99th Congress
2d Session

COMMITTEE PRINT

S. PRT.
99-133

THE COST OF MANDATING PENSION ACCRUALS FOR OLDER WORKERS

AN INFORMATION PAPER

PREPARED BY THE STAFF OF THE

SPECIAL COMMITTEE ON AGING
UNITED STATES SENATE

FEBRUARY 1986

99th Congress
2d Session

COMMITTEE PRINT

S. PRT.
99-133

THE COST OF MANDATING PENSION ACCRUALS FOR OLDER WORKERS

AN INFORMATION PAPER

PREPARED BY THE STAFF OF THE

SPECIAL COMMITTEE ON AGING UNITED STATES SENATE

FEBRUARY 1986

Serial No. 99-G

This document has been printed for information purposes. It does not offer findings or recommendations by this committee.

U.S. GOVERNMENT PRINTING OFFICE

57-142 O

WASHINGTON : 1986

SPECIAL COMMITTEE ON AGING

JOHN HEINZ, Pennsylvania, *Chairman*

WILLIAM S. COHEN, Maine	JOHN GLENN, Ohio
LARRY PRESSLER, South Dakota	LAWTON CHILES, Florida
CHARLES E. GRASSLEY, Iowa	JOHN MELCHER, Montana
PETE WILSON, California	DAVID PRYOR, Arkansas
JOHN W. WARNER, Virginia	BILL BRADLEY, New Jersey
DANIEL J. EVANS, Washington	QUENTIN N. BURDICK, North Dakota
JEREMIAH DENTON, Alabama	CHRISTOPHER J. DODD, Connecticut
DON NICKLES, Oklahoma	J. BENNETT JOHNSTON, Louisiana
PAULA HAWKINS, Florida	JEFF BINGAMAN, New Mexico

STEPHEN R. MCCONNELL, *Staff Director*
DIANE LIFSEY, *Minority Staff Director*
ROBIN L. KROPF, *Chief Clerk*

PREFACE

We have long been committed to striking down barriers to the employment of older Americans. Our commitment is reinforced each day as we hear from older persons across the country who want to be able to continue to work past age 65, especially in part time jobs.

Passage of the Age Discrimination in Employment Act in 1967 (ADEA) represented a major step toward promoting equal employment opportunities for older persons based on ability rather than on age. The ADEA prohibits most forms of arbitrary age discrimination against persons aged 40 to 70 in the workplace. Pernicious forms of age discrimination, however, still exist and most Americans believe age bias remains a widespread and serious problem in our society.

A current interpretation of the ADEA by the Equal Employment Opportunity Commission (EEOC) permits employers to cease pension contributions and pension credits for active employees who work beyond the normal retirement age as specified in their pension and retirement plans (65 years of age under most plans). This is so despite the fact that the ADEA protects workers between the ages of 40 and 70 from discrimination based solely on age. While the EEOC has announced its intention to withdraw current regulations and issue new ones that require continued accruals, there has been no movement to promulgate new regulations. We believe that the EEOC's inaction is inconsistent with the spirit and the letter of the ADEA and that older workers deserve fair pension treatment.

The absence of pension accruals can be very costly to older employees. While relatively few older persons choose to work after age 65, halting accruals for those who do, combined with the reduced retirement years, results in a substantial loss of benefits over time. This loss, in turn, acts as a disincentive to continued employment and may discourage employees from postponing their retirement. In the face of serious economic pressures on this Nation's retirement income systems, and with a dramatic decrease in new entrants to the labor force, it is imperative that we encourage rather than discourage continued employment for older workers.

The practice of freezing pension accruals has been justified on the grounds that requiring such accruals would be expensive to employers, thereby acting as a disincentive to hiring or retaining older workers. There is, however, a dearth of empirical information to help discern the costs of requiring employers to continue pension contributions. The American Association of Retired Persons commissioned William M. Mercer-Meidinger, Inc. (consultants: Anna M. Rappaport, F.S.A. and Robert W. Kalman) to do a comprehensive study of the cost to employers and the benefits to employees if this practice were eliminated. We are pleased to print this study, which addresses a serious concern about the costs associated with an older labor force, and to make it available to policymakers and the general public.

This study shows that implementation of rules requiring continued pension contributions would not significantly affect total U.S. pension costs. Contributions to pension funds would increase by less than 1 percent and would be invested in capital markets that promote economic growth. Moreover, the study shows that, as the number of workers over age 65 in the labor force increases, employer costs would decline as more and more employees delayed retirement. There would also be savings to the Social Security trust fund. Last, and most important, the continued accruals result in substantial benefits to those older workers who continue to work.

There are both legislative and regulatory proposals to require continued contributions and crediting for employees who work past normal retirement age. This study demonstrates that there is no cost justification for a practice which discourages labor force participation after age 65, and which is contrary to the purpose of the ADEA to ensure protection for older employees who exercise their legal right to continued employment.

It is our hope that this report will lay to rest the fears among employers and others that eliminating discrimination against older workers in pension benefit accruals will be burdensome. Clearly, the benefits associated with eliminating obstacles to employing older workers far outweighs the minimal cost of continued accruals.

JOHN HEINZ,
Chairman.
JOHN GLENN,
Ranking Minority Member.

EXECUTIVE SUMMARY

"To promote employment of older persons based on their ability rather than age," the Age Discrimination in Employment Act of 1967 (ADEA) protects employees between the ages of 40 and 70 from age discrimination in all terms and conditions of employment. Current administrative interpretations of the law, however, allow an employer to discontinue pension contributions and crediting for employees who work beyond the age of 65.

Many believe that the practice which permits pension benefits to be frozen or suspended is contrary to the purposes of the ADEA and acts as a barrier to the continued employment opportunities of older workers. Frequently, this practice has been justified on the grounds that requiring such accruals would be costly to employers, thereby discouraging them from hiring or retaining older workers.

There are both legislative and regulatory proposals to require continued pension contributions and crediting for employees who work past normal retirement age. There is, however, a dearth of empirical information to help pinpoint the costs of requiring employers to continue post-65 pension contributions.

To assist legislators, administrators, employers, and all interested members of the public in understanding this issue, the Worker Equity Department of the American Association of Retired Persons (AARP) engaged William M. Mercer-Meidinger, Inc., to prepare this study which analyzes the costs of mandating employers to grant pension credit to employees aged 65 through 69.

In 1983, employers contributed $64.8 billion to pension and profit sharing plans. It is estimated that there are currently 640,000 employees aged 65 through 69 working full time in firms covered by the ADEA. Of this group, 42 percent are covered by defined benefit plans, half of which freeze benefits at age 65. Similarly, 41 percent of the 640,000 employees are covered by defined contribution plans; approximately 30 percent of these plans discontinue contributions at age 65. This study shows the costs, over a 20-year period, of requiring employers to grant pension credits to all employees whose benefits are currently frozen at age 65.

This study also analyzes the cost effect on both employers and the Social Security System in the likely event that post-65 pension contributions and crediting serve as incentives for more employees to delay their retirement. The cost estimates are based on the assumption that additional people who continue working as a result of a change in regulation or law would be covered by defined benefit plans and that none of these plans currently credit service for work beyond age 65.

The major findings of the study follow:

1. The total annual value of pension benefits lost because employers do not grant full pension credit to those employees working beyond age 65 is approximately $450 million.
2. If there is no increase in the number of employees over age 65 and pension plans provide continued contributions and crediting, the increase in the employer cost in the first year would amount to $51.5 million, less than one-tenth of 1 percent (0.08%) of total U.S. pension costs. Over 20 years, the annual employer cost increase would remain under 1 percent.
3. As the number of employees over age 65 increases, employer pension costs will *decline* since the costs of continued contributions and crediting is more than offset by gains that result from the shortened duration of pension payments. For example, if post-65 employment increases by 25 percent, employer costs would decline by $16.9 million by year 5 and even more in later years. If post-65 employment were to increase by 50 percent, employers would realize annual pension *savings* of more than $600 million by year 15, despite the cost of post-65 contributions and crediting.
4. If post-65 pension contributions and crediting encourage more employees to work beyond age 65, substantial Social Security benefits would not be paid. The study conservatively estimates that if age 65 through 69 employment increases by 10 percent, yearly Social Security benefits not paid would be $295 million; with a 25-percent increase in employment, benefits not paid would be $739 million; and with a 50-percent increase in employment, $1.5 billion in benefits would not be paid.

Mercer-Meidinger constructed a computer model to develop these cost estimates. Cost is considered from two standpoints: (1) The total present value of the additional pension benefits to be paid; and (2) the additional annual employer contributions to pension funds. The additional annual contributions, reduced by taxes, reflect the effect of the rule change on total corporate earnings. Data has been developed on two different assumptions: (1) age 65 through 69 employment would be unchanged; and (2) age 65 through 69 employment increase since the increased retirement benefits would act as an inducement for employees to continue their employment beyond age 65.

It is estimated that there are 640,000 employees currently aged 65 through 69 working full time in firms with ADEA coverage. Of this group, 42 percent are covered by defined benefit plans, half of which freeze benefits at age 65. This study shows the estimated cost of granting continued pension credit to these 134,000 employees. Costs are shown for: (a) Granting additional years of service without requiring that pay be recognized in calculating final average earnings; and (b) granting additional years of service, including increased pay, in calculating final average earnings.

Our model estimates that an additional 37,000 employees could receive increased benefits if pay as well as service had to be counted. Costs also include the cost for continuing benefits to 79,000 employees participating in defined contribution plans that freeze plan contributions at age 65. These employees are economically disadvantaged by the current situation. For some employees, the freezing of benefit accruals at age 65 can have significant bearing on their financial well-being during retirement.

A cost analysis also has been developed to show the effect of an increase in the age 65 through 69 work force, should this change in benefit plans encourage more people to delay retirement. These costs assume that additional people who continue working as a result of such a rule change would all be covered by defined benefit plans, and that none of these plans currently credits service for work beyond age 65.

Three different scenarios are shown to illustrate the cost if more employees choose to continue working. The three scenarios are based on a 10-percent increase in total employment at ages 65–69, a 25-percent increase, and a 50-percent increase. No prediction is being made as to how many employees will change their behavior. Such a prediction would require analysis of the retirement decision, and consideration of numerous other factors which affect individual retirement decisions. The purpose of this analysis is to show how costs would change should behavior change.

Exhibit I shows the number of employees over age 65 divided between those who have no defined benefit plan coverage, those with coverage and continued pension credits, and those with coverage but no accruals. Costs shown in this report reflect age 65 through age 69 accruals for those with coverage and no pension credits. The first column shows results in the case where there is no change in employment. The next three columns show results for the three scenarios where employment increases. Exhibit II shows similar data for defined contribution plan coverage. It should be noted that the same employees can be covered by both types of plans. We have assumed in our analysis that a change in the retirement decision would result from the introduction of continued pension credit in the defined benefit plan.

EXHIBIT I

Coverage of 65-69 Employees

Defined Benefit Plans

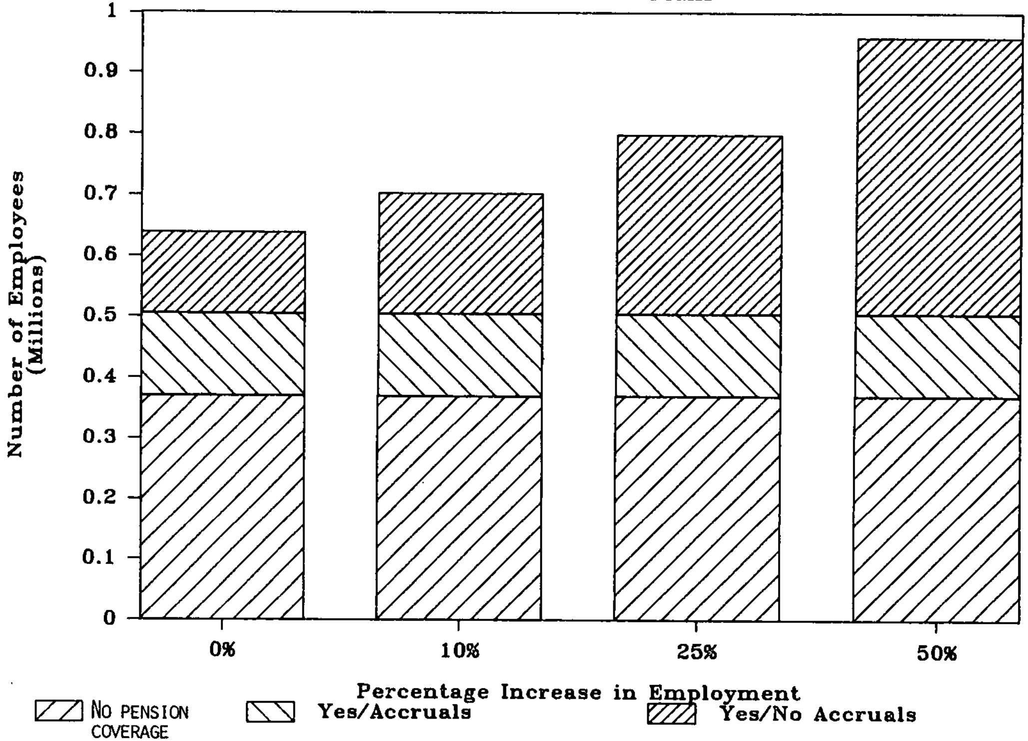
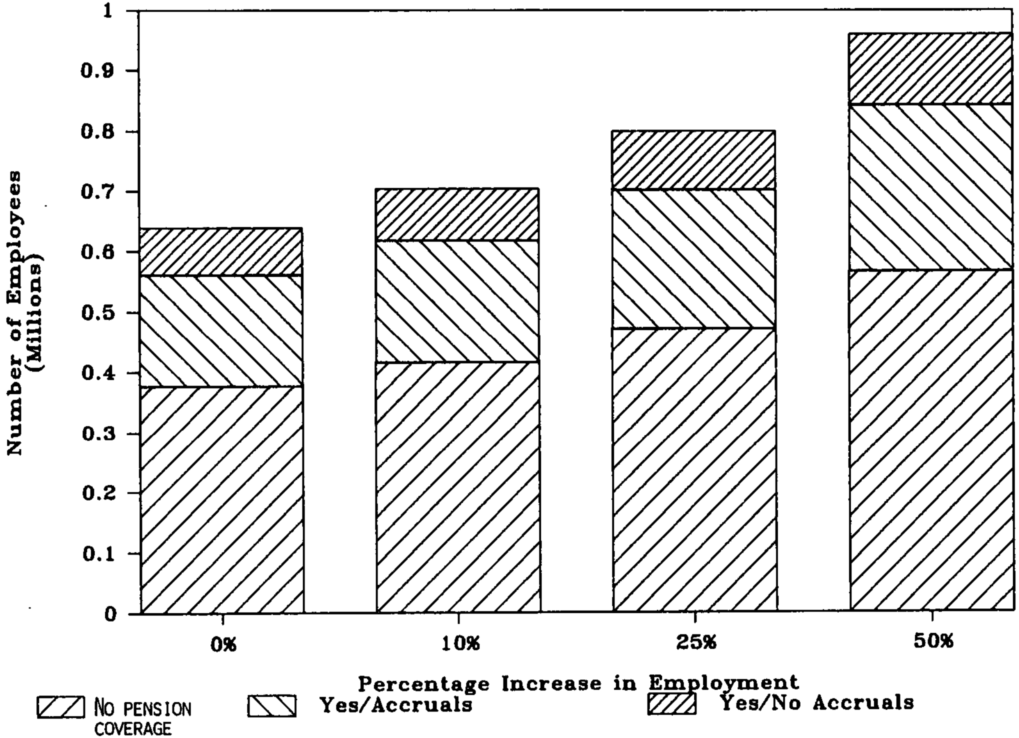


EXHIBIT II

Coverage of 65-69 Employees

Defined Contribution Plans



In 1983, employers contributed $64.8 billion to pension and profit sharing plans. The method of paying for pension plans would gradually recognize, for actuarial valuation purposes, the cost of such a change so that it would not be fully recognized until 15 years had passed.

