RETIREE HEALTH INSURANCE AND THE RETIREMENT PLANS OF COLLEGE AND UNIVERSITY FACULTY

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INTRODUCTION

Retiree health insurance is a benefit some employers provide to their employees. These plans are a form of deferred compensation which offer workers the option of remaining in an employer-sponsored health plan after they retire. Employers usually provide a subsidy to participants in these insurance plans. Typically, the employer subsidy is in the form of the employer paying some, or all, of the insurance premium.[1] These plans are part of total compensation provided by employers to covered workers. Similar to pensions, workers earn credit toward a benefit that may be received in the future after the individual achieves certain age and service levels. Unlike pensions, the value of employer-provided health insurance in retirement does not vary with earnings. The expectation that a worker will be covered by subsidized health insurance may influence the age of retirement and the level of saving for retirement. Employers should consider the cost of these plans and how they affect worker behavior in developing their retirement policies. This report examines how college and university faculty respond to coverage by employer-provided retiree health insurance.

Concern over the cost of retirement benefits, in both the public and private sectors of the economy, has caused employers to revise and restructure their pension and retiree health plans. Since the passage of the Employee Retirement Income Security Act in 1974, employers in the private sector of the economy have been transforming their retirement plans from defined benefit to defined contribution plans. While most state and local governments have retained defined benefit plans, many public employers have been increasing retirement ages, reducing the generosity of retirement benefits, and increasing employee contributions in an effort to reduce the employer cost of pension plans.[2]

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1   Beyond the explicit premium subsidy, workers benefit from being able to remain in the employer health plan and thus, do not have to search for new health insurance coverage when they retire. In most retiree health plans, workers also benefit from remaining in the same risk pool as active workers so that the implied premium is lower than one based solely on retirees. Actuaries often refer to this as an implicit subsidy.

2   Snell (July 2012) reports that 44 states revised their pension plans at least once between 2009 and 2012.

State and local governments have begun introducing other types of retirement plans including defined contribution plans and hybrid plans while some are now giving employees a choice among different types of plans.[3] Snell (August 2012) reports that due to these changes, only 33 states currently offer only defined benefit plans to their general state employees.

Most private sector U.S. firms no longer offer post-retirement healthcare benefits (Fronstin 2010). The Kaiser Family Foundation (2013) reports that 66 percent of large firms (200 or more employees) extended health insurance to retirees in 1988; however, coverage has fallen considerably so that only about one quarter of large firms currently offer this benefit. Small employers are much less likely to offer retiree health insurance. The decline in employer-sponsored retiree health plans among large firms was due to the rapidly rising cost of healthcare, the rising ratio of retirees to workers, and requirements by the Financial Accounting Standards Board that unfunded liabilities associated with these plans be reported on the firms' financial statements. In contrast, most public sector employers continue to offer health insurance to retired employees; however, public employers have been reducing the generosity of these plans and increasing the number of years of service required to be eligible for subsidized health insurance in retirement (Clark and Morrill 2010).[4] The recent modifications in public retiree health plans is in response to the rising annual cost of these plans and the change in reporting guidelines by the Governmental Accounting Standards Board requiring states and localities to report the unfunded liabilities associated with these plans.

Economists have examined the retirement and saving incentives in pension plans for many years but rather little research has been conducted on how workers respond to the value and eligibility requirements for subsidized health insurance in retirement. Even less is known about how college faculty will respond to changes in pension and retiree health plans. One important question that concerns many university leaders is whether reductions in the value of retiree health plans, or their elimination, will result in faculty delaying retirement. While many institutions are reviewing retiree health plans due to their increasing annual costs and rising unfunded liabilities, academic administrators do not want to alter compensation in a manner that might entice faculty to further delay retirement.

This study examines how older faculty respond to the expectation that they will continue to receive employer-provided health insurance in retirement. Specifically, do members of college and university faculties who believe their institutions will provide them subsidized health insurance retire earlier and save less than faculty who do not expect employer-provided retiree health insurance? Using a national survey of faculty age 50 and over, this report provides evidence on the incidence of retiree insurance and then estimates how coverage by these plans influence the expected age of retirement and participation in supplemental retirement saving plans. The results should be useful for college and university administrators as they consider the cost and benefits of RHI plans and the reaction of their faculty to modifications in these plans.

