Pension Coverage Among the Baby Boomers: Initial Findings From a 1993 Survey

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Using data from a series of supplements to the Current Population Survey, this article presents findings on workers' coverage under employer-sponsored retirement plans in 1993, and recent trends in coverage. The analysis focuses on workers 25–54, a group that includes the baby boom generation. Among all wage and salary workers in this age range (including government employees and part-time workers), 55 percent reported participating in a retirement plan on their current primary jobs, and an additional 3 percent were covered from other jobs. After a modest decline in the early 1980's, the coverage rate has remained essentially unchanged over the past 10 years, and limited data suggest that the baby boomers are doing about as well on pension coverage as older workers at similar points in their careers. Beneath this relative stability in overall coverage, however, at least two important changes have occurred: a significant narrowing of the gender gap in coverage and a shift in types of retirement plans. Increasing numbers of workers are being covered solely by 401(k)-type plans, a development that raises new uncertainties about the form and amount of future benefits. On the other hand, limited data in this study suggest that 401(k) plans may be serving their intended purpose for the majority of workers who have them.

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Because of its interest in understanding and promoting the economic well-being of beneficiaries, the Social Security Administration (SSA) has for many years conducted research on the income of the aged, including income from employer-sponsored pensions. These studies have documented a steady increase in pension receipt over the past three decades. In 1962, only 18 percent of persons aged 65 or older were receiving such pensions; by 1992, the rate had more than doubled, to 38 percent.[1]

Another line of research has focused on changing patterns of pension coverage and vesting among workers,[2] primarily as a means of anticipating future trends in pension income. SSA developed the first national statistics on pension coverage in the 1950's, and in 1972 cosponsored the first nationwide survey that questioned workers about coverage and vesting on their jobs. The 1972 survey was conducted as a supplement to the Current Population Survey (CPS), and similar supplements were fielded in 1979, 1983, and 1988. This research revealed a pattern of long-term growth in pension coverage since World War II, leveling off in the 1970's and declining slightly in the 1980's, to just under half the work force. These and other findings from the series of CPS pension supplements have been reported in various studies, including several published by SSA.[3]

The most recent survey in this series was conducted in April 1993—again, cosponsored by SSA and several other Federal agencies.[4] When the resulting data were recently made available for analysis, SSA's Office of Research and Statistics collaborated with the other sponsoring agencies in preparing a set of initial findings for immediate release. The interagency analysis was published by the Department of Labor in May 1994.[5] Some of the data from that report will be noted later in this article.

The purpose of this article is to disseminate some additional "first findings" from the 1993 survey, findings that reflect a somewhat broader perspective on pension coverage and on the population of concern.

Most of the coverage research from the CPS series, including the recent interagency analysis, has been restricted to pension coverage on workers' current primary jobs. In addition, the population under study has typically been confined to private-sector wage and salary workers, and, even more focused, to those working full-time. This focus was established in part by design constraints in the first CPS pension supplement, although later supplements included additional questions on coverage and expanded the sample to other types of workers.

But SSA has broader concerns. In its research on the economic well-being of the aged, SSA has included all sources of retirement income in the entire aged population, not just those sources derived from employment and from certain kinds of employment. Correspondingly, our research on pension coverage and vesting—again, with its ultimate intent of anticipating future trends in retirement income—has been moving toward more comprehensive measures of coverage and vesting among broader segments of the population.[6]

There is one notable limitation in this broadening perspective on coverage research, a limitation by age. Previous studies have included all workers aged 16 or older. In the analysis here, the population will be confined to those aged 25–54. The reasons for this focus are several. First, when labor-force participation rates are examined by 5-year age intervals (for example, ages 20–24, 25–29, and so forth), rates are relatively high for the age groups between 25 and 54, but lower and more variable over time for those outside this range.[7] Second, we already know that the low rate of pension coverage among workers aged 16–24 does not accurately reflect their eventual rates of coverage and receipt.[8] And finally, age 55 represents a dividing point in our analysis for two reasons—because 55 is the most common age for early retirement under employer-sponsored pension plans,[9] and because SSA's series on the income of older Americans uses age 55 as its starting point.[10]

Certainly there are issues concerning the oldest and youngest workers that remain worthy of study. However, in our expanding data series on pension coverage and vesting, the population will generally be restricted to those aged 25–54, defined here as the "prime working years." In 1993, this age range encompassed a group that has been the subject of much interest among those concerned with issues of future retirement income security—the "baby boomers." Because of that interest, the age groups examined in this article will be defined in terms of that generation.

The analysis is divided into four parts: It begins with the broadest population and measure of pension coverage available in the data, describing coverage rates in 1993 and trends in coverage since 1979. In the second part, the analysis looks at coverage rates among the baby boomers compared with older and younger cohorts, and presents selected data on trends. The third section examines the types of coverage on current jobs, documenting a sizeable increase in recent years in the proportion of workers covered only by 401(k)-type plans. And finally, in light of changing patterns of pension coverage, the article discusses some of the implications for retirement income among the baby boomers, and presents new evidence about their rate of retirement savings in 401(k) plans and their receipt and preservation of lump-sum distributions. Because of continuing interest in the pension experience of women relative to men, gender serves as an analytical variable throughout the article.

Sources of Retirement Coverage: 1993 and Recent Trends

The 1993 questionnaire—administered to all those currently employed for pay—asked workers about their pension coverage on three different jobs: their current primary job, any current secondary job, and any previous job. In addition, the survey identified workers who had contributed to an Individual Retirement Account (IRA) in their own names during the preceding calendar year, defined here as having an "active" IRA. These four sources of coverage are shown in table 1, along with a nonduplicative measure of total coverage.

It should be noted that our expansive use of the terms "coverage" and "pension coverage"—particularly when IRA's are included—is a departure from past practice. In part, this reflects our interest in obtaining a broad measure of any kind of retirement provision. It is also prompted, however, by the changing nature of "pensions." With the shift toward employment-based plans funded predominantly by employees (for example, 401(k) plans), the traditional distinction between employer-provided benefits and personal retirement savings is becoming increasingly blurred. In their broadest sense, the terms "pension coverage" and "retirement coverage" are used interchangeably in this article to refer to active participation in retirement plans funded either by employers or by individuals. Narrower definitions of coverage (restricted to one or two sources of employer-sponsored plans) will be identified as they are used in the analysis.

Total Coverage and Sources of Coverage, 1993

By far the most important source of workers' coverage is on the current primary job, with 51 percent of all workers aged 25–54 reporting coverage under some kind of employer-sponsored retirement plan in 1993.[11] A much smaller number, 7 percent, reported that they were currently receiving or expecting to receive benefits from a retirement plan on a previous job, and 7 percent were also identified as having an active IRA. As for pension coverage on a current job other than the primary job—a question not previously asked in the CPS supplement series—only 1 percent of workers reported such coverage.

As reported in previous research, many of those covered from prior jobs or with active IRA's are also covered on their current jobs. The "total" coverage rate shown in table 1, 58 percent, is an unduplicated count and can be broken down as follows: 51 percent covered on the current primary job; an additional 1 percent covered on a secondary job; an additional 3 percent covered from a previous job; and an additional 3 percent with an active IRA.

The overall coverage patterns found for all workers are very similar for men and women workers, though women's coverage rates are consistently lower than men's, if only slightly: 3 percentage points lower on the primary job and 1 percentage point lower on each of the other three sources. The cumulative effect is a 4-percentage-point gender gap in total coverage: 59 percent for men and 55 percent for women.

