

# MAINE STATE LEGISLATURE

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REPORT  
TO  
Legislative Recess Committee  
ON  
Maine State Retirement System  
AND  
Social Security Coverage

by the  
consulting firm  
of  
BOWLES, ANDREWS & TOWNE



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ACTUARIES

RICHMOND · ATLANTA · NEW YORK

421 American Building  
Richmond, Virginia  
April 8, 1954

ROBERT J. TOWNE  
FELLOW SOCIETY OF ACTUARIES

THOMAS P. BOWLES, JR.  
FELLOW SOCIETY OF ACTUARIES

EDWARD H. THOMPSON

HOLLISTER V. SCHENCK

T. COLEMAN ANDREWS (1948-53)

GENE C. MOORE  
FELLOW SOCIETY OF ACTUARIES

GEORGE B. CARLSON  
ASSOCIATE SOCIETY OF ACTUARIES

Honorable Benjamin Butler, Chairman  
Legislative Recess Committee  
State of Maine  
Augusta, Maine

Dear Senator Butler:

Herein contained is our report on the actuarial study we have made of the Maine State Retirement System as requested by your Committee.

Our study consisted of an analysis of the provisions of the system, a review of the law relating to the system, an investigation of the administrative procedures of the system, an analysis of the investments of the system and a determination of the actuarial evaluation of the financial structure of the system.

Yours very truly,

BOWLES, ANDREWS & TOWNE

By: *Robert J. Towne*

RJTowne:sah



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## PART I

### SUMMARY OF REPORT

In this part of the report there is contained a general summary of the findings of the various phases of our study as well as an outline of our recommendations. In the following parts of this report the detailed results of our study are presented.

The various parts of this report are as follows :

- Part I — Summary of Report
- Part II — Analysis of Provisions of Maine State Retirement System
- Part III — Review of Law Relating to Maine State Retirement System
- Part IV — Review of Administration of Maine State Retirement System
- Part V — Analysis of Financial Condition of Maine State Retirement System.

The Maine State Retirement System is a well constructed system providing reasonably liberal retirement benefits for the state's public employees. The provisions of the system cover practically all of the aspects of a retirement system which are generally considered desirable. The financial condition of the retirement system is satisfactory and liabilities appear to be funded on reasonably adequate actuarial bases. The assets of the retirement system appear to have been conservatively and carefully invested. The administration of the retirement system has been carried out in a conscientious and economical fashion with due regard for the interests of both the employees and taxpayers of the state.

The recommendations included in this report include certain changes which are believed will help make the system more effective, will help reduce the cost to the state, and will help to simplify the administration of the system.

SECTION A  
PROVISIONS OF MAINE STATE RETIREMENT  
SYSTEM

I. *Summary of Provisions*

The principal provisions of the Maine Retirement System are as follows :

(a) *Coverage of System*

All state employees and teachers are included except certain members of the judiciary. Employees of political subdivisions may also be included.

(b) *Membership*

All regular employees are eligible for membership. Membership is generally compulsory from date of eligibility.

(c) *Service Retirement Conditions*

Age 60 is the normal retirement age except for special retirement after age 55 with 25 years of service for certain occupational groups. Also some political subdivisions have age 65.

Compulsory retirement is at age 70 except at age 60 for certain occupational groups and in each case subject to one year extension.

Retirement is allowed prior to normal retirement age after 30 years of service.

(d) *Service Retirement Benefits*

The total retirement allowance is equal to the sum of an annuity based upon member's contributions plus a pension provided by the state. The sum of the two is intended to provide a total benefit equal to 1/70 of average earnings multiplied by years of service. This produces a 50% pension after 35 years of service.

The special occupational groups are guaranteed a total retirement allowance of 50% after 25 years of service.

Special guarantees are provided for state employees in service at the date of the system and for teachers in service prior to 1924.

Early retirement benefits are determined in the same manner as for normal retirement except they are actuarially reduced.

Average earnings on which pensions are based are the average of the five highest years of earnings.

(e) *Disability Retirement*

Disability retirement is allowed after ten years of service in the event of permanent incapacity for further performance of duty.

Disability retirement allowances are equal to 90% of 1/70 of average final compensation multiplied by the number of years of service subject to a minimum of 25% of average final compensation.

(f) *Occupational Disability and Death Benefits*

Firemen are entitled to a pension of one-half average final compensation in the event of disability incurred in the line of duty after ten years of service.

Widows or minor children are entitled to a pension of one-half average final compensation in the event of death of a fireman or state policeman incurred in the line of duty.

(g) *Optional Methods of Retirement Payments*

Members have certain options as to method of payment of retirement benefits which include continued payments for life to a member's beneficiary after his death.

(h) *Benefits on Death Before Retirement*

A member's accumulated contributions are paid to his beneficiary in the event of death before retirement.

Pension payments for life are made to a member's beneficiary if he dies before retirement but after completing eligibility requirements for retirement.

(i) *Benefits in the Event of Termination of Service Before Retirement*

A member is entitled to refund of his accumulated contributions if he terminates employment before retirement.

If a member terminates employment after ten years of service he is entitled to retirement allowance commencing at age 60 if he leaves his contributions in the System.

A member terminating employment before ten years of service can leave his contributions in the System indefinitely and retain previous service credits upon return to state employment.

(j) *Funding of Costs of System*

Members contribute at the rate of 5% of compensation towards the cost of benefits of the System.

Employers make regular actuarially determined contributions equal to the normal cost of benefits plus an amount to liquidate the accrued liability related to years of service prior to date of establishment of the System.

2. *Recommendations*

Following is a list of the recommendations included herein for possible changes in the provisions of the System. Some of these recommendations are for changes which appear to be definitely desirable while other recommendations as to changes are minor in nature or involve alternate considerations.

(a) *Coverage of System*

Consideration should be given to the possibility of including the members of the judiciary in the Maine State Retirement System.

Consideration should be given to including state policy in service on July 9, 1943 in the system and abolishing the present non-contributory system.

(b) *Membership*

Membership for elected officials or appointed officials should probably be compulsory rather than optional.

Membership should not be allowed for any temporary employees. Excluded classes of employees should be stated in the law. Consideration might be given to excluding part time or seasonal employees with less than specified periods of employment.

Consideration should be given to terminating the right to become a member and receive prior service credits in the case of employees who originally elected not to become members when first eligible to do so.

Consideration should be given to the problem of the relation of years of service credits for other than a full per annum basis and the employment status under which final average compensation is based.

Consideration should be given to the problem of the relation between service credits for periods of absence without pay and the determination of average final compensation.

Service credits to teachers for out-of-state service should be discontinued.

(c) *Service Retirement Conditions*

The allowance of normal retirement after age 55 and 25 years of service in the case of the fish and game warden, etc. groups should be reviewed both from the point of view of the age and years of service requirements.

The desirability of allowing extensions beyond compulsory retirement age should be reviewed as well as the reasons for having such extensions under the control of the governor and council in respect to employees of participating districts.

The years of service qualification for early retirement should be reviewed.

(d) *Service Retirement Benefits*

It would be desirable to change the basis of membership service retirement benefits to a total retirement allowance equal to  $1/70$  of average final compensation multiplied by the number of years of membership.

The provision for a 50% retirement allowance after 25 years of service for the fish and game warden, etc. groups should be re-examined.

The soundness of basing average final compensation upon the five highest years' earnings should be re-examined.

A change in the technical basis for calculation of early retirement benefits might be considered.

(e) *Disability Retirement*

A better basis for disability retirement allowances would be 1/70 of average final compensation multiplied by years of creditable service subject to a minimum of 25% of average final compensation.

The limitation test in the case of disability beneficiaries receiving earnings from any gainful occupation should relate to compensation at the time of retirement as well as average final compensation.

Disability benefits should probably cease in the case of a disabled member restored to active service.

Re-examination should be made of the adequacy of the present limitations in respect to retired employees, other than disabled employees, returning to active service.

(f) *Occupational Disability and Death Benefits*

Consideration might be given to the logic of the ten year service requirement in the case of occupational disability benefits for firemen.

In the case of occupational death benefits, provision should be made for an offset of workmen's compensation benefits.

The propriety of including state policemen who are not members of the System under the occupational death benefits should be considered.

Consideration should perhaps be given to including occupational disability and death benefits for all state employees and perhaps for members of local police departments.

(g) *Optional Methods of Retirement Payments*

Consideration might be given to making the automatic option for the payment of full retirement allowance include a death benefit guarantee of the difference between accumulated member contributions and total retirement allowances received.

(h) *Benefits on Death Before Retirement*

The soundness of the survivor benefits payable in the event of death before retirement but after eligibility for retirement has been reached should be re-examined.

A beneficiary should perhaps be given the choice of accepting a return of member's contributions or the survivor benefits. Presumably a beneficiary is not entitled to both.

Consideration might be given to providing group life insurance benefits for members of the system.

(i) *Benefits in the Event of Termination of Service Before Retirement*

Consideration might be given to determining interest credits at the rate of 2% in the event of payment of accumulated contributions on termination of employment for other than retirement.

The logic of allowing terminating employees to leave their contributions in the system indefinitely after termination of employment should be re-examined.

The provision allowing members to redeposit contributions previously withdrawn should be questioned.

(j) *Miscellaneous*

The basis for the funding of costs of service with a former employer in the case of an employee transferring employment between employers included in the system should be re-examined.

The consolidation of certain of the funds of the system should be considered.



The problem of special resolves should be examined and consideration be given to the means of curtailing such special bills.

The extent to which members of the system are protected against reduction of accrued rights to benefits should be examined.

## SECTION B

### LAW RELATING TO MAINE STATE RETIREMENT SYSTEM

The law covering the Maine State Retirement System was reviewed both from the point of view of expression of intent and as to possible conflict with rulings of the Board of Trustees. Following herein is a summary of certain changes in the wording of the law which might be considered.

#### 1. *Definitions*

The definition of average final compensation should perhaps include "consecutive" years of service.

The date for the first payment of retirement allowances should be definitely stated in the law.

#### 2. *Membership*

The provisions concerning cessation of membership and return of employee contributions in the event of termination of membership should perhaps be clarified to specify directly that an employee has the right to leave contributions in the system and retain membership for whatever period desired.

The salary basis on which members' contributions, payable by the employer, while the employee is in the armed service should probably be specified more clearly.

The effect on service credits for teachers in the event another state provides benefits for a teacher who is a member of the Maine System should be specified in the law.

The qualification of "state" service in the vesting provision should perhaps be deleted.

The date of commencement of retirement allowances in the event of termination of employment with vested benefits should perhaps be more definitely spelled out.

### 3. *Creditable Service*

The restrictions in the law for correcting prior service certificates should be changed to conform to equitable practices.

The provision for prior service credits for teachers who were members of the Maine Teachers Retirement System should perhaps be amended to cover service during the six year waiting period as well as service before age 25.

### 4. *Service Retirement Benefits*

The deletion in 1953 of the words "in service" in the section concerning qualifications for retirement should probably be reconsidered because of the possible unintended results. The purpose of the change can probably be accomplished by other phraseology.

The sections providing for special retirement benefits for certain occupational groups might be rearranged to avoid possible ambiguous interpretation.

Some amendment is probably necessary in connection with the 1953 law which includes members of local police departments in the special occupational groups in order to make clear that age 55 is a requirement as well as 25 years of service.

The section concerning early retirement should specify when retirement allowances can commence.

The application of the early retirement provision to special benefits for teachers hired prior to 1924 should probably be specified in the law.

The intent of the law to allow retirement after 25 years of service without regard to age in the case of members with 22 years of prior service should probably be more clearly mentioned in the law.

The deletion of the words "in service" in 1953 in the provision concerning disability retirement benefits should be reconsidered.

The restrictions on the Board of Trustees in respect to reducing disability retirement allowances in the event a disability beneficiary engages in a gainful occupation should probably be restated.

5. *Disability Benefits — Offset by Workmen's Compensation*

The method of offsetting Workmen's compensation benefits should be specified more clearly in the law.

6. *Return of Member's Contributions*

The law should probably specify the exact period for crediting interest in the event of payment of employees' accumulated contributions at death or termination of employment.

## SECTION C

### ADMINISTRATION OF MAINE STATE RETIREMENT SYSTEM

The accounting and other administrative procedures were reviewed and the records appeared to be properly maintained and the provisions of the law properly followed. Test-checks indicated that details were being handled on a reasonably accurate basis.

Our recommendations in regard to the administration of the system involve primarily possible means of reducing accounting details, and simplifying some of the record keeping. The major recommendation concerns the possible application of punch cards to the record keeping required by the System.

## SECTION D

### FINANCIAL CONDITIONS

#### 1. *Actuarial Bases*

The actuarial bases for determination of the liabilities and costs of the system were reviewed and appear to be adequately conservative. A recommendation is included however for possible alternate bases.

#### 2. *Funding Methods*

The funding methods in general are providing for a proper accumulation of funds to meet the future liabilities of the System with the exception of the amounts contributed for teachers' benefits. A considerable unfunded liability exists in respect to benefits for teachers hired prior to 1924 and the present level of contributions for the most part merely covers current pension payments. It would appear that higher contributions by the state for the funding of teachers' benefits is desirable.

#### 3. *Investments*

A review of the investment portfolio reveals the excellent quality of the securities contained therein. It is apparent that the administration of the account has been on the ultra-conservative side. However, for an account of this nature it is unnecessary to live so closely to the line of conservatism which penalizes unduly the income necessary to adequately service the Fund.

In summary we recommend that the System :

- (a) Reduce government holdings.
- (b) Increase holdings in industrial company bonds.
- (c) Increase Canadian government and municipal holdings.
- (d) Consider purchase of World Bank bonds.
- (e) Confine future commitments in utility issues to companies having diversified load and serving wide-

spread urban areas with interspersed good rural areas.

- (f) Be alert to opportunities of investing in private placements.
- (g) Increase preferred stock holdings in both utility and industrial companies.
- (h) Seek to have the investment statute liberalized to allow more latitude in investment of funds.
- (i) Employ competent investment counsel to aid the investment officers in their task.

PART II  
ANALYSIS OF PROVISIONS  
OF  
MAINE STATE RETIREMENT SYSTEM

In this part of the report the provisions of the Maine State Retirement System are reviewed from the point of view of basic retirement plan fundamentals. The principal provisions of the System are outlined, and comments are made concerning the fundamentals underlying the various provisions and concerning provisions which may be detrimental to the System. Certain recommendations are also made as to possible changes which are felt desirable to consider.

In order to evaluate an existing retirement plan, or to decide upon the provisions of a new retirement plan, it is necessary that the basic fundamentals and purposes of retirement programs be understood.

The retiring of superannuated employees is a problem which has to be faced by all types of employers, both private and public. Although the approach taken to these problems may differ from employer to employer, the same basic principles will underlie all solutions.

Reduced to essentials, pensions are merely one aspect of employee compensation and employee compensation must be regulated by the forces of our economy whether the employees are in the service of government, business or industry. The principles of management and personnel relations apply equally to all such employers. There will, of course, be some considerations which will cause divergencies of a degree, but such divergencies will not be on the major issues.

## SECTION A

### RETIREMENT PLAN PHILOSOPHY

#### 1. *Basic Elements of a Pension Plan*

The basic elements of a pension plan are essentially as follows :

1. Eligibility—Who will receive benefits.
2. Retirement Conditions—When will benefits be available.
3. Retirement Benefits—How much will benefits be.
4. Cost of Benefits—How will cost of benefits be provided.

The broad aspects of pension plans include philosophic, social and economic considerations which are outlined following in this section.

#### 2. *Social Considerations*

The well-being of individuals and their dependents is continuously threatened by catastrophes that can arise through the loss of income resulting from death, disability, old age and unemployment. Pension plans are one manifestation of the desire of individuals for security against economic want. Such security has always been a major objective in man's struggle for existence. For the most part, security can be realized only through the combined action of groups of individuals. Most people have compassion for their fellow beings and are quite willing to aid the distressed in times of adversity. Active producers are willing to share their goods with those who are unable to support themselves.

The growing proportion of aged people in this country has brought forth new social problems. When older people are retired from active employment they face a major readjustment of living habits which may seriously react on them. Also they may have different objectives than the active working population and their influence on public matters may be at odds with people in other groups.

### 3. *Economic Security*

In order to have a guaranteed budget or savings program, an individual requires the cooperative help of his fellow beings. Employers in general have realized that it is advantageous to them for their employees to have security against those catastrophic occurrences mentioned previously. Also employers have understood that through their help programs of coverage for groups of employees of a common employer can be established on an economical basis. Employers can further the development and stability of these programs by contributing toward their cost.

The fundamental economic problem which pensions try to solve is how to give aged and disabled non-producers a share of current consumers goods. Under a rural economy where the family is an independent economic unit the aged continue to contribute some part to production and the family itself generally assumes the responsibility for the continued maintenance of the aged. Under our urban, industrial, and money economy, however, the family has ceased to be a continuous economic unit and the aged industrial worker has, in effect, become a social dependent.

The problem then becomes what share of society's production is the retired worker entitled to and how will his sharing affect the amount that active workers receive. If the retired worker has previously saved, and thus helped to increase producers goods, he has then provided for his own share of consumers goods and his maintenance during retirement will not affect the consumption of active workers. However, if he has not saved, nor anyone else has saved for him, then active workers must accept a lesser amount of goods and services in order that the retired worker be maintained.

Active workers will support inactive workers only to such a degree that their standard of living is not affected to any appreciable amount. Federal Social Security represents, like charitable contributions, the basic sharing which people are willing to allow in order that everyone may at least have the bare essentials required for existence. The basis of providing pensions is, therefore, one of savings, the creation of producers' goods, and an increase in the productivity of labor.

If the problem of providing income for aged non-producers involves essentially the question of savings the next consideration



is where the savings will come from. In theory at least, the individual could provide for his own retirement by investing part of each year's earnings. Such investments could be in bonds, stocks, mortgages, etc., or in savings plans or policies of life insurance companies.

The reliance on the individual to provide his own retirement income has not, for the most part, worked out too well in the past. For many people today's needs are much more important than tomorrow's wants and the tendency is to give first preference to expenditures for current consumption. Lower paid employees have been hard put to combat the pressure of the high costs of living. Where individuals have attempted to save they are beset by the problems of investment. They may find their savings lost in depression times or find it necessary to use them for other needs before retirement. In recent years the high income tax structure has reduced the margin of individual earnings available for investment and, even in the case of higher paid persons, they have been willing to give up additional earnings today in exchange for future pension benefits. That group has also come to the point of foregoing the right to dispose of part of their earnings as they see fit in return for the security of guaranteed benefits in the future.

#### 4. *Actions by Federal Government and Employers*

Since it has been found that individuals generally can not, or will not, provide their own retirement needs, our people have adopted a basic federal government program which furnishes most employees in the country with an existence level of maintenance in their old age through the Federal Social Security Act. This program, however, is essentially not a savings program but rather a year to year sharing agreement by active workers. Also, for various reasons, business and industry have seen fit to set up, in addition to Social Security benefits, pension plans for employees, which are in effect forced savings programs. Employers in general, other than in business and industry, have also inaugurated pension plans for employees but state and local government employees have generally not been included under the Federal Social Security Act.

For the most part pensions for employees in business and industry have been established during the last fifteen years. Many such employers adopted pension plans during the days of World War II in order to attract employees since pension plans were allowed without restriction while wage and salary increases were limited. In addition many employers were influenced by the tax advantages arising from the high tax rates during that era. Since the Inland Steel decision established that pensions were a proper subject for collective bargaining, many pension plans have been instituted because of union demands. Pension plans for governmental employees have a much longer history than plans for employees of business and industry, quite a few, particularly teacher plans, have been established in the first quarter of the century.

The cost of pensions is definitely a part of wage costs and some employers, such as financial institutions and state and local government employers, have in the past used pension plans to offset lower wage levels. The appeal of course has been from the security viewpoint which is also generally applied as respects tenure of employment with such employers. This situation has undoubtedly changed to a considerable extent during the recent inflation period since such employers have considerably increased salary levels while their competitive advantage in so far as pension plans are concerned, has rapidly disappeared because of the current general prevalence of pension plans in business and industry.

##### 5. *Deferred Compensation Theory*

In the usual case, pensions are paid to people during a period when they are unable to earn anything through their own efforts. In other words, pensions are a means by which people can claim a share of the total goods and services produced by society even while they contribute nothing towards society's economic production.

Pension payments are generally deemed as made in consideration of past services, injury or loss sustained, merit, poverty, etc.

Pensions are normally granted to employees of business and industrial concerns in cases of incapacity to work because of disability or old age, and would, therefore, be in the category of pay-

ments made in consideration of past services or injury or loss sustained.

Although pensions granted to members of the armed forces would appear to be made for the same reasons, there is one difference in that pension payments are often granted merely due to length of service even though at ages where continued economic production can be expected for several years more. Such pensions are more in consideration of merit or as a reward. Pension payments under the Social Security Act are basically in consideration of poverty although the present way of determining eligible recipients and the amounts to be paid tends to obscure that fact.

Since pension payments granted by employers are primarily in consideration of past services, the theory that such pensions are in essence deferred compensation appears to logically follow. Under our economic system of private enterprise and free competition employees' compensation must be geared to their contribution to production. Therefore, if employees are to receive income even after their period of actual production, part of their compensation must be withheld during their active working years. This is more concretely brought out in the case of compensation of highly paid executives. "Deferred compensation" contracts are often entered into whereby the executive accepts less during his active period of employment with a promise of a continuation of salary after that.

An employer is in the position to create a forced savings plan for its employees by establishing a retirement plan under which the building of funds for the employee's old age is created by regular contributions to the fund by the employer and oftentimes also by the employees. In effect, the employer's contributions represent compensation that the employer could otherwise pay its employees but which is withheld and accumulated to be paid out to the employees during their years of retirement. This leads to the theory of pensions as deferred compensation.

The deferred compensation aspects of a retirement plan have certain tax advantages to employees in that employer contributions to a retirement plan are generally not taxable income to the employees during their active employment but the tax is deferred until after retirement and then is based only upon the retirement income as received. Investment earnings on such accumulated

employer contributions are also free of federal income tax. Employee savings and investment earnings thereon are, on the other hand, normally taxable to employees where the employees voluntarily save or invest since those savings are from taxable compensation of the employees.

#### 6. *Advantages of a Formal Pension Plan*

Formally adopted employee benefit plans are desirable in order that uniform and equitable treatment be given all employees. Better employee relations are established and employees have a better understanding of what to expect. A formally adopted plan prevents the growth of any considerable number of special allowances which in many cases may be larger than necessary. This aspect is probably particularly important in the case of governmental employer plans.

It is good business practice, improving efficiency, for an employer to remove from active payroll those employees who are, on account of age or disability, no longer able to adequately perform their duties. Other employees thus have more promotion opportunities, higher grade employees are attracted and turnover of employees is reduced.

A formal pension plan allows an employer to fund future pension obligations over a period of years. Interest earnings on the funds of the plan reduce the dollar costs. From the point of view of an employer in business or industry the costs of pensions, a wage cost, are charged against the earnings of the company for the years when employees are on the active payroll. In the case of a governmental plan the costs are charged against the group of taxpayers who benefit from the services of the employees.