THEORY AND LITERATURE REVIEW

Lifecycle models of economic behavior predict that individuals seek to smooth utility throughout their lifetime including during their retirement years. This smoothing of consumptions requires individuals to save while working and accumulate wealth so they can enjoy the desired standard of living in retirement. Higher consumption in retirement is financed by reduced consumption (increased saving) while working. In addition to consumption and saving decisions, the age of retirement also influences the amount of retirement wealth needed to achieve a desirable retirement income. Later retirement means more working years and fewer years in retirement; thus, wealth accumulated while working needs to support consumption over a shorter period of retirement.

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3   Clark, Craig, and Sabelhaus (2011) provide a detailed analysis of the development of state and local pension plans during the twentieth century. Also see Munnell (2012).

4   Clark and Morrill (2010) describe the generosity of public sector health plans and how RHI plans have evolved. Many public colleges and universities are included in these plans.

In general, economic models predict that the age of retirement is influenced by the generosity of employer pensions and Social Security and how the value of these retirement plans change with continued employment. In addition, retirement saving behavior should be affected by anticipated retirement income from all sources, including expected Social Security benefits, employer pensions, and the promise of health insurance after retirement from employers and Medicare.[5] There have been numerous studies of the impact of Social Security and employer pensions on the age of retirement and lifetime saving patterns; however, rather limited research has examined the role of retiree health insurance on retirement and saving decisions.

Most economic research has examined the importance of retirement programs on employees in general. This study focuses on the impact of retiree health insurance on the retirement age of college and university faculty and how coverage by such insurance plans affects the probability of participating in supplemental retirement saving plans. We begin our analysis with a brief review of the economic literature on the role of retiree health insurance on the timing of retirement. This is followed by a survey of papers examining how subsidized health insurance affects retirement saving.

What is the value of retiree health insurance?

The annual cost of healthcare insurance for older persons can be quite high. For retirees younger than age 65 and thus not yet eligible for Medicare, estimated annual health insurance premiums range up to $14,000 per year for a couple. Virtually all employer-provided health plans for retirees require participating retirees to enroll in Medicare at age 65. At this point, Medicare becomes the primary payer of medical bills and employer insurance is the secondary payer. Thus, the value of retiree health plans and their impact on faculty decisions will fall mainly on individuals planning to retire prior to age 65. This does not mean that the value of health insurance to retirees is zero after age 65, or costless to the employer. For individuals aged 65 and older who are covered by Medicare, out-of-pocket costs for the median couple exceed $5,000 per year, some of which may be paid by the employer plan (McArdle, Stark, Levinson, and Neuman 2012). As workers plan for retirement, they must consider how the cost of health insurance will affect their ability to consume other goods and services during retirement. Thus, coverage by an employer health plan means individuals need to save less for retirement expenses, or they could retire earlier with the same retirement wealth.

In most plans, eligibility depends on a minimum number of years of employment and the extent of the employer subsidy is also a function years on the job. For example, the health plan may require a minimum of 10 years of service before a retiree can be included in the plan.[6] The employer might pay 50% of the premium for retirees with 10 to 19 years of service and 100% for those with 20 or more years of service. Thus, the value of the health insurance to older faculty will depend on their current years of employment and their expectations concerning continued employment. The desire to remain on the job until qualifying for the maximum subsidy can affect retirement decisions, as does the value of the insurance plan based on current employment history.[7]

The impact of coverage on retirement and saving decisions also depends on worker expectations concerning how these plans will evolve in the coming years. Health plans for active and retired workers are regularly changed; sometimes, they are annually amended, as deductibles and co-payments are increased. In addition, these plans have less legal protection compared to pension plans, and employers may eliminate these plans. Therefore, in deciding what value to place on the promise of this form of deferred compensation, workers must consider their own work/retirement plans and the expected actions of their employers. Thus, it is not surprising that workers' assessment of the value of these plans varies across institutions, with age, and over time, as will the effect of these plans on retirement decisions.

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5   For a recent example of lifecycle consumption, saving, and portfolio choice model, see Maurer, Mitchell, Rogalla and Kartashov (2013).

6   This means that workers who retire with fewer than 10 years of service are not allowed to continue in the employer health plan after they retire. Thus, retiree health insurance offered by the employer has no value to these short career employees.

7   For example, consider a female worker age 60 with 19 years of service who is covered by a retiree health plan similar to the one described above. She could retire now and be eligible for health insurance coverage but would have to pay 50% of the premium for the rest of her life. However, by working one more year, she would receive health insurance without having to pay any premium. Thus, the value of working one additional year includes the present value of the difference between paying 50% of the premium instead of receiving the coverage without a premium for all remaining years of life expectancy. Having achieved this level of subsidy, additional years of work with the current employer do not affect the value of being covered by the plan.