Coverage of Different Types of Workers

Large differences in coverage rates by "class of worker" and by full-time/part-time status have been previously documented, and are again reflected in table 1 for workers aged 25–54. On the primary job, wage and salary workers have much higher coverage rates than self-employed workers (55 to 8 percent); government workers have higher rates than private sector employees (80 to 50 percent); and private employees working full-time have higher rates than those working part-time (54 to 20 percent).

On other sources of coverage, however, these workers are much more similar, resulting in a slight leveling of their differences in total coverage. This is most obvious in comparing the self-employed with wage and salary workers. On the current primary job, the self-employed report retirement coverage at only 15 percent of the rate of wage and salary workers (8/55); however, with the addition of other coverage sources, the ratio increases to 36 percent (22/61). In like manner, part-time workers in the private sector "pick up" an additional 8 percentage points in coverage beyond the primary job (from 20 percent covered to 28 percent), thereby narrowing their differences with full-time workers. This phenomenon is especially important in describing pension coverage among women, since a higher proportion of women than men are employed part-time (table 1).

Finally, the data in table 1 show clearly the effects of using different population definitions to describe pension coverage. Perhaps the most common reference group in the coverage literature is full-time private sector workers—in this age range (25–54), 54 percent are covered on their primary jobs. Broadening the population to include part-time private sector employees reduces the coverage rate by 4 percentage points: 50 percent for all private wage and salary workers. Broadening it further to include typically high-coverage government employees adds 5 percentage points: 55 percent for all wage and salary workers. And broadening it again to include the low-coverage self-employed reduces the rate by 4 percentage points: 51 percent for all currently employed persons.

Our interest in expanding the population in SSA's studies of pension coverage, then, yields a slightly lower rate than those typically quoted (51 percent compared, for example, to the 54 percent for full-time private employees aged 25–54). On the other hand, our interest in obtaining more comprehensive measures of retirement coverage yields slightly increased rates (58 percent for the four sources combined, compared again to the example of 54 percent). While these differences are not great, the point, again, is to try to get a fix on the widest range of retirement income provisions for the broadest segment of the population of future retirees. The workers in table 1 represent nearly four-fifths of the entire population of persons aged 25–54 in April 1993;[12] full-time private sector employees would represent only about half.

Trends in Coverage, 1979-93

Unfortunately, comparable data for all measures of coverage and all kinds of workers are not available in the earlier CPS supplements. On the other hand, the more restricted trend data presented in table 2—two sources of coverage for all wage and salary workers over the last four surveys—are essentially comparable.[13]

The most important changes revealed in table 2 represent a continuation of trends documented in 1988, and are similar to trends reported for private full-time employees in the recent interagency analysis: increasing pension coverage among women and decreasing coverage among men.

These trends are due almost entirely to changes in coverage on current primary jobs, since both men and women have experienced a slight upward trend in coverage from previous jobs. But the timing of those changes is somewhat different. For men, the largest drop (6 percentage points) occurred between the 1979 and 1983 surveys; for women, the largest increase (4 percentage points) has occurred most recently, between 1988 and 1993.

Including coverage from previous jobs, wage and salary men had a coverage rate of 60 percent from the two sources in 1993, a 10.4-percent decline over the 14-year period; wage and salary women, in contrast, experienced a 12.2-percent increase in the combined measure, from 49 percent in 1979 to 55 percent in 1993. As a result, the gender gap in total coverage had narrowed quite substantially. In 1979, women had a combined coverage rate only 73 percent that of men's; by 1993, that ratio had increased to 92 percent.

Because of the opposing trends for men and women, combined data for all workers show relative stability over time. The slight upward trend in total coverage since 1983 (from 56, to 57, to 58 percent) may be attributed to the increased presence of women in the labor force. In 1979, women comprised only 42 percent of all wage and salary workers aged 25–54; by 1993, they accounted for 47 percent. For the population as a whole, then, women's increases in total coverage more than offset the decreases among men.

Coverage Rates and the Baby Boomers

Concerns about the future of retirement income security have often focused in recent years on the baby boom generation—the unusually large cohort of persons born in the two decades following World War II who will be turning age 65 over the second and third decades of the 21st century. Because the baby boomers comprise the core of the population being examined in this article and because of the widespread interest in their prospects, our analysis of respondents' age and pension coverage will be organized around this important cohort.

The baby boom generation is typically defined to include persons born in a

19-year period beginning in 1946, though some analysts have treated the group as a 20-year cohort and have chosen slightly different beginning and ending points. The analysis here divides the baby boomers symmetrically into two 10-year cohorts, designating those born in 1946–55 as "early" boomers and those born in 1956–65 as "late" boomers. The remaining persons in this analysis (that is, within the 25–54 age range established earlier) are, in comparison, only partial cohorts—a group aged 47–54 in the 1993 survey, designated "pre-boomers," and the leading edge of a younger cohort, persons aged 25–26 and designated "post-boomers."[14] These four groups are shown in table 3 and in most subsequent tables.

Table 1.—Coverage under employer or individual retirement plans, by type of employment and sex, April 1993: Currently employed workers aged 25–54

Type of employment on primary job	Total number of workers (in millions)	Percent covered				
		Current primary job	Current secondary job	From previous job [1]	With active IRA [2]	Total with any coverage
All workers	85.9	51	1	7	7	58
Wage and salary	78.6	55	1	7	6	61
Private	63.9	50	1	7	6	56
Full-time	56.6	54	1	7	6	59
Part-time	7.3	20	1	5	6	28
Government	14.7	80	2	7	6	83
Self-employed	7.3	8	1	6	10	22
Men	46.7	53	2	7	7	59
Wage and salary	41.7	58	2	8	7	64
Private	35.0	53	1	7	7	59
Full-time	33.5	55	1	7	7	61
Part-time	1.5	14	1	6	4	20
Government	6.6	84	4	9	6	87
Self-employed	4.9	10	(3)	7	11	24
Women	39.2	50	1	6	6	55
Wage and salary	36.9	53	1	6	6	58
Private	28.8	46	1	6	6	52
Full-time	23.0	52	1	6	6	58
Part-time	5.8	21	1	4	6	30
Government	8.0	77	1	5	7	79
Self-employed	2.3	4	1	5	8	16

[1] Receiving or expecting pension from a previous job.
[2] Workers who contributed to their own IRA in preceding year.
[3] Less than 0.5 percent.

Table 2.—Percent covered by employer-sponsored retirement plan on current primary job or from previous job,[1] selected years 1979–93, by sector of employment and sex: Wage and salary workers aged 25–54

Sector of employment	1979			1983			1988			1993		
	Current job	Previous job	Either	Current job	Previous job	Either	Current job	Previous job	Either	Current job	Previous job	Either
All workers	58	5	60	54	5	56	54	6	57	55	7	58
Private	52	4	53	48	5	51	48	6	51	50	7	52
Government	83	5	83	78	6	79	82	7	83	80	7	82
Men	66	6	67	60	7	62	59	8	62	58	8	60
Private	61	6	63	55	6	58	54	8	57	53	7	56
Government	90	7	90	84	7	85	87	9	88	84	9	86
Women	48	3	49	47	3	49	49	4	51	53	6	55
Private	39	2	40	40	3	42	42	4	44	46	6	48
Government	75	4	76	72	4	74	77	5	78	77	5	78

[1] Coverage from previous job indicated by current receipt or expected receipt of pension.

Age and Pension Coverage in 1993

The population and coverage categories in table 3 are the same broad-based measures reported in the first table. For three of the four sources of coverage, there is a clear relationship with workers' age.

The oldest cohort (the pre-boomers) reported the highest rates of employer-sponsored coverage: on the current primary job, 58 percent; on secondary jobs, 2 percent; and from previous jobs, 10 percent. In addition, this group had the highest rate of active IRA's (11 percent). Again, some of this coverage is duplicative. But the cumulative total with "any" retirement coverage was 67 percent, a relatively high rate in this group closest to retirement. For the pre-boomer men, the total coverage rate was 69 percent; for the women, the rate was 4 percentage points lower.

