

Women and Pensions: A Decade of Progress?

by Vickie L. Bajtelsmit and Nancy A. Jianakoplos,
Colorado State University and EBRI Fellows

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- This *Issue Brief* compares changes from 1989 to 1998 in pension participation, accumulation, and allocation for employed women, versus employed men, ages 18–62. In addition, it provides an estimate of the gender “pension gap” in defined contribution accumulations, contrasts this with the gender “earnings gap,” and provides explanations for these differences.
- Between 1989 and 1998, the percentage of employed women with a pension or retirement plan at their current job increased from 43 percent to 45 percent, compared with a decline from 53 percent to 52 percent for employed men. For both women and men, the percentage with defined contribution retirement plans increased dramatically, while the percentage with defined benefit pension plans dropped sharply.
- Between 1989 and 1998, the ratio of women’s to men’s defined contribution plan accumulations increased from 40 percent to 44 percent, indicating a narrowing of the gender pension gap. However, the narrowing was concentrated among the cohort ages 45–53 in 1998. The gender pension gap increased for women in other age groups.
- Gender differences in defined contribution plan accumulations can be attributed to differences in earnings and job characteristics. Between 1989 and 1998, for workers with defined contribution plans, the ratio of women’s to men’s earnings remained unchanged at 57 percent. Employed women with defined contribution plans are more than twice as likely to earn less than \$25,000 per year than employed men with defined contribution plans, but almost five times less likely to earn more than \$100,000 per year.
- From 1989 to 1998, the percentage of employed men with defined contribution balances invested mostly in low-risk, low-return assets declined much more than the percentage of employed women who followed that investment strategy. Whereas the percentages of men and women with retirement plans invested mostly in bonds were nearly equal at 31 percent and 32 percent in 1989, respectively, by 1998, 20 percent of women (compared with 14 percent of men) had their retirement plans invested mostly in bonds.
- The trend toward defined contribution plans and riskier retirement portfolios has resulted in significant wealth accumulation over the decade. In real terms, both men and women have greater retirement plan wealth, but increases have been larger for men than for women. Since there is no evidence that plan provisions vary by gender, improvements in the gender pension gap will come only with changes in women’s labor force experience and investment decision-making.

Vickie L. Bajtelsmit is an associate professor of finance and Nancy A. Jianakoplos is an associate professor of economics, both at Colorado State University. They are both also EBRI Fellows, and wrote this *Issue Brief* with assistance from the Institute's research and editorial staffs. Any views expressed in this report are those of the authors and should not be ascribed to the officers, trustees, or other sponsors of EBRI, EBRI-ERF, or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

Table of Contents

Introduction	3
Pension Participation	3
Pension Accumulation	5
Gender Pension Gap	6
Gender Differences in Job and Demographic Characteristics	6
Gender Differences in Earnings	8
Gender Differences in Pension Characteristics	9
Gender Differences in Investment Allocation	12
Conclusions	12
References	15

Tables

Table 1, Pension Participation of Employed Individuals Ages 18–62, by Age and Gender, From 1989 to 1998	4
Table 2, Pension Accumulation and the Gender Pension Gap, by Age Cohorts, From 1989 to 1998	6
Table 3, Sample-Weighted Average Individual and Job	

Characteristics, by Gender, 1989 and 1998	7
Table 4, Change in Average Earnings (\$1998) and the Gender Earnings Gap From 1989 to 1998	9
Table 5, Earnings Distribution, by Gender and Pension Participation, 1989 and 1998	10
Table 6, Defined Contribution Plan Characteristics for Employed Men and Women Ages 18–62, by Gender, 1989 and 1998	11
Table 7, Sample-Weighted Average Investment Allocations for Defined Contribution Plan Participants, Employed Individuals Ages 18–62, by Gender and Other Characteristics, 1989 and 1998	13

Chart

Chart 1, Annual Earnings Distribution of Employed 18–62 Year Olds, by Gender, 1989–1998	10
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Introduction

It has been well documented that women generally have been at a disadvantage in accumulating retirement wealth.¹ On average, they have lower earnings than men and are less likely to have access to and participate in an employer-provided pension. There is also evidence that women are more conservative investors, which implies that they may not have benefited as much as their male counterparts from the rise in the stock market over the 1990s.² However, increased pension sponsorship by employers and higher participation rates by women over the last decade, as well as improvements in the labor market experience of women, are likely to have tangential positive impacts on pension accumulations for women.

This *Issue Brief* examines gender differences in earnings, pension participation, and retirement wealth accumulation of the U.S. population of employed individuals ages 18–62, for the years 1989 and 1998. The Survey of Consumer Finances (SCF),³ which is conducted every three years by the Federal Reserve, includes information on a representative sample of the U.S. population. Although the primary focus of the SCF is the household unit, demographic, occupational, earnings, and pension information is available at the individual level. Since the focus of this report is consideration of differences between men and women, all the information is analyzed at the individual level.⁴ When dollar amounts are provided for both years, the 1989 amounts have been adjusted to constant 1998 dollars.⁵

Pension Participation

Between 1989 and 1998, the participation rate of working women ages 18–62 who took part in at least one pension or retirement plan⁶ at their

current employer increased by 2 percentage points (from 43 percent to 45 percent), while men's participation rate declined by 1 point (from 53 percent to 52 percent) (table 1). Although both men and women show increased participation in defined contribution plans and decreased participation in defined benefit pensions over the period, men were still more likely to have a plan of either type. Only one-third of working women in this age group reported participating in a defined contribution plan, compared with 40 percent of men.

