SOUTH CAROLINA RETIREMENT SYSTEM
REPORT OF THE ACTUARY ON
THE FORTY-SECOND VALUATION
PREPARED AS OF JULY 1, 1993

200 Galleria Parkway, N.W. Suite 1200 Atlanta, Georgia 30339-5945

February 15, 1994

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

#### Gentlemen:

We transmit herewith our report on the forty-second actuarial valuation of the South Carolina Retirement System, prepared as of July 1, 1993.

The valuation indicates that for Class Two employers the total contribution rates should be 7.70 per cent of earnable compensation by the State and 6.85 per cent of earnable compensation by other employers.

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

We trust that the report is in satisfactory form for use by the Board.

Respectfully submitted,

(Signed) DONALD M. OVERHOLSER

Donald M. Overholser Consulting Actuary

### **TABLE OF CONTENTS**

<u>Section</u>	<u>Item</u>	Page No.
1	Summary of Principal Results	1
11	Membership Data	2
111	Assets	4
IV	Comments on the Valuation	4
V	Contributions Payable Under the System	6
VI	Valuation Basis	6
VII	Accounting Information	6
<u>Schedule</u>		
Α	Results of the Valuation as of July 1, 1993	9
В	Outline of Actuarial Assumptions and Methods	10
С	Summary of Main System Provisions as Interpreted for Valuation Purposes	12
D	Membership Data Tabulations	17

# REPORT ON AN ACTUARIAL VALUATION OF THE SOUTH CAROLINA RETIREMENT SYSTEM PREPARED AS OF JULY 1, 1993

## SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding valuation's results are summarized below (all dollar amounts are in thousands):

Valuation Date	-	7/1/93	7/1/92
Number of active members Annual earnable compensation	\$	171,546 3,989,960	168,752 \$ 3,793,708
Number of retired members and beneficiaries Annual allowances	\$	45,955 437,569	44,032 \$ 394,731
Assets for valuation purposes	\$	9,392,497	\$ 8,472,313
Unfunded accrued liability (UAL) UAL liquidation period (years)	\$	2,360,272 28	\$ 2,291,578 29
Normal contribution as per cent of compensation		3.93%	3.93%
UAL contribution as per cent of compensation: State Others		3.62% 2.77	3.62% 2.77
Pre-retirement death benefit contribution as per cent of compensation		.15%	.15%
Total contributions as per cent of compensation:* State Others	740000000000000000000000000000000000000	7.70% 6.85	7.70% 6.85

<sup>\*</sup>Special rates for Class 1 members

 Comments on the valuation results as of July 1, 1993 are given in Section IV and further discussion of the contribution levels is set out in Section V. The System has not been amended since the previous valuation.  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**

- 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.
- 2. From the data, tabulations were made showing as of July 1, 1993 the number and annual earnable compensation of active members classified by age and years of service and the number and retirement allowances of retired members and beneficiaries as of July 1, 1993 classified by age. These tabulations are presented in Schedule D.
- The following table shows the number and annual earnable compensation of active members of the Retirement System as of July 1, 1993.

TABLE I

THE NUMBER AND EARNABLE COMPENSATION OF ACTIVE MEMBERS
AS OF JULY 1, 1993

GROUP	MEN	WOMEN	TOTAL
EMPLOYEES  Number Earnable Compensation (\$1,000's)	42,871	56,579	99,450
	\$ 1,122,558	\$ 1,192,372	\$ 2,314,930
TEACHERS  Number Earnable Compensation (\$1,000's)	13,365	58,731	72,096
	\$ 370,281	\$ 1,304,749	\$ 1,675,030
TOTAL Number Earnable Compensation (\$1,000's)	56,236 \$ 1,492,839	115,310 \$ 2,497,121	171,546 \$ 3,989,960

NOTE: In addition, there are 116,378 inactive members. The results of the valuation were adjusted to take these members into account.

4. The following table shows the number and annual amount of retirement allowances payable to retired members and to beneficiaries of deceased retired and active members as of July 1, 1993.

