

COVERAGE OF FEDERAL EMPLOYEES UNDER THE
SOCIAL SECURITY SYSTEM

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PREFACE

Coverage of all American workers under the Social Security system, "universal coverage," has been advocated since that system began. There now are 7,600,000 workers who are not covered by Social Security, of whom approximately half are excluded by law and half have chosen not to participate. The majority of those excluded by law are the 2,700,000 employees covered by federal retirement systems. Another 3,500,000 are employees of state and local governments, most of whom could elect coverage. The rest are scattered throughout the private sector, primarily in not for profit organizations.

A number of studies have been conducted in the last 43 years concerning the feasibility and desirability of attaining universal coverage. The Social Security amendments of 1977, P.L. 95-216, direct the Secretary of the Department of Health, Education, and Welfare to report to Congress by the end of 1979 on the desirability and feasibility of universal coverage. Secretary Califano appointed Joseph Bartlett as the head of a Universal Social Security Study Group. This Group has held public hearings, and is coordinating the overall study called for by the Social Security amendments of 1977.

The Office of the Actuary of the Office of Personnel Management (OPM) has assisted the Group by providing data on federal employees, and by furnishing analyses of the impact of the extension of Social Security coverage to federal employees on the associated federal employee benefit programs. This paper summarizes the Actuaries' assessment of that impact. It takes no position on the pros and cons of the basic issue. It does discuss means of accommodating the current federal employee benefit package to the Social Security system of benefits, and provides actuarial cost estimates on selected approaches.

A companion paper discusses options if Social Security coverage is not extended to federal employees. A third paper presents detailed actuarial and economic projections of the costs of the various alternatives and their impact on individuals.

Coverage of federal employees by Social Security would necessitate extensive changes to the federal retirement, leave and insurance benefit systems. There are, literally, thousands of options which would only be touched in a much more voluminous paper. This paper does not attempt to present all of the possible major options and variables. Rather, it discusses the issues involved and presents illustrative models of general approaches that might be taken. By specifying exact parameters of the model we can answer the important questions of impact on individuals and the economy. These parameters should not be read as the only possible or even the most desirable approaches but simply as a description of what could happen.

After an introduction the paper presents three alternative retirement systems based on the different types of typical plans. Further sections deal with methods of integrating disability, survivor and health insurance benefits. Finally the four combined systems are presented along with the cost. The major variation among the four systems is the level of retirement benefits. One system makes the minimum possible changes to the existing benefits. The other three systems differ primarily by the type of retirement formula.

EXECUTIVE SUMMARY OF MAJOR FINDINGS

Extension of Social Security coverage to federal employees would necessitate fundamental alteration of the existing federal employee benefit package. The change would be significant whether the extension is limited to future employees, or includes some or all current employees. The principal changes would occur in retirement, disability, survivor, sick leave, and health insurance benefits.

These general approaches appear to be the most practical means of fitting the federal employee benefit package and Social Security benefits together:

--Social Security retirement credits could be earned, and Federal Insurance Contribution Act (FICA) contributions could be paid, by all new and by any current employees Congress chooses to cover prospectively from the date of enabling legislation. No current employees should be permitted to elect Social Security retirement coverage, as windfall benefits could be obtained by one fourth of the work force. If Congress mandates coverage for some of the current work force, employees who are older than a given age, or age and service combination, should not be covered as it would result in some hardship and inequitable treatment.

--Social Security disability, survivor, and health insurance benefits could be earned prospectively by new employees, and could be furnished to all current employees retroactively. These benefits are not vested like retirement benefits and event of receipt is not elective so the need to preserve current benefit entitlements is not in the same category as retirement benefits.

Retirement Benefits

Four basic pension formulae are analyzed in the paper to indicate the level of income replacement that could be available through a combination of Social Security retirement benefits and a restructured staff retirement plan. Because of the inherent tilt of Social Security, the combined benefit favors lower income, short service, and married employees vis a vis higher income, long service, and single employees. Each produces lower benefits than the current system for most employees who retire with 30 years of service at age 55. Each produces basically equivalent or higher benefits for most employees who retire with lower or median final incomes with 30 years of service at age 62. Each produces lower levels of income replacement for employees who retire with higher final incomes at either age.

Any of the pension formulae could be combined with a thrift plan in which the employer would match a portion of the savings set aside systematically by employees. This source of income replacement could be important in furnishing discretionary income to annuitants.

Disability Benefits

Social Security disability benefits replace a higher percentage of final pay for lower income, but a much lower percentage of final pay for higher income employees than the staff retirement plan's current disability retirement benefit. The definition of total and permanent disability is much more stringent under

Social Security than under the civil service plan. And, there is a five month waiting period under Social Security before employees may apply for benefits, while there is no waiting period under the civil service plan.

If Social Security coverage is extended to federal employees, major changes would be needed in the way in which disability benefits are structured, including modification of the existing sick leave program.

Survivor Benefits

Benefits for surviving widows, widowers, and children are very different under Social Security and the staff retirement system. As is the case with disability benefits, major changes in survivor benefits will be needed if Social Security coverage is extended to federal workers. Certain of the staff retirement system's features could be retained and meshed with the basic Social Security approach. Benefits for surviving children could be handled through Social Security totally, as they are superior to the staff retirement system's benefits in almost every instance.

Health Insurance

Medicare Part A coverage is prepaid for employees and annuitants who attain age 65 or are totally and permanently disabled, if they are eligible for Social Security benefits. When federal workers become eligible for Medicare Part A, there will be a series of overlaps of coverage for them, and a series of gaps in coverage for certain spouses and dependent children. Of the alternative means of dealing with the coverage overlaps and gaps, the possibility of offering a Medicare supplement plan, hopefully at no cost to participants, could be considered.

PART I: INTRODUCTION AND OVERVIEW

Part I of this paper describes the differences and similarities between and among the various Social Security benefits and related federal employee benefits. It summarizes pertinent benefit practices of large companies, as their approaches take into account the availability and value of Social Security. Federal tax provisions and rules and regulations under the Employee Retirement Income Security Act (ERISA) are referred to in order to clarify the implications of public policy on benefits provided by employers. And, a discussion of general benefit and compensation concepts, trends, and considerations is supplied at the outset to establish the context for benefit matters.

The Social Security system was enacted into law fifteen years after passage of the Civil Service Retirement Plan. Federal employees initially were left out of Social Security, primarily because they were covered under the staff retirement plan. That retirement plan, at its time of enactment in 1920, was one of the earliest pension plans to cover a large group of American workers. Private pensions then were far less common than they are now. Over the forty plus years since the enactment of Social Security, both it and private pensions have undergone many changes. The net effect of the changes is that a combination of Social Security and private pensions has become the basic income replacement system for most American workers, while federal employees still get their income replacement primarily from one source: the staff retirement plan.

Background on Benefits

During the initial stages of the industrial revolution, wages were the sole Compensation for workers. People worked until death as no deferred compensation, i.e., retirement benefits, were available. Workers were responsible for providing the wherewithal to finance voluntary absences from work and periods of sickness and disability.

Though benefits began emerging in the United States before the turn of the century, events in the 1940s led to benefits becoming a more prominent part of compensation. In 1942 it became a settled matter that employers could deduct their contributions to qualified pension funds from gross income. The cost of providing this kind of benefit became an ordinary business expense under the tax code.

During the war years wage and price controls stimulated employers to offer benefits in lieu of wages as a means of attracting and retaining workers. Once this practice was set in motion, it carried over as a standard industrial relations approach to recruiting and keeping a work force.

In 1948 the National Labor Relations Board ruled that employers had a legal obligation to bargain in good faith over the terms of pension plans. After that ruling was affirmed by the courts, it became clear that employee benefits were proper subjects for collective bargaining. As unions steadily increased the scope of bargaining on benefits, employers tended to offer equivalent benefits to employees not covered by collective agreements.

A definition of benefits is pay for time not worked, i.e., holidays and paid leave, and such indirect compensation as may be provided through insurance and retirement plans. Pay means wages or salaries paid to employees for time worked, as well as shift premiums and overtime. Compensation is the sum of pay and benefits offered by employers to employees as the economic reward for their work.

A 1977 Chamber of Commerce survey of 748 companies reported that the average employer's payment for benefits, including Social Security, was 36.7 percent of payroll. This survey primarily reflects benefits provided to employees in the private sector who are subject to the provisions of the Fair Labor Standards Act, i.e., lower paid, non supervisory office and plant employees. For 162 companies that have been in the Chamber's survey since 1957, benefits have increased as a percentage of payroll from 23.9 to 40.6. Another measure from the Chamber's study is the percentage of payroll paid for benefits by the top quartile of companies. In 1975, 25 percent of the firms paid more than 40.4 percent of payroll for benefits. In 1977 the top 25 percent paid more than 42.3, and the top ten percent paid more than 48.7 percent of payroll. Leading corporations and the federal government, as an employer, now routinely provide benefit packages worth more than 40 percent of payroll.

Large employers offer six major benefits. They are: life insurance, health insurance, retirement, sick leave, annual leave, and paid holidays. Such employers usually offer, or pay taxes to support, additional benefits for disability or for termination. These benefits include: severance pay, unemployment compensation, workers' compensation, and short and long term disability insurance. In addition to such basic benefits, large private employers often provide a range of additional benefits. Company lunchrooms and subsidized meals, tuition reimbursement, subsidized parking, and discounts on the purchases of products, services, or stock are representative ~~tative~~ of benefits that may be offered to rank and file employees.

Both employers and the government provide benefits to workers. In some situations employers typically provide the benefits, in others the government provides them, and in still other cases employers and the government provide related benefits. For example, older, non working Americans need to replace part of their former earnings in order to live. Employers meet part of that need by offering pensions and capital accumulation plans. Government meets part of that need by providing tax incentives to those persons who are not covered by pension plans such that they are encouraged to establish their own annuities, as well as by blanketing the general population under Social Security.

Benefits are inherently attractive to employees, as they promise financial security. Most persons are more comfortable if they feel that their personal financial situations will not be severely affected if they get sick, have an accident, face expensive medical bills, become disabled, lose a job, become too old to work, or die. Benefits cushion the financial effects of such problems.

Because of the tax situation, benefits often are more valuable to employees than the employers' costs of providing them. A simplified example will illustrate the point. Assume that two employees participate in a health insurance plan

sponsored by an employer. One employee earns \$10,000 and the other \$50,000. The employer pays \$1,000 per year for each employee's health insurance coverage. The employee earning \$10,000 per annum, if informed of the amount of the employer's contribution, can reason that the health insurance benefit alone is worth ten percent of his or her pre-tax income. The employee earning \$50,000, who may be in the 50 percent tax bracket, reasons that although the employer's contribution amounts to only two percent of pre-tax income, it is much more valuable than that as he or she would have to earn at least \$2,000 more (taxed at 50 percent) in order to pay the full cost of the health insurance benefit from the last increment of after-tax income.

Finally, the government's tax policy is an important factor affecting benefits. In September 1978 the House joined the Senate and stopped the Internal Revenue Service from pursuing the taxation of benefits to employees at the employer's cost or fair market value. In hearings leading to the House's decision, employers strongly opposed the Service's proposed action. Representatives of employees, college professors and airline workers, for instance, also opposed the Service's approach as regards free tuition for dependents and free airline travel respectively. The actions of employers to broaden the scope of benefits incrementally year after year, the actions of employees to fight for continued favorable tax treatment of benefits and the encouragement of Congress for these positions, simply reflects how sensitive benefits are to governmental policy, particularly on taxation.

Linkage of Social Security and Employer-Provided Benefits

Social Security benefits are very important parts of most employers' benefit programs. The linkage is so strong that employers often integrate their benefit packages with Social Security. There is a body of regulations issued by the Internal Revenue Service, in fact, that specifies how employers may integrate their retirement benefits with Social Security. One of the purposes of the Service's rules and regulations is to assure that the interests of lower income employees are not circumvented in favor of the interests of owners or officers of companies.

The rules on integration of retirement benefits do not directly affect how employers arrange and structure other parts of their benefit packages that parallel Social Security benefits. But, employers take into account the value and availability of basic Social Security benefits explicitly or implicitly in connection with disability benefits, survivor benefits, and health insurance for employees and annuitants age 65 and older.

Retirement Benefits

Employees who are considering retirement often express concern about the degree to which they will be able to maintain their respective standards of living after they leave the work force. Most large employers have benefit plans that conceptually take into account the income replacement needs of employees in three stages. First, Social Security benefits are seen by employers as supplying enough income replacement to provide the bare essentials of food, shelter, and

clothing. Second, pensions provide additional income so that annuitants do not experience substantial reductions in their standards of living. Employers view employees' personal savings as the third component of total income replacement. This component provides the basis for discretionary purchases and often allows allows retirees to maintain their pre-retirement standard of living.

In the absence of Social Security, a "pure" staff retirement plan would provide the same percentage of income replacement to employees at different levels of final pay, assuming they had the same lengths of service. As an example, two employees with 35 years of service retire. One has final pay of \$10,000, the other \$50,000. According to a hypothetical annuity formula, each is due 60 percent of their respective final pay. Hence, one would receive an annuity of \$6,000, and the second, \$30,000. The rationale for such a system rests on the premise that benefits, including such deferred compensation as retirement annuities, should reinforce ~~pay~~ pay distinctions.

Social Security redistributes income and provides a floor of protection for all retired persons. Employees with families who had been earning \$10,000, replace \$6,200, or 62 percent of their earnings. Employees with families who had earned \$19,000 replace \$8,100, or 43 percent. High income employees with families who had earned \$50,000, replace \$9,200, or 18 percent. Single employees who had earned \$10,000 replace \$4,100, or 41 percent of former pay. Single employees who had earned \$50,000 replace \$6,100, or 12 percent of earnings. These, and all other Social Security calculations in the paper, are based on the Social Security formula that will prevail after 1983 rather than the higher levels provided by the transition formulae. All benefits are a percentage of the Primary Insurance Amount (PIA) - the unreduced benefit that a single employee can receive.

If an employer wanted to furnish employees with combined Social Security and staff retirement benefits that replaced, for example, 70 percent of former incomes, under existing regulations the employer would be forced to choose to replace that percentage for lower, median, or higher income employees, but could not do so for all. In the range of incomes between \$10,000 and \$50,000, which covers the range of income of most federal employees, Social Security replaces approximately 41 percent for the low income worker and 12 percent for the high income worker, a differential of 29 percent. Regulations of the Internal Revenue Service do not permit employers to offset explicitly any part of the Social Security benefits attributable to employees' contributions. By use of explicit retirement integration techniques, an employer can reduce the impact of the tilt in the Social Security formula such that the income replacement differential between lower and higher income workers is around 15 percent in this income range.

In practical terms, if the employer replaces 70 percent for lower income employees, the highest percentage that could be replaced for higher income employees is 55 percent. If the employer replaces 70 percent for higher income employees, lower income employees will have 85 or more percent of their former earnings replaced. If the employer chooses to replace 70 percent for median income employees, the lower income employees will be able to replace approximately 80 percent, and the higher income employees will be able to replace 65 percent of their former earnings.

According to the Bankers Trust 1975 study of normal retirement benefits, the median private sector plan benefits, plus Social Security, replaced the following combined percentages of pay for persons who retired at age 65 with 30 years of service:

<u>Final Year's Pay</u>	<u>Combined Pension and Social Security As a Percentage of Final Year's Pay</u>
\$9,000	69%
\$15,000	58%
\$25,000	51%
\$50,000	46%

Social Security influences retirement benefits in ways other than dollars and cents. As Social Security pays full benefits at age 65, it is not surprising that most private pension plans have 65 as the first age at which unreduced retirement benefits are available. Social Security has an early retirement concept. Persons may apply for reduced benefits at age 62. Private pension plans also often permit persons to apply for reduced benefits at age 62 or even earlier.

