

REPORT ON AN ACTUARIAL VALUATION OF THE  
SOUTH CAROLINA POLICE OFFICERS  
RETIREMENT SYSTEM  
PREPARED AS OF JUNE 30, 1987

# BUCK CONSULTANTS

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June 20, 1988

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 System. We have the honor to submit herewith the results of the valuation as of June 30, 1987 made in accordance with this provision of the law.

The actuarial assumptions used in this valuation 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 unfunded 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, 4.80 per cent and 7.30 per cent 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, including all current and future post-retirement cost-of-living increases to current retired members and beneficiaries and active members currently eligible for service retirement. The liquidation period for the unfunded accrued liability is two years from June 30, 1987.

In addition, employer contributions should be reduced from .40 per cent of compensation to .20 per cent of compensation to cover the cost of the Pre-retirement Death Benefit Program, and continued at .20 per cent of compensation to cover the cost of the Accidental Death Benefit Program.

Respectfully submitted,

(Signed) DONALD M. OVERHOLSER

Donald M. Overholser  
Consulting Actuary

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REPORT ON AN ACTUARIAL VALUATION OF THE  
SOUTH CAROLINA POLICE OFFICERS RETIREMENT SYSTEM  
PREPARED AS OF JUNE 30, 1987

SECTION I - SUMMARY OF PRINCIPAL RESULTS

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

<u>Valuation Date</u>	<u>6/30/87</u>	<u>6/30/86</u>
Number of active members:		
Men	11,369	10,433
Women	2,072	1,672
Total	13,441	12,105
Annual compensation of active members during year:		
Men	\$ 206,849,733	\$ 181,360,922
Women	32,677,085	23,043,704
Total	\$ 239,526,818	\$ 204,404,626
Number of retired members and beneficiaries	2,195	2,045
Annual retirement allowances	\$ 13,083,577	\$ 11,186,397
Assets for valuation purposes	\$ 414,685,189	\$ 353,269,094
Normal contribution as per cent of compensation:		
Class One Service	4.59%	4.59%
Class Two Service	6.19	6.19
Unfunded accrued liability (UAL)	\$ 4,986,987	\$ 16,163,250
UAL contribution as per cent of compensation:		
Class One Service	0.21%	3.21%
Class Two Service	1.11	4.11
UAL liquidation period (years)	2	2
Pre-retirement death benefit contribution as per cent of compensation	.20%	.40%
Accidental death benefit contribution as per cent of compensation	.20%	.20%
Total contribution as per cent of compensation:		
Class One Service	5.20%	8.40%
Class Two Service	7.70%	10.90%

2. Comments on the valuation results as of June 30, 1987 are given in Section IV and further discussion of the contribution levels is set out in Section V. There were no amendments made to the provisions of the System since the June 30, 1986 valuation which affected the valuation results.
3. Schedule B of this report outlines the full set of actuarial assumptions and methods employed. The provisions of the System are summarized in Schedule C.

SECTION II - MEMBERSHIP DATA

1. Data needed with respect to each active member, retired member and beneficiary of the System and also with respect to terminations during the valuation year 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, 1987 the number and annual compensation of members classified by age and years of service and the number and retirement allowances of retired members and beneficiaries as of June 30, 1987 classified by age. These tabulations are presented in Schedule D.
3. The following table shows the number and annual compensation of active members of the Retirement System as of June 30, 1987.

TABLE I

ACTIVE MEMBERSHIP OF THE  
SOUTH CAROLINA POLICE OFFICERS RETIREMENT SYSTEM  
AS OF JUNE 30, 1987

GROUP	NUMBER	ANNUAL COMPENSATION
Men	11,369	\$ 206,849,733
Women	2,072	32,677,085
Total	13,441	\$ 239,526,818

Note: There are in addition 3,721 members not on the payroll as of June 30, 1987 but included in the individual accounts maintained by the System. The results of the valuation were adjusted to take these members into account.