#### 7. *Objectives of Employee Benefit Plans*

In order to properly accomplish their intended purpose, employee benefit plans must provide coverage for the major part of the catastrophes which the employees are trying to avoid.

A pension plan must provide for the orderly retirement of superannuated employees on pensions which are reasonably adequate in relation to earnings before retirement. In general, it is felt a pension should enable an employee to maintain fairly well

his accustomed standard of living considering all of the probable sources of income he will have after retirement.

8. *Costs of Pension Plans*

Essentially the real costs of a pension plan are equal to the amount of benefits paid out plus the administrative expense of paying and accounting for the benefits. However, the actual disbursement cost of the benefits will be reduced if funds are accumulated before retirement, to provide the benefits, and thus investment earnings on the fund will reduce the actual outlay to less than the amount of pension payments.

A plan may be on a non-contributory basis with the employer paying all of the cost or it may be on a contributory basis with the cost paid by the employer and employees jointly. In either event, however, for a given benefit scale, the real cost will be same and over a period of years competition in the labor market will result in the same wage cost to the employer.

## SECTION B

### COVERAGE OF SYSTEM

The Maine State Retirement System is an all inclusive system which automatically applies to all state employees and teachers in the public schools except members of the state legislature or the council or any judge of the superior court or supreme judicial court, and to employees of counties, cities, and towns which elect to join the retirement system.

Certain members of the state police, who were in service on July 9, 1943, are not included in the system since they are entitled to benefits under the provisions of a special non-contributory system for them.

Inclusion in the System is optional with counties, cities and towns, but there is no provision for withdrawal after once included.

- - - - -

*Comments*

For all practical purposes the Maine State Retirement System provides the means for coverage under a sound pension plan for all persons in public employment in the state.

Maine is one of the relatively few states which has made provision for the inclusion of employees of counties, cities and towns in the state retirement system. This is a desirable feature of the system since it allows the smaller political subdivisions to provide retirement benefits for their employees under a pooled arrangement with a larger system thereby obtaining an averaging of the mortality risks as well as a better investment yield and safety of investment which would be difficult to secure under a plan of their own.

It may be questioned whether the members of the judiciary, superior court and supreme judicial court, should not be included in the Maine State Retirement System. While it is recognized that certain provisions in regard to such members of the judiciary should properly be different than for other classes of state employees, a difference in treatment is already recognized for certain groups such as firemen, policemen, fish and game wardens, state police, etc., even though they are members of the System. Proper equity between all classes of public employees is more easily obtained if all such employees are included in the same system so that any required differences in treatment will be more readily evaluated.

In general, pensions for members of the judiciary are relatively more favorable in the case of short periods of service and amounts of pension, although less favorable as to age at retirement. No contributions are required from the judiciary towards the cost of their pension benefits. It is generally felt to be in the public interest that members of the judiciary be given adequate protection against economic hazards so that their administration of the law will not be influenced by their own situation. However, it would not seem unreasonable that members of the judiciary be treated the same as to state employees in respect to certain provisions; for example, such as requiring contributions toward the cost of their benefits.

It may be questioned whether the non-contributory system for state police in service on July 9, 1943 should be continued when all other members of the state police are members of the state retirement system. Also since the unsoundness of ultra-liberal non-contributory systems has been recognized, it seems only proper that the non-contributory state police system be abolished.

Members of the state police system in service on July 9, 1943, are provided pensions of one-half of their pay after 20 years of service.

This is allowed regardless of the age of the member at retirement and no contributions are required from members. Members of the state police since July 9, 1943, who are included in the System retire on one-half of average final compensation after 25 years of service and the attainment of age 55. They contribute at the rate of 5% of compensation.

The allowance of pensions after any given period of service without regard to age is economically questionable. Unless the age is fairly advanced the employee may retire from active service, receive a pension and then proceed to acquire new employment elsewhere at perhaps a higher salary than his previous earnings. From the point of view of our economy, this would appear to be an unnecessary burden on the taxpayers of the state. It has been recognized by the state that public employee retirement systems must be reasonable as to benefit, employees should contribute, and regular funding of the costs of a system should be established. This has been clearly brought out by the history of pensions for teachers.

It is recommended that consideration be given to including all present members of the state police under the System with proper allowance for accrued prior service credits under the present non-contributory system.

## SECTION C

### MEMBERSHIP

#### 1. *Conditions of Membership*

Membership in the retirement system is compulsory for all eligible employees except membership is optional in the case of any class of elected officials or any class of officials appointed for fixed terms.

The Board of Trustees may in its discretion deny membership to any class of employees whose compensation is only partly paid by the state or who are serving on a temporary or other than per annum basis. It may also make membership optional for individuals in any such class.

In accordance with the preceding paragraph the Board of Trustees has ruled that a new state employee is not required to join the System until he is declared a permanent employee under the personnel regulations. This is generally after a six-months' probationary period. However, if the employee desires he may elect to join immediately upon employment. Teachers must join immediately inasmuch as they are considered employees from the date they begin to teach.

A person must continue in membership as long as employment continues. After termination of employment membership ceases once a member withdraws his contributions.

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#### *Comments*

Employees covered under a pension plan usually include all regular full-time employees. Part-time and seasonal employees are generally excluded in private plans but are often included in public plans. Membership in the plan is normally compulsory for new employees but optional for employees in service when the plan is installed.

A waiting period after employment, before participation in the plan is allowed, is common in business and industry plans particularly if the plan is contributory, but in governmental plans the employees generally enter the plan at the date of employment. A maximum age for entry into the plan is often imposed.

Withdrawal from membership is rarely allowed while a member is still in employment.

Restrictions in coverage to full time regular employees are imposed on the theory that the employer does not have a responsibility in respect to employees who will not be permanent or will have divided employment with another employer. Theoretically, if pensions are considered as deferred compensation, and a pension plan essentially a forced savings program, then every employee is entitled to benefits related to whatever compensation he has received. Practical considerations in this respect will solve the problem in relation to what benefit rights will be acquired and the basis for determination of benefits.



The reason for a waiting period for eligibility is primarily to exclude from the administration of the plan those employees who will only stay with the employer a short time. Unless liberal vesting provisions are included in the plan, there is no cost incurred on account of employees who terminate service prior to retirement except for handling the administrative details.

As far as the effect on employees of a waiting period, benefits will not be affected as long as credit is given for all years of service. By the same token the employer's cost will be increased to the extent that contributions by employees will be lost for that period during which they did not participate.

It is considered desirable to have a maximum age at which employees may become eligible, which is usually at least the normal retirement age. Benefits for employees with extremely short periods of service are normally small and it is questionable whether the employer should obligate itself to provide benefits for employees who have spent the major part of their working years with some other employer.

If participation in a plan is optional the whole purpose of the plan can be defeated. Employees not participating may present a real problem when reaching retirement age. Their retirement should be required in order to be equitable to employees participating, but retirement without any pension could easily cause considerable hardship. For the same reason allowing employees to withdraw voluntarily from the plan while still in active employment would also work to defeat the purpose of the plan. The temptation to withdraw would be quite strong in some instances where an employee had accumulated a considerable amount of cash termination benefit through his contributions.

It is suggested that consideration be given to making membership for elected officials or appointed officials compulsory rather than optional. If such employees later terminate membership they have lost nothing since any contributions made by them will be returned with interest credits.

It may be questioned whether responsibility should be placed on the Board of Trustees to decide whether membership should be optional with individual members in any class of employment.

It is suggested that it would be preferable for the law to specifically exclude all temporary employees. Membership would then commence for all employees at the end of their probationary period. This would also mean that teachers would not be included if they were on a substitute status. As is pointed out elsewhere in this report, administrative complications strongly support the position of only including permanent employees.

In addition to excluding temporary employees it might be desirable to consider specifically excluding part-time or seasonal employees with less than a normal work week of a specified number of hours, or a normal work year of less than a specified number of months.

It may also be questioned whether the Board of Trustees should be forced to decide whether any particular class of employees should be eligible for membership or not. It would appear more proper that the inclusion or exclusion of classes of employees be specifically set forth in the law.

## 2. *Service Credits*

Service credits after the date of establishment are normally allowed only for periods for which contributions have been made by members.

Employees are allowed credit for service prior to the date of the System if they have contributed during the entire period that they were eligible for membership.

Employees who were in service on the date of the establishment of the retirement system and who were given the option of becoming a member may become a member at any later time and receive credit for previous service by paying into the system such contributions as they would have paid if they had joined the system when first eligible to do so.

A special service credit provision is provided for persons in the federal employment service and in military service.

Teachers are allowed, under certain conditions, credit for teaching service in other states.

Members are allowed to redeposit contributions previously withdrawn upon termination of employment and to receive credit

for previous membership service but not service prior to the date of the System.

Service credit is allowed on the basis of one year for the full normal working time in any year. The seasonal aspect applies in particular to teachers and highway department employees. It also has some application in the case of part-time employees such as night school teachers.

Full credit is allowed for periods of absence without pay as long as the period is not in excess of one month.

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*Comments*

It may be questioned whether employees who elected originally not to become members by filing a waiver should be allowed an indefinite period to become members and receive all past credits, including prior service credits, even though they pay into the system back contributions. It is understandable that some period of choice of membership should be given to employees in employment when the system is first initiated because of the considerable misunderstanding and confusion that then exists as to the benefits of the system. However, it is questionable whether it is fair to the employees who do become members of the system during the time originally allotted them, to allow employees originally signing a waiver to change their minds at any time in the future. Consideration should perhaps be given to terminating at this time the right to become a member and receive prior credits upon paying back contributions.

The state employee who elects not to contribute for the probationary months of employment does not receive service credits for them. However, the employee can pay the back contributions for these months which will entitle him to credit. This, however, creates additional bookkeeping problems.

In addition, at the time of retirement, a person who has not paid for these months and realizes that his benefit would be increased if he did so, is faced with the problem of raising the money to pay these back contributions and the System is faced with the problem of finding out how much he should pay, based on these earnings many years before.

The proper determination of years of service credits involves certain problems in respect to seasonal and part-time employees because of the relationship of benefits to years of service and average compensation during the five years of service in which the compensation is highest. Under the present provisions of the law a full year of service is allowed, in the case of seasonal employment, as long as the employee works the full normal working time which may for example be only for a short period of months. Retirement allowance however is based upon the highest five year average earnings which may be obtained while in a period of full calendar year employment. This can result in unreasonable allowances if a person has many years of seasonal employment for which he receives full years of service credits and then retires on earnings received during a short period of full time employment.

It is suggested that years of service credits for seasonal employment be determined on a pro rata basis if the average compensation which is used for retirement purposes is secured from employment in a position on a full calendar year basis. However, this situation can perhaps be satisfactorily controlled in the alternate by excluding from membership for example seasonal employees of less than 7, 8 or 9 months and part-time employment not requiring at least 20 hours in any one week.

There are certain administrative problems in determining the service credits allowable for absences without pay. Also when such credits are allowed there will be a reduction in the average final compensation used for pension purposes if such absences occur during the period of determination of average final compensation which in some cases may result in lower retirement benefits. These two aspects are commented on in the following section and in the review of the Administration of the System.

The provision for allowing credits to teachers for educational service in other states is rather widely found in teachers' retirement systems, although the underlying theory would appear to be questionable. The net result is that the state system under which a teacher retires bears part of the burden that another state should probably bear. Also if the theory is correct for teachers it should be applied to all employees in order to avoid discrimination. It is suggested that consideration be given to discontinuing the allowance for out-of-state teaching credit with respect to any future service accruals.

## SECTION D

### SERVICE RETIREMENT

#### 1. *Service Retirement Conditions*

##### (a) *Regular Retirement*

Age 60 is the normal retirement age for members of the system, at which the employee has the right to retire with full benefits.

Retirement is also allowed after twenty-five years of service and the attainment of age 55 in the case of fish and game wardens, state prison guards, state police, airplane pilots and members of local police and fire departments.

In the case of employees of certain counties, cities, and towns, retirement age is 65 instead of 60.

Retirement is compulsory at age 70 except in the case of the special groups allowing retirement at age 55 for which the compulsory retirement age is 60. However in the case of all such groups, on the request of the governor with approval of the council, service may be extended beyond compulsory retirement age on a year to year basis.

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*Comments*

A so-called normal retirement age is usually provided for at which an employee has the right to retire with full pension credits. Continuance of employment after such time is sometimes the choice of the employee and sometimes dependent upon the consent of the employer.

Normal retirement age is often different for different occupational groups and is sometimes different for males and females. Also normal retirement may be allowed after a certain period of service regardless of age.

Age 65 is the common normal retirement age for private retirement plans. It is also quite common for clerical and administrative employees in public plans although age 60 is

frequently found particularly in teachers' plans. Plans for police and firemen generally have a normal retirement age of 55 or 60 and sometimes after a period of service only such as 20 or 25.

In most public plans there is usually a period after normal retirement age, extending for five years, during which the employee can continue employment or retire as he sees fit. At the end of that time retirement is required. Private plans also generally have such a provision although in salaried employees' plans continuance of employment after normal retirement age is often subject to employer consent.

Basically pensions are for the purpose of providing income to employees after they become permanently unable to continue in active employment. Disability is one cause of retirement and old age another cause.

Although all employees do not lose their efficiency at the same old age it is customary to have a normal retirement age at which it is presumed age alone is a cause for retirement. Then in order to have sufficient flexibility to adjust to individual variation the normal retirement period is extended for a period beyond the stated age and also provision is made for retirement before that age, including in the latter provision retirement for disability. The use of age 65 in plans of business and industry has unquestionably been influenced by the fact that Federal Social Security benefits commence at age 65.

It is often argued that retirement at a fixed normal retirement age should be compulsory in order for the employer to receive the most good from having a pension plan. It is claimed in that way a more efficient organization will be built through a sound promotion system. However a compulsory retirement age is to a certain extent foreign to the basic purpose of a pension plan, i.e., retiring people when they are unable to work, unless the normal retirement age is sufficiently advanced to include the large majority of breakdowns due to old age. Otherwise there will be a considerable economic loss from the non-production of capable workers. In this connection it should be noted that improvements in

public health are in the direction of increasing the usefulness of older people. The growing proportion of aged in the country's population is another important consideration. The strict application of compulsory retirement age for all employees at normal retirement age is also hard to maintain in periods of a competitive labor market. The same basic arguments against a single compulsory retirement age also apply in respect to having a normal retirement age too young; if substantial benefits will be paid to many persons still able to perform their jobs.

From the cost point of view there is a considerable reduction where the normal retirement age is delayed even though retirement credits continue to accrue until the date of actual retirement.

The use of a minimum years of service requirement for retirement is relatively unimportant from the cost point of view if benefits are geared to years of service by a reasonable formula and hence are small for short periods of service.

Where normal retirement is allowed after a certain period of service regardless of age it is on the theory that the granting of retirement benefits is more a reward for service than a provision for superannuated employees. This is objectionable if employees are thus encouraged to retire on a pension and seek employment elsewhere.

The use of an earlier normal retirement age for women than for men is objectionable because the longer life expectancy of females makes it more costly to retire a woman than a man at the same age, and from the point of view of efficiency females are usually just as capable of continuing in their jobs as males at the same age.

A younger normal retirement age in the case of police and firemen is used because it is felt that the usefulness of such employees in their particular occupation generally lessens considerably before age 65, and their retirement earlier than for employees in sedentary jobs is in the public interest.

The provision of the Maine Retirement System for retirement on full service benefits at age 60 is on the liberal

side compared with many public employee plans and with most private retirement plans. It is to be noted that in the original state act the normal retirement age was 65.

The increase in cost of a normal retirement age of 60 instead of 65 may be measured by the actuarial reduction which would apply to early retirement at age 60 if age 65 were the normal retirement age. On the basis of the actuarial tables presently used by the system this would amount to 36% for males and 33% for females. The extent of the increase in cost, however, would depend upon the number of employees actually retiring at age 60 which would be influenced by employment and economic conditions.

It may be questioned whether it is logical to allow normal retirement after age 55 in the case of the fish and game warden, etc., groups only in the event of 25 years of service. If age 55 is proper from the occupational point of view, then retirement should be allowed regardless of the number of years. However it is probably desirable to re-examine the question of whether age 55 is required as a normal retirement age for these groups. The cost of a 50% retirement at age 55 after 25 years of service is over 70% greater than the regular retirement benefits at age 60 after 30 years of service. Any change with respect to years of service requirements however, should be considered also in relation to the benefit formula, as is commented on further.

It is to be noted that in the case of the fish and game warden group, except for members of the local fire and police departments, retirement at age 55 or the later completion of 25 years of service can be requested by the employer. Basically the question of forced retirement is tied with considerations of public protection and the ability of the employee to handle his job. It would appear that the same condition should apply to all members in this category. This emphasizes the anomaly of having a 25 year restriction since the inability to continue in employment is independent of years of service.

The different normal retirement ages for employees of counties, cities and towns arises because such participating



districts can either elect or not elect changes in the system as they occur in the law.

In connection with the compulsory retirement provision it is to be noted that all extensions are made only on request of the governor with approval of the council. It may be questioned whether the final authority should be in the hands of the governor and council in respect to employees of participating districts since essentially this is an employment problem of the particular district and is not one basically involving the retirement system.

(b) *Early Retirement*

Retirement is allowed prior to normal retirement age after 30 years of service.

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*Comments*

Retirement before normal retirement age is allowed for two purposes: (a) to take care of employees who have become permanently disabled and will be unable to continue in their jobs, therefore having become superannuated before their expected chronological age, and (b) to allow the retirement of employees who may be able to continue in service but prefer to discontinue their employment and live on a retirement income.

Retirement before normal retirement, in cases other than disability, is usually allowed during the ten or fifteen years prior to normal retirement age. It is common in business and industry plans to have such early retirement subject to the consent of the employer. However, in public employee plans such retirement is usually at the employee's option. In either case the employer normally cannot require early retirement.

Minimum years of service requirements in the case of early retirement other than disability are imposed either because the benefit formula is too liberal for short periods of service or because of the philosophy that there should be some fairly long period of service in order to earn such

pensions. Unless normal retirement also has a years of service limitation the use of such limitation in the case of early retirement can create anomalous situations.

If the theory of deferred compensation is adhered to, there is no reason for limitations as to early retirement provided benefits are related to accumulated funds, i.e., a proper actuarial reduction factor is applied. However liberal early retirement benefits without due consideration to the basic theory may allow the payment of substantial benefits which are economically unsound.

Where vesting provisions are included in the plan, furnishing deferred retirement benefits in the event of termination of employment before retirement age, the deferred retirement and early retirement benefits should be kept in logical relation.

It may be questioned whether the years of service requirement for early retirement in the Maine Retirement System is the best approach. Consideration should perhaps be given to allow early retirement after the attainment of a certain age such as 50 or 55 without regard to years of service requirements.

## 2. *Service Retirement Benefits*

### (a) *Regular Retirement*

The regular retirement allowance of a member retiring at or after age 60 is the sum of the following amounts: (1) an annuity based upon the member's accumulated contributions, plus (2) a pension, provided by the state, which is equal to  $1/140$  of average final compensation multiplied by years of membership service, plus (3) an additional pension provided by the state related to years of service before the system was established.

The annuity from members' contributions is intended to equal the pension provided by the state for membership service thus giving a total of  $1/70$  of average final compensation for each year of membership service, resulting in a total retirement allowance of 50% for 35 years of service in the

case of an employee whose entire employment is while a member of the system.

The additional pension allowed for years of service prior to the date of the system, during which an employee could not have contributed, is equal to the following: (1)  $1/50$  of average final compensation for each year of prior service, subject to a maximum of 25 years, for state employees and (2) equal to  $1/70$  of average final compensation for each year of prior service for teachers. In the case of employees of counties, cities and towns the credit may be either on the  $1/50$  or  $1/70$  basis.

In the case of fish and game wardens, prison guards, state police, airplane pilots, members of the local police and fire departments total retirement benefits are at least equal to 50% of average final compensation if a member has completed 25 years of service.

The total retirement allowance of certain employees with prior service credits is subject to the following guarantees:

- (1) A state employee with at least 13 years of prior service and at least 25 years of total service is guaranteed 50% of average final compensation upon retirement at or after age 65.
- (2) A state employee with at least 13 years of prior service and at least 20 years of total service is guaranteed 50% of average final compensation upon retirement at age 70.
- (3) A state employee who has at least 23 years of prior service and at least 25 years of total service is guaranteed 50% of average final compensation, no minimum age being required for retirement.
- (4) A teacher in service prior to 1924 is guaranteed \$900 per year after 35 years of service, \$800 per year after 30 years of service, and \$700 per year after 25 years of service.

Average final compensation is equal to the average compensation during the five years of service in which compensation is the highest.

Members' contributions are accumulated at the interest rate set by the Board of Trustees, currently 3%, compounded annually.

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*Comments*

Retirement benefits are normally related to employees' earnings and periods of service. Pension plans today generally aim at retirement allowances between 40% and 60% of earnings for employees who spend the majority of their working years with the employer, generally between 30 and 35 years. Another approach used for the determination of the amounts of pension called the money purchase method, fixes contributions of the employees and the employer and the amounts of pension are whatever such accumulated contributions will provide.

A modification of the money purchase approach sometimes found in public employees retirement plans, is to have the part of the pension provided by the employer related to earnings and years of service, while the part of the pension provided by employee contribution is determined by the money purchase method. This is the basis of the Maine Retirement System.

Pensions may be related to earnings over the entire period of active employment of an employee, or may be related only to average earnings during the period immediately prior to retirement, such as the last five or ten years. Sometimes the average of the five highest consecutive years is used.

The level of pensions that may be considered as a proper objective will be affected by people's wants and standards of living and the extent to which the additional wage cost represented by the pensions can be borne by the economy. Any particular level is more or less arbitrary, but the purpose is to secure retirement allowances less than full earnings, assuming that the needs of people will be reduced after retirement and that, in many cases, individuals will have other additional income.

The percentage of earnings needed to produce a reasonable pension may be higher for lower paid employees than higher paid employees since for the lower paid employees the cost of the necessities of life will be a higher percentage of their earnings than for employees with larger earnings. For employees of all levels of earnings pension payments will have to be supplemented by income from other means to the extent that an employee may wish to maintain any particular mode of living.

Theoretically, the money purchase approach is a direct application of the savings fund and deferred compensation theory. Some objections to this method are the uncertainty of the ultimate amount of retirement benefit, and the difficulty of employees knowing what their benefits will be.

Where the money purchase approach is used it is necessary to estimate rates of salary for individuals over their working period in order to determine the rate of compensation which will provide benefits of the desired amount related to any particular average earnings that are used. This is impossible to predict with any degree of accuracy over any extended period and due to this factor alone the money purchase approach can only approach very broadly the desired objective. Also, to be realistic, it is necessary to periodically change the basis of determination of retirement benefits, i.e. the actuarial basis as to interest and mortality on which the annuities are to be granted. With a long term downward trend in the interest rate, subject to fluctuations up and down over any given periods, and with a non-interrupted improvement in mortality the chances are that annuity purchases will become more expensive in the future. Therefore applying the money purchase approach means that employees' annuities will probably be adjusted downward periodically which cannot help but result in considerable dissatisfaction aside from the lack of fulfillment of the retirement allowances in providing adequate income.