Disability Benefits

A total and permanent disability, under Social Security, is one which prevents a person from engaging in any substantial gainful work, and the condition is expected to last, or has lasted 12 months, or is expected to result in death. Of course, the total and permanent disability must be caused by a physical or mental condition.

Employers rely on the Social Security disability program to furnish basic income replacement to employees who have total and permanent disabilities. Because Social Security benefits are not payable for several months after a disability begins, and because it does not cover temporary or partial disabilities, employers usually provide short term income replacement to employees. When employees qualify for Social Security disability benefits, many employers supplement the income replacement furnished through that program by benefits payable from long term disability programs. Employers often also continue paying benefits for temporary or partial disabilities for a limited period.

Employers continue full pay for a limited period followed by reduced pay - typically 50% to 75% of pay for up to six months. The reduced pay continuation often follows a three to seven day waiting period especially for blue-collar employees. After six months, most large employers provide a long-term benefit of 50 to 60 percent of pay.

Employers use a variety of formal and informal funding systems to provide these benefits. Very short term full salary continuation is treated as salary. The short term disability payments can be funded through an insurer or, for a large employer, can be self insured. In the past, the long term disability benefits were mainly funded through the retirement system but recently emphasis has been shifted to separate long term disability insurance systems.

The typical plan is reduced by all or part of the Social Security benefits. Another common approach is to pay an unreduced but smaller amount from the plan with Social Security added on. The long term disability benefits are for the duration of the disability, until normal retirement age, or until death, subject to utilization controls imposed by their respective definitions of disability. At normal retirement age employees usually begin drawing retirement benefits under the employer's retirement plans, and their disability coverage terminates.

Surviving Spouses and Children

Monthly cash benefits may be paid to widows, widowers, children and/or parents of a deceased worker.

The survivor benefits under Social Security are substantial for widows who have one or more children. A widow and child of a worker who had earned \$10,000 would receive Social Security benefits of \$6,200, or income replacement of 62 percent tax free. If the employee had earned \$19,000, the survivors would receive \$8,100, or income replacement of 43 percent. If the worker had earned \$50,000, the survivors would receive \$9,200, or income replacement of 18 percent. The maximum benefit payable to a family consisting of orphans, or one or more children and a surviving spouse, generally is 175 percent of the PIA.

When the last dependent child reaches age 18, the widow loses eligibility for Social Security benefits, unless she is disabled or has reached age 60. For a widow who is disabled or age 65 or older, the Social Security benefit is equal to the deceased worker's. Those who elect to receive benefits at age 60 will have a permanent reduction in the benefits of up to 28.5 percent.

According to the 1975 Bankers Trust Study of corporate pension plans, approximately 37 percent of private companies with pension plans do not provide any preretirement survivor benefit. Approximately 63 percent of private companies provide benefits from their retirement systems to surviving spouses. The median benefit in such plans was approximately 50 percent of the value of the accrued pension. Approximately one-third of the plans that provide benefits to surviving spouses permit surviving children to receive a benefit but only if there is no surviving spouse. But many pension plans provide no benefits to surviving spouses who are married to persons who die before reaching a minimum qualifying age. The median qualifying age of plans included in the study was 55. Thus, many surviving spouses of young workers who die may not be eligible for a pension benefit. The median benefit in such plans was approximately 50 percent of the value of the accrued pension.

In short, Social Security benefits often are the sole source of income replacement for surviving families of workers who die at young ages. And, the Social Security benefits are payable in such cases only when the widows are disabled or have one or more children. Social Security and private pension policy thus encourages or necessitates that widows under age 60, who are not disabled, and who do not have one or more dependent children, actively seek gainful employment.

The availability of post retirement death benefits in the form of survivor annuities, are assured because of ERISA. ERISA requires that employers offer a joint and survivor annuity to employees through their retirement plans, in which the surviving spouses would receive at least 50 percent of the actuarial equivalent of the workers' annuities. The annuities would be payable in such cases as supplements to the Social Security benefits that would be available to surviving spouses who were age 60. Since, however, the reduced pension is 20 to 25 percent less than a life annuity, many annuitants chose the latter leaving the Social Security system as the sole source of benefit for surviving spouses.

Health Insurance

Medicare Parts A and B are available as benefits under Social Security. Part A is hospital insurance. Part B is insurance for physician and other services. Persons who receive benefits under Social Security are covered automatically under Part A. Everyone who attains age 65 is eligible for Part B. Part A coverage is free to persons receiving other Social Security benefits, and can be purchased by other persons when they attain age 65. Part B is paid in part by government subsidy, and in part by monthly premiums collected from beneficiaries. Both Parts A and B are structured as typical indemnity insurance plans in that coinsurance, deductibles, limitations, exclusions, and maximum benefit levels are designed to discourage unnecessary utilization.

Private employers structure their health insurance plans in a way that takes into account the availability of Medicare. Such employers may offer a supplementary health insurance benefit to employees and annuitants when they reach age 65. This type of benefit is designed to cover the coinsurance and deductibles built into the Medicare package in order to reduce out-of-pocket health care costs of such persons. Or, employers may rely on Medicare alone to meet the health insurance needs of older workers and annuitants.

Most employers who offer a supplementary health insurance benefit to complement Medicare coverage usually do so on an employer-pay-all basis, according to the Department of Labor's Digest of Selected Health and Insurance Plans. Employees and annuitants who qualify for Medicare usually no longer are eligible to remain under the health insurance plan offered to employees who are under age 65. The family members of persons who are age 65 still may be covered under the employer's standard health insurance plan, usually until they too become eligible for Medicare.

Federal benefits

The original retirement act in 1920, provided only for mandatory and disability retirement after 15 years of service.

The present retirement law provides optional retirement on full annuity at age 55 with 30 years service, age 60 with 20 years service, or age 62 with 5 years service; disability retirement is permitted at any age with 5 years service; involuntary retirement at any age after 25 years service or at age 50 with 20 years service. Deferred annuities are payable at age 62 with 5 years service. The average salary is based on the highest three years of salary. The annuity formula provides 1 1/2 percent of average salary for the first 5 years service, 1 3/4 percent for the next 5 years and 2 percent for any remaining service, up to a maximum of 80 percent of average salary. Disability annuitants receive the greater of the preceding computation or a guaranteed minimum of the lesser of 40 percent of average salary or regular formula using service projected to age 60. The law also contains special eligibility and computation requirements for certain hazardous duty positions, Air Traffic Controllers, Congressional employees, and Members of Congress.

Widows and widowers of those who die in service receive 55 percent of the disability formula as a benefit. Generally this is 22 percent of average salary. Widows and widowers of deceased annuitants receive 55 percent of the annuity base on which the annuitant chose to take deductions. Since the deduction (2 1/2 percent of annuity below \$3600 a year and 10 percent above) is much less than the actuarial equivalent of the widows' annuity, most married annuitants elect the benefit. Children of deceased annuitants and employees receive a flat monthly benefit.

Health insurance is provided through over 100 carriers, each of whom offer two or four options. The coverage is very comprehensive and can be continued into retirement. The government pays 60 percent of the cost for annuitants and employees.

Difference Between Social Security
and Federal Employees Benefits

The Social Security system of benefits differs in philosophy from comparable federal employee benefit plans. A social insurance approach tilts income replacement benefits, whether at normal retirement or due to disability in favor of lower income, short service, and married persons compared to higher income, long service, or single persons. However, active employees pay for benefits to current retirees through a common tax rate on all FICA wages. As a result, the benefit tilt redistributes income from active employees to retirees with a disproportionate share to lower income retirees. The concept of "the general welfare" underlies these aspects of Social Security. In the income replacement areas federal employee benefit programs tend to reinforce pay distinctions. That is, employees at various salary levels, without regard to their marital status, receive the same percentage of income replacement if they have the same number of years of service at normal retirement or at the time of disability.

There are a few points of coordination between the systems. In the income replacement area, there now is an offset provision that applies in cases where federal employees or annuitants are married to persons who qualify for Social Security benefits. It has the effect of reducing the Social Security benefits payable to federal employees who get such benefits as spouses. In the health insurance area, Medicare is primary and the federal employee health benefit plan pays the balance of the medical bill after Medicare has paid its' share.

Social Security benefits are funded on a minimum reserve basis. There are four trust funds from which benefits are paid. Current income is the source of current benefits. A tax on employees and employers, alike, supports the Social Security system of benefits. In 1979 the tax is 6.13 percent of wages and salaries up to \$22,900. After 1990, the tax will be 7.65 percent of salaries up to \$27,000 in 1979 dollars. Federal employee income replacement programs, that is, retirement disability, and survivor benefits, are prefunded. Health insurance is funded on a pay as you go basis.

Federal employees contribute seven percent of pay, as do their agencies, to cover part of the cost of the income replacement programs. In addition, the Office of Personnel Management requests appropriations from general revenue. And, the trust fund is credited with investment income, based on the dollars in the retirement trust fund that are placed at interest in federal debt instruments.

Social Security benefits are based on indexed career average salary, while federal employee staff retirement benefits are based on the high-three years of salary. Social Security gives more weight in its benefit computation formula to the early years of service, while the federal employee staff retirement's approach is just the opposite: it gives greater weight to later years of service. Social Security treats all occupations alike. The federal staff retirement system provides different benefits for a number of occupational and special interest groups. Social Security benefits are portable from employer to employer. Federal staff retirement credits are not transferable to other employers. Finally, Social Security benefits are tax free and are indexed for inflation once a year, while comparable federal employee benefits are taxable income and are indexed semiannually.

There are two other key differences. Social Security provides reduced retirement benefits only when persons reach age 62, and full benefits only at age 65. The federal staff retirement plan allows full, unreduced benefits as early as age 55 for employees who have 30 or more years of service. Second, the Social Security definition of disability is much more stringent than the staff retirement plan definition. Many employees who now qualify as disabled under the staff retirement definition of disability would be rejected for Social Security disability benefits.

Guidelines for Analysis

In view of all of the factors that have been discussed, i. e., general benefit trends, concepts, and considerations; the linkages that typically have been established by private employers vis a vis Social Security benefits; and the differences that now exist between Social Security benefits and related federal employee benefits, we concluded that certain guidelines necessarily should apply to any analysis of the method of accomodating the federal employee benefit programs to Social Security. The following six principles serve as guidelines for the analysis.

Current annuitants should not be adversely affected by any benefit program change. Once employees retire and are drawing benefits, their access to and enjoyment of them should not be reduced as a result of Social Security. Similarly, those eligible for immediate retirement should not be affected, or there could be a mass retirement of 250,000 people who may retire voluntarily at any time.

Future hires should be fully covered by any modified system.

There should not be any substantial reduction or increase in expected benefits for current employees, and there should be no reduction in benefits already earned.

This comparison is of total projected benefits to be received from the combined federal employee benefit programs and Social Security to currently expected benefits from federal employee benefit programs alone. Any system should be able to guarantee accrued benefits, in the case of the retirement program, but it may not be possible to guarantee all projected benefits.

Any modified system should not cost taxpayers more than the current system.

The measure here is the total cost of modified federal employee benefit programs and Social Security coverage in the future to the total cost of such programs and Social Security for federal employees under the current system.

The system should be as simple as possible.

Integrating two very complicated systems could lead to an extremely complicated system. A simple approach is preferred where there is a choice between two alternatives and nothing to strongly recommend the more complex method.

Federal employee benefit programs associated with income replacement should be subject to ERISA/IRS rules.

The current retirement system does not conform to all ERISA/IRS rules. Though there is no legal constraint that requires that a new income replacement system for federal employees should do so, it is unlikely that the public would tolerate a newly designed system that is not consistent with requirements imposed on private employers.

The funding requirements of ERISA are not however being imposed in this study. It is doubtful that the federal government should be subject to the same funding requirements as the private sector. A quote from the Board of Actuaries report as of September 30, 1977 makes the point:

"The stability of the federal government as the plan sponsor and financier suggests that it is not imperative that the funding system meet funding standards as tight as those which might be imposed on private plans under an act like ERISA."

PART II: ACCOMMODATING THE RETIREMENT PLAN
TO SOCIAL SECURITY

There are three basic concepts that relate to the replacement of income at retirement. First, it is accepted that society has some responsibility for providing partial income replacement through a system of Social Security benefits. Second, competitive forces in the labor market and concern for the living standards of career employees prompt employers to provide retirement plans. Third, to achieve the individually desired level of income replacement, each worker is responsible for supplementing the combination of Social Security benefits and an employer's pension through personal savings. It is this income replacement triad that is the conceptual framework for this section of the paper.

The terms "income replacement" and "income replacement ratio" mean the portion of the final year's salary or wages that is received in the first year of retirement. If a worker who earned \$20,000 in pay in 1978 retires on January 1, 1979, and receives \$12,000 in 1979, then \$12,000 of the \$20,000 is replaced. The replacement ratio is 60 percent.

This part of the paper presents information on possible measures of the adequacy of income replacement at retirement, and the interrelationships among Social Security benefits, pensions, and personal savings as components of an overall income replacement approach. It then describes an income replacement system that could be applicable to new employees that takes into account each component of an overall income replacement approach, and analyzes the effects of pension formulae and the presence or absence of employer-sponsored savings plans. Finally, it describes options with respect to transitioning the current work force to a benefit system in which the value and availability of Social Security retirement benefits is a fact of life.

Adequacy of Income Replacement

The question of what is an acceptable level of income during the retirement years has not been answered conclusively. It is one of the matters to be addressed by the President's Commission on Pension Policy. There are at least two points of reference. First, there is a limited body of theoretical work directed to this issue. Second, there is substantial normative information concerning the combined effect of the first two components of the income replacement triad, and descriptive information about part of the third component.

The lowest level of income replacement that is acceptable is that furnished by Social Security alone. The Social Security program represents a public policy decision that the government should provide sufficient income replacement to keep retiring workers and their family members from becoming welfare recipients. Basic Social Security benefits are tilted to favor lower income workers and their families over higher income workers precisely for this reason.

The highest level of income replacement that may be needed by workers is that percentage of their gross income in the year before retirement that was spendable. Spendable income is that amount of income that remains after adjustments are made that take into account the reduced expenses retired persons would have

in connection with getting to and from work; reduced federal, state, and local income taxes, and FICA taxes; and reduced needs for personal savings. The presumption in this analysis, based on work by Messrs. Givens and Miller, is that the persons who retire no longer need to save for the future. The Bankers Trust 1975 study of normal retirement benefits furnishes an indication of the extent to which the combination of Social Security benefits and employers' pensions, together, meet the theoretical upper limit of income replacement described by Messrs. Givens and Miller.

