REPORT ON AN ACTUARIAL VALUATION

OF THE SOUTH CAROLINA POLICE

OFFICERS RETIREMENT SYSTEM

PREPARED AS OF JUNE 30, 1980

George B. Buck Consulting Actuaries, Inc. Two Pennsylvania Plaza, New York, New York 10001 Telephone 212 | 279 4400

May 28, 1981



Mr. Purvis Collins, Director South Carolina Police Officers Retirement System P. O. Box 11960 - Capitol Station Columbia, South Carolina 29211

Dear Mr. Collins:

I am sending you herewith the signed bound copy of our "Report on an Actuarial Valuation of the South Carolina Police Officers Retirement System Prepared as of June 30, 1980".

Very truly yours,

GEORGE B. BUCK CONSULTING ACTUARIES, INC.

Thomas J. Cayanaugh, F.S.A.

Consulting Actuary

TJC:PLB Enc. George B. Buck Consulting Actuarles, Inc. Two Pennsylvania Plaza, New York, New York 10001 Telephone 212 | 279 4400

April 8, 1981

BUCS CONSULTANTS

State Budget and Control Board South Carolina Police Officers Retirement System Columbia, South Carolina 29211

Gentlemen:

Subsection 9-11-30(6), of the law governing the operation of the South Carolina Police Officers Retirement System provides that the actuary shall make an annual valuation of the assets and liabilities of the funds of the System. We have the honor to submit herewith the results of the valuation as of June 30, 1980 made in accordance with this provision of the law.

New actuarial assumptions were adopted by the Board for use commencing with this valuation. The new actuarial assumptions are, in the aggregate, reasonable, and represent our best estimate of anticipated experience under the System. The actuarial cost method utilized is the projected benefit method with level percentage entry age normal cost and open-end accrued liability. This cost method is specifically recognized as an acceptable method by the Employee Retirement Income Security Act of 1974. The current assets applicable to the System were supplied by the Retirement System office. They are valued at adjusted amortized cost.

In our opinion, the Schedule of Valuation Results included in this report correctly presents the condition of the South Carolina Police Officers Retirement System as to those benefits which are funded on an actuarial reserve basis.

The results of the valuation indicate that the recommended rates of employer contribution, 7.80 percent and 10.30 percent of compensation for Class One and Class Two members, respectively, together with future contributions by members and the assets currently available are adequate to fund the actuarial liabilities on account of all benefits under the System except the post-retirement cost-of-living increases. The liquidation period for the unfunded accrued liability is 6 years from June 30, 1980. The post-retirement cost-of-living increases are currently being met on a terminal reserve basis.

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In addition, employer contributions at the rate of .40 per cent and .20 per cent of compensation for all members should be continued to cover the cost of the Pre-Retirement and Accidental Death Benefit Programs, respectively.

Very truly yours,

GEORGE B. BUCK CONSULTING ACTUARIES, INC.

Thomas J. Carahaugh, F.S.A. Consulting cruary

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REPORT ON AN ACTUARIAL VALUATION OF THE SOUTH CAROLINA POLICE OFFICERS RETIREMENT SYSTEM PREPARED AS OF JUNE 30, 1980

SECTION I - SUMMARY OF PRINCIPAL RESULTS

 For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below:

Valuation Date	6/30/80	6/30/79
Number of active members:	7,548	7,409
Men	: 686 :	585
Women	8,234	
Total	;	1,755
Annual compensation of active members	:	
during year:	:	+ 01 -10 100
Men	: \$ 96,543,899 :	\$ 84,743,428
Women	: 6,902,293 : \$103,446,192 :	5,291,1/5
Total	: \$103,446,192	\$ 90,034,603
Number of inactive members	1,742	1,659
Number of retired members and bene-		
ficiaries	: 1,349:	1,265
Annual retirement allowances	: \$ 4,652,022	\$ 3,883,370
Assets for valuation purposes	: \$130,193,012	\$110,296,996
Normal contribution as per cent of		
compensation:	:	
Class One Service	: 4.44%:	
Class Two Service	: 5.77	6.59
Unfunded accrued liability (UAL)	: \$ 20,844,375	\$ 40,477,096
Unfunded accrued liability contribution	:	· !
as per cent of payroll	:	}
Class One Service	3.36%	
Class Two Service	: 4.53	3.71
Unfunded accrued liability liquidation	:	
period (years)	: 6:	19-1/2
•	:	
Number of cost-of-living increases to be	•	•
granted after valuation date included	5	3
in UAL	:	
Pre-retirement death benefit contribution	:	:
as per cent of payroll	: .40%	. 409
	:	•
Accidental death benefit contribution as	:	:
ACCIDENTAL DENOTITE CONT. 1240.01.	: .20%	.20

