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Reorienting Retirement Risk Management

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Chapter 3

Employer-Provided Retirement Planning Programs

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Millions of baby boomers will make the transition from full-time work to complete retirement over the next decade. As retirement approaches, these older workers must make a series of important decisions, some of which will be irreversible. These choices will determine, in part, their income levels in retirement, the sensitivity of their income to economic fluctuations, and their ability to maintain consumption through retirement. To make the transition into retirement successfully, people will need to rely on their own financial literacy and knowledge about retirement programs offered by employers and the government. Without accurate information and sufficient financial literacy, many may make inappropriate employment and investment choices that could have significant consequences in their retirement years.

Economists and other social science researchers have recently examined the level of financial literacy and its role in economic decision-making to determine whether and how individuals can improve their knowledge base. This chapter presents evidence from a unique new study of the retirement planning and financial literacy programs offered by employers to their older employees. Our initial findings indicate that participants can enhance their financial literacy and knowledge and, on the basis of this new information, many tend to alter their retirement plans. Consequently, employers can facilitate the transition into retirement by providing the means for workers to increase their understanding of key retirement concepts, 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 about their lifetime consumption and saving profiles. Life-cycle theory suggests that individuals will set retirement goals or targets early on, and select saving and investment behavior that should allow them to achieve their goals. As new information becomes available, people will re-optimize their consumption and saving patterns, and they may alter their retirement expectations. The primary retirement goals that workers must set include the retirement age and their level of retirement income. A fundamental principle in retirement planning is that younger retirement ages and higher retirement incomes require more saving and less consumption throughout the working life.

While considerable attention has been paid to American workers' undersaving, by contrast, much less attention has been focused on how older workers make decisions concerning the allocation of their resources as they enter into retirement. Workers must decide when and how to enter into retirement, and how to best use the resources available to them. The limited evidence available suggests that older workers do not have sufficient knowledge or the financial literacy needed to make the many choices that must be made as they transition from work to retirement (Bernheim 1995, 1998; Hilgert and Hogarth 2002; Lusardi and Mitchell 2006, 2007). Incorrect or insufficient knowledge can lead to suboptimal choices. For this reason, 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, preretirement planning seminars can efficiently address the numerous questions and concerns that individuals approaching retirement share, thereby reducing human resources (HR) costs.

Some of the most important decisions older workers must make are as follows

- When to retire from their career jobs
- Whether to take a lump-sum distribution from a defined benefit (DB) 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 these important choices, they must have an appropriate level of financial literacy, understand financial mathematics, and have accurate knowledge about their employers' and national retirement programs. Workers can acquire the needed knowledge to make these key decisions in various ways and one resource often available is employer-sponsored preretirement planning programs.

Many large employers offer some type of planning seminar for retirement-eligible employees. Sabelhaus, Brogdan, and Holden (2008) report that

46 percent of pension participants covered by defined contribution (DC) 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 rely on this information to 'some' or a 'great' extent in making their retirement decisions. In a plan sponsor survey, Wray (2008) finds that 31 percent of employers offer seminars focusing on retirement assets and income planning. While not universal, employer-provided retirement planning programs are common, accessible to perhaps one-third of the labor force.

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. In this chapter, we examine the preretirement programs of five large national employers to assess whether these are successful in improving workers' knowledge base as they near retirement. We also assess whether, on the basis of this learning, employees alter their retirement plans. Finally, we explore employee views of these programs, including whether they thought the programs were worthwhile and whether the seminars are seen as a valuable employee benefit.

Our key findings are that participants do learn, alter retirement behavior, and appreciate the programs offered by their employers. Knowledge gained varies with age, sex, income level, education, tenure, and wealth. Participants also reported that they had changed retirement plans, including altering their expected retirement ages, plans to take lump-sum pension payouts, and when they anticipated claiming Social Security benefits. Employees value these programs and report that the programs enhance their opinion of their employers.

Methodology

To evaluate employer-provided preretirement 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.[1] Four of the firms have sites throughout the United States; their home offices are in New Jersey, North Carolina, Oklahoma, and Washington. Each of the employers offers DB plans (three employers have cash balance plans), health insurance to active and retired workers, and supplemental DC plans (although not all have an employer match). The employee populations of these companies vary by gender, education, earnings, and geographic location.