TABLE II

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL AS OF JULY 1, 1993

GROUP	NUMBER	TOTAL ANNUAL RETIREMENT ALLOWANCES (\$1,000'S)						
Service Retirements								
Employees: Men Women	9,417 8,002	\$ 109,520 62,044						
Teachers: Men Women Total	3,805 15,926 <u>37,150</u>	52,997 <u>151,426</u> <u>\$ 375,987</u>						
Disability Retirements								
Employees:  Men  Women  Teachers:	1,668 1,390	\$ 12,266 9,529						
Men Women	481 <u>1,465</u>	4,482 <u>11,064</u>						
Total	<u>5,004</u>	<u>\$ 37,341</u>						
Beneficiaries of Deceased Retired Members and Active Members								
Men Women	588 <u>3,213</u>	\$ 3,304 						
Total Grand Total	3,801 45,955	<u>\$ 24,241</u> <u>\$ 437,569</u>						

#### **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 the Group Life Insurance Fund for pre-retirement lump sum death benefits.
- 2. Included in the valuation are the assets of the employee annuity savings fund which represent the accumulated contributions of members together with interest thereon. As of July 1, 1993, these assets amounted to \$2,558,019,000. Also included in the valuation are the assets of the employer annuity accumulation fund 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 fund amounted to \$6,834,478,000 as of July 1, 1993. The total value of assets as of July 1, 1993 amounted to \$9,392,497,000.
- During the year ended June 30, 1993, the investment rate of return on assets was
   9.69%. This compares with an investment rate of return of 9.71% during the previous year.

#### 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, 1993. The following comments on the valuation are pertinent (all dollar amounts are in thousands):

The schedule shows that the System has actuarial liabilities of \$16,143,353, of which \$4,920,436 is for the prospective benefits payable on account of present retired members and beneficiaries and \$11,222,917 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 \$9,392,497 and anticipated future contributions by members of \$2,636,556 leaving a balance

of \$4,114,300 to be provided by future contributions of the employers. Of this amount, \$1,754,028 represents the present value of normal contributions by the employers and the balance of \$2,360,272 represents the present value of unfunded accrued liability contributions.

The retirement act provides that the contributions of employers shall consist of a normal contribution to cover the liability on account of service currently rendered and an unfunded accrued liability contribution on account of liabilities for past service which are not covered by present assets.

The following rates of contribution are payable by employers exclusive of the rate required for the pre-retirement lump sum death benefit:

For Class One employers, the total employer contribution rate should be 4.25 per cent of earnable compensation, of which 2.79 per cent is attributable to the normal contribuiton and 1.46 per cent is attributable to the unfunded accrued liability contribution for the period July 1, 1993 to June 30, 1994.

For Class Two employers, the total contribution rate should be 7.55 per cent payable by the State and 6.70 per cent by other employers. Of the total rates, 3.93 per cent is attributable to normal contributions of the State and other employers. The unfunded accrued liability rates are therefore 3.62 per cent for the State and 2.77 per cent for other employers for the period July 1, 1993 to June 30, 1994.

On the basis of the above unfunded accrued liability contribution rates and assuming that active payroll will increase by 4% each year, it is anticipated that the unfunded accrued liability of \$2,360,272 shown in the valuation balance sheet will be liquidated within a period of approximately 28 years from the valuation date.

We recommend that the rate for employers participating in the Pre-retirement Death Benefit Program remain at .15 per cent of earnable compensation in addition to the appropriate rate above.

## SECTION V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

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

		CLASS TWO		
RATES OF CONTRIBUTION	CLASS ONE	STATE	OTHERS	
Normal Unfunded Accrued Liability Pre-retirement Death Benefit Total	2.79% 1.46 <u>.15</u> 4.40%	3.93% 3.62 <u>.15</u> 7.70%	3.93% 2.77 15 6.85%	

#### **SECTION VI - VALUATION BASIS**

The valuation of the Retirement System was made on the basis of the rates of separation and mortality tables adopted by the Board on December 14, 1989 and a salary scale and 8% interest rate adopted by the Board on July 18, 1989. An outline of the actuarial assumptions and methods employed is presented in Schedule B.

### SECTION VII - ACCOUNTING INFORMATION

 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, 1993

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving benefits	162,333
Active Members: Vested Non-vested	108,248 <u>63,298</u>
Total Actives	171,546

2. 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. 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, 1993 are presented below. The amounts shown reflect post-retirement increases in allowances already granted and at 4 per cent per year in the future for all retired and active members.