- 2. Comments on the valuation results as of June 30, 1980 are given in Section IV and further discussion of the contribution levels is set out in Section V. The amendment, effective May 19, 1980, lowering the eligibility for an accidental disability retirement allowance from 5 years of service to first day of membership in the System was recognized in this valuation.
- 3. Schedule B of this report outlines the full set of actuarial assumptions and method employed. The results of this valuation reflect the change in assumptions last adopted by the Board. These changes consisted of an increase in the valuation interest rate from 5-1/4% to 7% and a strengthening of the assumed rates of salary increase. The provisions of the System are summarized in Schedule C.

SECTION II - MEMBERSHIP DATA

- 1. In order to obtain the aggregate liabilities and assets on account of members of the System as of June 30, 1980, data were needed with respect to each active member and beneficiary of the System and also with respect to terminations during the valuation year. The data with respect to both active and terminated members and beneficiaries were furnished to the actuary by the Retirement System office on a magnetic tape.
- 2. From the data, tabulations were made showing as of June 30, 1980 the number and annual compensation of members classified by age and years of service and the number and retirement allowances of beneficiaries on the roll as of June 30, 1980 classified by age. These tabulations are presented in Schedule D.
- 3. The data did not differentiate Class One from Class Two service for members with both types of service prior to the valuation date. For these members all prior service was conservatively valued as Class Two service.

4. The following table shows the number of active members of the Retirement System together with the annual compensation as of June 30, 1980.

ACTIVE MEMBERSHIP OF THE SOUTH CAROLINA POLICE OFFICERS RETIREMENT SYSTEM AS OF JUNE 30, 1980

GROUP	: NUMBER	: ANNUAL : COMPENSATION
Men	7,548	: : \$ 96,543,899
Women	686	6,902,293
Total	: : 8,234*	: \$103,446,192 :

*There are in addition 1,742 members not on the payroll as of June 30, 1980 but included in the individual accounts maintained by the System. The results of the valuation were adjusted to take these members into account.

5. The following table shows the number and annual amount of retirement allowances of beneficiaries on the roll as of June 30, 1980, classified by sex and cause of retirement.

TABLE II

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES ON THE ROLL

AS OF JUNE 30, 1980

GROUP	: NUMBER	: ANNUAL : RETIREMENT : ALLOWANCES
Service and Early Retirements: Men Women	: : 974 : 19	: : \$ 3,530,492 : 44,975
Total	993	: \$ 3,575,467 :
Disability Retirements: Men Women	: : 177 : 3	: : \$ 650,365 : 7,617
Total	180	\$ 657,982 \$
Beneficiaries of Deceased Members: Men Women	: : 67 : 109	: : : \$ 179,890 : 238,683
Total	: : 176	: \$ 418,573
Grand Total	1,349	: : \$ 4,652,022

SECTION III - ASSETS

The amounts of the present assets taken into account in this valuation are at adjusted amortized cost. The values of the assets were taken from a statement furnished by the Director of the System and exclude reserve assets creditable to separate funds for the Accidental and Group Life Insurance Pre-retirement Death Benefit Programs.

Included in the valuation are the assets of the members' account which represent the accumulated contributions of members together with interest thereon. As of June 30, 1980, these assets amounted to \$28,368,301.

Also included in the valuation are the assets of the accumulation account to which the contributions made by employers are credited and from which are paid all benefits on account of retired members and their beneficiaries. The assets of the accumulation account amounted to \$101,824,711 as of June 30, 1980.

SECTION IV - COMMENTS ON THE VALUATION

Schedule A of this report contains the results of the valuation which show present and prospective assets and liabilities of the System as of June 30, 1980. The following comments on the valuation are pertinent:

The schedule shows that the System has actuarial liabilities of \$281,978,311, of which \$38,240,057 is for the prospective benefits payable on account of present retired members and beneficiaries, \$235,234,823 is for the prospective benefits payable on account of present active and inactive members, and \$8,503,431 is the reserve required to provide five additional lifetime cost-of-living increases of 4 per cent per annum commencing July 1, 1980. Against these liabilities, the System has present assets of \$130,193,012 and anticipated future contributions by members of \$59,956,315 leaving a balance of \$91,828,984 to be provided by future contributions of the Employer.