Retiree health insurance and the age of retirement

The main mechanism through which coverage by retiree health plans influence the timing of retirement is the provisions of health insurance prior to individuals becoming eligible for Medicare. If workers are planning to retire prior to age 65, they typically must purchase individual health insurance policies, which can be costly. Employer-provided health insurance can fill this gap in coverage and means that other things being equal, individuals covered by retiree health plans will have greater resources to purchase non-medical goods and services. Thus, retiree health plans will tend to increase the probability that workers will retire prior to age 65. The value of this insurance for individuals planning to retire over the age of 65 is considerably lower because, in most cases, individuals age 65 and over are eligible for Medicare which provides substantial hospital and medical coverage. Most employer plans require retirees to enroll in Medicare and Medicare becomes the primary payer for the 65 plus retirees. Therefore, the value of employer-sponsored plans for post-65 retirees is only the excess payments above what Medicare provides.

The relatively few studies that estimate the impact of retiree health insurance coverage on retirement age have found that these plans have a significant effect on the probability of career employees retiring at earlier ages. But none of the previous research studies have examined the effect of retiree health insurance on retirement of university faculty.[8] Given that faculty, especially those at research institutions, tend to retire after age 65, we might anticipate that the impact of subsidized health insurance on college faculty members will tend to be less than that for the general population.[9] Chapters by Schieber and Rush in Clark and Ma (2005) consider how RHI plans might affect faculty retirement decisions.

Retiree health insurance and retirement saving

The promise of subsidized health insurance in retirement should affect retirement saving behavior by lowering the anticipated out-of-pocket cost of medical expenditures in retirement. Without employer health insurance, employees should save more to cover uncertain health costs in retirement, especially employees who plan on retiring prior to age 65 (i.e., before they are eligible to enroll in Medicare). Thus, there should be an inverse relationship between retirement savings and coverage by retiree health plans and generosity of employer-provided retiree health insurance. There is a large body of literature on the effect of retirement plans, Social Security, and Medicare on individual saving, while only Clark and Mitchell (2014) directly estimate the impact of employer health plans on the accumulation of wealth. Early studies employing national data examined the relationship between retirement benefits and personal savings[10] and produced a wide range of estimates on the magnitude of saving reduction per dollar of pension or Social Security wealth. More recent studies using individual survey data failed to produce a more precise estimate of the effect of retirement benefits on wealth accumulation.[11]

Similar to the impact of pensions, Social Security, and Medicare, employer-provided retiree health plans would be expected to reduce worker saving needs, given that people anticipate that the value of health insurance in retirement will reduce the income needed for the desired level of consumption. The value of retiree health insurance coverage is difficult to determine and is likely to vary over time as employers amend their plans by increasing deductibles, co-payments, co-insurance, and premiums. In addition, employer promises to maintain their retiree health plans have less legal protection compared to those associated with pension plans so that employers have greater leeway in reducing the generosity or even

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8   Gustman and Steinmeier (1994), Lumstaine Stock and Wise (1996), Blau and Gilleskie (2006, 2008), and French and Jones (2011) estimate structural models and find that coverage by retiree health insurance increases the probability of retiring at earlier ages. In contrast, Karoly and Rogowski (1994), Madrian (1994), Blau and Gilleskie (2001), Mulvey and Nyce (2004), Marton and Woodbury (2007, 2013), Robinson and Clark (2010), Strumpf (2010), Kapur and Rogowski (2011), and Nyce et al. (2011) estimate reduced form retirement equations. These latter studies typically find somewhat larger effects than those based on structural models.

9   Institutions may offer the same retiree health plan to non-faculty employees who are much more likely to retire prior to reaching age 65. Thus, retiree health plans may have a larger impact on the retirement decisions of other university employees.

10 For example, Cagan (1965), Katona (1965), Feldstein (1974), Munnell (1974) and Feldstein and Pellechio (1979).

11 Hubbard (1986) found very small offsets ($0.16 per dollar of pension wealth), while Gale (1998) reported very large offsets ($0.82 per dollar of pension wealth). Gustman and Steinmeier's (1999) estimates were around the midpoint ($0.50 per dollar of pension wealth). Clark and Mitchell (2014) found that public employees covered by retiree health plans tend to save less than comparable workers without this benefit.

terminating these plans. In addition, most employer plans are not funded making the promise to provide the benefit more uncertain.