Each of the employers offered a series of preretirement planning programs to their older employees during the second half of 2008. The usual process is that retirement-eligible employees are invited individually to participate in these programs by their employer: invitations are issued, attendance is tracked, and there are usually high participation rates. The firms track attendance and may limit participation by employees in these programs to once every 5 years or so. These programs are usually ongoing, and the employers expect that over a number of years, most 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.

The financial education literature has focused in depth on possible selection issues, suggesting that one might overstate the impact of financial education seminars if one only focuses on those who voluntarily attend. This is exacerbated by the fact that few, if any, records of attendance are kept. By contrast, the programs we examine are more structured; while attendance is voluntary, employees receive 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.[2] Nevertheless, as we observe seminars offered between June and December 2008, we have not been able to monitor behavior over a long time period. For this reason, it is possible that these programs may have attracted a nonrepresentative sample of the workforce.

We worked with each employer in the spring of 2008 to develop an evaluation process for their preretirement planning programs. Our methodology included the development of two surveys,[3] the first of which was to be completed by each participant prior to the start of the program. The objective was to obtain baseline socioeconomic data about the individual and his/her household, as well as information concerning retirement plans and investment strategies. Employees also completed questions about their financial literacy and their knowledge of 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, 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 program, 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.[4]

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 15–20 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) used electronic surveys; in this case, a link to the electronic Survey One was sent via e-mail to participants about a week prior to the seminar and a link to Survey Two was e-mailed to the participants immediately following the seminar. Attendees were given approximately 2 weeks to complete the surveys. In what follows, we review the results of 28 seminars that incorporated our surveys into their programs between June and December 2008. For this chapter, we restrict our analysis to participants born between 1943 and 1959 (approximately age 50–65 at the time of the seminars).[5] This yields a total sample with usable responses of 395 employees (see Table 3A.1).

In the following sections, we describe these employers and their preretirement programs, as well as the responses of seminar participants. Our 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 individuals altered their retirement plans on the basis of the program.

Survey design

While Surveys One and Two were customized for each employer, the framework was similar across firms. Usually, both surveys mentioned the specific employer by name, where appropriate, and people were asked about their own employer-specific retirement schemes. Questions concerning retirement saving accounts differed somewhat between private-sector versus public/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 HR programs and accessing the help lines offered by their 401(k) and 403(b) providers.

The objectives of Survey One were to determine employee understanding levels regarding their employer's pension and health benefits, their knowledge of 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 asked about Social Security early and normal retirement ages as well as early retirement penalties, cost-of-living increases, and the age of eligibility for Medicare. In addition, participants were asked benefit and eligibility questions concerning their employer DB plans and their own 401(k) or 403(b) accounts. This survey also included several questions related to basic financial literacy. Survey One also asked participants the age that they expected to retire, when they expected to start Social Security benefits, what the expected level of benefits would be, and what benefits they expected to receive from their employer-provided retirement plans. Questions probed employee intentions concerning annuitization of pension assets and work plans after they retired from their current employer. Finally, Survey One contained 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 were to determine how participants evaluated the seminar, whether they enhanced their knowledge of retirement programs, and whether the new information changed their retirement plans. To assess the employees' impression of the seminars, the first section of Survey Two asked 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 felt better able to make retirement decisions after completing the program, and whether they valued the program as an employee benefit. The next two sections of Survey Two repeated many Survey One questions concerning retirement intentions and knowledge. By comparing the answers given across both surveys, we assess the change in the respondent's knowledge about retirement programs, financial literacy, and whether participants changed their retirement plans.

Did participant financial literacy rise?

We seek to learn whether these employer-provided programs are effective in increasing financial literacy and knowledge about company and national retirement programs, and if financial literacy is increased, how this affects worker behavior. To measure financial education program impact, we merge responses from the five employers into a single data file;[6] means of various demographic, economic, and retirement plans characteristics appear in Table 3.1. The sample is composed of workers aged 50–65 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 3.1 Sample descriptive statistics

	Value
Age (years)	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:	
Medium earnings ($50,000–100,000) (%)	47.6
High earnings (>$100,000) (%)	43.1
Medium 401(k) account balance (1–5 years of current salary) (%)	72.6
High 401(k) account balance (>5 years of current salary) (%)	19.5
Plans prior to seminar:	
Planned retirement age (years)	62.0
social security receipt age (years)	63.9
Work after retirement (%)	46.8
Intend to annuitize DC plan (%)	16.9
Undecided on annuitization of DC plan (%)	56.9
Intend to take lump-sum pension (%)	30.7
Undecided on lump-sum pension (%)	50.0
Plans after seminar	
Planned retirement age (years)	62.2
social security receipt age (years)	64.1
Work after retirement (%)	56.9
Intend to annuitize DC plan (%)	26.6
Undecided on annuitization of DC plan (%)	46.0
Intend to take lump-sum pension (%)	31.3
Undecided on lump-sum pension (%)	46.1

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

Source: Authors' calculations; see text.

