

# AN UPDATE ON PRIVATE PENSIONS

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## Introduction

Employer-sponsored pensions are an important source of retirement income and often make the difference between having a comfortable retirement and just scraping by. However, at any given time, only about half of workers are covered by pension plans. In addition, the sea change in the nature of pension coverage from traditional defined benefit plans to 401(k)-type defined contribution plans means that the amount of income that individuals will receive from pension plans in the future is uncertain.

This *brief*, which updates our previous work, explores who is covered by a pension plan and who is not, how much retirees receive in pension income, and how pension coverage and receipt have changed over time.<sup>1</sup> The key finding is that total pension coverage has remained stagnant while the nature of coverage has continued to shift to 401(k) plans. These developments, coupled with declining levels of earnings replacement under Social Security, mean that future retirees will have to work longer if they want to maintain their pre-retirement standard of living in retirement.<sup>2</sup>

## Trends in Pension Coverage

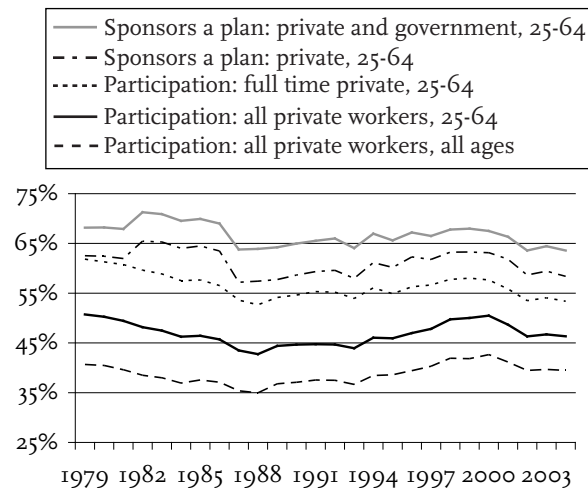
Workers can be associated with a plan in three distinct ways. They can work for an employer that *sponsors* a plan for any of its employees. They can be *covered* by a plan, but not be eligible for benefits. Or, they can actually *participate* in the plan. Coverage and participation are not the same, since, for example, one fifth of workers covered in 401(k) plans choose not to participate.<sup>3</sup> Nevertheless, the terms “coverage” and “participation” are used interchangeably here, except in the discussion of 401(k) plans. The data on coverage trends in this section are primarily from the *Current Population Survey (CPS)*.<sup>4</sup>

The share of workers covered by employer-sponsored pensions depends on the definition of coverage and the relevant population. Figure 1 shows how the percentage of the population with pensions declines as the definition narrows. For example, including government workers, restricting the relevant labor force substantially, and using employer sponsorship as the applicable criteria indicates that about 64 percent of the population had at least the potential for pension protection in 2004. At the other extreme, focusing only on participation for private sector workers and eliminating the age and full-time constraint shows that 39 percent of private sector workers participated in a pension.

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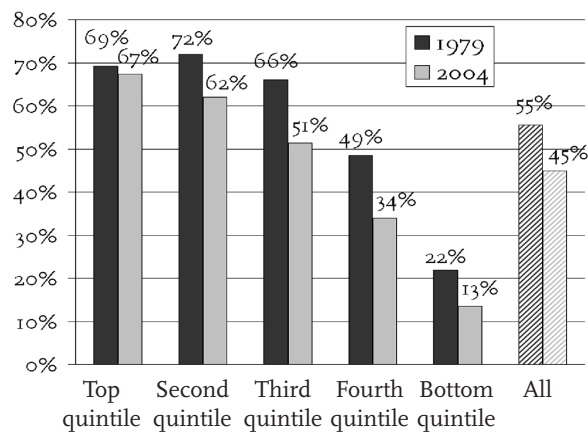
FIGURE I. PENSION SPONSORSHIP AND PARTICIPATION, 1979-2004



Source: Authors' calculations from U.S. Bureau of the Census (1980-2005).

While the level of pension participation depends on definitions, the trend over time does not. Regardless of how the relevant population is defined, pension participation in 2004 was lower than it was in 1979. In each case, participation dropped between 1979 and 1988, rebounded between 1988 and 1999, then dropped again between 1999 and 2004. In 1979, 51 percent of non-agricultural wage and salary workers in the private sector aged 25-64 participated in a pension plan; in 2004, that number was 46 percent.