On average, 41 percent of American families were covered by a pension plan in 1998, a rate that has been gradually improving over time (Copeland and VanDerhei, 2000). However, employer pension data by subgroups indicate that individual participation levels vary dramatically. In 1998, women had lower rates of employer pension participation across all the age cohorts. By defining age cohorts in nine-year increments to

¹ For a sampling of the considerable amount of analysis on this topic, see Blau, Ferber, and Winkler (1997); Even and McPherson (1990, 1994); Evan and Turner (1999); Korczyk (1992); Mitchell (1999); and Sunden and Surette (1998).

² See Jianakoplos and Bernasek (1998); Bajtelsmit and VanDerhei (1997); and Hinz and McCarthy (1997).

³ This survey, sponsored by the Federal Reserve Board, is the most comprehensive survey on household income and wealth in the United States. The latest survey data, for the year 1998, were released in January 2000. Survey respondents are a nationally representative sample of more than 2,000 households, and an additional over-sampling of high-income households is included. All statistics are weighted to adjust for the over-sampling and for the multiple imputation procedure that is used to account for missing data. See Kennickel et al. (2000) for further explanation of this dataset and the sample weighting procedure.

⁴ To overcome the downward bias on standard errors that results from inclusion of two individuals from the same household in the analysis (i.e., nonindependent observations), the statistical analysis employs a stratification technique that adjusts for this problem, which is inherent in survey data. See Montalto and Sung (1996) for a detailed explanation of this technique.

⁵ Dollars from 1989 are adjusted by a factor of 1.3285 as suggested in Kennickel et al. (2000).

⁶ In this paper, a defined benefit plan refers to a qualified retirement plan that provides for the payment of definitely determinable benefits over a period of years (usually for life) after retirement, while a defined contribution plan refers to a qualified retirement plan that provides for an individual account for each participant and in which benefits are based solely upon the amount contributed and the account's earnings.

Table 1
Pension Participation^a of Employed Individuals Ages 18–62, by Age and Gender, From 1989 to 1998

By Age Cohort	Percentage of Employed Individuals With Employer Pension		Percentage of Employed Individuals With Defined Benefit Pension		Percentage of Employed Individuals With Defined Contribution Plan		Percentage of Employed Individuals With IRA ^b	
	Men	Women	Men	Women	Men	Women	Men	Women
All 1989	53%	43%	34%	28%	28%	23%	28%	22%
All 1998	52	45	19	16	40	33	25	24
Percentage Increase	-2	5	-44	-43	43	43	-11	-9
18–26 in 1998	33	21	9	4	26	18	10	4
18–26 in 1989	16	19	6	9	9	12	7	2
27–35 in 1998	49	45	15	13	41	34	15	18
Percentage Increase	206	137	150	44	356	183	114	800
27–35 in 1989	51	41	29	25	30	25	19	15
36–44 in 1998	55	49	18	16	45	37	25	28
Percentage Increase	8	20	-38	-36	50	48	32	87
36–44 in 1989	63	48	44	30	30	25	27	26
45–53 in 1998	56	53	24	22	38	39	32	29
Percentage Increase	-11	10	-45	-27	27	56	19	12
45–53 in 1989	61	51	42	38	35	24	41	28
54–62 in 1998	55	45	22	21	41	30	41	40
Percentage Increase	-10	-12	-48	-45	17	25	0	43
54–62 in 1989	56	47	38	33	28	20	49	42

Source: Authors' tabulations of the 1989 and 1998 Surveys of Consumer Finances, sample-weighted.

^aFor this tabulation, pension participation is defined as participation in at least one retirement plan with the current employer.

^bIndividual retirement account.

coincide with the difference in time between the 1989 and 1998 Surveys of Consumer Finances, direct comparison of pension participation by gender and age cohort can be made, both within and across age cohorts.

Participation is lowest among the youngest workers and tends to increase with age (table 1). For example, the individuals who were ages 18–26 in 1989 are the same group that is represented by the sample who were 27–35 years old at the time of the 1998 sample. As the cohorts have aged, their level of participation nine years later is generally higher for both men and women. For example, of the men and women who were 18–26 in 1989 only 16 percent of men and 19 percent of women had pensions, whereas 49 percent of the men and 45 percent of the women had pensions when they were 27–35 years old. Comparison of cohort pension participation with that of similarly aged cohorts in the earlier decade supports the conclusion that women's participation in pensions has improved over time, while men's has declined (table 1).

The differences between men and women are most pronounced at the youngest ages. For example, whereas 33 percent of men ages 18–26 in 1998 had an employer pension, only 21 percent of women were

covered by one. For the older cohorts, coverage rates were much closer between genders, as the percentage of women in these groups with pensions increased over the decade to a greater extent than that of their male counterparts. As the cohorts have aged, their levels of pension participation have generally increased. It is encouraging to note that, for the younger age cohorts, employer pensions are increasingly common for both men and women. Thirty-three percent of men in the youngest age cohort in 1998 had an employer pension, compared with only 16 percent of that age group in 1989; whereas by 1998, that cohort had a 49 percent participation rate. Women's participation had similar improvements, with the 18–26 cohort increasing from 19 percent in 1989 to 45 percent by the time they were 27–35 in 1998.

Reflecting the well-documented shift away from "traditional" defined benefit plans and toward defined contribution plans, dramatic decreases are seen in the percentage of individuals (both male and female) covered by defined benefit plans over the 1989–1998 period. For example, 44 percent of all men age 36–44 had a defined benefit plan in 1989, and by 1998 that portion had fallen to only 18 percent. The 1989 age 36–44 cohort, who were

45–53 in 1998, saw their defined benefit coverage decline to 24 percent over the decade. For women, who were less likely on average to be covered by a defined benefit pension in 1989, the decreases were less dramatic, but nonetheless significant: Defined benefit coverage for the 36–44-year-old female cohort fell from 30 percent in 1989 to 16 percent in 1998.