4. The following table shows the number and annual retirement allowances of retired members and beneficiaries as of June 30, 1987.

TABLE II  
THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF  
RETIRED MEMBERS AND BENEFICIARIES  
AS OF JUNE 30, 1987

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service and Early Retirements:		
Men	1,507	\$ 9,523,753
Women	62	302,036
Total	1,569	\$ 9,825,789
Disability Retirements:		
Men	314	\$ 2,028,460
Women	13	54,082
Total	327	\$ 2,082,542
Beneficiaries of Deceased Members:		
Men	7	\$ 13,538
Women	292	1,161,708
Total	299	\$ 1,175,246
Grand Total	2,195	\$ 13,083,577



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, 1987, these assets amounted to \$77,227,347.~~AL~~

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 \$337,457,842 as of June 30, 1987.~~AL~~

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, 1987. The following comments on the valuation are pertinent:

The schedule shows that the System has actuarial liabilities of \$754,350,813 of which \$151,424,859 is for the prospective benefits payable on account of present retired members and beneficiaries, and \$602,925,954 is for the prospective benefits payable on account of present active and inactive members. These liabilities include the reserves for all current and future cost-of-living increases to current retired members and beneficiaries and active members currently eligible for service retirement. Against these liabilities, the System has present assets of \$414,685,189 and

anticipated future contributions by members of \$149,526,490 leaving a balance of \$190,139,134 to be provided by future contributions of employers.

In accordance with the law each employer shall contribute 4.80 per cent of compensation of Class One members in its employ and 7.30 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 4.59 per cent of compensation. Therefore, if employers contribute 4.80 per cent of payroll for Class One members in their employ and 4.59 per cent is attributable to normal contributions, then the resulting 0.21 per cent is attributable to unfunded accrued liability contributions. For Class Two service the normal rate for the average new entrant was determined to be 6.19 per cent of compensation. Subtracting 6.19 per cent from 7.30 per cent (the amount employers contribute for Class Two members in their employ) results in an unfunded accrued liability contribution of 1.11 per cent of compensation for Class Two members. Future normal contributions at the above rates have a present value of \$185,152,147. If this amount is subtracted from \$190,139,134, the present value of future contributions to be made by employers, \$4,986,987 remains as the present value of the unfunded accrued liability contributions. On this basis, it is anticipated that the unfunded accrued liability of \$4,986,987 will be liquidated within a period of two years from the valuation date.

#### SECTION V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

The following table gives the recommended rates of contribution payable by employers, as determined on the basis of the present valuation.

TABLE III  
RATES OF CONTRIBUTION RECOMMENDED FOR  
PAYMENT BY EMPLOYERS

RATES OF CONTRIBUTION	CLASS ONE	CLASS TWO
Regular Benefits	4.80%	7.30%
Pre-retirement Death Benefits*	.20	.20
Accidental Death Benefits*	.20	.20
Total	5.20%	7.70%

\*Payable by participating employers.

In view of the development of reserve assets of \$5,456,580 creditable to the Group Life Insurance Fund, it is recommended that the employer rate to provide the pre-retirement lump sum death benefit be reduced from .40 per cent of compensation to .20 per cent of compensation and the rate for the accidental death benefit be continued at .20 per cent of compensation.

#### 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 methods used is presented in Schedule B.

#### SECTION VII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statement No. 5 sets forth certain items of information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

#### NUMBER OF ACTIVE AND RETIRED MEMBERS AS OF JUNE 30, 1987

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	5,916
Active members:	
Vested	5,874
Non-vested	<u>7,567</u>
Total active members	13,441

Another such item is the pension benefit obligation, a standardized measure of the System's liabilities. It is the amount owed for benefits allocated to employee service before the balance sheet date, when total projected benefits (including the effects of projected salary increases) are allocated equally over all years of employee service before and after the balance sheet date.