FIGURE 2A. PENSION PARTICIPATION FOR MALE WORKERS, AGED 25-64, BY EARNINGS QUINTILE, 1979 AND 2004



Source: Authors' calculations from U.S. Bureau of the Census (1980 and 2005).

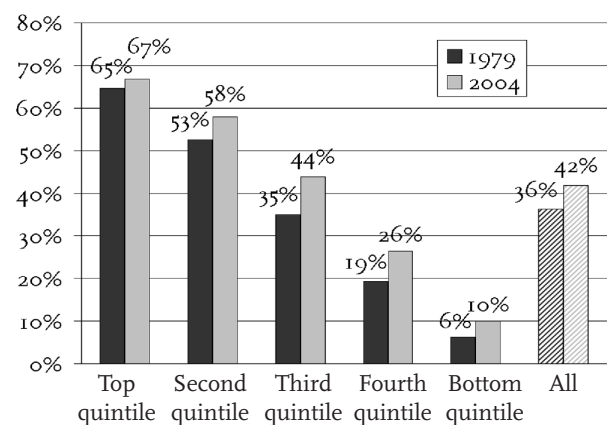
### Coverage by Sex, Earnings, and Race

The decline in pension coverage reflects a sharp drop in coverage for male workers at all earnings levels (see Figure 2A). In contrast, participation for women increased across the board (see Figure 2B). The drop in male participation rates was caused by declines in union membership and employment at large manufacturing firms, and by the rapid growth in 401(k) plans that made employee participation in pensions voluntary.<sup>5</sup> Among women, the growth in pension participation was largely the result of improved earnings and an increase in full-time work and — to a lesser extent — increased union membership and employment at large firms.

The remaining differential between coverage patterns for men and women can be explained by their different work patterns, since pension coverage among women who work full-time, full-year is virtually identical to the coverage rates for men (see Figure 3). In fact, among this group, women actually have slightly higher coverage rates than men.

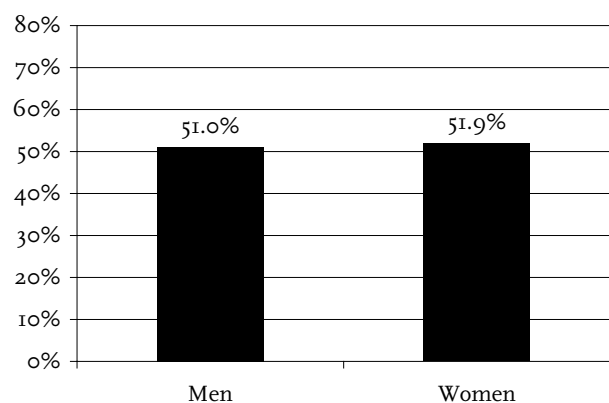
Figures 2A and 2B also show that participation is closely correlated with earnings levels. In the top quintile, two-thirds of workers — both male and female — participate in pensions; in the bottom quintile, that figure drops to 13 percent for men and 10 percent for women.<sup>6</sup>

FIGURE 2B. PENSION PARTICIPATION FOR FEMALE WORKERS, AGED 25-64, BY EARNINGS QUINTILE, 1979 AND 2004



Source: Authors' calculations from U.S. Bureau of the Census (1980 and 2005).

FIGURE 3. PENSION COVERAGE AMONG FULL-TIME, FULL-YEAR MALE AND FEMALE WORKERS, 2004

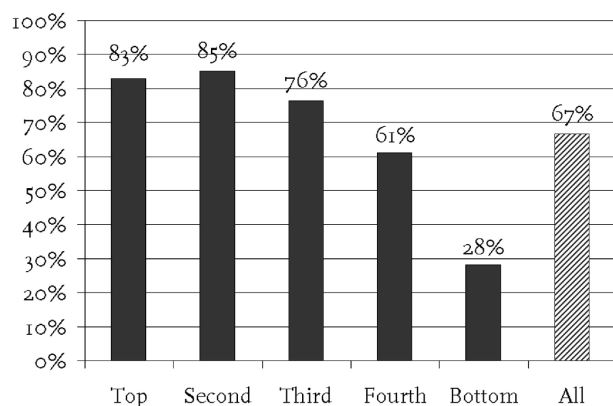


Source: Authors' calculations from U.S. Bureau of the Census (2005).