Both studies assume that persons retire at age 65 and receive a benefit equal to the full Social Security PIA. The average age of persons retiring has been dropping steadily, however, over the last several years. Social Security statistics show that the percentage of persons who elect reduced awards, as a percentage of the total number of immediately payable awards, has increased from 59 to 76 percent from 1965 to 1977. Three of four persons who retire today and claim a Social Security benefit are doing so at ages under 65. In the case of persons under the civil service staff retirement plan, the average age for optional retirement has dropped from 64.1 to 60.9 during the same interval

Updating the analytical approach used by Givens and Miller, the actuary calculated the amounts of spendable income available to persons in the year before their retirement. Within the range of incomes spanned by the federal pay system, where \$10,000 final gross income represents low income, where \$19,000 is the median final gross income, and where \$50,000 represents high final gross income, these are the amounts of spendable income available to employees:

<u>Single</u>		<u>Married</u>	
<u>Gross Income</u>	<u>Spendable Income</u>	<u>Gross Income</u>	<u>Spendable Income</u>
\$10,000	\$ 7,800 (78%)	\$10,000	\$ 8,400 (84%)
\$19,000	\$11,800 (62%)	\$19,000	\$12,800 (67%)
\$50,000	\$22,900 (46%)	\$50,000	\$25,700 (51%)

Information in the Givens and Miller and Bankers' Trust studies was adjusted to reflect age 62 as normal retirement by reducing the Social Security benefit available at age 65 by 20 percent, as that is the actual reduction that is experienced by persons claiming such a retirement benefit at that age. Pension benefits were not reduced. The next two tables show how much pre tax income from which sources would be needed by single and married persons, if they retire at age 62 and accept reduced Social Security benefits, assuming there is to be no reduction in their spendable income. Since income is reduced after retirement, and a major part of the income, Social Security, is tax free, taxes are greatly reduced. There is, however, still significant taxation of higher income annuitants.

The following table shows the amount and sources of income needed to produce post-retirement spendable income equal to the above levels of pre-retirement spendable income. For example, single employees earning \$50,000 in the year before retirement had spendable incomes of \$22,900. Allowing for the greatly reduced post-retirement income to generate the same \$22,900 spendable incomes. Social Security tables show this income will produce \$4,900 in Social Security benefits and the Bankers Trust study shows that these people can expect average pensions of \$19,000. This leaves \$2,700 to be made up from personal savings.

Sources of Income for
Single Retired Persons

<u>Income Needed</u>	<u>SSA Benefits</u>	<u>Pensions</u>	<u>Savings</u>
\$ 7,800	\$3,300	\$3,200	\$1,500
\$12,400	\$4,300	\$6,300	\$1,800
\$26,600	\$4,900	\$9,000	\$2,700

**19,000*

Sources of Income for
Married Retired Persons

<u>Income Needed</u>	<u>SSA Benefits</u>	<u>Pensions</u>	<u>Savings</u>
\$ 8,400	\$ 8,400	\$ 3,000	\$ 500
\$12,800	\$12,800	\$ 6,300	\$ 100
\$25,700	\$28,200	\$19,000	\$1,800

The tables suggest the relative importance of pensions, savings, taxes, and Social Security benefits as they affect on single and married persons based on their final gross incomes at retirement. The importance of these sources can be shown more clearly as percentages of final gross income for single and married persons.

<u>Gross Income</u>	<u>Pre Tax Percent of Income Replaced by</u>		<u>SSA Benefits</u>	<u>Total</u>
	<u>Pensions</u>	<u>Savings</u>		
	<u>S/M</u>	<u>S/M</u>		
\$10,000	30/30%	15/5%	33/49%	78/84%
\$19,000	33/33%	9/2%	23/34%	65/67%
\$50,000	38/38%	5/4%	10/15%	53/56%

Because Social Security benefits replace a lesser percentage of final income for single than for married persons, savings become a more important source of income replacement for single persons. The lower the final income, the more important Social Security would be as an income replacement source, and the less important the pension. The higher the final income, the less important is Social Security, and the more important is the pension, again, assuming the goal is to suffer no reduction of spendable income.

The above tables illustrate the relative benefits for a family with one working spouse. Current trends suggest that most families may someday have two working spouses. In these cases, the relative Social Security benefits are much smaller as a percent of total family income than for the one worker family. The rest of this paper will deal with the income needs of a single person to avoid the complication of presenting data on various marital situations.

Retirement Before Age 62

The concept of early retirement is changing rapidly. Many pattern retirement plans, the type covering blue collar and plant employees, have reduced age and service requirements for early retirement, and many have shifted to service only requirements. For instance, in 1970 The Bankers Trust study showed that 37 percent of these plans listed age as the earliest retirement age while in 1975 only 18 percent still considered this combination as the earliest retirement. While the number of plans with conservative requirements diminished, the number with liberal, service only requirements increased. In 1970 one-fifth of the pattern plans permitted early retirement at any age with 30 years of service. In 1975 one-third of the plans did so.

Conventional retirement plans, the type covering white collar employees, have had similar but less dramatic changes with respect to early retirement requirements. While 11 percent of the conventional plans considered age 60 and some years of service as early retirement in 1975, only three percent permitted early retirement with 30 or fewer years of service at any age. Instead of changes at these extremes, the trend from 1970 to 1975 was toward an increasing number of plans that defined age 55 and some service as early retirement. Fully 58 percent of the conventional plans permitted early retirement at that age in 1975, as long as employees met a stipulated service requirement.

Along with the trend to liberalized early retirement requirements, benefits payable to workers who retire early similarly have been improved. One of the key indicators of the benefit liberalization trend is the marked change in the amount of the reduction applied to pensions payable to those who retire early.

An actuarially equivalent pension may be paid to employees who retire before attaining normal retirement age. The value of such a benefit is the same as the value of the accrued benefit commencing at normal retirement age. However, the actual amount of such a benefit is reduced to reflect the loss of interest earnings and the longer period of expected benefit payments. Were the normal retirement age 65, employees who took actuarially reduced pensions at age 55 would receive only about half of the amount they could have expected to receive at age 65. Actuarially reduced benefits thus result in substantially lower levels of income replacement.

In 1970, 48 percent of the pattern plans provided only actuarially equivalent pensions to workers who retired early, while in 1975 the percentage of plans offering fully discounted benefits dropped to ten percent. Instead of paying only actuarially equivalent pensions, 64 percent of the pattern plans now pay a benefit greater than the actuarial equivalent but less than the full accrued benefit, while 26 percent paid it in the 1975. In addition, 56 percent of these plans pay a supplemental benefit until age 62 or 65, or the start of Social Security, to a majority of persons who retire early.

The supplements provided to blue collar employees range from nominal to very large amounts of income replacement. The supplements may be flat dollar amounts, e.g., \$150 monthly, or a certain number of dollars per month, \$7.50-\$8.00, for instance, times years of service.

In the 1970 study 53 percent of the conventional plans paid only actuarially equivalent benefits to persons who retired early. In 1975 only 15 percent of these plans paid the actuarially equivalent benefit. A full 83 percent, in fact, provided a benefit that is larger than the actuarial equivalent but less than the full accrued benefit, and two percent paid the full benefit. The typical reduction was four percent per year under normal retirement age, or only about half of the actuarial full reduction. The Bankers Trust study also shows the levels of early retirement benefits, except for any supplemental benefits, that are payable to employees who retire at age 55 or age 60 with 25 or 30 years of service respectively. Generally speaking, median pattern and conventional plans provide a benefit at age 55 that is 60 percent of the benefit payable at normal retirement age, and 90 percent of the full benefit. Because of the supplements and the "30 years of service and out" provision, a higher percentage of blue collar employees may retire earlier with higher levels of income replacement than white collar employees.

Based on The Bankers Trust 1975 study, the actuary estimated effective income replacement for employees covered by conventional plans who retire early at age 55 with 30 years of service, and included the impact of the Social Security benefit when it becomes available at age 62.

<u>Gross Income</u>	<u>% of Gross Income Replaced by Pensions at age 55</u>	<u>% of Gross Income Replaced by Pensions & SSA Benefits at age 62</u>	<u>Pre-retirement Spendable Income</u>
\$10,000	18%	51%	78%
\$19,000	20%	43%	65%
\$50,000	23%	33%	53%

We have interpreted information on which the above table is based in such a way as to reflect the highest level of income replacement from private pensions, rather than the lowest. Hence, the estimate may be less than fully accurate, and if it is, the error lies in the direction of overestimating the percentage of income replaced by typical private retirement plans. In any event, personal savings, a job with a different employer, or acceptance of a lower standard of living certainly are possible ameliorations of the impact of early retirement on the income replacement available to most white collar employees who leave a private employer at age 55.

Capital Accumulation and Savings Systems

If the civil service staff retirement plan is integrated with Social Security, two of the three basic components of an income replacement system will be in

place. The third element of the income replacement triad is capital accumulation-personal savings. Federal employees now may contribute up to ten percent of pay to the pension plan in order to buy additional annuities as supplements to their basic pensions. The amounts deposited to employees' accounts earn interest at the rate of three percent, compounded annually. As less than one percent of the federal work force participate in the annuity purchase plan, it clearly is not an effective benefit subsystem for purposes of helping any substantial percentage of employees accumulate capital for their retirement years.

Prevailing Practice in the Private Sector

Employers utilize such benefit mechanisms as profit sharing plans, and thrift plans, as primary means of helping employees to take actions systematically during their working lives to meet future income replacement needs. Such benefit approaches encourage employees to save or invest a portion of their current incomes. Trust funds that are created to manage the monies associated with such plans assure for employees the deferral of current taxes, advantageous future tax treatment, or both. Finally, employees may elect to receive a distribution of any proceeds in these types of plans on a monthly basis as supplements to their Social Security benefits and pensions.

Approximately 30 percent of the companies included in the Conference Board's profile of employee benefit plans offer profit sharing. Of these, nearly two-thirds provide profit sharing plans in addition to pension plans. The other one-third use their profit sharing plans in lieu of pension plans. Most profit sharing plans provide for the deferral of payments of employees' shares until retirement or termination for other reasons. The shares typically are deposited in qualified trust funds that invest the money in equities, debt instruments, or combinations thereof. Among the companies that the Board considers the leaders in benefits, generally speaking, it is the smaller firms that provide profit sharing plans. Two-thirds of the profit sharing plans permit blue collar, as well as white collar employees to participate.

Thrift, or savings plans, are offered by 18 percent of the companies that participate in the Board's survey. But, almost half of the companies that employ 25,000 or more persons have such plans. In fact, a Bankers Trust study found that 61 of the Fortune 100 companies offer thrift plans, and that over 60 percent of their employees participate. Two-thirds of the thrift plans in the Board's survey permit blue collar as well as white collar employees to participate. The plans typically permit employees to save up to six percent of their pay. The prevalent practice is that employers then contribute 50 cents to the plans for each dollar saved by employees. Nearly one-fifth of the companies that offer thrift plans match employee's savings dollar for dollar. Some employers vary their contribution rates by the employees' lengths of service, or, with regard to the respective levels of profit of their firms. Employees must save after tax dollars in order to participate in thrift plans. The incentive for systematic saving in employer's thrift plans, rather than local financial institutions, clearly are the employers' contributions.

Employees' contributions to thrift plans or profit-sharing plans are not considered taxable income to employees at the time they are deposited to their accounts in the trust funds. Earnings on equities or debt instruments are not taxed until retirement, termination, or at such other times as distributions are provided for by the plans. Finally, if part of the proceeds at the time of distribution consists of capital gains, that portion may qualify for favorable tax treatment.

Federal Plans

None of the federal agencies offer profit sharing plans. But, at least two federal agencies provide thrift, or savings plans to their employees, the Tennessee Valley Authority and the Federal Reserve Board. The Authority permits employees to buy shares in mutual funds that are invested either in common stocks or in debt instruments. The latter type of fund is referred to as an "interest fund." The Authority does not match employees' contributions. Slightly more than 11 percent of the work force participates.

The Board offers a plan to its employees, and to employees of the regional banks within its system. Employees are given a choice with respect to common stocks or interest income funds. They may contribute up to 16 percent of pay. The Board matches employees' savings at the rate of 25 cents on each dollar up to the first six percent of pay. Employees' contributions that are greater than six percent of pay are not matched. The Board's employees are covered by a retirement system which requires them to contribute seven percent of their pay. Approximately 70 percent of the employees who are eligible, those having one or more years of employment, participate in the plan. The Board's employees who work in the banks are covered under a separate, non contributory retirement plan. Nearly 80 percent of this work force are actively involved in the thrift plan.

A Federal Employee Savings Plan

A thrift plan, if offered on a basis comparable to that of prevailing practice, should attract 60+ percent federal employee participation. Such a plan can be designed so that employees have choices among equities, interest funds, or combinations of such investments. Such plans also can be designed so that employees have options regarding the percentage of pay they choose to save. As not all employees would participate, and as some would participate at less than the comparable maximum rate, six percent, the government's probable cost could range from one percent to two percent of payroll, should it decide to offer such a plan.

From the standpoint of the employer, a thrift plan has known powers of attraction to employees. If such a plan is offered, a sufficient percentage of the work force is likely to participate to make it a major benefit program at a reasonable cost. For employees, the employer's matching contribution is an incentive to save current, after tax income for the long term.

The data below indicate the income replacement furnished at retirement, assuming three different periods of participation in the plan at the prevailing maximum savings rate, six percent, and a three percent match by employing agencies. There are several additional assumptions. Income replacement means the percentage of final pay that is replaced by the savings plan at the time of retirement for ten years certain or life. The employees' pay increases from the initial level at an annually compounded rate of seven percent per year, and interest or investment income is earned at seven percent per year, compounded. Employees leave their savings, and the employer's matching amounts, in the plan until retirement at age 55 or 62.

<u>Years of Plan Partici-</u> <u>pation Before Retirement</u> <u>and at 6% Savings Rate</u>	<u>% of Final Pay Replaced</u> <u>at Retirement for Ten</u> <u>Years Certain or Life</u>	
	<u>Age 55</u>	<u>Age 62</u>
10 years	7%	8%
20 years	14%	17%
30 years	22%	26%

Savings plans produce the same percentage of income replacement for lower and higher income employees, as well as median income employees. As can be seen from the table, the number of years of plan participation and the age at retirement influence the level of the income replacement. Finally, there is no cost of living adjustment in payments made from a savings plan. As a result, the purchasing power represented by the payments from such a plan will diminish in line with the rate of inflation.

New Employees: Possible Retirement Formulae

There are a number of possible retirement formulae that could be considered in the event that new federal employees were covered under a retirement system that was designed to take into account the value and availability of Social Security. After providing background information and stating the underlying assumptions, information is provided on the income replacement characteristics of four possible formulae, three of which are discussed in this part of the paper. The fourth, a minimum change formula, is analyzed in part VI.

Background

A complete description of pension formulae often consists of an accrual rate that is expressed as a dollar amount for each year of service in pattern plans, and a per cent of pay for each year of service in the case of conventional plans; a specific pay base; a period of service; a decision not to integrate explicitly with Social Security, or a method of integration; and minimum and maximum benefit limitations.

The first choice is whether or not federal employees are to be covered under a single plan or multiple plans. At this time federal blue collar, white collar, and postal employees are covered under one plan, under a single retirement formula. Private employers typically provide a pattern plan with a flat dollar accrual per year of service to blue collar employees, and a percent of pay accrual rate for white collar employees in conventional plans. We assume that federal employees will continue to be covered under a single conventional plan, hence, no pattern plan is presented.

The Bankers Trust 1978 update study of private conventional plans shows that a sample of 19 plans have accrual rates per year of service that range from 0.9 to 2.25 percent. The median rate of accrual, used by five of the 19 plans, is 1.5 percent. The rate of accrual, by itself, does not indicate the level of benefit produced by formula. A formula with a low rate of accrual may produce a higher benefit than one with a higher accrual rate, if the Social Security offset of the plan is lower, for instance, in the first than in the second plan. Of the 19 plans, 14 use the offset method. Of these, 11 use a 50 percent offset.

