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On

The Fairness and Cyclical Costs of Employer Pension Plans  
New Survey Findings

By

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The views in this statement are those of the author and do not necessarily reflect those of the Employee Benefit Research Institute, its Trustees, members or other staff. This statement does not represent an attempt to aid or hinder the passage of any bill pending before Congress.

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## SUMMARY

This testimony\* investigates two basic issues concerning the fairness and efficiency of employer pension plans, the keystone of our employer benefit system:

(1) Does the existing system of tax incentives ensure that pension benefits treat all employees fairly? and;

(2) What are the relative cyclical costs of the pension system for a cross-section of employees?

The data supporting the analysis stem from a new nationwide survey sponsored by the Employee Benefit Research Institute (EBRI) in conjunction with the Department of Health and Human Services, and conducted by the U.S. Bureau of the Census in 1983. The survey represents, in part, a follow-up to a similar effort conducted in May 1979 and funded by the Department of Labor and the Social Security Administration. The EBRI/HHS survey parallels the May 1979 effort but adds new information on lump-sum benefits, individual retirement accounts (IRAs) and section 401(k) salary reduction programs.

Analysis of the distribution of coverage and vesting by earnings category indicates that pensions are broadly distributed among lower and middle income workers. In particular, 76 percent of all nonagricultural wage and salary earners covered by a pension earn \$25,000 a year or less. Similarly, 70 percent of all vested benefits belong to nonagricultural employees earning \$25,000 or less.

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\* Portions of this testimony were drawn from a forthcoming EBRI study, The Changing Profile of Pensions in America and from EBRI Issue Brief #33, "New Survey Findings on Pension Coverage and Benefit Entitlement" (August 1984).

May 1983 EBRI/HHS survey data also show that women are gaining pension entitlement in greater numbers than ever before. Among those women meeting ERISA standards for plan participation, coverage expanded by 2.2 million workers since 1979 and nearly 1.3 million more women became entitled to pension benefits at retirement.

The 1983 EBRI/HHS survey also provides the first information on entitlement to lump-sum benefit receipt. The addition of lump-sum benefits increases the total vesting rate by over 10 percentage points for private-sector employees and by nearly 20 percentage points for public-sector workers. Total vested benefits increase gradually with age providing greater protection as workers near retirement age. A comparison of total vested benefits with utilization rates from IRA and 401(k) plans indicates that coverage provided by employer plans is broader than that selected by individuals themselves.

Changes in coverage and pension entitlement between the May 1979 and May 1983 surveys are also investigated in order to determine the cyclical costs of the recession on the pension system. At the time of the survey the unemployment rate was at 10.1 percent, just six months after the business cycle trough. Nevertheless, employment growth since 1979 among those workers meeting ERISA standards led to an increase of over one million workers covered by a pension plan or a total of 38 million employees. (Coverage among all nonagricultural wage and salary workers totaled 49.5 million.)

## STATEMENT

## INTRODUCTION

Employer pension plans are frequently regarded as the cornerstone of our employer benefit system. Consequently, any assessment of the effectiveness of tax incentives in encouraging employer benefits must consider the success of pension plans in meeting future retirement income needs. The nation appears to be approaching a crossroads in pension policy. While tax incentives for the development of a fair employer pension system have been a consistent public policy landmark, the recent deficit crisis suddenly has placed pensions on the firing line. Some researchers even predicted a diminution of policy support for retirement before the current ballooning deficit. In 1980 William Graebner stated in A History of Retirement,

A century after retirement became an important instrument of social and economic policy, we are preparing for its disappearance, again in a context established by the needs of capital and with the acquiescence of most Americans. We expected too much from retirement. We believed retirement would rejuvenate and stabilize the teaching profession, the churches, and the factories; spare us the distress of an aging bureaucracy; allow the payment of lower salaries; distribute work in declining industries and in an economy that, in many, sometimes lengthy periods over the last century, has failed to employ all who wanted to work. In our current difficulties, we assume that by reversing the process and dismantling the edifice of retirement, we can reinvigorate an economy that has lost its fine competitive edge. This is the mirror-image of the historic assumption that retirement is a powerful and inexpensive instrument of social reconstruction. A new myth replaces the old."

Public policy must not be conducted by the perpetration of myths. Today's information technology enables researchers and legislators to carefully consider the facts before proposing legislative changes. Senator Packwood's

statement that the purpose of the Subcommittee on Taxation and Debt Management hearings is "to develop a full, fair hearing record on current fringe benefit topics" reflects the desire of Congress to rely on facts rather than myths.

Work-in-progress at the Employee Benefit Research Institute (EBRI) can provide insights into some of the issues of interest to the Subcommittee in their investigation of the effect of tax policy on employer benefits. This testimony presents new findings on the fairness and efficiency of the pension system using data from an EBRI-sponsored survey on pension coverage and entitlement, funded in conjunction with the Department of Health and Human services.

The survey, conducted by the Bureau of the Census in May 1983, represents a follow-up to an earlier May 1979 effort funded by the Department of Labor (DOL) and the Social Security Administration (SSA). The May 1983 survey goes beyond the scope of the previous study, however, by asking additional questions about lump-sum, distributions, individual retirement accounts (IRAs) and deferred compensation plans under section 401(k).1/

In particular, using the May 1983 EBRI/HHS CPS pension supplement, we will address two issues of policy interest to the Subcommittee on the equity and economic costs of the system:

- (1) Does the existing system of tax incentives ensure that pension benefits treat all employees fairly? and;
- (2) What are the relative cyclical costs of the pension system for a cross-section of employees?

In terms of equity, the following topics are pursued. What income groups benefit from employer pensions? Do patterns of benefit entitlement ensure that workers will be entitled to pension benefits when they reach retirement age? Do men and women partake equally in the pension system?

Analysis of the pension supplement data provides insights into the fairness of the pension system that have been neglected in earlier studies. In addition, earlier findings on coverage and benefit equity are reevaluated and the extent of vesting is recalculated using new information on IRA participation, 401(k) coverage and lump sum benefits from the updated survey. Pension benefits are found to be broadly based and can be expected to provide an important income support for millions of future retirees.

Because the May 1983 EBRI/HHS CPS pension supplement was conducted just after the 1982 recessionary trough, the effect of the worst cyclical downturn in four decades can be analyzed. The cyclical behavior of coverage measures the cost of the downturn for pension protection. While the recession adversely affected plan growth, pensions still covered a majority of the labor force and the number of vested workers expanded. Private sector coverage rates fell less strongly than public sector rates suggesting that during the downturn the costs of coverage slippage were less severe for private sector employees.

Furthermore, employer pensions have not suffered a financial crisis comparable to that suffered by Social Security. Funded plans are designed to withstand cyclical uncertainties. The pay-as-you-go Social Security

system was buffeted by the results of sluggish economic growth in which prices rose faster than wages. As a consequence, indexed benefits exceeded contributions culminating in a period of double digit unemployment. In sum, although the pension system bore certain recessionary costs, its structural underpinnings remained sound.

#### WHO BENEFITS FROM EMPLOYER PENSIONS

The fairness of the pension system will be analyzed according to information on the distribution of coverage and vesting by earnings, age and sex. The core of the May 1983 pension supplement lies in a series of questions about pension coverage and entitlement. These remained virtually unchanged from the May 1979 DOL/SSA pension supplement to ensure comparability. The three core questions in these and other surveys of this type are on coverage participation and future benefit entitlement.<sup>2/</sup>

Although these three questions appear straightforward, many survey respondents appear to have difficulty interpreting them and provide inappropriate answers from time to time. This problem has been recognized by other analysts of pension coverage and entitlement. It is probably a result of the complex nature of the pension system itself.

In particular, evidence suggests that certain employees misinterpret the coverage question and respond as if they were asked about participation, i.e. whether they were included in the plan. Because this leads to incorrect participation responses, the coverage question appears to provide the most

reasonable way to count the number of employees who may be eligible for future retirement benefits. Only findings on coverage and future benefit receipt are reported in this Testimony.

