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PRIVATE PENSIONS

1986 Law Will Improve Benefit Equity in Many Small Employers' Plans

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The Honorable Lloyd Bentsen
Chairman, Committee on Finance
United States Senate

The Honorable Edward M. Kennedy
Chairman, Committee on Labor and Human Resources
United States Senate

The Honorable Dan Rostenkowski
Chairman, Committee on Ways and Means
House of Representatives

The Honorable Dan Rostenkowski
Chairman, Joint Committee on Taxation
Congress of the United States

The Honorable William D. Ford
Chairman, Committee on Education and Labor
House of Representatives

We prepared this report pursuant to the requirement in the Retirement Equity Act of 1984 that we study the effect of federal pension rules on women. The Tax Reform Act of 1986 (TRA) made major changes to federal pension rules in part to address perceived inequities in the benefits men and women earn. Our report discusses specific pension rules that affect benefit equity between men and women and the likely effect TRA changes to these rules will have on benefit equity.

Copies of this report are being sent to other interested congressional committees, the Secretary of the Treasury, and the Commissioner of the Internal Revenue Service, and will be available to others upon request. If you have questions about the information in the report, please call me at (202) 275-6193. Other major contributors are listed in appendix VII.

Joseph F. Delfico

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Director, Income Security Issues

Executive Summary

Purpose

The Congress has established special tax incentives to encourage employers to provide pension plans for their employees. These tax incentives are the single largest tax expenditure drain on the federal budget—estimated at $47 billion in fiscal year 1991. In return for this special tax treatment, federal law requires that pension plans conform to a variety of provisions, including rules against discriminating in favor of certain classes of employees.

The Congress has been concerned that women may not be getting a fair shake from the pension system even though pension rules are gender neutral. In response to this concern, the Congress passed the Retirement Equity Act of 1984 (REA). The act changed pension rules to improve the likelihood that women would receive pension benefits and required GAO to study the effect of federal pension rules on women. Subsequently, the Tax Reform Act of 1986 (TRA) made major changes to federal pension rules in part to address perceived inequities in the benefits men and women earn. Pursuant to the REA requirement, GAO determined

- the extent to which private pension plans allocated benefits equitably between women and men before TRA and
- the likely effects of TRA and related changes on benefit equity.

Background

Since the passage of the Employee Retirement Income Security Act of 1974 (ERISA), the Congress has amended federal pension rules to assure that benefits are delivered to a broader spectrum of lower-paid employees. For example, TRA reduced the extent to which plan sponsors may "integrate" the pension benefit formula with social security; that is, favor higher-paid workers recognizing that the social security benefit formula favors lower-paid workers. In conjunction with the act, the Internal Revenue Service (IRS) has proposed new nondiscrimination rules that will limit allowable differences in benefit accrual rates between participants.

GAO analyzed benefit equity for samples representing about 78,000 plans (about 700,000 participants) sponsored by small employers and about 10,500 plans (about 6.2 million participants) sponsored by large employers. Small employers have fewer than 100 employees. The sampled plans represented the most prevalent types of defined benefit and defined contribution plans in industries with most of these plans (see app. I). Defined benefit plans prescribe a specific retirement benefit through a formula. Defined contribution plans base the benefit on contributions to and investment returns on each participant's account.

In this report, GAO assumes that a plan is equitable if every participant earns a benefit that is the same percentage of pay per year of service. GAO considered inequitable any plan in which men earned more than $1.10 in benefits as a percentage of pay per year of service for every $1 women earned. GAO also included estimated social security benefits along with pension benefits to assess benefit equity under the combined public and private pension system. (See ch. 1 and app. I.)

Results in Brief

Before TRA, the majority of pension plan participants were in large employers' plans that generally allocated benefits equitably. However, many participants in small employers' plans were in plans that were inequitable under GAO's criteria. Most defined benefit plans sponsored by small employers favored the higher-paid, who were mostly men. In these plans, men earned more in pension benefits than women after accounting for differences in tenure and salary. The benefit distribution still favored men in many of these plans after adding social security benefits.

The TRA integration changes and proposed IRS nondiscrimination rules will substantially limit the extent to which a plan may favor the higher-paid in the allocation of benefits. Consequently, the extent of benefit inequity will decrease in many small employers' defined benefit plans under the proposed rules. If social security benefits are included, few small employers' defined benefit plans will still favor the higher-paid after TRA.

IRS anticipates finalizing the rules without major substantive changes. GAO supports these rules and believes they will result in substantial gains in benefit equity.

Principal Findings

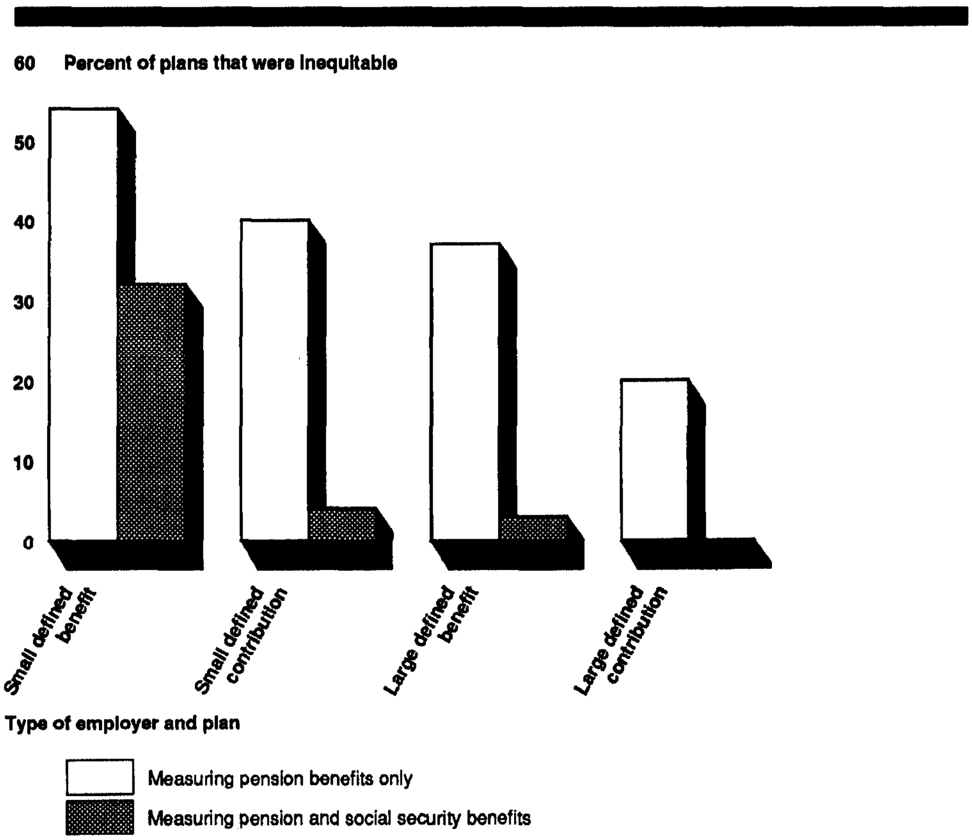
Most Participants in Equitable Plans

GAO found that, under the rules before TRA, most workers (70 percent of those represented in GAO's analysis) were in private employer-sponsored plans that met GAO's equity standard. These included most plans sponsored by large employers. In them, men earned $1.10 or less in pension benefits per year of service per dollar of salary for every $1 in benefits women earned. (See ch. 2.)

Most Small Employers' Defined Benefit Plans Inequitable Before TRA

In many small employers' defined benefit plans men earned more in pension benefits than women before TRA. After accounting for differences in tenure and salary, men earned over $1.10 in pension benefits for every $1 women earned in over one-half of these plans (see fig. 1). In one-third, men earned over $1.50 for every $1 women earned. This $1.50 to $1 difference occurred in about 20 percent of small employers' defined contribution plans, but occurred rarely in large employers' plans of either type. (See ch. 2.)

Figure 1: More Benefit Inequity in Small Employers' Defined Benefit Plans



Note: A plan was inequitable if men earned more than $1.10 in benefits for every $1 women earned.

The inequities were less common when social security benefits were combined with pension benefits. Nevertheless, men still earned over $1.10 in combined benefits for every $1 women earned in one-third of small employers' defined benefit plans before TRA (see fig. 1). And in about 15 percent men earned over $1.50 in pension and social security benefits for every $1 women earned. (See ch. 2.)

Before TRA small employers used federal pension rules that often resulted in disproportionately higher benefits for higher-paid and older employees. For example, small employers integrated their defined benefit pension plan formulas to a greater extent than other plans. In addition, these plans almost exclusively prorated accrued benefits according to each employee's total possible years of plan participation from entry age to normal retirement. This "fractional accrual" method tends to maximize the differences in benefits earned between older and younger employees permitted under the nondiscrimination rules. (See ch. 2.)

Equity Will Improve After TRA

TRA and related proposed rules will improve benefit equity. GAO simulated the effect of the post-TRA rules on 11 of the most inequitable small employers' defined benefit plans and found that inequity decreased substantially. But, men still earned over $1.10 in pension benefits for every $1 women earned in 6 cases. Including social security benefits in the calculation, the benefit allocation was equitable in 10 of the 11 cases under the proposed rules. (See ch. 3.)

TRA and IRS Rules Address Causes of Inequity

Two federal pension rules allowed substantial inequity before TRA—integration and fractional accrual. IRS has proposed rules that address these problems and anticipates finalizing these rules without major changes. GAO supports the issuance of these final rules and believes they will result in substantial gains in benefit equity. (See ch. 3.)

Recommendations

GAO is making no recommendations.

Agency Comments

GAO did not obtain written comments on the report, but discussed its contents with officials at IRS and the Department of the Treasury. The officials generally agreed with GAO's analysis of the old and new rules. Their comments were included where appropriate.

Contents

Figures

Abbreviations

DEFRA	Deficit Reduction Act of 1984
ERISA	Employee Retirement Income Security Act of 1974
GAO	General Accounting Office
IRS	Internal Revenue Service
NBS	New Beneficiary Survey
OASDI	Old-Age, Survivors, and Disability Insurance
OBRA 87	Omnibus Budget Reconciliation Act of 1987
PIA	primary insurance amount
REA	Retirement Equity Act of 1984
SSA	Social Security Administration
TEFRA	Tax Equity and Fiscal Responsibility Act of 1982
TRA	Tax Reform Act of 1986

Measuring Benefit Equity in the Private Pension System

Recognizing that private pensions, along with social security and private savings, contribute to retirement income for millions of retirees and their families, the Congress uses tax preferences to encourage employers to sponsor pension plans. For qualified plans, employer contributions for workers' pension benefits are tax deductible to the employer and are not counted as taxable income to the employee.[1] Money in pension funds earns interest tax free, and individuals pay taxes on pension benefits only when they are received. This preferential treatment accounts for the single largest tax expenditure in the federal budget—an estimated $47 billion in fiscal year 1991.

Qualification and other rules for pension plans are found in the Internal Revenue Code and the Employee Retirement Income Security Act of 1974 (ERISA), as amended. Among other things, these provisions are intended to distribute pension and tax benefits equitably among workers and ensure that adequate resources exist to pay promised benefits. For example, a qualified plan may not discriminate in favor of highly compensated employees in terms of the benefits or contributions. However, the benefits or contributions a plan provides may vary within certain limits for different levels of compensation. Benefits and contributions also may vary according to length of service with the employer.

For example, the 25,000th dollar of compensation may earn a worker more, in terms of the pension benefit, than the 5,000th dollar of compensation. Similarly, the 20th year of tenure may earn a worker more than the 5th year of tenure. As a result, if worker A has participated in the plan twice as long as worker B, or earns twice as much as worker B, worker A's pension may be more than twice as much as worker B's.

Pension Differences in Retirement

Men receive higher pension benefits than women in retirement. These differences are greater than salary and tenure differences between men and women, according to our analysis of a sample of retirees (see app. II). If women, on average, had the same salary and tenure as men, about 70 percent of the difference identified in our analysis between men's and women's pension benefits at retirement would disappear. The remaining difference is due to a variety of factors, including pension regulations that allow some workers to earn more in pension benefits per dollar of compensation or year of tenure than other workers.