The pay base could be career average or final pay. Our analysis is based on final pay formulae, as they are much more common now in the private sector than career average approaches. Within the final pay approach, the benefit could be calculated on the high three or high five years of earnings. Both are reasonably common. We selected the high three years, which is the approach used in the current civil service plan.

Another common approach to integration with Social Security is the use of a sliding rate, not an offset. In such plans one accrual rate is used below a break point, and a higher accrual rate is used for earnings above the break point; for example, 1.0 percent times pay up to \$10,000, and 1.5 percent times pay above \$10,000. This type of formula provides a lesser percentage of income replacement from pensions to lower income employees, who enjoy a substantial level of income replacement from Social Security. Conversely, the pension replaces a higher percentage of income for higher income employees, who obtain a lesser percentage of income replacement from Social Security. Of plans described by The Bankers Trust, 16 use a single break point, while 18 use two break points. The range of differences in accrual rates above and below the break point is from .2 to 1.25 percent, with .5 percent being the most common difference.

Other final pay plans have accrual rates that are tied to years of service. Some plans have accrual rates which are higher during the first several years of service and then decrease gradually with additional service. Such plans are referred to as "front loaded". The current civil service staff retirement plan also has accrual rates that are tied to years of service, however, they are "back loaded". The earlier years of service have lesser accrual rates than later increments of service.

Evaluation Criteria

There are three global criteria that are relevant to an evaluation of the entitlement to and level of retirement income replacement. They are: the current benefits available to civil service employees; comparable income replacement benefits furnished by large private employers; and the theoretical percentage of income replacement needed by individuals at normal retirement age to maintain their standards of living without reduction.

Of these three, we believe that the provisions of the current civil service staff retirement plan should be weighted most heavily, the prevailing practices should be considered next, and the theoretical approach should be weighted the least. The rationale is that the current staff retirement system antedated most of the large private plans in this country and has developed independently of them for nearly 60 years. During that time there have been years of careful scrutiny of it by Congress after public testimony and debate. Consequently, it is fitting that any proposed plan be matched against the existing plan in the first stage of evaluation.

Given the commitment to total compensation comparability, a concept the Administration supports and the Congress is considering, certainly the practices of the other large employers have to be considered carefully. This paper refers exclusively to the private sector, as it is known that the Universal Social Security Study Group is conducting research and gathering information concerning practices of large state and local government employers.

Finally, the theoretical approach yields essential measures of the adequacy of benefits in terms of maintaining standards of living. As a result, potential outputs of a theoretically sound income replacement program also should be considered in any evaluation process.

Common Provisions

The major choice in developing a new retirement system will be among the benefit formulae. The other characteristics of the current retirement plan were reviewed but, to concentrate the analysis on the important variable, only one set of these other characteristics was used. Unless there was a very good reason to change a characteristic, the current one was retained.

This section focuses on the retirement benefits and formulae. Disability and survivor benefits are presented in Parts III and IV of this paper. Disability benefits have needed substantial revision for some time and the rationale for much of the survivor benefit program collapses if Social Security is extended to federal employees. Therefore, each of these subjects deserve a whole section with a unique treatment.

Two of the characteristics of the current Federal retirement system deserve close examination if they are to be retained since they are much more liberal than provisions of typical private sector plans and contribute greatly to the cost of the current Federal system.

The first of these is full retirement benefits at the age 55 with 30 full years service. This provision was introduced, in its current form, in 1966 when few pattern plans and almost no conventional plans had liberal early retirement conditions. Although the pre-1966 reduction below age 60 was relatively small, only 1 percent for each year under age 60, the change to full retirement benefit decreased the average age at optional retirement from 64.1 in 1965 to 60.8 today.

Since 1966, many of the private sector plans have moved toward or even beyond the 55 and 30 conditions but a majority still have less liberal benefits. Well over half of the conventional plans and over three-fifths of patterns plans allow retirement at or below age 55 often with less than 30 years of service. In fact, more than a third of private plans in the Bankers Trust study have more liberal early retirement conditions than those found in the federal plan. Payment of an unreduced benefit, however, is not as common. Only one-fourth of the pattern plans and two percent of the conventional plans provide full benefits. A large ~~large~~ majority, however, do apply a reduction that is much lower than the full actuarial reduction.

Thus, while full retirement at age 55 with 30 years of service is a very costly aspect of the federal retirement program it is no longer the most liberal benefit compared to the private sector. When compared to pattern plans, in fact, the provision is around the norm. When compared to conventional plans the eligibility is a little better than the norm but the level of benefit is still very liberal. Since this provision is very popular among federal employees, and is no longer atypical, it was retained in this study. This is one area that policymakers would want to look at for offsetting cost gains if the benefit formulae are viewed as being too low.

The new retirement systems include a new reduced benefit for those who retire between ages 55 and 62 with more than 5 years service but less than the 20 or 30 years needed for full retirement. This benefit is reduced 4 percent for years under age 62. One reason for adding the benefit is that it has become very common in the private sector. Currently there are many employees who hang on to age 60 or 62 or seek disability to receive immediate benefits. Often it is not in the best interest of the government or the employees to keep these people on the employment rolls. Also, tightening up of the disability conditions would add to this pattern. The reduced benefit will allow these employees to retire when they are ready and receive a good but not full retirement benefit.

The other relatively liberal and costly provision of the current federal retirement system is the application of full cost-of-living increases to benefits after retirement. A recent study by the Wyatt company of 39 large employers showed that while most of these had made a recent adjustment to annuities to reflect inflation, none had given full increases and even the most liberal were less than 10% in total for the last three years. Federal annuities, which are fully indexed, have increased 30% in the last three years.

The federal annuity adjustment is similar to that used by Social Security. But, the federal system is more liberal in that benefits are adjusted twice a year rather than once a year as under Social Security. Over the long run both systems keep benefit increases at the same relative level but federal employees get higher benefit for six months of every year.

Full inflation adjustment, especially in times of high inflation, is necessary for annuitants to avoid a substantial loss in standard of living. If, for instance, annuity adjustments are at one-third of the level of inflation, and double digit inflation continues, typical annuitants will receive benefits in their final years of life that is worth less than one third of their annuities in the year after retirement. If the annuitants receive a fully indexed Social Security benefit with a supplemental retirement benefit the loss in income diminishes but is still large especially for higher-paid annuitants. We decided to retain full indexing but with the Social Security adjustment rather than the current federal adjustment. This keeps the federal system more liberal in this area than the typical private system but it is a very desirable provision of the current federal system that should be retained if possible. Again, policymakers may want to look here for a place to cut costs if it is decided to improve other parts of the package.

Several changes were introduced as part of these packages. First, service continues to be all military and civilian service but credit is only given for actual time worked. This change removes the ability of employees to work partial careers for, say, 27 years and then go full time for three years thereby receiving the same benefit as employees who worked full time for 30 years. Integration will eliminate the need for adjusting the benefit at 62 to remove military service earned since 1956. The current adjustment leads to some cases where total income is actually reduced at 62.

These systems are non-contributory. Just as benefits should be adjusted to reflect Social Security, contributions should be adjusted. The current federal retirement contribution is 7 percent of covered salary. The Social Security/Medicare tax is 6.13 percent of pay up to \$22,900 and will eventually be 7.65 percent up to an indexed equivalent of \$26,000 in today's dollars. It was decided to eliminate the federal retirement contribution since it would eventually be fully offset for most employees by the new Social Security contribution. This is a relative liberalization for high paid employees since Social Security contributions stop at about half of the highest earnings. This is more than offset, however, by the relative reduction in combined benefit for high paid employees.

The change in contribution leads directly to correction of a problem with vested employees. Employees now can divest themselves of valuable benefits by electing to take their contributions when they leave before retirement. This current provision is far below the minimum required by ERISA. With no contribution the employees cannot divest themselves of benefits and the ERISA conditions are met. Five years vesting is retained. This is more liberal than found in most private sector plans but it is much closer to the goal of full portability devised by Congress. Going to a norm of, say, ten years would be a step backward.

The pay base of three years was retained - this was once relatively liberal but is becoming more common. The other involuntary and voluntary retirement conditions were also retained. These include; in addition to 55 and 30; age 62 and five years or age 60 and 20 years voluntary; 25 years service or age 50 and 20 years service involuntary. The involuntary benefit is reduced 2 percent for each year below age 55 as it is currently.

The Formulae

The three formulae described in this section are a broadly representative sample of possible approaches used by large private employers. They are: Offset, Step Rate, and Add-on. In Part VI of the paper a fourth formula is presented, Minimum Change. This latter formula represents the least possible departure conceptually from the present civil service retirement plan, given extension of Social Security coverage to federal employees.

--Offset. The formula is 1.65 percent times service up to 40 years, and times the high three years' earnings average. The pension would be reduced by 1.25 percent times the employees' estimated Social Security benefit at age 62 for each year of service up to 40 years.

--Add-on. The formula is 1.35 percent times service up to 40 years, and times the high three years earnings average.

--Step Rate - The pension payable at or after age 62 is 1.5 percent times that part of the high three years' average earnings below \$10,000 and 1.65 percent times that part of the high three earnings above \$10,000, all times service up to 40 years. For employees retiring before age 62 a supplement will be payable to age 62. The supplement will be equal to .5 percent times that part of the high three year earnings below \$10,000 times year of service up to 40 years. The break point of \$10,000 would be increased each year at the maximum level permitted by regulations of the Internal Revenue Service.

The step-rate method as described above does not meet the current IRS integration rules in cases of retirement before age 62. To meet such rules, the .5 differential between pay above and below \$10,000 would have to be reduced or, alternatively, actuarially equivalent benefit would have to be provided. Since it is likely that the integration rules would be changed by 1982, we are including this formula because it fits in well with the overall benefit ratio and plan design objectives.

Analysis

The Offset formula is very typical of prevailing practice in the private sector. The Step Rate formula calculates benefits at age 62 in a manner consistent with an approach that is also common in private sector plans. However, use of an add-on rate to calculate the benefit for those who retire before age 62 is unusual with respect to conventional plans covering white collar employees. But, it is common in other governmental plans.

The choice between formulae is subjective, there are advantages and disadvantages to each method. Some of these are:

Offset Method -

Advantages

1. Simple in concept.
2. Can be easily explained to participants.
3. Adapts automatically to changes in Social Security and the wage base.
4. Can be articulated in an overall income objective including Social Security.
5. Clear that only a portion of Social Security will be offset.

Disadvantages

1. It is not possible to calculate the exact plan benefit till Social Security benefit is known.
2. Presently the employer cannot obtain an employee's Social Security benefit directly and must depend on an approximate computation.
3. Method leads to unequal treatment of participants who retire immediately before or immediately after a Social Security increase.
4. Plan benefits are affected by the timing of a Social Security change.
5. Employees may object to a direct reduction of their plan benefits by benefits provided under a national old-age insurance program to which they have contributed.

Step Rate Method -

Advantages

1. Plan benefit can theoretically be calculated without knowing amount of Social Security benefit.
2. Gives recognition to existence of Social Security benefit but such is not actually used in plan benefit computation.
3. The timing of a Social Security change does not immediately impact on earned benefit.
4. It is a more subtle integration approach which is often more acceptable to employees.

Disadvantages

1. Although the computation of the plan benefit is theoretically independent of the Social Security benefit the supplement payable before 62, cannot exceed the Social Security benefit which will be payable. Practically, then, the actual Social Security benefit does enter the calculation.
2. The break point of \$10,000 would be changed each year as permitted by IRS. This means that the plan benefits will change each year and this may be hard to communicate to employees.
3. Since ERISA provides that accrued benefits cannot decrease by plan amendment, a comparative benefit calculation will have to be done each time the break point is changed.
4. Benefit formula needs to be constantly reviewed to make sure that initial goals are met. Formula must be revised if it goes out of phase.

Add-On

Advantages

1. Simple to calculate
2. Completely independent of Social Security benefit.
3. Simple to communicate.
4. Employees can view it as a separate system with no reduction in benefits because of Social Security.

Disadvantages

1. Does not directly recognize Social Security
2. Overall retirement income retains complete impact of Social Security weighting in favor of short term low paid employees. The benefit ratio for low paid employees will be as much as 30 percent higher than for higher paid employees.

The table below shows the income replacement characteristics of these formulae for employees who retire at age 62 after 30 years of service, compared with (1) the current civil service plan, (2) the income typically replaced by Social Security and pensions for employees of private firms as reported by Bankers Trust, and (3) the income needed, according to the theoretical Givens and Miller approach to assure no reduction in spendable income.

	<u>Current civil Service Formula</u>	<u>Typical Private Sector</u>	<u>Theoretical Spendable Income</u>	<u>Offset</u>	<u>Step Rate</u>	<u>Add-on</u>
\$10,000	53%	63%	78%	67%	65%	71%
\$19,000	53	55	65	61	61	61
\$50,000	53	48	53	53	53	48

Lower and median income employees, in each case, have greater income replacement than is available under the civil service plan. Higher income employees obtain yields from the formulae that are not significantly different from the current plan. From the standpoint of comparability with private plans, lower, median, and high income employees would do better by a few percentage points than their counterparts in industry. Against the theoretically necessary yields, lower income employees would receive substantially less than what is needed under the Offset and the Step Rate formula. Median income employees would obtain approximately what is theoretically necessary. Higher income employees would obtain income replacement very close to the theoretically desirable level.

When compared to net take-home-pay the tilt of the various retirement formulae change. In this case, most of the replacement ratios are close to 100 percent and the ratios for the different salary levels close to each other:

	<u>Offset</u>	<u>Step Rate</u>	<u>Add-on</u>
\$10,000	86%	83%	91%
\$19,000	94	94	94
\$50,000	99	100	91

The following table shows the income replacement characteristics of these formulae for employees who retire at age 55 after 30 years of service. After age 62 the percentage of income replacement would be the same as those in the previous table, reflecting the Social Security benefits.

	<u>Current Civil Service Formula</u>	<u>Typical Private Sector</u>	<u>Theoretical Spendable Income</u>	<u>Offset</u>	<u>Step Rate</u>	<u>Add-on</u>
\$10,000	53	18%	78%	47%	47%	38%
\$19,000	53	20	65	47	47	38
\$50,000	53	23	53	47	47	38

Each of the formulae, at all income levels, result in lower levels of income replacement ranging from seven to eleven percentage points, compared with the civil service plan. In terms of the private sector, each of these formulae yield twice as much income replacement as is the norm for white collar employees. Each of the formulae furnishes far less than the level of income replacement that is theoretically necessary to avoid lowering a standard of living.

Again the comparison to take-home-pay shows a different story. The new formulae still produce less than a full take-home pay but the ratios are much higher than for gross pay and there is a decided tilt toward high paid employees.

	<u>Offset</u>	<u>Step rate</u>	<u>Add-on</u>
\$10,000	57%	57%	48%
\$10,000	67	67	56
\$50,000	82	82	83

A Thrift Plan

The government could establish a thrift plan for federal employees by reducing the benefit provided by the pension formulae sufficiently to match contributions to employees' savings. In these circumstances, there would be two groups of employees who would each have substantially different levels of income replacement; those not participating in a thrift plan, and those participating in it.

Use of a voluntary thrift plan as part of the federal retirement package reduces benefits for those who do not participate by three to four percent of final salary. The resulting income would be close to the total provided by a typical private sector plan but five to fifteen percent less than the amount needed to replace all spendable income.

