

)

State Employees' Retirement Association
of Minnesota

REPORT ON AN ACTUARIAL VALUATION

of the

STATE EMPLOYEES' RETIREMENT SYSTEM

)

As of December 31, 1959

A. A. Weinberg
Actuary

)

RECEIVED

STATE EMPLOYEES' RETIREMENT ASSOCIATION
OF MINNESOTA

FILE COPY

A. A. WEINBERG
CONSULTING ACTUARY
CHICAGO 4

MEMBER - AMERICAN INSTITUTE OF
CERTIFIED PUBLIC ACCOUNTANTS

June 30, 1960

Board of Trustees
State Employees' Retirement
System of Minnesota
140 Centennial Office Building
St. Paul 1, Minnesota

Dear Sirs:

We submit herewith our report on an actuarial valuation of the State Employees' Retirement System as of December 31, 1959.

The results of this valuation disclose further improvement in its financial status. A marked decrease has occurred in the unfunded accrued liability. This trend should continue under the existing revenue provisions.

Effect was given in this valuation to the 1959 amendments to the retirement law. The impact thereof on the financial condition of the system has been of relatively minor proportions. The amendments for the most part served to correct inequities and clarify certain of the provisions.

The report will show that definite progress is being made in the building up of reserves to meet the established benefit obligations and that with one exception a well-balanced retirement plan for State employees has been developed and is being maintained for State employees. The one exception has to do with the arbitrary salary ceiling to which attention has been called in prior years. This limitation operates inequitably for a large segment of the membership.

Respectfully submitted,



A. A. Weinberg,
Actuary

C O N T E N T S

	<u>Page</u>
LETTER OF TRANSMITTAL	i
REPORT ON ACTUARIAL VALUATION	1
MEMBERSHIP	2
AMENDMENTS	4
RESULTS OF VALUATION	8
CURRENT LIABILITY TEST OF SOLVENCY	9
VALUATION BALANCE SHEET	10
VALUATION BALANCE SHEET - ASSETS	12
VALUATION BALANCE SHEET - LIABILITIES AND RESERVES	13
CONCLUDING COMMENT	14
APPENDIX A	
Summary of Benefit and Contribution	
Provisions	15
Service Retirement	16
Disability Retirement	17
Death Benefits	18
Survivors' Benefits	19
Refundments	19
Financing	20
Savings Provisions	20
APPENDIX B	
Actuarial Statistics -	
Active and Inactive Members	22
APPENDIX C	
Actuarial Statistics -	
Retired Members and Other Beneficiaries	33

REPORT ON AN ACTUARIAL VALUATION OF THE
STATE EMPLOYEES' RETIREMENT SYSTEM OF MINNESOTA
AS OF DECEMBER 31, 1959

This report presents the results of an actuarial valuation of the State Employees' Retirement System of Minnesota as of December 31, 1959. The purpose of this valuation was to establish the true liabilities of the system under the applicable benefit provisions. It is also intended to determine whether or not the financial provisions are adequate to meet the accruing benefit obligations. Such a valuation also serves as a means of detecting unfavorable trends in the operation of the system that may require correction.

The benefit and contribution provisions of the system, forming the basis of this valuation, are summarized in the appendix.

The valuation was made according to the 1937 Standard Annuity Mortality Table and 3% interest, rated back five years for female lives.

MEMBERSHIP

<u>Active members</u>	<u>Male</u>	<u>Female</u>
Number of members	15,315	11,710
Proportion of total	56.3%	43.7%
Annual salaries	\$63,562,628.00	\$32,081,192.00
Average age	42.7	38.7
Average membership service	7.7	5.1

Inactive members -
Terminated service

Number of members	6,619	2,603
Proportion of total	72.4%	27.6%
Accumulated contributions	\$602,859.00	\$291,723.00
Average age	35.8	35.3
Average service	0.8	1.2
With service of 10 years or over	183	97
Average age	54.3	53.0
Average service	16.9	15.4

Inactive members -
Service not terminated

Number of members	129	14
Proportion of total	90.2%	9.8%
Accumulated contributions	\$55,205.00	\$6,377.00
Average age	33.4	46.9
Average service	6.6	7.4
With service of 10 years or over	32	2
Average age	48.8	52.5
Average service	18.5	22.0

<u>Pensioners</u>	<u>Male</u>	<u>Female</u>
Service retirement -		
Number	1,382	720
Annual payments	\$1,688,706.60	\$696,947.52
Average payment	\$1,221.93	\$967.98
Average age	70.0	69.2
Deferred -		
Number	10	3
Annual payments	\$3,124.56	\$716.52
Average payment	\$312.46	\$238.84
Average age	56.4	51.0
Disability -		
Number	27	13
Annual payments	\$26,951.28	\$10,848.96
Average payment	\$998.20	\$ 834.54
Average age	63.3	63.4
Reversionary annuities - in force		
Number	--	21
Annual payments	--	\$21,454.08
Average payment	--	\$1,021.62
Average age	--	63.8

<u>Pensioners</u>	<u>Male</u>	<u>Female</u>
Reversionary annuities - prospective		
Number	1	73
Annual payments	\$776.00	\$39,991.08
Average payment	\$776.00	\$547.82
Optional annuities -		
Number	66	8
Annual payments	\$54,506.16	\$3,369.00
Average payment	\$825.85	\$421.13
Average age	69.0	67.0
Survivors benefits - Adults		
Number	1	37
Annual payments	\$780.00	\$32,591.28
Average payment	\$780.00	\$880.85
Average age	73.0	56.9
Children -		
Number - 19; Annual payments - \$12,420.00; Average payment - \$654.00; Average age - 14.1 years.		

AMENDMENTS

A number of amendments were made at the 1959 regular session of the Legislature affecting the State Employees' Retirement

System. The principal changes may briefly be described as follows:

1. Death benefit. A contingent death benefit has been provided to be paid upon death of an annuitant under the conditions prescribed in the amendment. This benefit consists of the excess, if any, of the member's accumulated contributions at date of retirement over the total annuity payments made by the system. The beneficiary of an annuitant who retired subsequent to June 30, 1957 and died prior to April 3, 1959, is entitled to the excess, if any, of the accumulated deductions to the credit of the annuitant at the time of retirement over and above the aggregate of (a) annuity payments made or accrued during his lifetime, and (b) payments made pursuant to M.S. 1957, Section 352.117, Sub. 3.

2. Other public employment. The provision omitted in 1957, permitting an employee granted a leave of absence for employment by a political subdivision of the State to make contributions to the system during such leave, was reinstated. Each political subdivision concerned in such employment is required to make the appropriate employer's contributions. Contributions made by members on leave of absence for other public employment between July 1, 1957 and June 30, 1959 are validated.

3. Addition to service retirement allowance. The provision of the 1955 law deleted in 1957 providing for an addition to the service allowance equal to \$5.00 per year for each full year of allowable service has been restored as to former members who retired on annuity prior to July 1, 1949. Payment of the \$5.00 per year addition to the allowance was made retroactive from and after July 1, 1957, which includes the equivalent of 4% on the amount due the applicable retired members.

4. Accrued liability contribution. The employer's contribution toward the amortization of the accrued liability for previous service was fixed at 2% of salaries limited to salaries of \$4,800.00 per year.