The largest increase in cost for mandatory pension accruals from age 65 to 70 would occur if there is *no increase* in employment at ages over 65. The reason for this is that employers realize savings by not paying pension benefits to employees who have not retired. The additional costs (in 1985 dollars) under such a scenario follow:

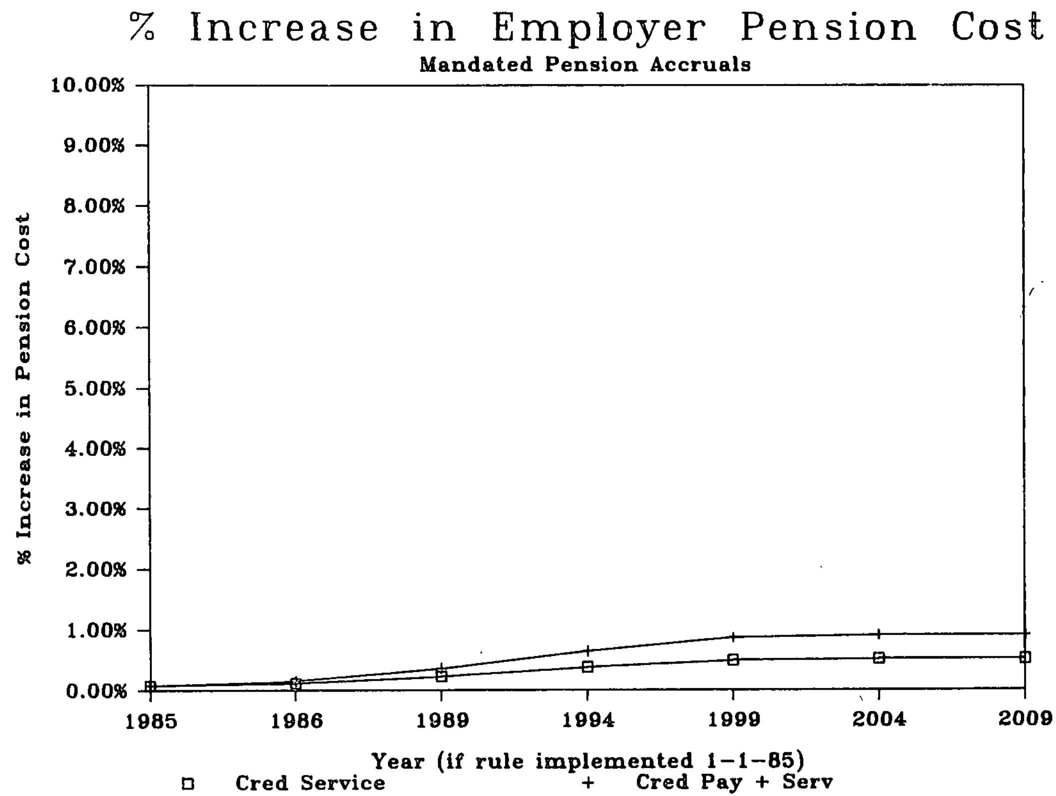
Years after implementation	Credit service only		Credit pay and service	
	Cost in millions	Percentage increase in total cost	Cost in millions	Percentage increase in total cost
Before-tax cost:				
1 yr	$52	0.08	$52	0.08
2 yr	78	.12	101	.16
15 yr [1]	335	.52	589	.91
After-tax cost:				
1 yr	28	NA	28	NA
2 yr	42	NA	54	NA
15 yr [1]	181	NA	318	NA

[1] Same result applies in all later years.

Exhibit III shows the percentage increase in annual employer pension cost in the United States if pension credits are mandated. Results are shown for different periods. After costs are fully recognized in year 15 and later, total U.S. pension costs increase by *slightly over one-half of 1 percent* if crediting of service only is required and no increase in employment occurs. If crediting of service and recognition of pay in final average earnings calcuations is required, total pension costs increase by *under 1 percent.*

If employment increases, the total increase in pension cost will be even less since the employer will experience gains from delayed retirement which more than offset the increases in cost due to crediting of service for the additional employees. The effect on individual employers will vary from these averages depending on their particular employee populations.

EXHIBIT III



% Increase in Employer Pension Cost
Mandated Pension Accruals
10.00%
9.00%
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
% Increase in Pension Cost
1985
1986
1989
1994
1999
2004
2009
Year (if rule implemented 1-1-85)
Cred Service
+ Cred Pay + Serv

Changes in *before-tax* costs for employment increases of 10, 25, and 50 percent are shown below. It is assumed that 100 percent of the employees who changed their behavior have defined benefit coverage in plans which previously did not credit service. The numbers of additional employees are 64,000, 160,000, and 320,000, respectively.

Years after implementation	Credit service only		Credit pay and service	
	Cost in millions	Percentage increase in total cost	Cost in millions	Percentage increase in total cost
10 percent additional employment				
1 yr	$57	0.09	$57	0.09
2 yr	64	.10	94	.15
15 yr [1]	132	.20	467	.72
25 percent additional employment				
1 yr	64	.10	64	.10
2 yr	43	.07	84	.13
15 yr [1]	−174	−.27	282	.44
50 additional employment				
1 yr	77	.12	77	.12
2 yr	8	.01	68	.10
15 yr [1]	−682	−1.05	−25	−.04

[1] Same result applies in all later years.

The effect on the economy of these additional contributions to pension funds can be viewed as a shift from corporate dividends and retained earnings to capital investment, since the amounts contributed to the pension funds are invested through the capital markets. There also is a reduction in corporate taxes equal to the tax on the additional contributions.

CONTENTS

THE COST OF MANDATING PENSION ACCRUALS FOR OLDER WORKERS

Section I

A. INTRODUCTION

Under the Age Discrimination in Employment Act of 1967 (ADEA), it is unlawful to discriminate in employment situations based on age. The provisions of the Act extend to employee benefits, applying the general principle that benefits must be provided to employees aged 65–69, but only to the extent that the cost for these employees is no greater than the cost for younger employees. The U.S. Department of Labor issued an Interpretive Bulletin which generally has served as regulatory guidance: Under section 4(f)(2) of the ADEA, employers are required to continue life, medical, and disability benefits, but are permitted to discontinue pension accruals and contributions to defined contribution plans (if primary). These pension regulations appear to be inconsistent with the general principle behind section 4(f)(2) of the ADEA to allow reductions in benefits only if they are justified by age-related cost considerations. The U.S. Equal Employment Opportunity Commission (EEOC) has announced its intention to withdraw these regulations and issue regulations that require continued accruals, but has yet to promulgate new regulations. Legislation that would require continued accruals also has been introduced.

The American Association of Retired Persons (AARP) is interested in understanding the financial implications for employers, employees, the Federal Government, and the U.S. economy of mandating pension accruals for employees over age 65. AARP engaged William M. Mercer-Meidinger, Inc., to develop these cost estimates and explain their implications in a manner understandable to public policymakers.

Mercer-Meidinger constructed a computer model to develop these cost estimates. Cost is considered from two standpoints: (1) The total present value of continued accruals; and (2) the additional annual employer contributions to pension funds. Additional annual employer contributions, reduced by taxes, reflect the effect of this change on total corporate earnings. Data has been developed based on two different assumptions: (1) age 65 through 69 employment would be unchanged; and (2) age 65 through 69 employment would rise as a result of the increased retirement benefits that would be available.

This report presents relevant background information, describes our methodology, summarizes our findings, and analyzes the cost effect of mandating post-65 benefit accruals on specific employers and the overall economy.

B. RELATIONSHIP TO EARLIER WORK

Employees lose a substantial part of the value of their pension benefits when they work beyond age 65 and receive no further pension credits. The percentage of lifetime pension benefits lost when retirement is delayed is summarized in the Employee Benefit Research Institute's *Issue Brief* No. 35, October 1984 in table 3 as follows:

PERCENT OF LIFETIME PENSION BENEFITS LOST DUE TO DELAYING RETIREMENT UNTIL AGE 67 AND 70 UNDER ALTERNATIVE PLAN PROVISIONS

Plan provision	Age at retirement	
	67	70
	Lifetime pension	Benefits lost
Benefits frozen at 65	19 to 23	41 to 47
Additional service credited only	14 to 19	30 to 41
Additional service and salary increases credited	4 to 8	10 to 18
Benefits actuarially adjusted	0	0

Some examples have been developed to show the effect of this loss of value on typical individual employees. Two examples are shown for employees earning $15,000 and $25,000 at the time they reach age 65. It is assumed that they have career service and that at age 65, the employer sponsored pension plan replaces 30 percent of pay if they retire at that time. The value of the lifetime benefits at age 65 for the two employees is:

$15,000 employee $39,300

$25,000 employee $65,500

The value of the benefits lost is shown in the following table:

VALUE OF LIFETIME PENSION BENEFITS LOST DUE TO DELAYING RETIREMENT UNTIL AGE 67 AND 70 UNDER ALTERNATIVE PLAN PROVISIONS

Plan provision	Age at retirement	
	67	70
	Lifetime pension	Benefits lost
Amounts for employee earning $15,000 at age 65:		
Benefits frozen at 65	$7,500 to $9,000	$16,100 to $18,500
Additional service credited only	5,500 to 7,500	11,800 to 16,100
Additional service and salary increases credited	1,600 to 3,100	3,900 to 7,100
Amounts for employee earning $25,000 at age 65:		
Benefits frozen at 65	12,400 to 15,000	27,900 to 30,800
Additional service credited only	9,200 to 12,400	19,700 to 27,900
Additional service and salary increases credited	2,600 to 5,200	6,600 to 11,800

A previous Mercer-Meidinger study, *Cost Implications Under Various Alternatives for Handling Retirement Benefit Payments Deferred Beyond Normal Retirement Age,* prepared by Anna M. Rappaport for the Andrus Gerontology Center, showed that when an employee defers retirement, the pension plan experiences a reduction in cost unless benefits are adjusted to reflect the fact that fewer payments will be made. If service is credited, then the employee receives additional benefits when retirement is delayed beyond normal retirement age, but the plan still usually saves money since the additional benefit normally is less than the value of the payments lost. The Mercer-Meidinger study showed that the value of the payments lost is such that the age-65 benefit could be increased by the following amounts without any increase in the cost of the plan due to delayed retirements:

57-142 O—86——2

EXHIBIT IVA

Value of Benefit at Retirement

$15,000 Employee - Benefit Frozen at 65

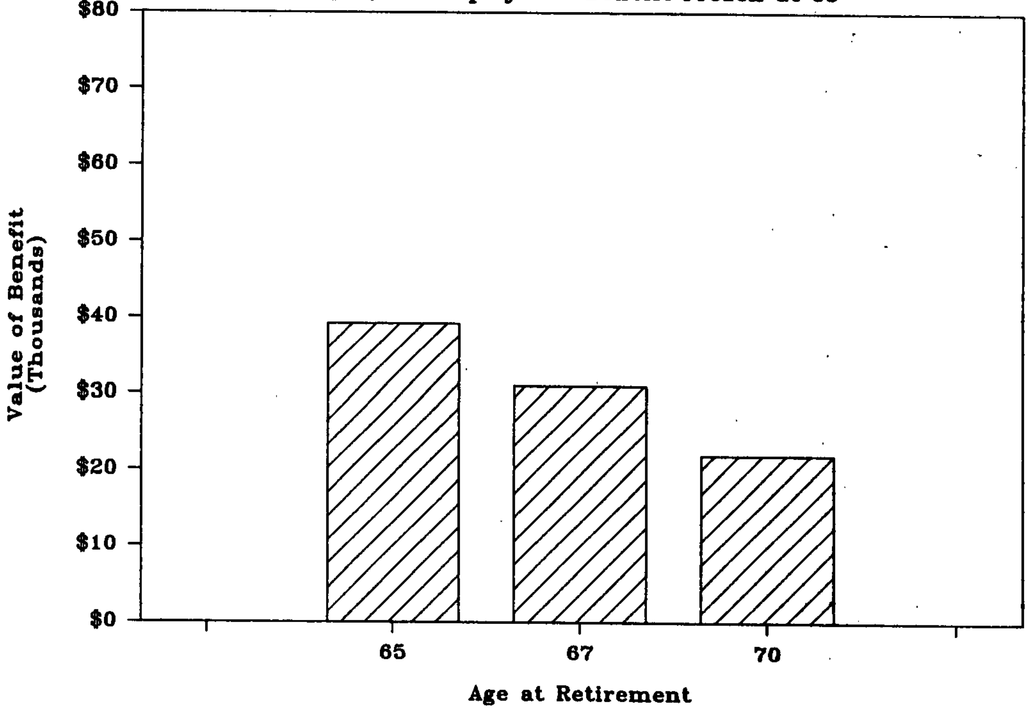
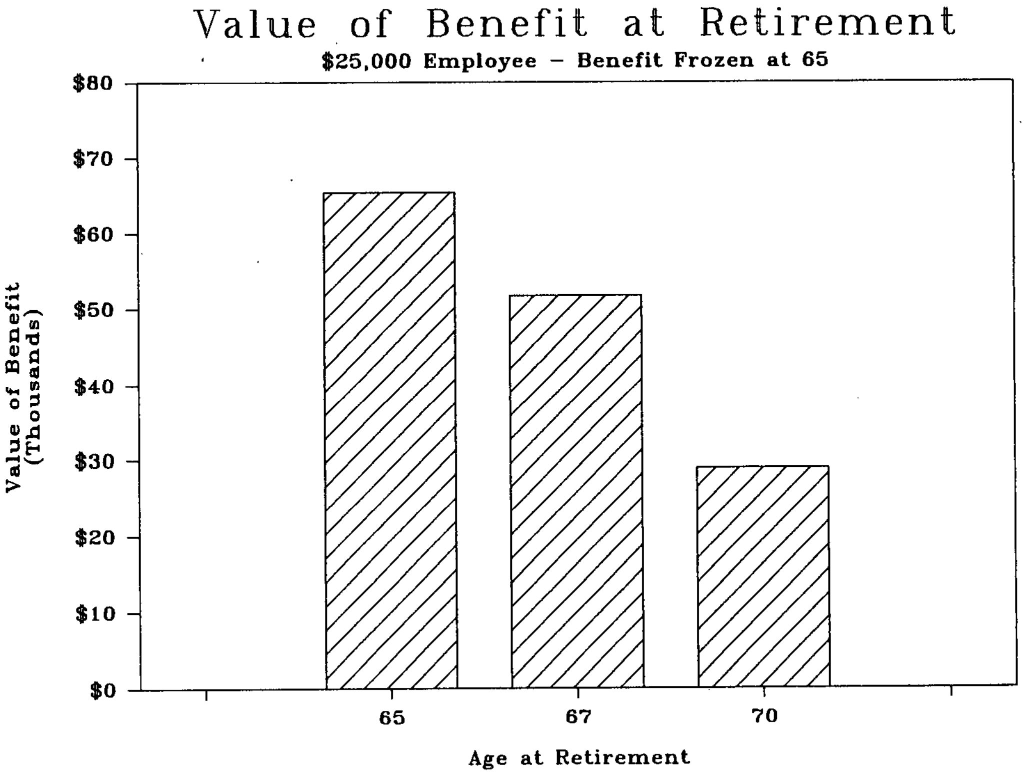


EXHIBIT IVB


Value of Benefit at Retirement
$25,000 Employee - Benefit Frozen at 65
$80
$70
$60
$50
$40
$30
$20
$10
$0
Value of Benefit
(Thousands)
65
67
70
Age at Retirement

Maximum increase in benefit

Retirement postponement period	*Percent*
From age:	
65 to 66	12.5
65 to 68	43.8
65 to 70	86.6

The major conclusion in that study was that delayed retirements would not cost more than retirement at normal retirement age and, in fact, would cost less, even if plans credited service beyond age 65. For plans that freeze benefits at normal retirement age, the savings are substantial.

These findings also are supported by other studies. The American Academy of Actuaries testimony, submitted to the Subcommittee on Labor-Management Relations, Committee on Education and Labor, House of Representatives, for a hearing on September 5, 1984, indicated the following:

> The impact on the actuarial present value of benefits, for various methods of adjusting plan benefits is outlined briefly below. For a plan which provides a benefit equal to a percentage of final 5-year average salary for each year of service, the following generalizations may be made with respect to an employee who has completed 25 years of service:
>
> 1. If there is no additional service credit granted, the actuarial present value of the benefit payable from the plan decreases at a rate of approximately 10–12 percent per year during the period that the employee defers retirement.
> 2. If there is additional service credit granted but average salary is not allowed to increase, then the actuarial present value of the benefit declines at a rate of approximately 7–10 percent per year.
> 3. If additional service credit is granted and average salaries are allowed to increase, then the actuarial present value of the plan benefits declines at a rate of 2–4 percent per year.
> 4. If benefits are simply allowed to grow actuarially, then there is no increase or decrease in the actuarial present value of the benefits.
> 5. If the employee's benefit is allowed to grow with (a) actuarial increases, (b) additional service credit, and (c) increases in average salary, then the actuarial present value of benefits will grow at the rate of approximately 8–12 percent for each year of deferral.

The findings of the American Academy of Actuaries testimony are generally consistent with the findings in the above-referenced Mercer-Meidinger study.

Employees also lose Social Security benefits when they delay retirement unless they are very low wage earners who can collect full Social Security benefits. Provisions of Social Security and many employer-sponsored pension plans offer employees significant economic incentives to retire. In some cases, retirees do seek other work, often on a part-time basis or a part-year basis so that earnings are within the limits of the Social Security earnings test (in 1985, approximately $7,300 for beneficiaries aged 65 through 69; $5,400 for beneficiaries under age 65). Social Security beneficiaries who earn over the exempt amount currently have their Social Security reduced by $1 for every $2 in wages in excess of the exempt amount.