Corresponding to the decline in defined benefit coverage, the percentage of individuals with defined contribution plans increased over the decade for all age cohorts (table 1). For the younger age groups, men saw a bigger increase over time than women, but for the age cohorts that were ages 36 and over in 1989, women's defined contribution coverage increased at a faster rate than men's, most likely the result of greater labor-force participation of women as they leave their childbearing years. The proportion of women ages 36–44 in 1989 with defined contribution plans increased from 25 percent in 1989 to 37 percent in 1998. Furthermore, 39 percent of the 45–53 age cohort of women in 1998 had a defined contribution pension.

Participation in individual retirement accounts (IRAs) has increased over the time period (table 1) for women from 22 percent to 24 percent, whereas men's IRA participation decreased from 28 percent to 25 percent. On average, IRA participation increases with age, although the largest increases are attributable to the youngest cohorts. In 1998, the proportion of each cohort that had an IRA increased with age from a low of 10 percent of men and 4 percent of women in the 18–26 age group to a high of 41 percent and 40 percent of men and women age 54–62, respectively. Increases in IRA coverage of women exceed the increases in pension coverage generally in all age cohorts.

Pension Accumulation

In addition to improved rates of pension participation, account bal-

ances in defined contribution plans and IRAs increased from 1989 to 1998 for both men and women (table 2). For working women ages 18–62, the sample-weighted average defined contribution balance grew from \$16,372 in 1989 to \$25,020 in 1998 (in constant 1998 dollars, adjusted for inflation), and for working men the sample-weighted mean balance grew from \$41,149 to \$57,239 over the period. The ratio of women's to men's accumulated defined contribution balances—i.e., the gender pension gap—was 40 percent in 1989 and had improved to 44 percent (moving closer to a one-to-one ratio) in 1998.

However, the narrowing of the gender pension gap was primarily accomplished by the cohort who were ages 45–53 in 1998, for whom the ratio improved from 35 percent to 63 percent. For all other age cohorts, the gender pension gap actually worsened, with women's average accumulated balances being smaller percentages of men's for their cohort as compared with the ratio in the earlier decade. The most extreme example of this effect is for the cohort that was 27–35 in 1989: At that time, the gender pension gap was almost nonexistent (97 percent, or almost one-to-one), but nine years later women's accumulated pension balances were only 45 percent of their male counterparts. The most obvious explanation for this change is women's interruptions in labor force participation—and hence pension participation—during the childbearing years.

Since IRAs are now becoming an important retirement savings vehicle (Copeland and VanDerhei, 2000), examination of average IRA balances by age and gender is also informative. Average IRA balances are almost as large as defined contribution plan balances, and real growth over the 1989–1998 period is at least as great. However, women have consistently lower IRA accumulations and lower rates of real growth. Unlike increases in defined contribution plan accumulations, increases in IRAs have been attributed to the increasing use of these retirement vehicles for holding rollovers from other retirement plans, particularly 401(k)s.

Table 2
**Pension Accumulation and the Gender Pension Gap,
 by Age Cohorts, From 1989 to 1998**

Age Cohort	Average Accumulated Defined Contribution Balance (\$1998)		Gender Pension Gap (Women/Men)	Average Accumulated Individual Retirement Account Balance (\$1998)		Gender Pension Gap (Women/Men)
	Men	Women		Men	Women	
All 1989	\$41,149	\$16,372	40%	\$26,576	\$17,053	64%
All 1998	57,239	25,020	44	56,429	26,307	47
Percentage Increase	39%	53%	—	—	—	—
18–26 in 1998	\$4,532	\$2,794	62	\$8,009	\$17,415	217
18–26 in 1989	\$ 3,607	\$ 4,140	115	\$ 2,554	\$ 2,073	81
27–35 in 1998	28,152	11,875	42	22,956	10,260	45
Percentage Increase	680%	187%	—	799%	395%	—
27–35 in 1989	\$11,912	\$11,525	97	\$ 9,183	\$ 7,866	86
36–44 in 1998	50,761	23,074	45	33,614	20,874	62
Percentage Increase	326%	100%	—	266%	165%	—
36–44 in 1989	\$40,349	\$14,009	35	\$21,897	\$12,249	56
45–53 in 1998	72,621	45,412	63	64,826	33,816	52
Percentage Increase	80%	224%	—	196%	176%	—
45–53 in 1989	\$ 65,081	\$15,768	24	\$ 29,226	\$25,501	87
54–62 in 1998	123,625	25,557	21	105,482	38,579	37
Percentage Increase	90%	62%	—	261%	51%	—
54–62 in 1989	\$82,113	\$47,362	58	\$47,708	\$22,025	46

Source: Authors' tabulations of the 1989 and 1998 Surveys of Consumer Finances, sample-weighted.

Gender Pension Gap

There are several possible explanations for the disparity between men's and women's

defined contribution accumulations and for the improvement in this ratio over time, as compared with the earnings ratio between men and women. The next section considers this question by examining changes between 1989 and 1998 in labor market experience, earnings, pension characteristics, and investment allocation of defined contribution plans and IRAs.⁷

Gender Differences in Job and Demographic Characteristics

Examination of the demographics for the overall group of working adults (table 3) shows little change over the decade. However, there are larger differences when the statistics are broken out by gender and by pension participation. Employment patterns are important to consider since earnings—as well as pension sponsorship and characteristics—have been shown to vary across

different occupational and industrial categories. Perhaps most important as a determinant of pension participation, women are still much more likely to work part time (23 percent in 1998, compared with 28 percent in 1989) and/or part year (15 percent 1998, compared with 16 percent in 1989). In 1998, 7 percent of men worked part time and 10 percent worked part year.