5. Disability benefit. The disability benefit was revised to provide \$50.00 per month, together with the amount payable in accordance with the service retirement formula, until a member becomes eligible for the social security primary insurance benefit or disability insurance benefit. Thereupon the \$50.00 monthly payment terminates. A limitation

of 50% of salary on the total disability benefit is provided.

These provisions are operative through June 30, 1961.

6. Membership conditions. A number of changes have been made affecting membership conditions. Employees of the Minnesota Historical Society, the Veterans of Foreign Wars, Department of Minnesota, and the State Horticultural Society were granted coverage under social security, the last named being covered retroactively to January 1, 1956.

Persons employed or designated by the Legislature or by a committee thereof for special inquiry, investigation, examination or installation have been made eligible for membership. Employees of the Deputy Registrar of Motor Vehicles in the City of Minneapolis have been made eligible for membership.

Certain State employees were excluded from membership, namely, officers and employees of the Legislature who are temporarily employed for less than four months; temporary employees in the classified service, and seasonal help in the unclassified service employed by either the Motor Vehicle Division or the Department of Taxation (income tax division) to perform clerical duties; trainees, except those employed on a full-time training program leading to permanent employment upon completion of the training period; persons whose compensation is paid on a fee basis.

Members in the Labor service paid on an hourly basis, temporary employees in the classified service, and seasonal help in the unclassified service employed by the Motor Vehicle Division and the Department of Taxation (income tax division) to perform clerical duties, persons whose compensation is paid on a fee basis and certain trainees, may elect to terminate membership in the system by taking a refund. Former members in these classifications who still have accounts in the system who are reemployed in any of these positions, may at their option again become members. However, the taking of a refund forecloses for all time membership in the Association if employed in any such classifications.

Members becoming eligible to membership in the State Teachers' Retirement Association and who thereafter continue in State service may continue membership in this system if they so desire provided they have made contributions to the system for at least five years.

7. Discount for early retirement. The discount in the normal annuity upon retirement prior to age 65 is to be 1/2 of 1% per month instead of an actuarial equivalent.

8. Savings provision. The savings provision applicable to members in service on July 1, 1957, is not effective as to a deferred annuity payable after 10 years of allowable service. Certain clarifications of this provision were also made.

9. Contributions toward additional service credit. A member is again permitted to make contributions so as to obtain credit for State service not covered by salary deductions, or for teaching service in the public schools of the State, or for service as an employee of a political subdivision of the State.

The right to make such payments ceases July 1, 1961.

Partial payments towards such credit are to be creditable in terms of proportionate pension credit if the total amount required is not paid before July 1, 1962. The proportionate service credit to be granted would extend retroactively from the latest service for which payment is being made.

10. Repayment of refunds. Such repayments will entitle members only to the restoration of pension credit represented by such refunds, and no other type of service. Credit for forfeited service prior to July 1, 1929 and forfeited military service credit may be regained by a 5% contribution for such service based upon the average salary for pension deductions for the 3-year period beginning with the date when membership began for credit prior to July 1, 1959, and on the rate of salary received at the time of entry into military service for military service credit.

11. Survivor's benefit. The survivors of members who were excluded from the system and died before being reinstated to membership are eligible to the survivor's benefit of \$65.00 per month to a surviving spouse, \$45.00 per month to each surviving child, with an additional \$20.00 to be divided among the children, subject to a limitation on the family benefit of \$200.00 per month.

12. Restoration of rights. Members having less than 5 years of service at June 30, 1957, who because of age restrictions could not continue employment through December 31, 1957, when coverage under social security would have been operative, are entitled to a retirement allowance computed under the law in effect prior to July 1, 1957. The same applies to members

who were not covered under social security on December 31, 1957, because of certain restrictions of the federal law.

13. Miscellaneous. A number of clarifying, corrective and administration changes were also effected by the 1959 amendments, for the purpose of effectuating the administration of the system and clarifying the rights of members under specific conditions.

RESULTS OF VALUATION

The valuation discloses that a further improvement has occurred in the financial condition of the system.

The unfunded accrued liability has decreased in the amount of \$1,482,073.00. This decrease is equal to 5.9%. This trend will in all probability continue in the future assuming no extensive changes occur in the benefit provisions of the system and if the actuarial functions applied in our valuation, as developed in our recent actuarial survey of the system's experience, are confirmed by future operations.

Prior service liabilities, i. e. liabilities for service prior to July 1, 1959, continued in their downward trend. The total years of prior service pension credit and the amounts of liabilities are given below together with the comparable figures for the preceding year.

	<u>December 31, 1959</u>		<u>December 31, 1958</u>	
	<u>Years of Service Credit</u>	<u>Amount of Liabilities</u>	<u>Years of Service Credit</u>	<u>Amount of Liabilities</u>
Male	3,221	\$1,607,400.00	3,585	\$1,690,973.00
Female	1,268	470,229.00	1,277	475,683.00

Membership service liabilities showed a normal increase for the year reflecting the additional pension credits earned by the members after adjustment for releases due to terminations.

CURRENT LIABILITY TEST OF SOLVENCY

The progress of a retirement system in its financial operations may further be illustrated by the current liability accounting method. This method differentiates between current liabilities and fixed liabilities. The former comprise liabilities that have matured or are of short term character; the latter consist of pension credits from State contributions on account of active and inactive members for service previous to the date of valuation.

Under the current liability method, comparison is made between the amount of present assets and the amount of the current liabilities as above described. The results of this comparison are illustrated below:

	<u>December 31, 1959</u>	<u>December 31, 1958</u>
Member contribution credits	\$25,214,057.19	\$24,697,192.09
Actuarial value of annuities and benefits in force	<u>24,561,331.00</u>	<u>24,002,902.00</u>
Totals	\$49,775,388.19	\$48,700,094.09
Amount of net present assets	<u>48,635,545.54</u>	<u>44,250,440.29</u>
EXCESS of current liabilities over net present assets	<u>\$ 1,139,842.65</u>	<u>\$ 4,449,653.80</u>

It should be noted that the excess of current liabilities over net present assets has decreased substantially during the year. Two years ago, such excess amounted to \$6,234,930.49. With the continuance of the established method of financing, the assets of the system should become equal to its "current liabilities" within a period of two years.

VALUATION BALANCE SHEET

The Statement of Assets, Liabilities and Reserves, presented in the following pages, represents our appraisal of the financial condition of the system. It exhibits all accrued and prospective liabilities under the existing plan of operation,

) and all present and prospective assets. The format of this statement has been revised, as will be noted, for the purpose of presenting it in an understandable form, within technical limitations.

Actuarial liabilities constitute actual obligations, actuarially computed. The use of actuarial techniques in the determination of these obligations reflects the accrual principle. This principle governs standard accounting procedures. An actuarial liability, therefore, is basically an accrued liability reflecting the factors of interest, mortality, turnover and others that are peculiar to retirement system operations.

) A retirement system is considered solvent from an actuarial standpoint when it has assets equal to the difference between (1) the sum of accrued and prospective liabilities, and (2) the present value of contributions to be made to the system subsequent to the date of valuation.

) The system still has an unfunded accrued liability of \$23,645,726.77. This is otherwise referred to as the actuarial reserve deficiency or actuarial deficit. It has resulted principally from inadequate financing in prior years. Under the present method of financing, however, a gradual reduction of this deficit should occur until its full amortization has been achieved over a period of years.