# Pension Benefit Obligation (in \$ thousand)

•	Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but	
	not yet receiving benefits	\$ 5,348,542
0	Current employees: Accumulated contributions Employer-financed vested Employer-financed nonvested	2,343,966 1,142,564 3,786,635
	Total Pension Benefit Obligation	\$ 12,621,707
•	Net assets available for benefits	\$ 9,392,497
•	Unfunded Pension Benefit Obligation	\$ 3,229,210

3. The following first eight 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.

	(1)	(2)	(3)	(4)	(5)	(6) Unfunded
	Net			Unfunded		PBO as %
	Assets		Percent-	Pension		of
Fiscal	Available	Pension	age	Benefit	Annual	Covered
Year	for	Benefit	Funded	Obligation	Covered	Payroll
<u>Beginning</u>	<b>Benefits</b>	<b>Obligation</b>	$(1) \div (2)$	(2) - (1)	<u>Payroll</u>	$(4) \div (5)$
7/1/86	\$4,202.4	\$5,747.5	73.1%	\$1,545.1	\$2,634.4	58.7%
7/1/87	4,805.4	6,447.5	74.5	1,642.1	2,796.5	58.7
7/1/88	5,413.7	7,377.8	73.4	1,964. <b>1</b>	3,023.4	65.0
7/1/89	6,068.6	8,646.1	70.2	2,577.5	3,305.4	78.0
7/1/90	6,813.7	9,496.7	71.7	2,683.0	3,484.6	77.0
7/1/91	7,612.9	10,596.3	71.8	2,983.4	3,664.6	81.4
7/1/92	8,472.3	11,551.5	73.3	3,079.2	3,793.7	81.2
7/1/93	9,392.5	12,621.7	74.4	3,229.2	3,990.0	80.9

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, 1993 (All dollar amounts are in thousands)

(1)	Actuarial liabilities							
	Present value of prospective benefits payable in respect of:							
	(a) Present retired members and beneficiaries	\$ 4,920,436						
	(b) Present active and inactive members	11,222,917						
	(c) Total actuarial liabilities	\$ 16,143,353						
(2)	Assets of the System	9,392,497						
(3)	Present value of future contributions = (1)(c) - (2)	\$ 6,750,856						
(4)	Present value of future contributions by members	2,636,556						
(5)	Present value of future contributions by employers = (3) - (4)	\$ 4,114,300						
(6)	Present value of future normal contributions by employers	\$ 1,754,028						
(7)	Present value of unfunded accrued liability contributions by employers = (5) - (6)	\$ 2,360,272						
(8)	Unfunded accrued liability rates							
	(a) Class One Service (b) Class Two Service: State (c) Class Two Service: Others	1.46% 3.62 2.77						
(9)	Unfunded accrued liability liquidation period	28 years						

(10) Pre-retirement death benefit contribution rate

.15%

#### **SCHEDULE B**

#### **OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS**

INTEREST RATE: 8% per annum, compounded annually.

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

			Annual Rates of							
Ααε	With- <u>drawal</u>	<u>Deat</u>	Dis- <u>h</u> ability	Servic Retire ment	- With-	<u>Death</u>	Dis- ability	Service Retire- ment*		
·		Men	Teachers		<u> </u>	Women Teachers				
20 25 30 35 40 45 50 55 60	11.11% 9.97 7.91 6.06 4.67 3.67 2.83 2.03	.04% .05 .08 .12 .18 .25 .35 .50 .70	.01% .01 .02 .03 .06 .11 .20 .34 .59	5.00% 5.00 10.00 20.00	13.79% 12.83 9.12 5.61 3.43 2.33 1.74 1.18	.03% .03 .04 .06 .08 .13 .20 .29 .45	.02% .03 .04 .04 .07 .12 .20 .35 .61	5.00% 5.00 15.00 20.00		
Age 	Withdr		<u>Death</u> Employees	<u>Disability</u>	Service Retirement*		alary Incr			
25 1 30 35 40 45 50	Men 3.94% 2.46 9.78 7.38 5.57 4.27 3.18 2.14	Women 12.55% 11.21 8.80 6.64 5.01 3.84 2.86 1.93	.07% .09 .11 .14 .18 .28 .46 .75	.04% .04 .06 .08 .10 .15 .25 .40	5.00% 5.00 10.00		11.81% 10.90 9.50 7.81 7.00 6.60 6.30 6.10 5.90			

<sup>\*</sup>Plus 0.15 in year when first eligible for unreduced early retirement.

DEATHS AFTER RETIREMENT: 1971 Group Annuity Mortality Tables, rated back one year, for service retirement and dependent beneficiaries. A special mortality table is used for disability retirements.

LOADING OR CONTINGENCY RESERVES: None.