Historically, women have been employed in higher concentrations in smaller firms and in lower paying industries than men.⁸ Compared with a decade earlier, the overall percentage of people working at small firms has stayed relatively stable, although for men the distribution has shifted slightly toward the very small firms (fewer than 10 employees). In 1998, 44 percent of employed individuals age 18–62 worked at firms with more than 500 employees, compared with 42 percent in

⁷ Even and McPherson (1990) use a wage simulation to examine the causes of the wage and pension gaps and find that the pension gap is largely explained by differences in male and female labor market characteristics (e.g., job tenure, union membership, firm size). If the women had characteristics more similar to men, the gap in pensions and wages would be considerably lower.

⁸ See Korczyk (1992) for a discussion of industrial and occupational segregations. Blau et al. (1997) provides a historical discussion of earnings differentials.

Table 3
Sample-Weighted Average Individual and Job Characteristics, by Gender, 1989 and 1998

	Employed Age 18-62						Without Pension							
	All		Men		Women		With Pension		Men		Women			
	1989	1998	1989	1998	1989	1998	1989	1998	1989	1998	1989	1998		
Demographics														
Average Age (years)	39.4	44	39.4	47	39.4	40	41.2	41.8	41.3	41.6	37.4	39.5	37.9	38.7
Years of Education (years)	13.2	13.6	13.3	13.6	13.2	13.6	13.7	14.1	13.6	14.1	12.7	13.0	12.9	13.2
Number of Children	2.4	2.2	2.4	2.2	2.4	2.2	2.5	2.4	2.4	2.1	2.3	2.2	2.3	2.2
Family Income (\$98)	\$66,185	\$64,285	\$70,257	\$69,201	\$61,640	\$58,836	\$76,751	\$80,712	\$66,696	\$66,927	\$62,998	\$56,949	\$57,825	\$52,260
Family Net Worth (\$98)	\$245,342	\$283,562	\$264,652	\$309,539	\$223,789	\$254,775	\$266,951	\$348,710	\$199,080	\$265,052	\$262,083	\$267,846	\$242,438	\$246,422
Marital Status														
Married	78%	77%	83%	81%	72%	72%	87%	83%	69%	72%	79%	79%	74%	73%
Never married	9	11	9	10	9	12	6	8	7	11	13	12	11	12
Single, divorced, or widowed	13	12	8	9	19	16	8	9	24	17	8	9	15	15
Job														
Job tenure	8.1	8.0	9.2	9.00	6.8	6.9	11.7	11.1	8.9	9.4	6.5	6.9	5.1	4.9
Firm size														
fewer than 10 employees	18%	20%	19%	22%	18%	18%	4%	5%	4%	5%	34%	41%	29%	28%
10-19 employees	8	6	6	6	9	6	2	3	3	2	11	10	15	9
20-99 employees	16	14	19	15	13	14	14	14	7	9	25	16	18	17
100-499 employees	15	15	14	14	17	17	17	17	20	19	11	11	14	15
500+ employees	42	44	42	42	42	46	62	61	66	65	19	23	24	30
Part time	16	15	6	7	28	23	2	2	11	10	10	12	41	34
Part year	13	12	10	10	16	15	8	7	14	14	12	12	17	15
Union	20	19	24	21	17	16	37	31	30	26	9	10	6	8
Occupation														
professional/manager	31	36	32	33	29	38	39	40	36	47	25	26	24	31
sales/clerical	30	25	18	16	44	35	15	17	46	36	23	16	41	35
service	11	11	7	8	16	15	8	8	9	7	5	8	21	22
crafts	13	12	22	20	2	3	23	16	1	3	21	24	2	3
operatives	13	14	17	20	9	7	15	18	8	7	18	22	10	7
farm/forest	3	2	4	3	1	1	1	1	0	0	8	4	1	1
Industry														
agriculture/forest	3	2	5	2	2	1	1	1	1	0	9	4	2	1
construction/mining	8	8	13	13	1	2	10	8	1	1	17	18	2	2
manufacturing	19	18	24	23	14	12	31	27	15	14	16	18	13	11
trade	17	15	15	13	18	17	9	10	10	10	23	18	24	23
finance, real estate, business service	13	13	12	14	14	13	10	12	15	13	15	16	13	12
service	35	39	25	28	46	50	30	32	48	54	19	24	44	48
public sector	6	6	5	6	6	5	9	10	11	8	1	2	3	3

Source: Authors' tabulations of the 1989 and 1998 Surveys of Consumer Finances, sample-weighted.

By gender, the increase in family net worth was 17.0 percent for men and only 13.8 percent for women over the 1989–1998 period.

1989; for women, that percentage increased from 42 percent to 46 percent over the period, whereas men's employment at large firms remained stable over the decade.

Nationally, the service sector of the economy has experienced the greatest growth in employment, posting a 4 percentage point increase (to 39 percent) of all jobs between 1989 and 1998, corresponding to declines in manufacturing and the trades over that time period. Although women are still heavily concentrated in sales and clerical positions, the 1990s saw a decline of women in that sector from 44 percent to 35 percent, and a significant increase in the professional/managerial occupational category (from 29 percent to 38 percent) (table 3). Occupational categories for men changed very little over the decade, and distribution across industry categories by gender reflect the general shift toward the service sector.

