

REPORT ON AN ACTUARIAL VALUATION OF THE
SOUTH CAROLINA POLICE OFFICERS
RETIREMENT SYSTEM
PREPARED AS OF JULY 1, 1989

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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 July 1, 1989 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, 7.80 per cent and 10.30 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 seven years from July 1, 1989.

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

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 JULY 1, 1989

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>7/1/89</u>	<u>7/1/88</u>
Number of active members:		
Men	12,433	12,025
Women	2,982	2,509
Total	<u>15,415</u>	<u>14,534</u>
Annual compensation of active members during year:		
Men	\$ 252,501,002	\$ 228,092,802
Women	52,250,564	41,078,213
Total	<u>\$ 304,751,566</u>	<u>\$ 269,171,015</u>
Number of retired members and beneficiaries	2,603	2,354
Annual retirement allowances	\$ 20,965,752	\$ 15,413,678
Assets for valuation purposes	\$ 553,732,000	\$ 475,020,000
Normal contribution as per cent of compensation:		
Class One Service	4.59%	4.59%
Class Two Service	7.19	5.91
Unfunded accrued liability (UAL)	\$ 57,661,140	\$ 55,231,394
UAL contribution as per cent of compensation:		
Class One Service	3.21%	3.21%
Class Two Service	3.11	4.39
UAL liquidation period (years)	7	6
Pre-retirement death benefit contribution as per cent of compensation	.20%	.20%
Accidental death benefit contribution as per cent of compensation	.20%	.20%
Total contribution as per cent of compensation:		
Class One Service	8.20%	8.20%
Class Two Service	10.70%	10.70%

2. Comments on the valuation results as of July 1, 1989 are given in Section IV and further discussion of the contribution levels is set out in Section V. The System was amended since the previous valuation. The retirement benefit formula under Class I has been increased from \$10.25 per month per year of service to \$10.97 per month, and under Class II from 2.00% of average final salary to 2.14% of average final salary. The improved benefits are also applicable to those already retired; benefits payable to current retirees have been increased by 7.0%
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. Since the previous valuation, the interest rate assumption has been increased from 7-1/2% to 8% and the salary increase assumptions have been increased by 1/2% at each age. The active service and mortality tables have also been revised.

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 July 1, 1989 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 July 1, 1989 classified by age. These tabulations are presented in Scheduled D.
3. The following table shows the number and annual compensation of active members of the Retirement System as of July 1, 1989.

TABLE I
 ACTIVE MEMBERSHIP OF THE
 SOUTH CAROLINA POLICE OFFICERS RETIREMENT SYSTEM
 AS OF JULY 1, 1989

GROUP	NUMBER	ANNUAL COMPENSATION
Men	12,433	\$ 252,501,002
Women	2,982	52,250,564
Total	15,415	\$ 304,751,566

Note: There are in addition 4,169 members not on the payroll as of July 1, 1989 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 July 1, 1989.

TABLE II
THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF
RETIRED MEMBERS AND BENEFICIARIES
AS OF JULY 1, 1989

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service and Early Retirements:		
Men	1,780	\$ 15,595,428
Women	76	401,570
Total	1,856	\$ 15,996,998
Disability Retirements:		
Men	349	\$ 2,811,230
Women	18	97,050
Total	367	\$ 2,908,280
Beneficiaries of Deceased Members:		
Men	11	\$ 42,484
Women	369	2,017,990
Total	380	\$ 2,060,474
Grand Total	2,603	\$ 20,965,752

Note: The retirement allowances shown do not include the increase effective July 1, 1989. However, the improvement was included in the liability determination.

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 July 1, 1989, these assets amounted to \$105,354,000.

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 \$448,378,000 as of July 1, 1989.

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 July 1, 1989. The following comments on the valuation are pertinent:

The schedule shows that the System has actuarial liabilities of \$1,144,313,080 of which \$246,292,499 is for the prospective benefits payable on account of present retired members and beneficiaries, and \$898,020,581 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 \$553,732,000 and anticipated future contributions by members of \$252,989,087 leaving a balance of \$337,591,993 to be provided by future contributions of employers.