It is usually felt more proper that the employee's total allowance should be a direct function of his earnings and years of service, that his contribution should be on a fixed

basis, and that the employer should bear the burden of fluctuations in the cost of benefits because of the actual experience of the plan.

Basing retirement benefits on earnings over the entire period of employment follows most closely the deferred compensation and savings fund theory and permits a more even and stable relationship between the accumulation of benefits and the funding of costs. However, from the point of view of employees retirement needs, pensions are more logically related to earnings in the period just before retirement. Periods of considerable inflation or deflation just before an employee's retirement may cause a considerable disparity between actual pensions and expected pensions when pensions are related to earnings over the entire period of employment. Where the final salary approach is used, some reasonable period for the averaging of earnings should be used in order to prevent manipulation of pensions by arbitrary salary changes and to prevent unduly large increases in pension because of a very short period with higher earnings.

Basing pensions upon earnings during a short period of highest earnings without regard to the proximity of such period to earnings before retirement may result in certain problems since it neither follows the deferred compensation or savings fund theory on any reasonable basis nor does it necessarily relate to probable retirement needs which are principally dependent upon earnings just before retirement.

Business and industry retirement plans have more often been based on earnings over the entire period of employment, while public employee plans have more often used the final salary approach. In recent years, however, there has been more interest by business and industry in the final earnings basis due to the problems of inflation and the resultant necessity for supplementing pensions.

Pension plans have for the most part not attempted to attack directly the problem of the retired employee living on a fixed income during periods of inflation. At most, supplements have been made to retired pensions in the form of in-

creases in dollar minimums. In broad theory pensions should be geared to the cost of living but, particularly with a funded pension plan, an adjustable retirement income is difficult to secure.

Recently, the Teachers Insurance and Annuity Association, which offers retirement plans particularly for college faculties, has introduced a plan whereby, through the investment of funds in common stocks, a fluctuating retirement income will be secured which is supposed to relate to changes in the cost of living. This may be the next major development in pension plan methods but its application to public employee plans, using the same method, would appear to present too many difficulties to be of practical use. In any event, however, the objective which it attempts to accomplish is an important factor which should be considered insofar as its possible effect on the retirement benefit formula that may be adopted.

It is suggested that consideration be given to changing the basis for the determination of service retirement benefits to a total retirement allowance, in respect to membership service, of  $1/70$  of average final compensation multiplied by the number of years of membership service. This would change the money purchase approach in respect to employee contributions and would give the employees a guaranteed formula basis for the determination of benefits which is not dependent upon future variations in salary scale, investment earnings or mortality experience. It would also remove the discrimination between males and females since females receive less annuity from the same contributions. The risk in respect to such fluctuations would be borne entirely by the state as it now does for  $1/2$  the retirement allowance in respect to membership service and the entire amount of retirement allowance in respect to prior service.

It may be noted that the benefits under the old Maine Teachers Retirement Association were based upon the full money purchase approach which undoubtedly contributed to the defects of that system.

It is also to be noted that, in addition to the part of the present pension which is provided by the state on a guaranteed formula basis, the special guarantees for the fish and game wardens, etc., group and state employees with prior service are all determined on a regular formula basis.

It may be questioned whether the fish and game warden, etc., group should be guaranteed a 50% retirement allowance after 25 years of service. If retirement is at age 55, the normal working period would be between 30 and 35 years. Therefore the regular 1/70 basis, providing a 50% pension after 35 years, may not be unreasonable. In comparison with other state employees such groups receive the additional benefit that, retiring at age 55, no actuarial reduction would be applied which amounts to 14% for other employees.

Although it is probably to an extent academic at this time the provision allowing a state employee with 22 years of prior service to retire after 25 years of total service, regardless of age, on a retirement allowance of 50% is a questionable provision. However a member retiring at the present time under such provision would presumably have at least 34 years total service and except for current ages under 60 the discriminatory treatment is perhaps not too great.

It is to be noted that the state system originally provided past service benefits at the rate of 1/70 per year of prior service which has since been changed to 1/50. This liberalization might be questioned particularly since benefits are based on the five highest earnings years because the net result is more favorable treatment for prior service than membership service which is the reverse of the usual practice.

Retirement allowances for teachers hired prior to 1924, which are on a non-contributory basis, have been steadily increased each year since they were first granted. At the current rate of \$900 for 35 years of service this is the equivalent of a 50% pension for \$1800 yearly earnings. The amount of pension thus provided is certainly not unreasonable and the increases have without doubt been justified because of the increase in the cost of living. However in order to be



equitable to all employees, and particularly to those employees who are contributing toward the cost of their retirement benefits, it is suggested that consideration should be given to the application of such minimums as applied to the 1913 teachers to all other members of the system. In any event any further increases in the pensions for the 1913 teachers should not be granted without due consideration of the equities of the other members of the system.

It is to be noted that the basis for average final compensation has been liberalized from the original basis of the last ten years of service prior to retirement. While the original basis undoubtedly suffered from the lack of close enough correlation to earnings in the period just before retirement because of the rapidly spiraling inflation since the close of World War II, the present basis has shifted to the liberal side. The original basis also suffered from the defect that any down grading of position during the years just before retirement would result in a substantial reduction in retirement allowances.

The present basis of the five highest years does entail certain hazards. It is essentially the same in most instances as the last five years during periods of inflation but during periods of deflation, if continued over a long period of time, resulting retirement allowances might be rather extreme in relation to final earnings and rather costly to the state. There is also the situation in regard to individuals that changes in employment position might be a voluntary down grading many years before retirement and the employee could still secure a retirement allowance in relation to his higher paid position. A possible compromise between the defects of using the last five years before retirement and the highest five years is to use the highest five years within some period before retirement, such as ten or fifteen years.

One of the difficulties of the average final compensation method, as mentioned previously herein, is in respect to the employees who shift from full time to part time or from seasonal to yearly. Under the present basis part time periods or seasonal periods will count as full periods of employment

even though benefits may be related to a short period of full time employment. It is suggested that in such cases seasonal or part time credit should count only for pro rata credits.

Periods of absence without pay cause certain problems in the determination of average final compensation. Where service allowance is given for such periods and average final earnings are determined including such periods, members in many cases may receive retirement allowances which are less than if no credit were given for periods of absence without pay. This is also influenced by the fact that compensation is taken as actual compensation and not the rate of compensation. It is suggested that consideration be given to basing average final compensation upon the rate of compensation rather than actual earnings and excluding credits for pay periods for which no earnings are reported. Members' contributions would then be based upon rate of compensation regardless of actual pay received. In the alternative if service credits are allowed for any periods without pay average earnings should probably be based only upon periods of actual earnings.

(b) *Early Retirement*

Benefits in the event of retirement before age 60, except where special benefits apply, are determined in the same manner as for normal retirement except they are reduced in the ratio of relative life annuity values at age 60 and the age of retirement.

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*Comments*

Where retirement is before the normal retirement age, other than in cases of disability, pensions are usually determined by the same formula as for normal retirement benefits, but based upon earnings and service up to date of early retirement and then reduced in relation to the period by which the early retirement date precedes the earliest normal retirement date. This reduction, is known as an actuarial reduction, when it is based upon the relative expectations of life at the

normal retirement age and at the early retirement age. Reductions on that basis result in mathematical equivalents and the value of the benefits that are granted the employee retiring at the early age is in effect based upon the funds that are assumed to have accumulated under the plan at the early retirement age.

The basis for the determination of benefits in the event of early retirement is not an entirely strict actuarial equivalence but, because of the complexities of the retirement allowance being a combination of annuity and pension this simple approach is desirable and sufficiently close to the technical mathematical equivalent. However if the period for early retirement is liberalized using a strict actuarial equivalent should perhaps be considered.

## SECTION E

### DISABILITY RETIREMENT

#### 1. *Disability Retirement Conditions*

Disability retirement is allowed after 10 years of service subject to proof that the member is permanently incapacitated for further performance of duty.

Disability beneficiaries are subject to medical evidence of disability until they have attained age 60.

#### 2. *Disability Retirement Benefits*

Disability retirement allowances are equal to 90% of 1/70 of average final compensation multiplied by the number of years of service subject to a minimum of 25% of average final compensation.

Disability benefits may be reduced by Workmen's Compensation benefits.

If a disability beneficiary receives compensation from gainful occupation so that together with his retirement allowance his total

income is greater than the average final compensation at retirement the amount of his pension is reduced.

If a disability beneficiary is restored to service, or any other retired employee is restored to service, the retirement allowance ceases if the earnable compensation of the beneficiary is equal to or greater than his average final compensation at retirement. The beneficiary then becomes a member of the retirement system and accrues membership service thereafter subject to certain restrictions in the event of restoration to membership after age 55.

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### *Comments*

The principal problem in respect to providing adequate disability benefits is that of determining whether the benefits are properly payable. The existence of total disability is often quite difficult to prove and establish. Also unless the existence of continued disability over the years is carefully verified, the costs of disability pensions can be considerable because of the payment in cases that are not justified. The experience of life insurance companies has borne out the problem involved in attempting to provide any reasonably adequate benefits.

The degree of the cost of disability benefits will be found to vary considerably according to the liberality of benefits and the carefulness of administration.

The approach of business and industry has been primarily from the point of view of allowing only modest formal benefits, departing not too seriously from the savings fund approach, and to allow additional noncontractual benefits on a case to case basis. Insofar as public employee plans, this approach would obviously be too difficult to follow.

Provision for disability pensions has been quite common in public employee pension plans. Also in such plans, particularly because of the occupational disability hazards of police and fire department employees, two types of disability retirements are usually provided, depending upon whether disability is incurred in line of duty or outside of line of duty, with more liberal benefits for the former type.

Retirement before normal retirement age in case of disability is usually allowed after a minimum years of service, such as 10, 15 or 20, in public employee plans. Minimum age requirements, such as 50 or 55, in addition to years of service requirements, are often found in private employee plans.

Minimum age and years of service requirements in disability provisions are of minor importance where benefits are directly related to years of service. Also cases of total and permanent disability at younger ages are relatively infrequent.

In the case of retirement before normal retirement age because of disability the usual approach to benefits is to use the regular retirement formula, based on earnings and service up to date of disability, without any actuarial reduction. Sometimes a higher credit is given for each year's service and also sometimes a certain minimum is established regardless of years of service.

Most pension plans allow disability benefits which are somewhat higher than benefits based on a savings fund approach, since the mathematical reduction is done away with, but except in the case of occupational disability, or special treatment, disability benefits are relatively modest.

A permanent loss of income because of total disability is one of the catastrophes that individuals would most like to guard against. The real need of the individual is for a disability pension not too much less than his previous earnings, reduced to the extent because of some lower expenses such as the reduction of federal income tax. However, following the savings fund theory the benefits in the event of disability will increase with the years of service and will be greatly inadequate except for retirement in the years close to the normal retirement age. Therefore, if disability benefits are to approach the desired objective the allowance of such a level of benefits will in effect be an insurance application or will be based upon life insurance principles.

The provision for ten years of service for disability retirement as provided in the present law is reasonable but it is suggested that the basis for disability retirement allowances be  $1/70$  of average final compensation multiplied by years of creditable service subject to a minimum of 25% of average final compensation, which

would remove the 90% adjustment in the present law. This is a logical approach since the occurrence of disability is in effect the same as the advancement of normal retirement age and the same benefit formula logically applies.

The earnings test in regard to the reduction of retirement allowances in the event a disability beneficiary receives earnings from any gainful occupation should probably have the limitation related to the smaller of compensation at the time of retirement and average final compensation. Since average final compensation can be either more or less than earnings at retirement some anomalous situations can arise where for example compensation at retirement is less than average final compensation and therefore a disability beneficiary could receive a total retirement allowance and outside earnings greater than his actual earnings at retirement.

In the event of the restoration to service of a disability beneficiary it would appear that his retirement allowance should cease regardless of any relationship of his annual earnable compensation to his average final compensation at previous disability retirement. Disability benefits are supposed to be paid only in the event of incapacity for further performance of duty and therefore any restoration to service would appear to be conclusive evidence that the disability had ceased. Presumably, however, the limitation as to earnings from a gainful occupation should make this provision unnecessary in any event.

The same comments in regard to the test as to cessation of retirement benefit in the event of restoration to service of a non-disability retirement applies as in the case of a disability retirement. An employee can now retire with earnings less than final compensation and return to employment with greater earnings and still receive a retirement allowance. Basically it would appear that employees should not be able to receive both a retirement allowance and compensation for employment from the state at the same time. Also it does not appear proper that a retired employee should be able to be reemployed and receive a total retirement allowance plus compensation greater than his compensation at retirement.

It is recognized that in times of tight employment some arguments can be made for encouraging the return to employment of

former employees, particularly in part-time employment. However, it would probably be better to either terminate retirement allowances, include such reemployed members again in the System or to reduce retirement allowances by using an earnings test, as in the case of disabled employees engaged in outside employment, and exclude the reemployed members from further membership service.

Generally it is in the best interests of the state as an employer to require that in all cases retirement allowances must cease if state employment is recommenced. To devise terms or provisions to suit particular individuals without opening the door to abuses by other individuals is rather difficult in a plan which is intended to solve a general problem of employment practice.

## SECTION F

### OCCUPATIONAL DISABILITY AND DEATH BENEFITS

#### 1. *Disability Benefits*

In the event of disability of a fireman as a result of injuries received in the line of duty, after ten or more years of service, the member is entitled to a pension of one-half average final compensation.

#### 2. *Death Benefits*

If a fireman or state policeman dies as a result of injuries received in the line of duty, his widow or minor children are entitled to a pension equal to one-half average final compensation of the member (one-half annual salary at time of death if the state policeman is not a member of the System) payable until the widow remarries and until the children reach the age of 18.

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*Comments*

Provision for special disability pensions for police and fire department employees where disabilities are incurred in line of

duty is common in public employee pension plans. In many plans it is also applicable to all employees.

Similarly the payment of widows and orphans benefits in the event of death in the line of duty is quite often found in public employee plans.

In the case of disabilities or deaths occurring in the line of duty, the approach is generally to attempt to furnish reasonably adequate benefits and allowances are normally equal to between 50% and 66-2/3% of earnings. Additional benefits are also sometimes paid to widows while there are minor children.

Special pension treatment in the case of disability or death in the line of duty is justified from the point of view that society is willing to provide these extra benefits because the particular services are necessary for the public and employees furnishing such services should be protected against any special hazards which are encountered. The theory is essentially the same as that of workmen's compensation insurance and also, normally, the benefits of the plan are reduced by any benefits received under a state workmen's compensation law.

It may be questioned whether a ten-year service requirement in the case of firemen disabled as a result of injuries received in the line of duty is proper since the theory of occupational disability benefits is independent of years of service. The inclusion of these benefits if optional as far as participating districts are concerned but it would seem preferable to have the provisions on as sound a basis as possible.

In the case of the death benefits for firemen and state policemen where death is incurred in the line of duty it would appear that provision should be made for an offset of any benefits received under workmen's compensation law.

It may be questioned whether it is proper that the state retirement system be charged with the cost of death benefits incurred as a result of death in the line of duty of state policemen who were not members of the system, particularly since no appropriation has apparently been made for such costs. The more proper way would be to have the cost of such death benefits paid from the same source



as pensions to such retired officers. It may be noted that benefits for state policemen not members of the System are based upon earnings at date of death rather than the average final compensation basis used for members of the system.

Since state policemen who are members of the system are to be provided with special occupational death benefits it would appear that equitable treatment to all employees would require that such benefits be available to them also even though it is true that occupational hazards do not exist to the same degree as for state policemen.

It is suggested that consideration be given to including occupational disability benefits for all state employees, of the same type as for firemen although without any years of service requirement. This is a reasonable benefit and such additional protection for state employees is believed desirable. Also, although it is recognized that it is a local option situation, it would appear that members of local police departments should be eligible for the same occupational death and disability benefits as firemen.

## SECTION G

### OPTIONAL METHODS OF RETIREMENT PAYMENTS

Members have certain options as to the method under which their retirement payments may be made, all of which are of mathematical equivalents and on the average involve no additional cost to the system regardless of which option is elected. These options are as follows:

1. Reduced payments for life to the member but in the event of early death after retirement any difference between accumulated member contributions and annuity payments received is paid to the member's beneficiary.
2. Reduced payments for life to the member with a continuance of such payments after the member's death to a beneficiary during the beneficiary's lifetime.
3. Reduced payments for life to the member similar to 2 above except that payments to the beneficiary are one-half the amount of the payments to the member.

4. Reduced payments for life to the member with some special benefit payable after his death.

If a member does not elect any of the options stated above retirement allowance payments cease at his death and no further payments of any kind are made.

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*Comments*

Most pension plans, public and private, allow employees to elect that pensions be payable under certain optional bases of the types included in the Maine system. Normally, all of these options are mathematically equivalent and technically the employee gains no greater value regardless of the option he chooses. There is usually no option for taking the value of the pension in cash at retirement but sometimes the allowance of the cash payment is made where pension payments are too small to be of much value when spread over the employee's lifetime.

In plans of business and industry, the full amount of retirement allowance is normally payable under Option 1 above and an election not to have payments of any kind made after the member's death normally increases the amount of regular allowance. However, quite a few public employee plans use the basis of the Maine system under which the election of Option 1 reduces the amount of the retirement allowance. The approach of business and industry would appear to be more desirable since the average employee usually feels that he should be guaranteed at least the return of the contributions he has made under the system. If he must elect a reduced pension in order to secure that guarantee, there is probably the feeling that the reduction is primarily for the purpose of the employer gaining a cost advantage.

It is suggested that the automatic option for the payment of the full retirement allowance be changed to provide for the payment at death of any difference between accumulated member contributions and total retirement allowances received. Then in the event the employe wishes to give up the death benefit guarantee he can receive a slightly larger retirement allowance.

## SECTION H

### BENEFITS ON DEATH BEFORE RETIREMENT

If a member dies before retirement the amount of his accumulated contributions is paid to his beneficiary.

If a member dies before retirement but after completing eligibility requirements for retirement, benefits are paid in accordance with option 2 of the retirement options as if he had retired at the moment of death. Payments are made to his beneficiary, if he has designated one, otherwise they are paid to a wife, husband, father, or mother.

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#### *Comments*

Usually benefits upon death before retirement are restricted to the payment of the employee's accumulated contributions with certain interest credits. Employer contributions are normally not returnable.

In the case of business and industry plans the lack of such benefits from employer contributions are usually offset by much larger benefits received under a group life insurance plan. However, such coverage is not found very often in the case of public employees.

In some few public plans death benefits are in the form of a monthly pension payable to the employee's widow, unless she remarries, and also to dependent children up to their age of majority, similar to the occupational death benefits provided for state police. The pension to the widow is approximately 50% of salary and additional flat amounts may be payable while there are dependent children. Currently, there has been a certain amount of interest among business and industry in providing such benefits.

The survivor allowance restricted only to death after eligibility for retirement has been obtained, as in the Maine system, is found in a few public employee retirement systems. In effect it is a type of partial vesting of employer contributions upon the attainment of eligibility for retirement while still in service. From the point of view of equal treatment to all employees there is some bias created in the favor of married employees by the granting of such benefits since single employees are less apt to have eligible beneficiaries. To some extent the theoretical justification for these benefits is somewhat hard to define.

Survivor benefits are essentially supplemental decreasing term life insurance benefits and generally do not result from the savings elements of a pension plan. Where public employees are not covered by Federal Social Security, these benefits in effect take the place of some of the dependents' benefits provided by the Federal Social Security Act.

The inclusion of the costs of these benefits in the Maine system increases the costs approximately 3%. The increase in cost arises because of the savings that would otherwise be available in the event of death before delayed retirement.

It may be noted that since these benefits are available after reaching eligibility for retirement some members receive more favorable treatment. All employees after age 60 are entitled to these benefits, employees after 30 years of service regardless of age and the special groups after 25 years and age 55.

It is to be noted also that these survivor benefits are available, presumably, to a member who terminated employment before retirement with vested rights. It may be questioned whether it is desirable to have these benefits vest.

Presumably a beneficiary does not have the right under this provision to elect the refund of employee contributions in lieu of the survivor benefits. It would appear that such an election should probably be allowed. In some cases the refund of employee contributions might be of much more immediate value, where for example the beneficiary was in poor health.

It may be questioned whether the application of option 2 should not be applicable even though option 4 has previously been elected. Otherwise it would appear that inequities may be created.

It is suggested that consideration be given to providing group life insurance benefits for members of the system. Such provisions are common in business and industry and form the basis of most employee benefit plans. The protection of group life insurance is very advantageous and desirable for all types of employees. Public employers in general will probably find it more and more necessary in the future to furnish such benefits in order to compete in the labor market.

A possible plan of group life insurance would provide death benefits before retirement equal to a year's salary, in effect a salary continuance for a year after death and death benefits after retirement equivalent to the continuance of the retirement allowance for a year after death. If group life insurance were adopted the survivor's benefits payable in the event of death before retirement would be deleted.

## SECTION I

### BENEFITS IN THE EVENT OF TERMINATION OF SERVICE BEFORE RETIREMENT

If a member terminates employment before retirement, except by death, he is entitled to a refund of his contribution with accumulated interest. Interest is currently allowed at the rate of  $2\frac{1}{4}\%$ .

If a member terminates employment after ten years of service he is entitled to a retirement allowance commencing at age 60 if he leaves his contribution in the system.

Regardless of the number of years of service at date of termination of employment a member is allowed to leave his contributions in the system indefinitely and upon any later return to public employment all previous service credits are maintained. However even though a member has withdrawn his contributions he can later redeposit them upon further re-employment and receive credit for all previous membership service.

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#### *Comments*

Normally in both public and private employee plans, an employee's accumulated contributions with certain interest credits, are available to the employee in the event of termination of employment before retirement. Employer contributions are normally not paid to terminating employees, although in some few private plans employer contributions are paid to the terminating employee in effect as an unemployment benefit.

Although it is not customary to pay out employer contributions in cash to terminating employees, it is the normal practice to allow

terminating employees, in the event of termination of service after a certain number of years, such as 10, 15 or 20 and perhaps also after the attainment of a certain age such as 50 and 55, to retain accumulated pension credits payable commencing at normal retirement age provided contributions are left in the plan. Some public employee plans, notably teachers' retirement plans, allow an employee who has withdrawn his contribution to reinstate all of his accumulated pension credits if he redeposits his withdrawn contributions in the event of later re-employment.

A modified type of vesting is found in many public employee plans allowing employees to leave their contributions in the plan for a limited period after termination of service, such as 5 or 10 years, regardless of their original period of service, and still retain rights to previous service credits if reemployed in that period.

The purpose for providing for vesting at termination of employment is to allow an employee, if he is interested enough in providing for his retirement needs, to retain accumulated pension credits upon transfer from one employer to another. Without such accumulated credits the employee will normally receive only a small retirement income since it will usually be related to service with his last employer.

The theory of vesting appears to be economically sound and answers one of the objections sometimes raised that pension plans tend to reduce the mobility of labor. In industry recent developments for the purpose of furnishing such vesting have resulted in the establishing of industry wide pension plans whereby employees receive credit from their total employment with any of the employers covered under the particular plan.