The purpose of this study is to look at the age 65 through 69 pension accrual costs beginning with the following facts:

Many plans do in fact freeze pension accruals at age 65; and

A number of employees have decided to continue working beyond normal retirement age even though their benefits are frozen.

The questions to be answered in this study are:

Given the above facts and assuming *no change* in the number of persons working beyond age 65, how much more will it cost employers if all plans are required to continue accruals for employees aged 65 through 69?

What would be the additional cost assuming an increase in the number of persons working beyond age 65?

This study will show how much employer pension costs will increase if a regulation is adopted that mandates post-65 pension credit. This cost increase will fall on those employers that are not currently granting pension credit and who have employees who will work beyond age 65. These additional costs arise not because employees are *receiving* benefits that are greater in value than they would have received if they retired at age 65, but rather because employees are *losing less* of the value of their benefits when employers must continue accruals.

Section II

A. BENEFIT PLAN PROVISIONS AND COMPANY PRACTICES

The June 1985 U.S. Department of Labor study, *Employee Benefits in Medium and Large Firms, 1984*, presents information on the types of employer sponsored pension plans, including plan provisions for handling an employee's service after age 65. This study shows the percentage of participants for whom certain types of provisions apply. This distribution is as follows:

Percentage of participants covered by pension plans

Final average pay formula	54
Career earnings formula	14
Dollar amount formula	28
Percent of contributions formula	2
Money purchase	2

For smaller employers, it is likely that the percentage covered by final average pay formulas would be lower.

Bankers Trust Company also studies large corporate pension plans. Their findings are presented in terms of percentage of plans distinguishing between pattern plans and conventional plans. The Bankers Trust studies confirm the predominance of final average pay plans over career average pay plans for large corporations. The compensation base used in conventional plans, as shown in the 1980 Banker's Trust Study, follows:

Percentage of plans

All benefits based on career average compensation	15
All benefits based on final average compensation	76
Regular benefits based on career compensation, minimum benefit based on final average compensation	5
Benefits based in part on career average compensation and part on final average compensation	4

The pattern plans are predominantly flat dollar plans. The breakdown of formula types shown in the 1980 Banker's Trust study is as follows:

Percentage of plans

Flat benefit for each year of credited service—all service recognized	50

Flat benefit for each year of credited service—recognized service limited to 40 years or less	13
Flat benefit related both to compensation and years of credited service	18
Other benefits based on compensation and years of credited service	19

The methods used for handling benefits for persons who continue working beyond age 65 are shown in the above-mentioned Labor Department study and reflect data on a per-participant basis. The data covers full-time participants in plans sponsored by medium and large firms (as defined by the Department of Labor). The results are as follows:

Provision	*Percentage of participants*
Pension amount frozen and benefit deferred	49
Pension begins at 65	1
Pension deferred and increased actuarially	5
Pension deferred, but increased by specified percentage	2
Pension deferred, service credited and actuarial increase	1
Pension deferred and service credited	43

In setting the parameters for the model, we have used 50 percent as the percentage of plans granting credit beyond age 65. This equals the sum of 43 percent that grant credit and defer the pension, 1 percent that grant credit and give an actuarial increase, 5 percent that give actuarial increases, and 1 percent that begin the benefit at age 65. The last two categories are included since the value of the benefit they provide is greater than the benefit obtained if service is credited.

B. IMPLICATIONS OF DIFFERENT METHODS OF HANDLING POST-65 PENSION CREDITS

Pension benefits can be continued on several different bases, as described above. From a company's viewpoint, there are different factors to be considered in deciding which benefits should be offered. For example:

Employer goals often provide that equity should be maintained between employees who are hired at different ages and work for different periods before retirement.

Plan provisions can create retirement incentives and disincentives.

The organization may have gone through a period of downsizing and may decide to encourage retirement.

An employer's human resources policy with respect to retirement is often a key factor in deciding which benefits a company provides to employees who delay retirement. In organizations that offer generous benefits, most employees retire before age 65, so that benefit accruals for retirement after age 65 may not be much of an issue. In companies that offer lower benefits, and often lower pay, employees are more likely to continue working beyond age 65 because they cannot afford to retire.

Depending on the manner in which post-65 employment is treated for pension purposes, the difference in benefits can be substantial. Since many of those who continue working do so out of economic need, the issue of pension credit for post-65 service can be of major importance.

There are significant economic incentives today for employees to retire at age 65 or earlier. Provisions of employer pension plans and of Social Security frequently encourage retirement at 65 or before. Temporary programs offering additional benefits for those who retire during specified periods further encourage early retirement. Often, these incentives are powerful. A change in the pension plan provisions for service after age 65 could affect these incentives and it is possible that the number of people delaying retirement will increase in the future. No prediction is made about future behavior, but cost estimates are provided based on different scenarios with respect to behavioral change so that the possibility of such change can be evaluated. It is important to note that the number of employees currently between ages 60 and 64 is substantially greater than the number aged 65 and over, so that the potential for change in the number at ages 65 and over is substantial.

A number of different forces operating together may influence employers to rethink retirement policies in the future. Demographic trends provide several reasons why such changes may be important to employers and to the public. From the period following World War II through the mid-1960's, the United States experienced a great baby boom. The individuals born in those years will reach age 60 shortly after the year 2000. Starting in the mid-1960's, there was a significant decline in birth rates; thus the number of young people entering the labor force is declining.

The need to retain employees for long periods is also affected by changes in labor demand due to automation and growth in the number of women in the labor force. So far, there has not been a need for people to stay on simply to meet the demand for labor, but this may shift within the next decade. Mortality rates are also important in looking at the demographic picture. While people have been retiring earlier, they also have been living longer, and a larger portion of their total life span is spent in retirement.

Employers have encouraged early retirement by offering retirement benefits on a favorable basis at age 62 or earlier and by offering early retirement "windows," which are special, limited-time retirement offers. If the employee retires during the window period, the benefits are increased over what they would have been if there was no window or after the window expires. The business conditions that lead to these offers frequently include downsizing and/or a work force where skills are not adequately maintained over the years as technology and jobs changed.

Different forces are likely to influence future policy. Some of these forces include a desire to encourage skilled workers to stay on, longer life expectancies, changes in Social Security, a decreasing supply of younger workers, and a better understanding of the capabilities of workers at all ages. Two changes in Social Security enacted in 1983 already signal a change in retirement policy as conceived by the Federal Government. Retirement ages will increase gradually so that the full-benefit retirement age will become age 67 by the year 2025. In addition, the credit for delaying retirement beyond age 65 will increase gradually from 3 percent per year today to an ultimate level of 8 percent per year after the year 2007.

Section III

A. FINDINGS

The study model examines employer cost from the two perspectives. First, cost is viewed as the total present value of additional benefits that will be paid out because individuals continue to work for another year. The model's second perspective on cost examines the likely change in pension plan contributions, i.e., the additional cash which corporations will pay to pension funds. The results are shown in the summary exhibits that follow. They cover four situations:

Table 1 — no change in employment.
Table 2 — 10% increase in employment.
Table 3 — 25% increase in employment.
Table 4 — 50% increase in employment.

The cost figures represent the before- and after-tax pension cost to employers which would result from the Federal Government mandating pension accruals for employees aged 65 through 69. Each of these methods of developing cost is explained in detail in Appendix A of this report. If pension credit is mandated through amendments to ERISA, rather than through changes in ADEA regulations, then credit might also be required at age 70 and beyond and the number of employees affected would increase to some degree. The costs shown in this report increase in proportion to the number of additional employees covered under each of the scenarios.

These costs include the effect of postponed retirement when additional employees delay their retirement. The loss in pension benefits by these employees produces a *savings* which more than offsets the cost of the additional accruals. Therefore, the *greatest cost* occurs when there is *no* additional employment.

Using 1983 pension costs as the base, costs are shown in millions of dollars and as a percentage of total U.S. pension costs. Cost estimates for years after 1985 are expressed in terms of 1985 dollars. Our findings also provide an overview of how the change affects the economy. Detailed development of all of these costs is presented in Appendix B of this report.

Overall, the model shows that the maximum increase in cost occurs when there is no change in employment at ages 65–69. The value of the benefits which employees will be paid if the regulations are changed is $241 million, if service only is recognized, and $458 million, if pay and service are recognized. This amount is the *additional* benefits to be paid over the life of employees for each year that the requirement is in effect. These amounts represent just over *one-third of 1 percent* and *two-thirds of 1 percent* of the $64.8 billion which employers currently pay for pension benefits each year. Employers will pay for these benefits gradually over time. Table I shows that where there is no change in employment and service only is recognized, the additional cost will represent a 0.08 percent increase in pension costs in the first year, a 0.23 percent increase in the fifth year, and an ultimate increase of 0.52 percent. If pay also is recognized, costs increase after the first year by 0.36 percent in the fifth year, and by 0.91 percent ultimately.

Table 1

Summary of Costs
No Change in Employment Scenario
(Amounts in Millions)

Total U.S. Employer Pension Cost in 1983 $64,800

Cost Defined as Value of Additional Benefits Over Life of Employees

	Total Value	Amount as % of U.S. Pension Cost
If Service Only is Credited	$241.4	0.37%
If Service and Final Pay Are Credited	$457.5	0.71%

Cost Defined as Additional Cash Paid on Annual Basis to Pension Funds
(Amounts Expressed in 1985 Dollars)

	Annual Before Tax Amount	Amount as % of U.S. Pension Cost	Annual After Tax Amount
If Service Only is Credited			
1985	$51.5	0.08%	$27.8
1986	$77.5	0.12%	$41.9
1989	$148.4	0.23%	$80.1
1994	$245.8	0.38%	$132.7
1999	$322.1	0.50%	$173.9
2000	$335.3	0.52%	$181.0
2004	$335.3	0.52%	$181.0
If Service and Final Pay Are Credited			
1985	$51.5	0.08%	$27.8
1986	$100.8	0.16%	$54.4
1989	$235.2	0.36%	$127.0
1994	$419.8	0.65%	$226.7
1999	$564.5	0.87%	$304.8
2000	$589.4	0.91%	$318.3
2004	$589.4	0.91%	$318.3

EXHIBIT V

Additional Annual Employer Cost ($)

Mandated Pension Accruals

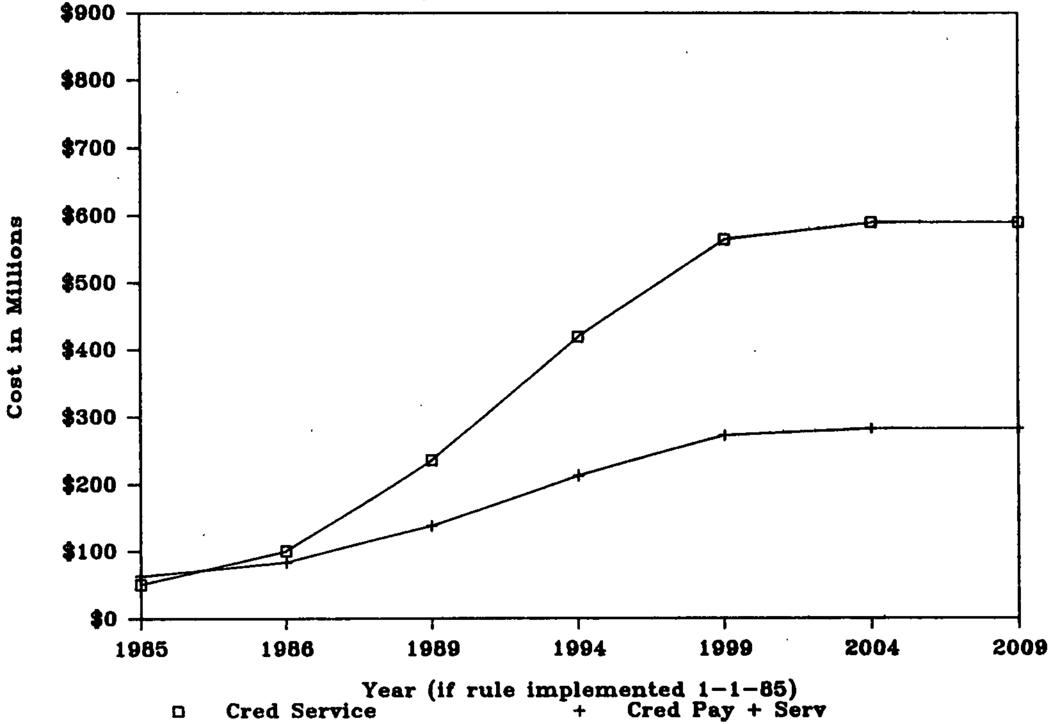


Table 2

Summary of Costs
Increased Employment Scenario
(Amounts in Millions)

Employment Increase Percentage	10%
Total U.S. Employer Pension Cost in 1983	$64,800

Cost Defined as Value of Additional Benefits Over Life of Employees

	Total Value	Amount as % of U.S. Pension Cost
If Service Only is Credited	$31.2	0.05%
If Service and Final Pay Are Credited	$315.9	0.49%

****

Cost Defined as Additional Cash Paid on Annual Basis to Pension Funds
(Amounts Expressed in 1985 Dollars)

	Annual Before Tax Amount	Amount as % of U.S. Pension Cost	Pension Cost Annual After Tax Amount
If Service Only is Credited			
1985	$56.6	0.09%	$30.6
1986	$63.5	0.10%	$34.3
1989	$82.3	0.13%	$44.4
1994	$108.1	0.17%	$58.4
1999	$128.3	0.20%	$69.3
2000	$131.8	0.20%	$71.2
2004	$131.8	0.20%	$71.2
If Service and Final Pay Are Credited			
1985	$56.6	0.09%	$30.6
1986	$94.2	0.15%	$50.9
1989	$196.7	0.30%	$106.2
1994	$337.3	0.52%	$182.2
1999	$447.6	0.69%	$241.7
2000	$466.6	0.72%	$252.0
2004	$466.6	0.72%	$252.0

( ) amounts indicate that the employer savings for additional delayed retirements are greater than the employer costs from crediting service, so that there is an overall employer savings.

Table 3

Summary of Costs
Increased Employment Scenario
(Amounts in Millions)

Employment Increase Percentage 25%
Total U.S. Employer Pension Cost in 1983 $64,800

Cost Defined as Value of Additional Benefits Over Life of Employees

	Total Value	Amount as % of U.S. Pension Cost
If Service Only is Credited	($284.0)	-0.44%
If Service and Final Pay Are Credited	$103.7	0.16%

****

Cost Defined as Additional Cash Paid on Annual Basis to Pension Funds
(Amounts Expressed in 1985 Dollars)

	Annual Before Tax Amount	Amount as % of U.S. Pension Cost	Pension Cost Annual After Tax Amount
If Service Only is Credited			
1985	$64.3	0.10%	$34.7
1986	$42.5	0.07%	$23.0
1989	($16.9)	-0.03%	($9.1)
1994	($98.5)	-0.15%	($53.2)
1999	($162.4)	-0.25%	($87.7)
2000	($173.5)	-0.27%	($93.7)
2004	($173.5)	-0.27%	($93.7)
If Service and Final Pay Are Credited			
1985	$64.3	0.10%	$34.7
1986	$84.3	0.13%	$45.5
1989	$138.8	0.21%	$75.0
1994	$213.6	0.33%	$115.4
1999	$272.2	0.42%	$147.0
2000	$282.3	0.44%	$152.5
2004	$282.3	0.44%	$152.5

( ) amounts indicate that the employer savings for additional delayed retirements are greater than the employer costs from crediting service, so that there is an overall employer savings.

Table 4

Summary of Costs
Increased Employment Scenario
(Amounts in Millions)

Employment Increase Percentage	50%
Total U.S. Employer Pension Cost in 1983	$64,800

Cost Defined as Value of Additional Benefits Over Life of Employees

	Total Value	Amount as % of U.S. Pension Cost
If Service Only is Credited	($809.3)	-1.25%
If Service and Final Pay Are Credited	($250.2)	-0.39%

****

Cost Defined as Additional Cash Paid on Annual Basis to Pension Funds
(Amounts Expressed in 1985 Dollars)

	Annual Before Tax Amount	Amount as % of U.S. Pension Cost	Pension Cost Annual After Tax Amount
If Service Only is Credited			
1985	$77.2	0.12%	$41.7
1986	$7.5	0.01%	$4.1
1989	($182.2)	-0.28%	($98.4)
1994	($442.8)	-0.68%	($239.1)
1999	($647.0)	-1.00%	($349.4)
2000	($682.2)	-1.05%	($368.4)
2004	($682.2)	-1.05%	($368.4)
If Service and Final Pay Are Credited			
1985	$77.2	0.12%	$41.7
1986	$67.8	0.10%	$36.6
1989	$42.4	0.07%	$22.9
1994	$7.4	0.01%	$4.0
1999	($20.0)	-0.03%	($10.8)
2000	($24.7)	-0.04%	($13.3)
2004	($24.7)	-0.04%	($13.3)

( ) amounts indicate that the employer savings for additional delayed retirements are greater than the employer costs from crediting service, so that there is an overall employer savings.