Much of the analysis focuses on two groups in the labor force--paralleling previous EBRI work on this topic.<sup>3/</sup> The first group consists of all nonagricultural wage and salary workers. The noncorporate self employed are excluded as they can provide their own coverage through Keogh plans. Farm workers tend to be a temporary low-wage work force whom many believe are better covered through federal programs such as Social Security and Supplemental Security Income (SSI).

The second group consists of those workers with sufficient labor force attachment to accrue meaningful retirement benefits if covered by an employer pension plan. This group is referred to as the ERISA work force and is composed of employees meeting ERISA participation standards. These workers are between twenty-five and sixty-four years of age who work at least 1,000 hours annually and have been with their employer for one year or more.

#### A Middle Income Benefit

Table 1 provides information on the distribution of benefit entitlement from three perspectives. The top panel shows the absolute number of nonagricultural workers employed, covered or vested in a public or private pension plan. Of the 88.2 million nonagricultural wage and salary workers, 49.5 million were covered by a pension plan and 28.7 million had accrued

vested benefits. Both statistics far exceed the 13.7 million employees who earn over \$25,000. The majority of employees who have a pension plan never see an expense account or a golden parachute.

The tabulations in the second panel of table 1 have traditionally been used to analyze pension coverage. They show that coverage and vesting rates generally rise with higher earnings. The ratio of covered workers to employment rapidly increases from less than one out of four workers earning under \$5,000 a year to nearly two out of five earning between \$20,000 and \$24,000 a year. Coverage rate increases tend to moderate by the \$20,000 level.

The third panel of table 1 shows the distribution of employment, pension coverage and vesting across income groups: in other words, the ratio of all workers within a particular income bracket who are employed, covered or vested in a pension plan to the total number of employed, covered or vested workers. These statistics clearly show the prevalence of pensions among middle-income workers. More than half the work force, 51 percent of all nonagricultural employees, earns between \$10,000 and \$25,000 per year. A greater proportion of pension coverage is directed towards these middle-income workers, however. Covered workers within those income categories constitute nearly 59 percent of pension coverage. Furthermore, almost 62 percent of all vested workers fall within the \$10,000 to \$25,000 per year range.

TABLE 1: EMPLOYMENT, COVERAGE AND VESTING:  
DISTRIBUTION BY EARNINGS FOR NONAGRICULTURAL  
WAGE AND SALARY WORKERS, MAY 1983

EARNINGS	Number of Workers (000's)		
	Employment	Coverage	Total Vested Benefits
Total	88,214	49,530	28,708
\$1-4,999	10,014	2,433	358
\$5,000-9,999	15,323	5,747	2,023
\$10,000-14,999	17,827	10,328	5,484
\$15,000-19,999	13,101	9,422	5,874
\$20,000-24,999	10,283	8,159	5,641
\$25,000-29,999	5,515	4,365	3,048
\$30,000-50,000	6,611	5,547	4,071
\$50,000 and over	1,615	1,371	1,106
Not reported	7,924	2,158	1,105
Percentage Distribution Within Earnings Group			
	Employment	% Covered to Employed	% Vested to Employed
Total	100.00%	56.15%	32.52%
\$1-4,999	100.00	24.29	3.57
\$5,000-9,999	100.00	37.51	13.20
\$10,000-14,999	100.00	57.93	30.76
\$15,000-19,999	100.00	71.92	44.83
\$20,000-24,999	100.00	79.34	54.85
\$25,000-29,999	100.00	79.14	55.26
\$30,000-50,000	100.00	83.91	61.57
\$50,000 and over	100.00	84.90	68.50
Not reported	100.00	27.23	13.94
Percentage Distribution Across Earnings Groups <sup>a</sup>			
	% Employ- ment	% of Coverage	% of Total Vesting
Total	100.00%	100.00%	100.00%
\$1-4,999	12.47	5.14	1.30
\$5,000-9,999	19.08	12.13	7.33
\$10,000-14,999	22.20	21.80	19.87
\$15,000-19,999	16.32	19.89	21.28
\$20,000-24,999	12.81	17.22	20.43
\$25,000-29,999	6.87	9.21	11.04
\$30,000-50,000	8.23	11.71	14.75
\$50,000 and over	2.01	2.89	4.01

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement.

<sup>a</sup> Percentages exclude 9.0% of employees whose earnings are not reported.

Another way to examine the distribution of pension benefits is through statistics on the cumulative distribution of employment, coverage, and vesting by earnings. The data in table 2 are presented in this manner. In this case, the proportion of employment, coverage, or vesting held by employees earning less than a specific amount is calculated. Nearly 83 percent of all nonagricultural wage and salary workers earn less than the \$25,000 cut off. Pension coverage and vesting roughly parallel the income distribution with 76 percent of covered workers and 70 percent of those holding vested benefits earning less than \$25,000 as well. These roughly equivalent distributions are found despite the fact that many workers earning less than \$5,000 a year do not meet ERISA participation standards.

The May 1983 EBRI/HHS CPS pension supplement expanded the definition of vesting to include workers expecting lump sum distributions as well as those anticipating future pension benefits. The proportion of vested workers earning less than \$25,000 a year is raised two percentage points above the 68 percent rate posted when only future pension receipt is considered. In fact, 77 percent of those expecting only lump sum distributions earn less than \$25,000.

IRAs and Earnings--The cumulative distribution of vested benefits by earnings under employer pension plans can be compared to the cumulative distribution of IRA participation using tables 2 and 3. Table 3 shows that 61 percent of nonagricultural employees using IRAs earn less than \$25,000 per year in comparison to 70 percent of those vested in a

TABLE 2: CUMULATIVE DISTRIBUTION OF EMPLOYMENT, COVERAGE AND VESTING  
BY EARNINGS<sup>a</sup> FOR NONAGRICULTURAL WAGE AND SALARY WORKERS  
AND THE ERISA WORK FORCE, MAY 1983

EARNINGS	Employment Distri- bution	Coverage Distri- bution	Vesting Distributions	
			Total Vesting	Benefit Entitlement
=====				
Nonagricultural Wage and Salary Workers				
Total Employees (000's)	88,214	49,530	28,708	22,217
less than \$5,000	12.47%	5.14%	1.30%	1.26%
less than \$10,000	31.55%	17.27%	8.63%	7.78%
less than \$15,000	53.57%	39.07%	28.50%	26.30%
less than \$20,000	70.07%	58.96%	49.78%	47.13%
less than \$25,000	82.88%	76.18%	70.21%	68.12%
less than \$30,000	89.75%	85.39%	81.25%	79.77%
less than \$35,000	97.98%	97.10%	96.00%	95.51%
Total Earnings	100.00%	100.00%	100.00%	100.00%
-----				
ERISA Work Force				
Total Employees (000's)	54,363	38,058	25,480	20,027
less than \$5,000	2.50%	1.05%	0.61%	0.54%
less than \$10,000	16.21%	9.67%	6.54%	5.98%
less than \$15,000	39.46%	30.70%	25.45%	23.82%
less than \$20,000	59.54%	52.39%	46.98%	44.85%
less than \$25,000	76.48%	71.98%	68.40%	66.67%
less than \$30,000	85.89%	82.86%	80.08%	78.85%
less than \$35,000	97.13%	96.48%	95.71%	95.23%
Total Earnings	100.00%	100.00%	100.00%	100.00%

=====

SOURCE: Preliminary Employee Benefit Research Institute tabulations of  
the May 1983 EBRI/HHS CPS pension supplement.