### Lifetime Pension Coverage

The pension coverage data discussed above apply only to individual workers at any given point in time. Over a lifetime and on a household basis, the *Health and Retirement Study* (HRS) shows that coverage rates are somewhat higher.<sup>7</sup> For households aged 63-73 in 2004, 67 percent had acquired some sort of employer-sponsored pension coverage over their lifetime.<sup>8</sup> However, again, pension coverage is much more extensive for high-income households — coverage drops from about 84 percent in the top two quintiles of the income distribution to 28 percent for the bottom quintile (see Figure 4).

FIGURE 4. LIFETIME PENSION COVERAGE FOR HOUSEHOLDS WITH HEAD AGED 63-73, BY INCOME QUINTILE, 2004

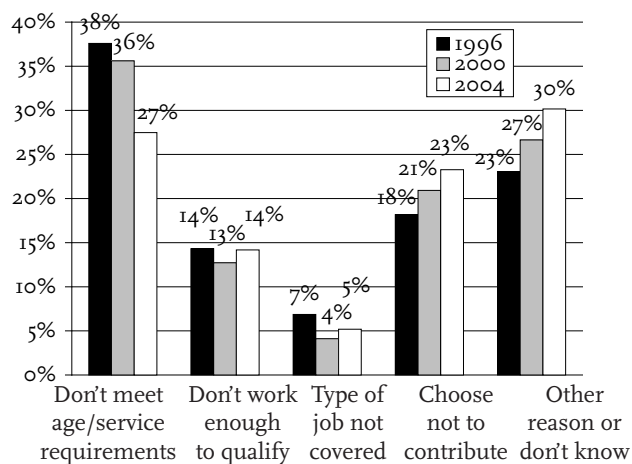


Source: Authors' calculations from University of Michigan (1993 and 2005).

### The Uncovered — Firm Has a Plan

Of those not covered by a pension plan, roughly 20 percent work for an employer with a plan and four-fifths are employed in a firm without a plan.<sup>9</sup> As shown in Figure 5, about 40 percent of those who are not part of their employer's pension plan report that they either do not meet the age and service requirements or do not work enough to qualify for the plan, and another 5 percent were excluded because their job was not eligible for pension coverage.<sup>10</sup> While roughly 45 percent of non-participating workers, therefore, are not eligible to participate in their employers' plans, nearly one-quarter of workers say that they choose not to contribute to an available plan. This share has risen significantly over the past decade, probably due to the growing prevalence of 401(k) plans.

FIGURE 5. PERCENT OF WORKERS CITING REASONS AS MOST IMPORTANT FOR NOT PARTICIPATING IN A PENSION PLAN, 1996, 2000, AND 2004



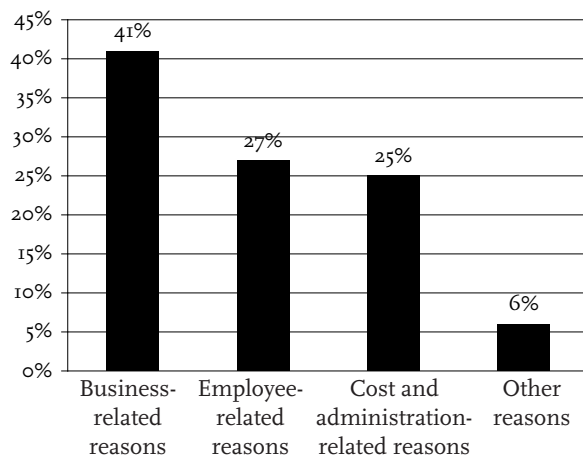
Source: Authors' calculations from U.S. Bureau of the Census (1997, 2001, 2005).

## The Uncovered — Firm Does Not Have a Plan

The majority of uncovered workers are employed in firms without a pension plan. The existence of a pension plan varies sharply by size of firm. The 2005 *National Compensation Survey* shows that 90 percent of establishments with 100 or more employees offer retirement benefits, while only 49 percent of those with less than 100 employees do so.<sup>11</sup>