Coverage rates were lower across the board for the next group—the older baby boomers—but not by much. Their coverage on the primary job and from previous jobs was only 2 percentage points less than that for the pre-boomers (56 percent on the primary job and 8 percent from previous jobs), though the incidence of active IRA's was 4 percentage points less. The cumulative effect of these differences was a total coverage rate 5 points lower than that for the pre-boomers: 62 percent.

On the other hand, there is a clear disjunction in coverage rates between the early boomers and the late boomers—particularly pronounced among men—and an even greater disjunction between the late boomers and the small group of younger workers following them. Most of these differences are accounted for by variations in coverage on the current primary job. Among late boomers (ages 27–36), 47 percent reported coverage on their primary jobs—9 percentage points less than the older boomers. This difference is largely responsible for the 10-percentage-point gap in total coverage between the two groups (52 percent for the late boomers, compared to the early boomers' 62 percent). Among the small group of post-boomers (ages 25–26), 35 percent were covered on their primary jobs, and the total from all sources of coverage was only 39 percent.

This positive relationship between age and pension coverage is no surprise. It has been well-established in previous research and reflects understandable patterns of increased wages and benefits accompanying career development. What is not clear from these data, however, is whether changes in pensions or other factors may be having a differential impact on these age cohorts—whether late boomers, for example, have a lower coverage rate at ages 27–36 than did the early boomers at the same age. The CPS pension supplements permit a limited examination of this possibility.

Coverage Trends and the Baby Boomers

Given our focus on 10-year baby boom cohorts, the CPS series allows for comparisons at only two points in time: 1983 and 1993. Again, the trend analysis is limited to comparable populations and measures over time: Wage and salary workers and two measures of coverage (on the current primary job and from previous jobs), presented here as a single cumulative measure.

The comparisons are best presented graphically. In chart 1, the age effect described earlier is clearly seen for the early boomers. Among men in this cohort, 58 percent were covered at ages

Table 3.—Coverage under employer or individual retirement plans, by age and sex, April 1993: Currently employed workers aged 25–54

Age of worker	Total number of workers (in millions)	Percent covered					
		Current primary job	Current secondary job	From previous job[1]	With active IRA[2]	Total with any coverage
All workers	85.9	51	1	7	7	58
47–54 (pre-boomers)	16.0	58	2	10	11	67
37–46 (early boomers)	31.0	56	1	8	7	62
27–36 (late boomers)	33.4	47	1	4	5	52
25–26 (post-boomers)	5.5	35	(3)	3	3	39
Men	46.7	53	2	7	7	59
47–54 (pre-boomers)	8.7	59	2	13	11	69
37–46 (early boomers)	16.6	58	2	9	7	65
27–36 (late boomers)	18.4	48	1	4	6	53
25–26 (post-boomers)	3.0	37	1	3	4	41
Women	39.2	50	1	6	6	55
47–54 (pre-boomers)	7.4	57	1	7	10	65
37–46 (early boomers)	14.3	53	1	7	7	59
27–36 (late boomers)	15.0	46	1	4	5	51
25–26 (post-boomers)	2.5	33	(3)	3	1	36

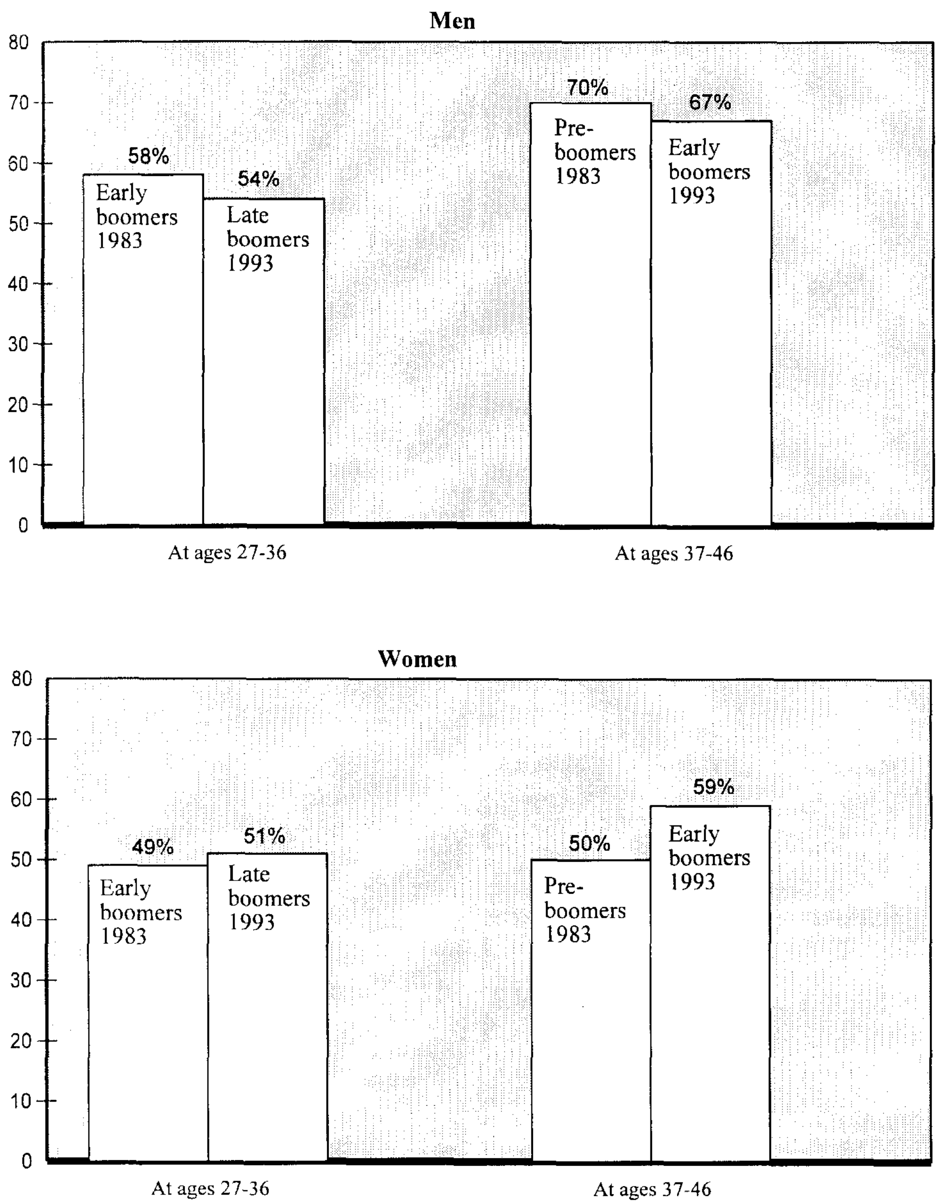
[1] Receiving or expecting pension from a previous job.
[2] Workers who contributed to their own IRA in preceding year.
[3] Less than 0.5 percent.

27–36 (in 1983); 10 years later their coverage rate had increased to 67 percent. Among women, the comparable increase was from 49 to 59 percent.

More interesting for our purposes are the comparisons of two different cohorts when they were of the same age. And the conclusions are again clear: Male baby boomers, both early and late boomers, have suffered a decline in pension coverage compared to preceding cohorts, while both cohorts of female baby boomers have enjoyed a coverage increase. Again, the analysis here is limited, and additional research needs to be done as the baby boomers continue to age. However, to the extent that these relative gains and losses hold up over time, the data clearly suggest a 3-percentage-point long-term decline in coverage from pre-boomer to early boomer men and another 4-percentage-point decline from early to late boomers. Among women, in contrast, the data show a sizeable increase of 9 percentage points from pre-boomers to early boomers and another increase of 2 percentage points from early to late boomers.