<sup>a</sup> Percentages exclude 9.0% of nonagricultural wage and salary workers  
and 4.1% of the ERISA work force whose earnings are not reported.

pension plan. Spousal IRAs are less well distributed toward middle-income workers with only 40 percent of spousal IRAs held by those earning less than \$25,000. Those eligible to contribute to a spousal IRA are more likely to be found in the upper income brackets. Only 47 percent of those contributing to an IRA with a nonworking spouse earn less than \$25,000 a year. (The eligible population represents about 20 percent of all IRA participants.)

Employer provided pensions are concentrated toward the lower three-quarters of the income distribution and provide more broad-based coverage than the coverage employees provide themselves through individual retirement accounts.

#### Women are Gaining

Table 4 provides comparative statistics on coverage and vesting for men and women. Women made considerable employment gains between 1979 and 1983 growing by 3.3 million nonagricultural wage and salary earners. Women's employment gains were translated into improvements in coverage and vesting. The number of female wage and salary earners covered by a pension plan increased by 660,000 workers, while the number of women entitled to future retirement benefits jumped by 1.2 million.

By contrast, male employment edged down by 278,000 employees in the face of the most severe recession since World War II. Pension protection for men slipped through layoffs, dismissals and plant closings in many of the high

TABLE 3: CUMULATIVE DISTRIBUTION OF  
IRA AND SPOUSAL IRA PARTICIPATION BY EARNINGS<sup>a</sup>  
FOR NONAGRICULTURAL WAGE AND SALARY WORKERS  
AND THE ERISA WORK FORCE, MAY 1983

EARNINGS	Employ- ment Distri- bution	IRA Distri- bution	Distribution among Those <u>Eligible for Spousal IRA</u>	
			Contributes to IRA	Established Spousal IRA
=====				
Nonagricultural Wage and Salary Workers				
Total Employees (000's)	88,214	14,972	2,988	1,718
less than \$5,000	12.47%	5.08%	2.91%	b
less than \$10,000	31.55%	14.45%	7.98%	5.39%
less than \$15,000	53.75%	28.91%	17.47%	11.30%
less than \$20,000	70.07%	45.98%	31.93%	25.57%
less than \$25,000	82.88%	61.47%	47.48%	40.36%
less than \$40,000	89.75%	73.40%	60.35%	51.58%
less than \$50,000	97.98%	92.76%	84.87%	79.98%
Total Earnings	100.00%	100.00%	100.00%	100.00%
=====				
ERISA Work Force				
Total Employees (000's)	54,363	11,900	2,373	1,413
less than \$5,000	2.50%	1.11%	0.88%	1.30%
less than \$10,000	16.21%	8.86%	4.18%	3.09%
less than \$15,000	39.46%	23.52%	13.77%	9.39%
less than \$20,000	59.54%	41.07%	28.63%	21.99%
less than \$25,000	76.48%	57.58%	43.61%	38.34%
less than \$30,000	85.89%	70.96%	57.81%	50.31%
less than \$50,000	97.13%	91.87%	83.65%	79.05%
Total Earnings	100.00%	100.00%	100.00%	100.00%

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement.

<sup>a</sup> Percentages exclude 9.9% of nonagricultural wage and salary workers and 4.1% of the ERISA work force whose earnings are not reported.

<sup>b</sup> Number of workers too small for reliable rates to be calculated.

coverage manufacturing industries.<sup>4/</sup> As a result, the proportion of women among covered wage and salary workers increased from 39.1 percent to 42.4 percent. Similarly, the proportion of future pension benefits claimed by women jumped from 31.7 percent to 36.1 percent. (The proportion of total vested benefits accrued by women was 37.9 percent in 1983.) These gains were in keeping with the increase in the share of female employment from 43.1 to 45.4 percent of all workers.

\*  
TABLE 4: THE STATUS OF COVERAGE AND VESTING AMONG  
WOMEN AND MEN, MAY 1979 AND MAY 1983

	<u>Women (000's)</u>		<u>Men (000's)</u>		<u>Percent Female</u>	
	1979	1983	1979	1983	1979	1983
=====						
Nonagricultural Wage and Salary Workers						
Employment	36,704	40,015	48,477	48,199	43.1%	45.4%
Covered Workers	20,355	21,015	31,664	28,515	39.1%	42.4%
Total Vested Workers	<sup>a</sup>	10,884	<sup>a</sup>	17,824	<sup>a</sup>	37.9%
Workers Entitled to Future Benefit	6,790	8,018	14,609	14,199	31.7%	36.1%
ERISA Work Force						
Employment	18,847	22,970	30,888	31,393	37.9%	42.3%
Covered Workers	12,972	15,207	23,918	22,851	35.2%	40.0%
Total Vested Workers	<sup>a</sup>	9,427	<sup>a</sup>	16,053	<sup>a</sup>	37.0%
Workers Entitled to Future Benefit	5,778	7,065	13,164	12,962	30.5%	35.3%
=====						

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement and May 1979 DOL/SSA CPS pension supplement.

<sup>a</sup> Data not available for 1979.

The number of women meeting ERISA standards for plan participation also grew considerably as full-time employment became more prevalent. In 1979 only 51.3 percent of all female wage and salary workers were in the ERISA work force, compared to 63.7 percent of men. By 1983 the female percentage rose to 57.4 percent, as the proportion of men meeting ERISA standards edged up to 65.1 percent. The increase in the proportion of women in the ERISA work force represented a gain of 4.1 million workers. Coverage for this group expanded by 2.2 million workers and nearly 1.3 million more women gained entitlement to future pension benefits.

These improvements in pension protection increased the proportion of women among covered and vested workers within the ERISA work force. By 1983 over 40 percent of all covered workers and 35 percent of all future benefit recipients were women. (Women made up 37 percent of those entitled to total vested benefits, including lump-sum distributions.) The relative gains in pension coverage and benefit entitlement allocated to women stem from increased female employment and from a larger percentage of that work force meeting ERISA standards.

Despite these gains, the most striking difference in labor force characteristics between men and women has been the persistence of the wage gap. A large body of economic literature tries to explain the existence of wage differentials between men and women. Leaving these unanswered questions aside, table 5 provides greater detail on the distribution of earnings for the ERISA work force. Women are more than four times as likely to earn less than

\$10,000 and over twice as likely to earn less than \$15,000 than men. Those earning less than \$10,000 are less likely to be covered by a pension plan and more likely to have a higher Social Security replacement rate. Nonetheless, 76 percent of pension coverage is allocated to the 81 percent of the women within the ERISA work force who earn less than \$20,000 a year, reinforcing the conclusion that pensions are a middle income benefit distributed closely in accordance to the income distribution.

\*  
TABLE 5: CUMULATIVE DISTRIBUTION  
OF EMPLOYMENT AND COVERAGE BY EARNINGS<sup>a</sup>  
FOR WOMEN AND MEN IN THE ERISA WORK FORCE, MAY 1983

EARNINGS	<u>Distribution of Women</u>		<u>Distribution of Men</u>	
	Employment	Coverage	Employment	Coverage
===== Total Employees (000's)	22,970	15,207	31,393	22,851
less than \$5,000	4.84%	2.10%	0.76%	0.35%
less than \$10,000	28.56%	18.32%	7.01%	3.88%
less than \$15,000	60.81%	51.51%	23.56%	16.77%
less than \$20,000	81.28%	76.28%	43.35%	36.40%
less than \$25,000	92.30%	90.23%	64.70%	59.77%
less than \$30,000	96.62%	95.61%	77.89%	74.33%
less than \$50,000	99.66%	99.54%	95.23%	94.44%
Total Earnings	100.00%	100.00%	100.00%	100.00%

=====  
SOURCE: Preliminary Employee Benefit Research Institute tabulations of  
the May 1983 EBRI/HHS CPS pension supplement.

<sup>a</sup> Percentages exclude 4.8% of men and 3.1% of women whose earnings are not reported.