2. The pension benefit obligation, prepared in accordance with Governmental Accounting Standards Board Statement No. 5, and a comparison with net assets available for benefits as of June 30, 1987, are presented below.

Pension Benefit Obligation  
(in \$ thousand)

° Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving benefits	\$ 161,727
° Current employees:	
Accumulated contributions	72,076
Employer-financed vested	69,229
Employer-financed nonvested	<u>142,126</u>
Total Pension Benefit Obligation	\$ 445,158
° Net assets available for benefits	\$ 414,685
° Unfunded Pension Benefit Obligation	\$ 30,473

3. The following first two years of the ten-year historical trend information, prepared in accordance with Governmental Accounting Standards Board Statement No. 5, provides information on progress made in accumulating sufficient assets to pay benefits when due. A purpose of the chart is to establish a consistent method for analyzing and making comparisons among different public retirement systems.

Required Supplementary Information Analysis of Funding Progress  
(in \$ thousand)

Fiscal Year Ended	(1) Net Assets Avail- able for Benefits	(2) Pension Benefit Obli- gation	(3) Percent- age Funded (1) ÷ (2)	(4) Unfunded Pension Benefit Obli- gation (2) - (1)	(5) Annual Covered Payroll	(6) Unfunded PBO as % of Covered Payroll (4) ÷ (5)
6/30/86	\$ 353,269	\$ 397,165	88.9%	\$ 43,896	\$ 204,405	21.5%
6/30/87	414,685	445,158	93.2	30,473	239,527	12.7

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Retirement System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the Retirement System.

SCHEDULE A

## RESULTS OF THE VALUATION AS OF JUNE 30, 1987

## (1) Actuarial liabilities

Present value of prospective benefits payable  
in respect of:

(a) Present retired members and beneficiaries	\$ 151,424,859
(b) Present active and inactive members	<u>602,925,954</u>
(c) Total actuarial liabilities	\$ 754,350,813
(2) Assets of the System	<u>414,685,189</u> <del>414</del>
(3) Present value of future contributions = (1)(c) - (2)	\$ 339,665,624
(4) Present value of future contributions by members	<u>149,526,490</u>
(5) Present value of future contributions by employers = (3) - (4)	\$ 190,139,134
(6) Present value of 1 per cent of future compensation:	
(a) Class One Service	\$ 48,720
(b) Class Two Service	29,875,367
(7) Present value of future normal contributions by employers at:	
(a) 4.59% = (6)(a) x 4.59	\$ 223,625
(b) 6.19% = (6)(b) x 6.19	<u>184,928,522</u>
(c) Total	\$ 185,152,147
(8) Present value of unfunded accrued liability contributions by employers = (5) - (7)(c)	\$ 4,986,987
(9) Unfunded accrued liability rates:	
(a) Class One Service	0.21%
(b) Class Two Service	1.11%
(10) Unfunded accrued liability liquidation period	2 years
(11) Pre-retirement death benefit contribution rate	.20%
(12) Accidental death benefit contribution rate	.20%

SCHEDULE B

## OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: 7% per annum, compounded annually.

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

Age	Annual Rate of				
	Withdrawal	Death	Disability	Service Retirement*	Salary Increases**
20	13.79%	.10%	.14%		11.29%
25	12.83	.13	.16		10.39
30	9.12	.16	.20		9.01
35	5.61	.20	.26		7.29
40	3.43	.27	.34		6.50
45	2.33	.40	.50		6.10
50	1.74	.57	.84		5.80
55		.88		6.50%	5.60
60		1.42		9.90	5.40
64		2.03		15.98	5.30

DEATHS AFTER RETIREMENT: Combined Annuity Mortality Tables, Modified and Makehamized, for service retirement and dependent beneficiaries with a one-year setback 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.

ASSET VALUATION METHOD: Adjusted amortized cost.