VALUATION BALANCE SHEET - DECEMBER 31, 1959
Statement of Assets, Liabilities and Reserves

A S S E T S

PRESENT ASSETS

Cash		\$ 930,705.88
Accounts receivable -		
Members	\$212,076.19	
Other	<u>582.35</u>	212,658.54
Accrued interest in investments		468,730.35
Investments at amortized cost		47,075,771.18
Equipment (less depreciation)		16,327.28
Prepaid expenses		500.00

DEFERRED ASSETS

Obligation of members and the
State of Minnesota for pen-
sion credits accruing after
December 31, 1959 -

Members:

Male	\$ 8,313,796.00	
Female	4,002,649.00	
State of Minnesota	<u>15,548,255.00</u>	27,864,700.00

UNFUNDED ACCRUED LIABILITY

Due from the State of Minne-
sota for unfunded accrued
liabilities on account of
pension credits covering
service prior to January 1,
1960

	<u>23,645,726.77</u>
Total Assets	<u>\$100,215,120.00</u>

VALUATION BALANCE SHEET - DECEMBER 31, 1959
Statement of Assets, Liabilities and Reserves

LIABILITIES AND RESERVES

CURRENT LIABILITIES

Annuities, benefits and refunds payable	\$	17,408.01	
Accrued expenses		48,164.09	
Other		<u>3,158.41</u>	\$ 68,730.51
Deferred income			417.18

RESERVE REQUIREMENTS

Reserve for Members' Contributions -

For prospective retirement annuities and other benefits on active members	\$	12,011,974.62	
For future refunds and death benefits		<u>13,202,082.57</u>	25,214,057.19

Reserve for State Contributions -

For prospective retirement annuities and other benefits - total liability	\$	34,517,858.74	
Less members' contribution credits		<u>12,011,974.62</u>	22,505,884.12

Retirement and Benefits Reserve -

Service retirement annuities	\$	23,112,169.00	
Reversionary annuities		403,373.00	
Widows' and childrens' benefits		539,364.00	
Deferred annuities		39,875.00	
Disability annuities		<u>466,550.00</u>	24,561,331.00

PROSPECTIVE LIABILITIES

Present value of pension credits to be earned during future service, i.e. service after December 31, 1959		<u>27,864,700.00</u>	
---	--	----------------------	--

Total Liabilities and Reserves		<u>\$100,215,120.00</u>	
--------------------------------	--	-------------------------	--

CONCLUDING COMMENT

It is gratifying to note the continued improvement in the financial condition of the system. The financial policy in effect in the financing of its obligations and the constructive approach of the Board of Trustees to the problems arising in current operations should insure the continuation of this favorable trend in the future.

Acknowledgment is hereby made of the considerate cooperation of Ona A. Crume, Executive Secretary, and her staff in making available to us in excellent form and with promptness the information required for the preparation of this report.



A. A. Weinberg
Actuary

A P P E N D I X A

Summary of Benefit and Contribution
Provisions

SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS

(In force December 31, 1959)

SERVICE RETIREMENT

Conditions for retirement

Retirement is optional with a member beginning upon attainment of age 58, with at least 20 years of credited service, of which at least 10 years were as a member of the Association.

Retirement is optional with a member beginning upon attainment of age 65, with at least 10 years of credited service as a member of the Association.

Retirement is compulsory upon attainment of age 70, under Civil Service Rules.

Service retirement annuity

The amount of retirement annuity is equal to the following percentage rates for the respective periods of allowable service, based upon "average salary" as defined below:

- (a) 1st 10 years - .625 of 1% per year of such service
- (b) 2nd 10 years - .875 of 1% per year of such service
- (c) 3rd 10 years - 1.66% per year of such service
- (d) Over 30 years- 1.75% per year of such service

Average salary defined

Average salary for service prior to July 1, 1957 is the average of the highest salary upon which salary deductions were based for any 5 consecutive years prior to such date.

Average salary for service after June 30, 1957 is the average salary for such entire period of service on which salary deductions were based not exceeding in any one year \$4,800.00.

Retirement before age 65

Upon retirement prior to age 65, the retirement annuity is to be reduced at the rate of 1/2 of 1% for each month that the member is below age 65.

) Any member who retires before he becomes entitled to old age and survivors primary insurance benefit payments may elect to receive from the system a retirement benefit greater than his normal retirement annuity, from the date of retirement to the date when he reaches age 65, at which time the payment from the system is reduced. This annuity is actuarially equated and the calculation thereof takes into account the anticipated social security primary insurance benefit.

Options

Any member may elect to receive the full service retirement annuity, or in lieu thereof, any of the following optional forms of annuity, on an actuarial equivalent basis:

Option 1 - 5 years certain and life

Option 2 - 10 years certain and life

Option 3 - 15 years certain and life

Option 4 - 20 years certain and life

Option 5 - Joint and last survivor annuity (same amount for member and beneficiary)

) Option 6 - Joint and last survivor annuity (1/2 of the member's reduced annuity to beneficiary)

Vesting

Any member having at least 10 years of service, who withdraws from service prior to age 65, may elect to receive a refund of his accumulated salary deductions, or a deferred retirement annuity payable beginning at age 65.

DISABILITY RETIREMENT

Conditions for retirement

Upon total and permanent disability occurring while under age 65, after at least 10 years of service, a member is entitled to a disability retirement benefit.

) If service of the member had terminated at any time, at least

5 of the required 10 years of allowable credited service must have been rendered after the member's latest reentry into State service.

Waiting period

The benefit begins to accrue 90 days following the commencement of disability or 30 days after the application is filed, whichever is greater. If annual or sick leave is paid for more than the said 90 or 30-day period, whichever applies, the benefit accrues from the date salary ceased.

Amount of benefit

The benefit is the same as that payable upon service retirement and governed by the same formula except that it is not subject to discount because of retirement prior to age 65. In addition, a member is entitled to receive \$50.00 per month until he becomes eligible to receive the primary insurance benefit or disability insurance benefit under federal social security. Thereupon, the \$50.00 additional payment terminates.

The total disability retirement benefit, inclusive of the \$50.00 monthly payment, is limited to 50% of the average salary forming the basis of its computation.

These provisions are operative through June 30, 1961.

Offset

The benefit is likewise subject to reduction by any amounts received or receivable by the member from the State under applicable workmen's compensation laws.

DEATH BENEFITS

Death before retirement

Upon death before retirement, the designated beneficiaries of the member or his legal representative, as the case may be, is entitled to a refund of his accumulated contributions.

Except as to an option selected by a member at the time of retirement, no survivors' benefits are payable to a surviving spouse or dependent children. These are provided by federal social security.

SURVIVORS' BENEFITS

Upon death of a member before retirement, who is not under social security, who has had at least 18 months of credited allowable service, his surviving dependent spouse and dependent children under age 18 are entitled to a monthly benefit of \$65.00 per month to the spouse and \$45.00 per month to each dependent child, plus \$20.00 per month to be divided equally among the dependent children.

The maximum benefit to a family is limited to \$200.00 per month. Benefits to a spouse terminate upon remarriage, and benefits on account of any dependent child terminate upon cessation of dependency.

These provisions also apply to persons who were removed from membership and whose death occurred before the effective date of social security coverage.