[1] Employer contributions are treated as ordinary and necessary business expenses for federal income tax purposes.

Background

The Congress has imposed a variety of requirements that plan sponsors must meet for their contributions to be excluded from employee income for tax purposes. Generally, the requirements limit the choices employers have in designing plans. For example, ERISA governs such things as (1) when a worker may join the plan and start earning retirement benefits, (2) how a worker's retirement benefit would be computed and kept secure, and (3) when a worker must be allowed to retire with full benefits. Tax-qualified plans must have provisions that conform to ERISA.

Types of Pension Plans

Employers may sponsor defined benefit or defined contribution plans or both. Certain ERISA requirements apply similarly to both types of plans, although some requirements apply only to one type or the other. In a defined benefit plan the retirement benefit is determined through a formula based on a worker's years of employment or participation in the plan, earnings, or both. The employer is responsible for funding the plan sufficiently to pay promised benefits. In a defined contribution plan each participant has an individual account into which the employer makes contributions. These contributions generally are allocated in proportion to each worker's earnings. The retirement benefit will depend on the amount of contributions and the investment experience of the account.

Both plan types have advantages and disadvantages for employees. From the worker's point of view, defined benefit plans provide predictable retirement benefits that typically are tied to earnings immediately before retirement. The risk of plan investment performance is borne by the employer, not the employee, and some portion of workers' benefits is generally guaranteed by the federal government through the Pension Benefit Guaranty Corporation. The main disadvantage of defined benefit plans is to younger, short-term, mobile workers because benefits are usually frozen when such workers leave a job; thus, benefits are not subsequently adjusted for future real earnings growth and inflation.

In contrast, defined contribution plans are advantageous to younger, short-term, mobile workers. Compared with a defined benefit plan, defined contribution plan assets build at a faster rate during the early years of participation, and workers' retirement benefits are generally less affected by changing from one employer's plan to another. The main disadvantage is that workers bear the risk associated with investment performance of the assets in their individual accounts. Thus, the size of their retirement benefits is not calculable until they retire.

Defined benefit plans are a small proportion of all plans, but they include the majority of participants. In 1986, about 24 percent of the over 700,000 private pension plans were defined benefit plans and about 76 percent were defined contribution plans. Defined benefit plans contained about 52 percent of all pension plan participants. Many plans are very small—about 59 percent of all plans had fewer than 10 participants and these plans contained less than 3 percent of all participants. About 90 percent of all participants were in the 7 percent of plans that were large; that is, plans that had 100 or more participants.[2]

Congressional Interest in the Distribution of Benefits

The Congress has acted to ensure that participants receive some benefits from their pension plans in ERISA and subsequent legislation. ERISA, among other things, introduced accrual rules to assure that participants earned benefits throughout their careers. ERISA also included rules about vesting. These rules gave participants legal ownership of at least part of their benefits before normal retirement.

Under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), the Congress established special rules for "top-heavy" pension plans to curb perceived inequities in plans where an employer's key employees are the primary beneficiaries.[3] A plan is top-heavy when more than 60 percent of the benefits or contributions go to company owners, officers, and other key employees. Among other things, top-heavy plans must provide minimum benefits or contributions to nonkey employees participating in the plan.[4]

The Congress acted to improve the likelihood that women would receive pension benefits in the Retirement Equity Act of 1984 (REA). REA included changes in how a retiree chooses survivor benefits, how plans account for breaks in service, and how pension rights are assigned in divorce settlements.

The Tax Reform Act of 1986 (TRA) contained changes to correct perceived abuses and inequities in the delivery of benefits. Among other

[2]The distribution of plans represented in our analysis is similar to that of the universe of plans in 1986, although we sampled selected industries and plan types.

[3]Key employees include business owners and officers who meet certain compensation and ownership level thresholds. The definition of a key employee is found at section 416(i)(1) of the Internal Revenue Code.

[4]See the Related GAO Products section at the end of this report for work examining the effect of these rules in top-heavy plans.

things, the act (1) limited the differences in benefits allowed in all plans that coordinate benefits or contributions with social security (integrated plans), (2) modified the coverage and participation rules to expand the number of workers participating in plans, and (3) imposed a limit on annual compensation used to determine benefits or contributions.

Objectives, Scope, and Methodology

The Retirement Equity Act of 1984 (REA) required GAO to study the effect of federal pension rules on women. The rules allow differences between higher- and lower-paid and longer- and shorter-tenured workers. Women, historically, have shorter job tenure and are paid less than men. The Congress is concerned that the rules, which are gender neutral, may result in disparate treatment of women because of women's working patterns. TRA made major changes to federal pension rules in 1986, in part to address perceived inequities in the benefits men and women earn. Pursuant to the REA requirement, we determined

- the extent to which private pension plans allocated benefits equitably between women and men before the 1986 act and
- the likely results of the TRA changes on benefit equity.

Source and Scope of GAO's Data

To analyze the distribution of benefits in the private pension system we gathered data by surveying plan sponsors for two statistical samples of private pension plans.[5] Our universe of tax-qualified plans contained the most prevalent types of defined benefit and defined contribution plans in industries with most of these plans (see app. I). Our respondents represent about 78,000 plans sponsored by businesses with fewer than 100 employees (small employers) with about 700,000 participants, and about 10,500 plans sponsored by businesses with 100 or more employees (large employers) with about 6.2 million participants.

Plan data generally covered the most recently completed plan year for which information was available, usually ending in 1985 or 1986 (see app. I). Participant data generally applied to the beginning and end of the most recently completed plan year. Small employers' plans provided information on all plan participants; large employers' plans provided information on a random sample of participants.

[5]The samples were drawn from listings of plans in operation in 1984 and 1985. This was the most up-to-date information available at the time we drew our samples.

We did not independently verify the accuracy of reported data. However, to assure the quality of the data, we edited survey responses for consistency and validity; checked documentation, such as summary plan descriptions and actuarial reports supplied by the employers; and called company personnel familiar with the plans to resolve apparent inconsistencies.

Measuring Benefit Equity Before TRA

REA directed GAO to study the effect of pension rules on women, but did not define what constituted benefit equity. We developed a measure of benefit equity based on the concept that a plan in which every participant earns a benefit that is the same percentage of pay per year of service would be considered equitable. The plan-based measure maintains the focus of federal pension rules on the relationship of benefits to salary and tenure for participants in the same plan. Specifically, the measure adjusts differences in benefits to account for proportionate differences in salary and tenure by comparing men's and women's accrued (earned) pension benefits per year of service divided by annual salary (see app. I).[6] In defined benefit plans the accrued benefit component of the measure was the accrued benefit per year of service; in defined contribution plans it was the employer contribution for the most recent year.[7]

We considered inequitable any plan in which men earned more than $1.10 in benefits as a percentage of pay per year of service for every $1 women earned. Under this criteria, a plan with small disproportionate differences in benefits would be considered equitable.[8] We did not consider inequitable any plan in which women earned more than $1.10 in benefits for every $1 men earned because women were generally the lower-paid in these plans and pension law does not prohibit discrimination in favor of the lower-paid. It only prohibits favoring the higher-paid.

[6]We also measured benefit equity comparing higher- and lower-paid participants and longer- and shorter-tenured participants. The results measuring equity between compensation and tenure groupings are very similar to those comparing men and women (see app. III). This is because in most plans represented in our analysis women are more likely to be lower-paid or shorter-tenured than men.

[7]Our measure was based on benefits earned for one year of service, usually 1985 for small employers' plans and 1986 for large employers' plans (see app. I).

[8]This gave the benefit of the doubt to a plan that might fail a stricter equity test not because the plan actually was inequitable but because of sampling and nonsampling errors that occur in any survey. We chose this conservative approach to minimize the likelihood of classifying a plan that actually was equitable as inequitable.

Under our method, a pension plan will be equitable in its allocation of benefits if the allocation among participants reflects proportionate differences in compensation and tenure. For example, if men's compensation for the year is twice that for women and men's pension benefits are twice those for women, the benefit allocation of the plan would be proportionate and the plan would be classified equitable. But if men earned 2.5 times or 10 times the pension benefits women earned, the allocation would be disproportionate and the plan considered inequitable.

Measuring equity based on pension benefits alone presents a picture of what the pension tax expenditure is buying in terms of pension equity. Recent legislation has made changes designed to improve the distribution of pension benefits regardless of social security or other sources of income workers may have in retirement. For example, TEFRA required a minimum benefit for lower-paid workers in top-heavy plans that cannot be reduced because of social security. And TRA modified the integration rules for all plans to assure that workers would receive some pension benefits from the plan, regardless of their social security benefit.

In addition to measuring the equity of pension benefits alone, we included estimated social security benefits along with pension benefits to assess benefit equity under the combined public and private pension system.[9] The social security benefit formula was designed to replace, in large part, preretirement earnings for lower-wage workers. Higher-wage workers were expected to supplement social security through other sources. In recognition of this, private pension rules were established to allow employers to sponsor integrated plans in which benefits were tilted toward the higher-paid.

A plan may be explicitly or implicitly integrated. In the case of explicit integration, a pension benefit or contribution formula may favor the higher-paid by giving them higher benefits because the social security benefit formula favors the lower-paid. Other plans are implicitly integrated. These plans do not explicitly account for social security in their formula; rather, they set their benefit or contribution level recognizing that social security will also provide retirement benefits for their workers.

[9] We estimated participants' social security benefits earned in the most recent year using a computer program developed by the Social Security Administration (see app. I).

Assessing the Impact of TRA Changes on Benefit Equity

TRA changed pension law that affects the allocation of benefits between men and women (or the higher- and lower-paid). For example, TRA lessened the allowable extent of integration in pension plans (see app. IV). The Internal Revenue Service (IRS) has proposed regulations implementing the integration changes effective for plan years beginning in 1989.[10]

IRS also has proposed regulations under TRA that substantially change how plans can meet the nondiscrimination requirements of the Internal Revenue Code (see app. V).[11] These proposed regulations would be effective for plan years beginning in 1992. IRS chose to develop comprehensive nondiscrimination regulations for several reasons. These included TRA changes to other rules that were linked to the nondiscrimination rules, such as the integration changes, and TRA legislative history that indicated congressional interest in differences in accrual rates.

We examined the proposed regulations and determined the extent of inequity under our measure that would still be possible under the new rules.[12] We simulated the post-TRA rules on a subsample of selected plans to gauge the level of inequity possible under the new rules. We also gathered information on the possible effects of TRA from various sources, including IRS public hearings, published studies, and discussions with pension experts representing a wide range of perspectives on the private pension system.

Our data reflect actual pension benefits for plan participants and plan provisions at a particular point in time before TRA. Our analysis did not examine pension benefits that these participants will actually receive at retirement. As changes in pension plan provisions and work-force characteristics occur, the magnitude of differences we identify could also change. For example, if women's work patterns come to resemble men's in the future; that is, women on average earn more and spend more time in the work force, women's benefits will more closely approximate men's benefits.

We estimated social security benefits under particular assumptions about past and future tenure and earnings (see app. I). We believe the

[10]"Permitted Disparity with Respect to Benefits and Contributions," 53 Fed. Reg. 45,917 (1988).

[11]"Nondiscrimination Requirements for Qualified Plans," 55 Fed. Reg. 19,897; 37,888; and 49,906 (1990).

[12]One method of meeting the proposed nondiscrimination requirements is very similar to our measure of equity (see app. V).

net effect of these assumptions is a slight overestimate of women's social security benefits resulting in a bias in the measure in favor of women when estimated social security benefits are included.

Report Organization

Chapter 2 discusses the extent of benefit inequity in the private pension system before TRA and two federal pension rules in effect then that contributed to this inequity. Chapter 3 explores the likely effects of TRA and related IRS proposed regulations on benefit equity and contains our conclusions.