EXHIBIT VI

Effect of Various Employment Scenarios

Credit Service Only

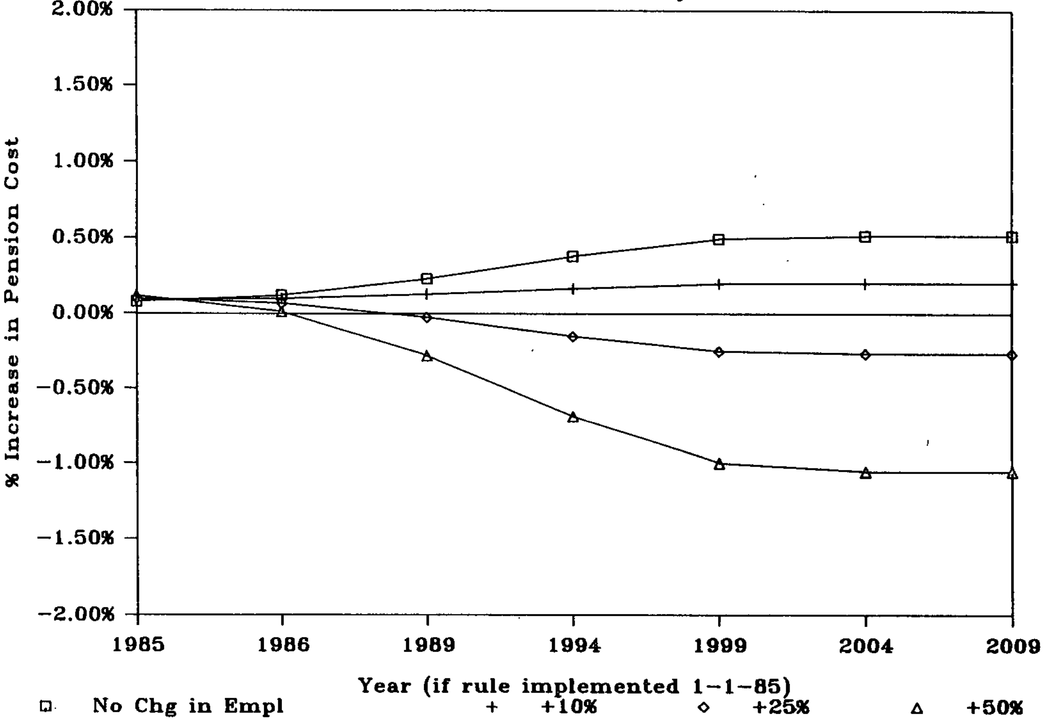
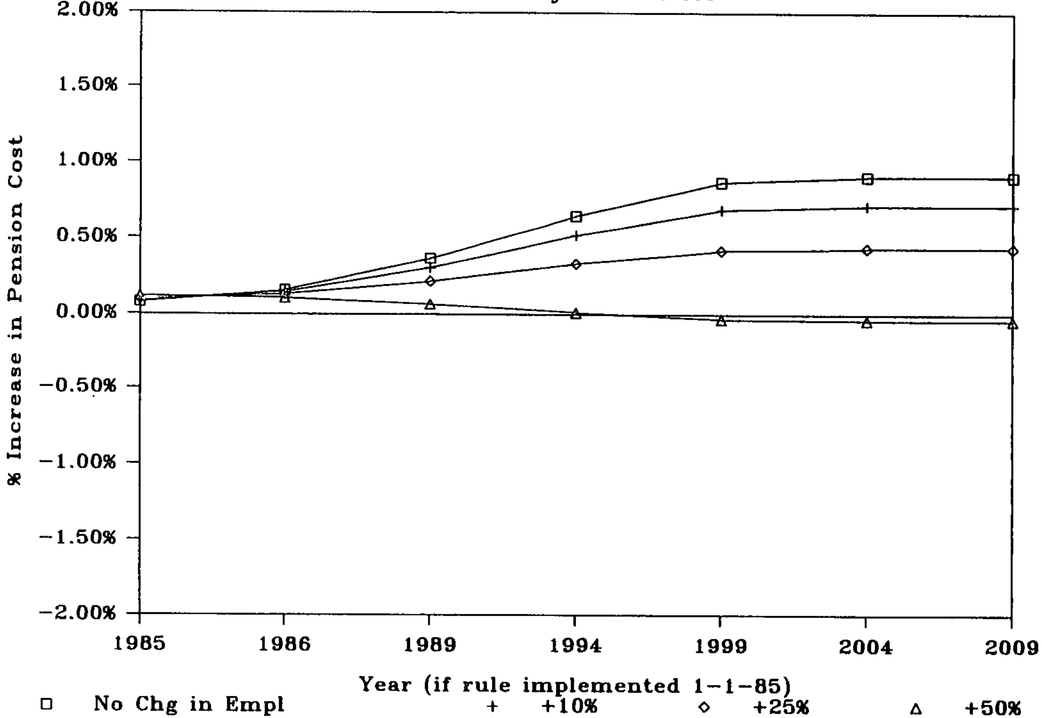


EXHIBIT VII

Effect of Various Employment Scenarios

Credit Pay and Service



Changes in pension cost due to year-to-year changes in investment performance are much greater than the increases that would result from the change under study here. Exhibit V shows the dollar change in annual pension cost graphically where there is no change in employment. Tables 2–4 show that the cost increases are smaller when employment increases. Exhibit VI shows the percentage change in cost for each of the scenarios over time for the situation where service is credited, but pay is not recognized. Exhibit VII shows the corresponding data when both pay and service are recognized. These tables and exhibits also show that, in some cases, there are savings because the value of the benefits lost by the additional employees when they delay retirement is greater than the value of the benefits that must be paid by employers if pension credit is mandated. Costs were examined in relation to a change in average age of the post-65 through 69 population. Appendix B includes costs for an average age of 68, as well as the basic model assumption, an average of 66.5. The costs decrease in all years. In the 20th year, assuming crediting of both pay and service, cost decreases from $589 million to $568 million.

B. EFFECT ON THE ECONOMY

As shown in Tables 1–4, the model provides two measures of cost: Total value of the additional benefits and year-by-year increases in the amounts to be paid into the pension fund. These amounts are tax deductible, so the net cost of the corporation, after tax, is equal to the gross payment, less the reduction in tax. In considering the effect on the economy, the following factors need to be considered:

Net charge to corporate earnings, which is essentially the same as the contribution to the pension fund under current accounting rules, less corporate tax savings.

Loss of tax revenues.

Additional assets in pension funds equal to additional contributions, plus investment earnings, less amounts that have been paid out as benefits. (Once amounts are paid out as benefits, they are split between consumption, tax, and savings.)

Assuming a change in employment, the model shows similar types of economic effects. In addition, the model shows the following:

An employer is not paying out pension benefits to additional employees who delay retirement. This saving in benefits is partially offset by the cost of the continued accruals and other benefits.

No change is anticipated in wages and Social Security taxes since the employees who stay on will be replaced by other workers when they retire.

Full Social Security benefits are not paid to those employees who continue working from age 65 to age 70 (except for lower-paid employees whose wages fall under the limits of the earnings test). With the exception of these lower-paid employees, there would be reductions in overall Social Security benefits for employees who delay retirement. For the Social Security system (including Medicare), there would be an increase in revenue. Currently, Social Security benefits are increased 3 percent per year up to age 70 for employees who continue working beyond age 65. This amount is less than the value of the benefits lost, so that there is a permanent savings in Social Security expenditures.

The model does not include any provision for shifting of medical care costs. Total medical care spending is not affected by pension accrual proposals, although there would be some changes in the source of medical care payments (i.e., Medicare, employer, employee). Medicare payments are secondary to employer plans for aged 65 to 69 active employees, unless the employee elects that Medicare should be primary; Medicare would have been primary if these employees had retired. The employer may retain an obligation for medical costs after retirement. The majority of very large employers continue medical coverage after retirement, but many small employers do not. Thus, there would be a shift in cost between the employer's plan and the Medicare system if the employee continues to work beyond age 65, with a reduction in Medicare and personal expenditures and an increase in employer costs.

Section IV

EFFECT ON INDIVIDUAL EMPLOYERS

The cost of continuing pension accruals does not seem to be an issue that has been studied by many employers. For example, the authors discussed the issue with the plan managers for a large insurance company, which has been active in the development of policies to promote employment of older workers. The company has a final average pay pension plan, and credits earnings and service after age 65 in the final benefit calculation for employees who continue after age 65. Out of a total of 28,000 active employees, about 100 employees over age 65 have continued to work. This pension plan provision was introduced when age 65 mandatory retirement was removed. The company also offers retirees the chance to participate in a pool of temporary workers and some retirees return to active status on that basis.

The actuarial valuation is conducted on the basis that all employees retire before age 65, so that there is no effect on the annual cost for the pension benefits until someone actually continues to work. In that situation, the cost is offset by the savings from benefits that are not paid. No analysis of the cost was made by the plan's actuary, but a hypothetical analysis of the cost was made using the assumptions about benefit level and average pay in the model supporting the cost calculations in this report.

Using the model's assumptions, the company's cost for continuing pension accruals would result in an annual reduction in the actuarial gain experienced by the plan of $345,000. In the year the plan change was introduced, there would be no change in the annual contribution. In the next year, the annual contribution would increase by $39,000. If the effect of the plan change had been to encourage 125 rather than 100 employees to stay on, the change in the actuarial gain would be $310,000 rather than $345,000, and the annual cost in the second year would be $35,000. This reduction

57-142 O—86——3

in cost occurs because the company saved benefit payments which would have been made to the 125 employees.

This issue was discussed with another financial services company which also has had a reputation for hiring and retaining older workers. This organization credits service at all ages on the same basis and does not encourage retirement at any particular age. A review of the demographics shows that out of a total of about 4,000 active employees there are about 75 employees over age 65 covered by the pension plan (nearly 2 percent of the total). No studies have been undertaken by the company on the cost of accruals beyond age 65, but a hypothetical analysis of the cost was made assuming that 2 percent of the employees, 80, stay on and using the assumptions about benefit level and average pay in the model supporting the cost calculations in this report.

Using the model's assumptions, the company's cost of providing a continuation of pension accruals would result in an annual reduction in the actuarial gain experienced by the plan of $276,000. In the year the plan change was introduced, there would be no change in the annual contribution. In the next year, the annual contribution would increase by $31,000. If the effect of the plan change had been to encourage 100 rather than 80 employees to stay on, the change in the actuarial gain would be $248,000 rather than $276,000, and the annual cost in the second year would be $28,000. This reduction in cost occurs because the company saved benefit payments to the 20 employees.

The authors also had discussions with a large organization with substantial retail operations. The work done by Malcolm Morrison, cited in Appendix C, identifies retailing as one of the likely areas of employment of older workers. Accruals are not continued in the pension plan of this organization, but participation is allowed in the savings plan. Of the more than 50,000 eligible employees, about 2 percent are over age 65. Career average pay plans are typical in this type of organization. If the company credits service under such a plan, using the assumptions for the model supporting the calculations in this report, the cost of crediting service would be an annual reduction in the actuarial gain for this company of $1,874,000. This translates into an additional contribution to the pension fund in the second year of $212,000. If another 250 people decide to continue working because of the change in benefits, the annual reduction in the actuarial gain would decrease to $1,131,000. The second year cash payment to the pension fund because of this change would be $128,000. If the average pay in this company is $20,000, the payroll of employees eligible for the pension fund is $100 million. The additional contribution would amount to less than one-quarter of 1 percent of pay.

The three companies selected were chosen by the authors as companies likely to have significant numbers of employees over age 65. While the numbers seem small, they probably are reasonable and represent a substantially greater percentage of older workers than will be found in most companies.

Current estimates show that there are 640,000 workers over age 65 who are affected by ADEA and 42 percent of these workers have pension coverage. In 1982, 46,800,000 civilian workers were covered by pension plans. (Source: 1985 Statistical Abstract of the United

States, No. 615.) If we assume modest growth in the number of workers covered since 1982, then under six-tenths of 1 percent of workers covered by pension plans are over age 65.

APPENDIXES

Appendix A

DESCRIPTION OF MODEL

The model has been prepared on the basis of two different assumptions:

(1) No change in employment resulting from mandatory pension accruals from age 65 up to age 70, and

(2) An increase in the number of employees who continue working for the same employer after reaching age 65.

In both cases, the model examines the change in pension plan cost if those employers that currently do not offer post-65 pension accruals are required to do so.

(1) Definitions of Cost

The model examines cost from two perspectives. First, cost is viewed as the total present value of the additional benefits that will be paid out because individuals continue working for another year. For defined contribution plans, this amount is the value of the additional contributions. For defined benefit plans, this amount is the full value of the additional benefit that will be paid out. For example, if an employee earns an additional benefit of $200 of annual retirement income, retires at age 67 and then lives 15 years, the value of the additional benefit is the value of an annuity beginning at age 67 and payable for 15 years. The calculations are based on the commonly used 1971 Group Annuity Mortality table. This (value-of-benefits) definition of cost shows a cost which is substantially more than the annual employer cost in the first few years after the change, since cost is viewed as the total cost over the remaining lifetime of the employees. The value-of-benefits definition is the approach used in the American Academy of Actuaries' statement and the earlier Mercer-Meidinger study that were discussed previously.

The model's second perspective on cost examines the likely change in pension plan contributions, i.e., the cash payments employers make to pension funds arising from a change in regulations. The model forecasts this change in pension plan contributions for 20 years. Under IRS rules, costs generated by actuarial gains and losses are spread over 15 years. Therefore, employer costs for complying with this change in regulations will increase for 15 years and then level off. Twenty years was selected to allow evaluation of the long term prospects, including the full term of increase. Under current accounting rules, most companies charge the same pension cost to earnings as the cash they contribute to the pension fund. Therefore, the contribution change is a good measure of the change in corporate earnings.

Pension plan contributions are based on application of actuarial methodology and U.S. law as set forth in the Internal Revenue Code and Regulations. The actuarial methodology is a combination of funding methods and actuarial assumptions. In nearly all U.S. valuations of defined benefit plans, the actuary assumes that employees will retire at age 65 or earlier. Valuations of larger plans usually include a provision for retirement at various ages beginning with the earliest retirement age available (generally 55) and ending with all remaining employees retiring at age 65. Under this valuation assumption, if an employee postpones retirement, the plan experiences an actuarial gain. The gain is considerable if the employer freezes benefits at age 65. There is no gain if actuarially equivalent increases are granted. Continued accruals under this scenario affect an employer's pension contribution by reducing the actuarial gain for the year by the value of the accrual. Within the methods acceptable for minimum funding under the Internal Revenue Code, there are two options by which this reduction in the actuarial gain may be paid: (1) The cost is spread over 15 level installments; and (2) the cost is spread as a level percentage of pay for the remaining lifetime of the plan participants. For this model, 15 year spreading has been used. The annual cost or change in the plan contribution under this definition is the 15-year level payment required to amortize the change in the actuarial gain for each prior year. A 20-year forecast shows how this develops over time. This methodology assumes that all plans not now granting pension credit will be required to make additional contributions. This assumption is conservative because some plans are fully funded, and, thus, do not need additional contributions at this time. For fully funded plans the assets already in the pension fund are used to pay these additional benefits and no additional contributions are required.

In the case where there is no change in employment, increased cost from the employer viewpoint can be measured in the two ways described above. Where there is a change in employment, the same two perspectives on cost can also be used. Cost can be measured, as above, with respect to the number of employees currently delaying retirement, plus an additional amount for those who decide to do so. The additional cost is measured using both approaches.

If employer cost is viewed as the change in a pension plan's present value of benefits to be paid, then the cost for additional employees is equal to:

a savings equal to the value of the benefits lost because retirement is delayed, plus

an additional cost equal to the value of the additional benefits which must be provided if service must be credited.

If employer cost is viewed as the annual cash cost of the change in retirement benefits to be provided, then the cost for additional employees is equal to:

a savings equal to the change in pension contributions because of amortization of the actuarial gain which was created by the reduction in the value of the benefits because retirement was delayed, plus an additional contribution equal to the amortization of the actuarial loss because of the value of the additional benefits which must be provided if service must be credited.

(2) Model Construction

The model is constructed as follows:

(1) The number of people covered by the various types of plans is estimated. It is assumed that participants in defined benefit plans can be divided into those with career average pay plans, those with final average pay plans, and those with flat dollar plans.