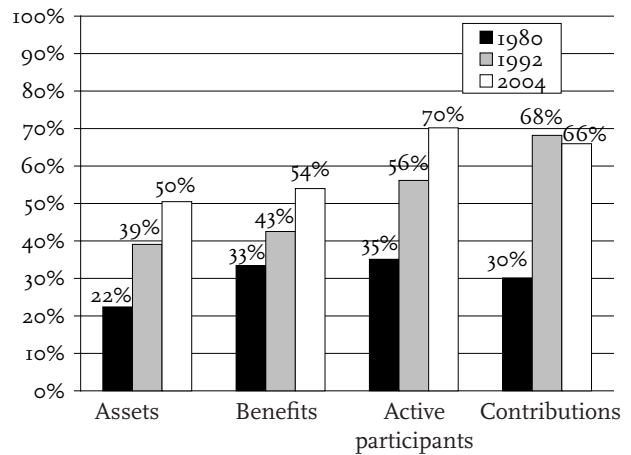
As reasons for not providing coverage, small employers frequently mention business concerns such as uncertainty of revenue, or newness of the business. They also cite employee reasons such as high turnover or a preference for cash wages. Figure 6, taken from a survey of small employers by the Employee Benefits Research Institute, documents the relative importance of these various factors. Business-related concerns dominate, and employee-related concerns are the next most frequently cited reason. The third most important factor, cited by one quarter of small businesses, is high costs and administrative reasons. These results suggest that cost is important, but not the dominant consideration.

FIGURE 6. REASONS CITED BY SMALL EMPLOYERS AS THE MOST IMPORTANT FOR NOT OFFERING A RETIREMENT PLAN, 2003



Source: Employee Benefits Research Institute (2003).

FIGURE 7. DEFINED CONTRIBUTION PLANS AS A PERCENT OF TOTAL PLANS, 1980, 1992, AND 2004



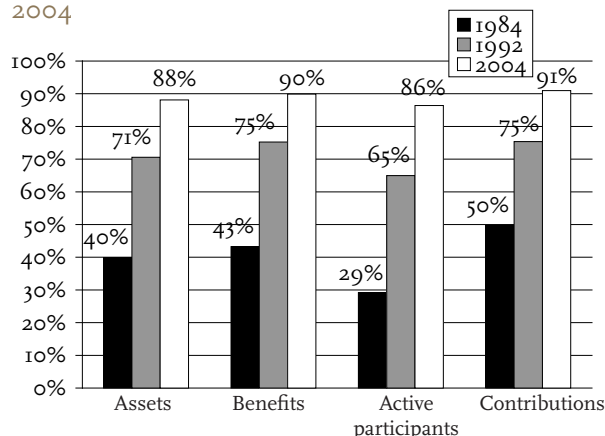
Note: Data are for firms with 100 or more employees. Sources: U.S. Department of Labor (2004) and authors' calculations from U.S. Department of Labor (2006).

## A Shift to Defined Contribution Plans

Our analysis of pension data from the Department of Labor's Form 5500 shows the continued shift in the private sector from defined benefit plans to defined contribution plans.<sup>12</sup> The growth in defined contribution plans outpaced defined benefit plans on every major measure of comparison between 1980 and 2004: assets, benefits paid out, active participants, and contributions, as shown in Figure 7. The slight decline in the percentage of contributions going to defined contribution plans in 2004 reflects the increase in contributions to defined benefit plans in the wake of the stock market crash.

Within the defined contribution world, 401(k) plans are the 800-pound gorilla. And they have experienced a meteoric rise to prominence since their introduction in the early 1980s. As shown in Figure 8, between 1984 (the first year separate data are available for 401(k) plans) and 2004, all dimensions of 401(k) plans — assets, benefits, participants, and contributions — have increased from between 30 and 50 percent of total defined contribution plans to about 90 percent.

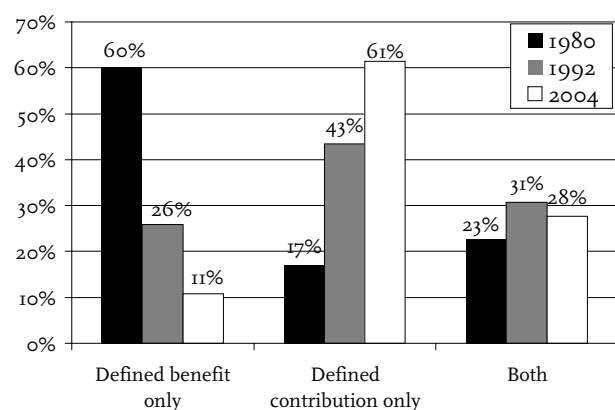
FIGURE 8. 401(K) PLANS AS A PERCENT OF TOTAL DEFINED CONTRIBUTION PLANS, 1984, 1992, AND 2004



Note: Data are for firms with 100 or more employees. Sources: U.S. Department of Labor (2004) and authors' calculations from U.S. Department of Labor (2006).