Death after retirement

Upon death after retirement, the death benefit consists of such amount as is payable under the optional form of annuity selected by the member at the time of or prior to retirement.

If no optional annuity was selected at the time of retirement and the annuitant leaves a surviving spouse, the surviving spouse is entitled to the annuity for the month in which death occurred; his beneficiary or estate is entitled to any balance which may remain to his credit in the system.

REFUNDMENTS

Conditions for payment

Termination of service as an employee must occur from all positions in the State service. The refundment is equal to the amount of the accumulated deductions, without interest.

Upon re-entry into service, and the completion of 5 years of credited service, a member may repay all refundments plus interest at 4% per annum compounded annually.

FINANCING

Members' deposits

Members contribute by way of salary deductions, 3% of salary not exceeding salary of \$4,800.00 per year.

Employer's contributions

The employer is required to contribute an amount equal to the total deductions from the members' salaries, plus an additional amount equal to 2% of members' salaries not to exceed a salary of \$4,800.00 in any calendar year.

SAVINGS PROVISIONS

(a) Any person who on July 1, 1957 had 10 or more years of allowable service as a member, and who at the date of retirement is not eligible for old age and survivors' primary insurance benefits, shall have the option of receiving the annuity as described herein or the annuity provided under the superseded law, namely, Section 352.11 of the Minnesota Statutes of 1953, as amended by Chapter 239, laws of 1955, but without rights to a reversionary annuity.

In the event the member becomes eligible to receive the primary social security benefit, the provisions of Section 352.63, subdivisions 1 and 2 shall apply for the purpose of ascertaining his retirement benefit.

(b) Any person who on July 1, 1957 had 10 or more years of allowable service as a member shall receive at retirement, in addition to the annuity herein described, an amount which when added to his old age and survivors' insurance primary benefit is equal to the annuity he would have received under the statutes referred to in the preceding paragraph. Thus, if the annuity computed under Section 352.63, subdivisions 1 and 2, plus the primary social security benefit, is less than the retirement benefit computed under M. S. 1953, Section 352.11, as

) amended by Laws of 1955, chapter 239, the system shall pay an additional amount sufficient to make the retirement allowance equal to the amount computed under such latter law.

(c) Upon death of an annuitant who retired prior to July 1, 1957, the beneficiary or estate of the annuitant shall be entitled to the benefit payable under the law in force at the date of the annuitant's retirement, under the conditions therein prescribed.

(d) Any person whose services terminated prior to July 1, 1957, having a contribution credit in the system, shall be entitled to the rights and benefits prescribed by the law in effect at the date of termination of service as a State employee.

(e) Any member having at least 10 years of service as a member of the system who made application for retirement benefit prior to July 1, 1949, is to receive as an addition to his regular retirement benefit an amount equal to \$5.00 per year for each year of allowable service.

)

)

A P P E N D I X B

Actuarial Statistics -

Active and Inactive Members

TABLE A

Number of Active Members Classified by Age
at December 31, 1959 and Annual Salaries

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Salaries</u>	<u>Member-ship Service Credit</u>	<u>Age</u>	<u>Number</u>	<u>Annual Salaries</u>	<u>Member-ship Service Credit</u>
16	7	\$ 3,577	2	50	325	\$ 1,498,768	3,380
17	27	12,594	1	51	324	1,577,840	3,515
18	70	48,699	16	52	304	1,384,058	3,359
19	152	223,959	71	53	368	1,651,319	4,377
				54	322	1,438,484	3,754
20	244	482,423	204				
21	315	705,277	405	55	340	1,492,399	4,058
22	315	813,812	474	56	303	1,413,812	3,785
23	340	944,018	504	57	307	1,373,540	4,024
24	317	1,031,723	633	58	306	1,443,032	3,879
				59	307	1,378,776	4,240
25	350	1,205,178	787				
26	324	1,155,127	752	60	276	1,332,911	4,161
27	365	1,354,111	843	61	274	1,238,816	3,759
28	372	1,457,828	962	62	278	1,357,313	4,986
29	342	1,412,891	1,092	63	257	1,218,521	4,134
				64	267	1,147,466	3,852
30	334	1,488,626	1,253				
31	314	1,334,304	1,219	65	219	911,724	3,136
32	280	1,207,347	1,270	66	176	756,014	2,730
33	321	1,463,405	1,404	67	143	583,120	2,058
34	312	1,506,994	1,438	68	98	410,650	1,539
				69	76	333,670	1,201
35	332	1,585,764	1,830				
36	303	1,457,682	1,686	70	52	217,132	791
37	304	1,421,131	1,563	71	40	121,447	458
38	306	1,434,930	1,675	72	24	130,028	427
39	320	1,496,581	2,036	73	21	65,792	308
				74	10	27,039	77
40	296	1,393,952	1,949				
41	324	1,490,077	2,123	75	8	33,350	118
42	312	1,472,119	2,102	76	4	14,662	34
43	281	1,256,271	1,784	77	6	29,870	84
44	272	1,213,259	1,816	78	3	12,319	29
				79	7	27,275	43
45	290	1,303,693	2,166				
46	282	1,252,668	2,142	80	1	13,168	30
47	307	1,386,953	2,505	81	1	179	
48	306	1,373,240	2,669	83	1	978	1
49	314	1,469,299	2,903	No age	217	67,645	8
TOTALS					15,315	\$63,562,629	116,614

TABLE B

Number of Active Members Classified by Age
at December 31, 1959 and Annual Salaries

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Salaries</u>	<u>Member-ship Service Credit</u>	<u>Age</u>	<u>Number</u>	<u>Annual Salaries</u>	<u>Member-ship Service Credit</u>
16	3	\$ 563	--	50	266	\$ 825,511	1,800
17	35	23,564	2	51	257	830,591	2,013
18	381	379,517	19	52	257	887,344	2,311
19	538	928,420	295	53	291	911,362	2,337
				54	218	724,575	1,945
20	543	1,111,547	592				
21	509	1,007,532	622	55	232	780,853	2,143
22	503	980,709	567	56	230	752,543	2,123
23	464	1,155,534	691	57	224	732,239	2,049
24	350	867,754	556	58	205	722,921	2,201
				59	195	652,314	2,008
25	294	746,569	575				
26	227	609,484	451	60	175	625,246	1,880
27	208	499,231	490	61	168	554,015	1,921
28	176	468,834	461	62	130	464,373	1,582
29	157	419,058	384	63	135	431,087	1,501
				64	143	510,228	1,866
30	160	441,343	423				
31	149	421,188	472	65	94	290,911	1,256
32	145	411,782	498	66	71	205,780	1,012
33	161	459,963	554	67	85	265,797	1,181
34	140	434,632	502	68	44	134,102	544
				69	27	85,400	304
35	169	458,874	576				
36	124	329,774	422	70	25	65,399	346
37	158	445,367	642	71	16	55,268	217
38	177	544,028	875	72	6	15,141	60
39	203	592,961	996	73	6	17,057	109
				74	4	11,019	46
40	167	496,321	776				
41	187	572,752	852	75	1	378	--
42	213	630,494	1,105	78	2	1,911	26
43	190	544,488	965	No age	12	3,241	2
44	219	645,622	1,240				
				TOTALS	11,710	\$32,081,192	59,323
45	242	721,021	1,344				
46	225	729,638	1,543				
47	262	871,530	1,726				
48	240	723,074	1,452				
49	272	851,418	1,872				