It might be desirable to directly restrict interest credits in the payment of accumulated contributions through the use of a low guaranteed rate such as 2%. It is of course desirable to have the rate of interest less than the earned rate of the system, as is done in the Maine System, since withdrawals of accumulated contributions create the necessity for a certain liquidity of assets which reduces the rate of investment earnings otherwise obtainable. The use of a specified low rate avoids any necessity of a fluctuating rate tied to the earnings of the System and at the same time has the psychological advantage of a guaranteed rate in a savings fund.

The provision allowing terminating employees to leave their contributions in the system indefinitely in order to obtain rights to previous service credits in the event of re-employment is a liberal practice of questionable merit. The purpose of this provision is essentially to help employees maintain service credits for some short period after termination of employment in case they change their minds and want to return to public employment. It is to be noted that with the 10 year vesting provision all employees with 10 years of service have that right automatically and those employees helped by this provision are employees with shorter periods of service.

Although it is not unreasonable to allow some period after termination of employment for maintaining membership regardless of the question of a vesting provision, it does not seem justifiable that the period should be indefinite. From the accounting and administrative points of view many small accounts have to be maintained and over the years many members will forget about their accounts and the system will lose track of many of such members. This will create the problem of a back log of unclaimed equities.

There is also the objection that an accumulation of funds subject to withdrawal at any time will hurt the investment earnings of the System because of the necessity of a larger amount of liquid funds. In addition if investment credits on funds are too attractive members may leave funds in the System purely as a savings account.

It is suggested that the right to leave contributions in the System should be restricted to a period no longer than 5 or 10 years. It is to be noted that the System had a maximum of 10 years until liberalized in 1953.

The provision allowing former members who have withdrawn their contributions to re-enter employment and obtain previous service credits upon repaying withdrawn contributions is a similar practice which can be questioned. It opens the door to possible abuse and the system is exposed to an unknown potential liability. If there are reasonable provisions for leaving contributions in the System for some period after termination of employment there does not seem to be any sound reason for allowing such employees to change their minds later when they did not originally value their privilege too highly.

## SECTION J

### EMPLOYEES OF COUNTIES, CITIES AND TOWNS

Any county, city, town or any of certain political subdivisions may elect to bring its employees under the provisions of the Maine State Retirement System.

All of the provisions of the system apply to employees of a participating district except that participating districts that are in the system when any change is made, have the option of adopting any such change.

There is no provision in the law allowing a participating district to withdraw from the system once it has joined.

Each participating district provides the costs of the benefits furnished its employees determined on the same funding methods that are used to determine the contributions of the state for its employees. Participating districts also share in the administrative cost of the system.

Employees transferring employment between participating districts or between the state and a participating district are entitled to have service credits with their former employer transferred to the new employer if they leave their contributions in the system. The new employer assumes the liability for the employee's service with the former employer but any funds contributed for the employee by the former employer are transferred to the account of the new employer.

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#### *Comments*

As previously mentioned the provision for inclusion of employees of political subdivisions of the state is a sound provision.

Since participating districts can elect whether to have any changes made apply to them, there is the possibility that over the years there will be many variations in the provisions of the system as applicable to different participating districts. This will add complexity to the administration of the system, resulting in additional cost which is undesirable although probably to a great extent unavoidable. It is suggested that changes in the system should be made automatically appli-



cable to participating districts then in the system, whenever it would appear to be feasible to do so.

The provision for allowing the transfer of service credits when an employee transfers employment between employers covered by the system is desirable. However, it is suggested that the cost of previous service credits should perhaps be borne entirely by the former employer, since if the former employer had made only a few contributions in respect to the employee, the new employer might be faced with the assumption of a considerable unfunded liability.

## SECTION K

### FINANCING OF COSTS OF SYSTEM

Members currently contribute at the rate of 5% of compensation except that members in service prior to July 1, 1947 had the option of continuing the rate they were paying at that time, which was a variable rate depending upon the age at entry into membership of the employee.

Members are required to contribute as long as they are in employment except that contributions may cease, at the employees' option, after 35 years of service and attainment of age 65.

Costs of the benefits of the System not provided by employee contributions are provided by contributions from the employers. These are determined on an actuarially funded basis designed to build up the necessary funds during the employee's active service to provide the pensions payable after retirement. Employer contributions are of two kinds (a) the normal contribution to provide regular membership costs and (b) the accrued liability contribution to provide for the liquidation over approximately 25 years of the accumulated liability for service prior to the date of the establishment of the System.

Investment of the funds of the System is subject to the terms, conditions, limitations and restrictions imposed by the laws of the state upon savings banks in the making and disposing of their investments.

The assets of the System are credited to six funds, i.e. the annuity savings fund, teachers savings fund, the annuity reserve fund, the pen-

sion accumulation fund, the pension reserve fund and the expense fund. These funds are all for the purpose of paying out benefits accruing under the system and the expense of administration.

The expense of the administration of the system is provided by direct appropriations from the state, reimbursed in part by the share borne by the participating districts.

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*Comments*

The cost of future service retirement benefits may be borne by either the employer alone or by the employer and employees jointly. The reasons for employee contributions are :

- a) To provide adequate benefits where the cost will be too great for the employer alone.
- b) To make employees more interested in the plan and more appreciative of its worth.

Employee contributions, however, should not be burdensome or they will be a strong source of discontent, causing demand for increases in earnings to offset the contributions. Also the formula used for employee contributions should be simple and easily understood. It should appear equitable to the employees. The best type of formula is probably one that varies between individual employees only because of differences in earnings, such as a flat percentage of earnings for broad ranges of earnings.

In the long run, since pensions must be treated as an additional current payroll cost, there should be a differential between two employers in employee salary scales where one employer pays the entire cost of pensions while the other employer requires employee contributions. This, however, would not necessarily be true at any particular time. From the employee's point of view, there is an advantage in having the employer pay the entire cost of the pensions and then pay the employee a somewhat smaller salary since employer contributions to the pension fund are not taxable income to the employee until he actually receives pension payments. Therefore, the employer's dollar will provide more ultimate pension than the employee's dollar contribution since the employee has first to pay an income tax on the salary from which his contribution was deducted.

Private employee retirement plans are perhaps somewhat evenly divided between those financed entirely by employer contributions and those which require employee contributions. Currently, several unions insist upon the employer paying the entire cost of the pensions. On the other hand, public employee retirement plans almost universally require employee contributions.

Where employees contribute to the cost of the retirement plan, their contributions are only in respect to future service benefits. Also employee contributions do not usually provide on the average more than one-half the cost of future service benefits.

Some public employee retirement plans attempt to create an impression of an exact 50-50 division of the cost of future service benefits between the employer and individual employees by varying the percentage contribution of the employees according to age at entry into the plan. However, such percentage contributions varying by age are based upon many assumptions as to future experience which are, for all practical purposes, impossible of being met as assumed and the result, therefore, normally will be far from a 50-50 division of costs. The more practical approach is to set employee contributions at a certain percentage which does not vary according to age at entry.

Employer contributions for future service benefits would be the difference between the total cost of the benefits and the contributions of the employees. From year to year employer contributions would be affected by the differences between actual experience and the assumed experience as to the factors which have been previously stated must be used in order to set up the pre-retirement funding cost of the plan.

The cost of retirement benefits granted on account of an employee's service prior to the date of the plan should be provided by the employer alone. This is the customary practice both as regards private and public employee retirement plans. Where employees are contributing towards the cost of benefits for future service, any requirements for additional contributions from them toward the cost of the past service benefits could easily make their total contributions prohibitive particularly for the older employees.

There is a wide range of methods of funding pension costs. On one hand, we have the pay-as-you-go, current cost method. Under that

method the cost of pensions is met by the employer as an additional payroll payment. From that extreme, we have different types of pre-retirement funding which aim at building up funds before an employee retires which will be available to supply the required pension payments.

Meeting future pension costs by building funds during the employee's active working years is generally regarded as the method to be strived for if a pension plan is to be considered as actuarially sound. That is the logical approach for an employer to take for several reasons :

- a) Pension costs for an individual are charged each year during his active lifetime as an additional payroll cost and no further charges are necessary after he is no longer productive. This follows the depreciation theory used for equipment.
- b) If we accept the deferred compensation theory, the pay-as-you-go method is not equitable to the employees since the employer has not set aside for their later use the compensation which was withheld during their active working years.
- c) Smaller dollar costs are required over the years because the funds set aside during active working years are invested and interest earnings thereon provide part of future payments. In the ultimate, contributions into a pension fund plus interest earnings on the fund will equal the amount of pensions paid out.
- d) A backlog of future liabilities is not built up which would have to be met from future earnings. This aspect is particularly important since pension payments will become increasingly larger in the future for the average organization since the number of living retired employees will steadily increase.
- e) The pay-as-you-go method gives no guarantee to the retired employee as to the continuation of his pensions except to the extent of a yearly appropriation for the payments. Unless the funded approach has been followed a retired employee may find that his pension rights are meaningless in the event of any termination of the plan.
- f) Under the pay-as-you-go method the real costs are hidden because of the deferred nature of the pension load.

- g) A funded method acts as a brake on unsound liberalizations because there is an automatic adjustment in the funded costs, whereas under the pay-as-you-go method the impact of the liberalizations may not be felt until the future.
- h) The funded method of meeting pension costs puts the burden of providing the pensions on the generation of taxpayers which enjoys the services of the public employees, rather than shifting the costs to a later generation.

From the point of view purely of the dollar outlay, the pay-as-you-go method would be the cheapest method during the early years of a pension plan but ultimately the dollar cost will be greater to the extent of interest earnings that would otherwise be available from the accumulated funds of the plan.

From the point of view of the general economy of the country, it is certainly desirable that producers goods be accumulated in respect to any person who is to be entitled to a share of current consumer goods even though he is no longer contributing to the nation's total output of goods and services.

Most retirement plans of business and industry today provide for a funding of retirement costs on a sound actuarial basis. However, there are such instances as the United Mine Workers' pension plan, which is part of an over-all welfare plan, under which considerations of fund accumulations were put in the background in favor of making maximum current pension payments.

Public employee retirement plans are generally funded today using regular pre-retirement funding methods. However, in the past many public employee plans have been put into operation without any clear **recognition of future liabilities** and without any regular plan for the accumulation of funds.

The effect of interest earnings under a funded retirement plan on the costs of the plan can be seen from the following :

*Relative Cost of Payments Under a Retirement Plan*

- a) Male employees work from age 30 to age 65
- b) Employees retire at age 65 on pensions of \$1200 per year each
- c) Total average pension payments per employee \$18,000

d) Total yearly funding costs, per employee, for age 30 to age 65

(I) If fund earns  $2\frac{1}{2}\%$  interest      \$8,914, 50% of (c)

(II) If fund earns 3% interest      \$7,729, 43% of (c)

Thus the funded costs are

(I) only 50% of the pay-as-you-go costs if the fund earns  $2\frac{1}{2}\%$  interest, and

(II) only 43% of the pay-as-you-go costs if the fund earns 3% interest.

The costs of a pension plan are essentially payroll costs. Therefore, the real costs will be the amount of pensions that are paid out, unless any of the funds of the plan are paid to an employee before he retires, plus administrative expenses and reduced by interest earnings on invested funds.

After an employer has decided upon the use of a pre-retirement funding method to meet the costs of the retirement plan, it must decide when the money will be put aside to provide the pensions. Following the depreciation theory, the money should best be put aside regularly during each employee's working years.

The funding basis employed by the Maine Retirement System follows the sound principles of an actuarial funding of the costs of the System. More detailed comments concerning the financial structure of the system as to the funding methods and investments are included in Part IV herein.

The necessity for the separation of the assets of the System into six funds may be questioned. Essentially all of the assets of the System are for the purpose of guaranteeing the payment of benefits and the use of numerous funds introduces accounting complexities, and consequently additional administrative costs without providing any additional security. The principal considerations in regard to the financing of the costs are the proper determination of the actuarial liabilities created by the System and the necessary regular contributions by the employers so that the funds required to furnish the benefits will be accumulated. These evaluations are not aided by the maintenance of multiple funds. It is suggested that consideration be given to consolidating the funds, other than the expense fund, into two funds one of which would represent the employee's accumulated contributions and

the other fund the net assets held to guarantee the benefits of the system not provided by employee contributions.

## SECTION L ADMINISTRATION

The administration of the retirement system is vested in a board of seven trustees. The board consists of the following :

- a. Chairman of the State Personnel Board
- b. Comptroller
- c. Bank Commissioner
- d. Treasurer of State
- e. Member elected by the Maine Teachers' Association
- f. State employee elected by the Maine State Employees' Association
- g. Person appointed by the governor

The Board of Trustees has a full time administrative organization under the direction of the Secretary of the Board.

The Board of Trustees is assisted by a Medical Board composed of three physicians not eligible to participate in the retirement system. The Attorney General is the legal advisor of the Board and the Board designates an actuary as its technical advisor.

The Board of Trustees is responsible for establishing all the rules and regulations of the System carrying out the provisions of the law regarding benefits of members of the System, and for the investment of the funds of the System. The treasurer of the state is custodian of the funds of the System.

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### *Comments*

All of the normal administration functions appear to be adequately provided for in the Maine Retirement System. As is commented on later the Board of Trustees has a heavy responsibility for

the proper administration of the System and is required to do a considerable amount of interpretation of the intent of the law because of the broad basis on which the law pertaining to the system is drawn.

## SECTION M

### AMENDMENTS TO SYSTEM

#### 1. *General*

There is no provision in the law concerning the effect that any future changes will have on the benefits of members of the System. Changes that have been made so far have all been in the nature of liberalizations and, therefore, there has been no question which would involve a reduction in benefits or rights of the members.

Retirement plans of business and industry normally guarantee to employees that benefits or rights accrued up to the date of any change will not be reduced because of any such change. Also, such plans guarantee that employers cannot take back funds once they have contributed them in to the plan for the benefit of the members.

Public employee plans generally do not include any specific type of guarantee as to the payment of benefits other than the good faith of the State. However, some provisions have been made for certain types of guarantees and the problem might well be reviewed as to the desirability or necessity of including any type of guarantee of benefits in the Maine State Retirement System.

#### 2. *Special Resolves of the Legislature*

Periodically since the establishment of the System, special bills have been enacted by the legislature pertaining to individual members of the System which change the provisions of the System in respect to their application to the named individuals. These special bills, without exception, have provided additional benefits to these individuals not available to other members of the System.

The cost of the additional benefits provided by the special bills is being met currently by pay-as-you-go appropriations by each legis-



lature to cover the expected benefits becoming due during the succeeding biennium.

The discriminatory treatment for certain individual members created by the special bills is particularly objectionable from the point of view of the System. The System has been established in order to provide fair and equitable treatment to all employees. The special bills provide additional benefits only for certain members of the System which, judged by the circumstances of the special bills which were reviewed, are hardly justifiable.

The special bills create additional liabilities on the System not provided by the regular funding methods which tend to destroy the soundness of the funding being created for other members. The following tabulation shows the value of the additional benefits created by the special bills over the past years.

*Present Value July 1, 1953 of Special Resolves*

<i>Year</i>	<i>Number</i>	<i>Value</i>
1943	1	\$ 8,018
1945	5	34,413
1947	8	49,377
1949	8	20,978
1951	7	67,361
1953	17	160,468
Totals	46	\$340,615

It is recommended that if special bills are to be passed providing benefits that are not available under the System, that either the benefits should be paid directly out of state funds outside of the System or the legislature should appropriate the amount of money necessary to meet the entire cost of the benefits. It will be noted that this appropriation would have amounted to a total of \$340,615 to cover the cost of the additional benefits granted so far by the special bills.

**PART III**

**REVIEW OF LAW RELATING TO RETIREMENT  
SYSTEM**

In this part of the report are our findings as to the review we have made of the law relating to the Maine State Retirement System. The law was reviewed from the point of view of its completeness and clarity as to the provisions of the System. Also the rulings of the Board of Trustees in respect to its interpretation of the intent of the law were reviewed. Comments are made herein concerning provisions which may be ambiguous or apparently not clear as to the intent. Certain recommendations are made as to possible desirable changes.

The law covering the provisions of the Maine State Retirement System is to an extent written on a broad basis which leaves open to interpretation a fair number of details. As a consequence certain possible ambiguities have had to be resolved and a certain expansion of details made by the Board of Trustees who are given the final and determining decision in all matters affecting the rights, credits and privileges of all members of the system.

The necessity of interpretation and intent of the law must of course exist no matter how detailed the law may be for no law could cover every conceivable situation, and interpreting the law must be a basic function of the administering body. However situations have arisen where rulings based on sound judgment and interpretation may appear to be in contradiction to other equally sound and supportable interpretations of the same provisions of the law. In such cases it may be desirable to change the law either to remove the possibility of a different construction than taken by the Board of Trustees or to spell out a different interpretation if it appears warranted.

## SECTION A

### DEFINITIONS

#### 1. *Average Final Compensation*

The law states that "Average Final Compensation" means the average annual earnable compensation of a member during the five years of creditable service in which his compensation is highest.

It has been interpreted that the average compensation shall be determined during a period of five consecutive years of creditable service as the intent of the law. This is the logical interpretation, and certainly the desirable basis, but there is nothing to prevent the interpretation that the five years do not have to be consecutive.

It is suggested that this provision be changed to include "consecutive."

#### 2. *Retirement Allowance*

The definition of Retirement Allowance includes the statement that all retirement allowances shall be payable in equal monthly installments which shall cease with the last payments prior to death.

In actual practice retirement allowances are paid on the first of every month and the first payment is a pro rata amount from the date of retirement to the first of the following month. However since the Attorney General has ruled that there shall be no pro rata payment due at death, which appears to be proper, the provision of the law calling for payments in equal monthly installments is not technically being complied with.

Because of the payment of the first amount on a pro rata basis and because no partial payment is made for the month of death, pensioners may receive an amount, depending on the dates of retirement and death, greater or lesser by a maximum of one-half of a month's pension, than they would have received had the payments been made monthly from the date of retirement.

The problem involved here is primarily one of administration. The purpose of the present practice is so that all retirement allow-

ances due each month can be paid at the same time. However retirements can occur at any time during a month and the law does not state when payments are to commence. Actually it may be administratively desirable in the future to have payments becoming due at various times during the month in order to spread the work load of preparing checks.

It is suggested that it would be desirable that the law specify the date for the first payment of retirement allowances, which could be either the date of retirement or retirement could be restricted to the first day of the month. As an alternative the present practice as to payment of benefits could be continued but in that event pro rata payments should be made after death where necessary in order to complete the payment of equal monthly installments.

## SECTION B

### MEMBERSHIP

#### I. *Cessation of Membership*

In subsection VI of Section 3, as amended in 1953, the provision was deleted for termination of membership in the event of absence from service for more than ten years in any period of 15 consecutive years. The intent of this deletion was to allow a member terminating service to leave his contributions in the system indefinitely in order to retain previous service upon re-employment. This provision as it now reads states that a member withdrawing contributions loses membership. However Section 9 entitled Return of Members' Contributions, states that a member ceasing to be an employee except by death or retirement *shall* be paid the amount of his accumulated contributions. It would appear therefore that the law as amended could, or possibly should, be interpreted as requiring the return of contributions upon termination of employment and therefore automatically terminating membership and vitiating the intent of the amendment.

It is suggested that it would be preferable that the law specify directly the right to leave contributions in the system and retain

membership for whatever period desired. In this connection perhaps Section 9 should be changed to state that in the event of termination of membership a member shall have the right to receive his contributions rather than having it appear to be an automatic payment.

2. *Members' Contributions While in the Armed Services*

Subsection VI of Section 3 sets forth the provision that members' contributions will be made for them while in the service of the armed forces. The amount of contributions is stated to be such as the member would have contributed if he had been serving the state during his service in said armed forces in the same capacity as that in which he was serving at the time he joined the service. It does not appear to be entirely clear whether the salary scale of that capacity would be followed while he is in the armed forces or whether the salary is to be kept frozen at the time he entered the service. It would appear preferable that the law spell out the specific course to be followed.

3. *Out-Of-State Teachers Service*

Subsection VII of Section 3 provides for certain credits for out-of-state teaching service.

It has been ruled that a person who taught in Maine, then moved to another state to teach and was retired by that state on a pension partially based on the previous Maine service, then returned to Maine and began teaching again, should not receive any past service credit for the original Maine service, or for the out-of-state service, because the other state recognized the previous Maine service in computing his pension.

While this ruling certainly reflects the logical treatment for out-of-state service if it is to be allowed, the law is silent in respect to the proper treatment. Also the application of the ruling to Maine service is perhaps hard to support. It is suggested that the law should be expanded to cover this situation.

4. *Vesting Provision*

Subsection VIII of Section 3 states that an employee leaving state service after 10 years shall be entitled to a retirement allow-

ance at attained age 60, provided the employee leaves his contributions in the system.

The words "state service" used in this provision are not found elsewhere in the law. "Service" is defined but not "state service." This distinction might leave some question as to the application of this provision to participating districts and it is suggested that "state" be deleted.

This provision states that a retirement allowance will be granted at age 60. This leaves a question as to whether such a member must commence his allowance at that time or at a later date if he desired. It would appear preferable that the provision state that retirement can commence at any time after age 60, or before if the employee has 30 years of creditable service.

## SECTION C

### CREDITABLE SERVICE

#### 1. *Prior Service Certificate*

Section 4, subsection V states that a prior service certificate, once issued shall be conclusive evidence of prior service credit. However, a one year grace period is allowed for the employee to request correction of his prior service certificate.

In actual practice, this time limit has been ignored in administering the system. Corrections both increasing and reducing prior service certificates have been made beyond one year after the original certificate was issued.

This one year limitation also is an apparent bar to adjusting prior service on the basis of later legislation, which has been done where applicable, regardless of the time elapsing since the original prior service certificate was issued.

The administrative practice of adjusting prior service certificates where errors are found, either inadvertent errors or errors due to a lack of information, would appear to be the only feasible way to handle the problem on an equitable basis. It is suggested

therefore that the law be changed so that the question of the issuance of a prior service certificate will not be considered as having the force of a legal contract but rather merely a notice of employment record information.

2. *Prior Service Credits for Teachers*

Subsection VIII of Section 4 specifies that teachers may receive certain prior service credits upon paying into the system contributions that were not made because of the waiting period of membership in the old Maine Teachers Retirement System. The law only specifies service rendered prior to attaining age 25 but does not cover service after age 25 that could have been included in a six year waiting period that was in the law at one time.

Because of the omission of any reference in the law to the six year waiting period, the question has arisen as to whether credit for such period should be allowed automatically or whether a teacher should be given such credit if back contributions are made. The Board ruling has been that such credit is allowable only if the back contributions are paid in.

The Board ruling would appear to properly interpret the intent of the law and it is suggested that it would be preferable to include that interpretation in the law.

## SECTION D

### SERVICE RETIREMENT BENEFITS

1. *Retirement Provisions - Sec. 6-A*

Prior to 1953 the law provided that any member *in service* may retire on a service retirement allowance ----. In the 1953 law "in service" was deleted.