VALUATION METHOD: Projected benefit with level percentage entry age normal cost and openend 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.

COST-OF-LIVING INCREASES: For funding purposes, 4% per year for current retirees and active members eligible to retire; for GASB, 4% per year after assumed retirement for all members.

#### SCHEDULE C

# SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

#### **BACKGROUND**

The South Carolina Retirement System was established as of July 1, 1945. There are two classes of employers and members under the System. Those employers becoming participants in the System on or after July 1, 1964 are Class Two employers. Class One employers include all employers who elected, by written notice to the Board not later than December 31, 1964, to remain and have their members remain under the provisions of the System as in effect on June 30, 1964. Class Two employers include all employers who elect, by written notice to the Board in allowable election periods, to participate and have their members participate as Class Two members provided such employers and employees in their employ make additional required contributions.

A summary of the main benefit provisions of the System, as interpreted in preparing the actuarial valuation, and a summary of the sources of revenue from which benefits are paid is presented in the following digest. "Average final compensation" means the average annual earnable compensation of a member during the twelve consecutive quarters of his creditable service producing the highest such average. "Prior service" means service prior to July 1, 1945 for which credit is allowed. "Membership service" means service rendered while a member of the System for which credit is allowed. The term "creditable service" means the sum of prior service and membership service.

#### **BENEFITS**

#### Service Retirement Allowance

#### Condition for Retirement

A retirement allowance is payable upon the request of any teacher or employee who has met one of the following conditions:

- a) rendered 30 or more years of creditable service,
- b) attained age 60,
- c) attained age 55 and rendered 25 or more years of creditable service.

#### Amount of Allowance

A Class One member receives a retirement allowance equal to 1.45% of average final compensation, multiplied by the number of years of his creditable service.

A Class Two member receives a retirement allowance equal to 1.82% of average final compensation, multiplied by the number of years of his creditable service.

If a member retiring under condition (b) above has not attained age 65 or completed 30 years of creditable service at the time of retirement, his allowance is reduced 5/12 of 1% for each month by which his age at retirement is less than age 65.

If a member retiring under condition (c) above has not completed 30 years of service at the time of retirement, his allowance is reduced by 4/12 of 1% for each month of service credit less than 30 years.

# Disability Retirement Allowance

#### Condition for Allowance

A disability retirement allowance is payable to any member who while in service becomes permanently incapacitated for duty mentally or physically.

#### Amount of Allowance

Upon disability retirement, on or after July 1, 1976, a Class One or a Class Two member receives a service retirement allowance if he has attained age 65; otherwise he receives a disability retirement allowance equal to the service retirement allowance which would have been payable had he continued in service to age 65, minus the actuarial equivalent of the contributions he would have made during such continued service. The compensation to be used for purposes of computing this benefit is the average final compensation as of the date of disability.

Deferred Retirement

Condition for Allowance

A deferred retirement allowance, commencing at age 60, is payable to any member who ceases to be a teacher or an employee after he has rendered at least 5 years of creditable service, provided he leaves his contributions in the System.

Amount of Allowance

The deferred retirement allowance is computed like a service retirement allowance, except that the employee annuity is the actuarial equivalent at age 60 of the member's contributions with such interest credits as are allowed.

Supplemental Minimum Allowance

Upon retirement after 20 or more years of creditable service a supplemental monthly sum is paid, in addition to the regular allowance and any amount provided from the general funds of the State, to provide a minimum of \$150 per month plus \$1 per month for each completed year of service in excess of 20, reduced by 5/12 of 1% for each month by which the member's age at retirement is less than age 65 unless he has completed 35 years of creditable service.

Return of Contributions and Optional Death Benefit

Upon the withdrawal of a member without a retirement benefit, he is paid his total contributions with the accumulated regular interest thereon.

Upon the death of a member before retirement, his accumulated contributions are payable to his designated beneficiary or to his estate.

Upon the death of a member before retirement who had attained age 65 or 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, an allowance for life in the same amount as if the member had retired at the time of his death and had named the person as beneficiary under Option 2. For purposes of the benefit calculation, a member under age 60 with less than 30 years' credit is assumed to be 60 years of age.

Upon the death of a retired member who has not elected an optional form of allowance, a lump sum amount equal to the excess, if any, of his total accumulated contributions at the time his retirement allowance commenced over the sum of the retirement allowance payments made to him, is paid to his designated beneficiary or estate.

