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# REPORT TO THE CONGRESS



## Federal Retirement Systems: Key Issues, Financial Data, And Benefit Provisions B-179810

BY THE COMPTROLLER GENERAL  
OF THE UNITED STATES

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COMPTROLLER GENERAL OF THE UNITED STATES

WASHINGTON, D.C. 20548

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To the President of the Senate and the  
Speaker of the House of Representatives

This is our report summarizing benefit provisions,  
financial data, and key issues relating to Federal retire-  
ment systems.

We made our review pursuant to the Budget and Account-  
ing Act, 1921 (31 U.S.C. 53), and the Accounting and Audit-  
ing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to selected Com-  
mittees of the Congress and to the Director, Office of  
Management and Budget; the Chairman, Civil Service Commis-  
sion; the Secretary of Defense; the Secretary of State;  
the Chief Justice of the United States; the Chief Judge,  
United States Tax Court; the Chairman, Board of Governors  
of the Federal Reserve System; the Chairman, Tennessee  
Valley Authority; and the Commissioner, District of  
Columbia.

A handwritten signature in cursive script that reads "James B. Stacks".

Comptroller General  
of the United States

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ABBREVIATIONS

CPI	Consumer Price Index
DOD	Department of Defense
P&F	policemen and firemen's
TVA	Tennessee Valley Authority

D I G E S T

WHY THE REVIEW WAS MADE

The U.S. Government operates 10 retirement systems which provide coverage to approximately 5.9 million Federal civilian and military personnel. During fiscal year 1973 the total outlay by these systems was \$9.1 billion.

GAO made this review to provide the Congress with a summary of financial information and other basic data on retirement systems which cover essentially all Federal personnel and employees of the District of Columbia.

FINDINGS AND CONCLUSIONS

Financing of retirement systems

No uniform practices or principles exist on financing Federal retirement systems. Some systems are financed on a contributory basis and some on a noncontributory basis, some provide for fully funding benefits as they accrue, some provide for partial funding, and others are completely unfunded. (See p. 25.)

The unfunded liability of Federal retirement systems was an estimated \$201 billion at the end of fiscal year 1973. Of this amount approximately two-thirds was attributable to the unfunded military retirement system and one-third to the funded civil service system. (See p. 38.)

The unfunded liability of the civil service retirement system continues to increase, even though it operates on a fully funded basis, primarily because of unfinanced cost-of-living annuity adjustments.

The Civil Service Commission has estimated that each cost-of-living adjustment adds a minimum of \$2.1 billion to the system's unfunded liability.

Financial reporting

The Congress does not receive complete or consistently developed current and projected financial information on Federal retirement systems.

Although the Department of the Treasury does prepare an annual report for the Congress on the contingent liabilities of Government retirement systems, the report is not complete and the data is not developed on a consistent basis but by differing actuarial methods. (See pp. 25 and 26.)

Federal retirement policy

There is no overall Federal retirement policy to provide objectives and principles to guide the development and improvement of Government retirement systems. Lacking such a coherent, coordinated policy, the benefit structures of Federal

retirement programs have evolved and developed in a piecemeal fashion. One consequence of this type of development has been the creation of duplicate and inconsistent benefits. (See p. 36.)

There is no centralized mechanism for monitoring development of Federal retirement systems' benefit structures, interrelation of benefit systems, or the cost of these systems.

#### RECOMMENDATIONS

We are making no recommendations for action by the executive branch because the issues involved require overall policy determination by the Congress.

#### MATTERS FOR CONSIDERATION BY THE CONGRESS

If Government retirement systems are to develop, collectively, on some consistent and financially sound basis, it is essential that the Congress assume a major role

in establishing and controlling an overall retirement policy. Therefore, GAO suggests that the appropriate Committees of the Congress hold hearings to consider in depth the issues raised in this report.

The principal purpose of these hearings should be to develop legislation that would establish:

- An overall Federal retirement policy which provides objectives and principles to guide future development and improvement of Government retirement systems.
- A centralized mechanism for monitoring the development, interrelationship, and cost of Federal retirement systems, and to improve the system for reporting financial data.

The Office of Management and Budget and those agencies responsible for administering existing retirement systems should be requested to submit proposals for consideration in these hearings.

## CHAPTER 1

### INTRODUCTION

A retirement system is basically a program for providing a pension to retired employees for life. The amount of the pension is generally based on either length of service, salary, or some combination of both. Although a life pension is considered the primary benefit of any system, retirement systems also frequently provide subsidiary benefits for death, disability, and termination.

The 1966 report to the President by the Cabinet Committee on Federal Staff Retirement Systems pointed out that a retirement system functions to serve both management and employee objectives. The report stated:

"\* \* \*Operating managers, rightly, look to Government's staff retirement systems to--

Keep appointment and promotion opportunities open, so that a force of the vigor and initiative required to accomplish the agency's assignments efficiently and economically can be maintained;

Help maintain the Government's competitive employment position and reduce expensive employee turnover;

Induce able and still productive men and women to remain in the service through the peak of their productivity;

Ease adjustments in the size or composition of the force as required to accommodate to the impact of automation, occupational shortages and surpluses, retrenchment, change in mission, and other dislocating conditions;

Be reasonably flexible and administratively usable.

"\* \* \*Today's employees look to staff retirement systems to--

Open employment and promotion opportunities for them during their working years, through orderly removal from the work force of older employees of higher rank;

Preserve their retirement protection when they change jobs, locations, or employers;

Allow them some measure of personal choice about when they retire, but protect them against involuntary retirement;

Provide an adequate income to them (and their families) after employment ceases, whether separation from employment is owing to age, disability, involuntary separation, death, or their own choice;

Maintain the purchasing power of the post-retirement income;

Cost them little;

Be equitable and just."

This report presents a summary of financial data and benefit provisions and illuminates critical issues relating to retirement systems which provide coverage for essentially all Federal civilian and military personnel and employees of the District of Columbia. In fiscal year 1973 the total outlay by these systems was approximately \$9.1 billion. Accordingly, proper reporting to the Congress on the financial status of Federal retirement systems is essential for policy and legislative deliberations and for an overall understanding of the present and projected financial condition of the United States.

The following retirement systems are included in this report:<sup>1</sup>

Civil service	Federal Reserve Board
Uniformed services	Tennessee Valley Authority
Foreign Service	D.C. police and firemen
Federal judiciary	D.C. teachers
U.S. Tax Court judges	D.C. judges

We have prepared a comparative summary of information on the general benefits, coverage, and financial status of these systems and included a general discussion of the actuarial process by which the financial condition of a retirement system is determined.

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<sup>1</sup>Not included, due either to the unavailability of information or relative size, are those systems which provide coverage for employees of the Central Intelligence Agency, Presidents of the United States, and Comptrollers General of the United States.

We have reviewed several recent studies of Federal retirement systems and provided information on the status of the studies' recommendations. These studies have raised a number of issues related to basic policies, financing, administration, and benefits. Many of the major issues are yet to be resolved. For this reason and in view of the number of personnel and the financial obligation of the Government under these systems, we have prepared this report.

This report is not meant to duplicate previous studies which examined these issues in considerable depth but rather to illuminate the still unresolved issues and questions they posed.

## CHAPTER 2

### FEDERAL STAFF RETIREMENT SYSTEMS

#### CIVIL SERVICE RETIREMENT SYSTEM

The civil service retirement system was established in 1920 and is administered by the Civil Service Commission. The most recent amendatory legislation was enacted in 1974. The legal authority for the system is contained in title 5, chapter 83, of the United States Code.

Membership includes approximately 90 percent (2.6 million) of all civilian employees of the Federal Government and of the District of Columbia. The major exceptions include civilian employees covered by other systems discussed in this report and temporary or intermittent employees. Participation is compulsory except for Members of Congress and certain congressional employees who may elect participation.

There are five types of retirement provided by the system--optional, deferred, mandatory, disability, and discontinued service (involuntary separation). To be eligible for any type of retirement annuity, there are two general requirements (1) the employee must have completed at least 5 years of Federal civilian service and (2), except for disability retirement, an employee must have been employed under the system for at least 1 year within the 2-year period immediately preceding the separation on which the retirement is based.

The minimum age and service requirements for the various types of retirement are presented in table 1 (p. 21). However, certain law-enforcement personnel, firefighters, and air traffic controllers may be entitled to an unreduced immediate annuity at lower age and service requirements than those indicated in the table.

With certain specific exceptions, retirement credit is given for both civilian and military service performed for the Federal Government, including service for the District of Columbia. Credit is also allowed for any unused sick leave at the time of retirement.

The general formula for computing a retiring employee's annual annuity is based on the highest average annual pay for any 3 consecutive years and on the number of years and full

months of service, including unused sick leave. A percentage of the "high-3" average salary is multiplied by years of service, as follows: 1.5 percent times the first 5 years of service, 1.75 percent times the next 5 years of service, and 2 percent times all service over 10 years. The results are then added to produce the basic annual annuity. An alternate formula is used to produce a higher annuity when an employee's high-3 average salary is less than \$5,000.

An employee's basic annuity cannot exceed 80 percent of his high-3 average salary. However, annuity in excess of the 80 percent that is produced by crediting unused sick leave is payable.

Death benefits in the form of survivor annuities are also provided under the system. These benefits are paid automatically in the event that an employee dies before retirement and after completing at least 18 months of service. Death benefits are also paid to the survivors of a retired employee if such coverage was elected at time of retirement.

Both retirement and survivor annuities are automatically increased whenever the Consumer Price Index (CPI) rises at least 3 percent over the CPI of the last adjustment and remains up for 3 consecutive months. Such annuity increases are equal to the percentage rise in the CPI rounded to the nearest one-tenth of one percent, plus an additional one percent.

#### Financing of civil service system

The system is financed on a contributory basis and all benefits are paid from the Civil Service Retirement and Disability Fund, which the Department of the Treasury holds in trust.

Deposits to the fund are mainly from (1) employee contributions at the rate of 7 percent of basic salary, (2) agency contributions in amounts which match their employees', (3) payments by the Treasury for interest on the system's unfunded liability and for the cost of allowing credit for military service, (4) appropriations to finance increases in the system's unfunded liability, (5) interest earned on fund assets invested in securities of the United States.

The Government is obligated to make the deposits referred to in (3) and (4) above by title 5, section 8348, United States Code, as amended (Public Law 91-93, approved October 20, 1969). This law requires that the Treasury transfer to the fund, at the end of each fiscal year, amounts equivalent to (1) interest on the unfunded liability computed for that year and (2) that portion of annuities paid during the year which are attributable to credit allowed for military service. Under the law 10 percent of such amounts were to be transferred beginning in fiscal year 1971 and gradually increased so that 100 percent will be transferred in fiscal year 1980 and each year thereafter.

The law also authorizes appropriations to the fund, in 30 equal annual installments, including interest, to finance the unfunded liability created by any new legislation which authorizes (1) new or liberalized benefits payable from the fund, except annuity increases arising from a change in the CPI, (2) extension of coverage to new groups of employees, or (3) increases in pay on which benefits are computed. (The Civil Service Commission estimates that every \$1 pay increase adds \$1.95 to the system's unfunded liability.) In fiscal year 1973 these requirement installments totaled \$737,470,000.

