	16.9%	26.6%
Have Not Decided on Annuitization Of 401(k) Balance	56.9%	46.0%
Plan to Take Lump Sum Distribution of Entire Pension	30.5%	31.3%
Have not Decided on Lump Sum	49.8%	46.1%

Source: Authors' calculations from survey data described in text.

**Table 6: Estimated Coefficients from Planned Age of Retirement Equation Before and After the Seminar**

	Planned Retirement Age Before Seminar		Planned Retirement Age After Seminar	
	(1)	(2)	(3)	(4)
Age	0.540 (0.056)**	0.540 (0.061)**	0.507 (0.059)**	0.497 (0.062)**
Male	-0.249 (0.457)	-0.179 (0.539)	0.194 (0.474)	0.267 (0.565)
Married	-0.707 (0.529)	-0.577 (0.559)	-0.878 (0.555)	-0.953 (0.587)
Tenure	-0.071 (0.022)**	-0.075 (0.024)**	-0.066 (0.024)*	-0.067 (0.026)*
Some College	-0.902 (0.775)	-0.743 (0.812)	-1.437 (0.814)+	-1.433 (0.854)+
Knowledge Score (Before/After)	-0.294 (0.114)*	-0.237 (0.121)*	-0.457 (0.165)**	-0.485 (0.177)**
Earnings Medium		-0.128 (0.774)		1.121 (0.824)
Earnings High		-0.597 (0.875)		0.515 (0.925)
401(k) Account Balance Medium		-0.233 (0.809)		-0.356 (0.853)
401(k) Account Balance High		-0.087 (0.996)		-0.723 (1.050)
Number of Observations	172	165	172	165
R-Squared	0.45	0.46	0.45	0.47

Source: Regression analysis conducted by the authors using survey data described in text.

The coefficients are from a regression with the dependent variable being the planned retirement age before and after the seminar. The knowledge index indicates the number of questions out of 10 the participant answered correctly. Each of the equations includes dichotomous variables indicating the employer of the participant. Levels of significance are indicated by + indicates coefficient is significant at 10 percent; \* implies significant at 5 percent; and \*\* means that the coefficient is significant at 1 percent. Standard errors are in parentheses. Note that all specifications include company fixed effects and a constant term.

**Table 7: Desire for Program and Program Evaluation**

<b>Question</b>	<b>Responses</b>
The program provided all or most of the information needed for retirement.	96.8%
Overall very good or excellent program.	92.8%
Overall very good or excellent presenters and program leaders.	96.4%
Will be able to make better choices	88.3%
Plan to change some retirement plans because of program.	80.2%
Participation raised awareness of benefits provided.	77.2%

The response column indicates the percent of participants that gave the indicated response to various questions above the seminar.

Source: Authors' calculations from survey data described in text

**Appendix Table 1. Seminars and Participants in 2008**

<b>Employer</b>	<b>Number of Seminars Conducted by Employer<sup>1</sup></b>	<b>Number of Participants with Valid Birth Year<sup>2</sup></b>	<b>Number of Participants with Valid Knowledge Scores<sup>3</sup></b>
BD	4	69	50
North Carolina State University	2	30	14
Progress Energy	15	170	95
Weyerhaeuser	5	77	48
Williams	2	49	42
Total	28	395	249

Source: Authors' calculations from the surveys collected as part of this research project.

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<sup>1</sup> This column indicates the number of seminars held by each employer during 2008 which incorporated our surveys into the program.

<sup>2</sup> This column indicates the number of employees at each company that participated in the seminars that were born between 1943 and 1959, the ages included in our analysis.

<sup>3</sup> This column indicates the number of completed surveys by employees of each employer where the participants answered all of the financial literacy and retirement program questions.

## ENDNOTES

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<sup>1</sup> In addition to these employer partners, we are also examining the financial education programs for older employees at Branch Banking and Trust (BB&T), WakeMed, and a large national insurance company, and a large western public university.

<sup>2</sup> The programs offered by Weyerhaeuser, Progress Energy, and BD have been presented over a number of years. In contrast, the programs by North Carolina State and Williams are relatively new and thus, a full cycle of retirees has not had a chance to attend one of the programs.

<sup>3</sup> Copies of the questionnaires are available from the authors upon request.

<sup>4</sup> As part of the long-range objectives of this research project, seminar participants will be sent a third survey in approximately one year to determine whether the learning achieved at the seminar has been retained and how their retirement plans have unfolded.

<sup>5</sup> The age 50 restriction was applied to limit the sample to individuals approaching the retirement decisions. Most of the employers only invite retirement eligible employees to these programs so, in fact, this results in only a few seminar participants being deleted from the sample. The upper age limit was applied to limit the sample to those who had not yet attained the normal retirement age for Social Security. In addition, we felt that workers over age 65 had already made the decision to delay retirement and that they would likely have very different responses to these programs than workers age 50 to 65.

<sup>6</sup> Appendix A provides information on each of the five employers, their retirement plans, their financial education programs, and the responses of their older workers to the survey.

<sup>7</sup> Dichotomous variables for the employers are also included in each of these regressions.