The intent of the 1953 change was to avoid the apparent bar to the granting of a pension to a member who reached retirement age, left service, but did not apply for a retirement for sometime thereafter. The intent of the change was proper but it would ap-

pear that an unintended result may occur. Since there is no longer any requirement that a member be in service, it would appear that a member terminating employment at any time, even though with service less than the years required for vesting, would be entitled to retire upon the attainment of age 60 and receive a pension as long as he left his contributions in the System. This would then render the vesting provision meaningless since vesting could occur regardless of the number of years of service, unless the possible interpretation is valid as suggested in section C preceding that the change in subsection 6 of section 3 may require the return of members' contributions upon terminating employment except as otherwise provided in the vesting provisions.

It is suggested that the intent of the change might better be accomplished by leaving the words "in service" in the law and restating the provision to the effect that "any member in service upon the attainment of age 60 may retire at any time then or thereafter - - -."

2. *Benefits for Fish and Game Wardens and other Special Groups*

Subsections III through VII of Sec. 6-A provide for special retirement benefits for certain groups, which are in addition to the regular benefits of subsections I and II. These subsections combine conditions for retirement and the amount of retirement benefits in the same subsection with the result that some confusion results as to the intent. It would appear desirable that some rearrangement of these subsections be made.

In each of the subsections III through V the allowance for retirement after 25 years is stated but the time of retirement is not mentioned. Subsection VI qualifies the previous subsections by stating that a member must have attained age 55. However, in the 1953 changes which added a new subsection, V - C, pertaining to the special retirement of members of a local police department, subsection VI was not amended to refer to this new section, V - C. Therefore it would appear from the law that with respect to members of the police department, retirement could be allowed at the end of 25 years, regardless of age. Apparently the intent is to also require age 55, and subsection VI should be changed if that is correct.



### 3. *Early Retirement*

Subsection IX of section VI-A provides that a member may leave service after 30 years of service and be entitled to a retirement allowance upon retirement, provided, the member has not withdrawn his contributions. However there is no mention in this subsection as to when the retirement can take place. It would appear preferable that the law specify such time.

It has been interpreted that for an early retirement under subsection IX the special benefits for teachers hired prior to 1924, upon attainment of age 60, as set forth in subsections VI-B, VI-C, and VI-D, apply on a reduced basis. It would appear preferable that this interpretation, if correct, be stated definitely in the law.

An unnumbered subsection after subsection VII states that a state employee with 22 years of prior service is entitled to a retirement allowance of one-half average final compensation if he has 25 years total service on retirement. There is no mention in this section as to the time of retirement. It has been interpreted that a member qualifying under this paragraph is entitled to retire upon the completion of the 25 years of service without regard to his then age. It is suggested that if this is the proper intent the law should definitely state the commencement date for benefits.

## SECTION E

### DISABILITY RETIREMENT BENEFITS

Section 7 provides for the payment of disability retirement benefits. In 1953 the words "in service" were deleted for the same reason as the similar change in section 6-A. The net result would appear to be that a member terminating service, regardless of the number of years, would retain the right to a disability pension commencing at any time in the future as long as he retains membership by leaving his contributions in the system. That could involve the problem of acting on long-delayed claims and might even involve paying disability pensions where the disability had occurred while a member was in employment elsewhere.

It is suggested that the intent of the 1953 change could better be accomplished by specifying that disability must commence while the member is in service and that notice of disability shall be filed within a specified period after termination of service such as six months or one year.

Subsection IV of Section 7 provides for the adjustment of pension in the event a disability beneficiary is able to, or engages in, a gainful occupation, provided the Medical Board so certify to the Board of Trustees. This would appear to prevent the Board of Trustees from adjusting such a pension of disability beneficiary actually engaging in a gainful occupation unless the Medical Board reported it to them. It would appear desirable that the Board of Trustees not be apparently limited in such cases.

Section 11 of the law states that workmen's compensation benefits "shall, in such manner as the Board of Trustees shall determine, be offset against" disability pensions for the same disability.

The Board of Trustees has ruled that workmen's compensation benefits are to be offset against the disability pension only to the extent that the combined retirement allowance plus workmen's compensation benefit is greater than the average final salary at time of disability retirement.

Normally the intent of a provision for offsetting workmen's compensation benefits is to deduct the entire workmen's compensation from the disability pension with the qualification that the employee will receive the greater of the two possible benefits. The theory is that pensions should not be paid by the state for the same cause from two sources.

Since the law appears susceptible to different interpretations, it is suggested that the manner of offset be set forth specifically.

## SECTION F

### RETURN OF MEMBER'S CONTRIBUTIONS

Section 9 states that upon death or withdrawal other than by retirement, a member's contributions, with interest thereon, shall be paid to the member or his beneficiary. The Board has ruled that interest is to be credited up on the first of the month of termination. It would be preferable that the law specifically state to what date interest is to be credited.

PART IV  
ADMINISTRATION OF MAINE STATE RETIREMENT  
SYSTEM

This part of the report includes a description of the administrative organization and the operating procedures concerned with fund accounting, individual contribution accounts, controls, income and disbursements, and benefit determination. Certain recommendations pertaining to these procedures are included under the appropriate sections and a general recommendation concerning further mechanization of operations is included in the last section of this part.

In addition to a detailed analysis of administrative operations, our investigation covered a review of the rulings of the Board of Trustees and the attorney general, which have been commented upon in previous parts of the report.

Also, test-checks of benefit calculation and payment were made and the costs of administration were reviewed. Sections are included in this part covering these topics.

## SECTION A

### ADMINISTRATIVE ORGANIZATION

#### 1. *Board of Trustees*

The over-all responsibility for the operation of the System rests in the seven-member board of trustees. The board receives legal, medical, and actuarial advice from the state's attorney general's department, a medical board, and a consulting actuary.

The board meets monthly and is composed by law of the chairman of the state personnel board, the state controller, the bank commissioner, the state treasurer, a representative of the Maine teachers' association, a representative of the Maine state employees' association, and a member appointed by the governor.

#### 2. *Secretary*

The secretary of the board of trustees, and appointee of the board, is a state employee and is charged with the full-time responsibility for the day-to-day operation of the System which is processed by three sections—records, accounting, and actuarial.

##### (a) *Records Section*

The records section is in two parts: records for state employees are the same as those used by the state personnel division and are maintained on a cooperative basis; records for teachers are maintained exclusively by the records section of the System. This section maintains all information relative to prior service, entrance, exit, or retirement, and reviews each case before any settlement is made.

##### (b) *Accounting Section*

The accounting section is responsible for the general books of the system, individual contribution records, supplying information relative to accumulated contributions and membership service, budget requests, cost allocations, fund accounts, and the pension payroll.

##### (c) *Actuarial Section*

The actuarial section is nominally under the secretary but due to the technical nature of the work, is effectively the

responsibility of the actuary. This section maintains the records of prior service, membership service, salary etc. which are necessary for the actuarial valuation of the system.

## SECTION B

### ADMINISTRATIVE PROCEDURES

#### 1. *Investment Procedures*

An investment sub-committee of the Board of Trustees is responsible for investing the moneys of the system. A list of securities approved for purchase, and the amount to be invested, is supplied to the state controller monthly by the Board of Trustees.

The state controller has discretion as to which of these securities to purchase and how much to invest in each issue.

Custody of the securities is a responsibility of the state treasurer.

#### 2. *Fund Accounting Procedures*

The requirements of the law that five separate asset funds—annuity savings, teachers' savings, annuity reserve, pension accumulation, and pension reserve funds—be maintained, place a heavy detailed accounting load on the administration of the System. The extent of this load can be readily appreciated when it is realized that each applicable fund must also be broken down by state, teachers, and participating districts, and each retirement allowance payment separated between the annuity portion and pension portion.

As mentioned previously, consideration should be given to reducing the number of asset funds required to two—one for employee contributions and one for all normal and accrued liability contributions, to which the employee contributions will be transferred at retirement and from which all pensions will be paid.

Also, the maintenance of the net balance by state, teachers, and participating districts of the accrued liability and normal cost contributions is of questionable value and requires that the pension portion of each retirement allowance payment be broken down between prior service and membership service. This practice should probably be eliminated.

3. *Control Procedures - General Books*

- (a) *Verification of assets*—the general books of the system are audited at least once a year by the state auditor. Cash and securities are audited several times yearly.
- (b) *Verification of income and disbursements*—the controller's office receives a copy of each entry to the general books and from them maintains a duplicate set of books. This duplicate set is on a "gross" basis, that is, controls the items by block instead of by detail accounts.

Additional control procedures maintained on income and disbursements are discussed under *Income and Disbursement Procedures*.

4. *Income and Disbursement Procedures*

(a) *Income*

(i) *Investment income*—the accounting section receives and deposits investment income which is received in the mail. Bond coupons are controlled by cross-checks between the state treasurer, who has custody of the securities, and the accounting section. The treasurer clips and deposits the coupons as due.

(ii) *Participating district contributions*—on the basis of the actuarial valuation, the districts are billed for the necessary employer contributions to the system. These amounts are remitted to the accounting section and deposited by it.

(iii) *State contributions*—are appropriated by the legislature on the basis of the actuarial valuation and are transferred on a quarterly basis, by the accounting section, from the appropriate funds to the retirement system.

(iv) *Recovery of expenses of operation*—this item is allocated and charged to participating districts and the state.

Participating districts remit in cash and the state portion is appropriated by the legislature.

(v) Recovery of administrative expenses relative to acting as trustee for Federal Social Security deposits—this item is estimated and billed to the employer unit who remits in cash.

(vi) Recovery of interest deficit—this item is allocated and charged to participating districts and the state. Participating districts remit in cash and the state portion is processed as an item in the budget request and appropriated by the legislature.

(vii) Employee contributions—are remitted by the employer with a copy of the payroll. State employee deductions are initiated by employee authorizations which are completed as a part of the membership application. The posting of the contributions is controlled by balancing the items posted on the individual cards to the total per the payroll. This operation is performed automatically.

(b) *Disbursements*

All checks are drawn by the controller upon receipt of properly approved documents.

(i) Benefits—refund of contributions on death or withdrawal—the amount of accumulated interest and contributions is supplied by the accounting section. Three-quarters of the accumulated interest and the total employee contributions are refunded upon board authorization.

Retirement allowances—these amounts are computed by the actuarial section on the basis of the salary, service, and contribution data submitted to it by the accounting and records sections. All benefit calculations are checked by the actuary, and payment is authorized by the secretary. The recipient is entered on the retired payroll by the accounting section. A copy of the authorization is sent by the secretary of the board to the controller, who draws the checks, as an independent control on the amount to be disbursed.



Interest on employee contributions—interest is automatically calculated at the rate of 3% per year and posted to the individual ledger card in the process of posting the employee contribution.

(ii) Purchase of Investments—the controller purchases investments upon board authorization and notifies the accounting section when such action has been taken.

(iii) Expenses—are primarily salaries and are charged to the system in the payroll procedures.

## 5. *Determination of Retirement Allowances*

Only four basic factors are involved in determining the retirement allowance—accumulated contributions which determine the annuity portion, and average final compensation, prior service and membership service which determine the pension portion. Of these four factors, the procedures involved in accumulating contributions are straightforward, tightly controlled and highly reliable, and prior service has been established; however, the determination of average final compensation and membership service is quite complicated, difficult to control, and presents a serious administrative problem.

### (a) *Determination of average final compensation*

Under the provisions of the law, average final compensation shall be the average actual compensation paid to a member during the 5 years of creditable service in which his compensation is highest.

Mention has been previously made on the question of whether the 5 years must be consecutive and this has been ruled as the intent of the law. In addition, since it is not specified just when a “year” is to begin or end, it is presumed to mean any 12 months’ period. Consequently, average final compensation effectively means the 60 consecutive months which provide the highest average compensation figure. Strictly speaking, this figure can only be obtained by computing a 60 months’ moving average of the employee’s compensation during his entire period of service.

From a practical point of view, however, since the salary trend has been consistently upwards in the past decade or so, only the last 60 months' period need be considered in the majority of cases today. Nevertheless, this situation may not exist forever into the future, and even today the occasion arises where an employee earns less in his last years of service than in some previous years, for example, a school superintendent who reverts to teacher status.

The procedure followed by the System to obtain this average final compensation figure has been to request the employee to supply, in his retirement application, what were his highest 5 years of salary. Then, because the System maintains no salary records suitable for checking the employee's claim, the figures are sent to his department head for verification. No attempt is made to ascertain that the employee has not erred and omitted a higher-paid year.

It would seem that if the System is checking to determine that the employee is not claiming too much salary it should also check to see that he does not claim too little. This does not necessarily mean that the System must keep salary records, but could be accomplished by requesting the department head to supply the employee's 5 highest-paid years as shown by the department's records without notifying them of which years the employee claimed, and compare these against those supplied by the employee. Any discrepancies should then be investigated.

For cases where the salary has increased steadily, the above method will probably provide the proper figure. However, for cases where the salary has fluctuated quite a bit or decreased in the years just preceding retirement, it is doubtful whether the employee understands or could provide the figures which would give him the highest 60 consecutive months of earnings. Most employees will probably provide the highest paid 5 calendar years which may not produce the proper average final compensation figure.

Consequently, it would seem necessary that either the System itself or the employer department keep accurate actual earnings records on all employees and that the *entire*

earnings history of an employee be reviewed by the *System* to determine the average final compensation at retirement.

(b) *Determination of membership service*

Membership service is service after July 1, 1947 for which contributions are made. However, the law provides that the Board may allow, and the Board has so ruled, any leave of absence without pay of less than one month in any year to be considered as membership service, even though contributions were not made.

The particular exception above is, on the surface, beneficial, but under certain conditions it can provide a lower retirement allowance than would otherwise be available. This can happen if the leaves of absence without pay of under one month occur in the years of highest pay. As creditable service is given for this period but no salary is paid, the result is more creditable service but a *lower* average final compensation, for the period without pay falls within the 5 *consecutive* years of creditable service which had the highest pay.

In some cases, the employee would be better off if the absence without pay was not considered creditable service for, although his creditable service would be less than under the above, his average final compensation would be higher for only months in which pay was received would be considered.

The procedure followed to determine membership service is for the accounting section to provide it on the basis of the information recorded on the individual's accumulated contribution ledger card. Primarily this involves scanning the card to see if a contribution was posted for each pay period in an effort to determine if the service was continuous, and if not, when did the breaks occur. No established procedure is followed to maintain records to otherwise indicate that service was broken by a period for which membership credit should not be given.

Inasmuch as only a few years' records can be maintained on one ledger card, there will be many such cards to

review for those persons who retire some years from now, which will further complicate the accurate determination of membership service.

It also seems questionable that determination of membership service is a proper function of the accounting section. Primarily its function is in connection with the funds and accounts of the system, not with personnel records of service. Records of membership service should probably be a responsibility of the records section.

To overcome the above situation and to provide readily available figures on periods of absence from service, a definite procedure should be established whereby either the records section of the System assumes the responsibility for maintaining a complete history of an employee's working lifetime showing date of employment, periods of leave without pay, date of termination, date of re-employment, etc., or the employee's department keep such a record and forward a copy of it to the System at the time of retirement.

Under the latter method above, it would be necessary to account for service within several departments if each department keeps its own personnel records and no central personnel files are maintained. This could be accomplished by requesting the employee to supply, at time of retirement, the names of all the departments for which he has worked since July 1, 1947 (date of inception of the System and date from which membership service is measured). Then all the departments concerned could be requested to supply their records on service of the employee.

Under either method, the accumulated contribution ledger cards should be matched to the periods of service shown by the records section or the employer department as a further check that the proper membership service has been accounted for.

#### 6. *Individual Accumulated Contribution Accounts After Retirement*

The individual accumulated contribution accounts are maintained after retirement. This necessitates breaking down each

monthly retirement allowance payment and reducing the individual accumulation account by the annuity portion of the retirement allowance. Interest is allowed on the mean balance in the account and is credited yearly.

The balance in the individual accumulated contribution account is only necessary when the retirant has elected option 1—cash refund annuity. However, even in these cases it is not necessary to carry the balance. On the death of such a retirant, the amount of annuity payments made can be readily computed and applied against the amount of accumulated contributions at retirement to determine if any cash balance is due the beneficiary.

The balance in the accumulated contribution account for those employees who have retired is a meaningless figure. Regardless of the balance shown on the card at any time, the System must pay the full retirement allowance including that portion represented by the annuity, as long as the retirant lives. In every case, the individual accumulated contribution account will develop either a “deficit” or a “surplus” depending upon whether the retirant lives for a longer or shorter period than the expected future lifetime used to compute the annuity portion of his retirement allowance.

Because, on the average, as many people will live beyond their expected future lifetime as will die before reaching it, the “deficits” and “surpluses” in the individual accounts will, over a period of time, cancel out.

Thus the knowledge of just how much remains in the individual accumulated contribution account of a retirant is absolutely meaningless and a great deal of expense is involved in maintaining this balance. Consequently, it is suggested that this practice be discontinued.

#### 7. *Individual Accumulated Contributions Statement*

In accordance with the law, a yearly statement is sent to each member concerning his individual accumulated contribution account. The statement is prepared simultaneously with the posting of the last contribution for the year to the individual ledger cards, and shows the amount of accumulated contributions, accumulated interest, and total amount in the account. The statements are addressed from a stencil file maintained on all members.

8. *Follow-up on Disability Retirements*

Because of the extreme difficulty at time of retirement in determining whether a disability may be permanent, a regular follow-up procedure should be employed if the cost of disability pensions is to be held to a reasonable level.

Several years ago all disability retirants were investigated to ascertain that disability was still permanent. However, no standard review and investigation procedures have been set-up by the System for disability retirements.

9. *Participating Districts—Acceptance of Amendments to the Law*

Participating districts have the option of accepting or rejecting amendments to the law. This situation has already created an administrative problem which will continue to grow more important as time goes on. The net result is that whenever a participating unit does not accept some amendments to the System, it has a plan which is different from the basic System. With each district accepting some amendments and rejecting others, it is possible to have a large number of different plans all operating at the same time. This will, in time, make necessary an extremely cumbersome and costly administrative procedure to handle this multiplicity of plans.

## SECTION C

### CHECK OF PROCEDURES

General control mechanisms regarding income, disbursements, and assets were reviewed in the process of analyzing operating procedures and are discussed under the preceding section.

In addition, detailed test-checks were made of the factors entering into, and the actual calculation of, the benefits. Where questions arose as to the meaning of the law, the board rulings were considered to apply.

1. *Check of Benefit Calculation and Disbursement*

Samples of the following type benefit calculations were checked for correctness of determination of the benefit and to the pension payroll to ascertain that the proper amount is being disbursed:

- (a) regular retirement allowances
- (b) optional retirement allowances
  - (i) option 1—cash refund annuity
  - (ii) option 2—joint and last survivor annuity
  - (iii) option 3—joint and  $\frac{1}{2}$  last survivor annuity
  - (iv) option 4—elective annuity
- (c) disability retirement allowances
- (d) special provision retirement allowances
  - (i) thirty year reduced
  - (ii) game wardens
  - (iii) prison guards
  - (iv) state police
  - (v) 13 years prior service
  - (vi) 22 years prior service
- (e) refund of member's contributions upon withdrawal.

The benefits in each case were calculated and disbursed in accordance with the law and the board rulings.

2. *Check of Prior Service Determination*

A sample group of files was checked for the determination of prior service. No errors were found.

3. *Check of Membership Service Determination*

A sample group of files was checked for this item. No errors were found.

4. *Check of Calculation of Average Salary*

A sample group of retired cases was checked for this calculation. No errors were present.

5. *Check of Interest Calculation on Accumulated Contributions*

A sample group of individual accumulation account cards was checked for this item and was found to be correct.

## SECTION D

### ADMINISTRATIVE EXPENSES

The administrative expenses which are charged against the System are direct, out-of-pocket expenses consisting primarily of salaries, supplies, and equipment. These expenses are approximately \$50,000 per year which is equivalent to about 1½% of the combined employer normal and employee contributions or 1% of total employee and employer contributions, which is quite reasonable.

The expenses are appropriated by the state, but participating districts are charged with their pro rata share and reimburse the state to that extent. Inasmuch as no overhead expenses are charged against the System, however, the participating districts do not reimburse the state for them, and thus this amount is borne entirely by the state.

The basis of allocation of the direct expenses to the participating districts is established by law as the ratio of the salaries of the members of each participating district to the salaries of all members of the System. This, of course, is a readily available measure. However, administrative costs are probably incurred more nearly on the basis of the number of members, also a readily available figure, rather than their salary and an allocation on this basis, perhaps with some minimum charge, is suggested as more realistic.

In addition to expenses incurred in operating the System, the administrative organization incurs expenses in connection with the state acting as trustee for Federal Social Security deposits for employer and employee contributions from those political subdivisions so covered.

The total amount of this expense is estimated and allocated by employer units. The allocation basis is flexible and is based primarily on a minimum amount plus a decreasing amount as the number of covered employees in the unit increases. The allocated charges are billed to the employer units.



## SECTION E

### MECHANIZATION OF OPERATIONS

Although recording of deductions is now mechanized, it is believed that a detailed study of the procedures involved in this and the other functions of valuation, collection of deductions, determination of average final compensations and of membership service, the various necessary statistics, etc., would indicate that all of these functions could be mechanized through the use of IBM equipment.

A complete study would probably indicate that considerable advantages could be gained in the following areas :

- (1) elimination of the dual record-keeping between the actuarial records and the other records ;
- (2) statistics which are necessary but are either unobtainable now or obtainable only with considerable clerical expense ;
- (3) more complete mechanization of the posting of contributions to individual record cards ;
- (4) a more positive follow-up system to assure receipt of all necessary information on members ;
- (5) positive salary records for retirement allowance calculation and valuation purposes ;
- (6) a better control over notification of leaves of absence, terminations, and new entrants ;
- (7) a more comprehensive method of recording membership service ;
- (8) a fully mechanized method for obtaining the figures necessary for the valuation ;
- (9) automatic preparation of yearly accumulated contribution informational forms for members ;
- (10) positive control on employee deductions.

It is therefore recommended that serious consideration be given to the possibility of making such a detailed study of the operating procedures of the System.

PART V

FINANCIAL CONDITION OF MAINE STATE  
RETIREMENT SYSTEM

This part of the report includes a review of the funding methods and actuarial bases employed by the System, an analysis of the investments of the System, an actuarial balance sheet as of July 1, 1953 and a determination of the current normal and accrued liability contributions.

The funding methods as set forth in the law appear to have been properly followed and the actuarial bases adopted by the Board appear to be reasonably adequate. Comments are made concerning certain changes which might be considered.

The assets of the System have been conservatively invested. However the investment yield has been generally below the interest rate assumed in actuarial calculations. Certain recommendations are included as to possible methods of increasing the investment return of the System.

The determination of normal and accrued liability contributions has been made for teachers as well as state employees.

## SECTION A

### FUNDING METHODS

The law provides that yearly contributions shall be made by the employer, in addition to contributions by employees, which shall be actuarially determined. The yearly employer costs are equal to the sum of the following:

- (1) An amount, known as the normal contribution, which is intended to provide for the funding of the cost of benefits accruing on account of membership service, and
- (2) An amount, known as the accrued liability contribution, which is intended to be sufficient to liquidate over a period of years the cost of benefits granted for service prior to the date of establishment of the System.