Since overall pension coverage declined slightly, the enormous expansion of defined contribution plans, especially 401(k)-type plans, has produced a sharp drop in the percent of the workforce covered under traditional defined benefit plans. This trend is evident in the Form 5500 data, which show — for those with pension coverage — the proportion with a defined benefit only, defined contribution only, and both types of plans for 1980, 1992 and 2004 (see Figure 9).

FIGURE 9. WORKERS WITH PENSION COVERAGE, BY PENSION TYPE, 1980, 1992, AND 2004

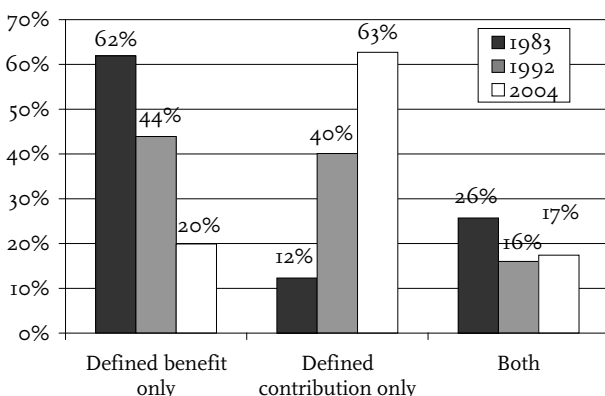


Note: Although these calculations adjust for double-counting, some overestimation of coverage may still remain. Sources: U.S. Department of Labor (2004) and authors' calculations from U.S. Department of Labor (2006).

Figure 10 shows comparable information from the *Survey of Consumer Finances (SCF)* for 1983, 1992, and 2004.<sup>13</sup>

This move to defined contribution plans — and 401(k) plans in particular — places much of the responsibility for retirement saving in the hands of the employees. Employees must make decisions about whether or not to participate, how much to contribute, where to invest the money, how to rebalance their portfolio, whether to cash out when changing jobs, and how to manage their nest egg upon retirement. Many employees make mistakes at each of these steps, so that while — in theory — 401(k)s have the potential to provide substantial retirement income, in practice most participants have only modest account balances.<sup>14</sup>

FIGURE 10. WORKERS WITH PENSION COVERAGE, BY PENSION TYPE, 1983, 1992, AND 2004



Source: Authors' calculations from U.S. Board of Governors of the Federal Reserve System (1985, 1994, and 2006).

## A Halt in Shift to Cash Balance Plans

In addition to the shift in pension coverage from defined benefit to defined contribution plans, some employers have converted their pensions to hybrid plans that have both defined benefit and defined contribution characteristics. The most popular of the hybrids are the so-called cash balance plans. Legally, cash balance arrangements are defined benefit plans where the employers prefund contributions, own the assets, select the investments, and bear the risk. To the employee, however, cash balance plans look very much like a defined contribution plan.<sup>15</sup>

Since 1999, the Form 5500 has included a variable to identify cash balance plans, most of which resulted from conversions from traditional defined benefit plans. In that year, there were about 600 cash balance plans with 100 or more participants totaling more than \$250 billion in assets. Up to 2003, cash balance plans grew rapidly with the number of plans increasing to more than 1,000, and assets growing to about \$530 billion.<sup>16</sup> Since 2003, cash balance plans have been the target of extensive litigation, which has brought their expansion to a virtual halt (see Table 1).<sup>17</sup>

TABLE 1. PERCENT OF DEFINED BENEFIT PLANS, ASSETS, AND PARTICIPANTS IDENTIFIED AS CASH BALANCE

Year	Number of plans	Assets	Participants
1999	4%	13%	10%
2000	6	23	16
2001	7	21	17
2002	8	23	20
2003	9	27	23
2004	10	28	24

Note: Plans with 100 or more participants.

Source: Authors' calculations from U.S. Department of Labor (2001-2006).

## Pensions as a Source of Retirement Income

Despite the decline in coverage, employer-sponsored pension benefits are an important source of retirement income. The 2004 SCF shows that pensions accounted for about one quarter of the total wealth of households in the middle of the income distribution (see Table 2). This share makes pensions the second largest source of retirement income, behind only Social Security.