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 4.59 per cent of compensation. Therefore, if employers contribute 7.80 per cent of payroll for Class One members in their employ and 4.59 per cent is attributable to normal contributions, then the resulting 3.21 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 7.19 per cent of compensation. Subtracting 7.19 per cent from 10.30 per cent (the amount employers contribute for Class Two members in their employ) results in an unfunded accrued liability contribution of 3.11 per cent of compensation for Class Two members. Future normal contributions at the above rates have a present value of \$279,930,853. If this amount is subtracted from \$337,591,993 the present value of future contributions to be made by employers, \$57,661,140 remains as the present value of the unfunded accrued liability contributions. On this basis and assuming that active payroll will increase by 4% each year, it is anticipated that the unfunded accrued liability of \$57,661,140 will be liquidated within a period of 7 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	7.80%	10.30%
Pre-retirement Death Benefits*	.20	.20
Accidental Death Benefits*	.20	.20
Total	8.20%	10.70%

*Payable by participating employers.

It is recommended that participating employers contribute .20 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.

SECTION VI - VALUATION BASIS

The valuation of the Retirement System was based on revised rates of separation, salary scales and mortality tables which are being submitted to the Board for adoption. 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 JULY 1, 1989

GROUP	:	NUMBER
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	:	6,767
Active members:	:	
Vested	:	5,760
Non-vested	:	9,655
Total active members	:	15,415

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 July 1, 1989, 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	\$ 271,849
° Current employees:	
Accumulated contributions	92,575
Employer-financed vested	94,617
Employer-financed nonvested	<u>223,123</u>
Total Pension Benefit Obligation	\$ 682,164
° Net assets available for benefits	\$ 553,732
° Unfunded Pension Benefit Obligation	\$ 128,432

3. The following first four 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)

<u>Fiscal Year Begin.</u>	(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)
7/1/86	\$ 353,269	\$ 397,165	88.9%	\$ 43,896	\$ 204,405	21.5%
7/1/87	414,685	445,158	93.2	30,473	239,527	12.7
7/1/88	475,020	540,583	87.9	65,563	269,171	24.4
7/1/89	553,732	682,164	81.2	128,432	304,752	42.1

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 JULY 1, 1989

(1) Actuarial liabilities		
Present value of prospective benefits payable in respect of:		
(a) Present retired members and beneficiaries	\$	246,292,499
(b) Present active and inactive members		<u>898,020,581</u>
(c) Total actuarial liabilities	\$	1,144,313,080
(2) Assets of the System		<u>553,732,000</u>
(3) Present value of future contributions = (1)(c) - (2)	\$	590,581,080
(4) Present value of future contributions by members		<u>252,989,087</u>
(5) Present value of future contributions by employers = (3) - (4)	\$	337,591,993
(6) Present value of future normal contributions by employers	\$	279,930,853
(7) Present value of unfunded accrued liability contributions by employers = (5) - (6)	\$	57,661,140
(8) Unfunded accrued liability rates:		
(a) Class One Service		3.21%
(b) Class Two Service		3.11%
(9) Unfunded accrued liability liquidation period		7 years
(10) Pre-retirement death benefit contribution rate		.20%
(11) Accidental death benefit contribution rate		.20%

SCHEDULE B

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: 8% 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				
	<u>Withdrawal</u>	<u>Death</u>	<u>Disability</u>	<u>Service* Retirement</u>	<u>Salary Increases</u>
20	3.45%	.10%	.14%		12.29%
25	3.21	.13	.16		11.39
30	2.28	.16	.20		10.01
35	1.40	.20	.26		8.29
40	.86	.27	.34		7.50
45	.58	.40	.50		7.10
50	.44	.57	.84	5.00%	6.80
55		.88		6.50	6.60
60		1.42		9.90	6.40
64		2.03		15.98	6.30

*An additional 20% are assumed to retire when first eligible for unreduced service retirement.