(2) For each plan type, the individuals covered are split between those who are already receiving current accruals after age 65 and those who are not. The additional cost applies only to those who are not receiving current accruals.

(3) Using an estimate of the average benefit accrual and average pay levels, the additional benefits to be earned by those who are continuing to accrue benefits are estimated as amounts of additional retirement income. These averages are based on national averages as published in the Labor Department's study, *Employee Benefits in Medium and Large Firms, 1984*.

(4) An annuity, assuming retirement at age 66.5, is used to value these benefits and calculate their total present value. The total present value is the first definition of cost discussed above. Age 66.5 has been selected as the average age for employees who have deferred retirement and are currently aged 65 to 69.

(5) For each year, the reduction in the actuarial gain resulting from delayed retirement is spread over 15 years in order to calculate the change in pension contributions. The forecast is carried out for 20 years.

(6) Costs are shown in both 1985 and forecasted dollars.

When an increase in the work force occurs because employees elect delayed retirement, the model contains the following additional elements:

(7) Those who would have retired, but continue working, give up their pension benefits during the period of continued employment. This is a gain, which can offset the cost of additional pension accruals, and is used to offset employer costs.

(8) We assumed that employees who work beyond age 65 would defer receiving Social Security benefits because of the operation of the earnings test. Therefore, Social Security benefits are not paid to the individuals who continue working. An exception to this, in practice, is that Social Security benefits will be paid to lower wage employees whose earnings permit them to collect benefits under the Social Security earnings test. Social Security savings are shown separately in Appendix B (with the details of the calculations), but must be considered in evaluating the overall impact of mandating post-65 pension accruals on the economy. The method used understates the likely savings in Social Security benefits. These benefits were estimated as 30 percent of the wages of the additional employ-

ees who stay on beyond age 65. Benefits include both the primary amount and the dependent spouse benefit.

Appendix B

DETAILS OF CALCULATIONS

Table 5 in this section shows the number of people who could receive additional credit assuming: (1) No change in employment; (2) a 10-percent increase in employment at ages 65–69; (3) a 25-percent increase in employment at ages 65–69; and (4) a 50-percent increase in employment at ages 65–69. The details of the calculations are then shown for each of these scenarios and for the scenario which includes no change in employment, but an increase in the assumed average age of the employees from 66.5 to 68.

Table 5

Summary of Number of People Covered

% Increase in Number	Number of Employees Currently Covered	Additional Employees Who Stay at Work After Age 65	Number Covered by Defined Benefit Plans	Number Covered by Defined Contribution Plans
Total Employment Over Age 65				
0%	640155	0	268865	262464
10%	640155	64016	332881	288710
25%	640155	160039	428904	328079
50%	640155	320078	588943	393695
Number with Current Accruals after Age 65				
0%			134433	183724
10%			134433	202097
25%			134433	229656
50%			134433	275587
Number with No Current Accruals after Age 65				
0%			134433	78739
10%			198448	86613
25%			294471	98424
50%			454510	118109

Note: the same employees may be covered by both defined benefit and defined contribution plans.

(1) No Change in Employment

Cost of Continued Pension Accruals After Age 65
No Change in Employment Scenario

DESCRIPTION OF PARAMETERS AND CALCULATION OF POPULATION COVERED		Numbers of Employees Involved	
Number of Employees Continuing After Age 65		640155	
Percentage Covered by Defined Benefit Plans	42.0%	268865	
Percentage Covered by Defined Contribution Plans	41.0%	262464	
Percentage of Defined Benefit Plans of Final Average Pay Type	55.3%	148682	
Percentage of Defined Benefit Plans of Career Average Type	14.7%	39523	
Percentage of Defined Benefit Plans of Flat Dollar Type	30.0%	80660	
		Current Accruals	No Current Accruals
Percentage Continuing Accruals - Defined Benefit - FAP	50.0%	74341	74341
Percentage Continuing Accruals - Defined Benefit - CAP	50.0%	19762	19762
Percentage Continuing Accruals - Defined Benefit - Flat $	50.0%	40330	40330
Percentage Crediting Pay and Service - Defined Benefit	25.0%	37171	111512
Percentage Continuing Accruals - Defined Contribution	70.0%	183724	78739
Percentage of Defined Contribution - Profit Sharing	36.6%		
Percentage of Defined Contribution - Match of Employee Money	63.4%		
Average Pay of Over Age 65 Workers	$15,400		
Average Contribution to Stand Alone Profit Sharing	9.0%		
Average Contribution to Plans with Match (401(k) or Thrift)	1.50%		
Cost of $1 of Additional Retirement Benefit	$8.39		
Benefit Expected in Career Average Pay Plan (% of Pay)	1.45%		
Accrual Rate in Final Average Pay Plan	1.17%		
Average Rate of Pay Increases	5.00%		
Average Rate of Flat Dollar Benefit	$15.88		
Final Average Pay Average Replacement Ratio	30.00%		
Rate of Inflation for Translating to 1985 Dollars	5.00%		

Additional Benefits to be Earned and Total Values of Additional Benefits
No Change in Employment Scenario

ADDITIONAL CONTRIBUTION TO DEFINED CONTRIBUTION PLANS

	Number	Payroll (in '000s)	% of Pay	Amount (in '000s)
Profit Sharing Plans	28807	$443,627	9.00%	$39,926
Employer Match of Employee Money	49932	$768,954	1.50%	$11,534
Total	78739	$1,212,582		$51,461

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT SERVICE ONLY

	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)
Final Average Pay Plans	74341	$1,144,854	1.17%	$13,395	$112,377
Career Average Pay Plans	19762	$304,328	1.45%	$4,413	$37,021
Flat Dollar Plans	40330	$621,078	$15.88	$7,687	$64,493
					$241,362

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT PAY AND SERVICE

	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)
Final Average Pay Plans - Service Credit	74341	$1,144,854	1.17%	$13,395	$112,377
Career Average Pay Plans	19762	$304,328	1.45%	$4,413	$37,021
Flat Dollar Plans	40330	$621,078	$15.88	$7,687	$64,493
Value of Pay on Final Average Pay Plans*	111512	$1,717,282	1.50%	$25,759	$216,110
					$457,473

*Benefit Rate is Replacement Ratio at 65 times the Average Pay Increase Rate

Developaent of Additional Cash to Contributions to Pension Funds
and Coabined Charges to Corporate Earnings

Cost of Additional Pension Accruals - No Change in Eaployaent Scenario

Year by Year Charge to Corporate Earnings - Aaounts in 000's

		Credit Service and Pay Option			
Year	Defined Contrib	Reduction in Actuarial Gain in Year	Aaor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$51,461	$457,473		$51,461	$51,461
2	$54,034	$480,346	$51,826	$105,860	$100,819
3	$56,736	$504,364	$106,243	$162,978	$147,826
4	$59,572	$529,582	$163,381	$222,953	$192,595
5	$62,551	$556,061	$223,376	$285,927	$235,233
6	$65,678	$583,864	$286,370	$352,049	$275,839
7	$68,962	$613,057	$352,515	$421,477	$314,513
8	$72,410	$643,710	$421,966	$494,377	$351,344
9	$76,031	$675,895	$494,890	$570,921	$386,422
10	$79,833	$709,690	$571,461	$651,293	$419,829
11	$83,824	$745,175	$651,859	$735,684	$451,646
12	$88,015	$782,433	$736,278	$824,294	$481,947
13	$92,416	$821,555	$824,918	$917,334	$510,806
14	$97,037	$862,633	$917,990	$1,015,027	$538,290
15	$101,889	$905,764	$1,015,715	$1,117,604	$564,466
16	$106,983	$951,053	$1,118,327	$1,225,310	$589,395
17	$112,332	$998,605	$1,174,243	$1,286,575	$589,395
18	$117,949	$1,048,536	$1,232,955	$1,350,904	$589,395
19	$123,847	$1,100,962	$1,294,603	$1,418,449	$589,395
20	$130,039	$1,156,011	$1,359,333	$1,489,372	$589,395

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - No Change in Employment Scenario

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service Only Option

Year	Defined Contrib	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$51,461	$241,362		$51,461	$51,461
2	$54,034	$253,430	$27,343	$81,377	$77,502
3	$56,736	$266,102	$56,054	$112,789	$102,303
4	$59,572	$279,407	$86,200	$145,772	$125,923
5	$62,551	$293,377	$117,853	$180,404	$148,419
6	$65,678	$308,046	$151,089	$216,767	$169,843
7	$68,962	$323,449	$185,987	$254,949	$190,247
8	$72,410	$339,621	$222,629	$295,040	$209,679
9	$76,031	$356,602	$261,104	$337,135	$228,186
10	$79,833	$374,432	$301,502	$381,335	$245,812
11	$83,824	$393,154	$343,921	$427,745	$262,598
12	$88,015	$412,812	$388,460	$476,476	$278,585
13	$92,416	$433,452	$435,226	$527,643	$293,811
14	$97,037	$455,125	$484,331	$581,368	$308,312
15	$101,889	$477,881	$535,891	$637,780	$322,122
16	$106,983	$501,775	$590,029	$697,012	$335,275
17	$112,332	$526,864	$619,530	$731,862	$335,275
18	$117,949	$553,207	$650,507	$768,456	$335,275
19	$123,847	$580,867	$683,032	$806,878	$335,275
20	$130,039	$609,911	$717,183	$847,222	$335,275

Summary of Economic Effects of Proposals - Amounts in 000's

Year	Credit Service Only Option				Credit Service and Pay Option			
	Total Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Total Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars
1	$51,461	$23,672	$27,789	$27,789	$51,461	$23,672	$27,789	$27,789
2	$81,377	$37,433	$43,944	$41,851	$105,860	$48,695	$57,164	$54,442
3	$112,789	$51,883	$60,906	$55,244	$162,978	$74,970	$88,008	$79,826
4	$145,772	$67,055	$78,717	$67,999	$222,953	$102,558	$120,395	$104,001
5	$180,404	$82,986	$97,418	$80,146	$285,927	$131,526	$154,400	$127,026
6	$216,767	$99,713	$117,054	$91,715	$352,049	$161,942	$190,106	$148,953
7	$254,949	$117,277	$137,672	$102,733	$421,477	$193,879	$227,598	$169,837
8	$295,040	$135,718	$159,321	$113,227	$494,377	$227,413	$266,963	$189,726
9	$337,135	$155,082	$182,053	$123,221	$570,921	$262,624	$308,298	$208,668
10	$381,335	$175,414	$205,921	$132,738	$651,293	$299,595	$351,698	$226,708
11	$427,745	$196,763	$230,982	$141,803	$735,684	$338,414	$397,269	$243,889
12	$476,476	$219,179	$257,297	$150,436	$824,294	$379,175	$445,119	$260,252
13	$527,643	$242,716	$284,927	$158,658	$917,334	$421,974	$495,360	$275,835
14	$581,368	$267,429	$313,939	$166,488	$1,015,027	$466,912	$548,114	$290,677
15	$637,780	$293,379	$344,401	$173,946	$1,117,604	$514,098	$603,506	$304,812
16	$697,012	$320,625	$376,386	$181,048	$1,225,310	$563,642	$661,667	$318,273
17	$731,862	$336,657	$395,206	$181,048	$1,286,575	$591,825	$694,751	$318,273
18	$768,456	$353,490	$414,966	$181,048	$1,350,904	$621,416	$729,488	$318,273
19	$806,878	$371,164	$435,714	$181,048	$1,418,449	$652,487	$765,963	$318,273
20	$847,222	$389,722	$457,500	$181,048	$1,489,372	$685,111	$804,261	$318,273

(2) 10% Change in Employment

Cost of Continued Pension Accruals After Age 65
Assuming Increased Employment at Ages 65-69

DESCRIPTION OF PARAMETERS AND CALCULATION OF POPULATION COVERED		Numbers of Employees Involved		
Increase Percentage 10%	Current Employees			640155
	Additional Employees *			64016
Number of Employees Continuing After Age 65			704171	
Percentage Covered by Defined Benefit Plans		42.0%	332881	
Percentage Covered by Defined Contribution Plans		41.0%	288710	
Percentage of Defined Benefit Plans of Final Average Pay Type		55.3%	184083	
Percentage of Defined Benefit Plans of Career Average Type		14.7%	48933	
Percentage of Defined Benefit Plans of Flat Dollar Type		30.0%	99864	
			Current Accruals	No Current Accruals
Percentage Continuing Accruals - Defined Benefit - FAP		50.0%	74341	109742
Percentage Continuing Accruals - Defined Benefit - CAP		50.0%	19762	29172
Percentage Continuing Accruals - Defined Benefit - Flat $		50.0%	40330	59534
Percentage Crediting Pay and Service - Defined Benefit		25.0%	37171	146912
Percentage Continuing Accruals - Defined Contribution		70.0%	202097	86613
Percentage of Defined Contribution - Profit Sharing		36.6%		
Percentage of Defined Contribution - Match of Employee Money		63.4%		
Average Pay of Over Age 65 Workers		$15,400		
Average Contribution to Stand Alone Profit Sharing		9.0%		
Average Contribution to Plans with Match (401(k) or Thrift)		1.5%		
Cost of $1 of Additional Retirement Benefit		$8.39		
Benefit Expected in Career Average Pay Plan (% of Pay)		1.45%		
Accrual Rate in Final Average Pay Plan		1.17%		
Average Rate of Pay Increases		5.00%		
Average Rate of Flat Dollar Benefit		$15.88		
Final Average Pay Average Replacement Ratio		30.00%		
Rate of Inflation for Translating to 1985 Dollars		5.00%		
Average Service for Flat Dollar/Career Average Plans		20 Years		

*100% of the Additional Employees are Covered by Defined Benefit Plans which Do Not Currently Credit Service. Of this group the same percentage is covered by defined contribution plans as of the original group.

Development of Value of Benefit Lost When More People Delay Retirement

Number of People Delaying Retirement	64016
Percentage of Additional People Covered by Defined Benefit Plans	100.0%
Number Covered by Defined Benefit Plans	64016
Percentage of Defined Benefit Plans of Final Average Pay Type	55.3%
Percentage of Defined Benefit Plans of Career Average Type	14.7%
Percentage of Defined Benefit Plans of Flat Dollar Type	30.0%
Number Covered by Final Average Pay Plans	35401
Number Covered by Career Average Pay Plans	9410
Number Covered by Flat Dollar Plans	19205
Average Pay	$15,400
Replacement % for Final Average Pay	30.0%
Annual Accrual for Career Average Pay	1.45%
Benefit Level for Fixed Dollar	$15.88
Average Service	20
Annuity Value per Dollar of Benefit	$8.39
Percentage of Value Decrease When Benefit Frozen and Payment Deferred One Year	12.50%
Amount of Annual Retirement Income ('000's)	
Final Average Pay	$163,551
Career Average Pay	$42,026
Flat Dollar	$73,211
	$278,788
Value of Annuity Benefits	
Final Average Pay	$1,372,129
Career Average Pay	$352,585
Flat Dollar	$614,215
	$2,338,928
Reduction in Value Due to Deferring Retirement One Year	
Final Average Pay	$171,516
Career Average Pay	$44,073
Flat Dollar	$76,777
	$292,366

Additional Benefits to be Earned and Total Values of Additional Benefits Assuming Increased Employment at Ages 65-69

ADDITIONAL CONTRIBUTION TO DEFINED CONTRIBUTION PLANS

	Number	Payroll (in '000s)	% of Pay	Amount (in '000s)
Profit Sharing Plans	31688	$487,990	9.00%	$43,919
Employer Match of Employee Money	54925	$845,850	1.50%	$12,688
Total	86613	$1,333,840		$56,607

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT SERVICE ONLY

	Value of Benefit Lost Due to Delayed Ret	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)	Net Additional Cost (in '000s)
Final Average Pay Plans	($171,516)	109742	$1,690,023	1.17%	$19,773	$165,890	($5,626)
Career Average Pay Plans	($44,073)	29172	$449,247	1.45%	$6,514	$54,651	$10,578
Flat Dollar Plans	($76,777)	59534	$916,830	$15.88	$11,348	$95,203	$18,426
	($292,366)					$356,297	$31,227

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT PAY AND SERVICE

	Value of Benefit Lost Due to Delayed Ret	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)	Net Additional Cost (in '000s)
Final Average Pay Plans - Service Credit	($171,516)	109742	$1,690,023	1.17%	$19,773	$165,890	($5,626
Career Average Pay Plans	($44,073)	29172	$449,247	1.45%	$6,514	$54,651	$10,578
Flat Dollar Plans	($76,777)	59534	$916,830	$15.88	$11,348	$95,203	$18,426
Value of Pay on Final Average Pay Plans		146912	$2,262,451	1.50%	$33,937	$284,717	$284,717
	($292,366)					$641,014	$315,944