Appendix I provides additional information on our scope and methodology, including details about how our measure of equity is calculated. Appendix II details our background analysis of differences in men's and women's pension benefits in retirement. Appendix III presents results of our analysis of equity comparing compensation and tenure groups rather than men and women. Appendix IV describes rules governing the integration of pension plans with social security before and after TRA. Appendix V describes rules governing the use of fractional accrual before and after TRA. Appendix VI contains details about our redesign of selected plans to conform to TRA and related proposed IRS regulations. Appendix VII lists major contributors to this report.

Our work was performed in accordance with generally accepted government auditing standards.

Small Employers' Defined Benefit Plans Had Substantial Benefit Inequities Before TRA

Before the Tax Reform Act of 1986, the allocation of benefits between men and women was equitable in most large employers' plans after allowing for differences in salary and tenure. Most participants were in these plans. However, most defined benefit plans sponsored by small employers favored men in the allocation of pension benefits over women.[1] The allocation of pension and social security benefits combined also favored men in many of these plans.

Prior to TRA, small employers' defined benefit plans had features that magnified benefit differences between higher- and lower-paid employees as well as older and younger employees. For example, these plans tended to adjust benefits to account for social security ("integrate" the plan) to a greater extent than plans sponsored by large employers. In addition, virtually all these plans used a method of benefit accrual under which a worker who is older upon plan entry accrues larger benefits per year of service than a worker who is younger, even when both have the same salary and tenure with the company.

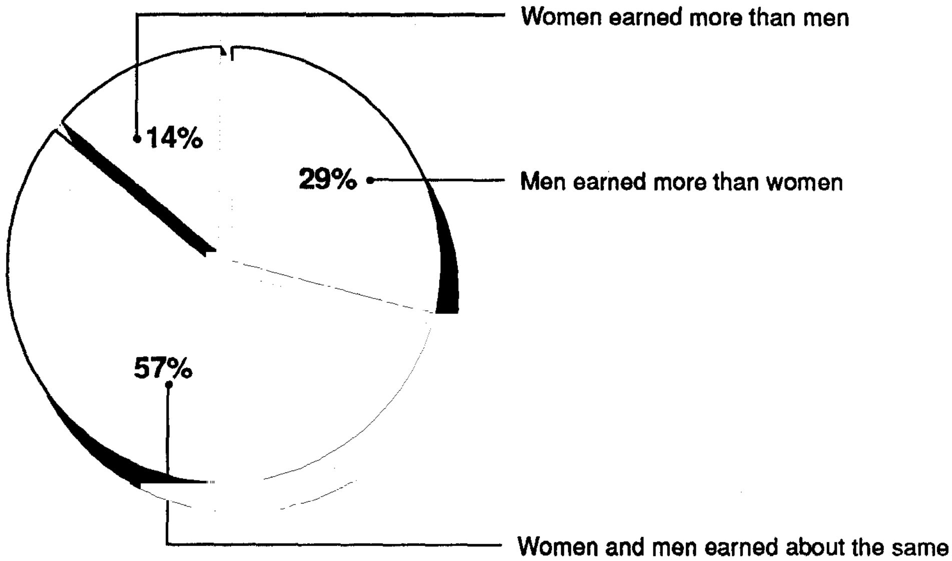
Most Participants in Plans That Allocated Pension Benefits Equitably

An estimated 4.2 million women and men (about 71 percent of all participants represented in our analysis) were in pension plans that allocated benefits equitably, according to our criteria. In these plans men earned $1.10 or less in pension benefits per dollar of salary and year of service for every $1 women earned. An estimated 57 percent of participants were in plans in which men's and women's benefits differed by 10 percent or less; another 14 percent were in plans in which women earned more than $1.10 in benefits for every $1 men earned (see fig. 2.1).[2] The remaining 29 percent of participants were in plans that were inequitable by our standard. In them, men earned more than $1.10 in benefits for every $1 women earned.

[1] The results were similar for comparisons of higher- and lower-paid workers and longer- and shorter-tenured workers (see app. III).

[2] In virtually all plans in which the allocation of benefits favored women, women were lower paid than men on average. Most of these were top-heavy plans in which minimum benefit requirements apply.

Figure 2.1: Most Participants in Plans That Allocated Benefits Equitably



Note: The allocation of benefits is "about the same" when men or women earned up to $1.10 for every $1 the other group earned.

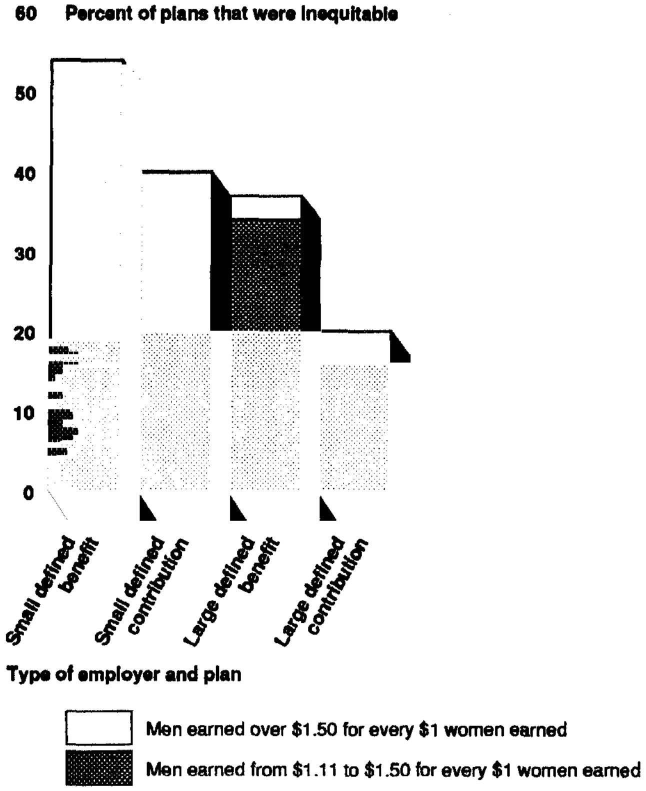
Benefit Inequity Greatest in Small Employers' Defined Benefit Plans

Defined benefit plans sponsored by small employers were more inequitable than all other plans, according to our estimates (see fig. 2.2).[3] In over one-half of small employers' defined benefit plans, men earned more than $1.10 in pension benefits per year of service and dollar of salary for every $1 in benefits women earned. And in most of these plans the ratio of men's to women's benefits exceeded $1.50 to $1. In contrast, the ratio exceeded $1.50 to $1 in about 20 percent of small employers' defined contribution plans. And in large employers' defined benefit and defined contribution plans the ratio of men's to women's benefits rarely exceeded $1.50 to $1.[4]

[3]Most defined benefit plans sponsored by small employers represented in our analysis were very small plans. An estimated 83 percent contained fewer than 10 participants. The plans ranged in size from 2 to 59 participants with a median of 4.

[4]The results are similar when comparing higher- and lower-paid participants or longer- and shorter-tenured participants because women tended to be lower-paid and shorter-tenured than men in most of these plans (see app. III). Men earned more than women, on average, in over 95 percent of the plans represented in our analysis. In almost two-thirds of the plans men had longer average tenure.

Figure 2.2: Benefit Inequity Greatest in Small Employers' Defined Benefit Plans



Note: Measuring pension benefits only.

The benefit allocation still favored men in about one-third of small employers' defined benefit plans after adding social security benefits to pension benefits in the calculation of equity (see fig. 2.3). In about 15 percent the ratio of men's combined pension and social security benefits compared with women's exceeded $1.50 to $1. Among the other groups of plans many that previously favored men in the allocation of benefits no longer did after social security benefits were included with pension benefits.

Figure 2.3: Benefit Allocation Still Favors Men in Many Small Employers' Defined Benefit Plans After Adding Social Security

Note: Measuring pension and social security benefits.

Plan Provisions Allow Inequity in Small Employers' Defined Benefit Plans

Plans that were the most inequitable—small employers' defined benefit plans—used features allowed under federal pension law before TRA that contribute to an inequitable allocation of benefits in these plans. For example, these plans integrated their pension benefit formulas with social security to a greater extent than other plans. This tended to maximize the differences in benefits earned between higher- and lower-paid employees permitted under the integration rules then in effect. In addition, these plans almost exclusively prorated accrued benefits according to each employee's total possible years of plan participation, from entry age to normal retirement. This tended to maximize the differences in benefits earned between older and younger employees permitted under the nondiscrimination rules then in effect.

Small Employers' Defined Benefit Plans Integrate to a Greater Extent Than Other Plans

Small employers that integrated their pension formulas with social security tended to do so in ways that caused greater disparities between higher- and lower-paid participants than did large employers. Defined benefit plans may use either the offset method or the excess method of integration.

- Offset plans subtract a part of a worker's social security benefit from the worker's pension amount. The greater a worker's social security benefit, the greater the offset and the lower the final integrated pension benefit. For example, the integrated pension benefit may be 70 percent of final average pay minus 50 percent of the estimated social security benefit (see app. IV).
- Excess plans give less credit in the pension benefit formula to earnings below a certain level (the integration level) and more credit to earnings above that level. For example, a pension benefit may be 60 percent of final average pay up to $20,000 (the base percentage) and 90 percent of any final average pay above $20,000 (the excess percentage) (see app. IV).

Among plans using the offset method of integration, small employers were likely to reduce a worker's benefit by a larger percentage of his or her social security benefit than large employers. For example, among plans with a flat offset, about 85 percent of large employers' plans used a 50-percent offset, compared with about 20 percent of small employers' plans. Almost one-half of small employers' plans with flat offsets used an offset between 66- and 83-1/3-percent.[5] This tended to make the difference in benefits between the higher-paid employees (mostly men) and the lower-paid employees (mostly women) greater in small employers' plans than in large employers' plans.

Among plans using the excess method of integration, small employers tended to use options that had a greater potential for discrimination in benefits in favor of the higher-paid. For example, small employers' defined benefit plans generally had larger differences in the rate of benefit accrual above and below the integration level than large employers' defined benefit plans. Small employers were also more likely than large

[5]The maximum offset before TRA was 83-1/3-percent. Under proposed rules implementing TRA, plans may no longer use offsets based on the participant's social security benefit. In addition, after applying the offset, the final benefit must be at least one-half of the preintegrated benefit (see app. IV).

employers to use the pure excess method of integration that resulted in some lower-paid plan participants earning no pension benefits at all.[6]

Nearly All Small Employers' Defined Benefit Plans Use Fractional Accrual

An estimated 98 percent of small employers' defined benefit plans represented in our analysis used the fractional accrual method for apportioning benefits among participants, compared with about one-third of large employers' defined benefit plans. Fractional accrual is one method under ERISA to limit the backloading of pension benefits in defined benefit plans; that is, to assure that workers earn pension benefits throughout their careers rather than the plan providing all or most of the benefits to workers only at normal retirement age.[7]

Under the fractional accrual method, the amount of pension benefit each participant earns (accrues) each year is the total benefit the participant would be due at normal retirement based on current salary (the projected benefit) prorated over the total possible years of plan participation, from entry age to normal retirement. For example, if a participant has 30 years of possible service in the plan, that participant would accrue 1/30th of her or his projected retirement benefit each year.

In a plan using fractional accrual participants who were older when they entered the plan earn benefits at a faster rate than participants who were younger when they entered even if they have the same salary. For example, a 55-year-old entrant to a plan with a normal retirement age of 65 would accrue benefits at the rate of 1/10th each year while a 30-year-old entrant would accrue at the rate of 1/35th per year.

Plans that used the fractional method for accruing benefits qualified for preferential tax treatment before TRA because these plans used the projected benefit each participant was due at retirement to meet the IRS test for nondiscrimination. To the extent that a plan operates in perpetuity, each participant will have an opportunity to accrue 100 percent of his or her projected retirement benefit unless he or she leaves the plan first.

[6]Pure excess plans provide no benefits on earnings below the integration level. About one-fourth of the integrated plans represented in our samples, most sponsored by small employers, used the pure excess method of integration before TRA. (See Private Pensions: Plan Provisions Differ Between Large and Small Employers (GAO/HRD-89-105BR, Sept. 26, 1989).) TRA prohibited pure excess integration (see app. IV).