To examine the level of financial literacy and knowledge of retirement programs prior to the seminar, the participants were asked several questions of which 10 are analyzed here. The questions, along with a summary of correct answers, appear in Table 3.2. The average number of correct responses prior to the seminar was 7.1; afterward the average number of correct answers rose to 8.4, indicating a substantial level of learning among program participants. The average knowledge score after the seminar for the entire sample was significantly higher than the average score prior to the seminar, and the improvement in knowledge and literacy for participants from each employer was significantly higher after the seminar. Figure 3.1 shows the distribution of participants' knowledge scores (the 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 seven had a score of 5 or less.

Figure 3.2 shows the change in knowledge achieved during the seminar. Overall, 171 participants (69 percent) improved their knowledge scores with the score remaining unchanged for 57 individuals (23 percent of the sample). Panel B illustrates the knowledge gain sorted by the base level of financial knowledge from Survey One. Most importantly, those with initial low scores achieved substantial increases in their knowledge of retirement plans. For this reason, we conclude that the preretirement planning seminars did increase financial literacy for almost all participants, with large gains among those with relatively little knowledge prior to the event.

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. A recent study (USGAO 2007) summarized these many different retirement age-related rules ranging from age 55, the age of eligibility for drawing certain pensions without penalties if leaving an employer, to 70.5, which is 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.

It is also worth noting that the gains in knowledge were observed across all economic and demographic characteristics of the participants. Table 3.3 shows the knowledge index by various employee characteristics. There was a 1.38 gain in the mean score of the entire population. Younger participants, those aged 50–58, had a greater increase in their knowledge scores

TABLE 3.2 Participant knowledge before and after the seminar: percentage of participants (number) answering each question correctly and the average number of correct answers to the 10 questions

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

[a] 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).

[b] 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 1 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

[c] 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

[d] 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)

Note: 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.

Source: Authors' calculations; see text.

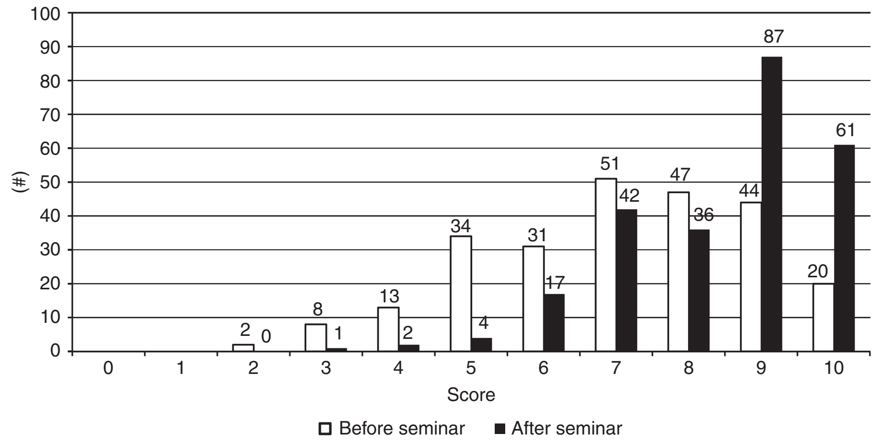

Figure 3.1 Knowledge score before and after seminar. *Source*: Authors' calculations; see text.

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

Next we attempt to determine differences in initial knowledge and learning by estimating multivariate regressions that appear in Table 3.4. The first two columns have as a dependent variable the number of correct answers out of the 10 questions shown in Table 3.2.[7] Not surprisingly, the first column indicates that, prior to the seminar, older workers (presumably closer to retirement) are more knowledgeable, as are men and the more educated. When measures of earnings and wealth are included in the regression, we find that high earners are more knowledgeable and that the male coefficient is no longer significantly different from zero. Similar results are found in the regression indicating the level of knowledge post-seminar. 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.