When evaluating the impact of health insurance on saving for retirement, one should remember that these plans may also influence the age of retirement. If retiree health insurance coverage leads to earlier retirement, workers will then need to save more to finance their retirement consumption over longer periods of time. The relationship between retirement saving and age of retirement adds complexity to determining how individuals covered by retiree health insurance will adjust their retirement saving.

SURVEY DATA AND DESIGN

College and university faculty are often covered by pension plans in which they are required to participate and health insurance plans for both active and retired faculty. In addition, faculty are usually offered the opportunity to participate in supplemental retirement saving plans. Despite coverage by these retirement benefits, faculty, especially those at research institutions, often retire at relatively old ages. University administrators are concerned about the rising cost of retiree health insurance plans and many in both public and private institutions have considered eliminating or reducing the generosity of their plans. Prior to modifying this important benefit, it would be useful to have a better understanding of how coverage by health insurance in retirement influences expected retirement ages and saving behavior of older faculty. Reconsideration of continuing to offer retiree health plans is primarily based on the cost of these plans; however, another concern of university administrators is that elimination of health insurance for retirees might lead to faculty retiring at even older ages. This study seeks to examine the retirement decisions of older faculty and the role of retiree health insurance plans on expected retirement ages and retirement saving.

The TIAA-CREF Institute funded The Survey on the Impact of Retiree Health Insurance on the Age of Retirement and Wealth Accumulation to provide sufficient data to examine the role of retiree health plans on retirement decisions of older faculty. The survey was conducted by telephone between October 9 and November 11, 2013, by Mathew Greenwald & Associates, Inc. Individuals were randomly selected for inclusion in the survey from databases of faculty and administrators developed by Act One and Survey Sampling International. The sample was limited to faculty and administrators age 50 and older currently employed at U.S. colleges and universities. The final sample included 892 respondents.[12]

The first column of Table 1 presents the sample distribution for key economic and demographic variables from the survey. Given the age restriction on respondents, it is not surprising that almost half of the sample is composed of full professors at their institutions. Two thirds of the respondents are employed by public colleges and universities and 57% work at doctoral institutions. Only 56% of the respondents report that they are covered by a pension plan, either defined benefit or defined contribution plan, in which they are required to participate. One factor in the relatively low participation rate in a mandatory pension plan is that some faculty in the survey might not be eligible to participate in university sponsored retirement plans due to their part-time status. This lack of eligibility may be due to the fact that 11% of the respondents indicate they are instructors, lecturers, or others who have non-tenure track appointments.[13]

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12 The survey firm reported that the maximum margin of error at the 95% confidence level is plus or minus 3.3 percentage points.

13 The low participation rate in pension plans could also be the result of respondents not understanding the coverage question about being required to participate in the plan. The first question concerning pension coverage asks "Does your institution require you to be enrolled in a pension plan?" The objective of this and later pension questions in the survey was to distinguish between mandatory coverage of primary pension plans and voluntary participation in supplemental retirement saving plans where the worker decides whether to make any contribution to the plan. However, the inclusion of the phrase "require to be enrolled" might have confused some of the respondents and led them to incorrectly answer no to this question.

TABLE 1. DISTRIBUTION OF RESPONDENTS EXPECTING RETIREE HEALTH INSURANCE (RHI)

	Sample Distribution (1)	Percent Expecting RHI (2)
Total Sample		48.8 %
ACADEMIC RANK		
Full Professor	48.4%	49.8%
Associate Professor	25.7%	51.1%
Assistant Professor	9%	42.5%
Instructor / Lecturer	9.5%	37.6%
Administrator	5.4%	56.2%
Other	2%	55.6%
TYPE OF INSTITUTION		
Public	66.1%	57.1%
Private	32.5%	32.1%
Other	1.3%	41.7%
TYPE OF INSTITUTION		
Doctoral	57.0%	53.7%
Masters	25.0%	44.4%
Baccalaureate	16.5%	39.5%
Associate	0.4%	75.0%
Other	1.1%	20.0%
RETIREMENT BENEFITS		
Defined Benefit Plan	35.3%	62.9%
Defined Contribution Plan	20.9%	41.9%

Sample size is 892.