#### Unfunded liability of civil service system

The system's unfunded liability was approximately \$68.7 billion at the end of fiscal year 1973. This amount represented an increase of \$5.2 billion over the preceding fiscal year. Approximately 54 percent (\$2.8 billion) of the increase is attributed to increased annuities due to a rise in the CPI. The remaining \$2.4 billion is attributed to the unpaid portion of the interest on the unfunded liability, which, as mentioned above, will be fully paid beginning in fiscal year 1980.

On the basis of the January 1974 CPI adjustment, the Civil Service Commission estimates that each one percent increase in annuities due to a rise in the cost of living adds \$527 million to the unfunded liability. Since the minimum increase provided by the system is 4 percent, it can be concluded that each time annuities are adjusted due to a rise in the CPI an estimated \$2.1 billion is added to the unfunded liability. This growth in the unfunded liability will continue so long as the cost of living continues to rise and

until some provision is made to fund the consequent increases in annuities.

Provisions of civil service system  
applicable to Members of Congress  
and congressional employees

Although most of the provisions of the civil service retirement system apply to all participants, certain modifications have been made with respect to Members of Congress and congressional employees. These provisions concern participation, contribution rates, retirement-eligibility requirements, and benefit formulas.

As mentioned above, participation in the system is elective for Members of Congress and congressional employees. Participating Members of Congress contribute 8 percent of their basic salary and congressional employees contribute 7.5 percent.

The general requirements for retirement eligibility differ for Members of Congress only in that (1) their retirement must be based upon a separation from service as a Member of Congress and (2) their last 5 years of service must be covered by either contribution deductions from pay or a deposit to the retirement fund.

The benefit formula for computing the annual annuity of a retiring Member of Congress is based on high-3 average salary and the number of years and full months of service. A percentage of the high-3 average salary is multiplied by years of service as follows: 2.5 percent times years of service as a Member of Congress, military service while on leave of absence as a Member of Congress during wartime or a national emergency, other military service but not to exceed 5 years, and congressional employee service; 1.75 percent times years of other service which, when added to years of 2.5 percent service, do not exceed a total of 10 years; 2 percent times all remaining years of service.

The benefit formula for computing a retiring congressional employee's annual annuity is the same as that for Members of Congress except that 2.5 percent service is limited to years as a congressional employee, military service not exceeding 5 years, and any service as a Member of Congress.

## UNIFORMED SERVICES RETIREMENT SYSTEM

Some aspects of the present day system for military retirement are traceable to laws enacted before the Civil War era. However, the current system is based primarily on portions of the Army and Air Force Vitalization and Retirement Equalization Act of 1948, approved June 29, 1948, and the Career Compensation Act of 1949, approved October 12, 1949. The legal authority for the uniformed services system is contained, generally, in title 10, sections 1201 to 1455; title 42, sections 212 and 212a; title 14, chapters 11 and 13; and title 33, chapter 17, United States Code.

Participation is automatic for members of the uniformed services, which includes the Army, Navy, Air Force, Marine Corps, Coast Guard, the commissioned officers corps of the Public Health Service and of the National Oceanic and Atmospheric Administration.

The Department of Defense administers the system for the Army, Navy, Air Force and Marine Corps; while the Coast Guard, Public Health Service, and the National Oceanic and Atmospheric Administration systems are administered by the Department of Transportation; the Department of Health, Education, and Welfare; and the Department of Commerce, respectively.

There are three basic types of retirement provided by the system--optional (based on years of service), mandatory (depending upon member's age, rank, promotion record, and length of service), and disability. Service creditable toward retirement is generally granted for all active duty and, with some modification, for reserve duty.

The general benefit formula for non-disability (optional or mandatory) retirement provides 2.5 percent of basic pay at time of retirement multiplied by years of creditable service. A minimum of 20 years' service is required for non-disability retirement. The maximum benefit payable under the system is 75 percent of terminal basic pay.

The general formula for disability retirement provides a benefit equal to the percentage of a member's disability multiplied by his basic pay on the date of retirement. A minimum of 30 percent disability is required, and the maximum benefit payable is 75 percent of terminal basic pay.

The System's Survivor Benefit Plan provides survivor annuities in the event a member dies after retirement. Participation in the plan is voluntary at time of retirement. The plan also provides survivor benefits if a member dies while on active duty and had completed a minimum of 20 years' creditable service. However, such benefits are limited and paid in conjunction with the Veterans Administration's Dependency and Indemnity Compensation program. The program also provides survivor benefits if a member who has completed less than 20 years creditable service dies while on active duty.

The system provides for cost-of-living adjustments in retired pay and survivor annuities on the same basis as discussed under the civil service retirement system. (See p. 5.)

#### Financing of uniformed services system

This system is financed on a "pay-as-you-go basis." That is, there is no fund from which benefits are paid. The Government finances all benefits through annual appropriations authorized by the Congress.

Since the system is operated on a pay-as-you-go basis, its entire liability is unfunded. The Department of Defense estimated that the unfunded liability was \$130 billion at the end of fiscal year 1973.

#### FOREIGN SERVICE RETIREMENT AND DISABILITY SYSTEM

The Foreign Service retirement and disability system was established by the Rogers Act (the Act of May 24, 1924, 43 Stat. 140). The act has since been amended and the current provisions are contained in title 22, sections 1061 to 1121, United States Code.

Participation is mandatory and includes all Foreign Service officers, Foreign Service staff officers and employees who have completed 10 years of continuous service in the Foreign Service, all Foreign Service information officers, Foreign Service Reserve officers with unlimited tenure, and persons who have served as chief of mission (ambassador or minister) for 20 years or more.

There are five types of retirement under the system--voluntary, involuntary, disability, deferred, and mandatory. Retirement credit is granted for all Federal and District of

Columbia service. Credit for military service and unused sick leave is also generally granted in accordance with provisions similar to those of the civil service retirement system.

The retirement annuity is computed by multiplying 2 percent of the participant's high-3 average salary by years of creditable service. The maximum benefit cannot exceed 70 percent of a participant's high-3 average salary, excluding any portion attributable to credit for unused sick leave.

The system provides survivor benefits automatically (after 18 months of service) before retirement and by election at time of retirement.

Provisions for adjusting annuities on the basis of a rise in the CPI are essentially the same as those discussed under the civil service retirement system.

#### Financing of Foreign Service retirement system

All payments authorized under this retirement system are paid from the Foreign Service Retirement and Disability Fund, which the Treasury maintains as a special fund.

Deposits to the fund come from sources similar to those outlined under the civil service retirement system. Participants contribute 7 percent of their basic salary and the Foreign Service makes a matching contribution. The Government is obligated to make deposits to the fund on the same basis as under the civil service system--Public Law 91-93.

At the end of fiscal year 1973 the system's unfunded liability was estimated at \$727 million.

#### FEDERAL JUDICIARY RETIREMENT SYSTEM

The origins of a retirement system for Federal judges can be traced to 1869. The present system operates under the authority of title 28, sections 371 to 376, of the United States Code and provides coverage for Supreme Court justices and Federal judges appointed by the President of the United States under various provisions of title 28, part I, United States Code. Coverage by the system is automatic except for participation in the survivors annuity plan which is by election. (

The types of retirement under this system are (1) retirement from active service, (2) resignation from active service, and (3) disability retirement. The difference between resigning and retiring from active service is that in the latter instance the judge retains his office. Retired justices and judges may be assigned to perform such judicial duties as they are willing and able to perform.

The retirement benefit is the full salary of the office from which the participant retires and is paid for life. However, the benefit for judges who retire from active service is the current salary of their retained office while the benefit for judges who resign is fixed at their salary at time of resignation.

Retirement credit is granted only for Federal judicial service. However, other Federal service is creditable in computing benefits under the system's survivor annuity plan. The system does not provide cost-of-living adjustments for either retirement or survivor benefits.

#### Financing of Federal judiciary system

Retirement benefits are financed from funds appropriated by the Congress for Federal judiciary salaries. The elective survivor benefit plan is financed jointly by participants and the Government. Participants contribute 3 percent of their salary both before and after retirement. All contributions are deposited in the Treasury to the credit of the judicial survivors annuity fund. The Administration Office of the United States Courts submits annually to the Office of Management and Budget an estimate of expenditures and appropriations necessary for the maintenance and operation of the fund and such supplemental and deficiency estimates as may be required from time to time.

The unfunded liability of the judicial survivors annuity system was an estimated \$14,657,000 as of December 31, 1971. No determination has been made of the unfunded liability attributable to retirement benefits accrued under the system.

#### U.S. TAX COURT JUDGES RETIREMENT SYSTEM

The retirement system for judges of the U.S. Tax Court was established in 1953 and a survivor annuity plan was added

to the system in 1961. The legal authority for the system is contained in title 26, sections 7447 to 7448, of the United States Code.

The system provides coverage for judges appointed to the U.S. Tax Court and consists of both a contributory and non-contributory plan.

The noncontributory plan provides retirement and disability coverage to participating judges. Participation in the plan is by election, which once made becomes irrevocable. Judges who do not elect to participate are automatically covered by the civil service retirement system.

Retirement credit is granted only for service as a judge of the Tax Court and as a member of the former U.S. Board of Tax Appeals. However, under the survivor annuity plan additional credit may be granted for other Federal civil service and military service.

A judge's retirement benefit is the current salary of his former position multiplied by the ratio of his years of judicial service to 10 years. However, in no case may the benefit exceed the current salary of the former position.

Unless ill or disabled, a retired judge is subject to recall to perform judicial duties for a period not to exceed 90 days a year. During periods of recall the retired judge receives the full pay of an active judge in lieu of his retirement pay.

The contributory plan provides benefits to surviving widows and dependent children. Participation may be elected any time before or after retirement.

There is no provision under this system for adjusting either retirement or survivor benefits based on increases in the cost of living.

#### Financing of Tax Court judges system

Retirement and disability benefits are financed through annual congressional appropriations. The survivor benefit plan is financed in part by participant contributions (both before and after retirement) at the rate of 3 percent of annual salary and in part by congressional appropriations.

Contributions and appropriations for the survivor annuity plan are deposited in the Tax Court Judges Survivors Annuity Fund, which the Treasury holds in trust. Annual estimates of the expenditures and appropriations necessary for the maintenance and operation of the survivor annuity fund are submitted to the Office of Management and Budget.

The unfunded liability of the survivors benefit plan was determined to be approximately \$173,000 as of June 30, 1973. The unfunded liability of the noncontributory plan has not been determined recently.

## RETIREMENT PLAN FOR EMPLOYEES OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

The retirement system for employees of the Board of Governors of the Federal Reserve System was established in 1944 to provide Board employees financial benefits comparable to those granted under the civil service retirement system. The benefit and contribution provisions are essentially the same as under the civil service system and are revised whenever civil service retirement law is amended.

### Financing of Federal Reserve Board system

Creditable service is granted for all Federal Reserve System service, including service with the Federal Reserve banks, and generally any service creditable under the civil service system.

The system is financed on a contributory basis. Employees contribute 7 percent of basic pay and the employer contributes the difference between what employees contribute and the "normal cost" (see p. 55) of the plan. The system had an unfunded liability of \$715,000 as of December 31, 1972.