DEATHS AFTER RETIREMENT: 1971 Group Annuity Mortality Tables for service retirement and dependent beneficiaries set forward two years. A special mortality table is used for disability retirements.

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 25 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 \$10.97 multiplied by the number of years of his Class One service.
- (2) A monthly retirement allowance equal to 1/12 of 2.14% 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.

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 25 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 \$21 per month. Each Class Two member contributes 6.5% of compensation.

By Employers

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 .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 JULY 1, 1989

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
18	1	\$ 13,215		
19	7	91,768	1	\$ 14,001
20	31	366,712	2	33,138
21	43	559,785	13	166,668
22	192	2,739,485	38	506,296
23	339	5,122,640	85	1,171,893
24	448	7,188,540	101	1,490,931
25	520	8,719,149	133	1,987,833
26	530	9,103,940	135	2,118,544
27	511	8,853,116	160	2,578,659
28	505	9,106,762	109	1,659,841
29	501	9,165,131	130	2,112,823
30	456	8,264,637	146	2,423,365
31	393	7,519,006	139	2,370,400
32	421	8,065,448	129	2,180,180
33	415	8,136,551	128	2,169,318
34	394	8,128,098	117	2,185,945
35	398	8,201,486	125	2,248,332
36	386	8,345,100	135	2,574,510
37	355	7,646,510	100	1,811,224
38	367	8,171,549	99	1,787,284
39	343	7,418,509	77	1,390,860
40	375	8,358,875	87	1,699,426
41	396	9,180,518	87	1,572,077
42	401	9,278,843	76	1,449,082
43	336	7,746,118	70	1,334,533
44	276	6,434,301	47	928,962
45	252	5,516,421	52	1,064,994
46	281	6,371,857	51	1,000,217
47	257	5,822,699	50	1,041,500
48	191	4,258,090	55	1,103,812
49	200	4,439,640	33	650,145
50	192	4,462,322	27	479,646
51	173	3,923,859	33	679,195
52	174	4,142,755	24	484,380
53	173	3,846,276	37	761,168
54	181	4,371,395	37	799,545
55	151	3,459,295	18	369,095

TABLE 1
 THE DISTRIBUTION OF THE NUMBER AND
 ANNUAL COMPENSATION OF ACTIVE MEMBERS BY
 AGE AS OF JULY 1, 1989

CONTINUED

AGE	NUMBER	MEN	AMOUNT	NUMBER	WOMEN	AMOUNT
56	137	\$	3,112,511	16	\$	279,645
57	105		2,423,305	13		266,554
58	109		2,562,514	10		216,098
59	125		2,907,658	16		322,322
60	93		2,039,122	9		157,484
61	94		2,201,794	8		136,716
62	77		1,893,598	9		189,775
63	26		566,041	2		29,571
64	30		722,694	2		35,177
65	24		530,808	2		46,875
66	12		300,966	1		14,592
67	10		186,019	5		88,941
68	12		236,126	1		15,680
69	7		147,230	1		15,555
70	5		82,973	1		35,757
71	2		47,242			
TOTAL	12,433	\$	252,501,002	2,982	\$	52,250,564

SEE FOOTNOTE TABLE I

TABLE 2
 THE DISTRIBUTION OF THE NUMBER AND
 ANNUAL COMPENSATION OF ACTIVE MEMBERS BY
 YEARS OF CREDITED SERVICE AS OF JULY 1, 1989