Concerning general demographic characteristics, on average the population of working adults is slightly older (40.4 years old in 1998, compared with 39.4 years old in 1989), more educated (13.6 years of education in 1998, compared with 13.2 years in 1989), slightly less likely to be married (77 percent married in 1998, compared with 78 percent in 1989), and with fewer children (2.2 children, on average, in 1998, down from 2.4 in 1989). Family income, as measured in 1998 dollars, fell over the decade by nearly \$2,000, on average, but the decline was greater for women, perhaps due to the higher percentage of single women in 1998. In contrast to the decline in income, average family net worth⁹ increased from \$245,342 in 1989 to \$283,562 in 1998 (in constant 1998 dollars) over the decade, a real increase of 15.6 percent. But by gender, the increase in family net worth was 17.0 percent for men and only 13.8 percent for women over the 1989–1998 period.

While comparisons over time and by gender

show relatively small changes in net worth over the last decade, the differences are much more striking when comparing the characteristics of individuals who have pensions with those who do not. The demographic statistics reveal that those with pensions are, on average, older and more educated and have higher income than those without. For example, men with pensions in 1998 had average family income of \$80,712, compared with \$56,949 for those without pensions. Compared with 1989, men with pensions saw a 5 percent increase in real family income in 1998, while men and women without pensions averaged a 9.6 percent real decline.

Pensions appear to be a major contributing factor to families' overall net worth. Whereas net worth for the entire sample increased 15.6 percent in real terms over the 1989–1998 period, this increase was entirely in the portfolios of those with pensions; for this group, real net worth over the period increased 30.6 percent for men and 33.1 percent for women.

As might be expected, job characteristics differ substantially between these groups as well. Those with pensions are concentrated in larger firms and in professional/managerial jobs, whereas those without pensions are more likely to be in small firms and in the construction or trade sectors. Those with pensions are much more likely to belong to unions. A large percentage of women without pensions are part-time workers, although this percentage declined from 41 percent in 1989 to 34 percent in 1998.

Gender Differences in Earnings

In its simplest formulation, the gender earnings gap is the ratio of employed women's earnings compared with that of employed men. A more accurate comparison is to consider the differences in earnings of people in similar positions, but since women are in lower-level positions on average, this would understate the true effect on overall retirement preparedness. Lower earnings imply reduced ability to contribute to retirement savings, and in an economy where defined contribution retirement plans

⁹ Net worth is reported for the household rather than the individual since it is difficult if not impossible to attribute ownership of household assets and liabilities to particular members of the household.

Table 4
Change in Average Earnings (\$1998) and the Gender Earnings Gap From 1989 to 1998

Age Cohort	All Employed		Gender Earnings Gap	All Employed With a Pension		Gender Earnings Gap	All Employed With a Defined Contribution Plan		Gender Earnings Gap
	Men	Women	(Women/Men)	Men	Women	(Women/Men)	Men	Women	(Women/Men)
All									
1989	\$43,972	\$19,929	45%	\$53,571	\$28,810	54%	\$58,924	\$33,511	57%
1998	49,419	27,817	56	58,559	35,664	61	61,685	35,444	57
Percentage increase	12.4%	39.6%		9.3%	23.8%		4.7%	5.8%	
18–26									
1989	\$19,499	\$10,486	54	\$20,204	\$16,863	83	\$26,179	\$17,407	66
1998	27,480	19,711	72	33,586	24,263	72	35,043	24,744	71
Percentage increase	40.9%	87.9%		66.2%	43.9%		33.9%	42.1%	
27–35									
1989	\$35,255	\$20,126	57	\$41,842	\$28,188	67	\$42,924	\$32,862	77
1998	40,236	28,443	71	47,438	36,827	78	50,222	33,737	67
Percentage increase	14.1%	41.3%		13.4%	30.6%		17.0%	2.7%	
36–44									
1989	\$52,153	\$23,190	44	\$58,172	\$31,710	55	\$61,946	\$36,689	59
1998	52,299	26,872	51	59,516	33,292	56	62,573	34,644	55
Percentage increase	0.2%	15.9%		2.3%	4.9%		1.0%	-5.5%	
45–53									
1989	\$57,839	\$22,310	39	\$64,013	\$30,255	47	\$74,780	\$34,575	46
1998	58,602	32,751	56	67,767	40,785	60	71,868	43,199	60
Percentage increase	1.3%	46.8%		5.8%	34.8%		-3.9%	24.9%	
54–62									
1989	\$49,900	\$18,493	37	\$58,596	\$26,008	44	\$71,719	\$35,102	49
1998	59,246	27,859	47	68,784	33,644	49	75,406	30,203	40
Percentage increase	18.7%	50.6%		17.4%	29.4%		5.1%	-13.9%	

Source: Authors' tabulations of the 1989 and 1998 Surveys of Consumer Finances, sample-weighted

are both dominant and growing, gender differences in earnings inevitably magnify the gender differences in retirement income.

The last decade has been a time of improvement in the overall gender earnings gap (table 4). Between 1989 and 1998, the ratio for employed women ages 18–62 improved from 45 percent to 56 percent. However, the gender earnings gap for those with defined contribution plans did not change between 1989 and 1998, remaining at 57 percent. In fact, when defined contribution participants are considered by age cohorts, all but one group actually experienced a *widening* of the earnings gap over the decade. For example, employed women ages 27–35 with defined contribution plans in 1989 earned 77 percent of what men earned at that time, whereas in 1998 (when that cohort was 36–44), the women only earned 55 percent of what men earned.