### New Evidence on Vesting

Table 6 shows that the percentage of private-sector workers with vested benefits generally increases with age. Around two-thirds of all covered wage and salary workers forty-five years of age and older are vested. Vesting rates fall again once workers reach sixty-five years of age. The proportion of vested public-sector workers follows a similar age pattern with vesting peaking in the early 60's at 88 percent of coverage.

Using the May 1983 EBRI/HHS CPS pension supplement, vested benefits can be broken down into two complementary components for the first time: (1) entitlement to future retirement income and (2) entitlement to a lump-sum payment. The addition of lump-sum benefits increases the total vesting rate by over 10 percentage points for the private sector and by nearly 20 percentage points for public sector wage and salary workers. Comparable vesting gains are found for the ERISA work force as well. Furthermore, the age profile of entitlement to future retirement income charts a steeper path than that exhibited by total vested benefits. As a consequence, the addition of lump-sum benefits totally changes our conception of the degree of vesting provided by employer pensions.

Employees anticipate the receipt of lump-sum benefits in several ways: (1) as cash outs of their own contributions, (2) as distributions of defined contribution plan balances upon separation from the firm, or (3) through cash-out provisions for very small vested benefits from defined benefit plans. The age profile of lump-sum entitlement is the opposite to that found

for benefit entitlement at retirement. A greater percentage of younger workers anticipate lump-sum cash outs. Although the expectation of lump-sum reciprocity jumps at age twenty-five to 13 percent of covered private sector employees and 27 percent of covered public-sector workers, it diminishes thereafter. Private-sector rates tumble at age sixty to just 5 percent. This decline may reflect two factors. First, younger workers are more likely to change jobs, and their expectation of lump-sum entitlement probably reflects this reality. Second, younger workers may be more likely to be employed by expanding firms who have recently instituted defined contribution plans.

\*

Lump-sum entitlement among public sector employees is nearly twice as high as that in the private sector. Within the ERISA work force, more than one-fifth of all covered public employees expect to receive only a lump-sum benefit, compared to less than one-eighth of those covered under private-sector employment (see table 6). The higher public-sector rate reflects the greater prevalence of contributory plans which may be cashed out upon termination of employment.

Public-sector rates of future benefit entitlement within the ERISA work force average over one-third higher than private-sector rates. These factors lead to nearly a 25 percentage point spread between private sector and public sector total vesting rates. Public sector vesting runs at just under 85 percent of coverage and that of the the private sector just passes 60 percent. These higher vesting rates, however, mask one characteristic of many

TABLE 6: VESTING AMONG NONAGRICULTURAL WAGE AND SALARY WORKERS AND THE ERISA WORK FORCE BY AGE AND SECTOR, MAY 1983

AGE	Covered Workers (000's)	Percent Vested of Covered		
		Total Percent Vested of Covered	Percent Entitled to Future Benefit	Percent Entitled to Lump Sum Only
=====				
Nonagricultural Wage and Salary Workers				
Private Sector	36,458	51.02%	40.32%	10.69%
Less than 25	5,285	19.63	11.87	7.77
25 to 34 years	11,516	42.80	29.47	13.34
35 to 44 years	8,576	59.77	48.61	11.16
45 to 54 years	6,185	67.41	56.45	10.96
55 to 59 year	2,912	69.88	62.53	7.35
60 to 64 years	1,520	69.97	64.88	5.08
65 years and older	465	51.28	45.82	5.46
Public Sector	13,072	77.33%	57.50%	19.45%
Less than 25	1,092	45.67	28.25	17.43
25 to 34 years	3,723	73.66	46.56	27.10
35 to 44 years	3,656	82.89	61.50	21.39
45 to 54 years	2,552	83.32	68.33	14.99
55 to 59 years	1,159	84.05	72.43	11.62
60 to 64 years	664	88.07	76.56	11.51
65 years and older	227	67.17	59.25	7.92
-----				
ERISA Work Force				
Private Sector	27,550	60.11%	48.21%	11.90%
25 to 34 years	9,883	46.81	32.33	14.48
35 to 44 years	7,779	63.07	51.38	11.69
45 to 54 years	5,756	70.11	58.72	11.39
55 to 59 years	2,708	73.13	65.38	7.75
60 to 64 years	1,424	70.98	65.91	5.07
Public Sector	10,507	84.90%	64.20%	20.69%
25 to 34 years	3,184	78.08	49.72	28.36
35 to 44 years	3,261	88.22	66.30	21.92
45 to 54 years	2,365	86.39	71.36	15.03
55 to 59 years	1,082	87.81	76.29	11.52
60 to 64 years	616	91.70	79.29	12.40
=====				

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement.

public plans. Public pensions are often the only source of coverage for government employees. At the time of the survey, no federal workers participated in Social Security and neither did 43 percent of the state and local work force.

Vesting vs. Voluntary Contributions--A comparison of total vested benefits for private nonagricultural wage and salary earners (from table 6) with section 401(k) and IRA utilization rates (from table 7) shows the relative difference between coverage selected by the individual worker and that provided by employer pension plans. Utilization of IRAs for every age group is far below the proportion of vested benefits provided by private-sector employers. The utilization of 401(k) plans among wage and salary workers is comparable at very young and very old ages to vesting rates provided by private sector pension plans. Private plans provide considerably greater vesting for workers between twenty-five and sixty years of age than workers provide for themselves under 401(k) arrangements. Pension plan vesting rates exceed section 401(k) participation rates by over 15 percentage points for the ERISA work force between thirty-five and fifty-nine years of age.

In sum, new findings from the May 1983 EBRI/HHS CPS pension supplement show that vested benefits for employer plans exceed previously reported vesting rates by 10 to 20 percent when lump-sum distributions are added to benefit entitlement at retirement. Furthermore, comparisons with new data on voluntary participation in IRAs and 401(k) plans suggest that employer pensions provide a greater degree of coverage for workers at younger ages than they would provide for themselves.

TABLE 7: UTILIZATION OF VOLUNTARY RETIREMENT PROGRAMS  
 AMONG PRIVATE NONAGRICULTURAL WAGE AND SALARY WORKERS  
 BY AGE AND TYPE OF PROGRAM, MAY 1983

AGE	Section 401(k) Deferred Compensation		Individual Retirement Accounts	
	Number Offered Plan (000's)	Percent Utiliza- tion	Number of Workers (000's)	Percent Utiliza- tion
=====				
Nonagricultural Wage and Salary Workers				
Total Employees	4,822	39.31%	72,465	16.49%
less than 25	555	19.79	16,415	2.30
25 to 34 years	1,627	30.71	21,553	11.00
35 to 44 years	1,364	43.04	14,681	18.51
45 to 54 years	795	49.51	10,627	30.25
55 to 59 years	302	56.90	4,723	39.90
60 to 64 years	139	68.13	2,834	37.13
65 years and over	a	a	1,630	20.30
-----				
ERISA Work Force				
Total Employees	3,833	43.68%	42,458	21.96%
25 to 34 years	1,404	33.75	15,977	11.87
35 to 44 years	1,262	44.42	11,479	19.57
45 to 54 years	749	50.96	8,781	30.55
55 to 59 years	281	58.35	3,919	41.21
60 to 64 years	138	68.65	2,302	38.32
=====				

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement.

<sup>a</sup> Number of workers too small for rates to be calculated reliably.

## THE COSTS OF THE BUSINESS CYCLE

The timing of the May 1983 EBRI/HHS CPS pension supplement provided the first opportunity to analyze the sensitivity of employer pension plans to business cycle conditions. The predecessor survey, the May 1979 DOL/SSA CPS pension supplement, was conducted during relatively buoyant economic times. According to the National Bureau for Economic Research, a 58 month economic expansion was in full swing in May 1979 as the economy surged toward its January 1980 cyclical peak just eight months later. By contrast, four years later in May 1983, the economy had just passed the November 1982 cyclical trough marking the most severe recession since World War II.