The proportion of each group who report that they expect to qualify for retiree health insurance from their current institution when they retire is shown in Column 2, Table 1.[14] As one might expect, faculty with higher rank (full and associate professors) indicate they are more likely to expect to participate in the institution's health plan for retirees than assistant professors, lecturers and instructors. About 50% of the more senior faculty anticipate they will participate in the university's health plan compared to around 40% at lower ranks. These insurance plans often have years of service requirements for individuals to be eligible to enroll in the plans and associate and full professors are likely to have tenure and greater job security so they are more likely to retire from their present institution. Administrators are the most likely university employees to expect to be covered by the institution's health plan in retirement (56%). Institutional characteristics also affect the probability of expecting coverage with 57% of those at public institutions believing they will receive health insurance while only 32% of faculty at private colleges and university believe they will qualify for health insurance in retirement. In general, public employees are much more likely to expect to be covered by retiree health insurance than are private sector employees. Faculty at doctoral universities have a greater expectation of receiving health insurance in retirement than faculty at Masters and Baccalaureate institutions. Interestingly, faculty covered by a defined benefit pension plan are 20 percentage points more likely to expect to receive health insurance in retirement than those whose primary plan is a defined contribution plan.

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14 The survey question is not whether the university offers retiree health plans but rather whether the individual expects to be eligible for this plan when they retire. Thus, an institution may offer a health plan to its retirees but individual faculty members may not expect to be allowed to participate in the plan due to insufficient years of service when they retire.

Using responses to questions on year of birth and year of expected retirement, the expected retirement age for each respondent is determined. Table 2 indicates that the expected retirement age for those with and without retiree health insurance is approximately 68 years. There are no significant differences in expected retirement age by coverage. Sorting the sample by the proportion of the premium paid by the retired faculty member, 16% of those covered by retiree health insurance indicate that they do not expect to have to pay any of the premium for health insurance in retirement (i.e. the institution will pay the entire premium), while 6% anticipate they will have to pay the entire insurance premium and the remainder of those expecting to have coverage anticipate there will be a partial subsidy of the premium by their institution.[15] We find that among those who expect to receive RHI, individuals who report they will be required to pay 75% or less of the insurance premium, expect to retire about one year earlier than those expecting to pay between 75% and 100% of the premium or who do not have coverage.

TABLE 2. MEAN EXPECTED RETIREMENT AGE: RESPONDENTS EXPECTING AND NOT EXPECTING RETIREE HEALTH INSURANCE (RHI)

RHI	Sample Distribution	Mean Expected Retirement Age
No RHI	50 %	68.0
50 to 59 of age	52.3%	66.1
60 and older	47.7%	70.0
Has RHI	50%	68.5
50 to 59 of age	40.6%	66.9
60 and older	59.4%	69.7
Respondents with RHI		
Percent of Premium Expected to be Paid by Retiree:		
Nothing	16%	67.9
1 to 25%	26.8%	68.9
26 to 50%	19.1%	67.9
51 to 75%	4.0%	67.5
76 to 99%	1.5%	70.4
All of the premium	5.8%	69.3
Do not know	26.8%	68.9

Sample size with complete information is 650.

There are significant correlations in coverage and participation between types of pension plans and expected retiree health insurance coverage. Table 3 indicates that of the respondents who report being covered by a defined benefit plan, 63% also expect to be provided health insurance in retirement. In contrast, only 42% of those whose primary plan is a defined contribution plan, report coverage by a retiree health plan and 40% who indicate that they are not included in the institution's pension plan believe they will receive health insurance in retirement.

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15   Based on a survey of institutions, Yakoboski and Conley (2013) report greater percentages paying all (13% of responding institutions) and paying none (38%) of the insurance premium for retirees. As we reported earlier, institutions often provide different levels of subsidies for employees depending on their years of service.

TABLE 3. PROPORTION OF RESPONDENTS EXPECTING RETIREE HEALTH INSURANCE (RHI) BY TYPE OF PENSION

Pension	With RHI	No RHI
Covered by Defined Benefit Plan	62.9%	37.1%
Covered by Defined Contribution Plan	41.9%	58.1%
No Pension	40.7%	59.3%

Sample size is 892.

ANALYSIS

The primary objective of this research is to examine the impact of retiree health insurance on the expected age of retirement of university faculty and on the accumulation of retirement wealth through employer sponsored supplemental retirement saving programs. As discussed earlier, the value of employer-provided health insurance to retirees should influence workers to retire earlier and save less. However, much of the incentive effects of these plans would be on those who plan to retire prior to age 65, before they become eligible to enroll in Medicare. As noted earlier, faculty in this sample report they expect to retire around age 68. Since faculty members, especially those in private, research universities tend to retire at much older ages, the effect on expected age of retirement is likely less than for workers in the general economy. If the value of health insurance is greater for those retiring prior to age 65, and most faculty tend to retire at older ages, employer-provided health insurance for retirees will tend to have a smaller effect on retirement wealth accumulation for faculty compared to workers in the non-education sectors of the economy. We now explore in more detail how health insurance coverage in retirement affects the retirement plans of university faculty.