[7]In a backloaded plan, workers earn a greater proportion of pension benefits as they near normal retirement. If the company sponsoring the plan went out of business, younger workers would have earned little or no pension benefits from the plan. ERISA also included two other accrual methods that limit backloading (see app. V).

Basing the determination of nondiscrimination on projected benefits may make sense in such a plan. However, some argue that small employers' defined benefit plans that use fractional accrual often give only a firm's owner the opportunity to accrue a full retirement benefit. The plan is terminated upon the owner's retirement, and younger participants have no chance to accrue their full retirement benefits.

Benefit Inequity Will Decrease After TRA

The extent of benefit inequity will decrease once TRA and related proposed IRS rules are fully implemented. The decrease will occur because the new rules add limits to how much a qualified plan may favor higher-paid and older employees in the allocation of benefits. We determined that the extent of inequity would be reduced substantially after TRA in 11 of the most egregious plans sampled before TRA. In addition, the top-heavy minimum benefit requirement that was in effect before TRA will continue to improve equity in some plans. Finally, the allocation of benefits would remain inequitable in only one plan after adding social security benefits to the measure.

TRA Changes Limit Benefit Inequity

TRA and pursuant proposed regulations address practices allowed under prior pension law that contributed to benefit inequity. For example, TRA limited the extent of benefit disparity permitted in integrated plans. In addition, proposed IRS nondiscrimination regulations will limit benefit disparities in plans using fractional accrual. IRS and Treasury officials agreed with our analysis of TRA and related rules. The officials told us that they are working to finalize the proposed rules and do not anticipate major substantive changes that would affect benefit equity under our standard.

Integration Limits Lowered Under TRA

TRA eliminated integration practices that resulted in lower-paid employees being "integrated out" of their benefits. In addition, TRA reduced the allowable differences between higher- and lower-paid employees in integrated plans. Specifically, an integrated plan may have a difference in pension benefits between the higher- and lower-paid of no more than 2 to 1 under TRA (see app. IV).

Use of Fractional Accrual Limited by IRS Rules

Proposed IRS nondiscrimination regulations will limit, but not eliminate, differences in accrual rates in plans using fractional accrual. The proposed general rule for nondiscrimination states that no highly compensated employee may accrue benefits faster than any nonhighly compensated employee, and shifts the focus of testing from projected benefits to current accruals (see app. V).[1] In addition to the general rule, the proposed regulations provide three safe harbors; that is, rules that plans can follow that will relieve them from having to comply with the

[1] One method for measuring accruals under the general rule, accrued benefits per year of service expressed as a percentage of salary, is very similar to our method for measuring equity.

general rule. Each safe harbor is less restrictive than the general rule and may allow some level of benefit inequity.

IRS and Treasury determined that the limited benefit inequity that may result from the use of safe harbors was outweighed by the gains that should result from a large number of employers using the safe harbors. The safe harbors, which are based on plan design characteristics, attempt to strike a balance between the requirements of the general test and administrative ease for both employers and the IRS. Employers using the safe harbors will avoid the expense of testing specific employee data annually. This should be beneficial not only to large employers but also to small employers who might otherwise terminate their plans rather than incur such an expense. In addition, it should be easier for IRS to determine whether a safe harbor plan meets the nondiscrimination rules when it reviews the plan for qualification.

One safe harbor requires that benefits accrue over at least 25 years. The effect of this safe harbor is to allow smaller differences in accrual rates than were permitted under the old rules, but larger differences than allowed under the general rule. For example, under the old rules, a 55-year-old employee could accrue 100 percent of his or her retirement benefit in 10 years, assuming a retirement age of 65. A 25-year-old employee in the same plan would accrue 10/40ths (25 percent) of his or her retirement benefit in the same 10-year period. With the 25-year minimum, the most the 55-year-old could accrue after 10 years is 10/25ths (40 percent).[2]

The other two safe harbors also require that accrual rates for highly and nonhighly compensated employees fall within certain limits that are less restrictive than the general rule. Under one of these the average accrual rate for all nonhighly compensated employees must be at least 70 percent of the average accrual rate for all highly compensated employees. This is equivalent to the higher-paid earning $1.43 for every $1 in pension benefits the lower-paid earn using our measure of equity. Under the other safe harbor, the difference in accruals (expressed as a percentage of compensation or a dollar amount) between two employees is limited to 133-1/3-percent. This is equivalent to each higher-paid employee earning $1.33 for every $1 each lower-paid employee earns in pension benefits.

[2]The 55-year-old could still earn the same dollar benefit in 10 years if the plan sponsor increases the percentage of pay in the formula to compensate for the lower accrual rate. The sponsor may use a percentage that is greater than 100 percent (see app. VI). The 25-year-old also would earn greater benefits after TRA if the sponsor increased the percentage of pay in the benefit formula.

Inequity Greatly Reduced Under TRA

Benefit inequity will be greatly reduced in small employers' defined benefit plans under TRA and related proposed rules. We simulated the effect of pension rules after TRA on 11 of the most inequitable small employers' defined benefit plans in our sample and found that inequity would decrease substantially, particularly if social security benefits were considered along with pension benefits (see app. VI). The selected plans were ones in which men earned over $1.50 in pension and social security benefits combined for every $1 women earned before TRA.

Benefit inequity would remain in 6 of the 11 cases included in our simulation without the top-heavy minimums and without including social security benefits in the calculation (see table 3.1).[3] Before TRA men earned from $2.00 to $7.40 in pension benefits per dollar of salary in a year for every $1 women earned in these plans. Under the proposed rules alone, 5 plans (plans 2, 5, 7, 9, and 10) shifted from inequity to equity under our criteria. In these, men earned no more than $1.10 in pensions per dollar of salary and year of service for every $1 women earned. Applying the top-heavy minimum benefit requirement, which was in effect before TRA and will remain in effect after, the benefit allocation in 3 other plans (plans 3, 4, and 6) met our criteria for equity.[4] Including social security benefits, the allocation of benefits remained inequitable in only 1 of the 11 plans (plan 1). In every other plan men earned no more than $1.10 in benefits per dollar of salary in a year for every $1 women earned.

[3]The benefit allocation is inequitable when men earn more than $1.10 in benefits for every $1 women earn.

[4]Each of the 11 redesigned plans was top-heavy. About three-fourths of the small employers' plans represented by our sample were top-heavy. In applying the top-heavy minimum benefit requirement in our simulation, we assumed the plan was top-heavy in each year of operation.

Table 3.1: Benefit Equity Improves After TRA in Selected Plans

	Amount men earned in benefits for every $1 women earned			
		Post-TRA		
Plan	Pre-TRA	Without top-heavy minimum	With top-heavy minimum	With social security
1	$7.40	$1.60	$1.60	$1.50
2	4.50	0.90	0.90	0.90
3	3.90	1.60	1.10	0.80
4	3.90	1.40	1.10	0.90
5	3.10	0.90	0.90	0.80
6	2.80	1.70	0.80	0.70
7	2.70	0.90	0.90	0.80
8	2.60	1.30	1.20	0.90
9	2.40	1.10	1.10	0.90
10	2.40	1.10	1.10	1.00
11	2.00	1.30	1.30	1.10

Conclusions

The Congress has put in place tax incentives for employers to offer pension plans. The explicit quid pro quo of this arrangement is that earned pension benefits not be allocated in a way that favors higher-paid employees. TRA and proposed IRS regulations go a long way towards lessening the substantial benefit inequity we found before TRA between men and women. This is because TRA changes to integration and proposed IRS nondiscrimination rules limit the extent to which plans may favor higher-paid or older employees. Women will be helped by these rules more than men because of women's working patterns. But, like other federal pension rules, these rules are gender neutral. Lower-paid and younger men will also be helped by them.

Under the proposed rules some workers will probably lose pension benefits that they otherwise would have earned. Some small employers in particular may respond to TRA by terminating their defined benefit plans. But small employers' defined benefit plans contain few participants and generally tended to favor the higher-paid before TRA.

The actual impact of TRA and related regulations on benefit equity depends on many factors, including the final form of the rules and the responses of employers. For example, the proposed rules could be modified in ways that would permit more inequity. The safe harbors could be broadened or the situations in which projected benefits may be used to demonstrate nondiscrimination could be expanded. If the proposed rules are modified, the equity gains we identified may not be achieved.

IRS anticipates finalizing the rules governing integration and nondiscrimination without major substantive changes. GAO believes the rules will result in substantial gains in benefit equity.

Additional Information on GAO's Scope and Methodology

This appendix contains additional information on the scope of our sample data and our methodology for measuring benefit equity. It includes an example of how our pension benefit measure is calculated for a plan and a discussion of how we estimated social security benefits.

GAO's Samples and What They Represent

From reports for employee benefit plans filed for the plan year that began during 1984 under the Employee Retirement Income Security Act,[1] we drew two samples of private pension plans operating in both 1984 and 1985. One sample contained plans sponsored by employers with fewer than 100 employees (small employers) and the other plans sponsored by employers with 100 or more employees (large employers). The reports maintained by the Internal Revenue Service were the most up-to-date information available on pension plans operating in 1984 and 1985 at the time we drew our samples, but did not include plans that began operating in 1985. Consequently, both samples include only plans that started before 1985.

We obtained information about the employer-sponsor, the plan, and its active participants with a mail questionnaire. Plan information included when the plan began operating, participation requirements, normal retirement requirements, details about the type and level of integration, and top-heavy status. Participant information included sex, date of birth, date of hire, compensation for the year in question, and years of service. For defined benefit plan participants, respondents reported total accrued benefits at the end of the year in question. For defined contribution plans, respondents reported the employer's contribution for the plan year. In addition, many plan sponsors provided us with copies of summary plan descriptions, actuarial valuations, and other plan documents.

[1]Form 5500 for plans with 100 or more participants and Form 5500-C for plans with fewer than 100 participants.

Plans Sponsored by Small Employers

We estimated that 202,300 plans sponsored by small employers met our sampling criteria (see table I.1). The plans met the following criteria:

1. They were ongoing plans of the four most prevalent types—fixed benefit and unit benefit defined benefit plans and profit-sharing and money purchase defined contribution plans.[2]

2. They were in one of the five industry groups with the highest number of prevalent types of plans: wholesale trade; retail trade; finance, insurance, and real estate; legal, medical, and health services; and other services.

3. They were sponsored by a single employer with fewer than 100 employees.

4. They had more than one participant.

5. They were not Keogh plans for self-employed individuals.

The distribution of the universe and sample among the selected plan types and industry groups is shown in table I.1.

[2]A fixed benefit plan provides a retirement benefit that is not related to the years of service of the plan participant; for example, a specified percentage of compensation, such as 50 percent of the participant's final pay. A unit benefit plan uses a formula that provides an explicit unit of benefit for each recognized year of service with the employer; for example, 1 percent of compensation per year of service. In contrast, rather than fixing benefits by a formula, profit-sharing and money purchase plans fix the amount of the employer's contribution to each participant's account. In a profit-sharing plan, the total employer contribution is a function of profits and the amount contributed to each participant is generally in proportion to the participant's share of total compensation paid to all participants. In a money purchase plan, the employer is committed to periodic contributions according to a specific formula, usually a percentage of salary.

Table I.1: GAO's Universe and Sample of Plans Sponsored by Small Employers

Type of plan/ industry group	Original universe	Original sample	Eligible[a] sample	Adjusted universe	Response rate (percent)	Population estimate
Fixed benefit plans						
Wholesale trade	3,855	31	20	2,487	85	2,114
Retail trade	3,356	17	10	1,974	80	1,579
Finance, insurance, and real estate	4,416	25	10	1,766	60	1,060
Legal, medical, and health services	17,641	119	78	11,566	59	6,821
Other services	11,054	71	39	6,072	54	3,270
Unit benefit plans						
Wholesale trade	478	34	27	380	78	296
Retail trade	430	28	24	369	71	261
Finance, insurance, and real estate	984	53	39	724	72	520
Legal, medical, and health services	1,659	82	51	1,032	61	627
Other services	936	56	34	568	65	368
Profit-sharing plans						
Wholesale trade	10,942	33	23	7,626	61	4,642
Retail trade	11,254	20	15	8,441	80	6,753
Finance, insurance, and real estate	9,902	21	9	4,244	78	3,301
Legal, medical, and health services	44,633	94	61	28,964	70	20,417
Other services	25,605	81	37	11,696	41	4,742
Money purchase plans						
Wholesale trade	3,431	16	11	2,359	64	1,501
Retail trade	3,254	15	10	2,169	100	2,169
Finance, insurance, and real estate	4,881	24	12	2,441	67	1,627
Legal, medical, and health services	31,698	153	98	20,303	65	13,112
Other services	11,885	50	22	5,229	55	2,852
Total	**202,299**	**1,023**	**630**	**120,410**	**65[b]**	**78,031[c]**

[a]Originally sampled plans were ineligible if they were (1) Keogh plans for self-employed persons, (2) plans with only one participant, (3) sponsored by employers with 100 or more employees, or (4) terminated during the 1984 plan year.