In accordance with the law each employer shall contribute 7.80 per cent of compensation of Class One members in its employ and 10.30 per cent of compensation of Class Two members in its employ. The normal rate on the basis of Class One service for the average new entrant was determined to be 4.44 per cent of compensation. Therefore, if employers contribute 7.80 per cent of payroll for Class One members in their employ and 4.44 per cent is attributable to normal contributions, then the resulting 3.36 per cent is attributable to accrued liability contributions. For Class Two service the normal rate for the average new entrant was determined to be 5.77 per cent of compensation. Subtracting 5.77 per cent from 10.30 per cent (the amount employers contribute for Class Two members in their employ) results in an accrued liability contribution of 4.53 per cent of

compensation for Class Two members. Future normal contributions at the above rates have a present value of \$70,984,609. If this amount is subtracted from \$91,828,984, the present value of future contributions to be made by employers, \$20,844,375 remains as the present value of the unfunded accrued liability. On this basis, it is anticipated that the accrued liability of \$20,844,375 will be liquidated within a period of 6 years from the valuation date.

SECTION V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

It is recommended that in accordance with the provisions of the law each employer continue to contribute 7.80 per cent of compensation of Class One members and 10.30 per cent of compensation of Class Two members (exclusive of the cost of Pre-retirement and Accidental Death Benefits). Based on these employer contribution rates the unfunded accrued liability will be liquidated within 6 years.

In addition, participating employers pay the cost of the Accidental and Preretirement Death Benefit Programs. It is recommended that Employers contribute .40 per cent of compensation for pre-retirement lump sum death benefits, and .20 per cent of compensation for accidental death benefits, the same rates as were recommended last year.

The following table gives the rates of contribution payable by employers.

TABLE IV

RATES OF CONTRIBUTION RECOMMENDED FOR PAYMENT BY EMPLOYERS

RATES OF CONTRIBUTION	:	CLASS ONE	CLASS TWO
Regular Benefits	:	7.80%	10.30%
Pre-retirement Death Benefits*	:	.40	. 40
Accidental Death Benefits*	: :_	.20	
Total	:	8.40%	: : 10.90% :

^{*}Payable by participating employers.

SECTION VI - VALUATION BASIS

The valuation of the Retirement System was based on the rates of separation, the salary scales and the mortality tables last adopted by the Board. An outline of the actuarial assumptions and method used is presented in Schedule B.

SCHEDULE A

RESULTS OF THE VALUATION AS OF JUNE 30, 1980

,		
(1)	Actuarial Liabilities	
	Present value of prospective benefits payable in respect of:	
	(a) Present retired members and beneficiaries	\$ 38,240,057
	(b) Present active and inactive members	235,234,823
	(c) Five cost-of-living increases commencing 7/1/80	8,503,431
	(d) Total actuarial liabilities	\$ 281,978,311
(2)	Assets of the System	130,193,012
(3)	Unfunded Value of Prospective Benefits = (1)(d) - (2)	\$ 151,785,299
(4)	Present Value of Future Contributions By Members	59,956,315
(5)	Total Prospective Contributions By Employers = (3) - (4)	\$ 91,828,984
(6)	Present Values of 1 Per Cent of Future Compensation	. 1
	(a) Class One Service(b) Class Two Service	\$ 547,657 11,880,938
(7)	Present Value of Future Normal Contributions By Employers At	
·	(a) $4.44\% = (6)(a) \times 4.44$ (b) $5.77\% = (6)(b) \times 5.77$ (c) Total	\$ 2,431,597 68,553,012 \$ 70,984,609
(8)	Present Value of Accrued Liability Contributions By Employers = $(5) - (7)(c)$	\$ 20,844,375
(9)	Accrued Liability Rates	
	(a) Class One Service(b) Class Two Service	3.36% 4.53
(10)	Accrued Liability Liquidation Period	6 years
(11)	Pre-Retirement Death Benefit Contribution Rate	.40%
(12)	Accidental Death Benefit Contribution Rate	.20%

SCHEDULE B

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHOD

INTEREST RATE: 7% per annum, compounded annually.