Expected age of retirement and retiree health insurance

The age at which individuals plan to retire is influenced by economic and demographic factors. Numerous studies have examined the impact of pension plans on the timing of retirement, but only a few have estimated the effect of retiree health insurance on the age of retirement, and none to my knowledge have focused on university faculty. Table 4 presents the results of a standard specification for estimating the expected age of retirement using data from the Survey on the Impact of retiree health insurance on the age of retirement and wealth accumulation. In general, the estimated coefficients conform to expectations based on economic theory. Individuals who report they are in poor health expect to retire almost two years earlier that those in good health. Active faculty members expect to work longer than those currently in administration, the omitted category in the regression analysis. Faculty at public institutions expect to retire about one year earlier than comparable faculty at private institutions, while faculty at doctoral institutions plan on working longer.

TABLE 4. REGRESSION RESULTS WITH DEPENDENT VARIABLE THE EXPECTED AGE OF RETIREMENT

Variables	Means	Estimates Full Sample	50 to 59 Sample	60 and Older Sample
Intercept		40.376***	46.487***	17.210***
		(2.296)	(9.733)	(2.228)
RHI	50.1%	0.330	1.690**	-0.427
		(0.469)	(0.989)	(0.336)
Spouse RHI	28.0%	-0.062	0.485	-0.155
		(0.514)	(1.049)	(0.377)
Age	60.4	0.489***	0.432**	0.813***
		(0.036)	(0.194)	(0.033)
Excellent Health	74.5%	0.096	-0.957	0.758***
		(0.506)	(1.267)	(0.316)
Poor Health	6%	-1.880***	-3.196**	-0.359
		(0.711)	(1.535)	(0.808)
Doctoral and Research	57.2%	0.619*	0.296	0.602**
		(0.421)	(0.769)	(0.322)
Married	70.3%	-0.462	-1.444**	0.221
		(0.451)	(0.760)	(0.384)
Male	57.0%	1.518***	1.868***	0.551*
		(0.492)	(0.797)	(0.344)
Full Professor	47.9%	1.177***	1.877**	0.842**
		(0.498)	(0.850)	(0.410)
Associate/ Assistant	34.3%	1.205**	1.578*	0.681*
		(0.665)	(1.105)	(0.463)
Instructor / Lecturer	10.4%	0.718	1.395*	-0.007
		(0.660)	(1.013)	(0.615)
Public Institution	67.9%	-0.840**	-0.608	-0.153
		(0.467)	(0.808)	(0.367)
Years of Tenure	18.9	-0.083***	-0.179***	-0.044***
		(0.022)	(0.050)	(0.016)
Defined Benefit Plan	35.7%	-1.276**	-2.402**	-0.494*
		(0.554)	(1.067)	(0.346)
Defined Contribution Plan	22.3%	-0.691*	-0.801	-0.480
		(0.507)	(0.858)	(0.402)
Plan for retirement	68.5%	-1.660***	-2.507***	-0.647**
		(0.585)	(1.067)	(0.355)
Supplemental Plan	62.8%	0.227	0.773	-0.524*
		(0.423)	(0.851)	(0.335)
(*) Significant at 10 %				
(**) Significant at 5%				
(***) Significant at 1%				
Sample size		647	302	345
R square		27.99%	14.43%	62.82%

Faculty who report being covered by a pension plan expect to retire at younger ages, especially those who participate in a defined benefit plan. Participants in defined benefit plans report they will retire 1.3 years sooner than those with no mandatory pension plan, while participants in defined contribution plans expect to retire 0.7 years sooner. Interestingly, those who have developed a retirement plan are expecting to retire 1.7 years sooner than those who have not made a retirement plan. The variable indicating the respondent expects retiree health insurance coverage has no significant effect on planned retirement ages, nor does the coefficient on one's spouse expecting to be covered by health insurance from his/her employer.

To test for important age effects, the sample is split into those aged 50 to 59 and those aged 60 and over. Among the younger cohort, poor health has a much larger impact on expected retirement age; those reporting poor health expect to retire more than three years sooner than those in good health while the poor health effect in the older group is much smaller and insignificant. In contrast, the expected retirement age of those reporting excellent health in the younger group is no different from those with good health; among those aged 60 and older, excellent health is associated with a 0.76 year later expected retirement age. Other differences noted across the two age groups include larger negative effects on expected retirement age of being covered by a defined benefit plan for the younger cohort and those who have made a retirement plan. In contrast, coverage by a defined contribution plan does not affect the retirement age of either age group.