Table 3 shows data from the CPS on the importance of various sources of income in retirement, as a share of aggregate income. In 2004, employer-sponsored pension income accounted for 19 percent of total income for those 65 and over. (To make the numbers in Table 3 consistent with the wealth data just discussed, which do not include earnings, it is necessary to exclude earnings from the total in

TABLE 2. WEALTH HOLDINGS OF A TYPICAL HOUSEHOLD PRIOR TO RETIREMENT, SCF 2004

Source of wealth	Amount in dollars	Percent of total
Primary house	125,208	21%
Business assets	10,370	2
Financial assets	42,014	7
Defined contribution	45,244	8
Defined benefit	96,705	16
Social Security	251,983	42
Other non-financial assets	26,402	4
Total	597,926	100

Note: The "typical household approaching retirement" refers to the mean of the middle 10 percent of the sample of households headed by an individual aged 55-64.

Source: Authors' calculations from U.S. Board of Governors of the Federal Reserve System (2006).

Table 3. For example, in 2004, employer-sponsored pensions accounted for 19 percent of total income, but they represented 26 percent of non-earned income, which is very close to the 24 percent reported for pension wealth as a percent of total wealth.) Perhaps the most interesting aspect of Table 3, however, is the growing importance of earnings in recent years. Delayed retirement and work during retirement have become more and more crucial to the income picture of those over 65, with earnings rising from a low of 17 percent in 1988 to 27 percent in 2004. This trend is likely to continue, and perhaps accelerate, in the future as Baby Boomers and Generation Xers find that traditional sources of retirement income will increasingly be insufficient for maintaining their pre-retirement standard of living.

Given that pension benefits and pension wealth are a significant source of retirement income, to what extent is the employer-sponsored pension system successful in improving the welfare of retirees? Figure 11 shows pensions as a percent of total income from three different surveys — the CPS, HRS, and SCF — for those aged 65 and over. Pensions are much more important for high-income than for low-income workers. This pattern contrasts with that under Social Security where low-income workers receive a higher benefit relative to earnings. For all three surveys, pensions are most important for individuals



TABLE 3. SHARES OF AGGREGATE INCOME OF HOUSEHOLDS AGED 65 AND OLDER FROM MAJOR SOURCES, 1958-2004

Income source	1958	1967	1976	1980	1988	1990	1998	2000	2004
Social Security	22%	26%	39%	39%	38%	36%	38%	38%	38%
Asset income	23	25	18	22	25	25	20	18	13
Earnings	37	30	23	19	17	18	21	23	27
Private pensions	5	5	7	7	8	9	10	9	10
Government pensions	9	9	6	7	9	9	9	9	9
Public assistance	5	3	2	1	1	1	1	1	1
Other	0	2	5	5	2	2	2	2	2

Note: Totals may not add due to rounding.

Sources: Chen (1992); U.S. Social Security Administration (1988, 1990, 1998, 2000, 2004); and authors' calculations.

in the second highest income quintile. Pensions are somewhat less prominent for those in the top quintile because a greater share of their income comes from assets. For those in the bottom quintile, pensions range from 3 percent of non-earned income in the CPS to 8 percent in the HRS.

The fact that pension and Social Security wealth are being evaluated in a low inflation environment makes them appear closer in value than they would with moderate or high inflation, since Social Security

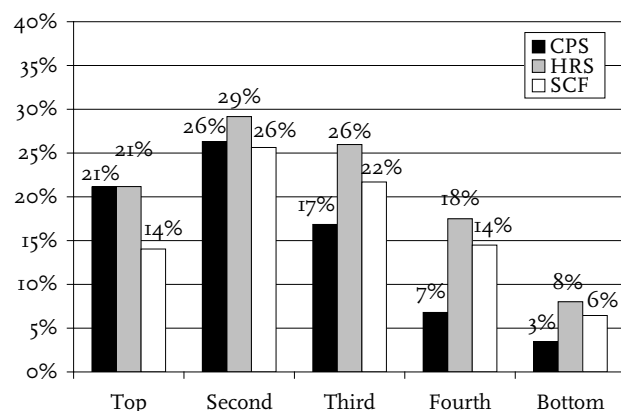
benefits increase in line with inflation whereas private employers rarely provide cost-of-living adjustments (COLAs). Over the entire retirement span, the value of employer-sponsored pensions is less than that implied by the snapshot of pension wealth for people approaching retirement.