[b]The response rate is weighted to represent industry and plan types in proportion to their representation in the universe.

[c]Population estimate has total precision of $\pm$ 5,471 plans ($\pm$ 7 percent).

Our original stratified sample included a total of 1,023 plans selected from the four plan types. Within each plan type, we allocated the sample across selected industry groups, generally in proportion to each group's representation in the universe. We determined the final sample size of 630 and adjusted our universe estimates after we identified 393 cases in the original sample that did not meet our sampling criteria. The adjusted universe included an estimated 120,400 plans (± 7,400).

Among these 630 sampled plans, 65 percent (407) responded to our survey across all the sampled plan types and industries. We compared respondents and nonrespondents on several characteristics—plan size, top-heavy status, integration with social security, vesting method, industry, and plan type—and found some significant differences. For example, defined contribution plans that did not respond tended to be smaller than those that did respond. Because of these differences, our estimates apply only to that proportion of the adjusted universe that responded to our survey. As indicated in the final column of table I.1, our respondents represent an estimated 78,000 plans (± 5,500). These plans contained an estimated 700,000 participants (± 100,000).

Plans Sponsored by Large Employers

We estimated that 19,600 plans sponsored by large employers met our sampling criteria. These plans were ongoing plans in one of the three most prevalent plan types—fixed benefit, unit benefit, or profit-sharing—in one of six industry groups containing most of these types of plans—nondurable manufacturing; durable manufacturing; wholesale trade; retail trade; finance, insurance, and real estate; and legal, medical, and health services. In addition, sampled plans were sponsored by a single employer or a controlled group (where all the business entities are under common control) with 100 or more employees and contained more than one participant. Table I.2 shows the distribution of the universe and sample among the selected plan and industry types.

Table I.2: GAO's Universe and Sample of Plans Sponsored by Large Employers

Type of plan/ industry group	Original universe	Original sample	Eligible[a] sample	Adjusted universe	Response rate (percent)	Population estimate
Fixed benefit plans						
Nondurable manufacturing	526	4	4	526	25	132
Durable manufacturing	587	10	8	470	50	235
Wholesale trade	187	3	1	62	0	0
Retail trade	151	2	1	76	0	0
Finance, insurance, and real estate	295	4	4	295	50	148
Legal, medical, and health services	235	4	3	176	33	59
Unit benefit plans						
Nondurable manufacturing	2,796	31	29	2,616	83	2,165
Durable manufacturing	4,251	50	39	3,316	46	1,530
Wholesale trade	429	5	4	343	50	172
Retail trade	426	5	3	256	100	256
Finance, insurance, and real estate	1,169	13	11	989	73	719
Legal, medical, and health services	1,278	15	14	1,193	79	937
Profit-sharing plans						
Nondurable manufacturing	1,735	28	25	1,549	76	1,177
Durable manufacturing	2,244	29	25	1,934	64	1,238
Wholesale trade	824	11	11	824	45	375
Retail trade	992	14	13	921	69	638
Finance, insurance, and real estate	1,056	14	12	905	67	603
Legal, medical, and health services	372	6	4	248	50	124
Total	**19,553**	**248**	**211**	**16,699**	**63[b]**	**10,507[c]**

[a]Originally sampled plans were ineligible if they were (1) sponsored by employers with less than 100 employees or (2) terminated during the 1984 plan year.

[b]The response rate is weighted to represent industry and plan types in proportion to their representation in the universe.

[c]Population estimate has total precision of ± 1,019 plans (± 9.7 percent).

The original sample included 248 plans allocated across the selected plan types and industry groups, generally in proportion to the representation in the universe of each plan type and group. We determined the final sample size of 211 plans and adjusted the universe estimates after identifying 37 cases in the original sample that did not meet our sampling criteria. The adjusted universe included an estimated 16,700 plans (± 800).

Among these 211 sampled plans, 63 percent responded across all the included plan types and industry groups. We compared respondents and nonrespondents on several characteristics—plan size, age of the plan, whether or not the plan was integrated with social security, industry, and plan type—and found one significant difference. As with the sample of plans sponsored by small employers, defined contribution plans that did not respond tended to be smaller than those that did. Consequently, the estimates in this report apply only to that proportion of the adjusted universe that responded to our survey. As indicated in the final column of table I.2, our respondents represent an estimated 10,500 plans (± 1,000). These plans include an estimated 6.2 million participants (± 1.9 million).

GAO's Method for Measuring Benefit Equity

To measure the distribution of benefits among private pension plans, we developed a method for comparing the pension benefits earned by women and men.[3] To provide a more complete picture of benefit equity, particularly in plans with benefit formulas that are coordinated with social security, we also analyzed the distribution of the combination of pension and social security benefits between women and men in these plans.

Measuring the Distribution of Pension Benefits

We computed the ratio of men's benefits to women's benefits, adjusting each benefit level for differences in compensation and tenure. In defined benefit plans this is the accrued benefits per year of service (average accrued benefits) divided by annual salary. In defined contribution plans it is the employer contribution for the year divided by annual salary.

An example of our measure for participants in a hypothetical defined benefit plan will illustrate these adjustments.[4] Assume that the plan has four participants, two men and two women, and that pension benefits are calculated as 1 percent of compensation times the number of years of service. Salary, years of employment, and accrued pension benefits for the participants are shown in table I.3.

[3]We also compared benefits for higher- and lower-paid and longer-and shorter-tenured participants (see app. III).

[4]For defined contribution plans, the benefits earned by each participant in the previous year were simply the employer's contribution to the plan on behalf of the participant.

Table I.3: Data for a Hypothetical Pension Plan

Participant	Salary	Years of tenure	Accrued benefits	Accrued benefit per year of service
Man A	$14,000	8	$1,120	$140
Man B	9,000	3	270	90
Woman A	9,000	7	630	90
Woman B	4,500	2	90	45

For man A in the target year (1985 for small employers and 1986 for large employers), total accrued pension benefits were $1,120. Dividing by his 8 years of service to control for tenure differences among participants, man A had an accrued benefit per year of service of $140. We performed this calculation for each participant. Note that man B and woman A each had average accrued benefits of $90. After accounting for differences in their tenure, man B and woman A had the same accrued benefit per year of service.

The ratio of men's benefits to women's benefits was based on this measure. First, the accrued benefits per year of service were totaled for each group. In this example, men's benefits were $230 and women's benefits were $135. Each figure was then divided by total salary for each group to control for salary differences. Men had total salary of $23,000, so their benefits were $230/$23,000, or 0.01 (1 percent), of their salary.[5] Similarly, women's benefits were $135/$13,500, or 0.01, of salary. Finally, the ratio of men's benefits to women's benefits was calculated by dividing the two ratios. In this example, the equity measure was equal to 0.01/0.01, or 1.00. This means that men earned $1 of benefits for every $1 that women earned, after correcting for salary and tenure differences.

Now assume that the pension plan yielded benefits equal to 1 percent of compensation times the number of years of service up to a compensation level of $10,000, and 2 percent of compensation above $10,000. Man A would now have accrued benefits of $1,440, $180 on a per-year-of-service basis. The other three participants are not affected. The ratio of benefits to salary for men would be $270/$23,000, or 0.0117. The measure of the men's benefits to women's benefits would now be 0.0117/0.01, or 1.17, meaning that men earned $1.17 in benefits for each $1 that

[5]This is mathematically equivalent to using the average man's benefit as a ratio of the average man's salary, because the number of men in the plan would appear as a divisor in the numerator and the denominator and thus not affect the ratio. It is also equivalent to computing each man's benefit/salary ratio and then averaging these ratios, weighting by salary.

women earned. The ratio is not 1:1 for this plan because only one person, a man, benefited from the higher benefit rule. Results for each plan would depend on the demographic characteristics of its participants.

We considered other methods of measuring accrued benefits to assess benefit equity. These included total accrued benefits, the present value of total accrued benefits, and the change in total accrued benefits during the year of our survey.[6] In our judgment, these other measures did not adequately account for differences in accrued benefits that were proportional to salary and tenure differences and so should be considered equitable.

For example, a plan in which workers accrued the same percentage of pay per year of service would appear to be inequitable comparing total accrued benefits if the workers had different salaries and tenures. This is because total accrued benefits would not account for differences that were proportional to differences in tenure and salary. A measure comparing the present value of total accrued benefits would reflect differences among workers based on their ages. Workers accruing the same percentage of pay per year of service would appear to have different accrued benefits not only because of salary and tenure differences but also because of age differences.

Finally, a measure comparing the change in total accrued benefits in a year would not adequately control for differences in tenure among workers. In a plan that bases benefits on salary and service, salary at the end of the year is applied to that and all prior years of service to determine the total accrued benefits. Two workers with different periods of service but the same salary increase in a given year would have different changes to total accrued benefits. The plan would appear inequitable even though the workers were actually accruing the same percentage of pay per year of service.

Estimating Social Security Benefits

We used a Social Security Administration (SSA) computer program to estimate social security benefits for workers in the plans in our samples. The SSA program estimates a worker's social security retirement benefit based on information about such things as the worker's date of birth, years of social security covered service, and earnings.

[6]Present values are sums of money that, if invested now at a given rate of compound interest, will accumulate to specified amounts at specified future dates.

To determine the years of covered service, the SSA program requires data on each worker's date of birth, the number of prior years of work covered under social security, and when each worker is expected to begin receiving social security. We knew workers' dates of birth from our survey. We estimated the number of prior years of social security covered service separately for women and men of various ages using data from SSA's Continuous Work History Sample.[7] We assumed each participant would begin receiving social security benefits at age 65.[8] We also assumed each participant would work continuously until age 65.[9]

The SSA program also requires information about earnings during each worker's period of covered service. We used a "level earnings" scenario to estimate social security benefits. Under this scenario the estimated social security benefit is based on the same real level of earnings throughout the period of covered service. In our analysis this level of earnings was each worker's reported compensation for the year of our survey (1985 or 1986).

The SSA program estimates a social security benefit for each worker based on this earnings and years of covered service information. From the estimated benefit, we calculated the amount "earned" per year. For example, if the worker had an estimated social security covered service period of 32 years, 1/32nd of the estimated social security benefit was "earned" per year.[10]

[7]SSA's Continuous Work History Sample contains socioeconomic information, including employment histories, for a 1-percent sample of social security numbers.

[8]This simplifying assumption of retirement at age 65 treats all participants the same for this estimate.

[9]To the extent that women are more likely than men to experience breaks in covered employment, assuming continuous work histories may result in overestimating social security benefits for women. This will contribute to a distribution of combined pension and social security benefits favoring women.

[10]If other earnings, service, and accrual assumptions were used, different estimates of social security benefits would result. We performed a sensitivity analysis as part of our TRA simulation that included social security benefits. Our results were consistent across different ranges of social security estimates.

GAO's Regression Analysis of Retirees' Pension Benefits

Men's annual pension benefits in retirement are on average two times the benefits of women. About 70 percent of the difference can be explained by the fact that men attain higher salary and tenure levels during their work years. The remainder of the difference may be attributed to pension benefit formulas that reward different levels of salary and tenure differently or to differences in the industries and occupations in which men and women work.