## TENNESSEE VALLEY AUTHORITY RETIREMENT SYSTEM

The Tennessee Valley Authority (TVA) retirement system was established in 1939. The system provides coverage to permanent TVA employees. Membership is compulsory, except for those who enter TVA from a Government position in which they had civil service retirement coverage. Members of this system have also had social security coverage since 1956.

There are five types of retirement provided by the system--optional, deferred, disability, mandatory, and involuntary separation. Retirement credit is granted for all TVA service for which required contributions have been made. Credit is granted for military service performed between two contiguous periods of coverage under the TVA system provided the member makes contributions to cover such service. Credit is also allowed for any unused sick leave at time of retirement.

The normal retirement benefit is composed of two amounts, an annuity and a pension. The annuity is the employee financed portion of the benefit and may be either fixed or variable depending on election. The amount of the annuity is based on the member's total contributions and age at retirement. The pension is the employer financed portion of the benefit and amounts to 1.3 percent of the member's high-3 average annual salary multiplied by years of service and reduced by a social security offset.

In the event of a member's death before retirement, the system provides for an automatic refund of contributions and a lump sum payment to the member's designated beneficiary. However, in lieu of this automatic provision a member, while in service, may elect to provide a life annuity for his designated beneficiary. In the event of a member's death after retirement, survivor benefits are provided only if such coverage was elected at the time of retirement.

The TVA financed portion of retirement and survivor benefits has been adjusted each year since 1968 for cost-of-living increases. An increase is made in January following each year that the CPI average exceeds by at least 1 percent the average for the last year on which an increase was based. The benefit adjustment is the percent increase in the CPI, up to 5 percent in any 1 year. The system has no provision for cost-of-living adjustments of employee financed benefits.

#### Financing of TVA system

The system is financed by employee and employer contributions. The standard member contribution is 6 percent of basic pay but may be more depending on the member's date of entry into the system or less if the member elects to reduce his contributions by 3 percent on that part of his salary not in excess of the social security base. The employer makes contributions in the amount required to cover the administrative cost of operating the system and to provide all benefits other than those derived from members' contributions. The amount of the employer's contributions is determined by an annual actuarial valuation and consists of a normal contribution and a contribution to amortize any unfunded liability.

The system had an unfunded liability of \$100 million at the end of fiscal year 1973.

## D.C. JUDGES RETIREMENT SYSTEM

The D.C. judges retirement system was established in 1964. The legal authority for the system is contained in title 11, sections 1561 to 1571, of the D.C. Code.

Membership is compulsory and includes any person with "judicial service" as a judge in the District of Columbia Court of Appeals, the Superior Court, or the former Juvenile Court of the District of Columbia, District of Columbia Tax Court, Police Court, Municipal Court, Municipal Court of Appeals, or District of Columbia Court of General Sessions.

The types of retirement under the system are (1) optional, (2) mandatory, (3) disability, and (4) deferred.

Creditable service includes all judicial service, military service, and any service allowable under the civil service retirement system.

The annual annuity for any type of retirement consists of two parts, but may in no case exceed 80 percent of the member's final salary. One part is based entirely on judicial service and is that percentage of a member's basic salary at time of retirement equal to the ratio of his years of judicial service to 30 years. The second part is based on all other creditable service and is computed under the civil service retirement formula, except that salary at time of retirement is substituted for average high-3 salary.

Participation in the system's survivor annuity plan is voluntary. Participants contribute 3 percent of their annual salary while serving as a judge and the same percentage of their annual annuity during retirement. Survivor benefits are contingent on the member having completed at least 5 years of service and are provided to both a surviving spouse and dependent children.

Retirement and survivor annuities are adjusted for cost-of-living increases in the same amount and at the same time as annuities under the civil service retirement system.

## Financing of D.C. judges system

The system is financed by member contributions and District of Columbia appropriations. Members contribute 3.5 percent of basic salary for retirement benefits and an additional 3 percent for participation in the survivor annuity plan. All contributions and appropriations are deposited in the District of Columbia Judicial Retirement and Survivors Annuity Fund, which the Treasury holds in trust. Whenever the balance in the fund is insufficient to pay the current obligations of the system the District of Columbia is required to appropriate to the fund amounts necessary to pay the current obligations. The system had estimated unfunded liability of \$8.5 million at the end of fiscal year 1973.

## D.C. POLICEMEN AND FIREMEN'S RETIREMENT AND DISABILITY SYSTEM

The D.C. policemen and firemen's retirement and disability system was established in 1916. The legal authority for the system is contained in title 4, sections 501 to 539, of the D.C. Code.

Membership is compulsory and extends to members and officers of the D.C. Metropolitan Police, D.C. Fire Department, Executive Protective Service, and the U.S. Park Police. Also nonclerical employees of the U.S. Secret Service who have 10 years' service directly related to the protection of the President of the United States may elect coverage under this system.

There are three types of retirement under the system-- optional, disability, and mandatory retirement at age 60 (at the employer's discretion).

Creditable service is granted for service with the D.C. Metropolitan Police Force, D.C. Fire Department, U.S. Park Police, Executive Protective Service, U.S. Secret Service, and certain military service. Additionally, credit may be purchased for all Federal and D.C. service performed before appointment to a position covered by this system.

The optional retirement benefit formula provides an annual annuity of 2.5 percent of basic pay at time of retirement multiplied by years of creditable service, except that years of police or fire service in excess of 20 are computed at the

rate of 3 percent. The maximum annuity is 80 percent of basic pay at time of retirement; however, annuity in excess of the 80 percent that is produced by crediting unused sick leave is payable.

Survivor benefits are provided automatically regardless of whether death occurs before or after retirement. In the event of a member's death survivor annuities are paid to both the surviving spouse and dependent children. In addition to any survivor annuity if a member's death occurs in the performance of duty each survivor receiving more than one-half support from the member will receive an equal share of a \$50,000 lump-sum payment.

Retirement annuities are adjusted whenever there is a salary increase for D.C. police and firemen. In the event of such an increase, retirement annuities are recomputed on the basis of the new pay schedules. Survivor annuities are adjusted for cost-of-living increases in the same amount and at the same time as annuities under the civil service retirement system.

#### Financing of D.C. police and firemen's system

The system is financed essentially on a pay-as-you-go basis. There is no trust fund maintained and member contributions of 7 percent of basic pay are deposited in the U.S. Treasury to the credit of the District of Columbia. Current benefits are paid out of the general revenue of the District of Columbia, part of which comes from the District's annual appropriation from the U.S. Government. The Government appropriates monthly, as necessary, funds to reimburse the District for benefit payments to or for members of the U.S. Park Police, Executive Protective Service, and members of the U.S. Secret Service who are or may become entitled to benefits under the system. The amount of the monthly appropriation is the excess of such benefit payments over the contributions of the respective members. At the end of fiscal year 1973 the system had an estimated unfunded liability of \$564 million.

#### D.C. PUBLIC SCHOOL TEACHERS RETIREMENT SYSTEM

The D.C. public school teachers retirement system was established in 1920. The legal authority for the system is contained in title 31, sections 701 to 746, of the D.C. Code.

Membership is compulsory and extends to all public school teachers employed by the District of Columbia and certain other educational employees of the D.C. Board of Education.

The types of retirement provided under the system are voluntary, involuntary, deferred, disability, and mandatory. A member must have completed at least 5 years of eligible service to qualify for any type of retirement. Eligible service refers only to actual service in the D.C. public schools under a temporary, probationary, or permanent appointment. Creditable service is granted for all service from the date of original probationary appointment as a teacher in the D.C. public school system. Creditable service may also be granted, upon deposit to the retirement fund, for (1) public school service outside the District of Columbia, not to exceed 10 years, (2) continuous temporary service in the D.C. public schools immediately before a probationary appointment, (3) service with the Federal Government or D.C. government, and (4) a leave of absence without pay for educational purposes. Credit is also allowed without deposit, for certain military service and educational leave of absences with partial pay.

The retirement benefit formula provides an annual annuity which is the larger of (1) 1.5 percent of average salary earned over a period of 3 consecutive years of eligible service or (2) 1 percent of average salary, plus \$25, times years of service not to exceed 5; plus the larger of (1) 1.75 percent of average salary times years of service in excess of 5 but not exceeding 10 or (2) 1 percent of average salary, plus \$25, times years of service in excess of 5 but not exceeding 10; plus the larger of (1) 2 percent of average salary times years of service in excess of 10 or (2) 1 percent of average salary, plus \$25, times years of service in excess of 10.

The system's provisions for survivor benefits are basically the same as under the civil service retirement system, with one major exception. In the event a member dies and is not survived by a spouse or any dependent children an annuity may be paid to the member's surviving dependent parents.

The system's provisions for adjusting retirement and survivor annuities for increases in the cost of living are the same as under the civil service system.

### Financing of D.C. teachers system

The system is financed by member contributions at the rate of 7 percent of basic pay and an annual appropriation by the District of Columbia. The annual appropriation is an amount necessary to maintain the system's fund balance at approximately its June 30, 1969, level or the amount necessary to maintain all members' equity in the fund, whichever is greater. All contributions and appropriations are deposited in the U.S. Treasury to the credit of the Teachers' Retirement and Annuity Fund. The system had an estimated unfunded liability of \$263 million at the end of fiscal year 1973.

# GENERAL RETIREMENT AND BENEFIT PROVISIONS

(THIS TABLE SUMMARIZES ONLY THE BASIC PROVISIONS OF EACH SYSTEM.)