We expected if there was an effect of retiree health insurance on expected retirement age it would be for the younger age group who might be planning on retiring before reaching age 65 and Medicare eligibility. The analysis does indicate a significant effect on planned retirement age for this group; however, the effect is positive, not negative, indicating those covered by these health plans expect to retire 1.7 years later compared to those who do not expect to have employer provided health insurance in retirement.

In summary, the estimated effects of the economic and demographic variables on expected retirement age conform to economic theory and general expectations. However, there is no indication that coverage by retiree health insurance influences the timing of planned retirement by older faculty members. The lack of an observed effect of health insurance on planned retirement age is probably due, in large measure, to the finding that these older faculty have rather high expected retirement ages. This is consistent with the findings of Yakoboski (2011) who reports that 75% of faculty age 60 and older expect to work past a "normal" retirement age or have already done so.

Retirement saving and retiree health insurance

Employers that offer health insurance to their retirees are providing subsidized health insurance to their former employees. The availability of retiree health insurance means individuals can have insurance at a lower cost relative to the price on the open market. Due to this subsidy, workers need to save less while working to have the needed retirement wealth to achieve their desired standard of living. An important method of saving while working is through tax advantaged retirement saving programs. Given the value of health insurance, we would expect workers covered by such health plans to be less likely to enroll in supplemental retirement plans and have lower levels of retirement wealth. Table 5 indicates that 73% of the faculty in the survey were participating in a supplemental retirement plan if offered by their current employer. Of these participants in the supplemental plan, half were covered by their institution's retiree health insurance. A slightly higher proportion of non-participants in a supplemental savings plan expected to receive health insurance coverage in retirement, which is consistent with our prediction that retiree health insurance reduces the incentive to save for retirement.

TABLE 5. PROPORTION OF RESPONDENTS EXPECTING RETIREE HEALTH INSURANCE (RHI) EMPLOYED AT INSTITUTIONS WITH VOLUNTARY RETIREMENT SAVINGS PLANS

Institution Has Supplemental Retirement Plan	Sample Mean	Has RHI	No RHI
Does Not Participate in Plan	27.4%	54.1%	45.9%
Participates in Plan	72.6%	49.5%	50.5%

Sample size = 764

Respondents were also asked to indicate the current account balance in their retirement saving plan by broad dollar ranges. Table 6 shows the distribution of respondents across the seven categories that were provided in the survey as potential responses to the account balance question. In each of the lower balance categories (less than $750,000), more than half of all respondents expected to receive health insurance from their current institution when they retired. In contrast, only about one quarter of individuals with account balances in excess of $750,000 expected health insurance in retirement. Once again, these patterns are consistent with the hypothesis that retiree health insurance reduces saving by university faculty.

TABLE 6. PROPORTION OF RESPONDENTS EXPECTING RETIREE HEALTH INSURANCE (RHI) BY SUPPLEMENTAL ACCOUNT BALANCE

Supplemental Account Balance	Sample Distribution	Has RHI	No RHI	Total
Less than $50,000	12.1%	52.2%	47.8%	100%
$50,000 to less than $100,000	12.3%	58.8%	41.2%	100%
$100,000 to less than $250,000	16.8%	52.7%	47.3%	100%
$250,000 to less than $500,000	14.6%	50.6%	49.4%	100%
$500,000 to less than $750,000	7.2%	57.5%	42.5%	100%
$750,000 to less than $1 million	2.7%	26.7%	73.3%	100%
$1 million or more	3.8%	28.6%	71.4%	100%
Do Not Know	15.7%	49.4%	50.6%	100%
Refused	15.0%	47.0%	53.0%	100%

Sample size is 555.

The value of retiree health insurance depends on when the individual plans to retire and the extent of the employer subsidy imbedded in the plan. To examine the impact of health insurance coverage in retirement on the likelihood of currently contributing to a supplemental retirement saving plans, we estimate a participation equation and the results are presented in Table 7. As expected, coverage by an employer pension significantly reduces the probability that faculty contribute to a retirement saving plan. Once again the health effects are interesting. Individuals reporting that they are in excellent health are 8.9 percentage points more likely to contribute to a supplemental plan, perhaps because they expect to live longer and feel the need to accumulate greater retirement wealth. At the same time, individuals in poor health are 9.9 percentage points more likely to participate in a supplemental plan, perhaps because they expect to retire early and have a greater need for retirement wealth. There is no significant impact of expected retiree health insurance coverage on the likelihood university faculty enroll in supplemental retirement saving plans.