We analyzed data from the New Beneficiary Survey (NBS) to determine the extent to which pension differences among retirees were directly related to pay and tenure differences. This appendix describes our analysis, including our scope, methodology, and results.

Objectives

We analyzed differences in pension benefits received by retired men and women to supplement our analysis of benefit accrual among current workers. Our objective was to determine how much of the difference in men's and women's pension benefits in retirement is due directly to salary and tenure differences and the extent to which other factors affect pension levels. These other factors include pension benefit formulas that allocate benefits differently at different levels of salary or tenure as well as demographic differences that result in men and women having different employment patterns across industries and occupations. This parallels our method for examining benefit equity among active workers in pension plans, which measured the allocation of benefits between men and women after accounting for differences in salary and tenure (see ch. 2 and app. I). Pension benefit rules allow benefits to differ within a plan by salary and tenure, but the distribution of benefits across plans will necessarily depend on who is in what type of plan.

Scope of GAO's Analysis

We analyzed the extent to which salary and tenure differences between men and women explain differences in their pensions in retirement using data from the NBS. The NBS is a survey of people who first received social security benefits between May 1980 and June 1981. SSA conducted the survey on a sample of individuals in 1982.[1] Our analysis included only men and women in the NBS who were receiving a monthly private pension benefit that we could attribute to one specific job. Our final samples consisted of 1,391 men and 590 women.

[1] This is the most recent survey of its type conducted by SSA, and it is the best source available for linking current pension levels to past work histories.

Men in our sample received higher pensions than women, but they also retired with higher salary and tenure levels. Men with a pension received average benefits of $5,503 annually, over twice the average for women, which was $2,557. The average final salary for men was $48,667 and their tenure averaged 27.4 years, while women on average retired with a salary of $28,374 and 22.5 years of tenure. Most people in our sample retired in 1980 or 1981.

GAO's Methodology

We used regression analysis to measure the direct effects of salary and tenure on pension benefits. Our regression model estimated pension benefits as a function of salary and tenure. The regressions were performed for men and women separately, in order to allow salary and tenure to have a different effect on each group.

We chose a linear model to analyze how much of the difference between men's and women's pensions in retirement was due to a constant relationship between salary (or tenure) and pension benefits. Models including other variables would have better fit the data, but they would also have reflected the effects of pension formulas rewarding different levels of salary and tenure differently.

Regression Results

The results of the analysis are shown in table II.1. The coefficients for salary and tenure are positive and significant for both men and women. The coefficients are larger in magnitude for men than for women, which means that changes in salary or tenure have more of an effect on men's pension benefits than women's. For example, holding tenure constant, a salary increase of $1,000 from the mean would increase annual pension benefits by about $150 for men, while women with the same salary increase would have a pension increase of about $81. Similarly, if salary is held constant, men with a 1-year tenure increase would receive about $109 more in pension benefits, compared with about $91 more for women.

Table II.1: Pension Benefit Regression Results

Variable	Men	Women
Intercept	−4765.1 (439.8)	−1791.6 (238.3)
Salary[a]	149.6 (4.74)	81.1 (5.85)
Tenure[b]	109.1 (13.91)	91.1 (8.59)
Adjusted R-square	.45	.40
Sample size	1,391	590

Note: Standard errors in parentheses; all estimates significant at the 99-percent confidence level.

[a]Salary measured in thousands of dollars.

[b]Tenure measured in years.

If women had the same average salary and tenure as men, their average pension benefits would have been about $4,650. This amount is less than men's average pension benefits ($5,503), but it makes up about 70 percent of the gap between men's and women's pensions.

The adjusted R-square values indicate that salary and tenure alone explain about 40 to 45 percent of pension benefit levels for each group. We know from our survey of private pension plans that other factors also affect pension accruals in a given plan year, and we expect them to influence benefits actually received in retirement. For example, plan demographics interact with specific features of the plans, such as fractional accrual and integration, to influence the benefits of men and women. These factors account for some of the 55 to 60 percent of variation in pensions that is unexplained within each group, as well as some of the 30 percent of the difference between men's and women's pensions that is not explained by salary and tenure alone.

Equity Results Comparing Workers in Different Salary and Tenure Groups

Higher-paid workers earned over $1.50 in pension benefits for every $1 in benefits lower-paid workers earned more often in small employers' defined benefit plans than other plans. A similar result occurred comparing longer-tenured and shorter-tenured workers. In addition, many large employers' defined benefit plans favored higher-paid workers; however, the level of disparity was generally less in these plans than in those sponsored by small employers. Benefit disparities declined after adding social security benefits to pension benefits in all types of plans. Nevertheless, a sizeable proportion of small employers' defined benefit plans remained inequitable even after including social security benefits.[1]

Our methodology for these benefit comparisons was the same as that used to compare men's and women's benefits (see app. I). A worker was considered higher-paid if he or she earned over $50,000 per year and longer-tenured if he or she had worked 5 or more years.[2] We determined the accrued benefits in 1 year for each worker, grouped workers by salary or tenure category, and computed the benefits per dollar of salary for each group. Our measure was the ratio of the benefits per dollar of salary for the higher-paid (or longer-tenured) to the benefits per dollar of salary for the lower-paid (or shorter-tenured). A plan was considered to be equitable if the ratio was no higher than $1.10:$1, that is, the higher-paid or longer-tenured earned no more than $1.10 for every $1 that the comparison group earned.

Men More Likely Higher-Paid and Longer-Tenured Than Women

The results for salary and tenure comparisons are similar to those comparing men's and women's benefits because men were more likely to be higher-paid and, in small employers' plans, longer-tenured than women (see table III.1). Salary levels differed between men and women, especially in smaller plans. Overall, few men and women had salaries over $50,000, but for small employers' plans about 35 percent of the men (and 2 percent of the women) earned over $50,000. Men's median salary was 50 percent higher than women's overall, but almost 150 percent higher in small employers' plans. The results on tenure were not so clear. Slightly more women than men had at least 5 years of tenure, and median tenure was 6 years for both groups. In small employers' plans, however, more men than women had longer tenure, and median tenure was 1 year longer for men.

[1]These results are generally similar to those comparing men and women presented in chapter 2.

[2]We made comparisons using both 5 years and 10 years as indicators of long tenure. Inequity was generally greater when we used the 5-year measure, but the patterns were the same in both comparisons.

Table III.1: Salary and Tenure of Men and Women in Pension Plans

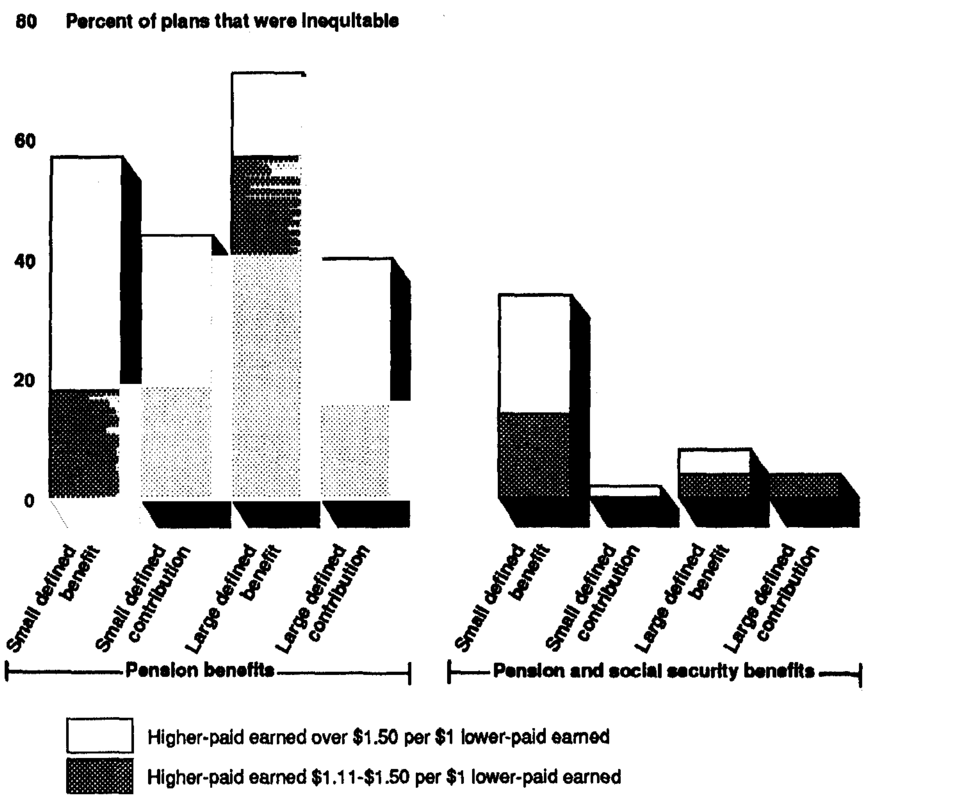
	Salary			Tenure		
Gender and employer size	$50,000 or less	More than $50,000	Median amount	Up to 5 years	5 years or more	Median years
All plans						
Men	93%	7%	$25,177	41%	59%	6
Women	99	1	16,495	38	62	6
Small employers' plans						
Men	65	35	33,142	42	58	5
Women	98	2	13,740	54	46	4
Large employers' plans						
Men	93	7	25,177	41	59	6
Women	99	1	16,499	38	62	6

Small Employers' Defined Benefit Plans Most Inequitable

Pension benefits were allocated inequitably between higher- and lower-paid workers in almost 60 percent of small employers' defined benefit plans and about 70 percent of large employers' defined benefit plans (see fig. III.1).[3] In most inequitable large employers' defined benefit plans, the higher-paid accrued from $1.11 to $1.50 in pension benefits for every $1 the lower-paid accrued, with the ratio in almost 15 percent of the plans exceeding $1.50:$1. In comparison, among small employers' defined benefit plans, the ratio of benefits between the higher- and lower-paid exceeded $1.50:$1 in almost 40 percent of plans. In fact, the ratio exceeded $2.24:$1 in 25 percent of small employers' defined benefit plans.

[3]Because we sampled participants within the large plans, we did not always have a participant with a salary of over $50,000 in these plans. In these cases, no comparison between higher- and lower-paid workers could be made. Less often, we did not draw a participant with at least 5 years of tenure. Thus, the results for our large plans are not representative of our universe of plans.

Figure III.1: Benefit Inequity Greater in Defined Benefit Plans for Workers in Different Salary Groups

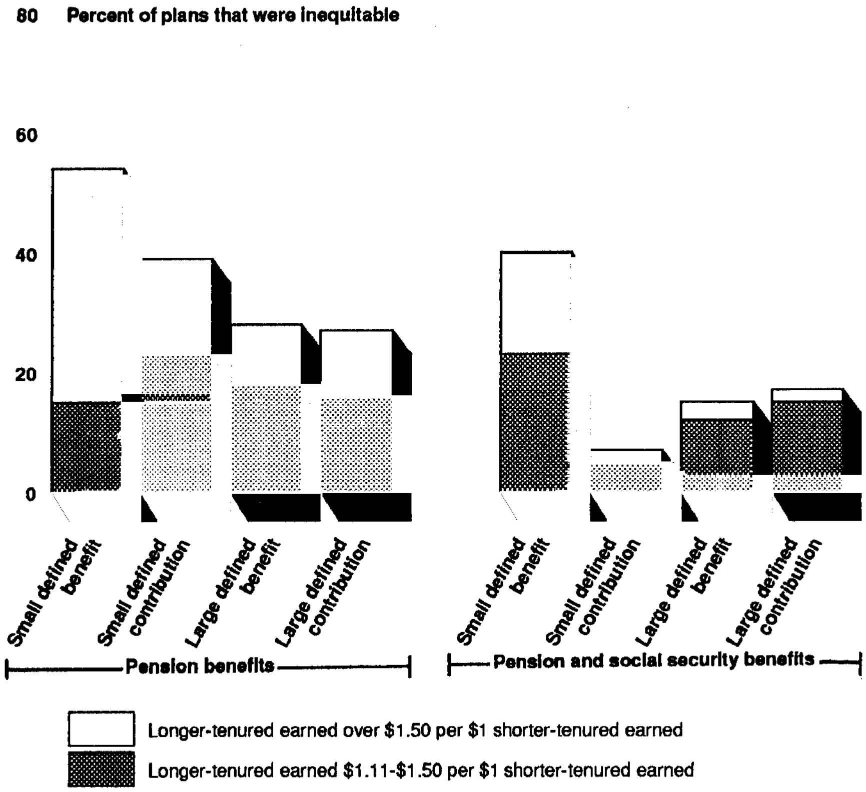


Note: Higher-paid workers earned over $50,000 per year.