Employees who did participate would do much better. The next table shows the effect of adding income replacement from a thrift plan to the reduced pension plus Social Security. The premise underlying the thrift plan yields is that the employees contribute six percent of gross pay, and the employer matches half of the employees' earnings during each year of employment.

CONTRIBUTIONS

	<u>Offset</u>	<u>Retirement at Age 62</u> <u>Step Rate</u>	<u>Add-On</u>
\$10,000	90%	88%	98%
\$19,000	84%	84%	88%
\$50,000	75%	75%	74%

	<u>Offset</u>	<u>Retirement at Age 55</u> <u>Step Rate</u>	<u>Add-On</u>
\$10,000	65%	65%	61%
\$19,000	65%	65%	61%
\$50,000	65%	65%	61%

The table indicates the high potential of systematic savings as a mechanism for assisting employees to replace income at age 62. Against the theoretical measure, savings plus Social Security and reduced pensions replace from 12 to 22 percent more than employees' former spendable income, assuming that they save at the maximum rate throughout a full career. In fact, even at age 55 savings plus a reduced pension replace more than the theoretically necessary level for median income employees, but 13 percent below that level for lower income employees.

In short, a thrift plan is a powerful income replacement mechanism for those who use it. Published data shows that a large majority of employees will participate but the participation rate is probably skewed by salary with a larger portion of high paid employees than of low paid employees contributing. Thus, the relative advantage to the low paid employee of going to Social Security could be offset for many employees by the natural tendency of low paid employees not to participate in a thrift plan.

Current Work Force

There are several approaches to transitioning from a staff retirement plan, as the principal income replacement mechanism, to a staff retirement plan as a supplement to Social Security. The basic choices are whether or not some or all current employees are allowed to elect coverage under Social Security and/or a new staff retirement plan; are mandatorily included in either or both; or are required to stay under the existing staff retirement plan with no Social Security coverage.

Approximately 250,000 employees now are eligible to retire voluntarily for age and service. Nearly 450,000 are eligible to retire involuntarily but not voluntarily. These employees have 20 or more years of service and are age 50 or older, or they have 25 or more years of service. Slightly more than 1.5 million additional employees have five or more years of civilian service, and are fully vested to a retirement benefit. Finally, there is a group of 500,000 employees who have less than five years of service, and are not vested.

Social Security Retirement Coverage

There are two ways of providing Social Security coverage, retroactively and prospectively. There are three basic benefits that could be provided in one of these ways: retirement benefits, disability benefits, and survivor benefits. The provision of retirement benefits retroactively would seriously disrupt the existing plan financially and administratively as well as the vested rights of employees affected. Retroactive coverage involves payment to the Social Security Trust Fund of an amount equivalent to the FICA taxes plus accrued interest, on both the employees' and the employer's share over each year of career federal service for each employee. Doing this could be a problem under ERISA/IRS rules. Social Security retirement benefits must be provided prospectively to avoid undue disruption of the staff retirement plan. The possibility of providing disability and survivor benefits either retroactively or prospectively is discussed in Parts III and IV of the paper.

At this time three of four federal employees who retire become eligible eventually for a Social Security retirement benefit. Their eligibility is based on covered employment in non federal jobs. This group of employees would have little incentive to voluntarily seek coverage under Social Security in connection with their federal employment, as the benefit is weighted toward the short service worker and they would not gain as much from additional service.

The group of one in four employees who had little or no Social Security retirement credits would have a substantial incentive to voluntarily elect to pay FICA taxes and earn Social Security retirement credits, as the benefits they would gain at age 62, in terms of income replacement, would far outweigh their out-of-pocket costs. As examples, the table below shows the extent to which ten years of Social Security coverage would serve to replace income for low, median, and high final income employees, and the costs to them of such a benefit. All values are expressed as a percent of final salary.

<u>Gross Income</u>	<u>Annual Income Replacement</u>	<u>Total lifetime Benefit</u>	<u>Total Contributions</u>
\$10,000	19%	340%	50%
19,000	13	234	49
50,000	6	108	26

For one-fourth of the current work force there would be a substantial windfall, as shown in the table, if they were permitted to elect to be covered under Social Security. As permitting election of Social Security coverage could lead to a windfall benefit for many employees, the taxpayer interest would be better served with ~~with~~ a mandatory cutoff.

The immediate purpose of considering the extension of Social Security to federal employees is to put everyone in the same boat. The advantage seen is that this provides a basic fully insured benefit for all working people and helps reduce the ultimate cost of the Social Security system. The primary argument against this is that 8,000,000 employees have built up equities and look forward to a certain level of retirement under current systems and these would, at best, be disrupted by universal coverage and, at worst, result in loss of potential income. If Social Security is extended, the secondary question is whether or not to extend it to current employees. A deciding factor here may be the cost. If it develops that the Social Security system will be hurt, not helped, by covering current employees there is little chance that this will happen. Since this question is not yet determined it is necessary to illustrate the potential impact of extending Social Security coverage to some or all current federal employees.

To qualify for a retired worker Social Security benefit at age 62, most current federal employees with no prior covered employment would have to work for a minimum of ten years, 40 quarters. Under these conditions it would be inequitable to mandate Social Security coverage for anyone within ten years of normal the earliest Social Security retirement age (age 62-10=52), as the chances are high that some persons would pay FICA taxes for a number of years but not obtain sufficient retirement credits to qualify for a benefit. Or, many employees might be forced to delay their planned retirements in order to assure that they did not lose a Social Security benefit after paying into that system for a number of years.

On the other hand, the earliest age for retirement of federal employees in certain occupations is age 50. Hence, it might be argued that all employees under age 40 should be covered under Social Security, as each would have sufficient time to earn 40 quarters of coverage and thereby earn a benefit payable at age 62.

Between these extremes is a large group of employees, ages 41-51. Some work in occupations where their first opportunity to retire is at age 50 and where they must retire by age 55; some are eligible initially at age 55, some at older ages. Assuming that the same age and service combinations are kept for employees in such occupations as criminal investigations and air traffic control, and that the same age and service combinations are kept for involuntary retirement, it is clear that employees in special occupations and those who retire involuntarily could have expected to continue working until age 55.

Given these factors, we feel that there are several possible age, or age and service cutoffs, that could be used. The approach used to illustrate the impact of retro-active coverage is to put only employees now under age 44 in the Social Security system while they are federal employees. Alternate approaches would be use of the involuntary retirement criteria; age 50 and 20 years of service; 25 years of service at any age; another age such as 40, 50, or 52; or service such as five or ten years. The table below illustrates some of the possible criteria and their relative impact with respect to the percentage of the 2,700,000 federal employees in the retirement system who would be covered initially under Social Security. The proportion shown as covered is somewhat higher than it would be because a split between military and civilian service was not available.

<u>If those excluded are employees</u>	<u>Number not covered</u>	<u>Number covered</u>	<u>Percentage covered</u>
Meeting involuntary retirement conditions	675,000	2,025,000	75%
Over age 52	755,000	1,945,000	72
Over age 50	890,000	1,810,000	67
Over age 45	1,240,000	1,460,000	54
Over age 40	1,600,000	1,100,000	41
With more than ten years' service	1,600,000	1,100,000	41
With more than five years' service	2,200,000	500,000	19

Coverage Under the New Retirement Plan

Whichever age, and or age and/or service conditions are selected for the Social Security coverage cutoff, is likely to also be an attractive cutoff for coverage of current employees under the new retirement plan. The new plan will integrate with Social Security so the obvious choice would be to have the new plan and Social Security cover the same people for the same period of time.

Few employees who would be eligible to retire on a voluntary basis would have any reason to prefer being under a new retirement plan. As a result, it is predictable that many, if not all, would choose to retire before being placed under the new system, assuming they were given a choice.

It is reasonable to assume that employees with long service, especially those with median and higher final incomes, would feel that it generally would be contrary to their financial best interest to be forced into any of the proposed retirement plans, as each produces a lesser benefit at age 55 with 30 years of service than the current system. As this group has been under an established set of rules for many years, there is a line of rationale that suggests that they too should be exempt from a new retirement plan on the basis that it is too late for many of them to end their involvement in federal employment

and start new with another employer, even though their federal benefits would be, in some cases, substantially diminished.

Another major question concerning transitioning current employees to a new retirement plan is how should service under the old and new plans be treated in calculating the benefit? We believe that the most practical and the fairest way would be to determine the accrual rate earned under the old rules for service before the effective date of the new plan and the accrual rates under the new rules for service after the effective date, and multiply each of them against the high three years average earnings to produce the amount of the benefit.

Benefits between ages 55 and 62, for those retiring before age 62, also must vary by salary level. The current plan provides a 53 percent replacement for thirty years service at age 55. The offset and step rate plans will eventually provide 47 percent. For an employee with twenty years under the current system and ten under the new system the rate will be 50 percent and for ten old and twenty new the rate will be 48 percent. Under the add-on approach the ultimate level will be 38 percent; the level with twenty old and ten new will be 47 percent; and the level for ten old and twenty new will be 40 percent. Thus there would be a smooth progression in the decrease in benefits as service under the new plan is added to service under the old.

After age 62 the progression to new levels is more rapid because employees quickly become eligible for a large share of the Social Security benefits. Current federal benefits for 30 years service remains at the 53 percent level after age 62. For new employees the benefits will disperse to slightly lower levels for high paid and much higher levels for low paid employees. Reference to the earlier table for new employees will show that the new levels have almost been reached with only ten years under the new combined system:

Final pay	Twenty years old and ten years new			Ten years old and twenty years new		
	\$10,000	\$19,000	\$50,000	\$10,000	\$19,000	\$50,000
Replacement rates for:						
Offset	67%	61%	53%	67%	61%	53%
Step-rate	65	60	55	65	60	53
Add-on	67	60	53	68	59	49

For all but high paid employees the new benefit levels after age 62 are higher than under the current system. If, however, an employee under the current system had managed to obtain minimum Social Security coverage his or her benefit under the new system will probably be lower at all pay levels. With thirty years federal service and ten years Social Security service an employee now could expect to receive combined benefits ranging from 72 percent for low paid to 59 percent for high paid employees.

Summary of Findings

There are three possible criteria for determining the adequacy of the income replacement provided by the government to employees. Any new plan may be compared to the existing civil service plan, to the prevailing practices of private sector employers, and to theoretical measures of income replacement adequacy.

We have developed three retirement plans which vary by the benefit formulae used. The other parts of the benefit design are the same for each of the three plans and are consistent with current federal retirement benefits, except where there were strong reasons to vary them.

Generally speaking, if employees retire on or after age 62, the formulae yield income replacement that is equal to or greater than the current civil service plan for lower and median income employees, and slightly below the current plan for higher income employees. For employees who retire at age 55, the income replacement is lower for employees at all income levels. Never the less, the benefit at age 55 would be much greater than what is provided to private sector white collar workers, but roughly equal to that provided to blue collar workers.

The government could improve the pattern yield of its income replacement approach by offering a thrift plan to employees. The income replacement available to employees who chose to participate could be enhanced considerably at reasonable cost.

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These approaches could be considered almost in the abstract, except for the fact that there is an existing federal work force. Some of the decisions that have to be made center on whether or not current employees are mandatorilly included or excluded from Social Security retirement coverage, and from any new pension system. There are various age, or age and service combinations, that could be considered possible cutoffs for inclusion under Social Security and under any new retirement plan.

PART III: NON JOB-RELATED DISABILITY INCOME
REPLACEMENT SYSTEM

Non job related sicknesses and accidents often result in temporary or permanent disabilities. Such disabilities may be partial or total. Or, a temporary disability may lead to a partial disability and, in turn, to a total and permanent disability. The possibility of experiencing a disabling illness lasting more than six months is much higher than that of premature death. One person in every five will be disabled for six months or longer before age 65, and the average disability period for these persons will exceed 18 months. Disability is a threat to the financial security of employees and their families.

Employers who pay FICA taxes rely on the Social Security disability program to furnish basic income replacement to employees who have total and permanent disabilities. Because Social Security benefits are not payable for several months after a disability begins, employers usually provide short term income replacement to employees through such benefit mechanisms as accident and sickness insurance, sick leave, and informal salary continuation programs. When employees qualify for Social Security disability benefits, many employers supplement the income replacement furnished through that program by benefits payable from long term disability insurance, or disability retirement. One advantage of long term disability insurance benefits to employers is that such benefits may be offset by 100 percent of the Social Security disability benefit. That level of offset is not possible if the disability benefit is payable from a qualified retirement plan, because of integration rules of the Internal Revenue Service.

The retirement benefits were measured against three criteria - the current plan, private sector benefits and theoretical income replacement. This triad is not being used to evaluate disability benefits. The current federal disability plan has come under a lot of criticism. First, conditions for coming on and leaving the disability rolls are far more liberal than those provided by Social Security alone and are very much lower than the total benefit for typical private sector employees who become disabled. Finally, there is a need to integrate sick leave and disability benefits into a continuous adequate benefit system. Since the disability system needs revision and since OPM is in fact working on proposals in this area, it would not be appropriate to measure new integrated benefits against the current system.

The theoretical income replacement measures also have less relevance for disability than for retirement. If employees work full careers, the employer can be considered to have a duty to maintain the employees' standard of living. By the same token, if careers are spread over several employers it is appropriate for each employer to each contribute retirement benefits that add up to a desired total. Disability, however, affects both short and long term employees and the level of benefits should be measured in social as well as service-related terms.

Since the current federal system needs changes and since the theoretical income is not as relevant the important measure is private sector practice. The benefit system in this part is developed in these terms. In some instances, private practice is modified to achieve what we believe is a more logical flow and level of benefits.

Definitions of Disability

The Social Security definition of disability is: A person must have a physical or mental condition which prevents him or her from doing any substantial gainful work, and the condition must be expected to last, or has lasted, for at least 12 months, or is expected to result in death. Under such a definition, even if the person is unable to continue his or her regular work, if it is possible to do any other kind of work, he or she is not disabled for purposes of securing Social Security disability benefits.

A less stringent but very common insurance definition of disability is: Unable to perform the duties of occupations for which qualified on the basis of education and experience. This definition indicates that the person is disabled for his or her current job and for all other jobs in occupations in which his or her background would be considered qualifying. It is unstated but understood that during the first phase of a period of disability the measure is occupations which pay reasonably comparable wages and salaries. After the duration of the disability has been lengthy, it is understood that the measure is any occupation for which qualified, whether or not the pay amounts to reasonably comparable rates.

The least stringent definition of disability is one associated with the Office of Personnel Management's disability retirement function: The employee is unable to provide useful and efficient service in the grade or class of position last occupied because of disease or injury. In practice, the definition amounts to inability to perform one or more of the principal duties of the current job because of a physical or mental impairment.

Administrative Mechanisms

Short term disability coverage typically consists of accident and sickness insurance for blue collar employees, and sick leave and informal salary continuation for white collar workers. The prevalent practice is to replace 50-75 percent of pay for six months or less. Informal salary continuation on a case by case basis, however, is a reasonably common benefit practice for white collar workers. The amount of sick leave available to white collar employees often increases with their length of service and may be full pay or some percentage of it. Some white collar workers first use sick leave at full pay for some interval and then are eligible for accident and sickness insurance thereafter during the first six months of a period of disability. Typical waiting periods for accident and sickness insurance coverage are three to seven days.