Given these opposing trends for men and women, the outcome for *all* wage and salary workers is something of a wash. It appears that the early boomers as a whole may actually enjoy a slight edge in coverage over their predecessors (63 to 61 percent at ages 37–46) and that they may also have a slight edge over the late boomers (54 to 52 percent at ages 27–36) (data not shown). While even this small decline among the younger boomers should be cause for concern, the picture emerging here is not one of dramatic decline, as is sometimes portrayed in the popular media. Again, however, it does signal a shift in the distribution of benefits among women and men.

Chart 1.—Percent of different age cohorts covered at similar points in their careers: Wage and salary workers covered by employer-sponsored plans on current primary job or from previous job



Changing Types of Pension Coverage

Efforts to anticipate future trends in retirement income security must move beyond a simple monitoring of coverage rates. We know from a variety of sources that important changes are occurring in the types of employer-sponsored retirement coverage available to workers, changes that may have important implications for benefits in retirement. The shift is from traditional pension plans—defined benefit (DB) plans—to defined contribution (DC) plans, and more specifically, to a particular type of DC plan: 401(k) plans.[15] Although defined benefit plans still provide the majority of coverage, the movement is clearly toward 401(k)'s.

The generic category used in this analysis, "401(k)-type plans," encompasses several subtypes. The defining characteristic of these employer-sponsored plans is that workers are allowed to have part of their wages or other compensation placed in a designated retirement account, with income tax on those contributions deferred until the money is distributed to them at a later point. The most common types of 401(k) plans are savings and thrift plans, although deferred profit sharing and other DC plans may also have this "pretax contribution" feature, and tax-sheltered annuities, or 403(b) plans, are a parallel type for employees of nonprofit organizations. Although some of these plans were in existence as early as the 1950's, they have become commonplace only in recent years, since enabling regulations for section 401(k) of the Internal Revenue Code were issued in 1982. For the sake of simplicity, these types of plans will sometimes be referred to simply as "401(k) plans" in the following discussion.

Data already published have documented the overall growth in 401(k)-type coverage for certain kinds of workers. The recently issued joint analysis by SSA and other sponsors of the 1993 survey, for example, showed a rapid increase in this type of coverage among full-time private sector employees—from 3 percent in 1983, to 17 percent in 1988, to 27 percent in 1993.[16]

On the other hand, data have not yet been used to show changes in the proportion of workers who are covered *only* by a 401(k)-type plan. This is a distinction that was first made possible in the design of the 1988 CPS supplement and repeated in 1993.[17] The division of 401(k) coverage into sole coverage and supplementary coverage, 1988 and 1993, is examined later in this section. Since CPS data on 401(k)'s are available over time only for wage and salary workers and only on the current primary job, the remainder of this analysis will proceed within those constraints.

Types of Retirement Coverage, 1993

The structure of the 1988 and 1993 CPS questionnaires (which asked first about any pension or retirement plan, and later about 401(k)-type plans specifically), yields three categories of plan type: 401(k)-type coverage only, some other type of plan only, and both 401(k) and other type(s).[18] Based on administrative data from the Department of Labor, we may reasonably assume that most of the "other" coverage is under defined benefit plans.[19]

Retirement coverage on the primary job in 1993 is broken into the three categories in table 4, presented by gender and age cohorts. Among all wage and salary workers aged 25–54, for example, 55 percent reported coverage on the current job, with 17 percent having only a 401(k)-type plan, 28 percent having only some other kind of plan, and 10 percent having both—the 401(k) in this case presumably serving as a supplementary plan. The numbers are very similar for men and women, though women had a slightly lower rate of 401(k) coverage, both as sole coverage and as supplementary coverage. (In fact, the 5-percentage point difference in total coverage between men and women—58 percent for men and 53 percent for women—can actually be accounted for by the higher rate of 401(k)-type coverage among men.) And the patterns are, once again, very similar for the oldest workers and the early baby boomers.

Such comparisons are revealed more clearly in table 5, which shows the percentage distribution of *covered* workers across plan types. Among men covered on their current jobs, for example, 32 percent had only a 401(k)-type plan; for women, the comparable rate was only slightly lower, at 30 percent. On the other hand, the difference in supplementary 401(k) coverage was somewhat greater—21 percent of the coverage among men, and 16 percent among women. Within gender categories, the two oldest cohorts—the pre-boomers and the early boomers—were virtually identical in their patterns of coverage. Thus, for all workers in these two age groups, 28 percent had only 401(k)-type coverage, 51 percent had coverage only under other plans, and about 21 percent had both.

Again, however, a clear disjunction in coverage patterns appears between the two groups of baby boomers—primarily, an increase in the proportion of younger boomers covered only by 401(k)'s—and this disjunction holds to some degree for the post-boomers. The inverse relationship with age is straightforward among women: 27 percent of the older cohorts had 401(k)-type coverage only, compared to 33 percent of the late boomers and 35 percent of the post-boomers. Among men, however, the pattern is more erratic. There is indeed a sizeable increase in 401(k)-only coverage among the late boomers (to 37 percent), but this is followed by a decrease among the post-boomers (to 31 percent).

As with our earlier finding of lower coverage rates among the younger cohorts, though, the important question is this: Given the patterns of 401(k)-only coverage—slight differences by sex, larger differences by age—is the overall trend toward 401(k) plans having a differential impact on these groups? Tables 6 and 7 provide some preliminary answers to this question.

The Shift to 401(k)-Type Coverage Only

As shown repeatedly in this analysis, the coverage rate for all wage and salary workers on their current primary jobs has been fairly stable in recent years. This is shown again in table 6: coverage rates of 54 percent in 1988 and 55 percent in 1993.

Within that overall stability, however, the shift in types of coverage is striking. A major finding already noted is the shift toward 401(k)-type coverage, from 17 percent to 27 percent over the 5-year period. Even more interesting, however, is the finding that almost all of that growth has occurred as *sole* coverage rather than supplementary coverage. In 1988, 8 percent of workers were covered only by a 401(k)-type plan; by 1993, the rate had more than doubled, to 17 percent. In contrast, 401(k)'s as supplementary coverage grew by only a single percentage point, from 9 to 10 percent of all workers.

The direction of change was similar for men and women, and the magnitudes were also similar—an 8 percentage point increase in 401(k)-only coverage and a 1- to 2-percentage point increase in supplementary coverage. Indeed, the superficial stability in men's coverage rates between 1988 and 1993 masks a substantial decline in "other" coverage (presumably, defined benefit coverage) from 49 to 39 percent; and the much-touted increase in women's coverage (4 percentage points for the population in table 6) can be accounted for entirely by growth in 401(k)-only coverage.

The shift to 401(k)-only coverage for different groups can be seen more clearly in table 7, which presents sole and supplementary 401(k) coverage as proportions of all coverage on the primary job, by sex, for three of the 1993 age cohorts. Among all covered workers, the proportion with both 401(k) and other coverage had increased only slightly over the 5-year period, from 16 to 19 percent. But the proportion covered only by a 401(k)-type plan shifted a full 14 percentage points, from 17 to 31 percent. Again, this shift has occurred among both covered men and women, though slightly more for the men (15 percentage points compared to 13 percentage points). In addition, it has occurred for all three age cohorts, though slightly more for the younger baby boomers (a 16-percentage-point shift, compared to 12-13 points for the early boomers and pre-boomers).