*Benefit Rate is Replacement Ratio at 65 times the Average Pay Increase Rate

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - Increase in Employment at Ages 65-69

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service Only Option

Year	Defined Contrib	Gain from Delayed Retirements	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$56,607	($292,366)	$356,297		$56,607	$56,607
2	$59,437	($306,984)	$374,112	$7,243	$66,680	$63,505
3	$62,409	($322,334)	$392,817	$14,847	$77,256	$70,074
4	$65,530	($338,450)	$412,458	$22,832	$88,362	$76,330
5	$68,806	($355,373)	$433,081	$31,216	$100,022	$82,289
6	$72,246	($373,141)	$454,735	$40,020	$112,266	$87,963
7	$75,859	($391,798)	$477,472	$49,263	$125,122	$93,368
8	$79,652	($411,388)	$501,345	$58,969	$138,620	$98,515
9	$83,634	($431,958)	$526,413	$69,160	$152,794	$103,417
10	$87,816	($453,556)	$552,733	$79,860	$167,676	$108,086
11	$92,207	($476,233)	$580,370	$91,096	$183,303	$112,532
12	$96,817	($500,045)	$609,389	$102,893	$199,710	$116,766
13	$101,658	($525,047)	$639,858	$115,281	$216,938	$120,799
14	$106,741	($551,300)	$671,851	$128,287	$235,028	$124,640
15	$112,078	($578,865)	$705,443	$141,944	$254,022	$128,298
16	$117,682	($607,808)	$740,716	$156,284	$273,965	$131,782
17	$123,566	($638,198)	$777,751	$164,098	$287,664	$131,782
18	$129,744	($670,108)	$816,639	$172,303	$302,047	$131,782
19	$136,231	($703,614)	$857,471	$180,918	$317,149	$131,782
20	$143,043	($738,794)	$900,344	$189,964	$333,007	$131,782

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - Increases in Employment at Ages 65-69

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service and Pay Option

Year	Defined Contrib	Gain from Delayed Retirements	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$56,607	($292,366)	$641,014		$56,607	$56,607
2	$59,437	($306,984)	$673,064	$39,497	$98,935	$94,223
3	$62,409	($322,334)	$706,717	$80,969	$143,379	$130,049
4	$65,530	($338,450)	$742,053	$124,515	$190,045	$164,168
5	$68,806	($355,373)	$779,156	$170,238	$239,044	$196,662
6	$72,246	($373,141)	$818,114	$218,248	$290,494	$227,610
7	$75,859	($391,798)	$859,019	$268,657	$344,516	$257,083
8	$79,652	($411,388)	$901,970	$321,587	$401,239	$285,153
9	$83,634	($431,958)	$947,069	$377,164	$460,798	$311,886
10	$87,816	($453,556)	$994,422	$435,520	$523,335	$337,347
11	$92,207	($476,233)	$1,044,143	$496,793	$589,000	$361,595
12	$96,817	($500,045)	$1,096,351	$561,130	$657,947	$384,688
13	$101,658	($525,047)	$1,151,168	$628,684	$730,342	$406,681
14	$106,741	($551,300)	$1,208,727	$699,615	$806,356	$427,628
15	$112,078	($578,865)	$1,269,163	$774,093	$886,171	$447,577
16	$117,682	($607,808)	$1,332,621	$852,295	$969,977	$466,575
17	$123,566	($638,198)	$1,399,252	$894,910	$1,018,476	$466,575
18	$129,744	($670,108)	$1,469,215	$939,656	$1,069,400	$466,575
19	$136,231	($703,614)	$1,542,675	$986,638	$1,122,869	$466,575
20	$143,043	($738,794)	$1,619,809	$1,035,970	$1,179,013	$466,575

Summary of Economic Effects of Proposals - Amounts in 000's

Credit Service Only Option

Year	Pension Plan Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Social Security Benefits Not Paid	Social Security Benefits Not Paid 1985 Dollars
1	$56,607	$26,039	$30,568	$30,568	$295,752	$295,752
2	$66,680	$30,673	$36,007	$34,292	$310,539	$295,752
3	$77,256	$35,538	$41,718	$37,840	$326,066	$295,752
4	$88,362	$40,646	$47,715	$41,218	$342,369	$295,752
5	$100,022	$46,010	$54,012	$44,436	$359,488	$295,752
6	$112,266	$51,642	$60,624	$47,500	$377,462	$295,752
7	$125,122	$57,556	$67,566	$50,419	$396,335	$295,752
8	$138,620	$63,765	$74,855	$53,198	$416,152	$295,752
9	$152,794	$70,285	$82,509	$55,845	$436,960	$295,752
10	$167,676	$77,131	$90,545	$58,366	$458,808	$295,752
11	$183,303	$84,319	$98,983	$60,767	$481,748	$295,752
12	$199,710	$91,867	$107,844	$63,054	$505,836	$295,752
13	$216,938	$99,792	$117,147	$65,232	$531,127	$295,752
14	$235,028	$108,113	$126,915	$67,306	$557,684	$295,752
15	$254,022	$116,850	$137,172	$69,281	$585,568	$295,752
16	$273,965	$126,024	$147,941	$71,162	$614,846	$295,752
17	$287,664	$132,325	$155,338	$71,162	$645,589	$295,752
18	$302,047	$138,942	$163,105	$71,162	$677,868	$295,752
19	$317,149	$145,889	$171,261	$71,162	$711,762	$295,752
20	$333,007	$153,183	$179,824	$71,162	$747,350	$295,752

Summary of Economic Effects

Credit Pay and Service Option

Year	Pension Plan Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Social Security Benefits Not Paid	Social Security Benefits Not Paid 1985 Dollars
1	$56,607	$26,039	$30,568	$30,568	$295,752	$295,752
2	$98,935	$45,510	$53,425	$50,881	$310,539	$295,752
3	$143,379	$65,954	$77,424	$70,226	$326,066	$295,752
4	$190,045	$87,421	$102,624	$88,651	$342,369	$295,752
5	$239,044	$109,960	$129,084	$106,198	$359,488	$295,752
6	$290,494	$133,627	$156,867	$122,909	$377,462	$295,752
7	$344,516	$158,477	$186,039	$138,825	$396,335	$295,752
8	$401,239	$184,570	$216,669	$153,983	$416,152	$295,752
9	$460,798	$211,967	$248,831	$168,419	$436,960	$295,752
10	$523,335	$240,734	$282,601	$182,167	$458,808	$295,752
11	$589,000	$270,940	$318,060	$195,261	$481,748	$295,752
12	$657,947	$302,656	$355,291	$207,731	$505,836	$295,752
13	$730,342	$335,957	$394,384	$219,608	$531,127	$295,752
14	$806,356	$370,924	$435,432	$230,919	$557,684	$295,752
15	$886,171	$407,639	$478,532	$241,691	$585,568	$295,752
16	$969,977	$446,189	$523,788	$251,951	$614,846	$295,752
17	$1,018,476	$468,499	$549,977	$251,951	$645,589	$295,752
18	$1,069,400	$491,924	$577,476	$251,951	$677,868	$295,752
19	$1,122,869	$516,520	$606,350	$251,951	$711,762	$295,752
20	$1,179,013	$542,346	$636,667	$251,951	$747,350	$295,752

(3) 25% Change in Employment

Cost of Continued Pension Accruals After Age 65
Assuming Increased Employment at Ages 65-69

DESCRIPTION OF PARAMETERS AND CALCULATION OF POPULATION COVERED		Numbers of Employees Involved		
Increase Percentage 25%	Current Employees			640155
	Additional Employees *			160039
Number of Employees Continuing After Age 65			800194	
Percentage Covered by Defined Benefit Plans		42.0%	428904	
Percentage Covered by Defined Contribution Plans		41.0%	328079	
Percentage of Defined Benefit Plans of Final Average Pay Type		55.3%	237184	
Percentage of Defined Benefit Plans of Career Average Type		14.7%	63049	
Percentage of Defined Benefit Plans of Flat Dollar Type		30.0%	128671	
			Current Accruals	No Current Accruals
Percentage Continuing Accruals - Defined Benefit - FAP		50.0%	74341	162843
Percentage Continuing Accruals - Defined Benefit - CAP		50.0%	19762	43287
Percentage Continuing Accruals - Defined Benefit - Flat $		50.0%	40330	88341
Percentage Crediting Pay and Service - Defined Benefit		25.0%	37171	200013
Percentage Continuing Accruals - Defined Contribution		70.0%	229656	98424
Percentage of Defined Contribution - Profit Sharing		36.6%		
Percentage of Defined Contribution - Match of Employee Money		63.4%		
Average Pay of Over Age 65 Workers		$15,400		
Average Contribution to Stand Alone Profit Sharing		9.0%		
Average Contribution to Plans with Match (401(k) or Thrift)		1.5%		
Cost of $1 of Additional Retirement Benefit		$8.39		
Benefit Expected in Career Average Pay Plan (% of Pay)		1.45%		
Accrual Rate in Final Average Pay Plan		1.17%		
Average Rate of Pay Increases		5.00%		
Average Rate of Flat Dollar Benefit		$15.88		
Final Average Pay Average Replacement Ratio		30.00%		
Rate of Inflation for Translating to 1985 Dollars		5.00%		
Average Service for Flat Dollar/Career Average Plans		20 Years		

*100% of the Additional Employees are Covered by Defined Benefit Plans which Do Not Currently Credit Service. Of this group the same percentage is covered by defined contribution plans as of the original group.

Development of Value of Benefit Lost When More People Delay Retirement

Number of People Delaying Retirement	160039
Percentage of Additional People Covered by Defined Benefit Plans	100.0%
Number Covered by Defined Benefit Plans	160039
Percentage of Defined Benefit Plans of Final Average Pay Type	55.3%
Percentage of Defined Benefit Plans of Career Average Type	14.7%
Percentage of Defined Benefit Plans of Flat Dollar Type	30.0%
Number Covered by Final Average Pay Plans	88501
Number Covered by Career Average Pay Plans	23526
Number Covered by Flat Dollar Plans	48012
Average Pay	$15,400
Replacement % for Final Average Pay	30.0%
Annual Accrual for Career Average Pay	1.45%
Benefit Level for Fixed Dollar	$15.88
Average Service	20
Annuity Value per Dollar of Benefit	$8.39
Percentage of Value Decrease When Benefit Frozen and Payment Deferred One Year	12.50%
Amount of Annual Retirement Income ('000's)	
Final Average Pay	$408,877
Career Average Pay	$105,066
Flat Dollar	$183,028
	$696,970
Value of Annuity Benefits	
Final Average Pay	$3,430,321
Career Average Pay	$881,462
Flat Dollar	$1,535,536
	$5,847,320
Reduction in Value Due to Deferring Retirement One Year	
Final Average Pay	$428,790
Career Average Pay	$110,183
Flat Dollar	$191,942
	$730,915

Additional Benefits to be Earned and Total Values of Additional Benefits
Assuming Increased Employment at Ages 65-69

ADDITIONAL CONTRIBUTION TO DEFINED CONTRIBUTION PLANS

	Number	Payroll (in '000s)	% of Pay	Amount (in '000s)
Profit Sharing Plans	36009	$554,534	9.00%	$49,908
Employer Match of Employee Money	62415	$961,193	1.50%	$14,418
Total	98424	$1,515,727		$64,326

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT SERVICE ONLY

	Value of Benefit Lost Due to Delayed Ret	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)	Net Additional Cost (in '000s)
Final Average Pay Plans	($428,790)	162843	$2,507,776	1.17%	$29,341	$246,160	($182,630)
Career Average Pay Plans	($110,183)	43287	$666,624	1.45%	$9,666	$81,095	($29,088)
Flat Dollar Plans	($191,942)	88341	$1,360,457	$15.88	$16,839	$141,269	($50,673)
	($730,915)					$528,699	($283,976)

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT PAY AND SERVICE

	Value of Benefit Lost Due to Delayed Ret	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)	Net Additional Cost (in '000s)
Final Average Pay Plans - Service Credit	($428,790)	162843	$2,507,776	1.17%	$29,341	$246,160	($182,630)
Career Average Pay Plans	($110,183)	43287	$666,624	1.45%	$9,666	$81,095	($29,088)
Flat Dollar Plans	($191,942)	88341	$1,360,457	$15.88	$16,839	$141,269	($50,673)
Value of Pay on Final Average Pay Plans		200013	$3,080,204	1.50%	$46,203	$387,626	$387,626
	($730,915)					$916,325	$103,651

*Benefit Rate is Replacement Ratio at 65 times the Average Pay Increase Rate

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - Increase in Employment at Ages 65-69

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service Only Option

Year	Defined Contrib	Gain from Delayed Retirements	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$64,326	($730,915)	$528,699		$64,326	$64,326
2	$67,542	($767,461)	$555,133	($22,909)	$44,634	$42,508
3	$70,919	($805,834)	$582,890	($46,963)	$23,957	$21,730
4	$74,465	($846,125)	$612,035	($72,219)	$2,246	$1,940
5	$78,189	($888,432)	$642,636	($98,739)	($20,550)	($16,907)
6	$82,098	($932,853)	$674,768	($126,584)	($44,486)	($34,856)
7	$86,203	($979,496)	$708,507	($155,822)	($69,619)	($51,951)
8	$90,513	($1,028,471)	$743,932	($186,522)	($96,008)	($68,231)
9	$95,039	($1,079,894)	$781,129	($218,756)	($123,717)	($83,737)
10	$99,791	($1,133,889)	$820,185	($252,603)	($152,812)	($98,504)
11	$104,780	($1,190,584)	$861,194	($288,141)	($183,361)	($112,568)
12	$110,019	($1,250,113)	$904,254	($325,457)	($215,438)	($125,962)
13	$115,520	($1,312,618)	$949,467	($364,638)	($249,118)	($138,718)
14	$121,296	($1,378,249)	$996,940	($405,779)	($284,482)	($150,867)
15	$127,361	($1,447,162)	$1,046,787	($448,976)	($321,615)	($162,437)
16	$133,729	($1,519,520)	$1,099,126	($494,333)	($360,604)	($173,457)
17	$140,416	($1,595,496)	$1,154,083	($519,050)	($378,635)	($173,457)
18	$147,436	($1,675,271)	$1,211,787	($545,003)	($397,566)	($173,457)
19	$154,808	($1,759,034)	$1,272,376	($572,253)	($417,445)	($173,457)
20	$162,549	($1,846,986)	$1,335,995	($600,865)	($438,317)	($173,457)

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - Increases in Employment at Ages 65-69

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service and Pay Option

Year	Defined Contrib	Gain from Delayed Retirements	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$64,326	($730,915)	$916,325		$64,326	$64,326
2	$67,542	($767,461)	$962,141	$21,005	$88,547	$84,330
3	$70,919	($805,834)	$1,010,248	$43,059	$113,979	$103,382
4	$74,465	($846,125)	$1,060,761	$66,217	$140,682	$121,527
5	$78,189	($888,432)	$1,113,799	$90,532	$168,721	$138,807
6	$82,098	($932,853)	$1,169,489	$116,064	$198,162	$155,265
7	$86,203	($979,496)	$1,227,963	$142,871	$229,074	$170,939
8	$90,513	($1,028,471)	$1,289,361	$171,019	$261,532	$185,866
9	$95,039	($1,079,894)	$1,353,829	$200,575	$295,614	$200,083
10	$99,791	($1,133,889)	$1,421,521	$231,608	$331,399	$213,623
11	$104,780	($1,190,584)	$1,492,597	$264,193	$368,973	$226,518
12	$110,019	($1,250,113)	$1,567,226	$298,407	$408,427	$238,799
13	$115,520	($1,312,618)	$1,645,588	$334,332	$449,853	$250,495
14	$121,296	($1,378,249)	$1,727,867	$372,054	$493,350	$261,634
15	$127,361	($1,447,162)	$1,814,261	$411,661	$539,022	$272,243
16	$133,729	($1,519,520)	$1,904,974	$453,248	$586,978	$282,346
17	$140,416	($1,595,496)	$2,000,222	$475,911	$616,326	$282,346
18	$147,436	($1,675,271)	$2,100,233	$499,706	$647,143	$282,346
19	$154,808	($1,759,034)	$2,205,245	$524,692	$679,500	$282,346
20	$162,549	($1,846,986)	$2,315,507	$550,926	$713,475	$282,346