The period between the surveys was not one of strong economic growth. Real Gross National Product expanded at less than a 1 percent annual rate between the second quarter of 1979 and the second quarter of 1983. Furthermore, the Consumer Price Index increased at an average annual rate of 8.2 percent between May 1979 and May 1983. Although prices moderated considerably by 1982, the sequence of double digit inflation and severe recession would be expected to have a marked effect on every sector of the economy.

A sharp economic downturn is unlikely to lead to robust plan growth. As the economy headed toward the recessionary trough, employers would be unlikely to add to compensation costs by instituting new pension plans where none were previously available. Similarly, employees who had suffered real wage losses during the inflationary spiral would be unwilling to agree to trade current compensation for future pension benefits. While some employees might choose

tax-sheltered deferred compensation from a second plan in lieu of current salary increases, probably most would not. A priori, growth in pension coverage could not be expected between May 1979 and May 1983.

The fate of employer pensions is closely linked to the labor market. The difference in unemployment rates between the two pension supplement surveys is striking. In May 1979, the civilian unemployment rate reached its lowest point since the passage of ERISA, at a seasonally adjusted rate of 5.6 percent. By contrast, the civilian unemployment rate for May 1983, at 10.1 percent was one of the highest since before World War II. (Nationwide double digit unemployment had disappeared in this country after the Great Depression ran its course.) While the unemployment rate eased to 7.1 percent by June 1984, the EBRI/HHS May 1983 CPS pension supplement took place in mid-1983 before the beginning of the recent robust expansion.

#### The Aggregate Figures

Table 8 presents data on employment, pension coverage and future benefit receipt for five employment groups in May 1979 and May 1983. The figures range from the broadest definition of employment, that of all civilian employees plus the self-employed, narrowing to the ERISA work force, those employees meeting ERISA standards for plan participation. This latter group is most likely to represent workers who will have enough years of service to build an adequate employment-based pension. In table 8, the ERISA work force is gradually augmented to include those on their current job for less than a year, those working fewer than 1,000 hours, those workers under age twenty-five and over age sixty-five, and, finally, agricultural workers and the self-employed.

The data show that the coverage rate for the ERISA work force, at 70 percent, is higher than that of any of the expanded employment groups. This finding is consistent with the economics of the labor market and retirement planning. ERISA participation standards were set on the following premises: (1) the labor force attachment of many part-time employees and those with less than a year on the job may be too weak to build up meaningful pension benefits; (2) workers less than twenty-five years of age are likely to have high turnover rates as they start their careers; and (3) those over sixty-five are more likely to be retired and employed at a part-time job. Farm workers are segmented out because they tend to have low wages and transient employment. Although the noncorporate self employed may establish a Keogh plan, more than 95 percent do not, probably preferring to reinvest their funds in the growth of their own company.

The comparative findings of the May 1983 and the May 1979 surveys are thought-provoking. Employment of nonagricultural wage and salary workers (the second row on table 8 for each year) increased by 3 million employees between the 1979 and 1983. On the one hand, pension coverage did not keep up with this trend and fell by nearly 2.5 million workers primarily through a drop in coverage among employees under age twenty-five and sixty-five years and older. On the other hand, the number of workers who anticipate benefit entitlement at retirement increased by over 800,000. In other words, even though aggregate coverage among wage and salary workers fell after the 1982 recession, benefit entitlement remained strong. Nevertheless, because of the labor force expansion, coverage and vesting rates both declined regardless of increases in the number of covered and entitled workers.

Changes in the ERISA work force (the last row in table 8 for each year) between 1979 and 1983 tell a different story. Employment gains between the two years were even stronger with 4.6 million workers added to the ERISA work force. The number of covered workers also grew by over one million employees to 38 million workers. Gains in vesting surpassed one million to total 20 million workers. (And, of course, these figures omit the additional 5.5 million employees who anticipate receiving a lump-sum benefit.) Nonetheless, both coverage and vesting rates declined from their 1979 rates. By 1983, the coverage rate for the ERISA work force was 70 percent with 53 percent of covered workers of all ages anticipating future benefit receipt. In 1979 coverage for the ERISA work force had reached 74 percent, although only 51 percent of covered workers anticipated benefits at retirement.

The reasons behind these changes are not easily analyzed. The first apparent conundrum is the issue of declining coverage among nonagricultural wage and salary workers during a period of increasing employment. As table 8 shows, most of the decline in the number of covered nonagricultural workers falls among workers under twenty-five years of age and sixty-five years and older. The most perplexing question arising from the EBRI/HHS May 1983 CPS pension supplement findings is why coverage gains among the ERISA work force did not keep pace with increases in employment.

#### An Industrial Analysis

Part of the explanation for the fall in pension coverage rates despite expanding employment lies in the effect the recession had on employment by industry. Typically, manufacturing has been considered a high coverage

TABLE 8: EMPLOYMENT, COVERAGE AND FUTURE BENEFIT ENTITLEMENT  
BEFORE AND AFTER THE RECESSION, MAY 1983 AND MAY 1979

	Employment (000's and % of Employed)	Coverage (000's and % of Employed)	Future Benefit Entitlement (000's and % of Employed)
=====			
<u>1983</u>			
Civilian Employment (All employees & self- employed)	98,964 100.00%	51,530 52.07%	24,095 24.35%
Nonagricultural Wage and Salary Workers	88,214 100.00%	49,530 56.15%	22,217 25.19%
Nonagricultural Wage and Salary Workers age 25 to 64 only	68,252 100.00%	42,463 62.21%	20,934 30.67%
Nonagricultural Wage and Salary Workers age 25 to 64, working 1000 hours or more	61,586 100.00%	40,702 66.09%	20,476 33.25%
ERISA Work Force (age 25 to 64, working 1000 hours or more, one year of tenure or more)	54,363 100.00%	38,057 70.01%	20,027 36.84%
-----			
<u>1979</u>			
Civilian Employment (All employees & self- employed)	95,372 100.00%	53,445 56.04%	22,633 23.73%
Nonagricultural Wage and Salary Workers	85,181 100.00%	52,019 61.07%	21,399 25.12%
Nonagricultural Wage and Salary Workers age 25 to 64 only	63,201 100.00%	42,576 67.37%	19,836 31.39%
Nonagricultural Wage and Salary Workers age 25 to 64, working 1000 hours or more	58,009 100.00%	40,830 70.39%	19,522 33.65%
ERISA Work Force (age 25 to 64, working 1000 hours or more, one year of tenure or more)	49,736 100.00%	36,890 74.17%	18,941 38.08%
=====			

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement and May 1979 DOL/SSA CPS pension supplement.

industry and the service sector a low coverage industry. Industrial shifts between services and manufacturing could bring about the decline in the coverage rate observed in 1983.

Tables 9 and 10 present statistics on employment and coverage for the ERISA work force for May 1979 and May 1983 and data on certain employment-related characteristics.<sup>5/</sup> Industries are presented in two groupings: recessionary sectors and growth sectors. In general, the recessionary sectors are comprised of the older industrial infrastructure, including manufacturing, which exhibited employment losses. The growth sectors are heavily weighted towards those service-related industries which experienced employment growth.

The Recessionary Sectors--The recessionary sectors include manufacturing, transportation (excluding railroads),<sup>6/</sup> construction and government. Between 1979 and 1983, most of these industries exhibited strong across-the-board declines in employment or significant downturns within major components. Government is the only sector with growth in employment and coverage. It is among those affected by the recession, however, since weak economic growth and high inflation undoubtedly influenced the public's desire to reduce taxes and government spending.

The bulk of employment in the recessionary sectors of the economy is typified by pension coverage rates of over 70 percent. Employment and coverage losses were significant. Led by construction industry declines of over 11 percentage points, these sectors all showed coverage rate reductions of 3 to 5 percentage points. Yet in each industry the complex set of factors influencing the decline in the coverage rate differed.