TABLE 1

RETIREMENT SYSTEM GENERAL PROVISIONS	CIVIL SERVICE RETIREMENT SYSTEM	UNIFORMED SERVICES	FOREIGN SERVICE	FEDERAL JUDICIARY	U.S. TAX COURT JUDGES	FEDERAL RESERVE BOARD	TENNESSEE VALLEY AUTHORITY	D.C. POLICE AND FIREMEN	D.C. TEACHERS	D.C. JUDGES
<p><b>A. IMMEDIATE ANNUITY IS PAYABLE FOR THE FOLLOWING TYPES OF EMPLOYMENT SEPARATION WHEN THE INDICATED AGE AND SERVICE REQUIREMENTS ARE SATISFIED:</b></p> <ol style="list-style-type: none"> <li>1. VOLUNTARY SEPARATION AND IMMEDIATE ANNUITY</li> <li>2. INVOLUNTARY SEPARATION AND IMMEDIATE ANNUITY</li> <li>3. GENERAL BENEFIT FORMULA</li> </ol> <p><b>B. DEFERRED ANNUITY IS PAYABLE FOR THE FOLLOWING TYPES OF EMPLOYMENT SEPARATION WHEN THE INDICATED AGE AND SERVICE REQUIREMENTS ARE SATISFIED:</b></p> <ol style="list-style-type: none"> <li>1. VOLUNTARY SEPARATION AND DEFERRED ANNUITY</li> <li>2. INVOLUNTARY SEPARATION AND DEFERRED ANNUITY</li> <li>3. GENERAL BENEFIT FORMULA</li> </ol> <p><b>C. BENEFIT PROVISIONS:</b></p> <ol style="list-style-type: none"> <li>1. RETIREMENT RIGHTS FIRST BECOME VESTING OF NORMAL RETIREMENT</li> <li>2. SURVIVOR RIGHTS</li> <li>3. GENERAL BENEFIT FORMULA</li> </ol> <p>ANNUAL ANNUITY FOR SURVIVING</p> <ol style="list-style-type: none"> <li>1. WIDOW</li> <li>2. WIDOWER</li> <li>3. CHILDREN</li> </ol> <p>PROVISIONS FOR ADJUSTING ANNUITIES FOR COST-OF-LIVING INCREASES</p> <ol style="list-style-type: none"> <li>1. RETIRE ANNUITIES</li> <li>2. SURVIVOR ANNUITIES</li> </ol>	<p><b>A. 1. AGE 42 AND 5 YEARS SERVICE, OR AGE 40 AND 10 YEARS SERVICE AS A MEMBER OF CONGRESS, AGE 35 AND 20 YEARS SERVICE AS A MEMBER OF CONGRESS, THE ANNUITY IS REDUCED IF UNDER AGE 60</b></p> <p><b>2. AGE 70 AND 15 YEARS SERVICE BUT NOT APPLICABLE TO PARTICIPATING MEMBERS OF CONGRESS</b></p> <p><b>3. ANY AGE AND 5 YEARS SERVICE</b></p> <p><b>4. AGE 50 AND 20 YEARS SERVICE HOWEVER, THE ANNUITY IS REDUCED IF UNDER AGE 55 OR UNDER AGE 60 FOR MEMBERS OF CONGRESS</b></p> <p><b>B. 1. BEGINS AT AGE 42 IF AT LEAST 5 YEARS OF COVERED SERVICE HAD BEEN COMPLETED</b></p> <p><b>2. SAME AS B. 1 ABOVE</b></p> <p><b>C. 1. RETIREMENT RIGHTS FIRST BECOME VESTING OF COVERED SERVICE</b></p> <p><b>2. BEGIN AFTER 18 MONTHS OF COVERED SERVICE</b></p> <p><b>3. HIGHEST AVERAGE SALARY EARNED DURING ANY 3 CONSECUTIVE YEARS OF SERVICE MULTIPLIED BY THE SUM OF 3 PERCENT TIMES FIRST 5 YEARS OF SERVICE, AND 2 PERCENT PERCENT TIMES NEXT 5 YEARS OF SERVICE, AND 2 PERCENT TIMES ALL YEARS OF SERVICE OVER 10 FORMULA MAXIMUM \$30 PER YEAR EXCLUDING CREDIT FOR UNUSED SICK LEAVE (SEE TEXT FOR CONGRESSIONAL BENEFIT FORMULA)</b></p> <p><b>4.45. SUBJECT TO A GUARANTEED MINIMUM, 55 PERCENT OF SPOUSE'S EARNED ANNUITY IF DEATH OCCURS BEFORE RETIREMENT AND, UPON DEATH, 55 PERCENT AFTER RETIREMENT</b></p> <p><b>6. VARIES DEPENDING ON THE EXISTENCE OF A SURVIVING PARENT</b></p> <p><b>7.88. YES (BASED ON CPI)</b></p>	<p><b>A. 1. ANY AGE AND 20 YEARS SERVICE</b></p> <p><b>2. VARIES DEPENDING ON MEMBER'S AGE, RANK, PROMOTION RECORD, AND LENGTH OF SERVICE</b></p> <p><b>3. NO AGE OR SERVICE REQUIREMENTS</b></p> <p><b>4. NOT APPLICABLE</b></p> <p><b>B. 1.82. NOT APPLICABLE</b></p> <p><b>C. 1. DISABILITY RETIREMENT RIGHTS BEGIN IMMEDIATELY</b></p> <p><b>2. BEGIN AFTER 20 YEARS ACTIVE SERVICE, HOWEVER, VARYING PERCENTAGES OF MEMBER'S LENGTH OF SERVICE:</b></p> <p><b>3. 2 PERCENT OF BASIC PAY AT TIME OF RETIREMENT MULTIPLIED BY YEARS OF SERVICE</b></p> <p><b>4.45. SAME AS UNDER CIVIL SERVICE C. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000</b></p>	<p><b>A. 1. ANY AGE AND 20 YEARS SERVICE</b></p> <p><b>2. VARIES DEPENDING ON MEMBER'S AGE, RANK, PROMOTION RECORD, AND LENGTH OF SERVICE</b></p> <p><b>3. NO AGE OR SERVICE REQUIREMENTS</b></p> <p><b>4. NOT APPLICABLE</b></p> <p><b>B. 1. BEGINS AT AGE 60 IF AT LEAST 5 YEARS OF SERVICE HAD BEEN COMPLETED</b></p> <p><b>2. SAME AS B. 1 ABOVE</b></p> <p><b>C. 1. SAME AS UNDER CIVIL SERVICE C. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000</b></p>	<p><b>A. 1. AGE 50 AND 20 YEARS SERVICE</b></p> <p><b>2. REGARDLESS OF LENGTH OF SERVICE, AMBASSADORS AND MINISTERS MUST RETIRE AT AGE 60</b></p> <p><b>3. ANY AGE AND 5 YEARS SERVICE</b></p> <p><b>4. ONLY FOR OFFICERS IN CLASSES 10, AND 30 AND 31</b></p> <p><b>B. NOT APPLICABLE</b></p> <p><b>C. 1. DISABILITY RETIREMENT RIGHTS BEGIN ACCRUAL IMMEDIATELY</b></p> <p><b>2. BEGIN AFTER 5 YEARS OF CONSECUTIVE YEARS OF SERVICE MULTIPLIED BY 2 PERCENT OF SERVICE, IS 70 PERCENT OF WHICH IS PAY AT TIME OF RETIREMENT</b></p> <p><b>4. (a) DEATH BEFORE RETIREMENT: 50 PERCENT OF HUSBAND'S EARNED ANNUITY AND A GUARANTEED MINIMUM OF \$2,500 PER YEAR EXCLUDING CREDIT FOR UNUSED SICK LEAVE</b></p> <p><b>(b) DEATH AFTER RETIREMENT: 50 PERCENT OF MEMBER'S EARNED ANNUITY AND A GUARANTEED MINIMUM OF \$2,500 PER YEAR EXCLUDING CREDIT FOR UNUSED SICK LEAVE</b></p> <p><b>5. NO PROVISION</b></p> <p><b>6. (a) WITH A SURVIVING PARENT: 50 PERCENT OF MEMBER'S EARNED ANNUITY AND A GUARANTEED MINIMUM OF \$2,500 PER YEAR EXCLUDING CREDIT FOR UNUSED SICK LEAVE</b></p> <p><b>(b) WITHOUT A SURVIVING PARENT: MAXIMUM OF \$480 PER CHILD</b></p> <p><b>7.88. YES (BASED ON CPI)</b></p>	<p><b>A. 1. AGE 45 AND 15 YEARS SERVICE OR AGE 70 AND 10 YEARS SERVICE</b></p> <p><b>2.44. NOT APPLICABLE</b></p> <p><b>3. NO AGE OR SERVICE REQUIREMENTS</b></p> <p><b>B. NOT APPLICABLE</b></p> <p><b>C. 1. DISABILITY RETIREMENT RIGHTS BEGIN ACCRUAL IMMEDIATELY</b></p> <p><b>2. BEGIN AFTER 5 YEARS OF CREDITABLE SERVICE FROM WHICH MEMBER'S OFFICE SALARY RECEIVED AT TIME OF RETIREMENT</b></p> <p><b>4. MEMBERS WHO ELECT TO PARTICIPATE IN SURVIVOR BENEFIT PLAN BETWEEN 6.25 AND 37.5 PERCENT OF ANNUAL SALARY EARNED DURING LAST 3 YEARS OF CREDITABLE SERVICE</b></p> <p><b>5. NO PROVISION</b></p> <p><b>6. (a) WITH A SURVIVING PARENT: 50 PERCENT OF MEMBER'S EARNED ANNUITY AND A GUARANTEED MINIMUM OF \$2,500 PER YEAR EXCLUDING CREDIT FOR UNUSED SICK LEAVE</b></p> <p><b>(b) WITHOUT A SURVIVING PARENT: MAXIMUM OF \$480 PER CHILD</b></p> <p><b>7.88. NO</b></p>	<p><b>A. 1. AGE 45 AND 15 YEARS SERVICE</b></p> <p><b>2. AGE 7</b></p>				

**TABLE II  
PARTICIPATION, COVERAGE, AND FINANCING**

PARTICIPATION AND COVERAGE	CIVIL SERVICE	UNIFORMED SERVICES	FOREIGN SERVICE	FEDERAL JUDICIARY	U.S. TAX COURT	FEDERAL RESERVE BOARD	TENNESSEE VALLEY AUTHORITY	D.C. POLICE AND FIREMEN	D.C. TEACHERS	D.C. JUDGES
PARTICIPATION IN: RETIREMENT COVERAGE SURVIVOR COVERAGE	<sup>g</sup> C A/E	C A/E	C <sup>b</sup> A/E	C E	C E	C A/E	C A/E	C A/E	C A/E	C E
EMPLOYEES COVERED AS OF JUNE 30: 1973 1972 1971	2,623,400 2,623,000 2,612,000	3,288,628 3,365,986 3,814,602	5,800 5,687 5,668	503 456 447	16 13 16	<sup>e</sup> 1,074 <sup>c</sup> 1,067 <sup>c</sup> 1,040	14,779 14,269 13,739	6,378 7,619 6,357	8,498 6,690 7,586	53 52 43
RETIREE AND SURVIVOR BENEFICIARIES AS OF JUNE 30, 1973	1,277,100	<sup>d</sup> 939,782	3,096	329	11	<sup>c</sup> 283	3,497	4,321	2,185	13
<b>FINANCING</b>										
CONTRIBUTIONS AS A PERCENTAGE OF ANNUAL SALARY: EMPLOYEE	<sup>e</sup> 7%	NONE	7%	<sup>f</sup> 3%	<sup>f</sup> 3%	7%	6%	7%	7%	<sup>3.5%</sup> FOR RETIREMENT COVERAGE <sup>3%</sup> FOR SURVIVOR COVERAGE
EMPLOYER	<sup>e</sup> 7%	ANNUAL APPROPRIATION	7%	<sup>g</sup> ANNUAL APPROPRIATION	<sup>h</sup> ANNUAL APPROPRIATION	(i)	(i)	ANNUAL APPROPRIATION	ANNUAL APPROPRIATION	ANNUAL APPROPRIATION

**LEGEND**

- C COMPULSORY PARTICIPATION
- E ELECTIVE PARTICIPATION
- A/E COVERAGE IS AUTOMATIC BEFORE RETIREMENT AND ELECTIVE AFTER RETIREMENT