Including social security benefits with pension benefits, the ratio of benefits comparing the higher- and lower-paid still exceeded $1.10:$1 in an estimated 34 percent of small employers' defined benefit plans. In comparison, fewer than 10 percent of large employers' defined benefit and small and large employers' defined contribution plans had ratios exceeding $1.10:$1 when social security benefits were included.

Small employers' defined benefit plans were also the most inequitable comparing longer- and shorter-tenured workers (see fig. III.2). Longer-tenured workers earned more than $1.10 in benefits for every $1 shorter-tenured workers earned in an estimated 54 percent of small employers' defined benefit plans, and in almost 40 percent of the plans the ratio of longer- to shorter-tenured workers exceeded $1.50:$1. In addition, longer-tenured workers earned more than $1.93 in pension and social security benefits combined for every $1 shorter-tenured workers earned in 25 percent of small employers' defined benefit plans.

Figure III.2: Benefit Inequity Greatest in Small Employers' Defined Benefit Plans for Workers in Different Tenure Groups



Note: Longer-tenured workers had 5 or more years of tenure.

After adding social security benefits, benefit inequity generally decreased for all types of plans although about 40 percent of small employers' defined benefit plans remained inequitable. Nearly 40 percent of small employers' defined contribution plans were inequitable when looking at pension benefits alone, but inequity almost disappeared among these plans when social security benefits were included. Almost 30 percent of large employers' plans of both types were inequitable based on pension benefits alone, and social security benefits reduced the extent of inequity to about 15 percent of the plans.

Sampling Errors

Because our estimates are based on a sample of pension plans rather than the universe of plans, each reported estimate has a sampling error associated with it. The size of this error reflects the precision of the estimate—the smaller the error, the more precise the estimate. We calculated sampling errors for estimates in this report at the 95-percent confidence level. This means that the chances are 19 out of 20 that the actual number being estimated falls within the range of our estimate plus or minus the sampling error. For example, if we have estimated that 30 percent of a group has a characteristic and the sampling error is 6 percentage points, there is a 95-percent chance that the actual percentage is between 24 and 36. Tables III.2 through III.6 contain estimates and sampling errors for the figures indicated.

Table III.2: Estimates and Sampling Errors for Figure 1

Figures are percentages of plans

	Men earned more than women by over 10 percent	
Plan size and type	**Estimate**	**Sampling error**
Accrued benefits only		
Small employers		
Defined benefit (N=13,400)	54	10
Defined contribution (N=50,500)	40	8
Large employers		
Defined benefit (N=5,400)	37	12
Defined contribution (N=3,300)	20	12
Accrued benefits plus social security		
Small employers		
Defined benefit (N=13,400)	32	9
Defined contribution (N=50,500)	4	3
Large employers		
Defined benefit (N=5,400)	3	4
Defined contribution (N=3,300)	0	•

Table III.3: Estimates and Sampling Errors for Figure 2.1

Figures are percentages of participants

Plans in which	**Estimate**	**Sampling error**
Women and men earned about the same	57	7
Men earned more than women	29	8
Women earned more than men	14	6

Table III.4: Estimates and Sampling Errors for Figure 2.2

Figures are percentages of plans

	Men earned more than women by			
	11 to 50 percent		over 50 percent	
Plan size and type	Estimate	Sampling error	Estimate	Sampling error
Accrued benefits only				
Small employers				
Defined benefit (N=13,400)	19	8	35	9
Defined contribution (N=50,500)	20	6	20	6
Large employers				
Defined benefit (N=5,400)	34	11	3	4
Defined contribution (N=3,300)	15	10	4	6

Table III.5: Estimates and Sampling Errors for Figure 2.3

Figures are percentages of plans

	Men earned more than women by			
	11 to 50 percent		over 50 percent	
Plan size and type	Estimate	Sampling error	Estimate	Sampling error
Accrued benefits plus social security				
Small employers				
Defined benefit (N=13,400)	17	8	15	7
Defined contribution (N=50,500)	2	2	2	2
Large employers				
Defined benefit (N=5,400)	3	4	0	•
Defined contribution (N=3,300)	0	•	0	•

Table III.6: Estimates and Sampling Errors for Figure III.1

Figures are percentages of plans

Plan size and type	Higher-paid earned more than lower-paid by[a] 11 to 50 percent: Estimate	11 to 50 percent: Sampling error	Over 50 percent: Estimate	Over 50 percent: Sampling error
Accrued benefits only				
Small employers				
Defined benefit (N=10,000)	18	9	39	11
Defined contribution (N=41,700)	19	7	25	8
Large employers				
Defined benefit (N=2,400)	57	17	14	12
Defined contribution (N=1,800)	16	16	24	18
Accrued benefits plus social security				
Small employers				
Defined benefit (N=10,000)	14	8	20	10
Defined contribution (N=41,700)	0	•	2	2
Large employers				
Defined benefit (N=2,400)	4	7	4	7
Defined contribution (N=1,800)	4	7	0	•

[a]Higher-paid workers earned over $50,000 per year.

Table III.7: Estimates and Sampling Errors for Figure III.2

Figures are percentages of plans

	Longer-tenured earned more than shorter-tenured by[a]			
	11 to 50 percent		Over 50 percent	
Plan size and type	Estimate	Sampling error	Estimate	Sampling error
Accrued benefits only				
Small employers				
Defined benefit (N=9,100)	15	9	39	12
Defined contribution (N=37,000)	23	9	16	7
Large employers				
Defined benefit (N=5,600)	18	9	10	6
Defined contribution (N=3,400)	16	10	11	9
Accrued benefits plus social security				
Small employers				
Defined benefit (N=9,100)	23	10	17	10
Defined contribution (N=37,000)	5	5	2	3
Large employers				
Defined benefit (N=5,600)	12	7	3	4
Defined contribution (N=3,400)	15	10	2	4

[a]Longer-tenured workers had 5 or more years of service.

Pension Integration Rules Before and After the Tax Reform Act of 1986

Employers may sponsor pension plans with benefit or contribution formulas that are coordinated with social security. This practice, known as integration, essentially permits an employer to treat a portion of the worker's social security retirement benefits as pension benefits under the employer-sponsored plan. Explicit rules govern the methods and extent of integration for different types of pension plans. The Tax Reform Act of 1986 (TRA) made major changes to these rules. This appendix presents information on the integration of pensions with social security before and after TRA.

Background

After passage of the Social Security Act in 1935, employers began amending their pension plans to reflect this new source of retirement benefits. The 1942 Revenue Act officially recognized and accepted integration by providing that judgments about whether a plan was discriminatory would be based on total employer-sponsored benefits from pensions and social security. IRS issued quantitative nondiscrimination standards for the first time in 1943. These were replaced in 1971 with guidelines in Revenue Ruling 71-446.

Integration became a common practice as the pension system grew. The combination of workers' pensions and social security benefits in integrated plans would replace the same proportion of preretirement income that the plan had originally provided alone, but the cost to the employer would be less because of the inclusion of social security benefits toward which the employer was already contributing. To achieve similar total replacement rates for all workers, higher-paid workers would receive a larger proportion of their preretirement income from the pension plan than lower-paid workers.[1]

Integration Rules Before TRA

Revenue Ruling 71-446 set the limits on allowable integration that remained in effect until TRA and subsequent IRS regulations stipulated new limits. Under 71-446 the maximum allowable offset was 83-1/3-percent. The maximum percentage point difference between the base and excess percentages was 37-1/2-points for fixed benefit defined benefit excess plans and 7 points for defined contribution excess plans.[2]

[1]Social security benefits replace a smaller proportion of earnings for higher-paid workers than lower-paid workers because of the upper limit on taxable wages and because of the progressive nature of the social security benefit formula.

[2]The limits for unit benefit defined benefit excess plans were 1 or 1.4 percent times years of service, depending on the definition of compensation used.

In 1982 TEFRA limited the allowable difference in defined contribution plans to the old-age, survivors, and disability insurance (OASDI) rate the employer-sponsor pays toward social security on wages below the taxable wage base.[3] TEFRA also required minimum nonintegrated benefits for certain lower-paid workers in top-heavy pension plans.

It was possible for a worker to earn no pension benefits in an integrated plan using either the excess or offset method before TRA. For example, if the worker's calculated pension benefit was $100 per month offset by 50 percent of a $200 per month social security benefit, the worker would receive the $200 social security benefit and no pension benefit (100 − 0.5(200) = 0). A defined benefit excess plan formula could specify a base percentage of 0 percent of pay up to, say, $30,000 and an excess percentage of 37.5 percent of pay above $30,000. A worker whose pay was less than $30,000 would never earn pension benefits under this plan. Similarly, a participant in a defined contribution excess plan earning $25,000 a year would earn no pension benefit if the employer contributed nothing on compensation up to $30,000 and 5.7 percent of compensation above $30,000.

TRA Changes Integration Rules

In passing TRA the Congress had decided that no private pension plan should be permitted to entirely eliminate benefits for lower-paid employees through integration. The act tightened allowable differences in benefits due to integration by setting limits on the permitted disparity between the higher- and lower-paid. Pure excess integration was forbidden, as were offset amounts larger than pension benefits.

Permitted Disparity in Excess Plans

Under TRA every worker in an excess plan will earn some pension benefit because TRA requires that the benefits of lower-paid employees must be at least one-half the benefits of higher-paid employees. Specifically, in a defined contribution excess plan the excess percentage is limited to the lesser of

- twice the base contribution percentage or
- the base contribution percentage plus 5.7 percentage points (or the old-age insurance portion of the OASDI rate in effect at the beginning of the plan year if greater than 5.7).

[3]When TEFRA took effect in 1984, the OASDI rate was 5.7 percent.

For example, in 1990, a plan formula could use a contribution rate of 15.7 percent for compensation above the integration level and 10 percent for compensation up to the integration level. However, an excess rate of 16 percent would not be acceptable, because the difference between the two rates would then be greater than 5.7. A rate structure applying 9 percent to excess compensation and 4 percent to compensation below the integration level also would not be acceptable. In this case, even though the rate difference is less than 5.7, the rate applied to excess pay cannot be more than double the rate applied to pay below the integration level.

In a defined benefit plan the excess percentage under TRA is limited to the lesser of

- twice the base percentage or
- the base percentage plus three-fourths of a percentage point in the case of benefits attributable to a year of service, or three-fourths of a percentage point times years of service (up to 35 years) in the case of total benefits. The total permitted disparity is 26.25 percentage points (0.75 times 35), even if the participant has more than 35 years of credited service.[4]

For example, in a plan with a base benefit percentage of 20 percent of pay below covered compensation, the excess percentage could be no higher than 40 percent of pay above covered compensation.[5] If the plan had a base benefit percentage of 30 percent of pay, the excess percentage could be no higher than 56.25 percent (30 + 26.25).

Under TRA covered compensation is a reference point for integration. Using covered compensation as the integration level allows an employer to maximize benefits to owners or other higher-paid employees when these employees are older than other employees. For example, if the owner will reach age 65 in 1990, the integration level for the owner (based on covered compensation) would be $18,000. If the other employees are under 30 years old, the integration level for them is $48,000. The permitted disparity of 0.75 percentage points per year is

[4]The limit is reduced under certain circumstances.

[5]Covered compensation is the average (without indexing) of the social security wage bases for the 35 calendar years ending with the year a person attains social security retirement age. Covered compensation is lower for older workers and higher for younger workers. IRS provides tables of covered compensation for participants of different ages.

reduced for all participants in the plan if the integration level is greater than covered compensation.