While emphasizing this important change, we should note that more than two-thirds of covered workers in 1993 still had "other" forms of retirement coverage on their current primary jobs, whether in conjunction with 401(k) plans or not.

At the same time, workers covered only by a 401(k)-type plan now comprise a sizeable minority of all covered work-

Table 4.—Type of coverage under employer-sponsored retirement plans on current primary job, by age and sex, April 1993: Wage and salary workers aged 25–54

Age of worker	Total number of workers (in millions)	Percent covered on current job	Type of coverage (percent): 401(k)-type plan only [1]	Other type of plan(s) only	Both 401(k)-type plan and other plan(s)
All workers	78.6	55	17	28	10
47–54 (pre-boomers)	14.3	64	18	33	13
37–46 (early boomers)	28.0	60	17	31	12
27–36 (late boomers)	31.0	50	18	24	8
25–26 (post-boomers)	5.3	36	12	20	4
Men	41.7	58	18	27	12
47–54 (pre-boomers)	7.5	67	19	32	15
37–46 (early boomers)	14.6	64	19	31	15
27–36 (late boomers)	16.8	52	19	23	10
25–26 (post-boomers)	2.8	39	12	22	5
Women	36.9	53	16	28	9
47–54 (pre-boomers)	6.8	61	17	33	11
37–46 (early boomers)	13.4	56	15	31	10
27–36 (late boomers)	14.2	48	16	25	7
25–26 (post-boomers)	2.5	34	12	18	4

[1] The term "401(k)-type plan" refers to several kinds of employer-sponsored retirement plans that allow participating employees to make tax-deferred contributions to the plan, usually with some matching contribution from the employer.

Table 5.—Type of coverage under employer-sponsored retirement plans on current primary job, by age and sex, April 1993: Percentage distribution of covered wage and salary workers aged 25–54

Age of worker	Total percent	Type of coverage (percent): 401(k)-type plan only [1]	Other type of plan(s) only	Both 401(k)-type plan and other plan(s)
All workers	100	31	50	19
47–54 (pre-boomers)	100	28	51	20
37–46 (early boomers)	100	28	51	21
27–36 (late boomers)	100	35	48	17
25–26 (post-boomers)	100	33	55	12
Men	100	32	47	21
47–54 (pre-boomers)	100	29	48	22
37–46 (early boomers)	100	29	48	23
27–36 (late boomers)	100	37	45	19
25–26 (post-boomers)	100	31	57	12
Women	100	30	54	16
47–54 (pre-boomers)	100	27	54	18
37–46 (early boomers)	100	27	55	17
27–36 (late boomers)	100	33	52	14
25–26 (post-boomers)	100	35	53	12

[1] The term "401(k)-type plan" refers to several kinds of employer-sponsored retirement plans that allow participating employees to make tax-deferred contributions to the plan, usually with some matching contribution from the employer.

ers—more than one-third of the late baby boomers and roughly one-third of the men—a group large enough to raise concerns (described in the next section) about the eventual impact of this shift on the economic security of the aged. Furthermore, the magnitude of the recent shift calls for continued monitoring of these trends, particularly the possibility suggested above—that the overall trend toward 401(k)'s and only 401(k)'s may be having a greater impact on today's younger workers.

Implications for Future Retirement Benefits

Compared to traditional defined benefit plans, 401(k)-type plans contain additional elements of uncertainty as vehicles for retirement income. It is this uncertainty that raises concerns about the prospects of workers covered only by 401(k)'s. One recent analysis provides evidence that defined contribution plans, including 401(k) plans, have the "potential" of matching or exceeding typical benefit levels from DB plans.[20] Whether that potential will be realized is, of course, the overriding issue. The discussion here briefly identifies some of the uncertainties about 401(k)-type plans and provides a bit of new evidence in two of these areas.

Retirement Benefits From 401(k)-Type Plans: Points of Uncertainty

Contribution levels.— There is some disagreement about how much money should be put into these plans to yield adequate benefits in retirement, benefits at least commensurate with those from DB plans for comparable workers. According to some analysts, the average contribution from participating employees and employers at present—probably something less than 10 percent of the employee's salary—is too low; others maintain that a contribution rate of 5 percent of salary over a full career, assuming a "reasonable" rate of investment return, should be adequate.[21] Further discussion of this issue and new data from the 1993 survey are presented below.

Investment choices and returns.— Unlike typical DB plans, which employ professional management of plan assets, participants in most 401(k) plans are presented with a limited set of options and are responsible for choosing how the money in their retirement accounts is to be invested.[22] These choices, of course, can have a profound effect on the long-term growth of their 401(k) funds and thus on the amount available to them at retirement. Conventional wisdom suggests that workers are much too conservative in managing their retirement accounts—choosing fixed-income securities over common stock funds, for example—but studies in this area are limited.[23]

Preservation of benefits.— One of the advantages of 401(k) plans is that participants are immediately vested in their own contributions—and often, in employers' contributions. A related advantage is the "portability" of these retirement accounts—that is, they are typically paid in a lump sum to participants at job termination, and may be rolled over into IRA's or another employer's plan without tax penalty. The issue, of course, is the extent to which these preretirement lump sums are thus "preserved" or are used in ways that do not contribute to retirement security. The common wisdom holds that most of this money is spent rather than saved, leaving workers without retirement protection, though some analysts have questioned the seriousness of the problem.[24] New findings on this issue are presented below.

Outcomes at retirement.— Distributions at retirement are also typically paid as lump sums under 401(k) plans, though a large number of plans offer other options as well, including annuities and payment in installments. Studies that compare the "potential" of DC plans with DB plans assume that lump sums at retirement are converted into lifetime annuities, as do projections based on microsimulation models.[25] Representative data showing actual outcomes, however, are lacking. Furthermore, anecdotal evidence of unwise investments and overzealous consumption point to at least the "potential" for quite negative outcomes.[26]

No guarantees.—Both in accumulating assets and in paying a promised level of benefits, the responsibility in DB plans falls on the employer. In addition, benefits under DB plans are insured within limits by an agency of the Federal Government, the Pension Benefit Guaranty Corporation. With 401(k) plans, in contrast, the responsibility and risk are shifted to the employee. Poor money management decisions during one's working years or at retirement could yield reduced benefits for 401(k) participants or, in the worst case, no retirement benefits at all.

Table 6.—Type of coverage under employer-sponsored retirement plan on current primary job, 1988 and 1993, by sex: Wage and salary workers aged 25–54

Type of coverage	1988	1993
Total percent covered	54	55
401(k)-type coverage only [1]	8	17
Other plan(s) only	37	28
Both 401 (k)-type and other plan(s)	9	10
Men, total percent covered	59	58
401(k)-type coverage only [1]	10	18
Other plan(s) only	39	27
Both 401 (k)-type and other plan(s)	10	12
Women, total percent covered	49	53
401(k)-type coverage only [1]	8	16
Other plan(s) only	34	28
Both 401 (k)-type and other plan(s)	8	9

[1] The term "401(k)-type plan" refers to several kinds of employer-sponsored retirement plans that allow participating employees to make tax-deferred contributions to the plan, usually with some matching contribution from the employer.

New Findings on Contribution Rates

It is clear from various sources that participating employees provide the majority of funding for 401(k) plans. Data on plan provisions in medium and large firms show that roughly 15 percent of participants do not receive any employer contributions to their plans.[27] In jointly funded savings and thrift plans (the most common types of 401(k) plans) the average allowable employee contribution was around 7.5 percent of annual earnings in 1989, while the average matching contribution potentially available from employers was around 3.1 percent.[28] At the same time, the actual totals may be more evenly divided. According to plan reports filed with the IRS, 56 percent of the contributions to 401(k) plans in 1987 were from employees, and 44 percent were from employers.[29]

The 1993 CPS pension supplement also asked workers in 401(k)-type plans about their level of contributions. Continuing our focus on the baby boomers and the issue of sole coverage under these plans, some results are shown in tables 8 and 9.