For instance, two primary sources of employment and coverage loss among the durable goods manufacturing industries were primary metals (representing the steel industry, for the most part) and automobiles. Coverage losses in these industries alone accounted for more than half the total losses in durables manufacturing. Yet the coverage rate for auto workers did not decline because of significant plant closings and broadly based layoffs and permanent separations. The rest of durables manufacturing provides an example of a more standard recessionary adjustment process. As many workers in large unionized firms were laid off during the 1982 recession, employment fell but coverage fell even more leading to lower coverage rates. Coverage rates today should be higher to the extent that laid-off workers were rehired as the recovery gained momentum.

While many other industries were affected by a variety of special factors, coverage rates in government were particularly depressed in comparison to the private sector. Whereas the government coverage rate fell 5.1 percentage points from 93.4 to 88.3 percent, the coverage rate for all private sector industries only slipped 3.7 percentage points from 68.6 to 64.9 percent. In particular, the federal government appears to have hired more workers outside of the Civil Service Retirement System. Although specific recessionary and growth industries, such as construction and mining, also posted large coverage rate losses in percentage terms, the government figures are particularly striking in view of pension coverage rates that traditionally have been nearly universal.

TABLE 9: CYCLICAL CHANGES IN EMPLOYMENT AND COVERAGE IN THE  
ERISA WORK FORCE BY INDUSTRY, MAY 1979 AND MAY 1983

INDUSTRY	Employment	Employment	Coverage	<u>Percent Covered</u>	
	1983 (000's)	Change 79-83 (000's)	Change 79-83 (000's)	1979	1983
=====					
Recessionary Sectors					
GOVERNMENT	11,905	750	93	93.36%	88.26%
DURABLE MANU.	8,492	(446)	(795)	84.74	79.84
Primary Metals	702	(257)	(251)	91.98	89.81
Automobiles	823	(190)	(155)	90.48	92.56
NONDURABLE MANU.	5,862	321	a	77.08	72.56
Apparel	697	(175)	(84)	46.21	45.82
Chemicals	970*	(104)	(109)	93.17	91.89
TRANSPORTATION (ex-railroads)	1,454	a	(82)	72.64	68.98
CONSTRUCTION	2,130	(102)	(295)	55.75	44.56
Growth Sectors					
PUBLIC UTILITIES	811	159	129	96.06%	93.11%
COMMUNICATIONS	1,200	277	215	92.04	88.75
MINING	660	177	117	88.73	82.72
FINANCE, INSURANCE & REAL ESTATE	3,444	581	435	71.94	72.42
PROFESSIONAL SERVICES	6,401	1,578	961	64.96	63.95
WHOLESALE TRADE	2,682	403	138	68.36	63.26
RETAIL TRADE	5,833	503	182	46.89	45.96
BUSINESS & PER- SONAL SERVICES	3,184	668	225	33.87	33.83

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement and May 1979 DOL/SSA CPS pension supplement.

<sup>a</sup> Number of workers too small to be statistically significant.

TABLE 10: CYCLICAL CHANGES IN EMPLOYMENT CHARACTERISTICS  
OF THE ERISA WORK FORCE BY INDUSTRY, MAY 1979 AND MAY 1983

INDUSTRY	Average Tenure with Employer		Covered by Union Contract		Large Company: 500 or More Workers	
	1979 (years)	1983 (years)	1979 (percent)	1983 (percent)	1979 (percent)	1983 (percent)
=====						
Recessionary Sectors						
GOVERNMENT	10.54	10.59	50.05%	52.54%	a	a
DURABLE MANU.	12.12	11.42	45.18	35.49	77.32%	72.38%
Primary Metals	15.65	14.06	64.97	55.17	83.93	85.79
Automobiles	13.02	15.22	72.70	59.21	92.41	88.28
NONDURABLE MANU.	11.76	10.68	39.96	32.39	71.24	69.10
Apparel	9.21	7.90	43.03	34.83	48.93	57.31
Chemicals	13.54	12.12	32.09	22.35	85.41	88.24
TRANSPORTATION (ex-railroads)	10.89	9.57	52.00	40.72	59.74	57.94
CONSTRUCTION	9.04	8.24	42.08	31.07	26.79	24.07
Growth Sectors						
PUBLIC UTILITIES	14.95	13.96	50.34%	42.58%	85.42%	81.96%
COMMUNICATIONS	14.39	13.08	59.56	58.49	87.07	84.02
MINING	11.14	10.27	41.87	28.57	80.40	76.57
FINANCE, INSURANCE & REAL ESTATE	9.74	8.23	6.78	5.10	56.45	59.21
PROFESSIONAL SERVICES	7.63	6.87	12.22	13.04	42.66	41.81
WHOLESALE TRADE	9.60	9.45	15.38	13.82	39.97	36.99
RETAIL TRADE	8.49	7.49	16.37	14.43	42.86	45.74
BUSINESS & PER- SONAL SERVICES	8.68	6.27	13.02	10.80	34.74	31.81
=====						

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement and May 1979 DOL/SSA CPS pension supplement.

<sup>a</sup> Data on firm size not applicable to federal government employment.

Table 10 provides part of the framework for a more general analysis of these changes. Three factors found to influence coverage rates are provided by industry for 1979 and 1983. These factors consist of average on-the-job tenure, the likelihood of being included in a union contract, and the likelihood of being employed by a company employing 500 or more workers. Industries with long-tenure workers tend to have greater pension coverage both because employers want to provide benefits for long-tenure employees and because employees want to work longer at firms with pension benefits. Large firms tend to establish pensions more readily because of scale economies in personnel and asset management. Unionization is closely tied to pension protection. Benefits have been a subject of collective bargaining for many years and multiemployer agreements increase the scale economies of pension provision by banding together smaller contributions within the Taft-Hartley plan.7/

Within the recessionary sectors, declines have taken place in average tenure, unionization and the extent of employment in large firms. Shifts in unionization and firm size are probably a result of layoffs in larger more highly unionized plants. Unionized firms appear more ready to reduce costs through temporary layoffs during a recession rather than through across-the-board wage cuts. In May 1983, those laid-off workers were either collecting unemployment insurance, or, if reemployed, working at smaller less-unionized firms.

The Growth Sectors--With the exception of mining, sectors exhibiting employment gains were all within the service-providing industries. Table 8 shows that these 8 major industry groupings led to an increase in employment of 4.3 million workers between 1979 and 1982. The number of covered workers in these industries expanded by 2.4 million employees. While the service sector is typically regarded as a source of low-wage low-benefit employment, 6.1 million workers, or 25 percent of the the growth sector, are in industries with coverage rates of over 70 percent. Another 9 million workers, or 37.5 percent of this work force, are in industries with coverage rates of over 60 percent. Two patterns of change are exhibited: coverage rates for half the industries fell while those for the other half held constant.

Public utilities, communications, mining and wholesale trade exhibited declines in coverage rates despite an increase of nearly 600,000 in the number of covered workers in those industries. In the mining and public utilities, significant declines in the extent of unionization, combined with a shift toward smaller companies, may have led to the decline in the coverage rate. Nevertheless, in 1983, coverage rates for three of these four industries surpassed 80 percent even during this recessionary period.

Coverage rates held virtually constant in the financial sector (finance, insurance, and real estate), in the services (professional services and business and personal services) and in retail trade. The number of covered workers increased by a hefty 1.8 million employees. In other words, despite a variety of factors militating toward lower coverage, including the recession

and some tendency toward shorter job tenures, coverage rates did not decline. Over three-quarters of these workers were found in the financial sector and in professional services which posted coverage rates of 72 and nearly 64 percent respectively.

In summary, losses in employment and coverage stemming from a recessionary economy differed significantly according to industry. In some industries, the survey missed enumerating out-of-work covered workers who did not experience a break-in-service. By now, pension coverage has rebounded in those sectors as manufacturing workers returned to their jobs during the expansion.