TABLE 7. REGRESSION RESULTS WITH DEPENDENT BINARY VARIABLE PARTICIPATION IN SUPPLEMENTAL SAVING ACCOUNT

Variables	Means	Estimates Full Sample	50 to 59 Sample	60 and Older Sample
Intercept		0.795***	0.958**	0.501*
		(0168)	(0.425)	(0.336)
RHI	50.8%	-0.006	-0.054	0.034
		(0.033)	(0.047)	(0.046)
Spouse RHI	28.5%	0.055*	0.015	0.086*
		(0.037)	(0.053)	(0.052)
Age	60.8	0.000	-0.003	0.004
		(0.003)	(0.008)	(0.005)
Excellent Health	73.2%	0.089**	0.117*	0.083*
		(0.042)	(0.072)	(0.052)
Poor Health	7.2%	0.099*	0.268***	-0.017
		(0.069)	(0.095)	(0.097)
Doctoral and Research	58.4%	-0.022	-0.019	-0.023
		(0.031)	(0.045)	(0.043)
Married	69.0%	-0.014	0.030	-0.048
		(0.037)	(0.052)	(0.054)
Male	59.8%	-0.026	-0.021	-0.015
		(0.032)	(0.044)	(0.048)
Full Professor	49.5%	-0.010	-0.084	0.046
		(0.056)	(0.071)	(0.083)
Associate/ Assistant	33.8%	-0.103**	-0.176***	-0.037
		(0.058)	(0.073)	(0.087)
Instructor / Lecturer	9.9%	-0.196***	-0.292***	-0.085
		(0.071)	(0.091)	(0.105)
Public Institution	65.8%	-0.063**	-0.042	-0.074*
		(0.035)	(0.050)	(0.049)
Years of Tenure	19.4	-0.000	0.000	-0.000
		(0.002)	(0.003)	(0.002)
Defined Benefit Plan	34.9%	-0.185***	-0.199***	-0.177***
		(0.038)	(0.055)	(0.052)
Defined Contribution Plan	18.6%	-0.277***	-0.335***	-0.244***
		(0.047)	(0.070)	(0.064)
Plan for retirement	68.7%	0.128***	0.176***	0.096**
		(0.035)	(0.049)	(0.049)
(*) Significant at 10 % (**) Significant at 5% (***) Significant at 1%				
Sample size		764	347	417
R square		13.02%	20.41%	10.02%

CONCLUSIONS

Numerous studies have shown that retirement plans offered by employers and required by the federal government alter retirement plans of workers throughout the economy. Pension plans, Social Security, and Medicare tend to entice workers to retire earlier and save less. In contrast, relatively few studies have focused on the retirement effects of employer-provided retiree health insurance. These plans also provide covered workers with deferred compensation that provides incentives that should influence retirement ages and saving behavior. This study provides a first look at how retiree health insurance affects retirement plans of college and university faculty.

Using data from a national survey of currently employed faculty age 50 and older, we find that faculty who anticipate that their institution will provide them with health insurance in retirement do not plan to retire any earlier than faculty who do not expect to receive subsidized health insurance in retirement. This may be due to the fact that university faculty tend to retire considerably later than other American workers. The average expected age of retirement for this sample is 68. The value of retiree health insurance is much greater for workers who plan to retire before reaching age 65 and receiving coverage by Medicare. In addition, individuals who retire at later ages have fewer years to live and thus fewer years to receive any subsidy associated with retiree health insurance. Thus, it is not surprising that these plans have relatively little effect on the retirement plans of older faculty.

Subsidized health insurance in retirement should reduce the need for retirement saving. This analysis finds only small differences in the proportion of faculty covered and not covered by retiree health insurance among those participating in a supplemental retirement saving plan offered by their university. We do observe somewhat lower account balances among supplemental savers who expect to be covered by their institution's health plan in retirement.

Employer-provided retiree health insurance can be a valuable benefit to individuals who plan on retiring prior to age 65. Thus, the cost of these plans in the public sector where career employees tend to retire in their 50s and early 60s has been rising rapidly and is now seen as a major policy concern and the elimination of retiree health plans would likely have a significant impact on retirement patterns. However, university faculty typically retire at later ages, often ages well above 65. As a result, the elimination of this benefit would tend to have only minor effects on their retirement ages and saving behavior.

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