YEARS OF SERVICE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
0	950	\$ 12,823,135	307	\$ 3,917,055
1	2,123	33,792,179	880	13,422,509
2	1,297	23,500,049	399	6,974,384
3	1,532	29,841,177	532	10,586,283
4	913	17,845,904	181	3,330,629
5	700	13,938,950	121	2,245,738
6	558	12,151,904	107	2,198,944
7	437	9,061,961	53	1,020,869
8	417	8,997,382	35	1,675,056
9	325	7,137,726	60	1,093,256
10	374	8,519,007	58	1,195,970
11	340	7,787,800	47	1,021,335
12	294	7,000,638	37	778,876
13	310	7,461,910	32	728,974
14	259	6,582,484	28	665,792
15	253	6,474,556	18	424,123
16	206	5,312,137	13	332,231
17	170	4,675,058	10	234,127
18	136	3,730,137	5	133,585
19	116	3,182,141	2	69,330
20	102	2,923,768	2	43,675
21	93	2,716,232	2	70,940
22	85	2,535,078		
23	59	1,659,765		
24	53	1,523,434	1	37,901
25	45	1,458,776		
26	42	1,373,510		
27	28	901,954		
28	34	1,096,171		
29	20	641,778		
30	30	891,133		
31	19	647,527	1	13,452
32	30	1,056,430		
33	15	538,344	1	34,530
34	16	560,859		
35	12	499,255		

TABLE 2

THE DISTRIBUTION OF THE NUMBER AND
ANNUAL COMPENSATION OF ACTIVE MEMBERS BY
YEARS OF CREDITED SERVICE AS OF JULY 1, 1989

CONTINUED

YEARS OF SERVICE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
36	9	\$ 373,435		
37	13	535,953		
38	4	179,296		
39	7	279,928		
40	2	87,302		
41	1	31,592		
42	2	102,519		
45	1	30,398		
46	1	40,330		
TOTAL	12,433	\$ 252,501,002	2,982	\$ 52,250,564

SEE FOOTNOTE TABLE I

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF RETIRED MEMBERS
BY AGE AS OF JULY 1, 1989

SERVICE AND EARLY RETIREMENTS

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
39	1	\$ 6,589		
42	1	15,994		
44	3	38,691		
45	1	11,161		
46			1	\$ 4,785
47	8	107,541		
48	8	140,940		
49	10	141,370		
50	13	242,174		
51	8	97,066		
52	14	196,140		
53	11	190,489	1	6,501
54	16	248,984		
55	24	400,237		
56	44	540,559		
57	51	675,229	1	2,661
58	50	624,255	3	34,519
59	75	777,724	2	3,040
60	42	463,481		
61	64	756,635	2	3,928
62	73	812,468	2	6,746
63	77	707,200	4	13,014
64	71	710,525	8	42,868
65	105	947,616	8	65,320
66	63	541,433	7	26,122
67	81	691,496	4	17,481
68	73	545,809	6	15,609
69	101	782,306	6	22,168
70	57	378,454	1	5,295
71	86	744,911	3	16,530
72	58	325,155	5	18,853
73	73	476,053	1	1,762
74	48	352,291		
75	63	344,143	2	8,828
76	49	254,760	2	7,426
77	35	178,679	1	3,413
78	43	179,755	2	52,078

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF RETIRED MEMBERS
BY AGE AS OF JULY 1, 1989

SERVICE AND EARLY RETIREMENTS

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
79	37	\$ 208,797	1	\$ 5,182
80	29	193,658		
81	34	182,281	3	17,441
82	18	79,487		
83	14	80,057		
84	11	44,768		
85	8	39,656		
86	8	40,160		
87	4	14,141		
88	2	5,539		
89	5	18,381		
90	3	6,135		
91	2	10,039		
92	2	10,989		
93	1	2,537		
94	1	4,603		
95	1	5,887		
TOTAL	1,780	\$ 15,595,428	76	\$ 401,570

SUMMARY

LIFE ANNUITY	889	\$ 5,771,704	58	\$ 310,385
100% J+S	154	965,595	2	4,601
50% J+S	171	1,653,264		
SOC. SEC. LEVELING	357	4,916,281	13	71,151
100% POP-UP	87	718,721	2	10,648
50% POP-UP	122	1,569,863	1	4,785