In comparing pension contributions and accumulations between employed men and women, it is important to keep in mind that women are more concentrated in the lowest-income categories, compared with men. Although the earnings distribution has generally shifted upward over the decade for both genders (chart 1), the percentage of women with defined contribution plans who earned less than \$25,000 (in constant

1998 dollars) remained stable from 1989 to 1998 at 39 percent (table 5). In contrast, only 13 percent of men with defined contribution plans earned less than \$25,000 in 1998, a decrease from 19 percent in 1989. At the upper end of the earnings distribution, 17 percent of men with defined contribution plans earned \$75,000 or more in 1998, compared with only 4 percent of women. Over the 1989–1998 period, the shift in the earnings distribution of individuals with pensions appears to have primarily favored men, with very little change in distribution occurring for women.

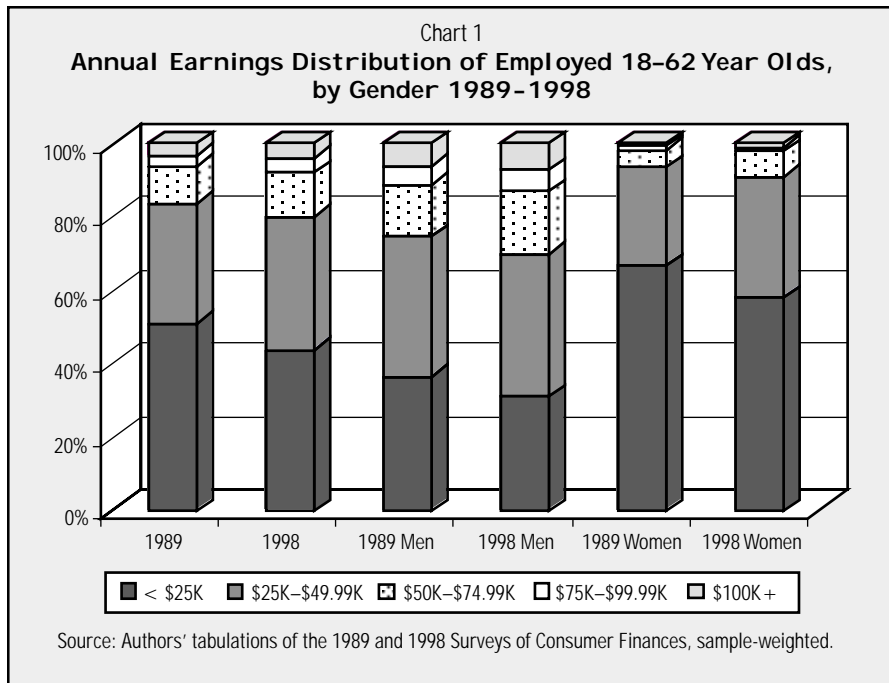
In light of the stagnant or declining level of women's earnings relative to men's and differences noted above regarding earnings distributions for those with defined contribution plans, the improvements in the gender pension gap over the last decade are encouraging. Despite lower earnings on average, women's pension accumulations appear to be increasing at a proportionately greater rate.

Gender Differences in Pension Characteristics

In explaining pension accumulations, the most important characteristics of defined contribution plans are the

contribution percentages made by the employee and the employer and the number of years that the individual has been in the plan.

In this sample, neither of these characteristics appears to provide a strong explanation for changes in the gender pension gap over the last decade. Both women and men have had a slight increase in the number of years in their current defined contribution plan,¹⁰ although the average for women has increased to a larger extent than that for men, from 5.1 years in 1989 to 6.1 years in 1998 for women, compared with 6.3 years in 1989 and 6.9 years in 1998 for men (table 6). The years in a pension plan were



slightly higher for higher income groups and for older individuals.

The most interesting change in defined contribution plan characteristics and

contributions since 1989 is the change in contributions by both employees and employers. Although the percentage of employed individuals who were currently contributing to their plans increased to 85 percent in 1998 for both men and women (table 6), men contributed

¹⁰ Survey respondents are asked to give the number of years that they have been participating in each of their most important three pensions on the current job. In this analysis, the years in the pension for each person in the sample are the highest of the three.

Table 5
Earnings Distribution, by Gender and Pension Participation, 1989 and 1998

Percentage Earning	Employed Age 18–62			With Pension		With Defined Contribution Plan	
	All	Men	Women	Men	Women	Men	Women
Less than \$25,000							
1989	51%	36%	67%	23%	46%	19%	39%
1998	44	31	58	14	39	13	39
\$25,000–\$49,999							
1989	33	38	27	42	42	38	43
1998	36	39	33	46	47	45	47
\$50,000–\$74,999							
1989	10	14	5	20	10	24	14
1998	12	17	7	24	10	24	11
\$75,000–\$99,999							
1989	3	5	1	7	2	9	3
1998	4	6	1	7	2	8	2
\$100,000 or More							
1989	3	6	.5	8	1	10	2
1998	4	7	1	8	2	9	2

Source: Authors' tabulations of the 1989 and 1998 Surveys of Consumer Finances, sample-weighted.