Employment growth in the service-related sectors was robust in view of the recessionary conditions. In absolute numbers, millions of covered workers were added to that sector alone, taking up much of the loss suffered in manufacturing. Many service sector coverage rates were remarkably stable. Slower pension coverage growth would be expected during a recession. New employers would be less likely to provide a pension in their compensation package; old employers would be less likely to institute a pension if they did not have one. Furthermore, some argument could be made that lower cost employers, those without pensions, may find it easier to expand during a cyclical downturn.

#### Statistical Quirks

Unfortunately an industrial analysis does not seem to answer all the questions about what happened to pension coverage between the two surveys. A number of purely statistical issues make the data difficult to interpret and perhaps

suggest that pension coverage remained more robust than indicated by the raw percentages. While changes in coverage appear to be associated with the extent of unionization, average job tenure and firm size, the decline in coverage within the ERISA work force appears surprisingly broad in view of the relatively small compositional changes in many of those variables affecting coverage rates.

For this reason a preliminary statistical analysis was conducted for those members of the ERISA work force with valid responses for all items used in the analysis.<sup>8/</sup> The regression included factors likely to affect pension coverage to explain the change in the coverage rate. Variables similar to those in table 9 were found to influence the extent of pension coverage as well as industry, earnings and to a lesser extent, age and geographic region of the country.

In addition to service sector growth and a contraction in manufacturing, changes took place in the distribution of age, tenure and earnings within the ERISA work force between the two survey years. This preliminary analysis indicated a downward shift in the structure of the determinants of pension coverage not related to differences in the compositional shifts in the work force. This may represent the effect of the recession on pension growth.

Imputed Responses--A further explanation for the shift in the structure of the coverage equation and the coverage rate may lie in the distribution of unreported responses in the survey. In 1980, the President's Commission on Pension Policy contracted with ICF, Inc. to allocate missing answers to the May 1979 DOL/HHS CPS pension supplement resulting from question refusals,

skipped questions and 'don't know' responses.<sup>9/</sup>

Table 11 presents statistics on employment, coverage and future benefit receipt for 1979 and 1983 comparable to those presented in table 8 but using imputations to fill in missing or incomplete data. For both years, the imputed responses for items that were not reported leads to an increase in the number of persons covered by a pension plan and in the number of persons who anticipate the receipt of future pension benefits. The survey findings using the imputed data differ for coverage and for benefit receipt because of different patterns of nonresponse for the two questions. Many more employees did not know whether they were entitled to future pension benefits.

While the number of covered workers increases for both years using the imputed variables, the increase in coverage is greater for 1983 than 1979. Analysis suggests that more high salaried workers, more employees in government, and more persons working in large firms were among those without reported responses in 1983. The reason for this shift in nonresponse has not been identified. Suffice it to say that although more wage and salary workers were covered in 1979 than in 1983, using the imputed responses, the gap in coverage fell from 2.5 million workers to under 150,000. Coverage increased to 53.9 million workers in 1983 or 61 percent of all nonagricultural employees.

Between 1979 and 1983, coverage rose by 2.6 million employees for the ERISA work force using the imputed data, compared to an increase of just over 1.1 million based on the CPS raw counts. Part of this greater coverage growth resulted from the addition of 1.8 million workers to the ERISA work force for May 1983 after imputations were made for missing responses to job tenure and

annual hours worked. This raised the proportion of employment in the ERISA work force from 55 to 57 percent. Furthermore, even though the coverage rate fell between 1979 and 1983, the decline was smaller using imputed data.

Imputations improve the status of future benefit receipt within the population even more. This results from the large fraction of the population which reported that they did not know whether they were qualified for retirement benefits. In 1979 nearly 15 percent of covered nonagricultural employees and the covered members of ERISA work force had not reported whether or not they would be entitled to a benefit at retirement. Although the figure fell to around 12 percent in 1983, suggesting greater employee information about pensions, the degree of nonresponse remained substantial.

Imputed data on future benefit receipt increased the number of workers vested for retirement benefits for both years but did not greatly alter the relationship between the two years. Concentrating on May 1983, the data indicate that the imputations increased the number of workers expecting retirement benefits by 6.7 million to a total of 28.9 million workers. Within the ERISA work force the number of workers looking forward to a pension rose by 5.3 million to 25.3 million workers. Thus 63 percent of covered workers of all ages were eligible for retirement benefits. If the 5.5 million persons in the ERISA work force who expect lump-sum benefits are added to this sum, the number of total vested workers rises to 30.8 million or 76 percent of all covered employees of all ages meeting ERISA participation standards.

TABLE 11: EMPLOYMENT, COVERAGE AND FUTURE BENEFIT ENTITLEMENT  
BEFORE AND AFTER THE RECESSION, MAY 1983 AND MAY 1979  
(Figures include imputations for missing data)

	Employment (000's and % of Employed)	Coverage (000's and % of Employed)	Future Benefit Entitlement (000's and % of Employed)
<u>1983</u>			
Civilian Employment (All employees & self- employed)	98,964 100.00%	56,018 56.60%	30,850 31.17%
Nonagricultural Wage and Salary Workers	88,214 100.00%	53,932 61.14%	28,894 32.75%
Nonagricultural Wage and Salary Workers age 25 to 64 only	68,252 100.00%	45,379 66.49%	26,569 38.93%
Nonagricultural Wage and Salary Workers age 25 to 64, working 1000 hours or more	63,833 100.00%	43,723 68.50%	26,143 40.95%
ERISA Work force (age 25 to 64, working 1000 hours or more, one year of tenure or more)	56,153 100.00%	40,441 72.02%	25,326 45.10%
<u>1979</u>			
Civilian Employment (All employees & self- employed)	95,372 100.00%	54,374 57.01%	28,168 29.53%
Nonagricultural Wage and Salary Workers	85,181 100.00%	54,079 63.49%	28,005 32.88%
Nonagricultural Wage and Salary Workers age 25 to 64 only	63,201 100.00%	43,907 69.47%	26,009 41.15%
Nonagricultural Wage and Salary Workers age 25 to 64, working 1000 hours or more	59,217 100.00%	42,252 71.35%	25,512 43.08%
ERISA Work force (age 25 to 64, working 1000 hours or more, one year of tenure or more)	50,562 100.00%	37,803 74.77%	24,494 48.44%

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement and May 1979 DOL/SSA CPS pension supplement using imputations provided by ICF Inc.

## THE FULL PICTURE

Evaluating changes in coverage and future benefit receipt between the May 1979 DOL/SSA CPS pension supplement and the May 1983 EBRI/HHS CPS pension supplement is a complex task. The dual effects of unfavorable economic conditions and changing patterns of survey response must be considered. On the one hand, changes in response patterns between 1979 and 1983 appear to minimize the growth in the number of covered workers and maximize the decline in the coverage rate.<sup>10/</sup> On the other hand, even using imputed responses, pension coverage did not keep up with employment gains during a period of massive unemployment and low economic growth. This resulted in a decline in the ratio of covered workers to employment between May 1979 and May 1983.<sup>11/</sup>

Coverage rates posted in May 1983 were adversely affected by the 1982 recession in several ways. First, many workers in manufacturing were on layoff lowering the overall coverage rate. Second, this effect may have been compounded to the extent that unionized employment responded to the recession through layoffs rather than wage cuts. Third, employers without a pension plan would have been unlikely to institute one during a period of high unemployment and lagging demand. Plan growth among employers without coverage should accelerate during the current expansion to a rate more in keeping with a long run expansion path.

Even though the expansion of coverage was not proportional to the expansion of employment causing the coverage rate to edge off from 75 percent in May 1979 to 72 percent in May 1983 using imputed responses, the number of covered

workers expanded by 2.6 million workers for the ERISA work force. This expansion indicates that even during adverse conditions employer pensions have continued to provide protection for the majority of employees meeting ERISA participation standards.