Summary of Economic Effects of Proposals - Amounts in 000's

Credit Service Only Option

Year	Pension Plan Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Social Security Benefits Not Paid	Social Security Benefits Not Paid 1985 Dollars
1	$64,326	$29,590	$34,736	$34,736	$739,379	$739,379
2	$44,634	$20,532	$24,102	$22,954	$776,348	$739,379
3	$23,957	$11,020	$12,937	$11,734	$815,165	$739,379
4	$2,246	$1,033	$1,213	$1,048	$855,924	$739,379
5	($20,550)	($9,453)	($11,097)	($9,130)	$898,720	$739,379
6	($44,486)	($20,464)	($24,022)	($18,822)	$943,656	$739,379
7	($69,619)	($32,025)	($37,594)	($28,053)	$990,839	$739,379
8	($96,008)	($44,164)	($51,845)	($36,845)	$1,040,381	$739,379
9	($123,717)	($56,910)	($66,807)	($45,218)	$1,092,400	$739,379
10	($152,812)	($70,293)	($82,518)	($53,192)	$1,147,020	$739,379
11	($183,361)	($84,346)	($99,015)	($60,787)	$1,204,371	$739,379
12	($215,438)	($99,101)	($116,336)	($68,019)	$1,264,589	$739,379
13	($249,118)	($114,594)	($134,524)	($74,908)	$1,327,818	$739,379
14	($284,482)	($130,862)	($153,621)	($81,468)	$1,394,209	$739,379
15	($321,615)	($147,943)	($173,672)	($87,716)	$1,463,920	$739,379
16	($360,604)	($165,878)	($194,726)	($93,667)	$1,537,116	$739,379
17	($378,635)	($174,172)	($204,463)	($93,667)	$1,613,972	$739,379
18	($397,566)	($182,881)	($214,686)	($93,667)	$1,694,670	$739,379
19	($417,445)	($192,025)	($225,420)	($93,667)	$1,779,404	$739,379
20	($438,317)	($201,626)	($236,691)	($93,667)	$1,868,374	$739,379

Summary of Economic Effects

Credit Pay and Service Option

Year	Pension Plan Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Social Security Benefits Not Paid	Social Security Benefits Not Paid 1985 Dollars
1	$64,326	$29,590	$34,736	$34,736	$739,379	$739,379
2	$88,547	$40,732	$47,815	$45,538	$776,348	$739,379
3	$113,979	$52,430	$61,549	$55,826	$815,165	$739,379
4	$140,682	$64,714	$75,968	$65,624	$855,924	$739,379
5	$168,721	$77,612	$91,109	$74,956	$898,720	$739,379
6	$198,162	$91,154	$107,007	$83,843	$943,656	$739,379
7	$229,074	$105,374	$123,700	$92,307	$990,839	$739,379
8	$261,532	$120,305	$141,228	$100,368	$1,040,381	$739,379
9	$295,614	$135,982	$159,631	$108,045	$1,092,400	$739,379
10	$331,399	$152,444	$178,955	$115,356	$1,147,020	$739,379
11	$368,973	$169,728	$199,246	$122,320	$1,204,371	$739,379
12	$408,427	$187,876	$220,550	$128,951	$1,264,589	$739,379
13	$449,853	$206,932	$242,920	$135,267	$1,327,818	$739,379
14	$493,350	$226,941	$266,409	$141,282	$1,394,209	$739,379
15	$539,022	$247,950	$291,072	$147,011	$1,463,920	$739,379
16	$586,978	$270,010	$316,968	$152,467	$1,537,116	$739,379
17	$616,326	$283,510	$332,816	$152,467	$1,613,972	$739,379
18	$647,143	$297,686	$349,457	$152,467	$1,694,670	$739,379
19	$679,500	$312,570	$366,930	$152,467	$1,779,404	$739,379
20	$713,475	$328,198	$385,276	$152,467	$1,868,374	$739,379

(4) 50% Change in Employment

Cost of Continued Pension Accruals After Age 65
Assuming Increased Employment at Ages 65-69

DESCRIPTION OF PARAMETERS AND CALCULATION OF POPULATION COVERED			Numbers of Employees Involved	
Increase Percentage 50%	Current Employees			640155
	Additional Employees *			320078
Number of Employees Continuing After Age 65			960233	
Percentage Covered by Defined Benefit Plans		42.0%	588943	
Percentage Covered by Defined Contribution Plans		41.0%	393695	
Percentage of Defined Benefit Plans of Final Average Pay Type		55.3%	325685	
Percentage of Defined Benefit Plans of Career Average Type		14.7%	86575	
Percentage of Defined Benefit Plans of Flat Dollar Type		30.0%	176683	
			Current Accruals	No Current Accruals
Percentage Continuing Accruals - Defined Benefit - FAP		50.0%	74341	251344
Percentage Continuing Accruals - Defined Benefit - CAP		50.0%	19762	66813
Percentage Continuing Accruals - Defined Benefit - Flat $		50.0%	40330	136353
Percentage Crediting Pay and Service - Defined Benefit		25.0%	37171	288515
Percentage Continuing Accruals - Defined Contribution		70.0%	275587	118109
Percentage of Defined Contribution - Profit Sharing		36.6%		
Percentage of Defined Contribution - Match of Employee Money		63.4%		
Average Pay of Over Age 65 Workers		$15,400		
Average Contribution to Stand Alone Profit Sharing		9.0%		
Average Contribution to Plans with Match (401(k) or Thrift)		1.5%		
Cost of $1 of Additional Retirement Benefit		$8.39		
Benefit Expected in Career Average Pay Plan (% of Pay)		1.45%		
Accrual Rate in Final Average Pay Plan		1.17%		
Average Rate of Pay Increases		5.00%		
Average Rate of Flat Dollar Benefit		$15.88		
Final Average Pay Average Replacement Ratio		30.00%		
Rate of Inflation for Translating to 1985 Dollars		5.00%		
Average Service for Flat Dollar/Career Average Plans		20 Years		

*100% of the Additional Employees are Covered by Defined Benefit Plans which Do Not Currently Credit Service. Of this group the same percentage is covered by defined contribution plans as of the original group.

Development of Value of Benefit Lost When More People Delay Retirement

Number of People Delaying Retirement	320078
Percentage of Additional People Covered by Defined Benefit Plans	100.0%
Number Covered by Defined Benefit Plans	320078
Percentage of Defined Benefit Plans of Final Average Pay Type	55.3%
Percentage of Defined Benefit Plans of Career Average Type	14.7%
Percentage of Defined Benefit Plans of Flat Dollar Type	30.0%
Number Covered by Final Average Pay Plans	177003
Number Covered by Career Average Pay Plans	47051
Number Covered by Flat Dollar Plans	96023
Average Pay	$15,400
Replacement % for Final Average Pay	30.0%
Annual Accrual for Career Average Pay	1.45%
Benefit Level for Fixed Dollar	$15.88
Average Service	20
Annuity Value per Dollar of Benefit	$8.39
Percentage of Value Decrease When Benefit Frozen and Payment Deferred One Year	12.50%
Amount of Annual Retirement Income ('000's)	
Final Average Pay	$817,753
Career Average Pay	$210,132
Flat Dollar	$366,056
	$1,393,941
Value of Annuity Benefits	
Final Average Pay	$6,860,643
Career Average Pay	$1,762,925
Flat Dollar	$3,071,073
	$11,694,640
Reduction in Value Due to Deferring Retirement One Year	
Final Average Pay	$857,580
Career Average Pay	$220,366
Flat Dollar	$383,884
	$1,461,830

Additional Benefits to be Earned and Total Values of Additional Benefits
Assuming Increased Employment at Ages 65-69

ADDITIONAL CONTRIBUTION TO DEFINED CONTRIBUTION PLANS

	Number	Payroll (in '000s)	% of Pay	Amount (in '000s)
Profit Sharing Plans	43210	$665,441	9.00%	$59,890
Employer Match of Employee Money	74898	$1,153,431	1.50%	$17,301
Total	118109	$1,818,872		$77,191

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT SERVICE ONLY

	Value of Benefit Lost Due to Delayed Ret	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)	Net Additional Cost (in '000s)
Final Average Pay Plans	($857,580)	251344	$3,870,698	1.17%	$45,287	$379,942	($477,638)
Career Average Pay Plans	($220,366)	66813	$1,028,920	1.45%	$14,919	$125,168	($95,198)
Flat Dollar Plans	($383,884)	136353	$2,099,836	$15.88	$25,990	$218,046	($165,838)
	($1,461,830)					$816,035	($809,314)

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT PAY AND SERVICE

	Value of Benefit Lost Due to Delayed Ret	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)	Net Additional Cost (in '000s)
Final Average Pay Plans - Service Credit	($857,580)	251344	$3,870,698	1.17%	$45,287	$379,942	($477,638)
Career Average Pay Plans	($220,366)	66813	$1,028,920	1.45%	$14,919	$125,168	($95,198)
Flat Dollar Plans	($383,884)	136353	$2,099,836	$15.88	$25,990	$218,046	($165,838)
Value of Pay on Final Average Pay Plans		288515	$4,443,126	1.50%	$66,647	$559,142	$559,142
	($1,461,830)					$1,375,177	($250,171)

*Benefit Rate is Replacement Ratio at 65 times the Average Pay Increase Rate

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - Increase in Employment at Ages 65-69

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service Only Option

Year	Defined Contrib	Gain from Delayed Retirements	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$77,191	($1,461,830)	$816,035		$77,191	$77,191
2	$81,051	($1,534,921)	$856,836	($73,160)	$7,890	$7,515
3	$85,103	($1,611,668)	$899,678	($149,979)	($64,875)	($58,844)
4	$89,358	($1,692,251)	$944,662	($230,638)	($141,280)	($122,043)
5	$93,826	($1,776,863)	$991,895	($315,330)	($221,504)	($182,232)
6	$98,518	($1,865,707)	$1,041,490	($404,257)	($305,740)	($239,555)
7	$103,444	($1,958,992)	$1,093,565	($497,630)	($394,187)	($294,148)
8	$108,616	($2,056,942)	$1,148,243	($595,672)	($487,057)	($346,142)
9	$114,047	($2,159,789)	$1,205,655	($698,616)	($584,570)	($395,660)
10	$119,749	($2,267,778)	$1,265,938	($806,707)	($686,959)	($442,820)
11	$125,736	($2,381,167)	$1,329,235	($920,203)	($794,467)	($487,734)
12	$132,023	($2,500,225)	$1,395,696	($1,039,374)	($907,351)	($530,509)
13	$138,624	($2,625,237)	$1,465,481	($1,164,503)	($1,025,879)	($571,248)
14	$145,555	($2,756,498)	$1,538,755	($1,295,888)	($1,150,333)	($610,046)
15	$152,833	($2,894,323)	$1,615,693	($1,433,843)	($1,281,010)	($646,997)
16	$160,475	($3,039,040)	$1,696,478	($1,578,696)	($1,418,221)	($682,188)
17	$168,499	($3,190,992)	$1,781,301	($1,657,630)	($1,489,132)	($682,188)
18	$176,924	($3,350,541)	$1,870,366	($1,740,512)	($1,563,588)	($682,188)
19	$185,770	($3,518,068)	$1,963,885	($1,827,537)	($1,641,768)	($682,188)
20	$195,058	($3,693,972)	$2,062,079	($1,918,914)	($1,723,856)	($682,188)

Development of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - Increases in Employment at Ages 65-69

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service and Pay Option

Year	Defined Contrib	Gain from Delayed Retirements	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$77,191	($1,461,830)	$1,375,177		$77,191	$77,191
2	$81,051	($1,534,921)	$1,443,936	($9,817)	$71,234	$67,842
3	$85,103	($1,611,668)	$1,516,133	($20,124)	$64,979	$58,938
4	$89,358	($1,692,251)	$1,591,939	($30,947)	$58,411	$50,458
5	$93,826	($1,776,863)	$1,671,536	($42,311)	$51,515	$42,382
6	$98,518	($1,865,707)	$1,755,113	($54,243)	$44,274	$34,690
7	$103,444	($1,958,992)	$1,842,869	($66,772)	$36,671	$27,365
8	$108,616	($2,056,942)	$1,935,012	($79,927)	$28,688	$20,388
9	$114,047	($2,159,789)	$2,031,763	($93,740)	$20,306	$13,744
10	$119,749	($2,267,778)	$2,133,351	($108,244)	$11,505	$7,416
11	$125,736	($2,381,167)	$2,240,019	($123,473)	$2,263	$1,389
12	$132,023	($2,500,225)	$2,352,019	($139,463)	($7,440)	($4,350)
13	$138,624	($2,625,237)	$2,469,620	($156,253)	($17,629)	($9,816)
14	$145,555	($2,756,498)	$2,593,101	($173,882)	($28,327)	($15,022)
15	$152,833	($2,894,323)	$2,722,757	($192,393)	($39,560)	($19,981)
16	$160,475	($3,039,040)	$2,858,894	($211,830)	($51,355)	($24,702)
17	$168,499	($3,190,992)	$3,001,839	($222,421)	($53,922)	($24,702)
18	$176,924	($3,350,541)	$3,151,931	($233,542)	($56,619)	($24,702)
19	$185,770	($3,518,068)	$3,309,528	($245,219)	($59,450)	($24,702)
20	$195,058	($3,693,972)	$3,475,004	($257,480)	($62,422)	($24,702)

Summary of Economic Effects of Proposals - Amounts in 000's

Credit Service Only Option

Year	Pension Plan Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Social Security Benefits Not Paid	Social Security Benefits Not Paid 1985 Dollars
1	$77,191	$35,508	$41,683	$41,683	$1,478,758	$1,478,758
2	$7,890	$3,630	$4,261	$4,058	$1,552,696	$1,478,758
3	($64,875)	($29,843)	($35,033)	($31,776)	$1,630,331	$1,478,758
4	($141,280)	($64,989)	($76,291)	($65,903)	$1,711,847	$1,478,758
5	($221,504)	($101,892)	($119,612)	($98,405)	$1,797,440	$1,478,758
6	($305,740)	($140,640)	($165,099)	($129,360)	$1,887,312	$1,478,758
7	($394,187)	($181,326)	($212,861)	($158,840)	$1,981,677	$1,478,758
8	($487,057)	($224,046)	($263,011)	($186,917)	$2,080,761	$1,478,758
9	($584,570)	($268,902)	($315,668)	($213,656)	$2,184,799	$1,478,758
10	($686,959)	($316,001)	($370,958)	($239,123)	$2,294,039	$1,478,758
11	($794,467)	($365,455)	($429,012)	($263,376)	$2,408,741	$1,478,758
12	($907,351)	($417,381)	($489,969)	($286,475)	$2,529,178	$1,478,758
13	($1,025,879)	($471,904)	($553,974)	($308,474)	$2,655,637	$1,478,758
14	($1,150,333)	($529,153)	($621,180)	($329,425)	$2,788,419	$1,478,758
15	($1,281,010)	($589,265)	($691,745)	($349,378)	$2,927,840	$1,478,758
16	($1,418,221)	($652,382)	($765,839)	($368,382)	$3,074,232	$1,478,758
17	($1,489,132)	($685,001)	($804,131)	($368,382)	$3,227,943	$1,478,758
18	($1,563,588)	($719,251)	($844,338)	($368,382)	$3,389,341	$1,478,758
19	($1,641,768)	($755,213)	($886,555)	($368,382)	$3,558,808	$1,478,758
20	($1,723,856)	($792,974)	($930,882)	($368,382)	$3,736,748	$1,478,758

Summary of Economic Effects

Credit Pay and Service Option

Year	Pension Plan Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Social Security Benefits Not Paid	Social Security Benefits Not Paid 1985 Dollars
1	$77,191	$35,508	$41,683	$41,683	$1,478,758	$1,478,758
2	$71,234	$32,768	$38,466	$36,635	$1,552,696	$1,478,758
3	$64,979	$29,890	$35,089	$31,826	$1,630,331	$1,478,758
4	$58,411	$26,869	$31,542	$27,247	$1,711,847	$1,478,758
5	$51,515	$23,697	$27,818	$22,886	$1,797,440	$1,478,758
6	$44,274	$20,366	$23,908	$18,733	$1,887,312	$1,478,758
7	$36,671	$16,869	$19,803	$14,777	$1,981,677	$1,478,758
8	$28,688	$13,197	$15,492	$11,010	$2,080,761	$1,478,758
9	$20,306	$9,341	$10,965	$7,422	$2,184,799	$1,478,758
10	$11,505	$5,292	$6,213	$4,005	$2,294,039	$1,478,758
11	$2,263	$1,041	$1,222	$750	$2,408,741	$1,478,758
12	($7,440)	($3,423)	($4,018)	($2,349)	$2,529,178	$1,478,758
13	($17,629)	($8,109)	($9,520)	($5,301)	$2,655,637	$1,478,758
14	($28,327)	($13,030)	($15,297)	($8,112)	$2,788,419	$1,478,758
15	($39,560)	($18,198)	($21,362)	($10,789)	$2,927,840	$1,478,758
16	($51,355)	($23,623)	($27,732)	($13,339)	$3,074,232	$1,478,758
17	($53,922)	($24,804)	($29,118)	($13,339)	$3,227,943	$1,478,758
18	($56,619)	($26,045)	($30,574)	($13,339)	$3,389,341	$1,478,758
19	($59,450)	($27,347)	($32,103)	($13,339)	$3,558,808	$1,478,758
20	($62,422)	($28,714)	($33,708)	($13,339)	$3,736,748	$1,478,758