Table 6
Defined Contribution Plan Characteristics for Employed Men and Women Ages 18–62, by Gender, 1989 and 1998

	Average Years in Defined Contribution Plan		Percentage Currently Contributing		Average Employee Contribution (Percentage of Pay)		Percentage With Employer Contributing		Average Employer Contribution (Percentage of Pay)												
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women											
Total	6.3	6.9	5.1	6.1	75.0%	85.0%	76.0%	85.0%	8.02%	7.45%	6.63%	7.16%	84.0%	80.0%	81.0%	81.0%	6.13%	5.67%	7.75%	5.52%	
Age (years)																					
18–26	N/A	2.2	N/A	1.9	N/A	72	N/A	88	N/A	5.78	N/A	5.10	N/A	77	N/A	84	N/A	5.72	N/A	4.22	4.22
27–35	4.5	4.2	3.8	4.2	73	86	73	76	6.07	7.18	6.01	6.57	83	86	81	87	6.09	5.31	8.35	5.13	
36–44	5.8	7.2	4.7	6.7	80	82	79	84	7.90	7.60	5.42	6.96	87	77	74	80	6.25	6.11	6.95	5.74	
45–53	8.5	8.7	5.5	7.6	77	90	82	86	9.27	7.11	8.28	7.81	82	79	84	77	6.44	5.98	8.09	6.10	
54–62	9.0	10.4	10.9	7.6	77	86	75	79	11.40	8.80	9.83	8.82	79	82	81	77	5.68	4.87	9.23	5.39	
Marital Status																					
Married	6.5	7.2	4.6	6.1	77	84	74	84	7.76	7.45	7.00	7.28	86	80	82	83	6.36	5.66	8.37	5.62	
Single, divorced, widowed	6.6	5.6	6.7	6.5	N/A	91	81	91	N/A	7.38	6.35	7.15	67	83	79	75	3.47	5.98	6.42	5.14	
Never married	4.1	5.8	4.6	5.3	N/A	87	N/A	83	N/A	7.52	N/A	6.54	N/A	82	N/A	79	N/A	5.48	N/A	5.46	5.46
Earnings (annual)																					
less than \$25K	5.2	4.2	3.8	5.0	68	77	65	79	5.91	5.69	5.95	6.46	93	82	93	87	5.42	5.00	8.52	5.64	
\$25K–\$49,999	6.0	5.9	5.4	6.2	73	85	87	88	8.25	7.21	6.50	7.34	84	80	73	77	5.00	5.61	6.38	5.32	
\$50K–\$74,999	6.3	8.8	6.8	8.6	79	87	73	90	8.59	8.31	7.76	8.62	79	81	66	79	8.04	5.70	6.63	5.39	
\$75K–\$99,999	8.1	9.5	8.1	10.3	87	86	N/A	N/A	7.43	7.65	N/A	N/A	81	79	N/A	N/A	5.17	5.73	N/A	N/A	
\$100K+	8.0	8.6	N/A	7.0	77	89	N/A	95	9.75	8.39	N/A	7.02	80	78	N/A	78	8.39	6.87	N/A	6.15	

Source: Authors' tabulations of the 1989 and 1998 Survey of Consumer Finances, sample-weighted.
 Note: N/A indicates that there were fewer than 20 responses.

Employed women are still less likely to have a pension or retirement plan than men, but this difference narrowed somewhat over the decade. Employed women have accumulated less in defined contribution plans, on average, than men, but this gap has also narrowed slightly.

less of their pay (down from 8.02 percent in 1989 to 7.45 percent in 1998) while women increased their percentage contribution from 6.63 percent to 7.16 percent over the period. At the same time, the average employer contribution (or “match”) fell from 6.13 percent to 5.67 percent for men and from 7.75 percent to 5.52 percent for women over the 1989–1998 period. The net result is that in 1998, men and women’s pension contribution characteristics do not show any substantial disparity, on average.

Analysis of contribution rates by age, marital status, and earnings shows only small differences as well. In general, the percentage of individuals contributing to their plans increases slightly with age and earnings both for men and women. The employee contribution rate does not appear to be related to income, but does increase with age. Employer contribution rates do not vary substantially across age or income groups.

Gender Differences in Investment Allocation

The trend toward self-directed investment of retirement accounts can be clearly seen in this survey data. In 1989, the SCF respondents were not asked whether they were allowed investment choice, since this was fairly rare at that time. However, by 1998, 81 percent of the men and 73 percent of the women reported that they were allowed investment choice within their defined contribution retirement plan (table 7). Across different demographic characteristics, investment choice does not seem to be directly related to either age or earnings.

¹¹ For purposes of reporting this information on table 7, respondents’ portfolios were categorized as “mostly stock” or “mostly bonds” only if all their plans had the same investment allocation; otherwise they were categorized as “combination.” Although this categorization is not optimal for detailed consideration of asset allocation, a recent study by Waggle and Englis (2000) finds that individuals tend to put their entire IRA investment into a single asset category.

Survey participants in the SCF were asked whether their retirement accounts were invested mostly in stocks, mostly in bonds, or in a combination.¹¹ Responses to this question led to the conclusion that a significant shift in investment allocation occurred between 1989 and 1998. While more than 30 percent of both men and women had their defined contribution assets invested

mostly in bonds in 1989, by 1998 that had declined to 14 percent for men and 20 percent for women. Since there has been little change in the percentage who indicate a mixed portfolio, most of the increase in allocation choice has been in the “mostly stocks” category, where men increased their allocations from 26 percent to 44 percent over the decade, while women increased their allocations from 24 percent to 41 percent.

Examination of investment choice by demographic category shows that bond investors are concentrated in the lower-earning categories. In 1998, 20 percent of men and 22 percent of women earning less than \$25,000 invested mostly in bonds, compared with only 7 percent of men and 6 percent of women earning over \$100,000 (table 7). The percentage of men and women indicating a “mostly stocks” strategy decreases slightly with age, and increases with income. This shift in investment allocation can be attributed to better investment education, as well as the highly publicized stock market increases over the decade.