**NOTES**

- <sup>a</sup> PARTICIPATION IS ELECTIVE FOR MEMBERS OF CONGRESS AND CERTAIN CONGRESSIONAL EMPLOYEES
- <sup>b</sup> SURVIVOR COVERAGE IS COMPULSORY FOR ALL RETIRED MALES
- <sup>c</sup> AS OF DECEMBER 31
- <sup>d</sup> AVERAGE NUMBER DURING FISCAL YEAR 1973
- <sup>e</sup> MEMBERS OF CONGRESS CONTRIBUTE 8 PERCENT AND CONGRESSIONAL EMPLOYEES 7.5 PERCENT
- <sup>f</sup> MEMBER CONTRIBUTES 3 PERCENT OF ACTIVE AND RETIRED PAY IF SURVIVOR COVERAGE IS ELECTED
- <sup>g</sup> THE GOVERNMENT MAKES AN ANNUAL APPROPRIATION TO PAY RETIREMENT BENEFITS AND TO MATCH MEMBER CONTRIBUTIONS FOR SURVIVOR COVERAGE
- <sup>h</sup> THE GOVERNMENT MAKES ANNUAL APPROPRIATION TO PAY RETIREMENT BENEFITS AND FOR DEPOSIT IN THE SURVIVOR ANNUITY FUND
- <sup>i</sup> EMPLOYER CONTRIBUTES THE DIFFERENCE BETWEEN TOTAL EMPLOYEE CONTRIBUTIONS AND THE NORMAL COST EMPLOYER CONTRIBUTES AN AMOUNT NECESSARY TO COVER ADMINISTRATIVE EXPENSES AND ALL BENEFITS NOT DERIVED FROM MEMBERS' CONTRIBUTIONS AND AN AMOUNT TO AMORTIZE THE UNFUNDED LIABILITY

## CHAPTER 3

### FINANCIAL STATUS

The methods of financing and funding Federal retirement systems vary substantially. Some systems are financed on a contributory basis (employer-employee) and others on a non-contributory basis (by employer only). Some systems provide for fully funding benefits as they accrue, some for partial funding, and others are unfunded and operate on a pay-as-you-go basis. The Cabinet Committee's study on Federal retirement systems (see p. 30) reported that there is disagreement over the extent to which the individual should share retirement costs and over how best to approach financing retirement systems. Methods of resolving these problems will have a tremendous impact on the administrative budget of the Government, as well as on the sense of security of hundreds of thousands of persons who depend on their retirement benefits for economic security.

The liabilities which accrue under Federal retirement systems represent a sizable financial commitment of the U.S. Government. Although this commitment is of a contingent nature, its consideration is essential in determining the current financial condition of the United States.

The Secretary of the Treasury is required by title 31, section 757f, United States Code to report to the Congress on the first day of each regular session the amount (both on an aggregate and on an individual basis) of the contingent and unfunded liabilities of the Federal Government, determined as of June 30th of the previous year. The law specifically requires that the report include data on the contingent and unfunded liabilities of Federal retirement systems. In addition, the Secretary is to include information on the assets specifically available as security for such liabilities, with Government securities noted separately, and all other assets available to liquidate such liabilities of the Government. The required data is to be presented in a complete and concise form with such explanatory material, including an analysis of the significance of the liabilities in terms of past experience and probable risks, as the Secretary determines to be necessary or desirable.

The need for such a report, prepared on a uniform basis, is expressed in the legislative history on section 757f by the statement that:

"Indeed, the committee recognizes a responsibility to make available in such a report - as clear and complete as possible - the overall financial condition of our Government. Such a report, consolidating information now available only in part (in many diverse reports) with information which is not now available at all, will enable Congress and the public to have a better understanding of the current fiscal needs of the Federal Government."

The legislative history also indicates that the report should include information regarding the actuarial status of Federal retirement systems on both a balance sheet basis and a projected source-and-application-of-funds basis. However, neither the legislative history nor the law itself prescribes what actuarial cost methods should be used in determining the liabilities of the systems and apparently has left this matter to the discretion of the Secretary of the Treasury.

Although the Secretary's report, in its present form, provides information on only 5 of the 10 retirement systems included in our review, it does include the principal ones. For each of these five systems the report presents total assets, total liability, and the unfunded liability. The legislation requiring this report recognizes the need for the visibility of the current financial status of retirement systems. However, in its present form, the report does not completely satisfy this need.

It lacks completeness because all Federal retirement systems are not included. It lacks consistency because different actuarial methods are used in computing the liabilities of the various systems. Because of this inconsistency it is not possible, as noted in the Secretary's report, to determine the total liability of all the systems combined. Further, it does not indicate for each system the assets specifically available as security for their liabilities nor other assets available to liquidate such liabilities. However, much of the problem with the report is a result of inconsistencies in the retirement systems themselves.

The following schedules present a summary of the financial data compiled on the retirement systems covered by this report. The data is presented as it was reported for the various systems. We have not audited the data. Schedules A, B, and C present for each system, current and projected figures on annual outlays, fund balances, and unfunded liabilities, respectively.

SCHEDULE A

ANNUAL OUTLAYS FOR FISCAL YEARS 1973, 1978, AND 1983 (note a)

<u>Retirement System</u>	<u>Actual</u> <u>FY 1973</u>	<u>Projection A</u> Assumes no changes beyond FY 1973 in work force, pay, or CPI		<u>Projection B</u> Assumes annual increases in pay and CPI at rates of 6 and 4 percent, respectively, but no changes in work force	
		<u>FY 1978</u>	<u>FY 1983</u>	<u>FY 1978</u>	<u>FY 1983</u>
(000 omitted)					
Civil service	\$4,523,296	\$ 6,981,000	\$ 9,588,000	\$ 8,927,000	\$16,110,000
Uniformed services	4,497,375	<sup>b</sup> 6,664,000	<sup>b</sup> 7,829,000	<sup>b</sup> 8,101,000	<sup>b</sup> 12,145,000
Foreign Service	30,754	42,500	55,800	52,000	86,900
Federal judiciary	7,455	(d)	(d)	(d)	(d)
U.S. Tax Court	229	260	319	(d)	(d)
Federal Reserve Board	<sup>c</sup> 1,400	(d)	(d)	(d)	(d)
Tennessee Valley Authority	14,266	(d)	(d)	(d)	(d)
D.C. police and firemen	32,596	41,000	48,300	53,100	83,300
D.C. teachers	16,901	22,400	25,700	27,500	40,100
D.C. judges	318	500	700	700	1,200
<b>Total</b>	<b>\$9,124,590</b>	<b>\$13,751,660</b>	<b>\$17,547,819</b>	<b>\$17,161,300</b>	<b>\$28,466,500</b>

<sup>a</sup>Outlays generally include annuity payments, refunds of contributions, transfer payments between systems, and administrative expenses.

<sup>b</sup>Includes annuity payments for all uniformed services except the U.S. Coast Guard and Commissioned Officers Corps of the National Oceanic and Atmospheric Administration and U.S. Public Health Service.

<sup>c</sup>Actual outlay for calendar year 1972.

<sup>d</sup>Not available.

Note: The data presented in this schedule was obtained from actuaries of the Department of Treasury, Department of Defense, Civil Service Commission, or actuarial reports on the respective retirement systems, or The Budget of the United States Government, Appendix, Fiscal Year 1975.

SCHEDULE B

FUND BALANCES AS OF JUNE 30, 1973, 1978, AND 1983

<u>Retirement System</u>	<u>Actual</u> <u>FY 1973</u>	<u>Projection A</u> Assumes no changes beyond FY 1973 in work force, pay, or CPI		<u>Projection B</u> Assumes annual increases in pay and CPI at rates of 6 and 4 percent, respectively, but no changes in work force	
		<u>FY 1978</u>	<u>FY 1983</u>	<u>FY 1978</u>	<u>FY 1983</u>
		(000 omitted)			
Civil service	\$31,079,512	\$48,903,000	\$67,315,000	\$57,780,000	\$95,375,000
Uniformed services	(a)	(a)	(a)	(a)	(a)
Foreign Service	69,355	118,100	257,100	159,700	445,000
Federal judiciary	8,192	(c)	(c)	(c)	(c)
U.S. Tax Court	376	451	532	(c)	(c)
Federal Reserve Board	<sup>b</sup> 31,436	(c)	(c)	(c)	(c)
Tennessee Valley Authority	363,497	(c)	(c)	(c)	(c)
D.C. police and firemen	(a)	(a)	(a)	(a)	(a)
D.C. teachers	59,273	61,700	61,700	61,700	78,500
D.C. judges	854	0	0	0	0
<b>Total</b>	<b><u>\$31,612,495</u></b>	<b><u>\$49,083,251</u></b>	<b><u>\$67,634,332</u></b>	<b><u>\$58,001,400</u></b>	<b><u>\$95,898,500</u></b>

<sup>a</sup>No fund exists. System is financed on a pay-as-you-go basis.

<sup>b</sup>As of December 31, 1972.

<sup>c</sup>Not available.

Note: The data presented in this schedule was obtained from actuaries of the Department of Treasury, Department of Defense, Civil Service Commission, or actuarial reports on the respective retirement systems, or The Budget of the United States Government, Appendix, Fiscal Year 1975.

SCHEDULE C

UNFUNDED LIABILITIES AS OF JUNE 30, 1973, 1978, AND 1983

<u>Retirement System</u>	<u>Actual</u> FY 1973	<u>Projection A</u> Assumes no changes beyond FY 1973 in work force, pay, or CPI		<u>Projection B</u> Assumes annual increases in pay and CPI at rates of 6 and 4 percent, respectively, but no changes in work force	
		FY 1978	FY 1983	FY 1978	FY 1983
(000 omitted)					
Civil service	\$ 68,677,000	\$ 76,077,000	\$ 76,185,000	\$ 85,351,000	\$103,331,000
Uniformed services	130,373,000	158,271,000	167,575,000	197,340,000	276,493,000
Foreign Service	727,000	872,700	938,200	798,600	1,021,900
Federal judiciary	(c)	(c)	(c)	(c)	(c)
U.S. Tax Court	d <sub>173</sub>	d <sub>287</sub>	d <sub>287</sub>	(c)	(c)
Federal Reserve Board	a <sub>715</sub>	(c)	(c)	(c)	(c)
Tennessee Valley Authority	100,000	(c)	(c)	(c)	(c)
D.C. police and firemen	564,234	763,800	897,800	816,400	1,283,600
D.C. teachers	263,319	335,800	392,800	347,600	530,900
D.C. judges	8,549	10,000	13,500	20,000	32,400
<b><sup>b</sup>Total</b>	<b>\$200,713,990</b>	<b>\$236,330,587</b>	<b>\$246,002,587</b>	<b>\$284,673,600</b>	<b>\$382,692,800</b>

<sup>a</sup>As of December 31, 1972.

<sup>b</sup>Because the unfunded liabilities of the various systems are not determined on a common basis, but by differing actuarial methods, it is not possible to present accurate totals. Therefore, the totals shown indicate approximate magnitude only.

<sup>c</sup>Not available.

<sup>d</sup>Unfunded liability applies to survivors annuity fund only.

Note: The data presented in this schedule was obtained from actuaries of the Department of Treasury, Department of Defense, Civil Service Commission, or actuarial reports on the respective retirement systems.

## CHAPTER 4

### RECENT STUDIES OF RETIREMENT SYSTEMS

There is a considerable amount of data available on Federal retirement systems. Most agencies having responsibility for a particular system make periodic studies either to determine their actuarial soundness or for other reasons. In addition, studies have been made in both the public and private sectors. Important studies of Government retirement systems made in recent years include (1) the Report to the President by the Cabinet Committee on Federal Staff Retirement Systems, (2) the Report to the Secretary of Defense by the DOD Retirement Study Group, and (3) the Report of the Commission on the Organization of the Government of the District of Columbia.