TABLE C

Number of Inactive Members Classified by Age at
December 31, 1959 and Accumulated Contributions

M A L E

<u>Age</u>	<u>Number</u>	<u>Accumulated Contributions</u>	<u>Total Service</u>	<u>Age</u>	<u>Number</u>	<u>Accumulated Contributions</u>	<u>Total Service</u>
17	6	\$ 33	1	50	85	\$ 13,089	141
18	46	487	7	51	82	23,691	214
19	159	2,465	29	52	100	36,550	341
				53	86	23,235	262
20	275	4,790	52	54	85	28,738	298
21	419	7,243	77				
22	418	11,282	103	55	72	39,134	351
23	423	8,579	82	56	58	16,900	193
24	364	10,266	95	57	79	32,037	333
				58	51	8,622	76
25	282	7,796	68	59	53	13,398	117
26	230	7,366	67				
27	233	5,753	55	60	52	15,938	141
28	176	4,798	46	61	66	14,134	136
29	169	4,801	45	62	62	21,494	201
				63	59	20,729	121
30	154	5,538	48	64	45	25,589	185
31	132	5,642	47				
32	116	2,954	26	65	44	4,839	65
33	120	4,994	38	66	40	2,359	21
34	110	6,886	55	67	49	1,914	27
				68	31	703	12
35	108	7,179	50	69	32	2,868	59
36	95	4,680	38				
37	82	1,603	15	70	32	2,098	37
38	101	7,794	47	71	31	1,447	32
39	86	6,964	54	72	33	1,268	16
				73	17	484	7
40	70	3,028	29	74	17	206	3
41	92	5,266	55				
42	80	11,749	94	75	19	544	21
43	76	8,128	72	76	6	372	4
44	88	16,940	137	77	5	203	3
				78	4	13	--
45	79	12,720	97	79	6	98	2
46	81	14,807	130				
47	82	10,235	105	82	2	52	1
48	89	16,112	171	83	3	150	3
49	84	18,656	159	84	1	216	3
				85	1	79	1
			No age		86	2,144	25
			TOTALS		6,619	\$602,860	5,646

TABLE D

Number of Inactive Members Classified by Age at
December 31, 1959 and Accumulated Contributions

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Accumulated Contributions</u>	<u>Total Service</u>	<u>Age</u>	<u>Number</u>	<u>Accumulated Contributions</u>	<u>Total Service</u>
17	1	\$ 4	--	50	40	\$ 10,891	99
18	10	79	1	51	37	7,828	74
19	64	745	12	52	38	5,781	77
				53	25	8,879	89
20	81	1,867	22	54	29	7,672	104
21	153	3,513	42				
22	133	2,904	32	55	32	7,248	102
23	126	2,942	35	56	20	10,020	93
24	100	3,820	37	57	35	14,440	148
				58	28	5,857	97
25	120	3,439	35	59	25	9,113	73
26	97	2,715	30				
27	85	3,059	26	60	23	5,982	71
28	68	2,074	21	61	16	4,054	50
29	59	2,290	25	62	24	11,438	125
				63	20	8,466	90
30	73	3,106	32	64	19	9,748	91
31	60	4,736	39				
32	68	5,233	46	65	15	6,980	65
33	61	2,300	28	66	3	90	1
34	74	5,769	58	67	9	1,845	14
				68	4	32	--
35	71	6,867	66	69	4	609	10
36	62	6,282	67				
37	42	3,141	40	70	1	4	--
38	50	3,545	36	71	3	131	1
39	39	4,619	45	72	2	55	1
				73	3	73	1
40	45	5,220	54	74	2	83	1
41	59	7,321	70				
42	37	8,164	71	75	2	178	3
43	31	4,170	47	76	2	117	3
44	37	6,146	62	78	1	44	1
				79	1	160	2
45	46	10,205	104	No age	53	1,287	21
46	34	13,065	127				
47	30	5,680	58	TOTALS	2,603	\$291,723	3,059
48	27	6,748	57				
49	44	10,850	127				

TABLE E

Number of Inactive Members Classified by Age at
December 31, 1959 and Accumulated Contributions
(Service NOT Terminated)

M A L E

<u>Age</u>	<u>Number</u>	<u>Accumulated</u> <u>Contributions</u>	<u>Total</u> <u>Service</u>	<u>Age</u>	<u>Number</u>	<u>Accumulated</u> <u>Contributions</u>	<u>Total</u> <u>Service</u>
21	12	\$ 1,172.34	17	55	2	\$ 1,180.15	41
22	8	1,130.87	15	57	1	1,725.10	30
23	8	1,287.75	11				
24	27	8,078.15	67	60	2	2,237.55	29
				62	1	548.97	8
25	10	1,941.16	21	63	2	2,670.81	28
26	2	587.67	9	64	1	2,239.68	22
27	2	125.96	8				
28	4	764.22	18	65	1	689.14	6
29	3	438.56	16	69	2	3,291.09	26
30	4	259.84	26	70	1	1,103.18	6
31	3	119.17	11	71	1	348.62	7
32	3	507.37	11	73	1	520.67	6
35	3	340.43	6	TOTALS	129	\$55,205.05	857
38	1	607.74	13				
40	2	86.33	36				
41	4	6,014.30	42				
42	4	212.80	46				
43	1	2,880.94	13				
44	1	382.06	19				
46	2	163.57	38				
47	1	72.49	17				
48	5	7,043.96	102				
50	1	3,498.94	28				
51	2	695.51	39				
53	1	237.96	19				

TABLE F

Number of Inactive Members Classified by Age at
December 31, 1959 and Accumulated Contributions
(Service NOT Terminated)

<u>F E M A L E</u>			
<u>Age</u>	<u>Number</u>	<u>Accumulated Contributions</u>	<u>Total Service</u>
27	1	\$ 73.23	5
28	1	196.17	4
37	1	572.00	3
38	2	741.90	11
42	1	405.93	6
44	1	240.88	5
50	1	1,536.61	17
52	1	790.00	6
55	1	680.52	27
60	2	797.44	9
61	1	234.88	3
64	<u>1</u>	<u>107.85</u>	<u>7</u>
TOTALS	<u>14</u>	<u>\$6,377.41</u>	<u>103</u>

TANLE G

Deduced Salary Scale Based Upon
Average Annual Salaries

M A L E

<u>Age</u>	<u>Average Salary</u>	<u>Adjusted Average</u>	<u>Effective Average</u>	<u>Future Average</u>
16	\$ 511	\$ 511	\$ 4,855	\$ 4,091
17	466	603	3,752	4,166
18	696	696	4,855	4,242
19	1,473	1,473	4,855	4,319
20	1,977	1,977	4,855	4,382
21	2,239	2,239	4,855	4,437
22	2,584	2,584	4,855	4,488
23	2,777	2,920	4,617	4,533
24	3,255	3,255	4,855	4,572
25	3,443	3,443	4,855	4,605
26	3,565	3,565	4,855	4,635
27	3,710	3,710	4,855	4,663
28	3,919	3,919	4,855	4,689
29	4,131	4,131	4,855	4,711
30	4,457	4,457	4,855	4,727
31	4,249	4,491	4,593	4,735
32	4,312	4,525	4,626	4,742
33	4,559	4,559	4,855	4,749
34	4,830	4,588	5,111	4,755
35	4,776	4,617	5,022	4,760
36	4,811	4,646	5,027	4,766
37	4,675	4,675	4,855	4,770
38	4,689	4,689	4,855	4,774
39	4,677	4,699	4,832	4,777
40	4,709	4,709	4,855	4,780
41	4,599	4,714	4,737	4,783
42	4,718	4,718	4,855	4,786
43	4,471	4,725	4,594	4,789
44	4,461	4,731	4,578	4,792