SCHEDULE CSUMMARY OF MAIN SYSTEM PROVISIONS  
AS INTERPRETED FOR VALUATION PURPOSESBACKGROUND

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 twelve consecutive quarters 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  $1/12$  of  $1-3/4\%$  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

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

Amount of 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  $\frac{5}{12}$  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

Upon disability retirement a member receives a disability retirement allowance computed as a service retirement allowance based on 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. The compensation to be used for purposes of computing this benefit is the average final compensation as of the date of disability.

Return of Contribution

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:

- (1) 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.

Upon the death of a member before retirement who had 15 years of creditable service, the person nominated to receive the amount of the member's accumulated contributions may elect to receive, in lieu of such accumulated contributions and the Group Life Insurance payment, an allowance for life in an amount as if the member had retired on the date of his death and had elected for payment to commence at age 55 under Option 1 as described below. The compensation to be used for purposes of computing this benefit is the average final compensation as of the date of death.

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 member's accumulated contributions. 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 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.

#### Optional Allowances

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.

Option 4. A member may elect Option 1 or Option 2 with the added provision that in the event the designated beneficiary predeceases the member, the retirement allowance payable to the member after the designated beneficiary's death shall be equal to the retirement allowance which would have been payable had the member not elected the option.

#### Cost-of-Living Adjustments in Allowance

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 becomes effective only if the additional liabilities on account of such increase in allowance do not require an increase in the employer rate of contribution. 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

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

By Employers

Each employer contributes 4.80% of the compensation of Class One members and 7.30% 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 .40% 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, 1987

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
19	10	\$ 125,845	4	\$ 32,194
20	19	231,004	9	105,945
21	39	447,430	39	434,140
22	165	2,083,762	56	690,338
23	344	4,614,076	82	1,044,268
24	392	5,508,850	95	1,317,881
25	442	6,542,724	84	1,158,242
26	437	6,484,317	100	1,424,473
27	466	7,145,065	99	1,391,833
28	416	6,627,817	117	1,808,834
29	368	5,947,690	100	1,444,437
30	403	6,636,243	99	1,528,174
31	386	6,588,860	78	1,313,146
32	409	6,982,313	98	1,577,394
33	377	6,724,790	97	1,639,455
34	396	7,392,705	77	1,272,684
35	342	6,352,898	69	1,125,308
36	372	7,255,264	67	1,109,684
37	345	6,639,008	74	1,296,691
38	369	7,204,345	54	921,286
39	398	7,989,500	54	956,158
40	392	7,872,971	57	957,810
41	322	6,668,942	45	737,489
42	283	5,731,730	41	691,158
43	252	4,969,784	37	641,642
44	285	5,691,835	46	825,648
45	267	5,433,620	38	677,698
46	193	3,912,143	22	392,127
47	209	4,139,721	19	308,861
48	215	4,377,107	31	583,540
49	175	3,546,819	25	433,368
50	184	3,825,381	31	595,006
51	189	3,697,908	30	534,023
52	185	3,912,242	17	294,345
53	179	3,720,975	7	105,284
54	168	3,482,820	7	124,790
55	138	2,820,176		



TABLE 1  
THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION  
OF ACTIVE MEMBERS BY AGE  
AS OF JUNE 30, 1987

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
56	120	\$ 2,586,067	14	\$ 248,626
57	140	2,937,942	10	170,363
58	98	1,981,306	8	147,199
59	115	2,352,188	9	145,336
60	104	2,246,320	7	139,490
61	55	1,096,113	4	74,618
62	50	1,116,501	2	33,669
63	43	832,312	2	40,258
64	34	773,695	3	47,914
65	19	398,558	5	76,787
66	14	314,076	2	24,023
67	12	225,653		
68	16	248,857	1	33,448
69	7	232,534		
70	1	9,201		
71	3	28,186		
72	2	18,662		
73	2	63,195		
76	1	17,714		
78	1	23,138		
81	1	18,835		
TOTAL	11,369	\$ 206,849,733	2,072	\$ 32,677,085