## Do Low-Income Workers Really Need Pension Income?

Ideally, retirement benefits should enable workers to maintain the same standard of well-being in retirement as they enjoyed while they were employed. The lack of pension income for low-wage workers would not be a source of concern if Social Security provided enough income for them to maintain their pre-retirement standard of living. Most analysts assume that retirees do not need to replace 100 percent of pre-retirement earnings, because they pay less in taxes (particularly the payroll tax), they have lower housing costs because they have generally paid off their mortgages, and they have less need to save. As a general benchmark, retirement income equal to 65 to 80 percent of pre-retirement earnings should be more or less adequate, with the specific target dependent on a household's characteristics.<sup>18</sup>

Most observers conclude that Social Security alone is inadequate when viewed either in terms of the amount of pre-retirement income it replaces or in relation to poverty thresholds. For the average earner, retiring at age 62 — a common retirement age — Social Security today replaces 33 percent of pre-retirement earnings or 31 percent after deducting the Medicare Part B premium (see Table 4).

FIGURE II. PENSIONS AS A PERCENT OF INCOME IN THREE DATASETS FOR THOSE AGED 65 AND OVER, BY INCOME QUINTILES



Note: Quintiles are by total income. Withdrawals from IRAs are included in the SCF and HRS for comparability with the CPS. The top 5 percent of pension income for each quintile is excluded from the SCF and HRS analysis to control for possible outliers.

Source: Authors' calculations from U.S. Bureau of the Census (2005), University of Michigan (2003), and U.S. Board of Governors of the Federal Reserve System (2006).

TABLE 4. ESTIMATED SOCIAL SECURITY REPLACEMENT RATES FOR THE MEDIUM EARNER,<sup>a</sup> 2002 AND 2030

Development	Retirement age	
	62	65
2002		
Reported replacement rate (RR)	32.6	40.8
After Medicare Part B deduction	30.6 <sup>b</sup>	38.8
<b>Net replacement rate</b>	<b>30.6</b>	<b>38.8</b>
2030		
Replacement rate after extension of Normal Retirement Age	29.0	36.3
After deduction for Medicare Part B	25.8 <sup>b</sup>	33.1
After personal income taxation	23.6	30.4
<b>Net replacement rate</b>	<b>23.6</b>	<b>30.4</b>

<sup>a</sup> The “medium earner” is a worker who essentially earns the national average wage over the course of his or her lifetime (about \$33,250 in 2002).

<sup>b</sup> For the individual retiring at age 62, the Medicare Part B premium will not begin until age 65.

Sources: Munnell (2003) and authors’ calculations from U.S. Social Security Administration (2006) and Centers for Medicare and Medicaid Services (2006).

Going forward, Social Security’s already modest benefit amounts will decline due to three factors: the scheduled rise in the Normal Retirement Age (equivalent to an across-the-board benefit cut for retirement at any given age), rising Medicare Part B premiums, and increased taxation of benefits. The cumulative effect of these three factors will lower the benchmark Social Security replacement rate for average earners who retire at age 62, net of Medicare Part B premiums, from 31 percent today to 24 percent by 2030.

## Conclusion

While employer-sponsored pensions can provide an important source of income for some retirees, they cover less than half of the private workforce at any given time. And about a third of households are not covered at all during their entire worklife, and therefore are entirely dependent on Social Security in retirement.

While the majority of those without pensions work for companies that do not sponsor plans, many workers could participate in their employer plan, but choose not to. This result is largely due to the shift in pensions from traditional defined benefit plans to 401(k) plans, which place most of the responsibility on the employee and increase the possibility for making mistakes along the way. So far, the results of this shift are not encouraging as most workers have only modest balances in their 401(k) accounts.

Policymakers should continue to search for effective ways to increase pension coverage, both by making it easier for employers without plans to adopt them and by encouraging employers with plans to increase participation. For workers who choose not to contribute to a pension plan, the most promising avenue is to establish a system of defaults where employees are automatically enrolled, contribution rates are increased over time, and investment portfolios are automatically diversified and rebalanced.

Even assuming some improvements in 401(k) plans, Baby Boomers and Generation Xers will face a rapidly changing retirement income landscape characterized by declining Social Security replacement rates, more uncertain pension income, and rising life expectancy. These factors will make it increasingly difficult for them to maintain their pre-retirement standard of living in retirement if they continue to retire at traditional ages. Therefore, work later in life or during retirement will continue to become more essential to providing a secure retirement.