TABLE G - continued

Deduced Salary Scale Based Upon
Average Annual Salaries

M A L E

<u>Age</u>	<u>Average Salary</u>	<u>Adjusted Average</u>	<u>Effective Average</u>	<u>Future Average</u>
45	\$4,495	\$4,737	\$4,607	\$4,795
46	4,442	4,743	4,547	4,798
47	4,518	4,750	4,618	4,801
48	4,488	4,756	4,581	4,804
49	4,679	4,762	4,770	4,808
50	4,612	4,768	4,696	4,811
51	4,870	4,775	4,952	4,814
52	4,553	4,781	4,623	4,817
53	4,487	4,787	4,551	4,820
54	4,467	4,793	4,525	4,822
55	4,389	4,799	4,440	4,825
56	4,666	4,805	4,715	4,828
57	4,474	4,811	4,515	4,831
58	4,716	4,817	4,753	4,834
59	4,491	4,823	4,521	4,837
60	4,829	4,829	4,855	4,840
61	4,521	4,835	4,540	4,843
62	4,882	4,840	4,897	4,845
63	4,741	4,845	4,751	4,848
64	4,298	4,850	4,302	4,850
65	4,163	4,855	4,163	
66	4,296			
67	4,078			
68	4,190			
69	4,390			
70	4,176			
71	3,036			
72	5,418			
73	3,133			
74	2,704			
75	4,169			
77	3,665			
77	4,978			
78	4,106			
79	3,896			
80	13,168			
81	179			
83	978			

TABLE H

Deduced Salary Scale Based Upon
Average Annual Salaries

F E M A L E

<u>Age</u>	<u>Average Salary</u>	<u>Adjusted Average</u>	<u>Effective Average</u>	<u>Future Average</u>
16	\$ 188	\$ 188	\$3,600	\$2,934
17	673	673	3,600	2,991
18	996	1,200	2,988	3,041
19	1,726	1,726	3,600	3,081
20	2,047	2,047	3,600	3,111
21	1,979	2,195	3,246	3,135
22	1,950	2,342	2,997	3,157
23	2,490	2,490	3,600	3,176
24	2,479	2,555	3,493	3,193
25	2,539	2,620	3,489	3,209
26	2,685	2,685	3,600	3,224
27	2,400	2,717	3,180	3,239
28	2,664	2,750	3,487	3,252
29	2,669	2,782	3,454	3,266
30	2,758	2,815	3,527	3,280
31	2,827	2,847	3,575	3,294
32	2,840	2,880	3,550	3,307
33	2,857	2,912	3,532	3,321
34	3,105	2,945	3,796	3,334
35	2,715	2,977	3,283	3,347
36	2,659	3,010	3,180	3,359
37	2,819	3,042	3,336	3,372
38	3,074	3,074	3,600	3,384
39	2,921	3,102	3,390	3,396
40	2,972	3,130	3,418	3,408
41	3,063	3,158	3,492	3,420
42	2,960	3,186	3,345	3,431
43	2,866	3,214	3,210	3,442
44	2,948	3,242	3,274	3,453
45	2,979	3,270	3,280	3,464
46	3,243	3,298	3,540	3,474
47	3,326	3,326	3,600	3,484
48	3,013	3,351	3,237	3,493
49	3,130	3,376	3,338	3,502

TABLE H - continued

Deduced Salary Scale Based Upon
Average Annual Salaries

F E M A L E

<u>Age</u>	<u>Average Salary</u>	<u>Adjusted Average</u>	<u>Effective Average</u>	<u>Future Average</u>
50	\$3,103	\$3,401	\$3,285	\$3,510
51	3,232	3,427	3,395	3,518
52	3,453	3,453	3,600	3,525
53	3,132	3,465	3,254	3,531
54	3,324	3,477	3,442	3,537
55	3,366	3,490	3,472	3,543
56	3,272	3,502	3,364	3,549
57	3,269	3,514	3,349	3,555
58	3,526	3,526	3,600	3,561
59	3,345	3,538	3,404	3,566
60	3,573	3,549	3,624	3,572
61	3,298	3,560	3,335	3,578
62	3,572	3,572	3,600	3,584
63	3,193	3,584	3,207	3,590
64	3,568	3,595	3,573	3,595
65	3,095	3,600	3,095	
66	2,898			
67	3,127			
68	3,048			
69	3,163			
70	2,616			
71	3,454			
72	2,536			
73	2,843			
74	2,755			
75	378			
78	955			

A P P E N D I X C

Actuarial Statistics -

Retired Members and Other Beneficiaries

TABLE 1

Superannuation Retirements Classified by Age

<u>Age</u>	<u>M A L E</u>	
	<u>Number</u>	<u>Annual Payments</u>
71	1	\$1,200.00
72	1	1,200.00
73	2	2,346.72
74	3	3,488.04
75	3	2,865.60
76	2	1,808.88
77	7	6,852.84
78	4	4,163.40
79	6	5,910.96
80	13	12,252.12
81	9	9,385.20
82	10	9,433.32
83	11	10,888.56
84	5	5,198.40
85	6	6,238.32
86	5	4,110.36
87	1	1,200.00
88	6	4,788.84
90	1	1,200.00
91	4	3,588.72
92	2	1,979.16
93	1	879.84
95	1	479.88
97	1	881.52
TOTALS	105	\$102,340.68

TABLE 2

Superannuation Retirements Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
75	2	\$ 1,847.28
76	4	3,774.84
78	2	1,966.92
79	5	4,160.28
80	2	2,357.64
81	5	4,741.56
82	7	5,352.36
83	3	2,097.24
84	4	4,090.92
85	4	1,965.72
86	1	770.04
87	1	1,200.00
88	1	717.84
89	3	2,045.64
93	<u>1</u>	<u>329.04</u>
TOTALS	<u>45</u>	<u>\$37,417.32</u>

TABLE 3

Proportional Annuity Retirements
Classified by Age

<u>Age</u>	<u>M A L E</u> <u>Number</u>	<u>Annual</u> <u>Payments</u>
57	1	\$ 969.96
58	1	730.68
60	3	2,278.92
61	1	667.32
63	1	527.40
65	3	2,134.20
66	5	2,765.40
67	6	3,485.76
68	6	4,035.60
69	6	4,489.44
70	3	1,695.72
71	1	713.40
72	1	1,200.00
73	3	2,707.68
74	1	970.68
75	2	2,201.04
76	1	872.40
77	1	777.72
78	2	1,224.72
79	4	2,628.24
80	2	1,131.96
81	1	807.84
82	2	1,800.60
83	2	1,254.72
84	<u>1</u>	<u>1,022.52</u>
TOTALS	60	\$43,093.92