(5) Average Age Increased to 68

Cost of Continued Pension Accruals After Age 65
No Change in Employment Scenario

DESCRIPTION OF PARAMETERS AND CALCULATION OF POPULATION COVERED		Numbers of Employees Involved	
Number of Employees Continuing After Age 65		640155	
Percentage Covered by Defined Benefit Plans	42.0%	268865	
Percentage Covered by Defined Contribution Plans	41.0%	262464	
Percentage of Defined Benefit Plans of Final Average Pay Type	55.3%	148682	
Percentage of Defined Benefit Plans of Career Average Type	14.7%	39523	
Percentage of Defined Benefit Plans of Flat Dollar Type	30.0%	80660	
		Current Accruals	No Current Accruals
Percentage Continuing Accruals - Defined Benefit - FAP	50.0%	74341	74341
Percentage Continuing Accruals - Defined Benefit - CAP	50.0%	19762	19762
Percentage Continuing Accruals - Defined Benefit - Flat $	50.0%	40330	40330
Percentage Crediting Pay and Service - Defined Benefit	25.0%	37171	111512
Percentage Continuing Accruals - Defined Contribution	70.0%	183724	78739
Percentage of Defined Contribution - Profit Sharing	36.6%		
Percentage of Defined Contribution - Match of Employee Money	63.4%		
Average Pay of Over Age 65 Workers	$15,400		
Average Contribution to Stand Alone Profit Sharing	9.0%		
Average Contribution to Plans with Match (401(k) or Thrift)	1.50%		
Cost of $1 of Additional Retirement Benefit	$8.05		
Benefit Expected in Career Average Pay Plan (% of Pay)	1.45%		
Accrual Rate in Final Average Pay Plan	1.17%		
Average Rate of Pay Increases	5.00%		
Average Rate of Flat Dollar Benefit	$15.88		
Final Average Pay Average Replacement Ratio	30.00%		
Rate of Inflation for Translating to 1985 Dollars	5.00%		

Additional Benefits to be Earned and Total Values of Additional Benefits
No Change in Employment Scenario

ADDITIONAL CONTRIBUTION TO DEFINED CONTRIBUTION PLANS

	Number	Payroll (in '000s)	% of Pay	Amount (in '000s)
Profit Sharing Plans	28807	$443,627	9.00%	$39,926
Employer Match of Employee Money	49932	$768,954	1.50%	$11,534
Total	78739	$1,212,582		$51,461

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT SERVICE ONLY

	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)
Final Average Pay Plans	74341	$1,144,854	1.17%	$13,395	$107,828
Career Average Pay Plans	19762	$304,328	1.45%	$4,413	$35,523
Flat Dollar Plans	40330	$621,078	$15.88	$7,687	$61,882
					$231,592

ADDITIONAL BENEFITS IN DEFINED BENEFIT PLANS - CREDIT PAY AND SERVICE

	Number No Current Accruals	Payroll (in '000s)	Benefit Rate	Amount of Benefit (in '000s)	Value of Benefit (in '000s)
Final Average Pay Plans - Service Credit	74341	$1,144,854	1.17%	$13,395	$107,828
Career Average Pay Plans	19762	$304,328	1.45%	$4,413	$35,523
Flat Dollar Plans	40330	$621,078	$15.88	$7,687	$61,882
Value of Pay on Final Average Pay Plans*	111512	$1,717,282	1.50%	$25,759	$207,362
					$438,953

*Benefit Rate is Replacement Ratio at 65 times the Average Pay Increase Rate

Developaent of Additional Cash to Contributions to Pension Funds
and Combined Charges to Corporate Earnings

Cost of Additional Pension Accruals - No Change in Employment Scenario

Year by Year Charge to Corporate Earnings - Amounts in 000's
Credit Service and Pay Option

Year	Defined Contrib	Reduction in Actuarial Gain in Year	Amor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$51,461	$438,953		$51,461	$51,461
2	$54,034	$460,901	$49,728	$103,762	$98,821
3	$56,736	$483,946	$101,942	$158,678	$143,925
4	$59,572	$508,143	$156,767	$216,339	$186,882
5	$62,551	$533,551	$214,333	$276,884	$227,793
6	$65,678	$560,228	$274,778	$340,456	$266,756
7	$68,962	$588,240	$338,244	$407,207	$303,864
8	$72,410	$617,652	$404,884	$477,295	$339,205
9	$76,031	$648,534	$474,856	$550,887	$372,862
10	$79,833	$680,961	$548,327	$628,160	$404,917
11	$83,824	$715,009	$625,471	$709,295	$435,446
12	$88,015	$750,759	$706,473	$794,488	$464,521
13	$92,416	$788,297	$791,524	$883,940	$492,211
14	$97,037	$827,712	$880,828	$977,865	$518,583
15	$101,889	$869,098	$974,597	$1,076,486	$543,699
16	$106,983	$912,553	$1,073,055	$1,180,038	$567,619
17	$112,332	$958,180	$1,126,708	$1,239,040	$567,619
18	$117,949	$1,006,089	$1,183,043	$1,300,992	$567,619
19	$123,847	$1,056,394	$1,242,195	$1,366,042	$567,619
20	$130,039	$1,109,213	$1,304,305	$1,434,344	$567,619

Developaent of Additional Cash to Contributions to Pension Funds
and Coabined Charges to Corporate Earnings

Cost of Additional Pension Accruals - No Change in Eaployaent Scenario

Year by Year Charge to Corporate Earnings - Aaounts in 000's
Credit Service Only Option

Year	Defined Contrib	Reduction in Actuarial Gain in Year	Aaor of Gain Reduction in All Prior Years	Total Charge to Earnings (Before Tax)	Charge in 1985 Dollars
1	$51,461	$231,592		$51,461	$51,461
2	$54,034	$243,171	$26,236	$80,270	$76,448
3	$56,736	$255,330	$53,785	$110,520	$100,245
4	$59,572	$268,096	$82,710	$142,282	$122,909
5	$62,551	$281,501	$113,082	$175,633	$144,494
6	$65,678	$295,576	$144,973	$210,651	$165,051
7	$68,962	$310,355	$178,458	$247,420	$184,629
8	$72,410	$325,873	$213,617	$286,027	$203,274
9	$76,031	$342,166	$250,534	$326,565	$221,032
10	$79,833	$359,275	$289,297	$369,130	$237,944
11	$83,824	$377,238	$329,998	$413,823	$254,051
12	$88,015	$396,100	$372,735	$460,750	$269,391
13	$92,416	$415,905	$417,608	$510,024	$284,000
14	$97,037	$436,701	$464,725	$561,761	$297,914
15	$101,889	$458,536	$514,197	$616,086	$311,165
16	$106,983	$481,462	$566,143	$673,127	$323,785
17	$112,332	$505,536	$594,451	$706,783	$323,785
18	$117,949	$530,812	$624,173	$742,122	$323,785
19	$123,847	$557,353	$655,382	$779,228	$323,785
20	$130,039	$585,221	$688,151	$818,190	$323,785

Summary of Economic Effects of Proposals - Amounts in 000's

Year	Credit Service Only Option: Total Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars	Credit Service and Pay Option: Total Charge to Earnings (Before Tax)	Tax Savings to Corporation (46% Bracket)	After Tax Charge to Earnings	After Tax Charge in 1985 Dollars
1	$51,461	$23,672	$27,789	$27,789	$51,461	$23,672	$27,789	$27,789
2	$80,270	$36,924	$43,346	$41,282	$103,762	$47,730	$56,031	$53,363
3	$110,520	$50,839	$59,681	$54,132	$158,678	$72,992	$85,686	$77,720
4	$142,282	$65,450	$76,833	$66,371	$216,339	$99,516	$116,823	$100,916
5	$175,633	$80,791	$94,842	$78,027	$276,884	$127,367	$149,517	$123,008
6	$210,651	$96,899	$113,752	$89,127	$340,456	$156,610	$183,846	$144,048
7	$247,420	$113,813	$133,607	$99,699	$407,207	$187,315	$219,892	$164,086
8	$286,027	$131,573	$154,455	$109,768	$477,295	$219,556	$257,739	$183,170
9	$326,565	$150,220	$176,345	$119,357	$550,887	$253,408	$297,479	$201,346
10	$369,130	$169,800	$199,330	$128,490	$628,160	$288,953	$339,206	$218,655
11	$413,823	$190,358	$223,464	$137,188	$709,295	$326,276	$383,019	$235,141
12	$460,750	$211,945	$248,805	$145,471	$794,488	$365,464	$429,023	$250,841
13	$510,024	$234,611	$275,413	$153,360	$883,940	$406,612	$477,328	$265,794
14	$561,761	$258,410	$303,351	$160,874	$977,865	$449,818	$528,047	$280,035
15	$616,086	$283,400	$332,686	$168,029	$1,076,486	$495,184	$581,302	$293,597
16	$673,127	$309,638	$363,488	$174,844	$1,180,038	$542,818	$637,221	$306,514
17	$706,783	$325,120	$381,663	$174,844	$1,239,040	$569,958	$669,082	$306,514
18	$742,122	$341,376	$400,746	$174,844	$1,300,992	$598,456	$702,536	$306,514
19	$779,228	$358,445	$420,783	$174,844	$1,366,042	$628,379	$737,663	$306,514
20	$818,190	$376,367	$441,822	$174,844	$1,434,344	$659,798	$774,546	$306,514

Appendix C

SOURCES AND RATIONALE FOR MODEL INPUTS

Number of people currently over age 65 who continue working and have defined benefit plan coverage.—It is estimated that there are 640,155 individuals working full time in firms that are covered by ADEA (firms having 20 employees or more). 1980 Census Data indicates that there are 1,471,375 full-time employees between the ages of 65 and 70. Utilizing data from the 1984 Current Population Survey (Table 23, Annual Averages), this number was reduced for certain types of employees who would not generally be entitled to private pension plan coverage (i.e., employees in the agricultural sector, and non-agricultural sector employees who are identified as unpaid family workers, private household workers, government workers, and self-employed individuals). This reduced the 1,471,375 to 865,894, of which approximately 73.9 percent work for employers subject to ADEA coverage (County Business Patterns, 1981). The resulting number of employees aged 65 to 69 is 640,155.

The EBRI *Issue Brief* No. 35 estimates that 42 percent of the employed elderly, working at least 1,000 hours per year and with at least 1 year of service, are covered by a pension plan. The Department of Labor study indicates that 82 percent of people employed in medium and large firms have defined benefit coverage. The difference in the two estimates may arise for several reasons:

Overall, older workers are more likely to work in small firms. The EBRI *Issue Brief* No. 35 indicates that 32.9 percent of employees over age 65, and 17.6 percent of employees at all ages, work for firms with under 100 employees. Only 44.5 percent of employees age 65 or over work for firms with over 500 employees, compared to 67.2 percent of all employees in the United States, regardless of age. Smaller firms are less likely to have pension plans than large firms.

Workers who start their jobs after age 60 can be excluded from pension plans entirely, and most plans so exclude. EBRI *Issue Brief* No. 35 indicates that of 2.9 million working elderly in 1983, only 0.4 million had 5 years of service or more with their current employers.

Average Pay of Over Age 65 Employees with Pension Coverage—$14,000 per year.—Source: EBRI *Issue Brief* No. 35 dated October 1984. The original source cited is the May 1983 HHS Current Population Survey Pension Supplement. We increased this figure by 10 percent to $15,400 so that it would reflect mid-1985 wage levels.

Other sources of data on pay levels have been investigated, but are somewhat ambiguous in their application to post-65 wage levels. The 1985 Statistical Abstract of the United States (No. 693), for example shows annual wages and salaries per full-time equivalent employee in 1983 at $19,460. For retail trade, this amount is $12,914, and for services, it is $17,220. The 1982 Annual Statistical Supplement to the *Social Security Bulletin* (Table 25) shows median earnings of workers by age. For 1979, the last year shown, the average for all employees was $7,478, whereas for those aged 65–69, it was $3,903 (52 percent of the average for all ages). For males, the average for all ages was $10,634; for ages 65–69, it was

$4,357 (41 percent of the average for all ages). For females, the average for all ages was $5,102; for ages 65–69, it was $3,217 (63 percent of the average for all ages).

Another factor in determining the percentage of post-65 employees covered by pension plans and the pay levels of these workers relates to occupational mix. Malcolm Morrison, in "The Aging of the U.S. Population: Human Resource Implications" (from the May 1983 *Monthly Labor Review,* page 13), comments on this issue. He says: "Persons age 65 and over are concentrated in a small number of industries and occupations. Almost two-thirds of the older men are employed in two industries—trade (primarily retail) and miscellaneous services (primarily business and repair, personal and other professional)—while slightly less than 40 percent of all other age group employees are found in these industries. . . . Older workers tend to occupy jobs such as small farmers, private household workers, service workers, and so forth, which are often not full-time, full-year occupations. Also older workers are more highly represented among the self employed which permits part-time work and considerable flexibility in scheduling."

This data shows that age 65–69 employees are likely to have lower wages than younger employees, due partly to occupational mix and partly to other reasons. However, some data indicates that this may not be true to the same extent for full-time workers. The 1985 Statistical Abstract (No. 755) shows median money income of year-round full time workers with income by age in 1982:

Age group	Men	Women
14–19	$8,475	$7,879
20–24	12,530	10,943
25–34	20,031	14,375
35–44	25,131	14,918
45–54	25,424	14,150
55–64	24,758	14,377
65+-	20,842	14,793

It is not known what portion of the income is from sources other than earnings from current employment. Evidence from several sources supports the conclusion that earnings of over age 65 workers are substantially lower than average wages of workers under age 65.

Percentage of participants in plans crediting service after 65—50 percent.—Source: Department of Labor Study, *Employee Benefits in Medium and Large Firms, 1984.* This data is supported by an internal Mercer-Meidinger survey which shows that 48 percent of plans in very large companies continue crediting service, and an additional 5 percent offer an increase of another type.

Average flat dollar benefit level—$14.44 per month per year of service.—Source: Department of Labor Study, *Employee Benefits in Medium and Large Firms, 1984.* This amount has been increased by 10 percent to $15.88 so that it reflects current benefit levels.

Average percentage benefit accrual rate—final average pay plans—1.6 percent per year of service.—Source: Department of Labor Study, *Employee Benefits in Medium and Large Firms, 1984.*

This rate does not reflect Social Security offsets. It was reduced by 30 percent to 1.17 percent to reflect the effect of the Social Security offset required in many employer sponsored pension plans.

Average percentage benefit accrual rate—career average pay plans—1.45 percent per year of service.—Source: U.S. Department of Labor study, *Employee Benefits in Medium and Large Firms, 1984.* No adjustment is made for the offset since these plans tend to use a form of Social Security integration that does not offset plan benefits by Social Security benefits.

Percentage of employees aged 65-69 covered by pension plans—42 percent.—Source: EBRI *Issue Brief* No. 35. EBRI developed this information by securing computer tapes from the HHS Pension Supplement to March 1983 Current Population Survey, and doing a specific analysis on this topic.

Cost of $1 of Additional Retirement Benefit.—Annuity Values are based on age 66.5 at retirement and assume that 75 percent of the total retirement benefits are paid to males and 25 percent to females. The annuity values used to get this factor are:

Male Age 66—8.172.
Male Age 67—7.943.
Female Age 66—9.499.
Female Age 67—9.273.

The average age of 66.5 was selected because those employees who delay retirement will tend to do so for less than the full 5 years. This was a subjective decision, as was the 75 percent and 25 percent split.

Percentage of Companies Offering Profit Sharing and Matching Contributions to Thrift or 401(k) Plans.—The U.S. Chamber of Commerce sponsors an annual survey of benefit plans that cover employers of all sizes and in all industries. In the 1983 study, 1,454 companies participated, including 145 firms with under 100 employees. 430 companies had 100-499 employees and the balance had more than 500. Of the total sample, 20 percent offered profit sharing payments, and 26 percent offered contributions to employee thrift plans. Data on how many of the profit sharing plans were deferred and how many were paid out immediately in cash, is not available. For this study, it will be assumed that of the 20 percent, 15 percent are deferred, and the balance paid in cash. It will also be assumed that 25 percent of employers offer contributions to thrift plans, including 401(k) plans. Note also that of the total sample, 83 percent offered defined benefit pension plans. Only 71 percent of the retailers offered such plans.

Hewitt Associates surveys benefits offered to salaried employees of large employers. The 1984 survey published in 1985 covers 762 employers, including 90 percent of the Fortune 100 and 60 percent of the Fortune 500. In this universe, 93 percent of the companies offer defined benefit plans; 71 percent have matched savings/thrift plans; and 17 percent offer deferred profit sharing plans.

O