SEPARATIONS FROM SERVICE AND SALARY INCREASES: Representative values of the adopted annual rates of separation and annual rates of salary increases are as follows:

		<u>Ann</u>	Service	Salary	
<u>Age</u>	Withdrawal	<u>Death</u>	Disability	Retirement*	Increases**
20	13.79%	.10%	.14%		11.29%
25 25	12.83	.13	.16		10.39
	9.12	.16	.20		9.01
30 35	5.61	.20	.26		7.29
35 60	3.43	.27	.34		6.50
40	2.33	.40	.50		6.21
45		•57	.84		5.80
50	1.74	.88	••1	6.50%	5.60
55				9.90	5.40
60 64		1.42 2.03		15.98	5.30
υ n				=	

DEATHS AFTER RETIREMENT: Combined Annuity Mortality Tables, Modified and Makehamized, for service retirement and dependent beneficiaries with a one year set back in ages. A special mortality table is used for disability retirements.

LOADING OR CONTINGENCY RESERVES:

*A loading was included to cover additional liabilities on the basis of an expected increase in the rates of service retirement in conjunction with the improved benefits under the average final compensation formula.

**Reserves were included to provide for an annual inflation factor of 5 per cent in the flat benefit formula.

VALUATION METHOD: Projected benefit method with level percentage entry age normal cost and open-end unfunded accrued liability. Gains and losses are reflected in the period remaining to liquidate the unfunded accrued liability. Lump sum death benefits are provided on a one-year term cost basis.

SCHEDULE C

SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

BACKGROUND

The South Carolina Police Officers Retirement System was established as of July 1, 1962. Firemen were eligible to participate in the System on July 1, 1976. Membership in the System is open to any police officer or fireman of the State or other employer (county, municipality or other political subdivision of the State and any agency or department thereof) that has been admitted to the System. A police officer or fireman whose period of active duty during a year is at least 1,600 hours and whose compensation for such service is at least \$2,000 per year is eligible to join. Membership is compulsory with employees who become police officers or firemen of the State or other employers after the employer's date of admission to the System. Police officers and firemen in service on the employer's date of admission become members as of such date unless they file elections not to become members of the System and execute a waiver of all present and prospective benefits which would otherwise inure to them on account of their participation in the System. Contributions to provide the benefits under the System are made jointly by the members and the employers.

A summary of the main benefit and contribution provisions of the System as interpreted for the valuation is presented in the following digest. Credited service of a member includes all service as a police officer or fireman since he last became a member of the System and also includes, in the case of a member who became such on or before June 30, 1963, remains a member until death or retirement under the System and who immediately prior to his becoming a member was a participant in another fund, service which was credited to him under such other fund. "Supplemental Allowance Program" is the Supplemental Allowance Program

established under the System as of July 1, 1966 and as in effect on June 30, 1974. There are two classes of members under the System. Class Two includes each member who was a participant in the Supplemental Allowance Program as of June 30, 1974 and any other police officer who became a member prior to July 1, 1974 and is employed by the State or by an employer which was participating in the Supplemental Allowance Program as of June 30, 1974 or which elected to provide Class Two membership for police officers in its employ and elected by written notice filed with the Board within 60 days after July 1, 1974 to become a Class Two member as of said date, provided that any such member who was not in service as of July 1, 1974 may make such election within 60 days after his return to service. Any police officer becoming a member on or after July 1, 1974 who is employed by the State or by an employer which has elected to provide Class Two membership for police officers in its employ and any police officer or fireman who is a member and is employed by an employer whose date of admission is on or after July 1, 1974 is a Class Two member. Any member who is not a Class Two member is a Class One member. "Class Two service" is credited service subsequent to June 30, 1974 as a Class Two member, and credited service prior to July 1, 1974, or date of membership, if later, with respect to which required contributions have been made. "Class One service" is credited service which is not "Class Two service". "Average final compensation" is the average annual compensation of a member during the three consecutive fiscal years of credited service producing the highest such average.

BENEFITS

Service Retirement Allowance

Condition for Allowance

A member may retire on a service retirement allowance upon the attainment of age 55 and the completion of 5 years of credited service, or at any age upon the completion of 30 years of credited service.

Amount of Allowance

Upon service retirement a member receives a service retirement allowance which is equal to:

- (1) A monthly retirement allowance equal to nine dollars multiplied by the number of years of his Class One service.
- (2) A monthly retirement allowance equal to one-twelfth of one and threefourths per cent of his average final compensation multiplied by the number of years of his Class Two service.
- (3) An additional monthly retirement allowance which is the actuarial equivalent of the member's accumulated additional contributions at retirement.

The sum of the retirement allowances under (1) and (2) above is not to be less than the allowance which would have been provided under (1) if all of the member's credited service were Class One service. In the case of a police officer who became a member prior to July 1, 1974 and who was a participant in the Supplemental Allowance Program, the portion of his service retirement allowance not provided by his accumulated contributions is not to be less than it would have been if the provisions of the System in effect on June 30, 1974 had continued in effect until his date of retirement.