Until the middle of the 1960s private employers commonly offered disability retirement to employees who became totally and permanently disabled. This is still the prevailing practice for blue collar employees. Approximately two-thirds of large companies now offer long term disability insurance programs--in place of disability retirement--to their white collar work forces, while slightly more than one-fourth of such companies offer the same type of coverage to their blue collar work forces. The long term disability insurance coverage typically has a waiting period of six months, and dovetails with the ending of coverage under the employers' short term disability programs. Most long term disability insurance programs replace 50-60 percent of pay. Almost 90 percent of these plans pay benefits for the duration of the disability, until normal retirement age, or until death. At normal retirement age employees begin drawing retirement benefits under the employers' staff retirement plans, and their coverage under long term disability insurance terminates. The long term disability insurance coverage is integrated with Social Security disability benefits. That is, large employers may provide benefits that supplement the income replacement furnished by Social Security up to some target level that usually is expressed as a percentage of former earnings.

Issue

The Social Security definition of disability and system of benefits will apply to federal workers, as it now does to more than 90 percent of the Nation's work force, if and when the Civil Service Retirement System is integrated with Social Security. The major issue associated with the integration in the area of non job-related disabilities is:

--What changes are needed in the existing federal benefit structure to accommodate to the Social Security disability system?

The sub-issues are:

--What level of disability benefits should be paid by which organization for how long through which benefit mechanisms to employees who are temporarily, partially, or totally and permanently disabled?

Classes of Non Job-Related Disabilities

Definitions

There are three distinct classes of non job-related disabilities that are described in this part of the paper, temporary, partial, and total and permanent. For purposes of this paper, a temporary disability is a medically determinable condition preventing employees from performing one or more of the principal duties of their current jobs. With temporary disabilities there is an expectation that employees will recover and return to work within a reasonable period of time, e.g., nine months. A partial disability may be defined as a medically determined condition preventing employees from performing one or more of the principal duties of their jobs for an indefinite interval that is likely to exceed one year. Employees with partial disabilities still are capable of performing some substantial gainful work. A total and permanent disability, as defined under Social Security, is one which prevents persons from performing any substantial gainful work, and the condition is expected to last, or has lasted 12 months, or is expected to result in death. Of course, the total and permanent disability must be caused by a medically determined physical or mental condition.

Background

Most temporary disabilities end within one month, though there are many individual cases where employees have illnesses or suffer accidents where the treatment requires lengthy periods of convalescence. Partial disabilities may result from incidents with sudden onsets, i.e., accidents, strokes, etc., but most are the results of incremental changes that occur because of physical, or nervous and mental disorders. Some diseases have known courses of short duration. Others are chronic and of indefinite duration. Still others are characterized by periods of active disease, periods of remission or limited damage, or varying intervals of more or less intense activity. In effect, a small percentage of absences initially presumed to be due to temporary disabilities eventually are found to be caused by partial disabilities, and an even smaller percentage stem from conditions brought about by total and permanent disabilities.

In the current federal employee benefit system, the sick leave program deals with temporary disability, and the disability retirement program covers both partial, and total and permanent disability, as they have been defined.

Discussion

--Temporary Disability

Federal employees accrue 13 days of sick leave annually, and may accumulate and carry it over from year to year without limit. Sick leave plans of private employers typically provide lesser amounts of sick leave, especially to employees who have only a few years of service, and do not permit carryover of sick leave from year to year. Federal workers now use 9.5 days of sick leave each year, which represents 3.5 percent of the government's payroll. Private employees use an estimated five-six days of sick leave annually. The difference between federal and private employee' use of sick leave is overstated. The numbers for private

employees do not reflect use of sickness and accident insurance benefits, use of personal rather than sick leave, and variations in the administrative practices of some companies that may not charge sick leave for doctors' or dentists' appointments.

The current sick leave program provides full income replacement for the period an employee has accrued sick leave. The accrual can range from zero for new employees or employees who have previously used all of their sick leave to more than a year for long service employees who have made little use of sick leave. When their sick leave balance is exhausted, employees may request an advance of sick leave. Agencies may advance such leave within limits. Employees also may use their annual leave. When the combination of sick and annual leave is exhausted, agencies may place employees who cannot return to work on leave without pay. While in this status, employees and their families have no income replacement.

As federal employees would be subject to a waiting period of five full months before they may apply for disability benefits under Social Security, only those with eight or more years of service, who never had used sick leave, would have enough accrued to provide income replacement throughout the Social Security waiting period. In short, there will be an income replacement gap, unless the government changes the sick leave program's plan design.

--Partial Disability

The Social Security disability system rejects persons with partial disabilities. Yet some federal employees who are on sick leave will not recover sufficiently to perform the full range of duties of their jobs. These persons will eventually be capable of performing some gainful work. Under the current staff retirement plan, those employees with five years of service have a right to elect to retire on disability rather than accept another position which they are qualified to perform on the basis of experience, education, and medical fitness, even if they are only partially disabled.

The experience of large insurance organizations that administer long term disability programs for private companies has been that temporarily and partially disabled employees either return to the work force in their first year or two of their disabilities, or they do not return at all. The number of those who are going to return is greatest during the first year, smaller during the second year, and rapidly declining thereafter. Their experience suggests that an employer should assure that partially disabled employees are given every opportunity to return to the work force as early in their periods of disability as possible.

There is not a great amount of reported experience with respect to the rehabilitation and subsequent reemployment of partially disabled employees in industry, according to the Metropolitan Insurance Company. The federal government has substantial experience, however, with the hiring of the partially disabled, the handicapped. That process involves cooperation with state vocational rehabilitation specialists, agency personnel staffs, and federal medical officers. If

the government chooses to help disabled employees to pursue a suitable employment, an effort parallel to what is done for handicapped new hires seems reasonable.

Current practice under the retirement plan does not envisage the restructuring of jobs, or the involvement of rehabilitation specialists in assisting partially disabled employees to return to active employment. In fact, the sole requirement is that the agency consider the possible reassignment of employees to other jobs. Often, the jobs which such employees can perform are at lower pay rates. There now is no method of cushioning the financial effects of employees voluntarily moving to a lower paid position.

Most private sector employers cover partial disability under their long term disability insurance benefit, for one or two years. Thereafter, most only pay the benefit if employees are unable to engage in any gainful work. The prevailing practice of such employers is to provide a benefit in the range of 50-60 percent of earnings to white collar employees.

--Total and Permanent Disability

The retirement plan for civil service employees draws no distinction between employees who are partially disabled and those who are totally and permanently disabled, in terms of income replacement. Both classes of disability retirement recipients receive identical levels of income replacement. Employees who hired into federal service before attaining age 38 replace a guaranteed minimum of 37 percent of current earnings (40 percent of the high three years of earnings). Employees with 22 or more years of service at the time of their disabilities receive an accrued benefit that is greater than the guaranteed minimum.

From the standpoint of income replacement, Social Security disability benefits are more sufficient for some and less so for others. Lower income employees with families replace 60 percent of earnings, median income employees with families replace 45 percent, and high income employees with families replace 18 percent. Single lower income employees replace 40 percent of earnings, while single high income employees replace only 12 percent of earnings through Social Security disability benefits. In the case of totally and permanently disabled white collar employees, employers provide a supplement to the Social Security disability benefit, usually sufficient so that the combined benefit replaces 50-60 percent of former earnings.

As many blue collar employees replace the full target income level through Social Security, or may not meet the age or the age and service requirements of their respective disability retirement plans at the time of disability, Social Security benefits often are the sole source of income replacement for them.

Fitting Federal Benefits to Social
Security Disability Benefits

Temporary Disability

There are two alternatives with respect to dealing with temporary disability in the context of Social Security disability benefits. The first involves the installation of an accident and sickness insurance type of program. The second involves changing the existing sick leave program.

If an adjustment of the sick leave program were selected as the means of bridging the Social Security waiting period, and to provide help to convalescing employees, the employing agencies would be the logical administrators of the plan. Assuming that the benefits levels are to be reasonably comparable to those furnished to employees of private companies, the kinds of questions that arise include: How long should sick leave at full pay be provided? How long should a benefit at less than full pay be provided? And, when does the presumption that the employees will recover and return to work status get tested?

Partial Disability

There are also two fundamental alternatives with respect to partial disability. First, the government could choose to continue paying a lifetime benefit of 37 percent of final pay under the retirement plan to those employees who do not qualify for Social Security disability benefits, but who cannot perform one or more of the principal duties of their jobs.

Or, the government could elect to pay a higher benefit for a shorter interval, for example, two years, and assist employees who are partially disabled to find gainful employment that is consistent with their medical conditions.

The primary advantage of continuing to pay a lifetime benefit of 37 percent of final pay to employees who become partially disabled is that of avoiding change. But, there are many problems that would arise in the event that some federal employees could retire on disability benefits of 37 percent of final pay, while others who qualify for Social Security disability benefits would receive a higher percentage of final pay. There has been criticism of the current civil service definition of disability as too loose, and that opinion would persist as long as two levels of lifetime benefits were provided under substantially different definitions of disability.

One of the problems of a benefit payable at 37 percent of final pay is that the employees and their families experience a very drastic reduction in their purchasing power and standard of living. Hence, the second alternative, paying a higher level of benefit for a shorter interval, has some appeal, especially if it is linked with a positive effort to place those employees who are fit to work in other jobs.

In the event employees are given fitness for duty examinations after some months on extended sick leave, e.g., nine months, and are found to be partially disabled, decisions could be made by federal medical officers, in concert with the private attending physicians, concerning the feasibility and desirability of employees' returning to work in other jobs. If the decisions are that the employees cannot return to work at that time, the extended sick leave benefits would continue being payable for up to two years from the date of the initial absence. On the other hand, if employees are medically ready to resume some active employment, agency management could assist employees in finding suitable placements.

The process of placement of partially disabled employees would involve, as a minimum, agency personnel staffs and medical officers. It might necessitate the services of vocational rehabilitation specialists, or others with expertise often unavailable in agency work forces. Certainly the agencies would be expected first to identify any jobs at the same pay level, and with the same opportunity for advancement, for which the employees are qualified on the basis of medical as well as experience and education factors. In the event no such fit was possible, the agencies could identify the next best available offers that could be made. The positions in question might be jobs which were restructured to take advantage of the employees' strengths and minimize those skills, knowledges, and abilities in which there might be limited capacity. To overcome the financial difficulties of moving to lower paying positions, were that the only realistic alternative, consideration should be given to cushioning the effects through use of saved pay provisions.

Total and Permanent Disability

Social Security disability benefits provide adequate income replacement to lower income married employees and their families. But, such benefits are too low to permit single and median or higher income employees and family members to have a standard of living close to their former ones. Comparable practice of large private companies is a reasonable guide to the level of income replacement that the government should provide to its employees through a combination of Social Security benefits and long term disability benefits. As private employers typically replace 50-60 percent of final income through these sources, that seems to be a reasonable goal for the government.

There seems to be little reason to continue paying a long term disability benefit under the retirement plan, as it complicates the process of integrating general retirement benefits under the rules of the Internal Revenue Service without a corresponding advantage. Thus, it would be possible for the government to set up a separate fund for purposes of paying long term disability benefits centrally, or agencies simply could pay the benefits themselves to any of their employees who qualify for Social Security disability payments.

One Possible Benefit Design

There are many ways of adjusting the federal employee benefit package so that it accommodates to the value and availability of Social Security disability benefits. What follows is a description and a rationale for one way of making the adjustment. We recognize that there are many alternative means of making the changes, and are simply showing one such system as an illustration and basis for pricing.

Temporary Disability

The government could continue to provide sick leave at full pay to cover short term absences due to temporary disabilities. For example, six days for new employees and ten days maximum at full pay for employees with more than one ^{YEAR} of service. The carryover of sick leave from year to year is unnecessary, however, if the government provides an extended sick leave benefit. That benefit might be payable at 75 percent of pay for the balance of the first five months of absence and 60 percent thereafter for up to two years from the first day of absence. Sick leave balances of current employees would be carried forward so that they would lose nothing already earned.

Employees could accrue extended sick leave on the basis of one hour for each four hours in a pay status. For full time employees, the accrual would be 13 weeks of benefits for each year of service. Accumulation would be limited to 104 weeks of benefits. This limit would be reached after eight years if the employee had not used extended sick leave in that time. Employees who use some or all of the extended sick leave balance would restore that balance after returning to work by again adding 13 weeks to the balance each year.

With such a combined program of sick leave at full pay and sick leave at 75 or 60 percent of pay, the government would be providing a liberal but comparable benefit that would assure adequate income replacement throughout the Social Security waiting period and during lengthy convalescences. This is the primary goal of the proposal with respect to temporary disabilities.

There would be a waiting period of five work days from the first day of absence due to illness before employees could apply for the extended sick leave benefit. During this interval employees could use sick leave at full pay, annual leave, or ask for leave without pay. The waiting period is a common method of controlling utilization of such a benefit.

To qualify for the extended sick leave benefit, employees would present medical certificates signed by their physicians indicating that they were unable to work due to illnesses. The employees would provide such medical certificates through their supervisors to the payroll offices. Submission of such certificates by employees would be sufficient documentation for agencies to pay the benefit for up to four work weeks. As most temporary disabilities end within the first month, this procedure would not be cumbersome administratively in terms of handling most temporary disabilities.

When employees recognize that their disabilities may last longer than four weeks they would be responsible for getting their attending physicians

to submit clinical reports that specify which duty or duties in their current position descriptions could not be performed, as well as a diagnosis and prognosis, directly to the employing agencies' medical officers or contract physicians. The employing agencies' medical officers would evaluate such reports on the employees' health status to assure that they were temporarily disabled for their current positions. They would advise supervisors that sufficient medical evidence existed to justify the use of extended sick leave benefits. Further, they would be authorized to request updated medical reports from attending physicians at intervals that reflect their best professional judgments given the diagnosis and prognosis. If they questioned the acceptability of the medical evidence, they could recommend that supervisors request that employees be given fitness for duty examinations.

Partial Disability

There appears to be little to recommend paying a lifetime benefit to employees who become partially disabled. If employees are capable of participating in gainful employment, it seems more fitting for the government to have a policy and a program for helping them return to work as quickly as possible. If an employee takes a job outside government he or she will have to report it. The disability benefit will be reduced in proportion to the employees' salary or dropped altogether if the salary is large enough. The reduction will be less than dollar for dollar to allow some incentive to return to work. In any event, the benefit will be fully restored if the employee loses the job before the end of the extended sick leave period.

The concept of active agency involvement in working out satisfactory placements of employees who become partially disabled should be explored. The combined efforts of agency medical officers, personnel staffs, and vocational rehabilitation specialists should be sufficient to work out placements in existing or restructured positions for many of the partially disabled. If the government permits partially disabled employees who accept positions at lower rates of pay to receive saved pay, it should ease their financial transition over a reasonable interval.

As there is little or no justification for paying lifetime benefits to such employees, at some point persons who are capable of working either should work or terminate employment. Two years on sick leave at partial pay seems to be a sufficiently long interval for partially disabled persons to recover and to accept jobs for which they qualify. If they elect not to work, then they will be eligible for deferred annuities if they had more than five years of civilian service including the disability period.

Total and Permanent Disability

Social Security disability benefits form the core of the income replacement approach covering most American workers. If such benefits become available to federal employees, they will be more adequate for some and less so for others, due to the inherent tilt of Social Security. Most employers provide some supplement to Social Security disability benefits so payment of a long term disability benefit by government is appropriate.

Federal employees would get whatever Social Security disability benefits were due to them, and in the event that the employees' direct benefits replaced less than 60 percent of their final pay, they would receive a long term disability benefit up to that level. There is little reason to centrally fund a long term disability benefit, as it simply involves an additional layer of administration.