### CABINET COMMITTEE REPORT

The Cabinet Committee on Federal Staff Retirement Systems issued a report to the President dated February 15, 1966, that dealt principally with the civil service, military, and Foreign Service retirement systems but also included a considerable amount of data on other Federal retirement systems, social security, and on selected State and local government systems and private systems. The Committee was formed by the President's direction through a memorandum dated February 1, 1965, to review the structure of the Federal Government's staff retirement systems and to recommend necessary changes to make the systems fully effective and more equitable. According to the report, the study was a direct result of conflicting management interests and employee demands and the mounting pressure of unmet needs on both sides. The Committee was chaired by the then Director, Bureau of the Budget, Mr. Charles L. Schultz and included the Secretary of State; the Secretary of Defense; the Postmaster General; the Secretary of Labor; the Secretary of Health, Education, and Welfare; and the Chairman of the Civil Service Commission.

In a broad sense the issues that emerged from this study are:

- The urgent need of management to have some say in who stays and who goes in the work force versus the desires of employees to make their own retirement decision.

- The nature of some occupations that require a young, alert and physically superior work force that will retire earlier and perhaps go on to second careers versus the nature of other occupations that demand long careers to compensate for the investment in training and development.
- Benefit levels and the determination of those levels in an espoused pay comparability environment that as yet does not include all elements of compensation.
- The divergent methods of financing retirement systems some of which are contributory, noncontributory, fully funded, partially funded, and pay-as-you-go or annual appropriations.
- Formal retirement itself is a relatively new concept. Initially it was looked on as a gratuity, or reward, but now it is becoming viewed as more nearly a right, but the nature and dimension of the right are still unclear. Social security limits the amount a person can earn and collect in retirement, civil service does not; regular military officers receive a reduced annuity when they work for the Federal Government, but not when they work outside of it; reserve officers are not limited in either case.

The Committee concluded that Federal retirement systems are inconsistent with each other, complex, and costly but that there is some reason for this. These systems must meet particular employment situations not common to all. They attempt to balance divergent interests, accommodate conflicting values, and adjust to changing needs. They are costly because they are essentially generous. The Committee pointed out that it would be relatively simple to prescribe remedies if such things as traditions already established, entitlement already earned, and costs incurred and accruing were ignored. Because the Committee believed that these were hard realities, certain recommendations were not made and some that were made were recognized as being less than ideal solutions to significant problems. A summary of the Committee's recommendations and their current status is presented in Appendix I. (See pp. 41 to 49.)

REPORT OF THE DOD (DEPARTMENT OF DEFENSE)  
RETIREMENT STUDY GROUP

By memorandum dated January 28, 1972, the Secretary of Defense established a study group composed of representatives from each of the military departments; the Joint Chiefs of Staff; and the Offices of the Assistant Secretary of Defense-Comptroller, Manpower and Reserve Affairs, and Systems Analysis. The purpose of the study group was to provide additional information on the recommendations contained in the report prepared by the Interagency Committee on Uniformed Services Retirement and Survivor Benefits (July 1, 1971). Before submitting any conclusions or recommendations to the President on the military retirement system, the Secretary of Defense wanted added information on the prospective benefits, costs, and risks involved in the Interagency Committee's proposals. He was also interested in (1) a searching look at the fundamental premises included in the Interagency Committee report on the military retirement cost burden, (2) a delineation of the retirement system reforms that may be desirable apart from the overall financial cost, and (3) the principal options available, in addition to the Interagency Committee recommendations, in modifying the retirement system. The DOD retirement study group reported their findings, conclusions, and recommendations to the Secretary of Defense on May 31, 1972.

A primary issue from the Interagency Committee study and the DOD retirement study group report is one of deciding to what degree service retirees should share in the benefits of economic growth and of a rising standard of living. Inherent in that decision is a recognition that any requirement to change the present military retirement system must be viewed primarily from the perspective of personnel management and individual equity. The study group found that the present system causes management problems and results in inequities between members because the system has come to be used as a management tool as well as a means by which to provide for the retired.

Specifically, some of the defects the DOD study group found in the present military system were

--lack of vesting before 20 years of service,

- terminal pay inequity,
- less than competitive annuities for members with long service,
- compensation for service when rendered balanced against an equitable and competitive retirement system,
- inefficient method of retention for short-service personnel,
- lack of appropriate payment for separation short of retirement, and
- lack of proper incentive to continue on active duty after 20 years of service.

The study group concluded that

- changes in personnel management systems are required to attain the desired force profile and
- to obtain the desired personnel management systems, significant changes in the present compensation system will be required.

The study group's recommendations and their current status are presented in Appendix I. (See pp. 50 and 51.)

COMMISSION ON THE ORGANIZATION OF THE  
DISTRICT OF COLUMBIA

Public Law 91-405, approved September 22, 1970 (84 Stat. 845), authorized the establishment of the Commission on the Organization of the Government of the District of Columbia. Its purpose was to study and investigate all aspects of the District Government (except the courts) for the purpose of developing ways of promoting economy, efficiency, and improved service in the transaction of the public business. It consisted of 12 members; 4 appointed by the President (2 from the private sector, 2 from the executive branch of the Federal Government or the government of the District of Columbia) and 4 each appointed by the Senate and House

(2 to be from the House or Senate and 2 from the private sector). The Commission was organized in February 1971 and issued its report in March 1972. Included in the Commission's study was a review of the District's policemen and firemen's (P&F) and public school teacher's retirement systems.

The Commission's findings were:

1. The P&F retirement program and the Teachers Retirement and Annuity Fund are not financed on a sound actuarial basis. Specifically:
  - Neither receives periodic actuarial study.
  - The P&F program is unfunded and must rely upon appropriations from the District's General Fund. Potentially, it must compete each year with other programs for its share of the overall District budget, yet its obligations are fixed and established by law.
  - The Teachers Fund is also dependent to a large degree upon appropriated funds to meet its current obligations.
  - The present level of both systems' unfunded accrued liabilities is dangerously high.
  - There are no plans for either curtailing the rate of increase of these unfunded liabilities nor for their systematic reduction or amortization.
2. Present disability retirements under the P&F system, compared with optional retirements, appear severely disproportionate and have an adverse financial impact on the system. Also, there is a disparity between benefits of the P&F system and other District retirement systems.
3. The present organization and system for management and administration of these two retirement programs vary from those widely approved and practiced elsewhere.

4. The D.C. Government's financial reporting system does not adequately disclose the financial status of these two retirement systems on a regular and systematic basis.
5. Since the Treasury is required by law to conduct periodic actuarial studies of the D.C. teachers and D.C. judges retirement systems, it would follow that periodic studies should also be made of the P&F system.

The Commission's recommendations, based on these findings, and their current status are presented in Appendix I. (See pp. 51 to 53.)

## CHAPTER 5

### FEDERAL RETIREMENT SYSTEMS--ISSUES

There are several major issues relating to Federal retirement systems which deserve consideration. Most of these issues have been addressed in previous studies but remain unresolved. Although they concern various aspects of Federal retirement programs, such as benefits and financing, all of these issues center on the need for establishing an overall Federal retirement policy and a centralized mechanism for monitoring policy implementation.

#### NEED TO ESTABLISH A FEDERAL RETIREMENT POLICY

The Cabinet Committee recognized the need for establishing a Federal retirement policy which provides objectives and principles to guide the development and improvement of retirement systems. The Committee, in commenting on retirement systems, concluded that:

"They are inconsistent because each attempts to cope with a particular set of employment conditions specific to some but not applicable to all who serve the Nation's largest and most diversified employer; they must continue to meet those special conditions if retirement is to serve its purpose for those employees and make a positive contribution to Government's missions.

"They are complex because they attempt to balance divergent interests, accommodate conflicting values, and adjust to continually changing manpower needs and policies; they must continue to do so because that is what our democratic system demands of its public institutions.

"They are costly because, despite their various inadequacies, they are essentially generous; they must remain so if Government is to be a responsible employer.

"Moreover, they cannot be substantially modified without affecting the larger personnel and management systems of which they are an integral part."

In reaching these conclusions the Committee outlined a set of guiding objectives and principles and recommended to the President and the Congress that they be adopted. However, no action has ever been taken.

In the absence of a coherent coordinated Federal policy the benefit structures of Federal retirement programs have evolved and continue to develop in a piecemeal fashion.

#### Inconsistent and duplicate benefits

Several consequences of this type of development have been the creation of duplicate and inconsistent benefits. For example, current civil service retirement provisions allow some former military personnel to receive duplicate retirement benefits. Under the civil service system certain former military personnel may be granted retirement credit for military service even when this same service has qualified them for military retirement benefits. This practice not only creates duplicate benefits but is also inconsistent with military retirement provisions which generally do not grant any credit for former Federal civilian service under their system.

Another example of inconsistent benefits can be found in comparing the civil service and Foreign Service retirement systems. Under the Foreign Service system employees who perform duty at certain designated "unhealthful posts" may, under certain circumstances, receive 1.5 years of retirement credit for each year of service at such posts. However, under the civil service system employees working at the same designated posts receive no extra retirement credit.

#### Gaps in retirement protection

Another consequence of the piecemeal development of staff retirement systems is the creation of gaps in retirement protection. Perhaps the largest gap has been created by the fact that most Federal civilian service is not creditable under the Social Security Act. Consequently, employees who withdraw from Federal service and subsequently are employed in a position covered by social security receive no credit for their Federal service. The significance of this lies in the fact that an estimated 68 percent of all employees who become covered under the civil service retirement system withdraw from the system without ever receiving any benefits.

## Need for centralized review

Along with the need for establishing an overall Federal retirement policy there is a need for establishing a centralized mechanism for reviewing retirement benefit structures, the interrelation of benefit systems, and the cost of these systems. In effect such a mechanism would serve to monitor the operation and development of Federal retirement systems. This function would be based on the guiding objectives and principles established by an overall Federal policy--a policy which would take into account appropriate differences in various groups of Federal employees but recognize the elements of common purpose and structure in the various retirement programs.

## Inconsistent financing methods and large unfunded liabilities

The absence of a single Federal retirement policy becomes most obvious in reviewing how various retirement systems are financed. No uniform practices or principles for financing these systems exist. As noted previously, some systems are financed on a contributory basis and some on a noncontributory basis, some provide for fully funding benefits as they accrue, some for partial funding, and others are completely unfunded. While there are various acceptable funding methods, inherent in each is the recognition of a responsibility for sound financial planning.

Perhaps the most common indicator of the financial condition of a retirement system is the amount of the system's unfunded liability--the excess of accrued liabilities over accumulated funds. This amount is an indicator of the financial ability to meet present and future benefit obligations.

The aggregate unfunded liability of Federal retirement systems at the end of fiscal year 1973 amounted to approximately \$201 billion.<sup>1</sup> (See Schedule C, p. 29.) Of this amount approximately one-third (\$68.6 billion) is attributable

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<sup>1</sup>Because the unfunded liabilities of the various Federal retirement systems are not determined on any single basis, it is not possible to provide an accurate total. However, in the absence of any consistent data and for the purpose of providing an approximate indication of the magnitude of these liabilities, we are presenting in the aggregate the individual amounts of each system.

to the civil service retirement system and two-thirds (\$130 billion) to the military system.