Early Retirement Allowance

Condition for Allowance

Amount of Allowance

A member who has completed 5 years of credited service may retire on an early retirement allowance.

Upon early retirement a member is entitled to a deferred allowance commencing at age 55 which is equal to a service retirement allowance computed on the basis of his average final compensation and credited service at his early retirement date.

If the member has attained age 50 and completed 25 years of credited service at early retirement date, in lieu of such deferred allowance, he may elect to receive a reduced allowance commencing immediately

which is equal to the deferred allowance computed on the basis of Class One and Class Two service reduced by 5/12 of 1% for each month by which his age at retirement is less than age 55, plus the actuarial equivalent of the member's accumulated additional contributions.

Disability Retirement Allowance

Condition for Allowance

A member who has completed 5 or more years of credited service or who is disabled as a result of an injury arising out of and in the course of the performance of his duties regardless of length of service and who is permanently incapacitated for duty, mentally or physically, may retire or be retired on a disability retirement allowance.

Amount of Allowance

retirement member disability receives a disability retirement allowance computed as a service retirement allowance based on his average final compensation assuming no further change in compensation and the years of credited service the member would have completed had he remained in active service until age 55, and his accumulated additional contributions at disability retirement. For the purpose of calculating the disability retirement allowance, the additional credited service so determined is either Class One service or Class Two service depending upon the classification of the member at time of retirement.

Return of Contributions

Should a member cease to be a police officer or fireman except by death or retirement his accumulated contributions are returned to him. Should a member die before retirement the amount of his accumulated contributions is paid to his designated beneficiary or estate.

Death Benefit

Upon the death of a member in service a lump sum amount is paid to his designated beneficiary or estate equal to:

 The amount of his accumulated contributions, excluding any additional contributions, or \$1,000, whichever is greater; plus (2) The amount of his accumulated additional contributions.

Upon the death of a retired member who has not elected Option 1 or Option 2, the excess of his total accumulated contributions at the time his allowance commenced over the sum of the retirement allowance payments made to him is paid to his designated beneficiary or estate.

In the event of the death before retirement of a member who has attained age 55 and completed 20 or more years of credited service, or who, regardless of age, has completed 30 or more years of credited service, his designated beneficiary may elect to receive in lieu of the lump sum settlement otherwise payable based on (1) above an allowance for life in the same amount as if the member had retired at the time of death and had chosen Option 1.

Such beneficiary may elect to receive in lieu of the member's accumulated additional contributions, an allowance for life which is the actuarial equivalent of the amount of contributions left on deposit in the System.

Pre-retirement Death Benefit Program

Upon the death of a contributing member in service who had completed at least one full year of membership or who had died as a result of an injury arising out of and in the course of the performance of his duties regardless of length of service, a death benefit is payable to his designated beneficiary or estate, equal to the annual compensation of the member at the time his death occurs. Such death benefit is payable apart and separate from the payment of the contributions. member's accumulated Benefits under this program are to be provided in the form of group life insurance.

Accidental Death Benefit Program

Upon the death in active service as a result of the actual performance of duty of a member whose employer participates under the Program, a pension equal to 50% of the member's compensation at the time of death is paid to his widow during her widowhood. If there is no eligible widow before the

Optional Allowances

Cost-of-Living Adjustments in Allowance

youngest child attains age 18 the pension is paid to surviving children under age 18 or, if at the time of the member's death there is no widow or child under age 18, the pension is paid to his surviving father or mother. Such death benefit is payable apart and separate from any other benefits payable upon death.

Until the first payment on account of a retirement allowance becomes normally due, any member may elect to receive his retirement allowance in accordance with one of the following forms, which are computed to be actuarially equivalent:

Option 1. A reduced retirement allowance payable during the retired member's life, with the provision that after his death the reduced allowance will be continued to his designated beneficiary.

Option 2. A reduced retirement allowance payable during the retired member's life, with the provision that after his death one-half of the reduced allowance will be continued to his designated beneficiary.

Option 3. A retirement allowance in such amount that, together with his Social Security benefit, he will receive approximately the same income per annum before and after the earliest age at which he is eligible for a Social Security benefit.