The administration of the benefit, instead, could work as follows. Once employees are notified by the Social Security Administration that they qualify for disability benefits, and know the amount of the benefit, they could present the notification to their agency employers. Agency payroll offices would carry out the calculations and pay a long term disability benefit until the disabilities end, the employees reach age 62, or die. At age 62 the long term disability benefit would end, and a retirement benefit would be payable from the staff retirement system that, together with Social Security benefits, would replace at least 60 percent of former earnings.

If, as is often the case, the Social Security determination did not occur before five months the agency would continue the employee at 60 percent of pay, the same as for a partial or temporary disability. After the Social Security determination is made the retroactive Social Security payments would be made to the federal agency. Since there is no financial incentive for an employee to apply for Social Security in the first two years, the agency should first encourage the employee to apply and, if that fails, insist on a determination.

Summary of Findings

This paper outlines the kinds of problems that have to be faced regarding the management of non job-related disabilities, if the federal employee benefit package is integrated with the Social Security System. These are the basic findings:

- The Social Security definition of disability is acceptable for use in regard to determining whether or not employees are totally and permanently disabled. A modification of the current civil service definition of disability is acceptable for use in connection with both temporary and partial disabilities.
- Social Security disability benefits, as supplemented by long term disability payments, together provide the optimum method of replacing the appropriate amount of income for employees who become totally and permanently disabled.
- Current federal benefit mechanisms are not adequate for replacing income for seriously disabled employees during the five full months it takes to complete a mandatory waiting period for Social Security disability benefits, or for providing financial support to employees who need lengthy intervals of convalescence.

These general approaches appear to be the most practical means of fitting the federal employee benefit package and Social Security disability benefits together:

--The amount of sick leave at full pay that is provided to employees could be reduced, and carryover of such leave should end.

--A new benefit, extended sick leave, is needed to bridge the income replacement gap that occurs because of the Social Security disability waiting period, and to assist employees who have temporary disabilities that require lengthy periods of convalescence or partial disabilities that do not qualify the employee for Social Security. Extended sick leave should be payable, for example, at 75 percent of pay during the first five months of absence and 60 percent thereafter until two years of absence have elapsed.

--Emphasis is needed on placing employees who cannot perform their current jobs, but still are capable of useful service, in other jobs. The combined efforts of agency medical officers, personnel staffs, and rehabilitation specialists are needed to help partially disabled employees return to the work force. The focus initially should be on placement in jobs with comparable pay rates and opportunities for advancement. If that is not feasible, saved pay for two years should be available to ease the transition to placement in lower paying jobs.

--A new benefit, long term disability, is needed for employees who qualify as totally and permanently disabled under the Social Security disability system. Social Security disability benefits and long term disability benefits, together, should replace, for instance, 60 percent of employees' former pay. This benefit should be payable until the disability ends, employees reach age 62, or die.

--Federal employing agencies should administer and pay sick leave, extended sick leave, and long term disability benefits.

--Employees who have not accepted job offers from their agencies and who have not qualified for Social Security disability benefits after two years of absence would terminate their employment status, but retain any vested rights they may have earned to deferred annuities.

--The Office of Personnel Management should continue to be responsible for governmentwide policy making, program evaluation, and medical standards, but should have no operational functions in connection with the administration of the system of replacing income for employees who become disabled for non job-related reasons. Time on the disability rolls will be credited as service for retirement benefits. When persons who are receiving Social Security disability benefits and long term disability benefits reach age 62, the Office of Personnel

Management should pay a retirement benefit to take the place of the long term disability benefit. Social Security benefits and retirement benefits, together, should replace at least 60 percent of employees' former pay.

--The Merit System Protection Board should be responsible for dealing with appeals from employees that arise from agencies' administration of the system.

The results of implementing such approaches are:

--A system of managing non job-related disabilities that yields comparable income replacement to federal employees with temporary, or permanent and total disabilities, as are provided to their counterparts in the private sector.

--A higher benefit to employees with total and permanent disabilities than is currently provided, better protection for most employees with temporary disabilities and a reasonable benefit for federal employees with partial disabilities.

--A reduction in the number and the cost of employees who leave federal service because of total and permanent disabilities.

--An emphasis on returning employees with partial disabilities to work status as soon as possible.

--A system which places the full range of program administration responsibilities with employing agencies so that they can better manage the federal work force.

One basic design of a disability income replacement system thus is:

- (1) Sick leave at full pay during the initial phase of a disability;
- (2) Extended sick leave payable at 75 percent of basic pay during the balance of the first five months of absence, and 60 percent thereafter until two years have elapsed;
- (3) Social Security disability benefits plus a long term disability supplement for totally and permanently disabled employees that is payable at 60 percent of basic pay until termination of disability, age 62, or death; and
- (4) Termination of employment rights, except for any vested entitlements to deferred annuities, for any employees who have not accepted offers of employment or qualified for Social Security disability benefits within two years.

The design features are summarized below:

New employees are credited with six days of sick leave at full pay during their first year of employment, and ten days each year thereafter. There is no carryover of sick leave at full pay from year to year. Employees could accrue extended sick leave, however, at the rate of one hour for each four hours in a pay status, to a maximum of two years of extended sick leave.

Employees who have been on sick leave for nine months and have not qualified for Social Security disability receive fitness for duty medical examinations. If they are fit for their former jobs, they would return to them.

After employees exhaust sick leave at full pay, they are eligible for an extended sick leave benefit. The benefit is initially payable after five days of absence, in the event employees have less than that amount of sick leave at full pay credited to them. Initial and periodic medical certificates are needed to support claims for benefits. The benefit is payable at 75 percent of basic pay during the balance of the first five months of absence, and 60 percent thereafter until two years have elapsed.

If employees are not medically fit to return to their former jobs, but are capable of performing useful service in other jobs, the agency medical officers, personnel staffs, and rehabilitation specialists would identify existing or restructure new positions, whenever possible, with comparable rates of pay that the employees can perform. Any vacant positions of this type must be offered to the employees. Employees may apply for any positions with rates of pay that are lower than those of their former positions and if qualified and selected are eligible for saved pay for two years.

Employees may apply for Social Security disability benefits after five months of absence, or any time thereafter. If qualified, employees would receive Social Security benefits and long term disability benefits payable by their agencies which, in combination, would replace 60 percent of their former pay.

If employees have not accepted employment with their agencies after 24 months of absence, their extended sick leave benefit terminates, as do their employment rights, with the exception of any vested rights to a deferred annuity.

Illustration of Benefits

Assume employees in mid-career have used little sick leave so that they would have accrued five months sick leave under the current system and the full two years extended sick leave under the new system. If they become disabled the percent of pay continued under the current and new systems, including Social Security, would be as follows. The temporary disability is assumed to last two months.

	Permanent		Partial		Temporary	
	<u>Current</u>	<u>New</u>	<u>Current</u>	<u>New</u>	<u>Current</u>	<u>New</u>
First two weeks	100%	100%	100%	100%	100%	100%
Third week through second month	100	75	100	75	100	75
Third through fifth month	100	75	100	75	Recovered	
Sixth month through second year	37	60	37	60	"	
After second year	37	60	37	0	"	

Another employee early in his or her career has accumulated one month of sick leave under the current system and would have accumulated twelve months extended sick leave under the new system. If he or she becomes disabled as above the replacement ratio under each of these systems would be as follows:

	Permanent		Partial		Temporary	
	<u>Current</u>	<u>New</u>	<u>Current</u>	<u>New</u>	<u>Current</u>	<u>New</u>
First two weeks	100%	100%	100%	100%	100%	100%
Third and fourth weeks	100	75	100	75	100	75
Second month	37*	75	37*	75	0	75
Third through fifth month	37*	75	37*	75	Recovered	
Sixth month through first year	37*	60	37*	60	"	
Second year	37*	60	37*	0	"	
After second year	37*	60	37*	0	"	

*Zero if less than five years civilian service.

Part IV SURVIVOR BENEFITS

Previous sections have described the benefits available for employees who work a full career and then retire or suffer a disability that temporarily or permanently stops a career. Another event to be insured against is the possibility of death before or after retirement leaving dependents who have relied on the employees for support. There is a strong trend toward families with two workers but even in these cases there is a sharp reduction in income if one of the two earners dies.

Social Security recognizes the needs of survivors by paying substantial benefits if the employees or annuitants die. In the typical case of retired workers with spouses, Social Security benefits are continued at 67 percent of the predeath annuity if either person dies. If employees die, typical survivor families will receive 50 percent to ~~to~~ 100 percent of the annuity that would have been paid to the workers and spouses after the worker retired. Substantial benefits are also paid if there are children or if there are dependent parents. An important exception is that widows without children will not receive a benefit until after age 60.

Historically, private sector plans were geared to providing benefits for employees leaving to the employees the responsibility of providing survivor benefits through insurance. Employees often could elect actuarially equivalent survivor benefits to continue benefits to widow(er)s in the event of death after retirement but the reduction in initial benefit was usually so large (20 percent or more to continue half of the benefit) that few employees elected it. Most large employers also provided life insurance benefits. The employers apparently believed that life insurance plus Social Security benefits met their responsibility to families of young employees.

Since 1974, ERISA has required that the survivor benefit be the primary benefit even though employees can elect single life annuities. There has also been a trend among large employers to subsidize survivor benefits with the reduction set at 10 percent or less as it is for federal survivors benefits. We assume that the ERISA requirement and the trend to subsidies will greatly increase the prevalence of survivor benefits from private sector retirement systems. These benefits continue to be limited to survivor of employees' who die with retirement eligibility.

Another common benefit has been a bridge between the zero benefit payable to survivors of young employees and the full survivor benefit available to retirees. Without some sort of bridge an undesirable anomaly would occur. If employees age 60 die, for instance, their families would not receive any benefit. But if they had retired the day before, under early retirement, the spouse would have received a lifetime benefit. The bridge built into many private plans assumes that if deceased employees had been eligible for early retirement, and could have predicted their death, they would have retired the day before death and elected a survivor benefit. These plans, therefore, provide such survivor benefits to anyone who dies in service after becoming eligible for an immediate retirement benefit.

Federal Employee Benefits

Since federal employees have not been covered by Social Security their benefits have been improved periodically to replicate the survivor benefits available under Social Security.

Children will generally receive a flat dollar benefit which is pegged to the cost-of-living. Currently each child with a surviving parent will receive \$1,900 a year and a child without a surviving parent will receive \$2,300 a year. The total children's benefit for a family is limited to three times the single child amounts. Children are paid through age 18 unless they (1) continue in school or (2) become disabled in which case they are paid as long as they live.

The precedent and subsequent marital conditions are similar under Social Security and the federal employee system. CSR requires that a widow must have been married to the decedent for a year and Social Security requires nine months of marriage. Both systems will continue benefits if the widow remarries after age 60. One significant difference is that Social Security will pay full benefits to former divorced wives (but not husbands) who have been married to the decedent at least 10 years. A similar provision has been proposed for federal employees but with the benefit split between the current and former wives.

Benefits are available under the federal life insurance program which, if elected, combine with retirement benefits to provide substantial benefits to the family of a deceased employee or annuitant. Regular insurance will provide a one time benefit equal to one years' pay plus \$2,500 and additional optional insurance of \$10,000 can be purchased.

Accommodating Survivor Benefits to Social Security

Many of the survivor benefits under the federal retirement system were developed to mirror Social Security. For instance, there is probably not another retirement system in the United States with a children's benefit or a substantial benefit for young widows. One obvious way to integrate, therefore, is to eliminate these benefits if Social Security coverage is extended to federal employees. This solution is particularly attractive for children since Social Security provides higher benefits. It would, however, cut benefits substantially for many future widows and widowers.

To emulate typical private sector benefits, and current post-retirement coverage, the new package should continue survivor benefits to annuitants. It would also be good practice to use the common private sector practise of bridging into this benefit from an earlier age to avoid a sharp increase in benefits at the time the employee first becomes eligible for early retirement.

The level of benefits is another important consideration. Typical private practice is to offer a 50 percent survivor benefit as the primary option. When combined with the 67 percent continuation of benefit under Social Security, the widow or widower can expect to receive 55 percent to 65 percent of the annuitants' income. The federal program now continues about 60 percent of the annuitants' income to the widow.

Therefore, using a 50 percent continuation for the new integrated federal benefit would be consistent with private sector practice and current federal benefits.

A final consideration is who should pay for the benefit. Social Security has no reduction in benefit to the annuitant since the full cost of survivor benefits is included in the overall tax rate. Consequently, there is no need for an election of a survivor benefit under Social Security. The federal system has a nominal reduction of 2 1/2 percent below \$3600 and a more significant reduction of 10 percent above \$3600 annuity. Neither reduction is close to the full actuarial reduction of 20 percent to 25 percent that would be required in most cases if the primary annuitants were really paying for the survivor benefits.

At the other end of the spectrum, for younger employees, it would be consistent with the private sector to rely exclusively on Social Security benefits. There are, however, two strong arguments against this. First, this would be a substantial cut in benefits over current levels for young widows and widowers who do not have a family. Secondly, the federal life insurance benefits are far below comparability with the private sector, both in the level of benefits and the proportion of the cost paid by the employer. The model benefits in this paper continue 20 percent of the employees' pay, but only for two years.

Eligibility for Benefits

When federal survivor benefits were first introduced in 1939 they were only payable as long as the widow did not remarry. In 1966, the remarriage condition was limited to those under age 60 to allow older annuitants to marry without losing benefits since there was evidence that many older annuitants were living together without marrying because of the annuity situation. Changing marital patterns in the last decade have introduced even more complications. Among these are the increasing trends toward both spouses working, avoidance of marrying for tax reasons and serial monogamy. The latter occurrence has led to changes in the Social Security system to pay benefits to certain divorced women, and many similar proposals for changes to federal annuities. We anticipate that these trends will be recognized in federal benefit modifications eventually and do not attempt to address these issues here. The proposed benefit will, however, be provided to spouses only on condition that they would have been married to the annuitant at least a year at the time of death. The benefits will be continued irrespective of future marital conditions of the survivors since ERISA requires that the benefit be independent of subsequent marital status.

As with retirement and disability, we are presenting possible integrated models for illustration and as a basis for pricing. The model relies more heavily on typical private sector practice than on current federal survivor benefits since the latter were developed largely to replicate Social Security coverage and the logic behind much of the survivor benefit structure, viz. children's benefits, will collapse if federal employees become covered by Social Security.

Possible Benefit Design

A separate survivor benefits system will be constructed and old-age survivor benefits will be added to the retirement system presented in Part II of this paper. There will be no benefits payable to children since Social Security benefits are always higher. Widows and widowers will receive benefits irrespective of subsequent marital status to conform to ERISA requirements.

The separate survivor system will pay benefits to widows and widowers of deceased annuitants or deceased employees who had worked at least 18 months immediately preceding death. This benefit will pay 20 percent of the employees' final salary to the widow or widower for two years.

If the decedent had been between ages 55 and 62, the widow or widower will receive the greater of the above amount or 50 percent of the retirement benefit that would have been paid if the employee had retired the day before death. If employees die between ages 51 and 55, survivors will receive an increasing percent of the retirement benefits starting with 10 percent at 51, and increasing 10 percent a year to 40 percent at age 54.

At the time annuitants become age 62, they will be able to elect a survivor benefit of 50 percent of their annuity in return for a reduction in annuity based on the current 2 1/2 and 10 percent formula. If the employees or annuitants die between ages 50 and 62, the benefits will be moved to the retirement system when the employee would have been eligible for early retirement. In any event, the 20 percent benefit will be paid from the survivor system for two years to survivors of eligible employees or annuitants but the total benefit in that two years period will be no more than the larger of the two formulae.