Even during a recession pension plans continue to cover predominantly lower- and middle-income workers. Table 12 compares the distribution of employment, coverage and pension receipt by earnings for the ERISA work force in 1979 and 1983. Although the proportion of workers earning less than \$25,000 (in 1983 dollars) increased from 74 percent in 1979 to 76 percent in 1983, the proportion of covered workers earning less than \$25,000 also increased from 70 percent in 1979 to 72 percent in 1983. Furthermore, the proportion of workers expecting future retirement benefits (excluding lump-sum distributions) and earning less than \$25,000 increased from 63 percent of all workers in 1979 to 67 percent in 1983. In other words, pension coverage continues to protect middle income employees even as the income distribution worsened.

Furthermore, the employer pension system did not suffer the financial difficulties experienced by the Social Security system in recent years. Between 1979 and 1982 Social Security trust fund assets fell from \$24.7 billion to \$22.1 billion and would have run out had interfund transfers not taken place and had the 1983 Social Security Amendments not been passed. This unfortunate situation was a direct result of sluggish economic growth with wage rates lagging prices over an extended period. By contrast, assets held by private, state and local government plans continued to grow. Accumulated holdings in these employer pension funds were \$522.9 billion in 1979 and \$815.8 in 1982 despite a sluggish economy. While no employed workers lost

TABLE 12: CUMULATIVE DISTRIBUTION OF  
EMPLOYMENT, COVERAGE AND VESTING BY EARNINGS<sup>a</sup>  
FOR THE ERISA WORK FORCE, MAY 1979 AND MAY 1983 IN 1983 DOLLARS

EARNINGS	Employment Distri- bution	Coverage Distri- bution	Benefit Entitlement Distribution
<u>1983</u>			
Total Employees <sup>a</sup> (000's)	54,363	38,058	20,027
less than \$5,000	2.50%	1.05%	0.54%
less than \$10,000	16.21%	9.67%	5.98%
less than \$15,000	39.46%	30.70%	23.82%
less than \$20,000	59.54%	52.39%	44.85%
less than \$25,000	76.48%	71.98%	66.67%
less than \$30,000	85.89%	82.86%	78.85%
less than \$35,000	97.13%	96.48%	95.23%
Total Earnings	100.00%	100.00%	100.00%
<u>1979</u>			
Total Employees (000's)	49,736	36,890	18,941
less than \$5,000	1.86%	0.82%	0.26%
less than \$10,000	14.33%	8.74%	5.06%
less than \$15,000	36.19%	28.72%	21.15%
less than \$20,000	57.18%	50.59%	42.76%
less than \$25,000	74.22%	69.95%	63.34%
less than \$30,000	85.17%	82.57%	77.45%
less than \$50,000	97.43%	97.07%	96.09%
Total Earnings	100.00%	100.00%	100.00%

SOURCE: Preliminary Employee Benefit Research Institute tabulations of the May 1983 EBRI/HHS CPS pension supplement and May 1979 DOL/SSA CPS pension supplement.

<sup>a</sup> Percentages exclude 4.9% of employees in 1979 and 4.1% of employees in 1983 whose earnings are not reported

Social Security coverage during the recession, the costs to maintaining benefit entitlement for a system that was not self-regulating at the time were borne by workers and retirees alike through the 1983 Amendments.

### Conclusion

Pension coverage appears to be sensitive to business conditions, exhibiting less rapid growth during cyclical downswings. Employer pensions continued to provide coverage, however, to the vast majority of workers who are most likely to accrue meaningful benefits no matter the state of the economy. These employees vest in their pension plans as they grow older, probably accruing benefits at a faster rate than they would on their own. Furthermore, more and more women have become entitled to pensions in their own right as they enter the labor force in greater numbers. Finally, the vast majority of employees benefiting from employer pension plans continue to be middle income workers earning less than \$25,000 a year. All these benefits are observed in a system with strong financial reserves enabling it to weather the worst depression in four decades.

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Notes

- 1/ Both the 1979 and the 1983 surveys were supplements to the ongoing Current Population Survey (CPS) which is conducted monthly by the Bureau of the Census to collect national statistics on employment and unemployment. Consequently, in addition to information on pension coverage and entitlement, the survey provides valuable data on labor force status, demographics and income.
- 2/ In the case of the 1983 survey, the questions are (1) Does your employer contribute to a pension or retirement plan...? (2) Are you included in the employer or union sponsored plan? and (3)...Could you receive some benefits at retirement?
- 3/ See Sylvester J. Schieber and Patricia M. George, Retirement Income Opportunities in an Aging America: Coverage and Benefit Entitlement, (Washington, DC: Employee Benefit Research Institute, 1981).
- 4/ The next section of this testimony discusses the effect of the recession on coverage and vesting
- 5/ Changes in the 1970 and 1980 Censuses mean that employment totals for the May 1979 CPS and the May 1983 CPS are not strictly comparable. In particular, the 1980 Census corrected a previous undercount, so that were the 1979 CPS benchmarked to the latest Census, the population totals would be somewhat higher. That implies that employment increases may be slightly too robust and employment decreases may be slightly underrepresented. Thus the recessionary impact on coverage may be understated. The effect of this undercount on calculated rates should be minimal.
- 6/ Following past survey practices, respondents were instructed to exclude Social Security and Railroad Retirement from their responses.
- 7/ Olivia S. Mitchell and Emily S. Andrews, "Scale Economies in Private Multi-Employer Pension Systems", Industrial and Labor Relations Review, July 1981, pp. 522-530.
- 8/ Final findings will be presented in Emily S. Andrews, The Changing Profile of Pensions in America, (Washington, DC: EBRI, forthcoming).
- 9/ More ambitious imputations for those individuals who were eligible for the survey but did not respond to any of the pension supplement questions were not included.
- 10/ There is also some evidence that a change in the wording of the key coverage question may have led to a decline in reported coverage. The 1983 survey substituted the phrase "contribute to a pension plan" for "have a pension plan."
- 11/ Other surveys of pension coverage also show coverage rates edging off since 1979. These include calculations of prior year pension coverage among employed workers from the annual March Current Population Survey and pension coverage among large and medium-sized firms from the Bureau of Labor Statistics' Level of Benefits Survey.

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## Education

Ph.D. University of Pennsylvania, Economics, 1976  
 A.B. Barnard College, Mathematics, 1964

## Experience

- o Research Associate 1983-date  
 Employee Benefit Research Institute  
 Senior EBRI specialist on employer pensions and Social Security. Writing book on the status of pension coverage and benefit entitlement, The Changing Profile of Pensions in America, forthcoming Fall, 1984. Research conducted using May 1983 EBRI/HHS Current Population Survey pension supplement.
- o Chief, Statistical Analysis Branch 1980-1983  
 Office of Research and Statistics  
 Social Security Administration  
 Directed interdisciplinary staff with advanced degrees in statistics, demography, psychology and law. Developed data for studies on disability, health and mortality. Advised Director on proposed and ongoing statistical and research projects.
- o Director, Contract Research 1979-1980  
 President's Commission on Pension Policy  
 Responsible for \$2 million contract research program. Directed development of three surveys on pensions and wealth. Constructed estimates of pension coverage and vesting.
- o Senior Economist 1978-1979  
 Pension and Welfare Benefits Program  
 U.S. Department of Labor  
 Designed and managed May 1979 Current Population Survey pension supplement. Conducted research on scale economies in pension management.
- o Labor Economist 1974-1978  
 Assistant Secretary for Policy  
 U.S. Department of Labor  
 Prepared cost estimates for legislation on mandatory retirement and temporary disability insurance. Initiated and planned major research conference on women in the labor force. Selected articles and edited volume published by major university press.

Previous positions include one year of university teaching and five years of economic research for non-profit institutions such as the Federal Reserve Bank of New York and the Organization for Economic Cooperation and Development.