The normal contribution is determined as a level percentage of salary for the average new entrant. The accrued liability contribution is determined on a basis intended to liquidate the liability over approximately 25 years by, in effect, payments of principal and interest, each contribution to be at least 3% greater than the preceding contribution.

In addition to the normal and accrued liability contributions the state contributes each biennium an amount sufficient to make up any deficit between the interest rate adopted by the System, 3% per annum, and the rate of interest earned by the System.

State contributions are separated for cost allocation purposes between certain departments by separate actuarial evaluations.

- - - - -

#### *Comments*

The method prescribed by the law for liquidating the accrued liability involves an automatically increasing amount of contributions over the years. It might be preferable to determine a more nearly level amount by specifying that a certain percentage of the unliquidated liability outstanding each year should be contributed, or the actual dollar amount of unliquidated liability at any particular time could be liquidated over a given number of years, known as the frozen initial liability method, with changes in actual prior service liability absorbed

in changes in the normal contribution. Under the latter method the normal contribution would be determined each year as a level percentage of salaries of all members at their attained ages.

If it is anticipated that investment earnings will remain below the assumed rate of interest of the System it might be preferable to consider reducing the assumed rate of interest and thus increasing the normal and accrued liability contributions rather than to be faced with increasing amounts of contributions for interest deficiencies.

It is suggested that it may be sufficient for the purpose at hand to determine the allocation of contributions between departments by a function of salaries using an initial salary factor for the accrued liability contribution, rather than be burdened with the additional record keeping required by a direct actuarial valuation.

## SECTION B

### ACTUARIAL BASES

The actuarial bases for cost calculations adopted by the Board are as follows:

- (1) Interest rate—3%
- (2) Mortality rates—Combined Annuitants Table of Mortality
- (3) Disability rates—1937 Teachers Experience
- (4) Withdrawal rates—Massachusetts Cities and Towns Experience
- (5) Rates of retirement—1939 Teachers Experience
- (6) Salary Scale—an experience scale increasing over active service up to 92% for males and 61% for females.

---

#### *Comments*

The interest earnings of the System have been consistently below the assumed rate used in the valuation which has resulted in yearly appropriations for the interest deficiency. The earned rates of the System since 1948 have been as follows:

<i>Fiscal Year</i>	<i>Rate of Investment Earnings</i>
1952	2.72%
1950	2.65%
1948	2.57%

The relative effect of investment earnings on the ultimate cost to the state may be seen from the fact that, conservatively, a difference of one-half per cent in the rate of investment earnings can affect normal contributions by 10 to 12%. There is the additional factor to be noted that aside from the effect on the state's regular contributions there is an additional cost to the state arising from members' annuities. Even though investment earnings are not equal to 3%, members' contributions are still credited at that rate and also annuities based on members' contributions are determined on a 3% interest assumption.

In 1950 the actuary of the System presented the results of an investigation of the experience of the System during the years 1942 to 1950. This investigation related the mortality and withdrawal experience under the System to the assumptions used in the actuarial bases.

The actuary's investigation indicated that while deaths before retirement were lighter than assumed the withdrawals on the other hand were heavier than assumed. The net result of the combined total death and withdrawal experience indicated that the assumptions in the actuarial bases appeared to be adequate.

The mortality experience of retired members of the System, as revealed by the actuary's investigation, was less favorable than the assumptions in the actuarial bases, although, as indicated in the actuary's report, the amount of experience was probably too small to draw any absolute conclusions. However since the future trend of mortality among retired employees will probably be less favorable from the point of view of the costs of the System it is suggested that some consideration might be given to assuming a somewhat more conservative mortality experience after retirement.

No investigation has been made of the actual disability experience or the assumed rates of retirement although the assumptions appear to be reasonable.

A prediction of salary scales which will be at all representative for any long period in the future is extremely difficult and during any

period of inflation such as has existed since World War II salary scales change radically in a short time. However it is suggested that a re-examination of the salary scales now in use might be desirable although they may be entirely adequate for the purposes.

No direct provision is made in the present actuarial bases for the additional cost of the survivor benefits which are available if an employee dies before retirement but after reaching retirement age. It is estimated that this provision increases costs approximately 3%.

1953 amendments to the law liberalized the vesting provision. It is estimated that this provision may increase costs as much as 10%.

The tables and actuarial factors developed by the actuary of the System on the bases adopted by the Board were checked and found to be correct. The application of the factors to the valuations of the system were also verified.

## SECTION C

### INVESTMENTS

In view of the vital importance of the relationship of the investment phase of any pension or employee benefit plan to the over-all cost of any such plan, a careful study of the investment portfolio should be made. In order to obtain maximum results with maximum safety a well conceived plan must be established. With this in mind the assets of the System were carefully examined and the findings of the examination are presented following.

Practically all of the assets of the System are in the form of investments in bonds or stocks, the small balance being represented by cash and a very small amount of accounts receivable. Investment of the System's funds are limited to those securities which are legal for investment by savings banks in the state.

In our opinion, the quality of the securities is excellent as the following tabulation indicates, using the bond ratings for purely comparative purposes and eliminating United States Government Bonds, which of course are Aaa, from the table.

HOLDINGS AS OF MARCH 1, 1954

Rating	Canadian		Railroads		Public Utilities	
	Par	%	Par	%	Par	%
Aaa	—	—	\$1,685,000	51.5%	\$5,095,000	61.0%
Aa	\$195,000	79.6%	1,198,000	36.0	2,877,000	34.4
A	35,000	14.3	340,000	10.4	381,000	4.6
Baa	15,000	6.1	70,000	2.1	—	—
Total	\$245,000	100.0%	\$3,273,000	100.0%	\$8,353,000	100.0%

Rating	Industrial		Par	Total	Cum. %
	Par	%			
Aaa	\$1,049,000	50.1%	\$ 7,829,000	56.1%	56.1%
Aa	946,000	45.2	5,196,000	37.2	93.3
A	100,000	4.7	856,000	6.1	99.4
Baa	—	—	85,000	.6	100.0
Total	\$2,095,000	100.0%	\$13,966,000	100.0%	—

It is easy to see had the U. S. Governments (totaling \$5,019,000) been included in the foregoing compilation, the percentage in Aaa bonds would be substantially larger. It is also obvious that the rate of return on a portfolio of this character must of necessity be low. As a matter of fact the yield on the foregoing is reported to be only 2.80% which is not equal to the assumed rate to service the system. It is realized of course, that the investments of the System are restricted because of the limitations prescribed by the savings bank law of the state which in large measure prohibits investments of sound quality in several categories which are not now included as legal investments.

A breakdown of the portfolio by industry classification is as follows:

	Par Value	%
United States Governments	\$ 5,019,000	25.3%
Canadians	245,000	1.2
Railroads	3,273,000	16.5
Public Utilities		
Telephone	1,877,000)	
Electric & Gas	6,478,000)	42.1
Industrials	2,095,000	10.6
Total Bonds	\$18,987,000	95.7%

	<i>Cost</i>	
Stocks		
Public Utility Preferreds	\$ 167,385	.8%
Banks	691,253	3.5
	<hr/>	<hr/>
Total Stocks	\$ 858,638	4.3
	<hr/>	<hr/>
Total Securities	\$19,845,638	100.0%

Taking each class separately it is felt that the portfolio is weighted too heavily in U. S. Governments. This may be remedied in two ways —by letting the Series “G” bonds run off and by exchanging a substantial portion of U. S. Treasury 2½’s of 4/1/80/75 (which are frozen) for five year U. S. Treasury 1½ Notes, disposing of the latter, and investing the funds in other types of high grade corporate bonds. In following this procedure a material improvement in yield may be obtained.

Holdings in railroad bonds, with over 30% being in Equipment trust issues, is good. Further purchases of railroad issues should be confined principally to Equipments which will provide quality and help materially in improving the maturity schedule which in turn will in the future make available funds for reinvestment in the then prevailing markets which may be particularly advantageous at that time.

It is, of course, apparent that there is a preponderance of Public Utility bonds held by the System. Telephone company obligations representing 22% of the utility holdings are well diversified geographically and may remain undisturbed. The electric and gas company issues are prime names. However, there is a tendency to a heavy concentration in larger industrial areas which are in a sense vulnerable to atomic attack and which have heavy industrial loads. As an indication of the latter factor, the following comparison with the utility industry as a whole showing the percentages of gross revenue derived from various types of service is of interest.

#### PER CENT OF REVENUE

	<i>Domestic</i>	<i>Commercial</i>	<i>Industrial</i>
<i>Industry</i>	32.0	23.2	27.8
Cleveland Elec. Illum.	29.6	14.2	47.4
Consol. Gas Elec. L&P Balt.	32.1	28.7	30.5
Consumers Power	41.5	22.2	32.5
Duquesne Light	30.4	11.7	53.1
Philadelphia Electric	31.7	22.6	34.7



The System's holdings in the above companies are large. The list also includes smaller amounts in companies operating in other highly industrial areas. It is not the purpose here to categorically suggest that the holdings in the issues in the above list be decreased but it is suggested that additional purchases of these names be withheld. Further investment in the public utility field should be confined to those companies having a better diversified load and serving widespread urban areas with good rural area coverage.

Investment in industrial and miscellaneous bonds, like the other classes, is prime. However, this class could well be increased when the opportunity presents itself. This could come about through entering the private placement field. To accomplish this it will be necessary to contact someone who is in a position to bring financing of this type to your attention and who is well versed in the problem of handling the mechanics of such investments. During the past several years a large number of well established industrial companies have used this method of financing where they have dealt with a small number of purchasers to the advantage of both the borrower and the creditor.

Canadian holdings and holdings of preferred stocks and bank stocks are comparatively small. Even within the limits of the present restrictions of the law, Canadian holdings and utility preferreds should be increased.

Following the suggestions outlined above, it is believed that a material increase in return to the System may be obtained even under the present law. However, it is felt that a substantial increase can be obtained with safety if the law were liberalized or better still apply the Prudent Investment theory to managing the System portfolio. Investment in preferred stocks should not be confined to public utilities alone and some thought should be given to the right to purchase common stocks.

With a more liberal law the System's annual contribution can be materially reduced over a period of years by the extent that the annual rate of return exceeds the interest rate on which the System is set up. If you include a diversified list of common stocks this will offset the smaller return obtained from a strictly bond and limited preferred stock portfolio.

The purchase of common stocks by pension or retirement funds is by no means out of the ordinary. For example, in 1953 this firm

submitted a questionnaire to a group of managers of pension funds and received replies from 14 located in 6 states. Among the questions asked was:

“If you are given unrestricted powers as to investments under a pension plan:

- (a) What proportions of the fund would you invest in the various types, such as common stocks, preferred stocks, corporate bonds, mortgages,
- (b) What investment return would you expect the fund to secure under the assumptions of (a)?”

Following is a tabulation of the replies:

#### DISTRIBUTION OF PORTFOLIO

<i>Common Stocks</i>	<i>Preferred Stocks</i>	<i>Bonds</i>	<i>Real Estate and Mortgages</i>	<i>Investment Return Expected</i>
25%	—	75% (a)	—	3½%
30	—	70 (h)	—	3½
25	5-10%	65-70 (b)	—	3½
25	5	70 (c)	—	3.60
20	10	60	10%	3.80
25	—	75	—	3¼
25	—	75	(included in 75%)	3½
33-1/3	0-16	Balance (d)	—	3.70
25-35	5-15	Balance (e)	—	3¼-4
20	—	80	—	3.30-3.40
25	10	65	—	3.40-3.50
25	10	65 (f)	—	3.75
30	10	60	—	3.50-3.60
10-35	10-15	50-80 (g)	—	3.25-4

- (a) Principally Corporate
- (b) 20-30% U. S.; balance corporate
- (c) 5% U. S.; 65% corporate
- (d) Corporate bonds
- (e) Assumed, since no mention made of balance
- (f) 50% Corporate and mortgage, 15% government
- (g) Bonds and mortgages
- (h) Including up to 10% in mortgages.

If the law were liberalized, then the following program should be planned:

- (1) Percentage of investments in bonds
- (2) Percentage of investments in preferred stocks
- (3) Percentage of investments in common stocks
- (4) An approved list of common stocks which may be purchased from time to time.

To properly manage a portfolio of the character just suggested, competent investment counsel should be employed to advise the appointed representatives of the state who are charged with the administration of the System.

## SECTION D

### COST EXPERIENCE

#### I. *Basis of Calculations*

##### (a) *Employee Data*

The actuarial calculations presented herein were based upon the following statistics:

##### *Personnel Data*

##### 1. *Active Employees*

	<i>No.</i>	<i>Annual Payroll</i>
State Employees	5,699	\$17,190,172
Teachers, MTRA	5,411	12,886,492
Teachers, 1913	2,125	4,973,359
Total Teachers	7,536	17,859,851
Total Employees	13,235	\$35,050,023

##### 2. *Retired Employees*

	<i>No.</i>	<i>Annual Allowances</i>
State Employees	701	\$ 604,501
Teachers, MTRA	24	8,277
Teachers, 1913	1,135	893,319
Total Teachers	1,159	901,596
Total Employees	1,860	\$ 1,506,097

Annual allowances are for pension costs in the month of June, 1953. The number of retired employees shown is from the valuation data.

##### (b) *Actuarial Bases*

Actuarial calculations were made on the actuarial bases adopted by the Board except that some provision was included for the cost of the special survivors benefit and the vesting provision.

(c) *Effective Date*

Calculations were made as of July 1, 1953.

2. *Normal Contributions*

Normal contributions for 1953-1954 were determined to be as follows:

(a) *Normal Contribution Rates* (% of Compensation)

State Employees	:	3.79%
Teachers, MTRA	:	3.42%
Teachers, 1913	:	5.33%
Total Teachers	:	3.95%

(b) *Amount of Normal Contribution*

State Employees	:	\$651,508
Teachers, MTRA	:	\$440,718
Teachers, 1913	:	265,080
		705,798
Total		<u>\$1,357,306</u>

-----  
*Comments*

The normal contribution rates used in the past for state employees have been 3.71% since 1948, 3.22% in 1946 and 3.89% originally. The normal contribution rate will be influenced by changes in the average age at entry of the membership and sex distribution, as well as changes in benefits and other provisions. The increase in 1948 over 1946 reflects liberalizations in the law at that time.

The normal contribution rate for state employees of 3.79% determined herein reflects a lower age at entry into membership than has been used but also reflects the additional costs mentioned previously.

The calculations for teachers were based upon the data presently available from the records of the system. Because of the incompleteness of certain of the records as to old teachers, primarily as to information concerning prior service, state contributions for teachers have been estimated by the actuary of the System. However, insofar as the normal contribution rate is concerned it is believed that the above rates should be reasonably correct.

Differences in the normal contribution rates between state employees and teachers will be influenced by the difference in average ages at employment and the differences in the proportion of males and females. Normal contribution rates increase by age at employment and are greater for females than males. The higher percentage for 1913 teachers reflects the higher average age of such teachers in 1947 when the plan was established.

It may be noted that the teachers contributions arrived at herein are considerably more than the appropriation for the fiscal year 1953. As indicated in the actuary's 1952 report it was anticipated that an actual valuation would probably result in a considerable increase in the necessary appropriation.

### 3. *Accrued Liability Contributions*

The unfunded accrued liability on July 1, 1953, was determined to be as follows:

State Employees		\$12,691,887
Teachers—1913	\$22,690,541	
Teachers—MTRA	1,274,669	23,965,210
	<hr/>	<hr/>
Total		\$36,657,097

Accrued liability contributions determined on the basis presently employed for the liquidation of the unfunded liability are as follows:

State Employees		\$ 507,675
Teachers—1913	\$ 907,622	
Teachers—MTRA	50,987	958,609
	<hr/>	<hr/>
Total		\$ 1,466,284

### *Comments*

As mentioned previously in connection with the normal contribution calculations no detailed calculations have previously been made in respect to the liabilities under the teachers plan. To the extent of the incompleteness of data concerning prior service credits the unfunded accrued liability presented herein will be too low.

It may be noted that the total of the normal and accrued liability contributions for the 1913 teacher group is \$1,172,700. The annual

rate of pension payment for this group was approximately \$900,000 in June, 1953. Since the number of retired employees in this group will undoubtedly increase considerably over the next few years the point may soon be reached when the annual pension payments will be greater than the total normal and accrued liability contributions as determined on the above basis. Therefore it may be desirable to liquidate the unfunded accrued liability for this group over a shorter period and in any event the total contribution by the state for any particular year must be at least sufficient to meet current pension payments. As of June 30, 1953 on the basis of state contributions made so far there was a deficit of \$173,978 in respect to the total employer contribution account for the 1913 teachers.

The unfunded accrued liability and the accrued liability contributions under the state employees plan have been as follows :

<i>Fiscal Year</i>	<i>Unfunded Accrued Liability</i>	<i>Accrued Liability Contribution</i>
52	\$11,784,450	\$471,378
50	10,278,792	380,696
48	10,029,277	358,843
46	6,225,047	246,112
44	4,833,290	159,200

The unfunded accrued liability under the state employee plan has increased considerably at different times in the past because of liberalizations in the plan. When liberalizations are made the outstanding unfunded accrued liability will be increased much greater proportionately than will normal contributions because not only will past accrued liability contributions have been insufficient, since the prior service liability will be increased, but also past membership contributions will have been insufficient. Any type of increase in benefits which is related to years of service prior to the date of any change, and any unfavorable experience under the plan, will automatically result in an increase in the unfunded accrued liability.

Any substantial increase in salary scales will affect the unfunded accrued liability because such changes cannot be adequately predicted in the actuarial calculations. The extent of the increase in the past in salaries of state employees can be seen from the following :

STATE EMPLOYEES—ACTIVE MEMBERS

<i>Fiscal Year</i>	<i>No. Employees</i>	<i>Amount Payable</i>	<i>Amount Average Salary</i>
53	5,699	\$17,190,172	\$3,016
52	5,492	15,660,409	2,852
50	5,236	13,424,754	2,564
48	4,573	8,971,077	1,962

It will be noted that although regular accrued liability contributions have been made into the System to liquidate the accrued unfunded liability over an expected period of approximately 25 years nevertheless apparently due to unfavorable experience as to some of the factors, in addition to plan liberalizations, the unfunded liability has increased each year. Part of this increase is due to the additional benefits provided by the special resolves for which only year-to-year contributions are made for current benefit payments.

It is suggested that it might be advisable that accrued liability contributions be increased for any biennium by such an amount as to liquidate during that time any increase in the unfunded accrued liability during the previous biennium, except where such increases are directly due to liberalizations in the law.

In accordance with the instructions of the Committee no valuations were made of the System as respects participating districts. However, certain checks were made of the actuarial valuations made by the actuary of the System and were found to be in order.

4. *Actuarial Balance Sheet*

*June 30, 1953*

	<i>State Employees</i>	<i>Teachers</i>	<i>Total</i>
<b>ASSETS:</b>			
Funds on hand:			
Active employees' contributions	\$ 4,008,519	\$ 3,558,316	\$ 7,566,835
Retired employees' contributions	368,705	127,368	496,073
State contributions	2,785,338	2,907,043	5,692,381
MTRA contributions (prior to 1947)	—	1,766,109	1,766,109
Total	\$ 7,162,562	\$ 8,358,836	\$15,521,398
Value of future State contributions for:			
Membership service	\$ 8,174,408	\$ 8,481,706	\$16,656,114
Unfunded accrued liability	12,691,887	23,965,210	36,657,097
Total	\$20,866,295	\$32,446,916	\$53,313,211
<b>TOTAL ASSETS</b>	<b>\$28,028,857</b>	<b>\$40,805,752</b>	<b>\$68,834,609</b>

## LIABILITIES

Active employees' contributions	\$ 4,008,519	\$ 3,558,316	\$ 7,566,835
Present value of allowances being paid to pensioners	\$ 5,678,533	\$ 8,728,769	\$14,407,302
Present value of future benefits to present active employees:			
Future membership service	\$ 7,153,496	\$ 9,059,501	\$16,212,997
Past membership service	3,509,812	3,123,412	6,633,224
Prior service	7,678,497	16,335,754	24,014,251
	<hr/>	<hr/>	<hr/>
Total	\$18,341,805	\$28,518,667	\$46,860,472
	<hr/>	<hr/>	<hr/>
TOTAL LIABILITIES	\$28,028,857	\$40,805,752	\$68,834,609
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>





# BOWLES, ANDREWS & TOWNE

ACTUARIES

RICHMOND · ATLANTA · NEW YORK

421 American Building  
Richmond, Virginia  
June 10, 1954

ROBERT J. TOWNE  
FELLOW SOCIETY OF ACTUARIES  
THOMAS P. BOWLES, JR.  
FELLOW SOCIETY OF ACTUARIES  
EDWARD H. THOMPSON  
HOLLISTER V. SCHENCK  
T. COLEMAN ANDREWS (1948-53)

GENE C. MOORE  
FELLOW SOCIETY OF ACTUARIES  
GEORGE B. CARLSON  
ASSOCIATE SOCIETY OF ACTUARIES

Honorable Benjamin Butler, Chairman  
Legislative Recess Committee  
State of Maine  
Augusta, Maine


Dear Senator Butler:

Herein contained is our report on the study we have made of the questions involved in covering public employees under the Federal Social Security System.

Our study consisted of an analysis of the fundamentals of the Federal Social Security System, a review of the provisions of the Federal Social Security System, a review of the action of other states in regard to Federal Social Security coverage and a determination of the costs if the Maine state employees were included under Federal Social Security System.

Yours very truly,

BOWLES, ANDREWS & TOWNE

By: 

RJTowne:sah

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REPORT ON  
FEDERAL SOCIAL SECURITY COVERAGE

Submitted  
June 10, 1954

SECTION A  
SUMMARY OF REPORT

The various sections of this report are as follows:

- Section A—Summary of Report
- Section B—Analysis of Federal Social Security System
- Section C—Provisions of the Federal Social Security Act
- Section D—Federal Social Security Coverage in Other States
- Section E—Costs of Coverage of Maine State Employees Under The Federal Social Security Act.

The decision as to coverage of any group of public employees under the Federal Social Security Act plus a supplemental retirement system, in lieu of benefits under a retirement system alone, will depend briefly upon the following considerations:

1. Acceptance of philosophy of Federal Social Security System.
2. Extent to which the additional dependents and survivors benefits of the Federal Social Security System are considered important and desirable, and whether the state is willing to provide similar benefits under its own system if there is a real demand for them.
3. Relative costs of similar benefits under a private retirement system and the Federal Social Security System.
4. Influence of Federal Social Security coverage on employment practices.
5. Advantages and disadvantages of Federal Social Security coverage to the different employee groups involved and the extent to which the employee groups may desire Federal Social Security coverage.

The philosophy of the Federal Social Security System involves economic and political considerations in addition to considerations of the type of benefits and cost methods.

It would appear that as respects coverage of State of Maine employees under the Federal Social Security Act the long range cost might be greater than if similar benefits were provided under the state retirement system. Also, due primarily to the use of a normal retirement age of 60, the inclusion of state employees under the Federal Social Security System would appear to involve only a short period of gain in outlay.