If the increase in the Consumer Price Index for the previous year ending December 31 equals or exceeds 3%, the retirement allowance, exclusive of any part thereof derived from accumulated additional contributions, of each beneficiary in receipt of an allowance for at least one year as of said December 31, is to be increased by 4%. Any such increase in allowances after the first five such increases becomes effective only if the additional liabilities on account of such increase in allowances do not require an increase in the employer rate of contribu-Any increase in allowance granted hereunder is to be permanent, irrespective of any subsequent decrease in the Consumer Price Index, and is to be included in determining any subsequent increase.

The allowance of a surviving annuitant of a beneficiary whose allowance is increased under this section is to be increased by the same per cent, when and if payable.

CONTRIBUTIONS

By Members

By Employers

Each Class One member contributes \$16 per month. Each Class Two member contributes 5% of compensation.

Each employer contributes 7.80% of the compensation of Class One members and 10.30% of the compensation of Class Two members in its employ. Such rates are subject to adjustment on the basis of actuarial valuations. In addition each employer contributes .60% of the compensation of both Class One and Class Two members to cover the cost of the Accidental and Group Life Insurance Pre-Retirement Death Benefit Programs.

SCHEDULE D TABLE 1

THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS BY AGE AS OF JUNE 30,1980

AGE NUMBER AMCUNT NUMBER AMOUNT 18 2 \$ 16,288 10,890 19 6 42,196 2 \$ 10,890 20 13 109,644 2 11,554 21 40 361,181 9 60,502 22 113 1,030,873 27 231,993 23 206 2,019,078 25 242,015 24 246 2,595,885 29 271,795 25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,0		ļ	MEN WOM		MEN
19 6 42,196 2 \$ 10,890 20 13 109,644 2 11,554 21 40 361,181 9 60,502 22 113 1,030,873 27 231,993 23 206 2,019,078 25 242,015 24 246 2,595,885 29 271,795 25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055	AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
19 6 42,196 2 \$ 10,890 20 13 109,644 2 11,554 21 40 361,181 9 60,502 22 113 1,030,873 27 231,993 23 206 2,019,078 25 242,015 24 246 2,595,885 29 271,795 25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 <t< td=""><td>18</td><td>2 \$</td><td>16,288</td><td></td><td>_</td></t<>	18	2 \$	16,288		_
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21 40 361,181 9 60,502 22 113 1,030,873 27 231,993 23 206 2,019,078 25 242,015 24 246 2,595,885 29 271,795 25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 <td></td> <td></td> <td></td> <td>2</td> <td></td>				2	
22 113 1,030,873 27 231,993 23 206 2,019,078 25 242,015 24 246 2,595,885 29 271,795 25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 1			_	9	
23 206 2.019.078 25 242.015 24 246 2.595.885 29 271.795 25 300 3.233.445 40 410.534 26 287 3.244.612 41 421.274 27 340 3.857.449 51 502.539 28 272 3.235.164 41 411.396 29 317 3.892.014 21 210.103 30 297 3.530.947 32 316.830 31 287 3.521.607 45 489.886 32 311 4.009.707 29 290.472 33 311 3.960.741 18 169.992 34 271 3.565.695 29 286.866 35 222 3.011.139 17 160.601 36 186 2.398.781 15 162.074 37 197 2.639.375 13 132.977 38 185 2.606.961 19 207.246 39 148 2.077.682 1				27	231,993
24 246 2.595,885 29 271,795 25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,077,682 10 94,472 41 170 2,293,289 10				25	242,015
25 300 3,233,445 40 410,534 26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10				29	271,795
26 287 3,244,612 41 421,274 27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17<					410,534
27 340 3,857,449 51 502,539 28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12<				41	421,274
28 272 3,235,164 41 411,396 29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055				51	502,539
29 317 3,892,014 21 210,103 30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055				41	411,396
30 297 3,530,947 32 316,830 31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055				21	210,103
31 287 3,521,607 45 489,886 32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055	,			32	316,830
32 311 4,009,707 29 290,472 33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					489,886
33 311 3,960,741 18 169,992 34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055				29	290,472
34 271 3,565,695 29 286,866 35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					169,992
35 222 3,011,139 17 160,601 36 186 2,398,781 15 162,074 37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					286,866
36					160,601
37 197 2,639,375 13 132,977 38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					
38 185 2,606,961 19 207,246 39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					132,977
39 148 2,046,303 17 188,295 40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					207,246
40 154 2,077,682 10 94,472 41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					188,295
41 170 2,293,289 10 96,384 42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					94,472
42 127 1,789,614 17 175,444 43 148 2,094,649 12 130,055					96,384
43 148 2,094,649 12 130,055			-		175,444
45 T.10 E.10 T.10 T.10 T.10 T.10 T.10 T.10 T.10 T					130,055
44 146 1,972,464 14 140,557				14	140,557
45 138 1,972,067 15 162,462					162,462
46 155 2,102,414 12 136,954					136,954
47 176 2,281,232 2 19,467					
48 128 1,758,910 4 46,650					46,650
49 140 2,043,774 4 47,632			-		
50 168 2,322,716 5 51,940					
51 120 1,530,716 4 39,539					
52 130 1,882,562 4 35,128					
53 140 2,089,838 6 63,645					
54 95 1,357,827 4 37,765			· · · · · · · · · · · · · · · · · · ·		
55 97 1,364,920 7 82,805					

THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS BY AGE AS OF JUNE 30:1980

CONTINUED

		MEN	3	OMEN
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
56	120 \$	1,718,717	4 \$	46,561
57	60	855,303	4	47,087
58	93	1,283,673	5	52,390
59	73	1,026,083	6	58,252
60	91	1,317,635	2	18,725
61	75	932,130	1	9,637
62	70	1,165,633	6	50,203
63	31	472,203	1	9,643
64	39	546,397	1	10,505
65	28	398,066		
66	25	311,222	1	7,561
67	-13	160,019		
68	13	195,608		
69	5	55,242	1	24,060
70	3 5	33,010		_ ·
71	5	45,815		
72	10	121,627	2	16,936
73	3	25,736		•
76	1	6,771		
77	ī	9,250		
TOTAL	7,548 \$	96,543,899	686 \$	6,902,293

SEE FOOTNOTE TABLE I

THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS BY YEARS OF CREDITED SERVICE AS OF JUNE 30,1980

YEARS	MEN		WOMEN	
OF SERVICE	NUMBER	AMOUNT	NUMBER	THUOMA
0	435 \$	3,608,678	72 \$	523,859
ĭ	1,164	11,871,059	195	1,801,595
2	944	10,399,232	125	1,275,707
3.	673	7,785,074	93	1,017,113
4	513	6,311,441	51	544,384
5	507	6,285,031	45	511,187
6	481	6,115,198	37	417,245
7	421	5,511,935	20	244,666
8	310	4,327,153	19	221.830
9	266	3,907,010	6	68,744
10	210	3,145,161	1	17.341
11	232	3,487,579	3	45,754
12	178	2,777,415	1	17,090
13	165	2,560,623	1	12,246
14	120	1,852,862	2	25,380
15	98	1,534,315	1	8,559
16	77	1,340,057		
17	91	1,551,272		
18	70	1,213,297	2	20,373
19	69	1,105,239		
20	63	1,111,444		
21	24	433,535		
22	49	871,814	4	36,928
23	63	1,156,666	1	8,014
24	41	702,388	2	17,198
25	27	501,171		
26	48	886,906		
27	26	504,861		
28	38	748,693	1	10,326
29	15	279,586	1	2,462
30	25	441,427		
31	7	148,110	1	24,060
.32	28	583,288		•
33	32	706,174		
34	12	212,979		
35	3	52,199	1	21,413

THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS BY YEARS OF CREDITED SERVICE AS OF JUNE 30,1980

CONTINUED

SEE FOOTNOTE TABLE I

YEARS OF	М	EN	WOMEN	
SERVICE	NUMBER	AMOUNT	NUMBER	TNUOMA
36	3 \$	62,762		
3 7	1	19,051	1.\$	8,819
38	2	37,315		
39	5	134,510		
40	7	144,409		
41	1	27,570		
42	1	33,591		
43	1	9,655		
45	1	15,288		
46	1	28,876		
TOTAL	7,548 \$ 9	6 • 543 • 899	. 686 \$	6,902,293

TABLE 3

SERVICE AND EARLY RETIREMENTS

	MEN		WOMEN		
AGE	NUMBER	TRUCMA	NUMBER	AMOUNT	
35	1 \$	1,073	•		
43	2	21,659			
49	1	3,512			
50		17,310			
51	2 2 2	11,286			
52	2	12,466			
53	3	27,353			
54	8	61,390			
55	8	42,744		3,025	
56	18	88,324	1 \$	4,381	
57	13	96,595	1	44201	
58	17	90,625			
59	20	102,017			
60	26	117,571			
61	29	148,137	_	4 169	
62	38	165,899	1	1,152 1,472	
63	48	146,760	1	1,412	
64	57	217,948			
65	44	195,774	_ ,	8,042	
66	66	230,460	3		
67	64	211,318	1	2,333	
68	58	170,811	2	4,065	
69	54	150,261	1	2,197	
70	56	193,439	1	3,175	
71	56	206,510	_	2 /25	
72	48	156,307	2	3,425	
73	39	114,574	_	2 261	
74	31	95,336	1	3,261	
75	37	102,731			
76	21	57,071	_		
77	29	83,336		4,469	
78	13	28,190			
79	12	28,459		2,414	
80	18	51,486	•		