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF RETIRED MEMBERS
BY AGE AS OF JULY 1, 1989

DISABILITY RETIREMENTS

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
32	2 \$	14,683	1 \$	12,655
33	2	22,695		
34	1	10,360		
35	1	11,631		
36	1	13,171		
37	3	22,687		
38	6	77,238		
39	8	77,102		
40	5	52,533	2	13,634
41	3	22,475	1	9,177
42	9	92,505		
43	8	98,311		
44	6	57,256	1	7,391
45	9	108,104		
46	5	40,237	1	4,906
47	8	79,788	2	11,412
48	9	61,883	2	11,508
49	14	138,101		
50	10	97,646		
51	13	108,949		
52	7	58,330		
53	19	193,460	1	2,660
54	8	100,012	3	9,441
55	14	99,100	1	2,409
56	14	110,846		
57	14	88,058	1	3,657
58	17	108,447		
59	12	111,829		
60	12	75,106	1	4,011
61	8	44,172		

TABLE 4
 THE DISTRIBUTION OF THE NUMBER AND ANNUAL
 RETIREMENT ALLOWANCES OF RETIRED MEMBERS
 BY AGE AS OF JULY 1, 1989

DISABILITY RETIREMENTS

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
62	9 \$	54,254		
63	8	55,902		
64	14	102,900		
65	12	72,310		
66	5	9,963		
67	8	53,369		
68	9	58,416		
69	9	57,881		
70	9	37,947		
71	6	29,143	1 \$	4,189
72	6	67,551		
73	2	2,742		
74	2	6,236		
76	2	5,901		
TOTAL	349 \$	2,811,230	18 \$	97,050

SUMMARY

LIFE ANNUITY	226 \$	1,881,262	15 \$	80,099
100% J+S	53	327,922	2	10,695
50% J+S	32	286,046		
100% POP-UP	14	94,194		
50% POP-UP	24	221,806	1	6,256

TABLE 5
 THE DISTRIBUTION OF THE NUMBER AND ANNUAL
 RETIREMENT ALLOWANCES OF BENEFICIARIES
 BY AGE AS OF JULY 1, 1989

BENEFICIARIES OF DECEASED ACTIVE
 AND RETIRED MEMBERS

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
17			1 \$	7,027
24			1	5,182
26			1	2,570
29			1	6,159
31			1	4,713
32			3	30,848
36			1	13,671
37	1 \$	2,955	2	33,469
38			1	7,162
39			1	1,634
40			3	12,057
41			1	4,516
42			1	2,250
43			1	9,760
44			2	13,655
45	1	9,115	1	1,800
47	1	4,885	2	16,143
48			3	12,748
49			3	28,417
50			8	50,309
51			9	52,903
52			3	12,561
53			1	16,808
54			4	18,912
55			4	25,308
56			7	26,113
57			4	39,604
58	1	2,208	6	78,221
59			10	62,451
60			4	41,156

TABLE 5

THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES
BY AGE AS OF JULY 1, 1989

BENEFICIARIES OF DECEASED ACTIVE
AND RETIRED MEMBERS

CONTINUED

AGE	MEN		WOMEN	
	NUMBER	AMOUNT	NUMBER	AMOUNT
61			11	\$ 66,356
62			7	52,217
63			7	48,634
64			9	44,664
65	2	\$ 7,393	11	23,735
66			11	82,518
67			11	77,627
68			23	115,874
69	1	1,557	6	27,992
70			20	123,664
71	1	7,470	14	64,180
72			9	32,867
73	1	2,310	20	106,443
74	1	2,366	22	124,612
75			18	70,753
76			13	66,610
77	1	2,225	13	54,151
78			10	45,608
79			7	28,943
80			7	23,067
81			8	31,729
82			6	14,161
83			6	17,203
84			5	13,057
85			1	621
86			1	9,388
88			2	10,743
90			1	2,436
TOTAL	11	\$ 42,484	369	\$ 2,017,990