Conclusions

How do pension participation, accumulations, and allocations differ between employed men and women, and what changes have occurred in these differences over the period from 1989 to 1998? Employed women are still less likely to have a pension or retire-

Table 7
**Sample-Weighted Average Investment Allocations for Defined Contribution Plan Participants,
 Employed Individuals Ages 18-62, by Gender and Other Characteristics, 1989 and 1998**

	Percentage Invested Mostly in Bonds				Percentage Invested Mostly in Stocks				Percentage Invested in Combination				Percentage Allowed Investment Choice			
	Men		Women		Men		Women		Men		Women		Men		Women	
	1989	1998	1989	1998	1989	1998	1989	1998	1989	1998	1989	1998	1989	1998	1989	1998
Total	31%	14%	32%	20%	26%	44%	24%	41%	43%	42%	47%	39%	N/A	81%	N/A	73%
Age (years)																
18-26	N/A	21	N/A	21	N/A	48	N/A	51	N/A	31	N/A	28	N/A	67	N/A	71
27-35	32	13	32	16	28	43	21	48	40	44	47	36	N/A	79	N/A	75
36-44	34	17	31	20	21	43	16	38	45	39	52	42	N/A	83	N/A	71
45-53	26	8	32	22	31	53	31	37	43	39	37	42	N/A	87	N/A	76
54-62	19	12	27	21	26	34	21	41	55	53	52	38	N/A	76	N/A	67
Marital Status																
Married	30	13	34	20	25	45	18	42	45	41	49	38	N/A	80	N/A	73
Single, divorced, widowed	31	14	33	20	54	33	19	40	15	53	48	40	N/A	91	N/A	74
Never married	43	17	21	16	12	44	43	42	45	40	36	42	N/A	83	N/A	71
Earnings (annual)																
Less than \$25K	45	20	31	22	26	28	16	35	29	51	53	43	N/A	65	N/A	68
\$25K-\$49,999	27	16	35	20	25	39	22	44	47	45	44	36	N/A	80	N/A	75
\$50K-\$74,999	28	10	34	13	27	53	25	47	45	37	41	40	N/A	84	N/A	78
\$75K-\$99,999	32	9	16	8	34	59	32	58	34	32	51	34	N/A	87	N/A	82
\$100K +	24	7	N/A	6	19	56	N/A	51	56	37	N/A	44	N/A	92	N/A	79

Source: Authors' tabulations of the 1989 and 1998 Surveys of Consumer Finances, sample weighted.

Note: N/A indicates either that the information is not available for that year and category or that there were less than 20 responses.

*Further improvements
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ment plan than employed men, but this difference narrowed somewhat over the decade. Employed women have accumulated less in defined contribution plans, on average, than men, but this gap has also narrowed slightly. Employed women with defined contribution plans are more likely to invest in low-risk, low-return assets than men, and this difference increased measurably over the 1989–1998 period.

Participation in a retirement plan is an essential first step in insuring adequate financial resources for retirement. The percentage of employed women ages 18–62 participating in any pension or retirement plans at their current job increased from 43 percent in 1989 to 45 percent in 1998, but still remained below the 52 percent participation rate in 1998 for employed men in the same age group. One of the most dramatic changes in pension participation over the period was the change in the type of retirement plan in which workers participated. The percentage of employed women participating in defined benefit pensions fell from 28 percent to 16 percent from 1989 to 1998, while the percentage participating in defined contribution plans increased from 23 percent to 33 percent over the same period. The percentage of employed men participating in each type of pension showed changes in similar directions, but participation levels for men in 1998 remained higher than those of women—both defined benefit (19 percent) and defined contribution (40 percent) plans.

Evaluating gender differences in accumulated defined contribution balances is essential, given the increased prominence of defined contribution plans over the 1989–1998 period. On average, employed women participating in defined contribution plans in 1998 had accumulated \$25,020, compared with \$16,372 in 1989 (measured in constant 1998 dollars). This is a 53 percent increase in real terms. Over the same period, average balances in defined contribution plans held by employed men increased from \$41,149 to \$57,239, a 39 percent increase. As a consequence of the larger increase in defined contribution balances held by women compared with men, the ratio of women's average accumulated

balances to men's average accumulated balances rose from 40 percent to 44 percent—a narrowing of the gender pension gap. Nevertheless, the ratio indicates that, on average, women with defined contribution plans have accumulated only \$0.44 for every \$1.00 accumulated by men with defined contribution plans.

Lower average accumulations in defined contribution balances for employed women versus employed men could be related to differences in earnings and/or to differences in investment decisions, among other factors. The gender earnings gap—the ratio of women's earnings to men's earnings—for employed men and women participating in defined contribution plans held steady at 57 percent from 1989 to 1998. Thus, the gender pension gap narrowed despite the lack of change in the gender earnings gap. Both women and men made more aggressive investment allocation decisions in 1998 than in 1989. The percentage of women with defined contribution plans invested mostly in stocks increased from 24 percent in 1989 to 41 percent in 1998. Similarly, the percentage of men with defined contribution plans invested mostly in stocks increased from 26 percent in 1989 to 44 percent in 1998. Nevertheless, by 1998, a larger percentage of women than men with defined contribution plans had invested mostly in bonds, a less risky (and typically less rewarding) investment allocation (20 percent versus 14 percent).

The period from 1989 to 1998 can be considered a decade of progress: women's pension participation rate moved closer to men's; the gap between women's and men's average balances in defined contribution plans narrowed, despite the lack of improvement in the gap between women's and men's average earnings; and women with defined contribution plans moved to more aggressive allocations, although they still hold more low-risk assets than men, on average. Since there is no evidence that pension plan provisions vary by gender, further improvements in closing the gender pension gap will come only with changes in women's labor force experience and investment decision-making.

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