From the point of view of the state employees, Federal Social Security coverage would appear to have an advantage for some groups and a disadvantage for others. Married male employees would probably have a more advantageous position while single female employees would have a disadvantage. For all employees retiring in the immediate future Federal Social Security coverage would appear to have certain advantages.

In general, in those states which have brought their public employees under Federal Social Security coverage, total benefits under Federal Social Security coverage and any supplemental retirement system are at least as great as under any previous retirement system alone. From the financial point of view, costs in the immediate future have been lowered but ultimate costs may be higher than under any previously existing retirement system. The immediate financial situation has undoubtedly had an influence on the decision of such states to adopt Federal Social Security coverage for their public employees.

In general it can be said that benefits cannot be provided with any less outlay under the Federal Social Security System than under a private retirement system. Compared with the funded approach of a private retirement system the costs of benefits under the Federal Social Security System will be greater since the approach to costs is essentially a pay-as-you-go basis and there is no major reduction in out-of-pocket costs from investment earnings. From the point of view of an individual state, coverage under the Federal Social Security System may involve a greater or less cost on a pay-as-you-go basis than under a retirement system on a pay-as-you-go basis, depending upon the variation from the average of the real cost of the benefits of the individual state.

## SECTION B

### ANALYSIS OF FEDERAL SOCIAL SECURITY SYSTEM

#### 1. *Fundamental Aspects of Federal Social Security System*

##### a) *Philosophy*

The Federal Social Security System is essentially a relief program operated on a national level. It was a depression born project which was highlighted in importance because of the plight of many old people who were thrown into a situation of want by the depression. The characteristics of the Social Security System as a plan of organized charity are important as to their effect on the coverage, benefit and cost provisions. The System is definitely not an insurance or savings type pension plan as many people have been led to believe.

The philosophy underlying the approach adopted for the Federal Social Security System was based upon the acceptance by the citizens of the country of the promise that persons who have spent the majority of their lifetime in productive effort should have some protection as a matter right against the consequences of possible economic dependence in their old age. It was believed that such individuals should have a claim on the economic production of the country during their period of old age dependency regardless of the actual existence of needs and that the individual should not be required to show any condition of poverty.

From an economic point of view the philosophy of the Federal Social Security System automatically earmarks a portion of the consumers goods produced each year for the benefit of the aged in the population who are no longer contributing to the production of the nation. Therefore this automatically provides a certain amount of purchasing power for one segment of our population, as do pension plans in general. However, the extent to which the working population will donate part of their production for a group of non-contributors would appear to be limited by the extent of any considerable reduction in the standard of living of the working populace, which will be affected by the degree to which savings have been created in the past to supply the aged persons' benefits. Under the funding methods of the Federal Social Security System savings funds are generally not created nor intended.

The political philosophy of the Federal Social Security System places the responsibility for old age charity at the federal level rather than the local. It may be felt that the approach should be at the local level alone or should be at the local level with federal assistance, as in unemployment insurance. The Federal Social Security System might be looked at as the foundation for a federal welfare state. The existence of a sizeable portion of the voters of the country eligible for benefits under the Federal Social Security System undoubtedly may carry heavy political weight at any particular time and the tendency will unquestionably be for benefits to go up but never come down. It may be noted that the pressure of unions has been consistently for larger benefits.

b) *Coverage*

The basic objective of the Federal Social Security System is to cover all the working populace. Initially because of certain problems of mechanics and because of the opposition of certain groups only employees of business and industry were covered. Gradually most of the non-covered groups have been included until under the 1954 amendments public employees would be the only major group not automatically included.

It would have been more consistent with the welfare purpose of the Social Security System to include all the then aged at the time it was inaugurated. However because of the limited coverage group of the labor force that was first included, and because of an initial attempt to give the appearance of an insurance system, the costs of benefits for the existing aged were handled under an old age assistance program, related to the local level and employing a means test. This exclusion of those already in need was largely responsible for the early accumulation of funds under the system and to misconceptions as to the ultimate costs of the program.

c) *Benefits*

The purpose of the Federal Social Security System is to provide a subsistence level of benefits under circumstances of possible economic dependency. These benefits are not large enough to provide the continuance to any major degree of the standard of living that the employee had prior to retirement and, therefore, employers adopt retirement plans which will give additional benefits sufficient in total to give the retired employee an adequate retirement income.

Benefits under the Federal Social Security System are not related to years of service and are not derived from the savings funds approach as under a regular retirement program. Benefits are also not related to contributions of employers or employees and, in theory at least, they are broadly the same for employees with the same degree of need. Benefits are determined by a formula which takes into consideration average earnings of employees but the difference in range of benefits is not proportionate to earnings, the ratio of benefits to earnings decreasing as the amount of earnings increases.

Additional benefits are provided under the Social Security System where there are certain classes of dependents, and also where there are survivors. The granting of these benefits is consistent with the charity approach of greater benefits for greater needs. It may be noted that the additional wives benefit at retirement is not the same as the joint annuitant option of the regular retirement plan, since it is *additional* income rather than an *equivalent* income benefit.

Since benefits under the Federal Social Security System are based upon the charity approach there are certain restrictions as to the receipt of benefits if a person continues in employment after age 65. In other words there is a type of earnings test insofar as the receipt of benefits, although the test does not take into consideration sources of income other than earnings from covered employment. Also since benefits are primarily of a subsistence type and are not related to the savings fund theory changes are made in the level of benefits, so far always upwards, when the cost of living appears to require it, without regard to funding considerations or prior service or contributions of an employee.

d) *Costs*

The so-called contributions under the Social Security System are in reality merely a special purpose tax. The payment of these taxes does not entitle a person to any benefits nor is there any relation between benefits to which a person is entitled and taxes paid. Since they are taxes, contributions are not refundable regardless of whether any benefits are ever received.

The contributions under the Federal Social Security System are essentially geared towards an ultimate pay-as-you-go posi-



tion and presumably the purpose is to make the system self-supporting. Contribution rates will increase in the future until they reach a level necessary to meet year to year costs. There is no basic objective of accumulating funds as under the usual retirement system whereby investment earnings are intended to meet a large portion of the ultimate outgo of the system. In fact it may be questioned whether under a federal system investing in federal bonds there can be any real accumulation of funds, since the federal bonds are for expenditures and not savings and, under universal coverage, the investment earnings have to be paid from taxes received from the same working populace who must meet the current pay-as-you-go costs.

The funds that have accumulated under the Federal Social Security System have arisen primarily due to an original attempt to relate benefits to contributions and the fact that the full period of employment during the war years reduced the expected number of persons over age 65 who would be in receipt of benefits. According to present estimates the funds of the system will eventually be exhausted.

In theory under universal coverage there is no need for a special contribution to provide the benefits under the Federal Social Security System. The pay-as-you-go costs could be provided from general taxes, which would be paid by the same persons paying the special Social Security taxes. However, other considerations related to the theory of tax collection might perhaps make it desirable to have a special purpose tax. Originally when it was attempted to set up the system on a savings fund approach benefits were related to contributions and also, in order to avoid too broad inequities, it was felt necessary that the group of citizens from whom the beneficiaries would come should be those from whom the taxes were levied.

Contributions under the Federal Social Security System are levied at the same rate of salary for all amounts of salary on which benefits are based. Since benefits are a greater proportion of salary at the lower ranges a person gets a better "buy" if his earnings are below the average. This concept of purchase of benefits however is foreign to the purpose of the system, although the merits of the system are often attempted to be sold on the apparent basis of getting something for nothing.

It appears that under some assumptions the contribution rates of the present law may ultimately be insufficient to provide the cost of the benefits although the effect is a long range proposition. Somewhat the same situation exists under the proposed 1954 amendments.

The relative value of the various benefits of the system under the proposed 1954 amendments may be seen from the following:

<i>Benefit</i>	<i>Level Premium Cost In Perpetuity As a Percentage of Earnings</i>
Old Age	4.71%
Wife's	.41
Widow's	1.03
Parent's	.03
Mother's	.15
Child's	.34
Lump sum Death Payment	.14
Disability Freeze	.07
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Total	6.86%

Administrative expenses are estimated at .10% of earnings which is approximately 1.5% of the level premium.

## 2. *Employer Considerations*

### a) *General*

The decision of a state as to inclusion of its public employees under the Federal Social Security System will depend upon various factors of which the major ones are: The acceptance of the philosophy of a federal welfare system, the relative cost of benefits under the Federal Social Security System and the state retirement system, the effect of Federal Social Security coverage on employment practices of the state and the reaction of public employees to Federal Social Security coverage.

### b) *Philosophy*

The state may consider it unnecessary to have federal welfare protection for its public employees since it is presumably taking care of the problems of old age dependency through its retirement system. However it may therefore be incumbent upon

the state to include benefits for survivors and dependents in the state system similar to those available in the Social Security System.

Because coverage under the Federal Social Security System is automatically carried from one employer to another it is rather difficult for the state to provide completely the relative benefits of the Federal Social Security System. This applied particularly as respects vesting of benefits for employees terminating service, and providing at least subsistence benefits for employees hired at the older ages with only short periods of service to build up benefits under the state system.

There is perhaps some anomaly if the state refuses to accept the philosophy of the Federal Social Security System as applied to its public employees since the other taxpayers of the state are for the most part covered under the federal system.

c) *Relative Costs*

The question of the relative cost of benefits provided under the Federal Social Security System and under a state retirement system does not have a clear-cut solution and involves the interplay of many different factors. Basically the benefits provided under any type of system must be met at some time or other. Therefore regardless of the system under which benefits are provided there cannot be a different real cost, which is the amount of actual benefits paid out, since it is not possible to get something for nothing. However since contributions toward the costs under the Federal Social Security System are averaged out and are essentially on a long term pay-as-you-go basis groups departing from the average will receive greater or less value in benefits from the same contributions. To the extent that the cost of the benefits for one particular group can be determined to definitely vary one way or another from the average cost of benefits it may be apparent whether coverage under the Federal Social Security System is a good "buy" or not.

d) *Cost Factors*

Some of the factors which will influence the departure of the cost of benefits for any particular group from the average are as follows:

1. Age Distribution—A higher than average age distribution will result in a higher cost. This advantage may be a one time proposition however since over the period of years all employers continuing in business should ultimately have the same proportion of aged employees.
2. Sex—A larger proportion of female employees will increase the cost of retirement benefits because of the greater expectation of life of females.
3. Marital Status—A larger percentage of married employees will increase the cost of benefits because of the inclusion of dependents' and survivors' benefits.
4. Earnings Level—A higher than average earnings level will decrease the percentage cost of benefits since benefits are a smaller percentage of earnings as salary increases while the percentage of contribution remains the same.
5. Entry Age—A lower than average entry age will make the cost of benefits greater than for the average since benefits are not dependent upon the length of service and more contributions will be made for the same amount of benefits.
6. Turnover of employment—A higher turnover of employment than average will decrease the cost of benefits since less employees will remain in employment to retirement age. However this may be offset to the extent that older employees are hired since their cost of benefits is greater than the average.
7. Retirement Age—A higher than average retirement age for an employee group will reduce the cost of benefits and thus make the value of the benefits lower than for the average.
8. Longevity—A greater average period of lifetime will increase the cost of benefits above the average. This will be influenced by sex, race, geographical location and standards of living.

e) *Incidence of Costs*

An employer can provide his employees with benefits under the Federal Social Security System on a lower initial cost basis than under a retirement plan financed by his own efforts. This is because under the Federal Social Security System there is no attempt to build regular actuarial reserves and therefore there is no "accrued liability" to be liquidated by the employer. Benefits are provided on an essentially pay-as-you-go method.

The provision of benefits through a federal system, of course, does not carry with it any magic reduction in the cost for providing such benefits. However, it is probably true that federal system is most logically operated on a pay-as-you-go method while such a method has but doubtful application to the financing of an employer established retirement plan. Therefore, at least for some period in the future, an employer can avoid the responsibility for accumulating the reserves of a regularly funded retirement plan in respect to part of the benefits to be provided under a retirement system by shifting the responsibility for such payments to the Federal Social Security System.

The inclusion of employees under the Social Security System carries with it the implied acceptance of the pay-as-you-go philosophy of funding for a certain level of benefits. The pay-as-you-go approach shifts the burden of costs between generations of taxpayers which is probably inequitable under a regular retirement system but may be proper for strictly subsistence benefits under a welfare program.

f) *Employment Practices*

The coverage of the Federal Social Security System is expanding and will probably ultimately cover practically all the individuals of the country. The lack of coverage in the future under the Federal Social Security System might therefore create some difficulties in securing employees by a public employer. People might be reluctant to go with an employer if such employment would be detrimental to benefits they might receive from the Federal Social Security System upon later transfer to employment covered by that system, or detrimental to such benefits arising from previous employment covered by that system.

The lack of Federal Social Security coverage might attract older employees to public employment since employment with the state would not cause any loss of Federal Social Security benefits after retirement. From the state's point of view lower benefits under the state retirement system would not be a bar to hiring an employee with only a short period of service to retirement since the employee might have accumulated benefits under the Federal Social Security System. Of course this would also be true if the state employees were themselves covered under that system.

### 3. *Employee Considerations*

#### a) *General*

The reaction of an individual employee to Federal Social Security coverage will be influenced by the advantages or disadvantages to the individual involved of such coverage. To an extent therefore we are involved with the question of "something for nothing" or the departure of the individual from the average for the group.

The inclusion of public employees under the Federal Social Security System has been resisted for some time by certain public employee groups. They have felt that the inclusion of public employees under the Federal Social Security System where the employees already had a retirement system might somehow be an entering wedge to federal control over the retirement system of the employees, and result perhaps in reduced benefits under the individual group's own retirement plan. However the experience of retirement plans established by business and industry, which commonly utilize the benefits provided under the Federal Social Security System, would indicate that such fears are groundless. The objective is for combined Federal Social Security and private retirement plan benefits which give adequate retirement income.

#### b) *Temporary Employees*

Comparing Federal Social Security coverage with coverage under a private retirement system the employee who spends only a part of his lifetime in the work group will be better off under the private retirement system since he will receive his contributions upon termination of employment under the private retirement system while all such contributions, which are in the nature of taxes,

will be lost under the Federal Social Security System. This is particularly applicable to females who work for only a limited period and then become married and permanently leave the labor force.

c) *Higher Paid Employees*

Employees with above average earnings may not be in as favorable position under the Federal Social Security Act in the long run because of the discrimination in favor of lower paid employees.

d) *Male Employees*

Male employees receive relatively more favorable treatment under the Federal Social Security System since dependents and survivors benefits are more valuable for them.

e) *Married Couples*

Where both husband and wife are employed the benefits from the wife's coverage may be of little value because of wives and widows benefits available from the husband's coverage.

f) *Retirement Before Age 65*

Federal Social Security coverage is not entirely applicable for certain groups which have a normal retirement age before 65. It has been attractive in the past because of the short period for qualification for Federal Social Security benefits, and relatively easy employment conditions, for employees to retire at ages under 65 with full retirement rights under a public retirement system and to obtain employment in a position covered under Federal Social Security and thus qualify for Federal Social Security benefits in addition to full retirement benefits. Such employees are in a position of having their cake and eating it too which is an enviable one, although perhaps people who are not able to achieve such double benefits may not look with ultimate favor on the situation.

g) *Contribution Rates*

Since Federal Social Security benefits are to be funded on a pay-as-you-go basis employees retiring over the immediate future will receive more valuable benefits for their contributions than employees paying the higher contribution rates in later years.

h) *Future Changes*

Benefits under the Federal Social Security System will undoubtedly be continually liberalized in the future and will perhaps

be more responsive to economic change than benefits under an employer's own plan.

## SECTION C

### PROVISIONS OF THE FEDERAL SOCIAL SECURITY ACT

In this section are outlined the benefits provided under the present Social Security law, based on the 1952 and prior amendments. As of the date of this report, the United States House of Representatives has passed amendments to the Act which have yet to be considered by the Senate. The principal changes embodied in the proposed amendments are also indicated in the following outline.

#### I. *Coverage Under The System*

Compulsory for all wage-earners in the United States except for specified groups such as:

- a) Self-employed professional men, including doctors, lawyers, dentists, architects, accountants, engineers, and funeral directors.
- b) Clergymen.
- c) Federal, State and local governmental employees covered under a retirement system.
- d) Farmers (farm employees earning \$50 per quarter are covered).
- e) Fishermen (with certain exceptions).
- f) Employees of United Nations or of foreign governments.

Coverage is at the option of the employer for employees of State and local governments without a retirement system and for employees of non-profit organizations.

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The 1954 amendments would extend coverage to farmers, fishermen, clergymen and professional men (except physicians) and to all State and local governmental employees (except police and fire), subject to the results of a referendum by the employees



(50% of employees must vote, two-thirds majority of voters required). State and local coverage would be retroactive to the first of the year in which an agreement was made to come under Social Security except that 1956 and 1957 agreements could cover service back to January 1, 1955.

2. *Benefits*

The following types of benefits are available, subject to the exceptions noted in the following subsections.

- a) INSURED INDIVIDUAL: Monthly income to retired employees after age 65 (after 75 whether or not retired). This is known as the "primary insurance amount," or PIA.
- b) WIFE: 50% of husband's PIA after wife reaches age 65, or prior to 65 if couple have children under age 18.
- c) DEPENDENT HUSBAND: 50% of wife's PIA after both have reached 65.
- d) DEPENDENT CHILD (INSURED PARENT RETIRED): 50% PIA until age 18, or prior marriage.
- e) WIDOW: 75% husband's PIA, beginning at age 65 and continuing until remarriage.
- f) DEPENDENT WIDOWER: 75% wife's PIA, beginning at age 65 and continuing until remarriage.
- g) DEPENDENT CHILD (INSURED PARENT DECEASED): 50% PIA per child plus additional 25% PIA for all children together. Continuous until age 18 or prior marriage.
- h) MOTHER OF DEPENDENT CHILD (INSURED FATHER DECEASED): 75% husband's PIA until remarriage so long as she has care of at least one child entitled to child's benefit.
- i) DEPENDENT PARENT (OF DECEASED INSURED): 75% PIA after 65 if no eligible widow (widower) or children.
- j) LUMP-SUM DEATH PAYMENT: 3 times insured's PIA.

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No important changes to these classes of benefits are proposed in the 1954 amendments.

### 3. *Exceptions and Conditions*

- a) No benefits are payable unless the wage-earner had attained insured status as follows:

For benefits g), h), and j)—“currently-insured” status (six quarters of coverage in the twelve quarters immediately prior to death).

For all other benefits—“fully-insured” status (40 quarters of coverage, or coverage in one-half the quarters since later of January 1, 1951, or attainment of age 21, with a minimum of six quarters). For benefits c and f, the insured wife must be both fully and currently insured.

- b) Work clause: No benefit is paid in any month in which the beneficiary, while under age 75, earns as much as \$75 in covered employment.

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The proposed amendments would allow a beneficiary to earn \$1,000 per year in all employment, and to lose one month's benefits for each \$80 earned in excess of \$1,000.

- c) Duplication: If a person can qualify for benefits under more than one clause, only the largest benefit is paid.

### 4. *Amount of Benefit*

An insured's primary insurance amount is based on his “average monthly wage,” according to the formula given below. The average monthly wage is usually determined by dividing all covered earnings between January 1, 1951 and the date of death or attainment of age 65 by the number of months in the same period. Earnings in excess of \$3,600 in any year are not considered in determining the average monthly wage.

The formula for the PIA is as follows:

55% of the first \$100 of the average monthly wage, plus  
15% of the next \$200.

The minimum primary insurance amount is \$25.00. The maximum family benefit is \$168.75, or 80% of average wage, if less.

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The 1954 amendments would raise the salary limit from \$3,600 to \$4,200 annually. (It is thought possible that the Senate may kill this increase.) The formula for the PIA would be changed to:

55% of the first \$110 plus 20% of the next \$240 of average monthly wage.

The minimum benefit would be increased from \$25.00 to \$30.00 and the maximum level would be increased (to \$190) in line with the changes in the benefit formula. Corresponding increases would be made in the benefits of those already retired.

The amendments also provide that in computing the average monthly wage, the four years in which earnings were lowest would be disregarded, as would any time during which the employee was totally disabled.

5. *Contributions*

Matching taxes are paid by the employer and employee. The Social Security law provides for increases in the tax rate from time to time, as follows:

<i>Period</i>	<i>Matching Tax Rate</i>
1954-59	2% by each
1960-64	2½% by each
1965-69	3% by each
1970 and after	3¼% by each

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Under the 1954 amendments the tax rate for the 1970-74 period would be raised to 3½%, while after 1974 the rate would be 4% by each. The maximum earnings for tax purposes would be \$4,200.

6. *Development of the Act*

The Social Security Act has been amended several times since its original enactment in 1935, the most important amendments affecting the scale of benefits being those of 1950 and 1952.

Prior to 1950, the formula for PIA involved the number of years of coverage, and the maximum earnings considered were \$3,000 annually. The formula was 40% of the first \$50.00 of average monthly wage plus 10% of the next \$200.00, all increased by 1% for each year of covered employment. The 1950 amendments did away with the service increment, raised the wage ceiling to \$3,600, and established the formula for PIA as 50% of the first \$100 plus 15% of the next 200 of average monthly wage. They also provided for a "new start" so that the benefits were based on

wages and time since January 1, 1951 instead of January 1, 1937. If, in any particular case, an individual's benefits would turn out to be higher under the old formula, however, he would be entitled to such higher benefits.

In 1952 the benefits for all retired workers were raised by the larger of \$5 of 12½% with corresponding increases for other beneficiaries. The PIA formula was changed to: 55% of the first \$100 of average monthly wage plus 15% of the next \$200.

The 1935 Act called for a contribution rate of 1% (\$3,000 salary limit) for both employer and employee from 1937 through 1939, 1½% for 1940-42, 2% for 1943-45, 2½% for 1946-48 and 3% thereafter. In 1939 the 1% rate was extended through 1942. In 1943 and in subsequent years, legislation was passed to freeze the rate instead of letting it rise as scheduled. In 1947 the schedule was revised by extending the 1% rate through 1949, increasing to 1½% in 1950 and to 2% after 1951. In 1950 the present scale was established under which the matching rate was 1½% from 1950 through 1953, increasing to 2% in 1954 and thereafter as shown in section 5 above.

#### 7. *Sample Benefits*

In this section is indicated how the benefit levels have changed under the 1950, 1952 and 1954 amendments to the Act. Primary insurance amounts are shown for different levels of average monthly earnings:

#### PRIMARY INSURANCE AMOUNT

Average Earnings	Pre-1950									
	20 Years Coverage	% A.E.	35 Years Coverage	% A.E.	1950	% A.E.	1952	% A.E.	1954	% A.E.
\$100	\$30.00	30	\$33.75	34	\$50.00	50	\$55.00	55	\$58.50	59
150	36.00	24	40.50	27	57.50	38	62.50	42	68.50	46
200	42.00	21	47.25	24	65.00	33	70.00	35	78.50	39
250	48.00	19	54.00	22	72.50	29	77.50	31	88.50	35
300	48.00	16	54.00	18	80.00	27	85.00	28	98.50	33
350	48.00	14	54.00	15	80.00	23	85.00	24	108.50	31

The history of the Act to date is clearly shown from this table as being distinguished by continual liberalization of benefits.