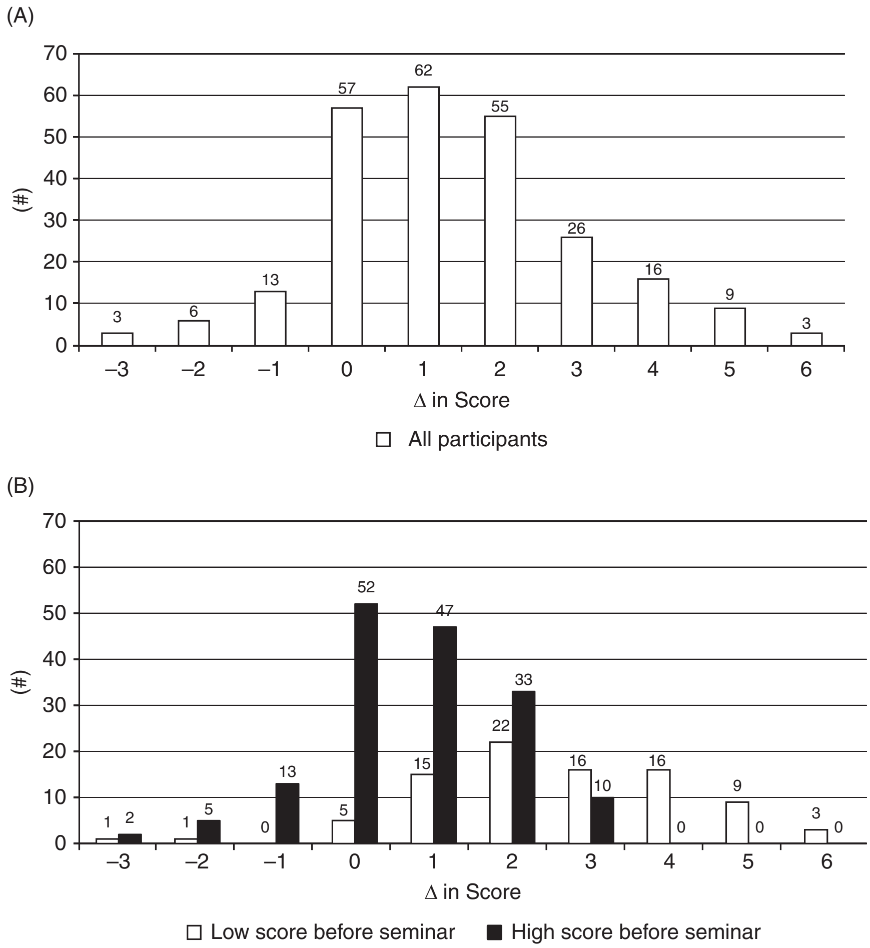

Figure 3.2 Change in knowledge score before and after seminar. Panel A: All participants. Panel B: Arrayed by knowledge before seminar. *Notes*: Low scores were 6 or below; high scores were 7 or more. *Source*: Authors' calculations; see text.

Did greater knowledge change retirement plans?

Next we ask whether more knowledge is likely to translate into planned behavior change. In particular, we examine the age of planned retirement from the current employer, as well as plans to start Social Security benefits, work after retirement from the current employer, desires to annuitize account balances in supplemental retirement plans, and expectations

TABLE 3.3 Participant index of knowledge before and after seminar

Participant characteristics	Categories	Before seminar[a]	After seminar[a]	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
Sex	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	≤$50,000	6.34	7.88	1.54
	>$50,000	7.34	8.68	1.34
Years of service	≤20	6.86	8.38	1.52
	>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	<5	7.48	8.69	1.21
	≥5	6.48	8.10	1.62

[a] Columns indicate the 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.

Note: The number of observations with a valid index is 249.

Source: Authors' calculation; see text.

concerning lump-sum distributions from DB plans. Table 3.5 reports pre- and post-seminar estimates, where we see that mean and median responses to expected retirement age and age for starting Social Security benefits are unchanged by the program. Interestingly, there is a 10 percentage point increase in the proportion of employees planning to work after retiring from their current employer. Prior to the seminar, there was considerable uncertainty concerning whether to annuitize account balances in supplemental retirement plans or to take lump-sum distributions from the DB plans, with about half the respondents indicating that they had not yet decided on these options. Before the seminar, only 16.9 percent of the sample planned to annuitize some or all of their supplement plan funds; this increased to 26.6 percent after the seminar, with the proportion that had not decided declining by roughly the same 10 percentage points. Nevertheless, 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; afterward, this percentage increased slightly. Once again, almost half of the participants were undecided on the choice of a lump sum. This implies that

TABLE 3.4 Estimated coefficients from multivariate OLS knowledge equation: before and after seminar

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

* Implies significance at the 5-percent level.
** Implies significance at the 1-percent level.