Permitted Disparity in Offset Plans

All workers in offset plans will also earn pension benefits as a result of TRA. Under TRA the maximum allowable offset is the lesser of

- 50 percent of the pension benefit accrued before the offset or
- 0.75 percent of final average pay in the case of benefits attributable to a year of service or 0.75 percent of final average pay times years of service (up to 35 years) in the case of total benefits.[6]

In addition, under proposed IRS rules implementing TRA, plans can no longer use offsets based on a worker's primary insurance amount (PIA). Under the proposed rules, offsets must be a uniform percentage of final average pay for all participants and PIA offsets vary for different workers.

[6]The maximum allowable offset is reduced if the offset formula includes compensation above covered compensation.

Fractional Accrual Rules Before and After the Tax Reform Act of 1986

The Employee Retirement Income Security Act of 1974 (ERISA) introduced accrual rules to assure that pension plans provide benefits to rank and file workers incrementally throughout their careers. Employers use accrual rules to determine the amount of pension benefits a participant has earned or accrued each year. Under one allowable accrual method, fractional accrual, pension benefits accrue over the years an employee participates in the plan until termination or retirement. One result of this accrual method is that employees accrue benefits at greater rates the older they are when they enter the plan. Participants working for the same employer with the same years of service and compensation will earn different pension benefits in any given year because of differences in their ages at date of hire. IRS has proposed rules under the Tax Reform Act of 1986 that limit the allowable differences in benefit accruals among participants in plans using fractional accrual. This appendix details the use of fractional accrual under the prior and proposed rules.

Background

ERISA introduced accrual rules in order to limit the "backloading" of pension benefits in defined benefit plans; that is, to assure that participants earned benefits throughout their careers rather than primarily or exclusively at normal retirement age.[1] ERISA permitted three methods of calculating accruals:

- Under the fractional accrual method the projected normal retirement benefit is prorated to determine accrued benefits. The proration fraction consists of years of service (or plan participation) to date in the numerator and the projected years of service a participant has between date of hire (or plan participation) and normal retirement age in the denominator.
- Under the 3-percent method a plan participant cannot accrue less than 3 percent of his or her retirement benefit each year. However, the participant must accrue 100 percent of the benefit at the end of 33-1/3 years or, if earlier, upon normal retirement.
- Under the 133-1/3-percent method the benefit accrual rate for any participant for any future year of service may not be more than one-third higher than the accrual rate for the current year.

The Department of the Treasury expressed concern during ERISA hearings that plan sponsors could use accrual methods to circumvent the

[1] Accrual rules do not apply to defined contribution plans. In a defined contribution plan each participant has an individual account and the participant's account balance is always fully accrued.

purpose of the vesting rules unless an accrual method were also prescribed by law.[2] Vesting rules were established under the act to prevent employers from being able to fire workers just before retirement, after years of employment, leaving them with little or no pension benefit because they had not yet reached the plan's normal retirement age. Without an accrual rule, a plan might provide that all employees will be 100-percent vested after 10 years of service, but benefit accruals would not commence until the 20th year of service. If an employee with 10 years of service quit, the employee would be fully vested but would not have earned any pension benefit under this scheme.

Fractional Accrual Before TRA

In plans using fractional accrual, participants who were older when they entered the plan earn benefits at a faster rate than participants who were younger when they entered. For example, consider the plan in table V.1. The plan has a normal retirement age of 65 and offers an annual retirement benefit of 50 percent of the participant's final average pay accrued under the fractional method. The youngest participant, A, accrues benefits at one-half the rate of the older B (1/40th v. 1/20th) and at one-fourth of the rate of the oldest participant, C (1/40th v. 1/10th).

Table V.1: How Fractional Accrual Works

Participant	Entry age	Accrual fraction	Annual salary (dollars)	Projected benefit (dollars)	Accrued benefit (dollars)	Accrued benefit per dollar of salary (percent)
A	25	$\frac{1}{65-25} = \frac{1}{40}$	$20,000	$10,000	$250	1.25
B	45	$\frac{1}{65-45} = \frac{1}{20}$	20,000	10,000	500	2.50
C	55	$\frac{1}{65-55} = \frac{1}{10}$	100,000	50,000	5,000	5.00

Using fractional accrual, even participants with the same years of service and salary but different entry ages accrue different benefits. For example, A and B earn $20,000 a year, so each has a projected benefit of $10,000 (0.50 * $20,000) at retirement. But for 1 year of service, A accrues 1/40th of $10,000 or $250 in pension benefits. B, with the same

[2]Vesting rules limit how long a participant in a qualified plan must wait to vest in or gain the nonforfeitable right or entitlement to employer-provided pension benefits.

salary and projected benefit as A, accrues $500 for 1 year of service because B is older than A. At the same time, participant C, whose salary of $100,000 is 5 times greater than A's and B's, accrues a benefit of $5,000 for 1 year, 20 times greater than A's and 10 times greater than B's because C is older than both A and B.

Plans that used fractional accrual qualified for preferential tax treatment before TRA because these plans used the projected benefit each participant was due at retirement to meet the IRS test for nondiscrimination. In other words, the nondiscrimination test was not sensitive to benefits accrued to the date of testing. For example, this test would compare the $10,000 projected benefit for A and B with the $50,000 projected benefit for C in the plan in table V.1. The differences in projected benefits are proportional to differences in compensation and the plan would not be discriminatory. In effect, the actual benefit accrued each year ($250 for A, $500 for B, and $5,000 for C) would not be an issue. Rather, the plan's compliance would be tested under the assumption that all participants, higher- and lower-paid, longer- and shorter-tenured alike, would accrue 100 percent of their projected benefits.

Fractional Accrual Under Proposed Rules

IRS has proposed new nondiscrimination rules that will limit the benefit disparities allowed in plans using fractional accrual. As proposed, the general rule states that no highly compensated employee shall accrue at a rate greater than any nonhighly compensated employee. To meet the general rule, employer-sponsors may group employees within certain guidelines ("restructure" the plan). IRS and Treasury officials expect larger plans to use restructuring to meet the general test. However, these officials think it unlikely that smaller plans would be able to use this approach.

IRS allows three different ways to compute accruals to satisfy the general rule. The first is the annual accrual method. This test compares the difference between a participant's accrued benefit at the end of the previous plan year (as a percentage of compensation or a dollar amount) and the end of the current one. The second method, the accrued-to-date method, is very similar to GAO's measure of equity. This test compares the participants' benefits accrued at the close of the plan year as a percentage of compensation divided by years of participation or service, whichever is greater. The third method is the projected annual rate method. This tests the benefits that will be accrued by retirement age per dollar of compensation divided by the number of years those benefits will have accrued.

The proposed rules state that the projected annual rate method may not be used in cases in which the pattern of accrual discriminates in favor of the highly compensated. Many small employers' defined benefit plans will have difficulty passing the general nondiscrimination test using projected benefits because of this prohibition. Oftentimes, these plans use fixed benefit formulas with fractional accrual, and the highly compensated workers are also the oldest. It is likely that IRS would find a pattern of accruals that discriminates in favor of the higher-paid in these plans.

In addition to the general rule, the proposed regulations provide three safe harbors. One safe harbor establishes a minimum period of 25 years over which a participant can accrue the maximum benefit provided under the plan. A second safe harbor requires that the average accruals of the group of nonhighly compensated must be at least 70 percent of the average accruals of the highly compensated.[3] The third safe harbor requires that the benefit any employee may accrue in 1 year cannot exceed 133-1/3-percent of the benefit that any other employee may accrue.

[3]Under this safe harbor accruals must be calculated using the annual accrual method.

GAO's Simulation of TRA and Related Rules

We simulated the effect of TRA and related proposed rules on a subsample of selected small employers' defined benefit plans. Our objective was to demonstrate the effect of these rules on the allocation of benefits between men and women. Before simulating the new rules the allocation of benefits in these plans favored men by 50 percent or more even after including social security benefits.

Methodology of Simulation

Our simulation accounts for the proposed rules controlling integration and nondiscrimination while meeting other federal pension requirements in effect after TRA, such as maximum and minimum benefit rules.[1] We first sought to maintain the accrued benefit of the highest paid employees, usually owners. We then generally minimized the cost of the plan by minimizing benefits earned by lower-paid employees.[2]

We applied the TEFRA top-heavy minimum benefit requirement for each year of the simulated plan's life, because all the selected plans were top-heavy. All eligible participants accrued at least the top-heavy minimum (2 percent of compensation) each year up to 10 years. Generally, those eligible were the lower-paid. We also applied the maximum benefit levels.[3] In addition, participants accrued benefits at a rate no faster than the fastest rate allowed—10 percent of the maximum dollar benefit for each year of participation.

For each plan we simulated operation under the proposed rules and other remaining requirements from the beginning of each plan, estimated accrued benefits under this simulation, and recomputed our measure based on the estimated benefits. For example, in a plan that was 5 years old at the time of our survey, we estimated accrued benefits after 5 years of simulated operation.

Features Incorporated in Simulation

Both before and after our simulation, most selected plans were integrated fixed benefit plans (see table VI.1).[4] In addition, each used fractional accrual before, and we retained this feature under the new rules

[1]Other federal pension requirements we included are found in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), the Deficit Reduction Act of 1984 (DEFRA), the Retirement Equity Act of 1984 (REA), and the Omnibus Budget Reconciliation Act of 1987 (OBRA 87).

[2]In 2 of the 11 plans the benefits to lower-paid employees were not minimized before the redesign.

[3]The maximum dollar benefit is found at section 415(b)(1) of the Internal Revenue Code.

[4]These are plans that provide a fixed benefit that does not vary based on years of service, for example, 50 percent of final pay.

through the 25-year safe harbor. Where applicable, we used a safe harbor that automatically allows past service grants of up to 5 years to be considered nondiscriminatory.

Table VI.1: Features of Selected Plans Before and After TRA Simulation

	Plan										
Feature and simulation period	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Plan type[a]											
Before[b]	Fixed	Fixed	Fixed	Fixed	Fixed	Unit	Fixed	Fixed	Fixed	Fixed	Fixed
Integration method											
Before[c]	Excess	Offset	Offset	Offset	Offset	Offset	None	Excess	Excess	None	Excess
Percentage offset											
Before	n/a	49.38	66.7	50	66.7	74	n/a	n/a	n/a	n/a	n/a
Base and excess percentage of pay											
Before											
Base	33.3	n/a	n/a	n/a	n/a	n/a	n/a	39	20.24	76.25	n/a
Excess	54.8	n/a	n/a	n/a	n/a	n/a	n/a	64	46.91	109.58	n/a
Percentage of pay used in benefit formula											
Before	[d]	84.71	25	40	64	3.2[e]	100	[d]	[d]	[d]	86
After	326	126	52.3	53.2	104.28	27.5	150	73.5	109.43	137.1	104.17
Past service credit granted (years)											
Before	0	0	0	7	5	5	0	0	4	0	0
After	0	5	0	5	5	5	0	0	4	0	0

[a]Unit—unit benefit plan; Fixed—fixed benefit plan.
[b]All plans were fixed benefit plans after TRA.
[c]No plans were integrated after TRA.
[d]Same as base and excess percentage of pay before TRA.
[e]3.2 percent per year of service up to 24 years for a maximum of 76.8 percent.
n/a: not applicable.

We often used a percentage of pay greater than 100 percent to compensate for the effect of the 25-year rule on accrual rates where necessary to retain the level of accrued benefits for the higher-paid. This practice is allowed under the proposed rules with the result that some participants will still reach 100 percent of compensation or the maximum benefit ERISA allows after 10 years even though they must accrue at a slower rate. In such a plan an owner could accrue the same benefit as under the old rules in the same amount of time, 10 years.

No plan in our simulation was integrated. This is because under the proposed rules an integrated plan must use 35 years, rather than 25 years, as the maximum accrual period to meet the nondiscrimination safe harbor. We simulated the plans using both the 25-year nonintegrated scenario and the 35-year integrated scenario. In each case the 25-year nonintegrated scenario better met our objective of maintaining the accrued benefits of the higher-paid while minimizing the accrued benefits of the lower-paid.

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