## SECTION D

### FEDERAL SOCIAL SECURITY COVERAGE IN OTHER STATES

#### 1. *Background*

Under the 1950 amendments to the Social Security Act it became possible for a state (or political subdivision thereof) to enter into an agreement with the Social Security Administration whereby the local employees, or a group of them, would be brought under Social Security coverage. This provision is not applicable in respect of any group of employees already covered by a retirement system. This exception was inserted into the law at the behest of employee organizations which feared that the availability of Social Security coverage might influence some states to weaken the provisions of their systems.

The present law provides that agreements made in any year after 1952 shall provide for retroactive coverage from the first of the agreement year. After five years of coverage, the state has the right to terminate the agreement in its entirety, or with respect to any particular coverage group. After such termination, the group may never again become covered.

Many states have taken advantage of the availability of Social Security coverage. Several with existing retirement systems have made Social Security applicable to those employees, who, for one reason or another, are not eligible for membership in such system. Other states have repealed their own systems, and adopted Social Security. Some of these have then added a supplemental plan.

The 1954 amendments, however, provide that no state having a retirement system for a group of employees on the date of enactment of the amendments can later abolish the system and adopt Social Security for these employees unless and until a referendum shows that the employees concerned are in favor of such a move. At least 50% of the employees must vote in the referendum and a 2/3 majority is required. Social Security, under the new amendments, can never under any conditions be extended in the future to cover any group of firemen or policemen.

As previously noted, Social Security coverage can be made retroactive to the first of the year in which the agreement to accept

coverage is signed except that 1956 and 1957 agreements can date back to January 1, 1955.

2. *Social Security Only*

All states which did not previously have a retirement system have adopted Social Security for their general employees (as contrasted to teachers). Other states, such as Utah, for example, where the general employees were already under a retirement system have abolished the system and given the employees Social Security as their only retirement coverage, perhaps on the theory that what the employee thus loses in retirement benefits will be regained in survivors' death benefits and wives' allowances. In Utah, the benefit level of the retirement system was rather low anyway, so that the employees lost little if anything in the change, and the same may well have been true in other states. Utah, however, is interesting in that employees who had at least 15 years of service at the date of repeal of the system were guaranteed by the repeal act that their Social Security benefits would be supplemented where necessary by the state so that everyone received in total at least as much as had been earned under the old system.

On the basis of our most recent information, the following are the states with Social Security coverage, whose general employees are not now covered under a state retirement system :

Arkansas	Nebraska
Idaho	Oklahoma
Kansas	South Dakota
Kentucky	*Utah
Missouri	West Virginia

\* as noted above, Utah also provides supplemental benefits for certain employees.

In all states except South Dakota, teachers are covered under a state retirement plan, either in a separate system, or in the same system as general employees. South Dakota, however, a few years ago, primarily because of financial difficulties, abolished all state retirement systems and adopted Social Security coverage for all employees.

3. *Social Security plus Supplemental System*

Some states, with existing retirement systems for their employees, have managed to combine Social Security coverage with

that of a supplemental state plan. The procedure, first followed by Virginia, in 1952, is (1) to repeal the existing system, freezing funds and guaranteeing benefits, (2) adopt Social Security coverage, then (3) re-enact the local system either in the same form as before, or, preferably, and as has happened in practice, in such form as to be supplemental to Social Security benefits.

The following states have gone through this routine:

Arizona	Mississippi	
Delaware	Oregon	Wyoming
Iowa	Virginia	

Arizona has so far accomplished the change only for general employees; through a mix-up in the timing of the steps, teachers are not yet under Social Security in that state. As a matter of interest it might be noted that the Arizona general employees' retirement system had never really become operative prior to the adoption of Social Security. In Mississippi only the teachers had a retirement system prior to the advent of Social Security coverage; all employees are now covered under the supplemental system.

#### 4. *Why Social Security?*

The reasons why any particular state with an existing retirement plan would wish to adopt Social Security coverage, either alone or with a supplemental plan, will be found in the conditions of the existing plan prior to the change. Essentially, though, the reasons can probably be summarized as "costs" and/or "benefits."

If a system is in poor shape financially, it may appear advantageous, at least over a short period, to shift some of the unfunded accrued liability to the Federal Social Security system. This is possible since when the state adopts Social Security coverage, the older employees retiring in the next few years will receive relatively large benefits from Social Security compared with the contributions made on their behalf. Even a system which is in sound condition may decide that Social Security benefits are a "bargain" at the present contribution rates and move to take advantage of them.

On the other hand, an attractive feature of Social Security is the survivors' death benefits which are not usually available or feasible to provide under a state system. These benefits are valuable to the beneficiary but rather troublesome to administer, and

from the states' viewpoint it is pleasant to be able to provide them for its employees while the Federal Government looks after making the payments.

A state whose retirement system provided benefits on the low side might see in the adoption of Social Security an opportunity to increase the benefit level for relatively low initial cost. As a matter of fact most any jurisdiction will find that *for a few years* it can provide the same benefits for less dollar outlay by adopting Social Security than it could under a funded plan of its own, because

- a) Older employees at date of adoption get benefits "below cost"
- b) Social Security is financed more or less as a pay-as-you-go proposition and
- c) Social Security tax rates are now at a low level compared with that to which they are scheduled to increase.

#### 5. *Individual States*

Presented following are summaries of the principal provisions of the old and new plans of the six states which have replaced their old retirement system with Social Security and a supplemental plan.

#### DELAWARE

##### *Old Plan:*

Retirement: Age 60, or 30 years service

Retirement Benefits:  $1/70$  AFS (average final salary)  
x yrs. service  
Min. \$60 Max. \$150

Contributions: None by employees; pay-as-you-go by state.

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##### *New Plan:*

Retirement: Age 60 with 15 years service or any age with 30 years

Retirement Benefits:  $1/60$  AFS x yrs. svce.  
Min. \$75, Max. \$250  
*including* Social Security

Contributions: Employees S.S. only  
Employer S.S. plus plan benefits  
on a pay-as-you-go basis



Delaware now has what is often referred to as an "offset" plan. The total retirement benefit, including the Social Security primary benefit, is defined by formula; the state makes up that part of the total not provided by Social Security. In the case of retirements prior to age 65, the whole benefit prior to 65 must be paid by the state.

Neither the old Delaware plan nor the new one require contributions by the members so the transition did not involve the problem of transferring accumulated employee contributions.

The adoption of Social Security in Delaware was stated to be primarily to provide more liberal survivors' benefits and to allow for somewhat larger retirement allowances especially for the higher-paid employees through the increase in the maximum.

#### IOWA

##### *Old Plan:*

The plan in Iowa prior to 1953 was almost a carbon copy of the pre-1950 Social Security law. The retirement age was 65 with a benefit formula of 40% of the first \$50 of the average monthly wage plus 10% of the next \$200 plus a service increment depending on years of coverage. Contributions originally were 1% by both employer and employee, but by 1952 had been increased according to schedule to 4% and 4%.

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*New Plan:*

Retirement: Age 65 (after 55 with reduced benefit)  
Retirement Benefit: That purchased by application at retirement of accumulated joint contributions, plus a prior service benefit of  $1/3\%$  salary (Max. \$3000) x years of prior service  
Contributions:  $3\frac{1}{2}\%$  of salary by employee, matched by employer. Employer also pays for past service (45 years amortization).

Benefits and contributions under the new plan are in addition to Social Security. Employees "fully-insured" under the old plan

are guaranteed that their total benefits (including Social Security) under the new will be at least as much as they would have received under the old plan.

The prior service benefit is available under the new Iowa plan only for those employees with over 30 years' prior service, and for such other employees who elect to transfer their contributions from the old plan to the new rather than having them refunded. Retroactive (to January, 1951) employee Social Security taxes were deducted from accumulated contributions before transfer (or refund).

The principal reasons behind Iowa's adoption of the Federal Social Security program were that Iowa's system was accumulating a deficit and that, partly because of this, it was realized that a Social Security type plan was not suitable for operation on behalf of such a limited group as the public employees of one state. The old plan, moreover, did not give sufficient credit for prior service. Under the new plan both benefits and contributions (including Social Security) are increased over what they were under the old plan.

It is intended that employer contributions on behalf of employees who terminate service prior to the vesting date (age 48 with 8 years' service) will be accumulated to ultimately increase retirement benefits.

## MISSISSIPPI

### *Old Plan* (teachers only):

The benefit was that purchased by the application at retirement of equal 4% contributions by employer and employee, plus a prior service benefit. The maximum annual salary considered was \$2000 for the prior service benefit, \$2400 for the current service.

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### *New Plan:*

Retirement: Age 60 with 10 years, 55 with 30.  
(But the portion of the benefit provided by the employer is reduced if retirement occurs prior to age 65.)

Retirement Benefits:  $.0125 \times (\text{AFS} - \$1200) \times \text{yrs. service}$ . The maximum annual salary considered is \$6000.

Contributions: Employees contribute 4% of the excess of their annual salary over \$1200 with the salary limit being taken as \$6000. The employer pays the balance of the cost. (Normal plus past service)

Benefits and contributions under the new plan are in addition to Social Security. Employer's contributions vest in the event of withdrawal after 15 years service. Funding under the new plan is similar to that under the Maine system. The employer's normal contribution rate is currently 1.83% while the accrued liability contribution rate has been set at 0.67%, making the total 2.50%.

Since there was no previous system for general employees, teachers were not required to transfer their contributions from the old system to the new; refunds without loss of prior service credits were permitted.

The adoption of Social Security permitted the establishment of a retirement system for general employees at moderate initial cost. It was considered desirable to have the same system for both teachers and general employees, and so the teacher's plan was changed to conform.

## OREGON

### *Old Plan:*

The old plan was similar to the new plan (see below) except that it called for approximate plan pension of \$125 instead of \$75, or  $\frac{1}{2}$  AFS if smaller.

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### *New Plan:*

Retirement:	Teachers:	Age 50	)	Benefit
			(	Reduced
	Police & Fire:	Age 55	)	if
			(	under
	General:	Age 60	)	65

Retirement Benefits: "Target" is \$75 (or  $\frac{1}{4}$  AFS if smaller) after 30 years service;

reduced proportionately for shorter service.

Contributions: Employee contribution rate is actuarially determined, based on entry age, so as to provide 50% of the future service part of the target benefit. The employer pays for the balance of the future service benefit as well as the past service portion (30 year amortization)

Benefits and contributions under the new plan are in addition to Social Security. Employer's contributions vest after 10 years service.

The reason for the adoption of Social Security in Oregon was stated to be to provide survivor's benefits; total retirement benefits under the new plan exceed those under the old only by the excess, in any case, of the primary Social Security benefit over \$50 monthly.

## VIRGINIA

### *Old Plan:*

The old plan in Virginia was somewhat similar to the present Maine system. The benefit was 1/70 AFS times years prior service plus 1/140 AFS times years membership service plus the member's annuity. Maximum salary considered was \$3600. Member's contributions were graded by entry age.

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### *New Plan:*

Retirement: Age 65 (earlier with actuarial reduction)

Retirement Benefits:  $.01 \times (\text{AFS} - \$1200) \times \text{yrs. svce.}$   
plus a "dissolution allowance" based on the excess, if any, of the member's accumulated contributions under the old plan over what he would have contributed at the new contribution rate.

Minimum (including Social Security): \$1.67 x yrs. service up to 30 years.

Contributions: Employees pay 4% of excess of annual salary over \$1200. State pays balance with normal (2.19%) and accrued liability (1.11%) contributions.

Contributions and benefits are in addition to Social Security. State contributions vest in a member after 15 years' service. Employees who transferred their contributions from the old system to the new are eligible for past service credits and also for a guarantee that total benefits (plan plus Social Security primary) will be not less than they would have been if the old plan had not been replaced by the new.

The members were required to make additional contributions for retroactive O.A.S.I. taxes.

The principal consideration in the Virginia change was to increase benefits with a reduction in the cost over the immediate future.

## WYOMING

### *Old Plan:*

Prior to the adoption of Social Security in 1953, Wyoming had separate plans for teachers and general employees. The monthly benefit under the teacher's plan was approximately \$2.50 x yrs. svce. (actually it was a 5%-5% money-purchase plan plus past service benefits). The plan for general employees provided for a benefit of 1/60 AFS times years of service. (Maximum salary considered was \$3600 annually).

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### *New Plan:*

Retirement: Age 60 with 5 years service, or any age with 25 years. Benefits are reduced if retirement occurs before 60.

Retirement Benefits: As purchased by joint contributions, plus benefits accrued under the old plan up to date of repeal.

Contributions: Employees pay 2% of the first \$3600 salary. State matches this, and also pays 1% toward past service cost.

Benefits and contributions are in addition to Social Security. The past service benefits is contingent upon contributions being transferred and is to be the largest of

- a) Old law benefit, less Social Security
- b) \$1.50 monthly, times years of service, or
- c) Actuarial equivalent of the joint contributions made under the old plan.

The Wyoming change seems to have been made primarily with a view to reducing immediate costs. At the same time it proved to be a convenient method of providing the same system for teachers as for general employees.

## SECTION E

### COSTS OF COVERAGE OF MAINE STATE EMPLOYEES UNDER THE FEDERAL SOCIAL SECURITY ACT

#### 1. *General*

In any comparison of the cost of providing benefits under the Federal Social Security Act and a state retirement system it is necessary that like benefits and cost methods be used. Also cost comparisons may be different as between the viewpoint of the state and that of individual employees. In some cases it is more feasible to compare the cost of like benefits while in other cases a comparison of the amount of benefits from like contributions is more revealing.

The cost comparisons herein in respect to total benefits, and in particular as to state costs, are on the assumption of identical benefits under the different systems. Comparisons as to employee costs have been made on the assumption of identical contributions. Certain complications are involved in comparisons under the Maine Retirement System and Social Security System because the normal retirement age is 60 under the Maine System and 65 under the Social Security System.

No attempt has been made to show different combinations of Federal Social Security coverage since the comparisons would be misleading. The basic decision as to the adoption of Federal Social Security coverage must first be made from an analysis of the real costs, the implications and effects of the pay-as-you-go cost approach, and the relative treatment of different groups of employees. Then with a full understanding of the basic facts an integrated program can be worked up if Social Security coverage is desired. Strictly from the point of view of short term outlay most any integrated system will show an apparent cost savings.

2. *Employer Costs*

a) *Long Term Costs*

The long term relative employer costs of the same benefits provided under the Federal Social Security System and a state retirement system will depend upon the relative costs of benefits for Maine state employees and for all employees under the Social Security System.

A comparison, as shown below, of the level premium cost to perpetuity of the 1954 amendments to the Federal Social Security Act indicates that in the long run the cost of benefits for Maine state employees would be less than for the average. Therefore, other things being equal, the benefits of the Social Security System could be provided with less outlay under the state retirement system since the rate of contribution is the same for all under the Federal Social Security System.

<i>Level Premium to Perpetuity As a Percentage of Earnings</i>	
Total Social Security System	6.70%
Maine State Employees	5.91%

The variation as to Maine state employees shown above reflects the larger proportion of female employees and a higher than average earnings level. Variations in the other factors affecting costs set forth in subsection 2 d) of Section B will affect the Maine state employees cost shown above but probably not such as to change the relative position.

The costs shown above apply, of course, to the normal retirement age 65 of the Social Security System. Therefore they apply only with respect to benefits payable after age 65 regardless of the actual age at retirement.

b) *Effect of Funding Methods*

If the change is made from benefits provided under a funded state retirement system to a combination of benefits provided partly under the Federal Social Security System and partly under a funded state retirement system, assuming total retirement benefits remain the same, there will be a reduction in state costs for a period in the immediate future. This arises from a shifting of part of the liability from a funded to a pay-as-you-go basis. In the long run, however, it would be expected that the real costs would remain the same, and, to the extent of the benefits on the pay-as-you-go basis, the ultimate outlay will be larger under the combination plan.

It may be theorized that a gain could be realized by shifting to the Social Security System part of the burden of the benefits of an employee about to retire but, unless the state had a much higher proportion of old employees, it would appear that the only long term gains that might result would be from any funds already existing in the Social Security System.

The following table shows the relative outlay by the state of Maine over the future, if state employees were brought under the Federal Social Security System, assuming the benefits of the present state retirement system remain the same except that part of the benefits are provided by the Social Security coverage. It was also assumed that the state pension would be reduced by one-half the Social Security benefits, the other one-half being to the credit of employee contributions. The prior service contribution was determined as a level amount to amortize the unfunded liability exactly in 25 years with a 3% interest charge. Actual contributions will increase over the years. To the extent of the inclusion of dependents and survivors benefits, the benefits of the retirement system would actually be greater under the combination.



Years	<i>Present System</i>		<i>Combination System</i>	
	<i>Total State Cost (Normal and Accrued)</i>	<i>Supplemental</i>	<i>Total State Cost Social Security</i>	<i>Grand Total</i>
1955-59	\$3,401,135	\$2,629,406	\$ 693,990	\$3,323,396
1960-64	3,401,135	2,629,406	867,488	3,496,894
1965-69	3,401,135	2,629,406	1,040,986	3,670,392
1970-74	3,401,135	2,629,406	1,214,483	3,843,889
1975-77	3,401,135	2,629,406	1,387,981	4,017,387
1978 and after	1,357,306	1,015,672	1,387,981	2,403,653

It will be noted that the contributions under the combination of Federal Social Security and a Supplemental Retirement System are slightly less than under the state retirement system, for five years, and thereafter are progressively greater. The principal cause of the short period of gain in outlay under the combination system is because of the normal retirement age of 60 under the state system and 65 under the Social Security System. Therefore no credit is available from Social Security coverage until an employee reaches 65 even though he retires earlier.

For a more exact comparison of comparable relative contributions some allowance should be made for the inclusion of dependents and survivors benefits under the Social Security System. Approximately 25% of the contribution is needed for the additional benefits. That would mean that a credit of approximately \$175,000 should be allowed in the 1955-9 total cost of the combined system, increasing up to about \$350,000 for the 1975 and later total costs.

Another factor which affects the contribution comparison is the extent to which the state takes credit for Social Security benefits. It might be argued that the state could logically take credit for all the benefits, instead of one-half as in the above, as long as employees' total benefits are not decreased. Under that approach the state cost under the supplemental system might be reduced.

### 3. *Employee Costs*

The relative value to the employees of benefits from their own contributions under Federal Social Security coverage and under a state system is rather difficult to compare because the employees' contributions do not necessarily provide definite benefits and there may be an indirect subsidy by the state. What is a gain

to employees as to any particular benefit may merely result in a higher cost to the state. The problem is made still more complex by the fact that the normal retirement age under the Maine system is 60, while Social Security income does not commence until age 65.

Employees who are only temporarily in the labor force and will never become entitled to retirement benefits will be better off under a state retirement system since they will be entitled to a return of their contributions under the state system upon termination of employment.

Employees who terminate employment prior to completing any vesting period and who continue employment with another employer until retirement will be better off under the Social Security System to the extent of the automatic vesting of benefit rights, which means an increased cost to the state. Immediate vesting could of course be allowed under the state system if desired.

If Maine state employees were brought under Social Security coverage and an amount of employee contribution shifted from the state system to the Federal Social Security System the relative benefits that would be provided under the two systems for the same amount of contributions are shown in the following table. In this table, to facilitate comparisons, it has been assumed that employees remain in service until age 65.

It has also been assumed that employee contributions under the Federal Social Security Act would entitle the employee to one-half the amount of Social Security benefits, the other one-half being applied by the state against the benefits provided by it under the state retirement system.

COMPARATIVE BENEFITS: EMPLOYEES RETIRING AT AGE 65

<i>Years</i>		<i>Level Salary \$200</i>			<i>Level Salary \$250</i>			<i>Level Salary \$300</i>			<i>Level Salary \$350</i>		
		<i>M. S. R. S.</i>		<i>½ S. S.</i>	<i>M. S. R. S.</i>		<i>½ S. S.</i>	<i>M. S. R. S.</i>		<i>½ S. S.</i>	<i>M. S. R. S.</i>		
<i>Age to 65</i>	<i>½ S. S.</i>	<i>Males</i>	<i>Females</i>		<i>Males</i>	<i>Females</i>		<i>Males</i>	<i>Females</i>		<i>Males</i>	<i>Females</i>	<i>Males</i>
60	5	\$39.25	\$ 2.11	\$ 1.84	\$44.25	\$ 2.65	\$ 2.31	\$49.25	\$ 3.17	\$ 2.76	\$54.25	\$ 3.70	\$ 3.22
55	10	39.25	5.10	4.44	44.25	6.37	5.54	49.25	7.65	6.66	54.25	8.92	7.76
50	15	39.25	9.09	7.91	44.25	11.36	9.89	49.25	13.63	11.86	54.25	15.90	13.84
45	20	39.25	14.24	12.39	44.25	17.80	15.49	49.25	21.35	18.58	54.25	24.92	21.68
40	25	39.25	20.74	18.05	44.25	25.92	22.55	49.25	31.10	27.06	54.25	36.29	31.58
35	30	39.25	28.27	24.60	44.25	35.34	30.75	49.25	42.41	36.90	54.25	49.48	43.06
30	35	39.25	37.01	32.20	44.25	46.26	40.25	49.25	55.51	48.30	54.25	64.76	56.35
25	40	39.25	47.14	41.02	44.25	58.93	51.27	49.25	70.70	61.52	54.25	82.49	71.78
20	45	39.25	58.88	51.23	44.25	73.60	64.04	49.25	88.32	76.85	54.25	103.03	89.66

It would appear that, under the preceding assumptions, employees retiring at age 65 for some time in the future would receive greater retirement benefits under the Social Security System than from their own contributions under the Maine system. In addition, dependents and survivors benefits would be available.

The addition of dependents' and survivors' benefits will increase the value of retirement benefits alone by the following ratios :

<i>Age</i>	<i>Female</i>	<i>Single Male</i>	<i>Married Male</i>
25	103%	104%	193%
35	103	104	176
45	102	103	168
55	102	103	159

Actually, of course, many Maine state employees would be retiring prior to age 65 under the present plan and the question arises as to how best to compare relative benefits. Ignoring survivors' benefits, the employee who dies after retirement but before commencing to draw Social Security benefits at 65 would be better off if his contributions were going into the Maine system rather than to Social Security.

On the other hand, as a result of the new "drop-out" provision, under which the four lowest earnings years are not considered in computing Social Security benefits, the employee who retired at age 61 could receive the same Social Security allowance at 65 as the employee who kept on contributing until retirement at 65. Whether or not the employee retiring at 61 would be better off under Social Security or under the Maine system would still depend on the age at which he came under Social Security coverage.

It is not possible to compare the relative values to the employee retiring before 65 of the respective benefits under the Maine system and Social Security, because of the different dates at which the benefits commence, except by consideration of actuarial equivalents. For example, to a male employer retiring at age 61, an annuity of \$100 monthly, commencing immediately, is equivalent in *value* to an annuity of \$145.02 commencing at age 65. However to any individual employee it is probably the immediate dollar in-

come that is most important, and the fact that after age 65 he may be due to receive a larger benefit with Social Security coverage than he would have without it, will perhaps not be sufficient consolation for the much lower income he will draw until age 65.