SEE FOOTNOTE TABLE I

TABLE 2

THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION  
OF ACTIVE MEMBERS BY YEARS OF CREDITED SERVICE  
AS OF JUNE 30, 1987

YEARS OF SERVICE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
0	849	\$ 10,263,779	246	\$ 2,668,994
1	2,160	32,708,933	761	12,045,341
2	1,262	20,077,364	252	3,736,765
3	900	14,587,070	147	2,294,738
4	672	12,060,202	133	2,284,850
5	514	9,018,738	63	1,008,427
6	526	9,438,190	100	1,684,350
7	394	7,050,216	68	1,111,051
8	461	8,723,748	72	1,287,935
9	415	8,088,184	58	1,075,588
10	368	7,497,903	45	835,476
11	389	7,934,521	33	642,515
12	294	6,212,681	29	593,666
13	305	6,728,777	24	470,034
14	266	5,866,962	13	299,061
15	222	5,160,738	13	274,815
16	178	4,215,427	5	115,536
17	151	3,546,137	3	82,902
18	132	3,227,618	2	48,951
19	123	3,031,746	1	28,308
20	127	3,114,588		
21	85	2,144,342		
22	77	1,957,468	1	35,574
23	68	1,817,328		
24	57	1,487,734		
25	37	965,410		
26	58	1,545,391		
27	39	1,043,269		
28	36	981,310		
29	34	929,077	2	25,537
30	39	1,188,241		
31	24	704,912	1	26,671
32	24	676,223		
33	16	518,398		
34	10	332,928		
35	21	687,197		

TABLE 2

THE DISTRIBUTION OF THE NUMBER AND ANNUAL COMPENSATION  
OF ACTIVE MEMBERS BY YEARS OF CREDITED SERVICE  
AS OF JUNE 30, 1987

CONTINUED

YEARS OF SERVICE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
36	6	\$ 230,118		
37	8	237,287		
38	5	168,907		
39	1	38,058		
40	4	154,425		
41	3	95,107		
42	2	77,872		
43	4	153,220		
44	2	100,356		
46	1	61,633		
TOTAL	11,369	\$ 206,849,733	2,072	\$ 32,677,085

SEE FOOTNOTE TABLE I

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF RETIRED MEMBERS BY AGE  
AS OF JUNE 30, 1987

## SERVICE AND EARLY RETIREMENTS

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
42	1	\$ 1,439		
47	1	4,170		
48	1	18,998		
49	2	7,008		
50	2	15,382		
51	3	37,467		
52	4	43,763		
53	8	107,336		
54	7	81,576		
55	14	185,616		
56	27	255,717	1	\$ 19,230
57	50	402,672		
58	33	320,575		
59	50	537,670	1	1,145
60	51	504,917	2	5,483
61	49	447,031	1	9,723
62	45	371,868	7	43,937
63	84	565,370	7	51,098
64	43	275,146	7	17,194
65	72	482,127	4	11,100
66	72	451,929	5	12,279
67	97	586,026	5	18,475
68	66	350,430	1	4,304
69	87	597,717	3	13,436
70	65	303,820	5	15,325
71	76	401,627	1	1,432
72	53	327,911		
73	69	308,129	2	7,176
74	57	231,339	2	6,036
75	41	164,130	1	2,777
76	47	161,783	2	42,339
77	42	192,485	1	4,227
78	37	174,586		
79	42	188,230	4	15,320
80	23	92,467		

TABLE 3  
THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF RETIRED MEMBERS BY AGE  
AS OF JUNE 30, 1987

SERVICE AND EARLY RETIREMENTS

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
81	17	\$ 82,024		
82	17	70,047		
83	9	36,397		
84	14	48,303		
85	7	16,299		
86	4	9,953		
87	6	20,685		
88	4	11,057		
89	2	8,159		
90	3	11,767		
91	1	2,062		
92	1	3,758		
93	1	4,785		
TOTAL	1,507	\$ 9,523,753	62	\$ 302,036