The large unfunded liability of the military retirement system exists because it operates on a pay-as-you-go basis and all its accrued liability is unfunded.

An examination of the past and present financial provisions of the civil service system discloses that, although there were prior funding deficiencies, they have been corrected by legislation (see p. 5) and presently all benefits are funded as they accrue, with one exception. The exception is the major factor which causes the unfunded liability of this system to increase. This is the unfunded liability created by adjusting annuities for cost-of-living increases. During fiscal year 1973 increases in the cost of living added \$2.8 billion to the system's unfunded liability. Until some provision is made to fund this cost-of-living factor the system's unfunded liability will continue to grow.

While the Congress has required full funding of benefits, except for cost-of-living benefits, accruing under the civil service system, which is the second largest Federal retirement system, no funding is required of benefits accruing under the military retirement system, the largest Federal system.

We recognize that there are differences between financing government and non-government retirement systems and that there are many arguments both for and against funding government systems; however, in view of the large financial commitment and unfunded liability associated with Federal retirement systems, we believe there is a need to examine the existing financial policies of these retirement systems.

#### Need for better reporting of data

In addition to a sound financial policy, it is important that the Congress be provided with complete current and projected financial information on retirement systems if it is to make sound decisions on establishing, amending, or financing retirement programs. Such information must not only be accurate but it must also be developed on some consistent basis which permits analysis and comparison among systems. Although the Treasury's annual report to the

Congress (see p. 25) does provide some financial information on retirement systems, it is incomplete and developed on an inconsistent basis and does not cover all systems.

### CONCLUSIONS

In view of the inconsistencies among Federal retirement systems and the financial significance of such systems, we believe there is a need for the development of legislation to establish:

- An overall Federal retirement policy which provides objectives and principles to guide future development and improvement of Government retirement systems.
  
- A centralized mechanism for monitoring the development, interrelationship, and cost of Federal retirement systems, and to improve the system for reporting financial data.

## SUMMARY AND CURRENT STATUS

## OF RECOMMENDATIONS

## OF RECENT RETIREMENT SYSTEM STUDIES

CABINET COMMITTEE REPORT ON  
FEDERAL STAFF RETIREMENT SYSTEMS

The following is a summary of the Committee's recommendations and the actions taken on them.

1. Expenditures for fringe benefits for all Federal personnel should be identified and controlled. The policy of comparability, as it applies to both total compensation as well as pay of civilian personnel, should include procedures for improving methods of gathering data and comparing costs. An equitable relationship between benefits received by military and civilian personnel should be maintained.

In order to improve the identification and control of retirement costs and fringe benefits, the Civil Service Commission has partially implemented procedures to insure the timely recognition of liabilities as they accrue. As a means of evaluating the comparability of compensation received by employees in the Federal and private sectors, the Bureau of Labor Statistics prepares a biennial table contrasting various Federal employee benefits to those provided employees in the private sector.

2. Financing of present employee benefits under the civil service and Foreign Service systems through equal employee-agency contributions should be retained; however, any future liberalization of benefits for the active work force should be provided for by an upward adjustment in the contribution rates. The cost of future unfunded liability that results from liberalized benefits for the active work force or annuitants, coverage of new groups of employees, or wage increases should be fully financed by the Government through direct appropriations to the fund over a 30-year period. Such appropriations should be sufficient to peg the fund balance at the maximum level it attains or at employee equity, whichever is greater.

These recommendations have been substantially implemented.

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3. The civil service and Foreign Service funds should be merged, but continue to retain their separate identity.

The two funds have not been merged.

4. The administrative costs of the retirement systems administered by the Civil Service Commission should be financed from the Civil Service Retirement and Disability Fund.

The recommendation has been implemented.

5. Federal staff retirement systems should continue the policy of maintaining the purchasing power of civil service and Foreign Service annuities and military retired pay by prompt and full increases when the CPI rises.

The systems continue to adjust annuities and retired pay on the basis of changes in the CPI.

6. Employees subject to the civil service or Foreign Service system should be assured of survivor, disability, and retirement protection at least equivalent to that provided under social security.

This recommendation has not been implemented.

7. Federal employees covered only by a staff retirement system should have health insurance protection under the social security system after they reach age 65. In addition, employees and annuitants who become eligible for social security health insurance but desire broader protection should have access to supplementary health insurance provided by the Federal Government, with the cost shared by the Government and participants.

This recommendation has not been implemented.

8. The eligibility criteria a student-child must meet before receiving survivor benefits under the civil service and Foreign Service systems should be liberalized and amended to match those applicable under social security.

This recommendation has been implemented in a slightly modified form for the civil service system, but not the Foreign Service system.

9. The maximum salary base for life insurance coverage should be raised from the present \$20,000 to executive salary level II and the Civil Service Commission should be given the authority to adjust contribution rates to meet estimated level premium costs.

This recommendation has been implemented.

10. The Civil Service Commission should explore, with officials administering the smaller contributory staff retirement systems, the possibility of merging those systems with the civil service system and initiate action for such mergers if deemed practical and desirable.

This has not been adopted.

11. Under the civil service and Foreign Service systems when an employee is eligible for optional retirement with benefits equivalent to what he would receive as a disability retiree, he should not be considered for disability retirement, however, the agency's right to recommend disability retirement for such an employee should be retained.

This recommendation has not been implemented.

12. The Civil Service Commission should submit its conclusions and recommendations for improving the Government's leave system as promptly as possible.

This has not been done.

13. Under the civil service system the formula for a guaranteed minimum annuity now applied to disability retirements should be authorized as a basis for computing the benefits of widows and widowers whose entitlement is based upon the death of an employee in active service or an employee retired for disability.

This recommendation has been implemented with respect to employees who die in active service but not employees who retire for disability.

## APPENDIX I

14. Disability benefits payable under the civil service system to an annuitant whose earning power is restored should be discontinued at the end of his second consecutive year of 80 percent earnings.

This recommendation has not been implemented.

15. An intensive study should be undertaken by the Secretary of the Treasury, with participation and review by other Federal departments and agencies, to conduct a comparative analysis of the income tax effect on individuals receiving various benefit payments under the several Federal staff retirement systems.

No action has been taken on this recommendation.

16. Provisions for purchasing an additional annuity through voluntary contributions to the civil service and Foreign Service systems should be discontinued in view of its relative disuse.

Voluntary contributions have not been discontinued under either system.

17. Under the civil service system, failure to redeposit contributions withdrawn should be treated the same way as failure to make deposits not withheld--by crediting the service but applying the 10 percent reduction formula if payment is not made.

This recommendation has been implemented.

18. Under the civil service system the high-5 average salary (currently high-3) should be determined from salaries earned before age 65. Retention of employees after age 65 under the retirement system should be permitted on a year-to-year basis up to age 70 by affirmative management decision.

This recommendation has not been implemented.

19. Optional retirement under the civil service system with an unreduced annuity should be permitted beginning at age 55 after 30 years of service, age 60 after 20 years of service and age 62 after 5 years of service.

This recommendation has been implemented.

20. Agencies should be authorized to retire, at management's discretion, employees at GS-13 and above who are eligible for retirement on immediate annuity and who have 30 years of service.

Although the Civil Service Commission recommended this be adopted, it has not been implemented.

21. Under the civil service and Foreign Service systems an annuitant, who is dropped from the disability roll under an earnings test or because of a medical examination showing recovery and who does not return to Government service, should be allowed to resume his group life insurance and health benefits eligibility if his disability annuity is later reinstated.

This recommendation has not been implemented.

22. The civil service system should pay benefits to otherwise eligible children of employees who die in active service or after retirement whether or not the children receive more than half their support from the deceased parent.

This recommendation has been implemented.

23. Civil service retirement credit should not be granted for service performed by State or State-instrumentality employees in programs supported wholly or partly by Federal funds.

Such credit is not granted under the civil service system.

24. Any period of employment performed by an alien employee with a foreign government for the purpose of protecting or furthering the interests of the United States during an interruption of diplomatic or consular relations should qualify as creditable civil service provided that the employee completes at least 5 years of service actually subject to the civil service system. Furthermore, employer contributions to the civil service fund should be paid from moneys appropriated to the Department of State.

This recommendation has been substantially implemented.

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25. An employee under the civil service or Foreign Service system who is retired for disability or retires optionally for reasons of health should be separated immediately, paid for any unused sick leave, and receive a temporary annuity supplement equal to the difference between his retirement annuity and salary he would have earned had he remained in pay status for the period of his unused sick leave.

This recommendation has not been implemented.

26. Necessary procedural changes should be effected by statute to provide for the Federal appointment and supervision of National Guard technicians, thereby bringing them under the civil service system. They should be granted a statutory entitlement to civil service credit for all past National Guard technician service.

This recommendation has been substantially implemented with certain limitations on credit for prior service.

27. Benefits payable to a surviving spouse under either the civil service or Foreign Service system should continue without interruption if a spouse remarries after attaining age 60. Also, benefits which cease because a surviving spouse remarries before age 60 should be reinstated if the marriage terminates.

This recommendation has been implemented for the civil service system.

28. Reemployed annuitants should be allowed full salary plus annuity for up to 720 hours a year (any consecutive 12-month period), with salary reduced by the amount of the annuity during the remainder of the year. However, the combined annuity and salary received during the year should not exceed the highest per annum rate at which the annuitant is employed within the 12-month period.

This recommendation has not been implemented.

29. Pending completion of the DOD force management study, accrued retirement costs under the military retirement system should be reflected annually in total obligational authority. However, annual appropriation requests should continue to reflect only those retirement costs expected to materialize in the budget year.

This recommendation was not implemented.

30. Foreign Service staff personnel and personnel who convert to the proposed new category of foreign affairs officer in the State Department, the Agency for International Development, and the U.S. Information Agency should be brought under the Foreign Service system as proposed in H. R. 6277, 89th Congress, 1st Session (1965).

This recommendation has been substantially implemented.

31. The maximum limitation on a Foreign Service annuity should be raised from 70 to 80 percent of the high-5 (currently high-3) average salary.

The recommendation has not been implemented.

32. The following proposals were made regarding survivorship provisions under the Foreign Service system.

- (a) The formula for reducing annuities of personnel electing survivor annuities for their spouse at the time of retirement and the percentage of the base annuity to which a surviving widow, eligible widower, or designee becomes entitled upon the death of an employee or annuitant under the Foreign Service system should be the same as the formula used under the civil service system.
- (b) The provision requiring male participants to provide, at a minimum, a \$2,400 survivor annuity should be repealed and survivor annuities be made elective.
- (c) The provision for a minimum annuity of \$2,400 for a widow of a participant who dies in service should be repealed, provided that certain social security benefit amounts are available.
- (d) Foreign Service officers who retired before October 16, 1960, without electing any survivor annuity should have an opportunity to elect a \$2,400 annuity for a wife to whom they were married at the time of retirement.

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Except for (d) these recommendations have not been implemented.

33. The Foreign Service annuity adjustment formula based on changes in the CPI should be made identical to the civil service formula.

This recommendation has been implemented.

34. Any recommendations for fundamental changes to the military system should await completion of the comprehensive force management study being made by DOD.

Substantial changes to the military system have been proposed as a result of several studies.

35. Since increased costs resulting from transition to a contributory retirement system would significantly outweigh any advantages gained, the noncontributory nature of the military system should be retained.