Workers covered both by 401(k)'s and other plans reported higher contributions to their 401(k)'s, on average, than those covered only by 401(k)'s, but the difference was not great: 7.1 percent of wages, compared to 6.7 percent (table 8). Those closest to retirement, the "pre-boomers," were making the highest contributions among the four age cohorts, but the baby boomers were not far behind. Among the early and late boomers who had only 401(k)'s, average yearly contributions were 6.7 and 6.3 percent of wages, respectively. These patterns were similar for men and women.

Given the high incidence of missing data on this question (28 percent), these results must be viewed with some caution. There was an even higher rate of missing data on the amount of employers' contributions, so those results are not shown. If, however, the average employer match was 50 percent of the employee's contribution (the most common match rate according to a survey of plan provisions),[30] the combined contribution among those covered only by 401(k) plans would be around 10 percent. As noted earlier, some analysts argue that this contribution level should be sufficient to ensure benefits commensurate with those from DB plans.[31] On the other hand, these numbers are averages. Among workers with 401(k) plans only, nearly one-third were contributing less than 5 percent of their wages, and about one-eighth were contributing less than 3 percent (table 9).

New Findings on Lump Sums and Preservation of Benefits

Data from the 1993 survey do not enable us to examine the characteristics of lump-sum distributions from 401(k) plans specifically. Workers were asked if they had ever received such a payment from any pension or retirement plan on a previous job, but the type of plan was not identified. However, we do have fairly extensive data on other aspects of lump sums.

Part of the recent interagency analysis of the 1993 data was devoted to preretirement lump sums, based on an expanded sample of all workers aged 25–64 in the experienced labor force.[32] The brief analysis here returns to the base population examined in tables 1 and 3: all currently employed workers aged 25–54. Despite this difference, most of the basic findings for the two populations are similar. This analysis, however, offers a few refinements and examines lump sums by age cohorts, thereby providing some new information about lump sums among the baby boomers (table 10).

Receipt rates.—The incidence of lump-sum receipt among workers aged 25-54 was identical to that found in the

Table 7.—Workers with 401(k)-type coverage[1] on current primary job, 1988 and 1993, by age in 1993 and sex: Percent of all covered wage and salary workers aged 27–54

Age of worker	Percent of covered workers— With 401(k)-type coverage only: 1988	1993	With 401(k)-type and other type(s) of coverage: 1988	1993
All workers	17	31	16	19
47–54 (pre-boomers)	15	28	19	20
37–46 (early boomers)	16	28	16	21
27–36 (late boomers)	19	35	13	17
Men	17	32	16	21
47–54 (pre-boomers)	15	29	20	22
37–46 (early boomers)	16	29	17	23
27–36 (late boomers)	20	37	13	19
Women	17	30	15	16
47–54 (pre-boomers)	17	27	18	18
37–46 (early boomers)	16	27	15	17
27–36 (late boomers)	18	33	12	14

[1] The term "401 (k)-type plan" refers to several kinds of employer-sponsored retirement plans that allow participating employees to make tax-deferred contributions to the plan, usually with some matching contribution from the employer.

earlier analysis: 11.4 percent reported that they had ever received such a payment. The receipt rate did not vary widely across the three age cohorts examined in table 10, ranging from 11 percent among the late boomers to 13 percent for the early boomers. (Only 4 percent of the post-boomers had received lump sums. These recipients are included in the totals in table 10, but are too small a group to be analyzed separately.)

Other coverage.— In contrast to the image of the worker who cashes out his or her retirement account and has no other pension protection, the majority of those who took lump sums in the past were covered under some other retirement plan at the time of the 1993 survey. This finding is stronger here than in the interagency analysis, since this analysis counts all four sources of coverage described earlier. Thus, among the early baby boomers, a full 70 percent of those who had taken a lump sum in the past were currently covered by an employer-sponsored plan or had an active IRA; among younger boomers, the comparable rate was 63 percent.

Benefit amounts.—The median lump-sum payment found in the interagency study was $3,840 (in 1993 dollars). Benefit amounts were strongly related to the worker's age at receipt. Among the oldest group, those aged 55–64, the median payment was $16,740, a number undoubtedly inflated by some retirement payouts from primary career jobs. In contrast, the median payment in the present analysis—restricted to workers aged 25–54 and thus more clearly "preretirement" lump sums—was $3,440; and amounts were not as strongly related to the recipient's age at the time of the survey. Among older boomers, the median distribution was around $4,100; among late boomers, the median was about $2,200 (table 10).

Preservation of benefits.— For most analysts, the critical issue concerning preretirement lump sums is whether they are saved for retirement or are used in some other way. The interagency study found that 21 percent of recipients had invested all of their lump sums in other retirement plans and that an additional 35 percent had saved the money in some other form. The study also confirmed two relationships identified in previous research—that the older the recipient and the larger the payment, the more likely it was to be saved.

Based on these relationships, one might hypothesize that the baby boomers—particularly the younger boomers—would be less likely to save their lump-sum payments. However, despite their younger ages and lower benefit amounts, the overall rate of savings among both groups of baby boomers was as high as that in the cohort of older workers (table 10). Older boomers had the highest rate of retirement savings, with 22 percent investing all of their lump sums in some other retirement plan, while younger boomers had the highest rate of saving in some other form. Fewer than one-third in either cohort had spent their entire distributions.

This somewhat surprising finding is undoubtedly due in part to another relationship reported in the interagency analysis—that lump sums received in more recent years are more likely to have been saved. Only 6 percent of lump sums received prior to 1980 had been put into retirement savings; for the period 1980-86, the comparable rate had increased to 15 percent; and in the period since 1986 (when a penalty tax was imposed on preretirement lump sums not rolled over

Table 8.—Average employee contributions to 401(k)-type plans[1] as percent of annual wages, by age: Wage and salary workers aged 25–54 covered by 401(k)-type plans on current primary job, April 1993

Age of worker	Covered by 401(k)-type plans only	Covered by 401(k) and other type(s) of plans
All workers [2]	6.7	7.1
47–54 (pre-boomers)	7.7	7.9
37–46 (early boomers)	6.7	7.2
27–36 (late boomers)	6.3	6.4
25–26 (post-boomers)	6.4	5.4

[1] The term "401(k)-type plan" refers to several kinds of employer-sponsored retirement plans that allow participating employees to make tax-deferred contributions to the plan, usually with some matching contribution from the employer.
[2] Based on the 72 percent of participants who reported a contribution amount.

Table 9.—Employee contributions to 401(k)-type plans,[1] by age: Percentage distribution of wage and salary workers aged 25–54 covered only by 401(k)-type plans on current primary job, April 1993

Percent of wages contributed	All workers	Pre-boomers (47–54)	Early boomers (37–46)	Late boomers (27–36)	Post-boomers (25–26)
Total percent [2]	100	100	100	100	100
Less than 3 percent	13	10	13	14	15
3.0–4.9 percent	18	12	15	24	16
5.0–9.9 percent	43	44	47	38	48
10.0–14.9 percent	19	23	19	17	14
15.0 percent or more	8	11	7	8	8

[1] The term "401(k)-type plan" refers to several kinds of employer-sponsored retirement plans that allow participating employees to make tax-deferred contributions to the plan, usually with some matching contribution from the employer.
[2] Based on the 66 percent of recipients who reported a contribution amount. The rate of missing data ranged from 31 to 36 percent over the four age cohorts.

into another tax-qualified plan), the retirement savings rate had increased to 27 percent.