TABLE 3

SERVICE AND EARLY RETIREMENTS

CONTINUED

	MEN		WOMEN	
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
	8 \$	19,535	1 \$	945
81	8	20,688		
82		19,942	1	619
83	8	3,087		
84	2	6,517		
85	2	8,333		
86	2	714		
87	1			
88	1	2,349		
90	1	595		
TOTAL	974 \$	3,530,492	19 \$	44,975
SUMMARY				
LIFE			4 20 4	35,097
ANNUITY	736 \$	2,449,661	15 \$	5,497
100% J+S	94.	297,022	3	29421
50% J+S	118	539, 167		•
LEVELING	 – -		•	4.201
INCOME	26	244,642	1	4,381

TABLE 4

DISABILITY RETIREMENTS

	MS	MEN		WOMEN	
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT	
30	1 \$	4,278			
33	1	3 ,791			
35	1	4,331			
36	1	3,913			
37	1	3,157			
38	4	29,234			
39	3	14,690			
40	6	27,764			
41	2	9,499			
42	4	14,301			
43	1	3,357			
44	9 .	60,975			
45	5	28,250			
46	3	13,605	•		
47	5 3	20,384		0 2/0	
48	3	6,916	1 \$	2,349	
49	7	21,845			
50	2	7, 153		0 577	
51	7 2 7	40,406	1	2,577	
52	2 8	7,299			
53	8	27,685			
54	5	20,123			
55	12	38,100			
56	11	30,545			
5 7	6	13,935			
58	9	28,109			
59	. 9	17,797			
60	8	28,081			

TABLE 4

DISABILITY RETIREMENTS

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	TNUOMA	NUMBER	AMOUNT
61	9 \$	22,406		
62	7	25,271	1 \$	2,691
63	9	29,092		
64	4	5,449		
65	5	17,286		
66	1	1,390		
67	2	3,578		
68	2	6,241		
70	ī	7,272		
76	ī	2,857		
70	*	L, 05.		
TOTAL	177 \$	650, 365	3 \$	7,617
SUMMARY				
LIFE				
ANNUITY	118 \$	440,013	3 \$	7,617
100% J+S	37	100,281		
50% J+S	22	110,071		
~~~ ~ · · ·		-		

TABLE 5

# BENEFICIARIES OF DECEASED ACTIVE AND RETIRED MEMBERS

	MEN		MOMEN	
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
25	1 \$	2,737		
35	7 4		1 \$	3,660
38			1	3,704
45	,	2,677	$\overline{1}$	3,813
46	1 1	3,132	<u> 1</u>	1,289
47	T	34136	$\bar{1}$	2,445
49 50	1	1,046		
50 50	1	2,037	2	3,511
52 53	1	5,264	2	4,174
53		~ <b>, _</b> _ ·	3	11,406
54			3 1	2,189
<b>55</b>			1	470
56 57	2	12,865	1	1,669
57	2	,	3	11,524
58	1	2,911	8	21,849
59	1 1	1,304	2	2,815
60	3	10,946	4	9,415
61		11,160	3	6,321
62	3 3	3,541	2	4,246
63	2	8,471	6	9,206
64	4	16,543	6	17,834
65	3	8,667	4	7,812
66		9,266	5	11,391
67	3	15,867	5	9,443
68	4	9,102	6	16,217
69	3 1	1,794	4	11,506
70	1	18,143	5	6,504
71	9	8,788	4	5,686
72	5	3,125	5	7,145
73	2	9,228	3	6,536
74	4	1,272	4	7,189
75	2	11212	2	1,328
76			. 4	11,508
77	_	2 122	2	2,216
78	2	3,122		_,
79	2	3,754		
80	1	1,763	2	3,025
81			2 1	1,550
82	1	1,365	1	3,842
84			1 1	1,937
85				1,012
86			1 1	1,296
91			T	1,2,0
TOTAL	67 \$	179,890	109 \$	238,683