This recommendation was accepted.

36. Revision of the Retired Serviceman's Family Protection Plan to provide the right to make survivor elections up to the date of retirement is the minimum step needed to overcome nominal membership participation. To be effective such action should not increase cost to participants.

The Protection Plan was supplanted in September 1972 by the Survivor Benefit Plan which has effectively overcome the shortcomings experienced by the Protection Plan.

37. The Federal tax treatment of uniformed services retirees and their survivors under the Retired Serviceman's Family Protection Plan should be brought in line with the tax treatment accorded retirees and their survivors under the civil service and Foreign Service systems.

This recommendation has not been implemented.

38. For the purpose of computing their retired pay, active duty enlisted members should receive credit for previous reserve service on a point-credit basis comparable to the entitlement enjoyed by officers.

This recommendation has not been implemented.

39. Existing entitlements in a commissioned grade to nondisability retirement from active service with retired pay based on a higher grade in which the member may never have served on active duty should be eliminated.

This recommendation has not been implemented.

40. A supplemental group life insurance plan scaled to salary should be provided for uniformed services members whose earnings exceed the \$10,000 maximum policy authorized under the existing servicemen's group life insurance system. Premium costs should be assessed against only members participating with the Government assuming costs traceable to the extra hazard of military service. Extension of protection after retirement is neither practical nor desirable due to the nature of the military retirement system.

These recommendations have been implemented.

DOD RETIREMENT STUDY GROUP REPORT

Two of the key features of the recommendations of the DOD study group are a transition mechanism and a save-pay provision. The transition mechanism would gradually move the military retirement system from where it is today to the fully implemented recommended system and reduce the trauma of change. The save-pay provision would guarantee that a member who retires after the date of enactment would be guaranteed at least as much retired pay as a similar member who retired before him. The study group made the following recommendations.

1. Increase multipliers for members with long service.

Under the present system, the formula multiplier for non-disability retired pay is 2 1/2 percent times years of service reaching a maximum of 75 percent of basic pay at 30 years of service. Under the recommended system, the 2 1/2 percent formula would be retained up through 24 years of service, but for members who have 25 or more years of service, a 3 percent multiplier would be provided reaching a maximum of 78 percent of basic pay at 30 years of service.

2. Provide three types of retirement annuities. Under the present system, a member retiring with 20 or more years of service receives one type of annuity throughout his retired lifetime. Under the recommended system, three types of annuities would be provided. For a member who has 30 or more years of service--a full career in the military--a full-career annuity would be provided. A member who retires with less than 30 years of service would receive

--an immediate early retirement annuity initially and

--an increased annuity at the time when he would have completed 30 years of service had he not retired.

3. Provide a system of averaging in computing retired pay. Under the present system the retirement multiplier is applied to terminal basic pay. Under the recommended system, military retirement would move gradually to a high-1 average. The base used to compute retired pay would be gradually expanded after the date of implementation until it reached a year. After that point, the base upon which retired pay would be based would generally be the last year before retirement.

4. Integrate military and social security retirement benefits. Military and social security retirement benefits are not presently coordinated. The recommended system would integrate the benefits when the member reached 65 and this would be accomplished by offsetting from the military annuity one-half of the social security benefit attributable to military service. The member would receive the actual social security benefit to which he is entitled.

5. Provide a payment to members who separate short of retirement eligibility. Under the present system members who separate before completing 20 years of service receive no payment for their service; they receive no equity payment. Only certain categories of officers who are involuntarily separated receive a payment and all other officers and all enlisted men receive no payment for involuntary separation.

Two types of payment would be provided under the recommended system. A voluntary separatee with 10 or more years of service would receive an equity payment in the form of a deferred annuity at age 60 which would be based on 2 1/2 percent times years of service times high-1 basic pay. The high-1 average would be CPI adjusted from retirement date to age 60 and when he received retired pay it would be CPI adjusted thereafter.

The involuntary separatee with 5 or more years of service would receive first a readjustment lump sum pay equal to 5 percent times final annual basic pay times years of service. In addition, he would also be entitled to an equity payment. However, the involuntary separatee would get a choice of equity payments, either a deferred annuity similar to that for a voluntary separatee or another 5 percent of final annual basic pay times years-of-service payment.

DOD is pursuing the policy and legislative changes necessary to implement the modifications to existing personnel systems that are embodied in the foregoing recommendations.

COMMISSION ON THE ORGANIZATION OF THE  
GOVERNMENT OF THE DISTRICT OF COLUMBIA

As a result of their review of the D.C. police and firemen's retirement system and the D.C. teachers retirement system the Commission made the following recommendations:

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- "1. The Mayor-Commissioner initiate requests for Congressional action to place both the P & F Retirement Program and the Teachers' Retirement and Annuity Fund upon a sound actuarial basis. The following measures as a minimum are deemed necessary:
  - a. Establishment of the P & F Retirement Program financially as a Fund, i.e., dedicated funds specifically earmarked for P & F Retirement Program purposes, with provision for investment of monies not required for current operations and for periodic Treasury Department actuarial evaluation.
  - b. Initiation of action to reverse the present increasing rate of unfunded accrued liabilities in the P & F Program and the Teachers' Retirement and Annuity Fund, and to provide a means of financing any liberalization of benefits that may be approved in the future.
  - c. Establishment of a Board of Trustees for both the proposed P & F Fund and the Teachers Fund to provide policy direction and control.
  - d. Appointment of an Executive Director and provision for permanent staffing to manage and administer both Funds, with a commitment to study the feasibility of financing the cost of such personnel directly from the Funds.
- "2. The Mayor-Commissioner review and evaluate the policies and procedures governing the P & F Program and its retirement benefit categories, and those pertaining to other District retirement systems and initiate whatever steps may be necessary, administrative or legislative, to attain greater compatibility where desirable and feasible among the several systems, and issue more realistic policies, standards and procedures for each.
- "3. The Mayor-Commissioner cause full retirement fund status to be disclosed to the public and

to present and future beneficiaries as a regular product of the District Government's financial reporting system.

- "4. The Executive Protection Service, the U.S. Park Police and the Secret Service be requested to pay their pro rata share of the costs sustained by the District Government in administering the P & F Program, from which those agencies' personnel benefit, unless the Mayor-Commissioner determines their pro rata share of the costs sustained to be so minimal as to make the added bookkeeping involved unproductive."

Based on the above recommendations the District Government requested the Treasury Department to make actuarial studies of both the P & F and teachers retirement systems. The studies were completed in April 1973 and March 1974, respectively, and the District is presently studying their results to consider what legislative action it will take.

ACTUARIAL VALUATIONS

The ultimate cost of any retirement system is determined as actual expenditures emerge throughout the life of the system. However, by the very nature of a retirement system's obligations there is a timelag between the accrual of benefit rights and the payment of benefits. When a system requires that future benefits be funded in advance it becomes necessary to make some determinations of the cost of benefit rights accruing under the system. Because the methods used in making these determinations require computations involving compound interest, mortality tables, and other factors in the field of actuarial science they are normally referred to as "actuarial cost methods."

Formally defined an actuarial cost method is a technique for establishing the amount and incidence of the annual actuarial cost of a retirement system's benefits, or benefits and administrative expenses, and the related actuarial liability. There are several major types of actuarial cost methods used in determining the cost and liabilities of a system and many variations within each type. The methods differ primarily with respect to the recognition of the incidence of cost but not in the recognition of the amount of the total future cost of a system. A common characteristic of all methods is the allocation of benefit costs over the period of time in which the right to receive the benefits is being earned.

As mentioned above, actuarial cost methods require computations involving various actuarial factors. These factors are referred to as "actuarial standards" or assumptions. Actuarial standards are the basis upon which the experience of a system is predicted. They can include, but are not necessarily limited to, such factors as rates of interest, death, disability, termination of employment, and retirement, as determined by an actuary to be applicable to a system.

The process by which an actuary estimates the present value of future benefits to be paid under a system and calculates the contributions (usually annual) which must be accumulated in a fund in order to meet future benefit payments is called an "actuarial valuation." In considering the terms actuarial valuation and actuarial cost method it should be understood that the former refers to the process by which liabilities and contributions are determined while the latter refers to the method or technique used in making the determination.

The underlying concept of an actuarial valuation, and therefore of actuarial cost methods, is that of "present value." Present value is a concept which recognizes the time value of money and may be defined as the current worth of an amount or series of amounts payable or receivable in the future. For example, consider an agreement to pay a \$100 benefit 5 years from the present day. If an interest rate of 5 percent, compounded annually, is assumed, then the present value or current worth of that \$100 future benefit would be \$78.35. Viewed another way, if \$78.35 were placed in a fund today and earned interest at a rate of 5 percent, compounded annually, in 5 years the fund would contain \$100, the initial deposit of \$78.35 plus interest earnings of \$21.65. This same concept can be applied where a series of benefit payments are involved. It can easily be seen how this concept enters the process of determining the present value of future retirement benefits and the present cost of providing for future benefit payments.

In addition to the concept of present value, two other concepts are essential to a basic understanding of actuarial valuations-- "normal cost" and "accrued liability." Normal cost is the present value (cost) of all benefit rights earned during any given period (usually annually) after the inception of a retirement system and is determined by the actuarial cost method used in performing the valuation. As such, normal cost does not include the cost of any benefit rights attributable to granting credit for employment service before the inception of a system.

The accrued liability of a system, at any point in time, is the excess of the present value of all future benefits over the present value of all future normal cost contributions. It should be understood that the total "present value of future benefits" includes both the value of all benefit rights earned to date and the value of benefit rights which are estimated will be earned by those presently covered by the system. On the other hand, the phrase "all future normal cost contributions" refers only to the value of prospective normal cost contributions and does not include any previous normal cost contributions made for benefit rights earned to date. It can now be seen that a system's accrued liability is the present value of benefit rights earned since the inception of the system and that past normal cost contributions placed in a fund, with interest, should equal the accrued liability.

## APPENDIX II

If a system has fund assets equal to its accrued liability and has the prospect of receiving future normal cost contributions, it is considered adequately funded and capable of meeting future benefit payments. However, when the fund assets are less than the accrued liability an "unfunded accrued liability" is said to exist.

An unfunded accrued or supplemental liability is defined as the excess of the accrued liability over a system's fund assets. An unfunded liability can arise for several reasons the most common of which are (1) granting benefit rights for employment service before the inception of the system, (2) benefit increases which are not predicted or assumed in previous normal cost calculations, for example cost-of-living increases, and (3) other actuarial losses due to experience different from that predicted in the last actuarial valuation, for example retirements occurring at younger ages than had been predicted.

The actuarial cost method most frequently used in the valuation of Federal retirement systems is the aggregate entry age normal method. Under this method the future experience for a group of new entrants is predicted and the present value of future benefits is calculated for the group. A normal cost contribution, generally expressed as a percentage of payroll, is then calculated by dividing the estimated present value of future benefits by the estimated present value of future salaries, each related to the new entrant group.

After the normal cost percentage is determined, the present value of all future benefits payable under the system is estimated based on the experience predicted for all active employees, retired employees, and former employees entitled to a deferred annuity. From this is subtracted the present value of all future salaries for the active employees times the normal cost percentage to determine the accrued liability.

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