Finally, the image of the improvident baby boomer and a crisis in preretirement lump sums is challenged by another statistic: Only 1 percent of the baby boomers had received a lump-sum distribution, spent it all, and were currently without any other pension protection. While the dissipation of preretirement lump sums remains a source for concern, it hardly seems in the same league with the problem identified earlier—a lack of any kind of pension coverage for 38 percent of workers among the early boomers and 48 percent of the late boomers (table 3).

Summary and Conclusions

This article has presented some initial findings on workers' coverage under employer-sponsored retirement plans in 1993 and examined some recent trends in coverage. The analysis reflects SSA's interest in obtaining broad measures of retirement coverage among broad segments of the population, primarily as a means of anticipating future trends in income among the aged. The age range of workers in the study, 25–54, includes the "baby boom" generation. For purposes of this analysis, the baby boomers were defined as a 20-year cohort born in 1946 through 1965 and divided into two groups: "Early" boomers, aged 37–46 at the time of the survey, and "late" boomers, ages 27–36.

Most published statistics on pension coverage are concerned only with coverage on the current primary job. The broadest definition of coverage used here identified an additional 7 percent of workers participating in some kind of retirement plan. Besides the 51 percent covered by a plan on their current primary jobs, an additional 1 percent were currently covered on secondary jobs, an additional 3 percent were receiving or expecting benefits from plans on previous jobs, and another 3 percent were actively contributing to their own IRA's. The unduplicated count of "total" coverage was higher for men than for women (59 to 55 percent), and was directly related to age: 67 percent among the oldest group of workers (aged 48–54), compared to 62 percent among the early baby boomers and 52 percent for the late boomers.

Three sets of trends were examined, varying in populations and measures according to the availability of data. First, the article examined trends in coverage rates by type of worker and gender over the course of four surveys—1979, 1983, 1988, and 1993. Because of data limitations, the measure of coverage was restricted to two sources (on the current primary job and from previous jobs), and the population of workers excluded the self-employed. Looking at just the two endpoints, there was not much change in overall coverage between 1979 and 1993, a slight decline from 60 to 58 percent. However, this relative stability masks important changes in coverage among men and women, trends clearly revealed over the course of the four surveys. From 1979 to 1993, men experienced a 10.4-percent decline in coverage rates, while women had a 12.2-percent increase. The narrowing of the gender gap by almost three-quarters over this 14-year period, then, reflects real and significant gains for women, but is almost equally due to real and significant losses among men.

Similar patterns emerged in the second trend analysis, when baby boom cohorts in 1993 were compared with preceding cohorts of the same age in 1983. As a whole, the baby boomers appear to be doing about as well on pension coverage as older workers—the early boomers slightly better, the younger boomers slightly worse. But baby-boomer men, both older and younger groups, have experienced a decline in pension coverage compared to preceding cohorts, while coverage among both early

Table 10.—Receipt, median amounts, and uses of previous preretirement lump-sum distributions, by age: Currently employed workers aged 25–54, April 1993

Receipt, amount, and uses of lump-sum payments	All workers [1]	Pre-boomers (47–54)	Early boomers (37–46)	Late boomers (27–36)
Percent ever received a lump sum	11.4	11.5	13.1	11.0
Percent of recipients currently covered by another retirement plan [2]	67	73	70	63
Median amount of lump-sum payment (in 1993 dollars) [3]	$3,440	$6,990	$4,120	$2,210
Uses of lump sum payments, total percent	100	100	100	100
Retirement savings [4]	19	20	22	17
Other savings [5]	35	35	32	39
Spent [6]	30	28	31	29
Multiple uses	12	13	12	11
Other	4	5	4	4

[1] Includes post-boomers (aged 25–26), a group of lump-sum recipients too small to be shown separately.
[2] Covered on the current primary job, on a secondary job, from a previous job, or with an active IRA.
[3] Based on the 86 percent of recipients who reported an amount and year of receipt; rounded to nearest $10.
[4] Transferred to an IRA, plan with new employer, or other retirement program.
[5] Includes savings accounts, other financial instruments, investments in business or house, paying off debts, or other savings and investments.
[6] Purchased consumer products, paid medical, educational or general expenses, or other expenditures.

and late baby-boomer women has increased.

In addition to shifting patterns of coverage between men and women, important changes have also occurred in the types of retirement plans providing coverage, the third trend examined in this article. Previous studies had documented a shift during the 1980's from traditional pension plans—DB plans—to DC plans, and to a particular type of DC plan: 401(k) plans. During the mid-1980's, much of the growth in 401(k)-type coverage had apparently been in the form of supplementary coverage for workers who already had a primary DB plan. In recent years, however, this pattern has changed. While the analysis documented a continued expansion of 401(k)-type coverage between 1988 and 1993, the more important finding is that almost all of this growth has been in the form of sole coverage. In 1988, 8 percent of wage and salary workers aged 25–54 were covered only by 401(k)-type plans; by 1993, the rate had more than doubled, to 17 percent, and now constituted nearly a third of all coverage on current primary jobs. In contrast, the growth in 401(k)'s as supplementary coverage was only 1 percentage point over the same period, from 9 to 10 percent. This shift to 401(k)-only coverage occurred among both men and women and across all age cohorts, though the trend was slightly stronger for men and for younger workers.

Compared with traditional pension plans, DC plans (including 401(k)'s) have some advantages. One of these is faster vesting, a topic not examined in this article. A recent analysis found substantial increases in vesting rates through 1988.[33] Given the continuing shift in types of coverage documented here, we may reasonably assume that this upward trend in vesting is also continuing and that increasing proportions of workers are earning the right to receive future benefits.

On the other hand, the shift to 401(k)-type plans—and to 401(k) coverage only—introduces increased uncertainties about the form and amount of those future benefits. In most 401(k) plans, participating employees provide the majority of funding, with some proportion matched by the employer; they are also given the responsibility of choosing how those funds are to be invested; and they then have the responsibility of managing the money when it is eventually distributed to them—typically, as a lump-sum payment. At this point, the issues and the facts remain unclear: What is the employee-employer contribution rate to 401(k) plans, and what should it be? And how well are workers managing these retirement accounts, both before and after retirement?

This study sheds some light on two of these areas of uncertainty—the current level of employee contributions and the disposition of lump-sum payments when workers leave jobs prior to retirement—lending tentative support to the argument that 401(k) plans may be serving their intended purpose for the majority of workers who have them. Only about a third of those covered solely by 401(k)-type plans were contributing less than 5 percent of annual wages to their plans, and only about a third of those who had ever received a preretirement lump sum had spent the money in ways not conducive to long-term security. But again, the data here are limited, and the findings are not conclusive.

Clearly, additional research on a wide range of issues is needed, and needed soon. Given the shift to 401(k) coverage across all age groups, the implications of these changing patterns of coverage are not just for distant decades of the 21st century. Many of the "pre-boomers" in this analysis will be retiring within the next 10 years. Their experiences may provide some important clues about the longer-term prospects of the baby boomers.

Notes

[1] Lenore A. Epstein and Janet H. Murray, *The Aged Population of the United States: The 1963 Social Security Survey of the Aged*, (Research Report No. 19), Table 3.21, p. 307, Social Security Administration, 1967; and Susan Grad, *Income of the Population 55 or Older, 1992*, Table 1.8, Office of Research and Statistics, Social Security Administration, May 1994, p. 21.

[2] In SSA's analyses, workers are defined as "covered" by a pension plan on a particular job when they have met the plan's eligibility requirements and are actually participating in the plan. "Vesting" is achieved by such workers when they acquire a nonforfeitable right to future benefits.