## Endnotes

- 1 Munnell and Sundén (2001); Munnell, et al. (2002); and Munnell, et al. (2004).
- 2 For more details on the declining role of Social Security, see Munnell (2003). For more details on overall changes in the retirement income landscape, see Center for Retirement Research at Boston College (2006).
- 3 Munnell and Sundén (2006).
- 4 The CPS is administered jointly by the Bureau of Labor Statistics (BLS) and the Bureau of the Census. The CPS is one of several different sources of pension data. Sanzenbacher (2006 forthcoming) compares and contrasts pension coverage data from several different datasets.
- 5 Even and Macpherson (1994) showed that the growth of 401(k) plans caused participation rates to drop most for young and less educated workers.
- 6 Earnings also appear to be more important than race in explaining pension participation. When examining participation by earnings groups, the picture for whites and blacks looks very similar. Hispanics, on the other hand, have lower participation rates in all earnings groups. For additional evidence, see Chen (2001).
- 7 The HRS is a nationally representative dataset with a core sample of about 12,600 individuals from about 7,600 families that provides detailed information on income and wealth holdings. Conducted by the University of Michigan's Institute for Social Research, the HRS interviews individuals aged 51-61 in 1992 and their spouses, with the first interview taking place in 1992 and subsequent interviews taking place every other year. See Juster and Suzman (1995) for a detailed overview of the survey.
- 8 Most of the HRS workers acquired their earnings in a pension environment very different than today's. Therefore, pension coverage and pension findings for later generations may look different than those reported by HRS respondents.
- 9 Authors' calculations from U.S. Bureau of the Census (2005).
- 10 The Internal Revenue Code (IRC)'s minimum participation provisions for private sector plans allow firms to exclude employees under age 21 or with less than one year of employment with the firm. Since a year of service is defined as 1000 hours during a 12-month period, many part-time and seasonal workers never qualify to participate in the plan. In addition to the exclusion for age and service, the IRC's minimum coverage rules permit a firm to exclude at least 30 percent of the remaining non-highly-compensated workers from the plan.
- 11 U.S. Department of Labor (2005).
- 12 Defined benefit plans generally provide retirement benefits based on a percentage of final salary for each year of service, and pay the benefits in the form of a lifetime annuity. For example, a worker with a final salary of \$40,000 might receive 1.5 percent a year for 30 years of service, producing an annual pension of \$18,000. The employer pre-funds these benefits by making pre-tax contributions into a pension fund; employees typically do not contribute. The employer holds the assets in trust, directs the investments, and bears the risk. In contrast to defined benefit plans, defined contribution plans are like savings accounts. Generally the employer, and often the employee, contributes a specified dollar amount or percentage of earnings into the account. These contributions are invested, usually at the direction of the employee, in mutual funds consisting of stocks and bonds or other investments. When the worker retires, the balance in the account determines the retirement benefit. The worker then can decide how and when to withdraw the accumulated money.
- 13 The SCF is a triennial survey sponsored by the Federal Reserve Board in cooperation with the Department of the Treasury that collects data on households' assets, liabilities and other items, including pension coverage. For a summary of the 2004 SCF results, see Bucks, Kennickell, and Moore (2006).
- 14 Munnell and Sundén (2004) and (2006).
- 15 Contributions made for the employees are recorded in separate "notional" accounts for each worker. Notional accounts are used for recordkeeping purposes.

es only; the pension funds are not invested through these separate accounts, but are instead pooled and invested centrally by the employer. The employees receive regular statements showing the balance in their notional account, and the benefits tend to accrue as a constant percentage of compensation plus a fixed investment return. At separation, the employee can withdraw the balance, which for younger workers is usually more than they would get under a traditional defined benefit plan.

16 Cash balance plan assets may include those used to fund benefits for grandfathered participants under the traditional benefit formula.

17 The most notable case was *Cooper vs. IBM Pension Plan* (2003). The ruling in this case — issued July 31, 2003 — deemed IBM's cash balance plans illegal under the anti-discrimination requirements of the Employee Retirement Income Security Act (ERISA).

18 The target replacement rate varies by income level and household type. For further information, see Center for Retirement Research at Boston College (2006) and Palmer (2004).

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## About the Center

The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision makers in the public and private sectors around an issue of critical importance to the nation's future.

To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

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