Illustrative benefits

The federal children's benefit will be dropped since the Social Security benefits are almost always greater. Sample replacement ratios are:

Income level	\$10,000	\$19,000	\$50,000
Current federal benefits			
One child	19%	10%	4%
Three or more orphans without parent	69%	36%	14%
New Social Security benefit			
One child	31%	22%	9%
Three or more children	72%	50%	21%

Young widow(er)s with children will usually get more under Social Security than they would with current federal benefits but young widow(er)s without children will get nothing. Therefore an additional benefit close to current federal levels is included but only for two years as the combined replacement rates will ~~will~~ be very high. Following are illustrative benefits for survivor families of widows and two children.

Income level	\$10,000	\$19,000	\$50,000
Current federal benefits			
While children receive benefits	59%	41%	29%
Widow(er) alone	21	21	21
New combined benefits			
First two years after death	99%	80%	46%
After two years while children receive benefits	72	50	21
After children grow up	0	0	0
After widow(er) reaches age 60	29	20	9

Benefits to widow(er) of annuitants will generally be higher than under the current system because of the 67% continuation of benefit under Social Security. The relative improvement in benefit will decrease as salary and service increase because of the income redistribution feature of Social Security. A widow(er) of an annuitant with 30 years service will receive the following benefits:

Income level	\$10,000	\$19,000	\$50,000
Current federal benefits			
	29%	29%	29%
New combined benefits			
- First two years	60%	47%	31%
- After two years	55%	44%	31%

Part V: HEALTH INSURANCE

Federal employees who retire on immediate annuities with at least five years of creditable service and enrollment under the Federal Employees Health Benefits (FEHB) Program for the five years of service immediately preceding retirement, or for all service since their first opportunity to enroll, may carry health benefits coverage into retirement, provided the annuities are sufficient to cover the required withholding. Annuitants may elect coverage for eligible family members. Elements of the FEHB Program, including benefits, premium rates, and choices among plans, are the same for annuitants as for active employees.

The Medicare portion of the Social Security Act establishes Health Insurance for the Aged and Disabled, consisting of Medicare Part A (hospital insurance), and Medicare Part B (supplementary medical insurance). Any individual over age 65 who is eligible to receive Social Security benefits is automatically covered under Part A at no current cost to the protected person. Dependents, age 65 and over, are eligible as well as disabled persons who have been receiving Social Security disability benefits for at least 24 consecutive months. Part B is open to any individual covered under Part A, and anyone over age 65 who opts to purchase coverage through a monthly premium shared by the government and enrollees.

If FEHB enrollees are eligible for Medicare coverage, double coverage limitations in FEHB contracts require co-ordination of benefits. The double coverage provision is intended to prevent payment of benefits which exceed expenses. Therefore, one plan will pay its benefits in full and one plan will pay a reduced amount which, when added to the benefits from both plans for the same covered expenses, will not exceed 100 percent of reasonable and customary expenses. Medicare, designated by law as the primary carrier, provides its benefits in full at all times. In most circumstances, enrollment in a FEHB plan complements services covered by Medicare so that enrollees with dual coverage have 100 percent reimbursement of most health care costs.

Goal

If universal Social Security coverage is mandated, federal annuitants will be eligible for both portions of Medicare. Our goal should be to assure a comprehensive health care package for both enrollees and their dependents at a financially feasible premium level. The new system should have benefits similar to those in the current federal system and in typical private sector plans.

Major Considerations

There are two major areas of structural difference, eligibility and dependents' coverage, between the FEHB Program and Medicare. Federal civilian employees may continue their health benefits coverage into retirement. Survivor annuitants may continue enrollment if the deceased enrollee were covered under a Self and Family enrollment at time of death, if at least one family member is entitled to an annuity as a survivor of the deceased, and if the annuity is sufficient to meet the required withholding.

An individual is eligible for Medicare participation (Part A), regardless of working status, at age 65 if the individual has been covered under Social Security long enough to qualify for cash benefits, or if entitlement exists for railroad retirement benefits. Dependents, age 65, also are eligible. Those persons who have been receiving disability benefits under the Social Security system for two years are also eligible, as are those covered under the chronic kidney disease program. The latter two benefit categories do not include dependent coverage. All persons entitled to Part A benefits are enrolled automatically in Part B. Anyone 65 or over, regardless of entitlement rights under Social Security, may elect Part B.

Under the FEHB Program, enrollees may opt to cover eligible family members by electing Self and Family coverage. Eligible family members include the enrollee's spouse, unmarried children under age 22, or over age 22 but incapable of self support. Under Medicare, only a dependent spouse of an eligible Medicare participant may be covered upon attainment of age 65.

Coverage Gaps

If the FEHB Program is designed to interact with Medicare to achieve full health benefits coverage, protection gaps will arise under the following circumstances: for spouses, under age 65, of enrollees eligible for both FEHB and Medicare; for dependent children, eligible for FEHB, but not Medicare; and for all dependents of those eligible for Medicare by virtue of two years on the Social Security disability rolls.

A factor for consideration in choosing a health benefits alternative is the effect on the overall premium structure. First, the equity of charging enrollees for two systems that, to a large extent duplicate benefits, is questionable. Under the current system, although FEHB benefits are not paid to the extent that Medicare benefits are paid for the same services, FEHB annuitants and employees who are covered by Medicare pay the same FEHB premium as those who do not have Medicare coverage. Thus, although such employees and annuitants pay the full premium that is charged for comprehensive FEHB coverage, these employees and annuitants receive only complementary benefits.

Second, since the payments for health care services covered under the FEHB program are reduced by the amount of Medicare benefits that are also payable, there is a substantial savings to the FEHB Program. Because of the nature of the experience rating, the savings effected by a FEHB plan because of its nonduplication of Medicare benefits result in a somewhat lower standard premium for all employees and annuitants enrolled in that plan and for the Government.

Alternatives

If universal Social Security coverage is achieved, three alternative approaches to health care protection suggest themselves: discontinue all FEHB program coverage at age 65, relying totally on Medicare protection; retain the present method of annuitants participating in the FEHB Program with benefit payment co-ordinated with Medicare; or establish a Medicare supplement plan under the FEHB Program available to those over age 65. The proposals should be evaluated for their impact on eligibility, dependents' coverage, effect on premium rate structure, level of benefits available, and ease of administration.

There are two basic arguments favoring discontinuing FEHB coverage at age 65. First, claims administration would be easier because of the elimination of benefit co-ordination between FEHB plans and Medicare. Second, there would be a reduction in the total government cost, as there would be fewer participants.

The arguments against this approach involve four concerns. First, there would be a loss of comprehensive health coverage now available by participation in both programs. Second, it would be a significant break with practices of the current system, which allows continuation of coverage in retirement. Third, there could be a possible increase in premium level for remaining FEHB participants. And, fourth, there probably would be negative psychological and political impact overall. If this approach were adopted, it would be necessary to amend the law to establish a special enrollment category for otherwise covered dependents under age 65, and to remove Medicare recipients from eligibility.

The second approach is to retain the present method of annuitants participating in the FEHB Program with benefit payments co-ordinated with Medicare. The four advantages of this approach are: dependents' coverage would not be affected; there would be a decrease in premium level for all FEHB participants; a good benefit level would be available by co-ordination of the two programs; and administration of the double coverage limitation by FEHB plans would be facilitated, as anyone 65 or over would have Medicare coverage. But, the disadvantage is that enrollees would pay both the FEHB premium and the Medicare B premium, which would not be received favorably by them. If this approach were adopted, it would be necessary to negotiate benefit provisions with FEHB plans that would more adequately supplement Medicare benefits than do the current benefit packages.

The third basic approach is to establish a mandatory Medicare supplement plan under the FEHB Program for those over age 65 and other eligible Medicare recipients. Principal advantages of this approach are that: the benefit level could be designed to supplement major gaps in Medicare coverage, and thereby offer fuller protection for those over age 65; Medicare supplement plans in the private sector show premium rates as low as Medicare Part B, and together they pay a majority of annuitants' health care costs; the premium for a Medicare supplement plan would provide benefits in excess of Medicare coverage; and there would be ease of administration for participating carriers, as all enrollees in the Medicare supplement plan would be known Medicare enrollees.

There are three disadvantages. There possibly could be an increase in premium level for the remaining FEHB participants and for the government. There would be increased agency administrative responsibility in maintaining sole enrollment files for the majority of annuitants. And, there would be a loss of plan identification and connection for those who would have no alternative but to join the Medicare supplement plan.

If the third approach were adopted, it would be necessary to amend the law to establish a special enrollment category for otherwise covered dependents under age 65, since supplemental coverage would not be adequate without Medicare coverage. And, of course, the law would have to be amended to permit inclusion of a Medicare supplement plan.

Summary of Findings

Of the three approaches, our model includes establishment of a Medicare supplement plan that would be available to all enrollees and dependents eligible for Medicare coverage. The benefits would be structured, as much as is economically feasible, specifically to fill Medicare coverage gaps. Medicare supplement plans, usually provided at no cost to the insured, are the norm for large employers in the private sector.

The Medicare supplement plan could be established on an indemnification basis, similar to the current government-wide and employee organization sponsored plans. Additionally, many HMO-type plans now participating under the FEHB Program offer special Medicare supplement plans to their Medicare population. FEHB enrollees in HMO plans could be given the option upon attaining Medicare coverage of entering the HMO's supplement plan. Therefore, 65 year old FEHB enrollees could retain the option of choosing between pre-paid health care, or indemnification for medical expenses.

The Medicare supplement plan could be offered free of charge to the enrollee. Dependents under age 65, who would otherwise be eligible to receive health benefits under the FEHB Program by virtue of the relationship between the enrollees, could enroll in any FEHB plan for which the enrollees had been eligible. For eligible family members under age 65, the enrollees would pay the Self Only rate for one dependent, the more common occurrence, and the Self and Family rate for two or more dependents.

The most advantageous arrangement for instituting a FEHB Medicare supplement plan would be for the Government to self underwrite it and contract out claims administration. Claims processing service to enrollees, timely under the current system, could be guaranteed through contract specification. The result for those covered by Medicare who opt for a supplemental plan would be comprehensive health coverage for the price of the Medicare B premium, currently \$8.20 per month, per enrollee.

Part VI: SUMMARY OF BENEFITS AND COSTS

So far this paper has presented possible integration approaches for separate parts of the benefit package. This section brings the various elements of the fringe benefit program together in order to present a cost analysis. A companion paper presents detailed cost and projection tables. Summary data from that paper is presented here to show the relative cost of the benefit systems.

One of the desideratum presented at the end of part I was that the modified system should not cost the taxpayers more than the current system. The taxpayer's cost is the difference between the total cost of benefits and the employees' contributions.

A full analysis would include the cost of benefits and contributions under Social Security which will be done by the Social Security Administration. In the meantime, it is assumed that there will be some savings to the taxpayer through including federal employees under Social Security. The result of this assumption is that it is valid to develop modified federal benefit systems that cost slightly more than the current system using the expected savings from Social Security to meet the increased direct cost. If it turns out that the Social Security savings are less than the increased cost of the new federal benefits the formulae can be modified to reduce the direct federal cost.

Cost Measure

There are many economic and actuarial methods for measuring the comparative cost of different income replacement systems. The comparison paper presents full analysis of the change in normal cost, the change in actuarial liability, total annual projections and individual benefit comparisons. The measure chosen to summarize costs herein is the normal cost.

The "normal cost" in this case is the entry-age normal cost as used by the Board ~~Board~~ of Actuaries of the Civil Service Retirement system. This is the percentage of pay that must be contributed for a typical group of new employees to provide their own and their survivors' benefits.

The retirement, disability and survivor benefits involve projections of costs over the next fifty to seventy-five years. To do this, assumptions as to future actuarial and economic conditions had to be made. The assumptions are those used by the Board of Actuaries in their 1977 valuation of the retirement system modified as needed to measure the particular benefits. The most critical assumptions are the long term interest rate of 7 percent a year, the inflation rate of 6 percent and the general salary increase factor of 6.5 percent a year.

The long term retirement, disability and survivor benefit costs were combined with the employers' contribution under Social Security and Medicare; the change in health benefit costs; and the change in sick leave costs to present the total picture.

Options

Three of the options are based on the retirement formula variations from Part I. The offset variation is the offset formula with related benefits and conditions as defined in Part II coupled with the integrated disability system from Part III, the survivor benefit system from Part IV, and the health insurance system from Part V. The step-rate variation is the step-rate formula from Part I combined with the other systems. The add-on variation is the add-on formula from Part I combined with the other systems.

Finally, we have analyzed the cost of a minimum change variation. As the name suggests this is the current system changed as little as needed to integrate with Social Security. The retirement formula is back-loaded as now but at a lower level to allow for the new Social Security benefits. Specifically the retirement formula is 1.4 percent a year for the first five years service; 1.5 percent for the next five years, and 1.75 percent for years over ten with a maximum of 80 percent of high three pay. The benefit is offset by the same amount as the offset formula - 1.25 percent times service times the PIA after age 62 with an equal supplement before age 62. Contributions are 7 percent over the FICA base but nothing below that base since the Social Security/Medicare contribution will eventually exceed 7 percent. Since the contributions are small there is no forfeiture for refund of contributions but only a reduction in the benefit value. As with the other formulae, the eligibility conditions are unchanged but there is no new reduced benefit for employees retiring between 55 and 62 with five to twenty-nine years service.

The minimum change formula has a separate disability benefit but the conditions and amount are the same as in the current system. The benefit is fully offset by Social Security before age 62 and by 1.25 percent times the Social Security benefit times service after age 62. There is no change in the sick leave system. The survivor benefits are the current levels and conditions fully offset by any Social Security benefit before age 62 and by the regular formula offset after age 62. There are no children's benefits. Health benefits are the same as those in the other new systems since there would be little objection to and no loss of equity in integrating ~~grating~~ health benefits and Medicare.

Cost Analysis

The total normal cost of the current system is 36.0 percent of payroll. Allowing for the 7 percent employee contribution the employer cost is 29.0 percent of payroll. This is the benchmark against which changes must be measured.

The total cost of the retirement, survivor and disability benefits of the minimum change system is 24.9 percent of payroll. When offset by employee contributions equivalent to .5 percent the net cost to the employer is 24.4 percent of payroll. This cost must be increased by the employers' contribution to Social Security and Medicare and offset by the health benefits savings due to full coverage by Medicare. With these adjustments the total employer cost is 30.8 percent or 1.8 percent of payroll more than the current system.

The total cost of retirement, disability and survivors benefits for the offset formula is 26.3 percent of payroll with no employee contribution to offset the cost. The other cost items are those included with minimum change with a further reduction for the change in the sick leave program. This leads to a total cost of 32.1 percent of payroll or 3.1 percent more than the current program.

Analysis of the step rate and add-on formulae is the same as for the offset formulae. This leads to a total cost for the step rate formulae of 30.1 percent or 1.1 percent more than the current program and a total cost for the add-on of 31.0 percent or 2.0 percent more than currently.

The cost of the income replacement systems described in this paper range from 1.1 percent to 3.1 percent higher than the current system. We assume that this income will be less than the equivalent savings the Social Security system would experience through coverage of federal employees. If the Social Security savings turns out to be less than these differences the benefits can be modified to result in no total increased cost to the taxpayer.