TABLE 4

Proportional Annuity Retirements
Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
55	1	\$ 455.64
56	1	342.24
57	1	283.56
58	2	968.16
62	1	520.92
65	1	167.64
67	1	250.32
68	2	673.68
69	3	2,029.56
70	2	1,231.68
71	1	946.80
72	3	2,652.12
74	4	2,734.56
76	3	1,462.92
77	1	463.08
78	1	493.20
79	2	1,688.04
81	3	2,096.52
82	2	1,318.44
83	2	1,459.80
89	2	934.68
93	<u>1</u>	<u>707.52</u>
TOTALS	<u>40</u>	<u>\$23,881.08</u>

TABLE 5

Partial Annuity Retirements
Classified by Age

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
65	1	\$ 201.84
69	1	461.40
70	1	200.28
74	2	627.72
75	2	332.16
76	1	462.96
77	1	186.12
78	4	1,470.84
80	2	637.08
81	2	557.40
82	1	321.72
83	2	938.64
84	4	1,191.12
85	3	998.28
86	1	351.72
87	1	103.20
89	<u>1</u>	<u>196.68</u>
TOTALS	<u>30</u>	<u>\$9,239.16</u>

TABLE 6

Partial Annuity Retirements
Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
69	1	\$ 347.28
72	1	319.08
75	2	561.60
77	1	78.48
79	2	437.88
80	3	864.96
81	3	1,014.60
82	1	147.60
83	<u>1</u>	<u>380.28</u>
TOTALS	<u>15</u>	<u>\$4,151.76</u>

TABLE 7

Disability Annuities Classified by Age

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
54	1	\$ 1,500.00
56	1	1,280.04
58	1	1,280.04
60	3	2,297.76
61	1	826.92
62	2	1,955.16
63	2	2,081.52
64	4	3,960.12
65	3	2,650.32
67	2	2,125.56
69	2	1,560.24
71	1	802.44
77	<u>1</u>	<u>526.08</u>
TOTALS	24	\$22,846.20
	<u>==</u>	<u>==</u>

TABLE 8

Disability Annuities Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
48	1	\$ 996.00
55	1	914.88
61	1	1,362.36
62	1	1,009.68
65	1	848.88
67	1	553.08
68	1	513.60
100	<u>1</u>	<u>172.44</u>
TOTALS	8	\$6,370.92
	<u>=</u>	<u>=</u>

TABLE 9

Retirement Allowances Classified by Age

<u>M A L E</u>		
<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
58	4	\$ 5,615.88
59	2	4,800.00
60	13	21,786.84
61	14	27,249.60
62	16	28,791.84
63	23	40,199.04
64	17	24,548.88
65	25	35,864.40
66	34	57,591.36
67	39	53,064.72
68	52	85,694.76
69	49	73,049.40
70	53	77,579.64
71	63	80,885.04
72	76	97,435.20
73	77	99,003.36
74	77	87,923.04
75	51	56,841.84
76	64	72,898.92
77	39	44,989.56
78	24	21,950.28
79	33	34,698.72
80	17	16,808.76
81	9	9,679.68
82	4	4,129.44
83	3	2,675.40
84	2	1,656.60
86	1	689.40
87	1	1,069.32
92	<u>1</u>	<u>551.28</u>
TOTALS	883	\$1,169,722.20
	<u>==</u>	<u>=====</u>

TABLE 10

Retirement Allowances Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
58	3	\$ 4,487.40
59	1	1,269.00
60	6	8,364.96
61	6	8,656.56
62	4	7,608.00
63	10	17,177.16
64	15	21,774.24
65	16	17,622.96
66	19	26,410.08
67	26	35,453.52
68	27	23,949.12
69	25	29,206.56
70	30	40,038.96
71	30	34,561.32
72	40	39,238.20
73	49	45,532.08
74	39	38,270.16
75	32	33,823.80
76	18	18,153.48
77	16	13,069.68
78	16	11,076.24
79	12	6,394.80
80	3	2,393.40
81	3	2,284.20
82	2	3,251.52
83	<u>1</u>	<u>1,317.72</u>
TOTALS	449	\$491,385.12

TABLE 11

Reversionary Retirement Allowance

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payment</u>
60	2	\$3,350.64
62	1	1,350.36
63	2	3,064.68
65	1	2,179.68
66	1	1,983.12
67	3	3,901.08
68	1	1,239.96
69	2	4,035.72
70	2	2,787.84
71	3	5,566.80
72	3	2,580.60
73	1	2,201.16
74	3	4,432.20
75	2	1,643.64
76	3	3,833.40
77	2	1,740.72
78	1	336.48
79	1	1,645.92
TOTALS	34	\$47,874.00

TABLE 12

Reversionary Retirement Allowance

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payment</u>
65	1	\$776.04

TABLE 13

Reversionary Annuities in Force
a/c Death of Retired Members
Classified by Age

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
55	1	\$ 1,144.20
58	1	1,162.44
60	1	824.28
63	2	1,007.40
65	1	1,018.32
68	2	1,842.24
75	1	913.80
76	2	2,527.08
78	<u>1</u>	<u>572.64</u>
TOTALS	12	<u>\$11,012.40</u>

TABLE 14

Reversionary Annuities in Force
Classified by Age

a/c Death of Active Members

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
40	1	\$ 1,307.04
59	1	1,495.08
60	1	814.92
61	1	1,243.68
62	1	1,021.20
64	2	2,839.20
67	1	926.04
71	<u>1</u>	<u>794.52</u>
TOTALS	9	\$10,441.68
	<u><u> </u></u>	<u><u> </u></u>

TABLE 15

Optional Annuities in Force

Option 1

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
65	1	\$ 1,276.92
67	2	1,726.44
68	2	2,198.28
70	1	979.08
71	1	566.88
82	<u>1</u>	<u>643.56</u>
TOTALS	8	\$7,391.16
	<u>==</u>	<u>=====</u>

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
70	1	\$ 233.40
73	<u>2</u>	<u>1,293.84</u>
TOTALS	3	\$1,527.24
	<u>==</u>	<u>=====</u>

TABLE 16

Optional Annuities in Force

Option 2

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
63	1	\$ 2,030.04
66	3	1,699.32
67	3	1,648.92
69	3	772.44
71	2	786.00
72	1	927.12
73	<u>1</u>	<u>693.96</u>
TOTALS	14	<u><u>\$8,557.80</u></u>

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
67	2	\$ 923.28
	<u> </u>	<u><u> </u></u>

TABLE 17

Optional Annuities in Force

Option 3

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
65	2	\$1,923.48
70	<u>1</u>	<u>231.24</u>
TOTALS	3	\$2,154.72
	<u>=</u>	<u>=</u>

TABLE 18

Optional Annuities in Force

Option 4

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
65	1	\$ 208.92
72	<u>1</u>	<u>616.44</u>
TOTALS	2	\$ 825.36
	<u>=</u>	<u>=</u>

TABLE 19

Optional Annuities in Force

Option 5

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
65	1	\$ 828.36
66	1	2,015.16
67	1	545.40
68	1	109.80
69	3	736.20
70	1	532.80
71	3	1,032.96
72	1	190.68
75	1	680.40
77	<u>1</u>	<u>234.24</u>
TOTALS	<u>14</u>	<u>\$6,906.00</u>