Notes: 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 that the participant answered correctly. Each of the equations includes dichotomous variables indicating the employer of the participant. 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.

Source: Authors' calculations; see text.

only about one-quarter of these employees were certain that they want to receive a lifetime benefit from their DB plan.

Table 3.6 presents the results of models examining planned retirement ages, before and after the seminar. The first two columns report Survey One estimates, while the next two focus on Survey Two. Prior to the seminar, the age of planned retirement was significantly higher for older employees and lower for those with more years of tenure, no doubt reflec-

Table 3.5 Respondent retirement plans: before and after seminar

	Before seminar	After seminar
Median planned retirement age (years)	62.0	62.0
Mean planned retirement age (years)	62.0	62.2
Median social security receipt age (years)	64.0	63.0
Mean social security receipt age (years)	63.9	64.1
Work after retirement (%)	46.6	56.9
Undecided on working after retirement (%)	30.9	21.5
Intend to annuitize DC plan (%)	16.9	26.6
Undecided on annuitization of DC plan (%)	56.9	46.0
Intend to take lump-sum pension (%)	30.5	31.3
Undecided on lump-sum pension (%)	49.8	46.1

Note: 24.4 percent of respondents changed their planned retirement age and 30.9 percent of respondents changed their planned age to start receiving social security benefits.

Source: Authors' calculations; see text.

tive of sample selection: those who had wanted to retire early have already done so. The tenure effect, once controlling for age, is a proxy for pension wealth from the DB plans offered by all of the employers; variation across the employers is captured by 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. Estimated coefficients are similar in the post-seminar equation as the age and tenure effects remain significant and have only small changes in magnitude.

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 are covered by Medicare at younger ages than is realistic. On learning that their expectations are wrong and benefit receipt must be delayed, these employees are now likely to plan to retire at an older age. In this way, an improvement in knowledge leads to later retirement. But conversely, if an employee believed that benefits were only available at older ages, learning that he or she could retire younger may lead to earlier retirement. In this way, an improvement in knowledge would lower the planned retirement age. Further research is needed to disentangle these two effects.

Assessment of the programs by participants

Employers who offer these programs as an employee benefit are naturally seeking to ensure that these programs are effective and valued by employ-

TABLE 3.6 Estimated coefficients from multivariate OLS from planned age of retirement equation: before and after seminar

	Planned retirement age before seminar		Planned retirement age after seminar	
	(1)	(2)	(3)	(4)
Age	0.540	0.540	0.507	0.497
	(0.056) * *	(0.061) * *	(0.059) * *	(0.062) * *
Male	−0.249	−0.179	0.194	0.267
	(0.457)	(0.539)	(0.474)	(0.565)
Married	−0.707	−0.577	−0.878	−0.953
	(0.529)	(0.559)	(0.555)	(0.587)
Tenure	−0.071	−0.075	−0.066	−0.067
	(0.022) * *	(0.024) * *	(0.024) *	(0.026) *
Some college	−0.902	−0.743	−1.437	−1.433
	(0.775)	(0.812)	(0.814)+	(0.854)+
Knowledge score (before/after)	−0.294	−0.237	−0.457	−0.485
	(0.114) *	(0.121) *	(0.165) * *	(0.177) * *
Medium earnings		−0.128		1.121
		(0.774)		(0.824)
High earnings		−0.597		0.515
		(0.875)		(0.925)
Medium 401(k) account balance		−0.233		−0.356
		(0.809)		(0.853)
High 401(k) account balance		−0.087		−0.723
		(0.996)		(1.050)
Number of observations	172	165	172	165
R-square	0.45	0.46	0.45	0.47

* Implies significance at the 5-percent level.
* * Implies significance at the 1-percent level.

Notes: The dependent variable is 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. Standard errors are in parentheses. All specifications include company fixed effects and a constant term.

Source: Authors' calculation; see text.