[3] For a discussion and references, see John R. Woods, "Pension Coverage Among Private Wage and Salary Workers: Preliminary Findings From the 1988 Survey of Employee Benefits," *Social Security Bulletin*, Vol. 52, No. 10, October 1989, pp. 3–4.

[4] Department of Labor, Small Business Administration, Pension Benefit Guaranty Corporation, and National Institute on Aging.

[5] *Pension and Health Benefits of American Workers: New Findings from the April 1993 Current Population Survey.* Department of Labor, May 1994.

[6] In a recent article on vesting, for example, several sources of vesting were examined. In addition, in the Appendix of that article, a measure of vesting from previous jobs was reported for the entire civilian noninstitutional population—a measure not included in the series of CPS pension supplements except in 1988. See John R. Woods, "Pension Vesting and Preretirement Lump Sums Among Full-Time Private Sector Employees," *Social Security Bulletin*, Vol. 56, No. 3, (Fall) 1993, pp.3–21.

[7] See Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, January 1994, p.184.

[8] Gordon P. Goodfellow and Sylvester J. Schieber, "Death and Taxes: Can We Fund for Retirement Between?" Paper presented at symposium of Pension Research Council, University of Pennsylvania, May 7, 1992, pp. 36–37.

[9] Department of Labor, Bureau of Labor Statistics, *Employee Benefits in Medium and Large Establishments, 1991*, May 1993, Table 93, p. 97.

[10] Income in this series is typically reported for persons aged 55–61, 62–64, and 65 or older. See Grad, *op.cit.*, p. 21.

[11] Like the 1983 and 1988 surveys, the 1993 survey asked a broad question about participation in "any pension or retirement plan" on the current job and a followup question about participation in a 401(k)-type plan. Almost all of those with 401(k)-type coverage responded affirmatively to the first question, though the followup question picked up an additional 2 percent of workers who appar-

ently did not think of their 401(k)-type plans as "retirement" plans. The measure of current primary job coverage used in this analysis—an affirmative response to either the initial question or the followup question—is identical to the measure used in the recent interagency analysis of the 1993 data.

[12] The remaining fifth (more precisely, 22 percent) was composed almost entirely of the unemployed (4.9 percent) and persons not in the labor force (16.8 percent). All population figures, including the population of respondents in the 1993 survey, refer to the civilian, noninstitutional population.

[13] The questions dealing with coverage on the current job have been modified slightly over the years in an effort to capture the changing nature of employer-sponsored retirement plans. While the basic question on coverage has continued to ask respondents about their inclusion in "any pension or retirement plan" provided by their employer or union, it became apparent in 1988 that a small group of workers covered by nontraditional plans was not responding affirmatively to the basic question. These workers were identified through a followup question added in 1988. In 1993, "prompts" were incorporated in the basic question, instead of using a followup question, to elicit responses to all types of coverage. While it is impossible to conclusively determine the effect of wording modifications over the years, analysts who have examined this issue surmise that the rates for 1979 and 1983 may be underestimated by 1–2 percentage points relative to 1988 and 1993. Finally, it should be noted that data from the 1972 survey are not applicable here because of the restricted nature of the 1972 sample: Full-time private sector workers. The 1979–93 surveys, in contrast, were administered among all workers employed for pay.

[14] The identification of these four groups could not be made with absolute precision in this analysis because the respondent's year of birth was not included in the data file and had to be estimated based on reported age. Since the survey was conducted in April 1993, prior to the year's midpoint, it is assumed that the majority of respondents had attained their current ages in 1992. That year was therefore used as the base in estimating year of birth.

[15] The shift from defined benefit (DB) to defined contribution (DC) coverage is perhaps best revealed in a time series developed by the Department of Labor based on administrative data. In 1975, 87 percent of workers covered by private pension plans had a DB plan as their primary coverage; by 1990, this had slipped to 62 percent, while the proportion with primary DC coverage had increased to 38 percent. See John A. Turner and Daniel J. Beller, eds., *Trends in Pensions, 1992*, Department of Labor, Pension and Welfare Benefits Administration, 1992, table 4.10. For data on the growth in 401(k) coverage, see Emily S. Andrews, "The Growth and Distribution of 401(k) Plans," especially table 8.2, in Turner and Beller, *op.cit.*; also Chapter 7 in *Employee Benefits in Medium and Large Establishments, 1991, op.cit.*

[16] *Pension and Health Benefits of American Workers, New Findings from the April 1993 Current Population Survey, op.cit.*, p.7.

[17] When the 401(k)-type question was added to the 1983 survey, it resulted in some analytical ambiguity. Workers who responded affirmatively to the initial question on pension coverage and, later in the interview, to the question on 401(k)-type coverage might be referring to a single plan in both instances or might be dually covered. In later surveys, a question was added to clarify their status. In addition, such respondents were counted as having 401(k)-type coverage only if, at a different point in the interview, they had reported that they were covered only by a single plan.

[18] This classification is actually the same as one published in our analysis of the 1988 data, though the labels have been modified. (See Woods, 1989, *op.cit.*, Table 3, p. 8.) In addition, a further distinction was made in that analysis that cannot be made with the 1993 data—that is, whether the 401(k)-type plan was entirely funded by the employee or also received some employer financing. In designing the 1993 questionnaire, an effort was made to elicit more information about employer contributions, but within the constraint of not adding an additional question to the survey. The result was a modified question that yielded a much higher rate of "don't know" responses—data not comparable to 1988.

[19] Turner and Beller, eds., 1992, *op.cit.* See also *Employee Benefits in Medium and Large Establishments, 1991, op.cit.*, Table 104, p. 109, May 1993.

[20] Andrew A. Samwick and Jonathan Skinner, "How Will Defined Contribution Plans Affect Retirement Income?" Paper presented at symposium of Association of Private Pension and Welfare Plans, Stanford University, October 7-8, 1993.

[21] For the more pessimistic view, see Jim Smalhout, "Retirement Woes: Pension Saving is Short of the Mark," *The Wall Street Journal*, February 4, 1993, p. A18; for the more sanguine view, see Samwick and Skinner, *op.cit.*

[22] For investment provisions in savings and thrift plans (the most common type of 401(k) plans), see *Employee Benefits in Medium and Large Establishments, 1991, op.cit.*, Table 112, p. 116.

[23] See "The New Breed of Pensions that May Leave Retirees Poorer," *Business Week*, November 6, 1989, p. 164, and Ellen E. Schultz, "Passing the Buck: In New Pension Plans, Companies Are Putting the Onus on Workers," *The Wall Street Journal*, July 7, 1992, p. A1.

[24] See Albert B. Crenshaw, "For A Few Dollars Now, Losing A Fistful at 65," *Washington Post*, February 20, 1994, p. H1, and Woods, 1993, *op.cit.*, pp. 10–14.

[25] Samwick and Skinner, 1993, *op.cit.*; and "Future Financial Resources of the Elderly," *A Report to the Advisory Council on Social Security*, December 1991, pp. 70–73.

[26] For example, see Schultz, 1992, *op.cit.*

[27] Based on Table 105 in *Employee Benefits in Medium and Large Establishments, 1991, op.cit.*

[28] Derived from Michael Bucci, "Contributions to Savings and Thrift Plans," *Monthly Labor Review*, November 1990, Table 1, p. 29.

[29] See Andrews,1992, *op.cit.*, Table 8.15, p. 172.

[30] *Employee Benefits in Medium and Large Establishments, 1991, op.cit.*, p. 106.

[31] Samwick and Skinner, *op.cit.*

[32] *Pension and Health Benefits of American Workers*, 1994, *op.cit.*, pp. 14–15 and Section D, pp. D1–D7.

[33] Woods, 1993, *op.cit.*