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
57	1	\$326.52
61	<u>1</u>	<u>307.92</u>
TOTALS	<u>2</u>	<u>\$634.44</u>

TABLE 20

Optional Annuities in Force

Option 6

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
64	1	\$1,230.24
65	4	2,312.52
66	3	4,599.12
67	1	4,085.40
68	3	1,951.56
69	3	4,525.44
70	4	3,277.32
71	2	3,269.52
72	1	1,510.20
73	1	792.00
75	1	422.28
80	<u>1</u>	<u>695.52</u>
TOTALS	25	\$28,671.12
	<u>==</u>	<u>=====</u>

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
70	1	\$ 284.04
	<u>==</u>	<u>=====</u>

TABLE 21

Retirement Annuities Classified by Age

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
58	2	\$ 4,030.20
59	12	25,134.36
60	2	4,800.00
61	3	6,546.84
62	6	9,868.80
63	1	1,895.04
64	5	9,170.40
65	30	25,698.24
66	39	40,155.72
67	27	32,054.76
68	29	30,259.80
69	18	18,149.64
70	30	34,836.60
71	23	22,774.56
72	23	28,932.36
73	5	3,118.32
74	4	3,996.24
75	4	5,032.44
76	1	841.44
77	1	713.40
79	1	273.60
81	1	1,770.00
82	2	5,310.48
83	<u>1</u>	<u>1,073.40</u>
TOTALS	270	<u>\$316,436.64</u>

TABLE 22

Retirement Annuities Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
58	1	\$ 1,382.52
59	2	2,087.04
60	2	3,483.84
61	1	1,761.48
62	4	6,584.16
63	3	1,585.56
64	2	1,919.76
65	14	11,575.32
66	20	16,166.04
67	21	20,183.52
68	23	20,022.60
69	15	11,366.16
70	30	18,620.52
71	11	7,970.40
72	10	7,178.52
73	4	2,584.32
74	1	2,709.60
75	1	244.20
76	1	181.80
77	1	565.56
78	1	379.44
79	1	490.92
85	<u>1</u>	<u>292.92</u>
TOTALS	170	\$139,336.20

TABLE 23

Disability Annuities - Laws of 1957
Classified by Age

M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
55	1	\$1,321.56
59	1	2,218.44
63	<u>1</u>	<u>565.08</u>
TOTALS	3	\$4,105.08
	<u>=</u>	<u>=</u>

TABLE 24

Disability Annuities - Laws of 1957
Classified by Age

F E M A L E

<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
56	3	\$2,683.80
62	<u>2</u>	<u>1,794.24</u>
TOTALS	5	\$4,478.04
	<u>=</u>	<u>=</u>

TABLE 25

Survivor Benefits in Force

Classified by Age

M A L E			F E M A L E		
<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>	<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
73	1	\$780.00	33	1	\$ 780.00
	<u>==</u>	<u>=====</u>	42	1	780.00
			43	1	780.00
			44	1	780.00
			45	1	780.00
			47	1	780.00
			49	3	2,340.00
			50	2	1,560.00
			52	2	1,560.00
			53	1	780.00
			54	1	780.00
			55	2	1,560.00
			56	1	780.00
			57	2	1,560.00
			58	3	2,340.00
			63	1	780.00
			64	2	2,580.00
			65	2	1,560.00
			66	2	2,580.00
			67	2	1,560.00
			68	1	780.00
			70	2	1,853.76
			72	1	1,667.64
			74	1	1,289.88
			<u>TOTALS</u>	<u>37</u>	<u>\$32,591.28</u>
				<u>==</u>	<u>=====</u>

C H I L D R E N		
<u>Age</u>	<u>Number</u>	<u>Annual Payments</u>
7	1	\$ 780.00
9	1	540.00
10	1	780.00
	1*	540.00
11	1	780.00
13	1	540.00
14	1	540.00
	1*	540.00
15	6	3,960.00
16	4	2,880.00
17	3	1,620.00
<u>TOTALS</u>	<u>21</u>	<u>\$12,420.00</u>
	<u>==</u>	<u>=====</u>

* Deferred 1 year

TABLE 26

Deferred Partial Annuitants

M A L E

<u>Age</u>	<u>Years Deferred</u>	<u>Annual Payment</u>
57	8	\$ 189.60
58	7	209.88
61	4	<u>266.04</u>
TOTALS	<u>3</u>	<u>\$ 665.52</u>

F E M A L E

<u>Age</u>	<u>Years Deferred</u>	<u>Annual Payment</u>
49	16	<u>\$ 132.72</u>

TABLE 27

Deferred Proportional Annuitants

M A L E

<u>Age</u>	<u>Years Deferred</u>	<u>Annual Payment</u>
48	5	\$ 348.12
51	10	255.00
	8	271.80
53	1	337.68
55	2	221.88
62	3	385.32
68	1	<u>639.24</u>
TOTALS	<u>7</u>	<u>\$2,459.04</u>

F E M A L E

<u>Age</u>	<u>Years Deferred</u>	<u>Annual Payment</u>
49	8	\$241.44
55	6	<u>342.36</u>
TOTALS	<u>2</u>	<u>\$583.80</u>

)

)

<u>M A L E</u>				<u>F E M A L E</u>			
<u>A g e s</u>				<u>A g e s</u>			
<u>Annui-</u>	<u>Benefi-</u>	<u>Number</u>	<u>Annual</u>	<u>Annui-</u>	<u>Benefi-</u>	<u>Number</u>	<u>Annual</u>
<u>tant</u>	<u>ciary</u>		<u>Payment</u>	<u>tant</u>	<u>ciary</u>		<u>Payment</u>
65	78	1	\$ 776.04	69	50	1	\$ 258.96
		=	=====		60	1	600.00
					63	1	372.48
					64	1	409.44
					65	1	104.76
					66	1	900.00
					69	1	1,411.68
					73	1	441.72
	<u>F E M A L E</u>						
60	64	2	\$ 2,085.24				
62	61	1	660.00				
63	59	1	600.00	70	52	1	617.04
	64	1	720.00		62	1	177.24
64	64	1	615.12		64	2	1,020.96
					66	1	486.48
65	51	1	97.80		68	1	486.84
	59	1	324.72		71	1	600.00
	63	1	600.00				
	64	3	1,562.16	71	55	1	565.20
					56	1	540.00
66	55	1	619.08		67	3	2,019.84
	59	1	600.00		68	1	342.24
	60	1	2,015.16		71	1	600.00
	64	1	679.68		76	1	340.44
	68	1	1,000.92	72	43	1	300.00
					64	1	300.00
67	56	1	180.00		65	1	755.16
	57	1	332.28		66	1	669.00
	64	1	240.00	73	46	1	396.00
	66	1	2,042.76		66	1	300.00
	68	1	545.40	74	69	1	600.00
					73	2	1,080.00
68	63	1	308.16	75	72	2	451.20
	64	1	300.00		75	1	600.00
	65	1	375.96	76	69	1	694.20
	68	1	109.80		71	2	1,200.00
	69	1	291.72	77	62	1	600.00
					77	1	454.68
				78	72	1	336.48
				79	74	1	600.00
				80	77	1	347.76
				82	67	1	190.68
				85	66	1	680.40
				87	62	1	234.24
				TOTALS		73	\$39,991.08