SUMMARY

LIFE ANNUITY	848	\$ 4,195,768	47	\$ 222,767
100% J+S	140	659,409	2	3,739
50% J+S	160	1,090,437		
SOC. SEC. LEVELING	215	2,328,621	12	71,743
100% POP-UP	52	313,003	1	3,787
50% POP-UP	92	936,515		

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF RETIRED MEMBERS BY AGE  
AS OF JUNE 30, 1987

## DISABILITY RETIREMENTS

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
30	2 \$	11,934		
33	1	9,454		
34	1	10,705		
35	1	9,191		
36	1	8,012		
37	8	57,901		
38	4	35,124	2 \$	11,082
39			1	7,459
40	7	49,678		
41	6	74,213		
42	5	38,019	1	6,007
43	6	58,800		
44	3	23,343		
45	6	46,955	1	2,869
46	6	35,852	2	9,354
47	15	117,628		
48	7	55,813		
49	9	53,841		
50	5	36,907		
51	19	150,638		
52	6	65,361	3	7,674
53	11	72,136		
54	13	84,303		
55	12	63,822	1	2,972
56	17	88,146		
57	13	99,988		
58	12	61,203	1	3,260
59	9	48,807		
60	9	45,908		

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF RETIRED MEMBERS BY AGE  
AS OF JUNE 30, 1987

## DISABILITY RETIREMENTS

## CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
61	8	\$ 45,434		
62	15	97,616		
63	13	63,271		
64	5	8,097		
65	8	43,387		
66	9	47,491		
67	11	69,297		
68	9	30,901		
69	7	36,396	1	\$ 3,405
70	8	59,335		
71	2	2,228		
72	3	6,529		
74	2	4,796		
TOTAL	314	\$ 2,028,460	13	\$ 54,082

## SUMMARY

LIFE ANNUITY	203	\$ 1,323,372	11	\$ 46,230
100% J+S	50	261,356	1	2,767
50% J+S	33	244,444		
100% POP-UP	11	65,869		
50% POP-UP	17	133,419	1	5,085

TABLE 5

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF BENEFICIARIES BY AGE  
AS OF JUNE 30, 1987

## BENEFICIARIES OF DECEASED ACTIVE AND RETIRED MEMBERS

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
22			1	\$ 2,106
29			1	43,453
34			1	11,112
35	1	\$ 2,402	1	5,874
36			1	6,054
37			1	1,328
38			1	917
39			1	3,671
40			1	1,829
41			1	7,933
42			1	633
43			1	1,463
45			2	13,120
46			2	5,510
47			3	23,143
48			3	16,492
49			7	42,247
50			1	4,498
51			1	13,661
52			2	9,173
53			3	13,819
54			4	12,758
55			2	7,549
56	1	1,795	5	60,665
57			6	28,323
58			3	31,706
59			6	12,265
60			4	19,509



TABLE 5

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES  
OF BENEFICIARIES BY AGE  
AS OF JUNE 30, 1987

BENEFICIARIES OF DECEASED ACTIVE AND RETIRED MEMBERS

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
61			6	\$ 32,419
62			7	27,260
63	1	\$ 3,012	9	13,229
64			7	26,088
65			7	41,695
66			21	78,289
67	1	1,265	5	9,012
68			14	65,175
69			10	28,868
70			6	13,850
71	1	1,879	18	59,095
72	1	2,275	18	76,333
73			17	43,535
74			14	47,985
75	1	910	13	42,307
76			11	55,277
77			5	16,267
78			7	15,604
79			8	21,925
80			5	5,933
81			5	12,329
82			5	9,784
83			1	254
84			3	6,757
86			3	9,647
88			1	1,980
TOTAL	7	\$ 13,538	292	\$ 1,161,708