Table 3.7 Participant evaluation of program

Question	Responses (%)
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

Note: Responses indicate the percentage of participants giving the specific answer to questions about the seminar.

Source: Authors' calculations; see text.

ees. Table 3.7 indicates that program participants had a very positive experience and believed that the seminars were helpful; some 97 percent of 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 as very good or excellent, and 96 percent found the presenters and program leaders to be very good or excellent. Finally, 88 percent of 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 individuals reported that the programs raised their awareness of the benefits provided by their employers. Accordingly, participants gave high marks to the quality of the programs, believing that the programs provided the information they needed, and gave their employers credit for offering these programs.

Conclusion

Many older workers have a rather low level of financial literacy and understanding of their retirement programs. Limited or inaccurate information may lead them to make poor retirement decisions, undermining their ability to achieve retirement income adequacy. Our project has examined how preretirement planning programs offered by five large employers changes employee perspectives. The analysis reveals that program participants increased their financial knowledge, changed their retirement plans, and decided to handle their retirement money differently. Participants also expressed satisfaction with the quality of the programs and credited their employers for offering the seminars.

The results of this study should provide encouragement to employers considering whether to adopt preretirement planning programs. Based on our assessment of this initial data, employer-provided financial education programs can increase employee knowledge of retirement programs and assist them in making better retirement choices. In future work, we will seek to develop a template for evaluating these programs so that other employers can monitor and improve their own offerings.

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Appendix 3A Employer Characteristics and Overview of Survey Responses

This appendix briefly describes each of the five employers, their retirement benefits, and their preretirement 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 DB 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 saving 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

Becton, Dickinson, and Company (BD) is a global medical technology company. According to their web site, 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 health-care 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 DB 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 aged 55 with 10 years of service or 65 with 5 years of service.

BD offers a preretirement 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 four 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 than 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 3–5 years of salary. In addition, the participants reported a median financial wealth of $100,000–250,000 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 presented at a level that they could understand and 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 decisions they were facing. Eighty-four percent of 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 evaluating 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 (a 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 of average salary during the employee's 4 consecutive highest-paid years of employment times years of service. Faculty also have the option of enrolling in an Optional Retirement Plan (a DC 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 of the daylong preretirement 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 $25,000–50,000. In addition to being covered by the state DB plan, 67 percent of 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 1 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 NC.

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 76–87 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 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 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 (a 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, $9 billion in annual revenues, and 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 DB 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, health insurance, and they allow retirees to remain in the company health plan.

For some years, this employer has provided daylong 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 preretirement 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 than 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 3 and 5 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 88–96 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 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 (a 13 percentage point increase), and the reduction for starting Social Security benefits early (an 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 anticipated 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 DB 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 a preretirement planning program for a number of years. The company offers 2.5-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 3 and 5 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 decisions 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 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 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 (a 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 9 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 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 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 the natural gas consumed in the United States. Prior to the start of this project, Williams did not offer a formal preretirement 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 daylong 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 Williams 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 1 and 2 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 decisions 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 96–98 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 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 22 percentage point increase in correct answers), the age of eligibility for Medicare (an 8 percentage point increase), and the reduction for starting Social Security benefits early (an 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 (see Table 3.A1).

TABLE 3A.1 Seminars and participants in 2008

Employer	Number of employer seminars[a]	Number of participants with valid birth year[b]	Number of participants with valid knowledge scores[c]
BD	4	69	50
NCSU	2	30	14
PE	15	170	95
WEY	5	77	48
WEL	2	49	42
Total	28	395	249

[a] This column indicates the number of seminars held by each employer during 2008, which incorporated our surveys into the program.
[b] This column indicates the number of participants at each company born between 1943 and 1959; the ages included in our analysis.
[c] This column indicates the number of completed surveys where the participants answered all of the financial literacy and retirement program questions.

Note: For employer code, see Table 3.2.

Source: Authors' calculations; see text.

Notes

1 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, a large national insurance company, and a large western public university.

2 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.

3 Copies of the questionnaires are available from the authors upon request.

4 As part of the long-range objectives of this research project, seminar participants will be sent a third survey in approximately 1 year to determine whether the learning achieved at the seminar has been retained and how their retirement plans have unfolded.

5 The age restriction was applied to limit the sample to individuals approaching 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 most likely have very different responses to these programs than workers aged 50 to 65.

[6] Appendix 3A 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.

[7] Dichotomous variables for the employers are also included in each of these regressions.

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