Lump Sum Death Benefit

Upon the death of a contributing member in service after the completion of one year of membership service or at any time if death is a result of an injury arising out of and in the course of the performance of duty, a lump sum equal to the member's annual earnable compensation at the time of death is paid to the person he has nominated for the refund of his accumulated contributions or estate, provided the member's employer is a participant in the Pre-retirement Death Benefit Program. Benefits under this program are to be provided in the form of group life insurance.

Optional Allowance

Until the first payment on account of any benefit 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, if he dies within 10 years from his retirement date, an amount equal to his accumulated contributions at retirement, less 1/120 for each month he received a retirement allowance payment, shall be paid to a designated person.

Option 2. A reduced retirement allowance payable during the retired member's life, with the provision that after his death the reduced retirement allowance is to be continued to a designated beneficiary.

Option 3. A reduced retirement allowance payable during the retired member's life, with the provision that after his death one-half the reduced retirement allowance is to be continued to a designated beneficiary.

Option 4. 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. A member who makes an election of this Option 4 shall be deemed to have made a further election of Option 1.

Option 5. A member may elect Option 2 or Option 3 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.

Post-Retirement Increases in Allowances

If the increase in the Consumer Price Index for the previous year ending December 31 equals or exceeds 3%, the retirement allowance of each beneficiary in receipt of an allowance for at least one year as of the following July 1 is to be increased by 4%, provided such increase in allowance

will not result in an increase in the employer contribution rate. Any increase in allowance granted hereunder through July 1, 1980 is permanent, irrespective of any subsequent decrease in the Consumer Price Index, and is included in determining any subsequent increase. No increase will be granted on a service retirement allowance until the second July 1st after the member attains age 60 or would have completed 30 years of creditable service.

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

#### **CONTRIBUTIONS**

By Members

By Employers

Class One members contribute at the rate of 5% of earnable compensation, and Class Two members contribute at the rate of 6% of earnable compensation.

Employers make annual contributions consisting of a "normal contribution" and an "accrued liability contribution". The "normal contribution" rate is determined by the actuary after each valuation. The "accrued liability contribution" rate is determined by the first actuarial valuation of the System, provided, however, that such rate shall be increased on the basis of subsequent valuations if benefits are increased. Such rate may be decreased if the actuary engaged by the Board certifies that such reduction will not impair the System. Each year's accrued liability payment is to be at least 3% greater than the preceding annual accrued liability payment subject to the preceding sentence. On and after July 1, 1946, all employers' contributions for teachers are paid by the State.

#### SCHEDULE D

TABLE 1

# THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 1993

			MEN	WOMEN	
AGE	NUMBE	₹	AMOUNT	NUMBER	AMOUNT
16	3	\$	31,108	3	\$ 40,144
17	3		21,424	1	2,304
18	12		64,260	11	39,415
19	67		546,895	56	435,514
20	165		1,735,280	126	1,118,140
21	310		3,487,703	229	2,377,288
22	428		5,315,950	555	6,505,125
23	637		8,974,961	1,155	17,828,259
24	820		12,651,316	1,672	27,755,427
25	940		15,823,530	2,001	35,447,136
26	1,006		17,450,282	2,239	40,989,932
27	1,046		19,017,054	2,318	43,751,105
28	1,161		21,864,570	2,387	45,737,587
29	1,364		27,064,204	2,612	50,643,070
30	1,410		28,467,996	2,833	56,740,904
31	1,392		29,043,218	2,883	57,829,268
32	1,422		30,125,389	3,088	63,709,179
33	1,460		32,354,133	3,138	63,008,892
34	1,486		33,003,513	3,260	66,620,329
35	1,566		36,833,110	3,344	69,426,722
36	1,646		38,256,816	3,757	77,493,098
37	1,636		39,874,533	3,921	84,399,971
38	1,591		40,552,331	4,047	88,757,036
39	1,675		42,596,840	4,315	95,043,174
40	1,774		47,019,042	4,261	96,238,276
41	1,821		50,199,671	4,469	103,174,633
42	1,844		51,989,957	4,437	103,410,249
43	1,864		53,402,774	4,262	102,081,343
44	2,006		60,105,025	4,273	102,284,436
45	1,946		59,180,139	4,174	99,221,243
46	2,071		65,666,225	4,427	107,458,053
47	1,860		59,706,626	3,830	92,122,121
48	1,476		46,819,404	3,068	72,306,412
49	1,505		48,800,483	3,032	72,078,649
50	1,426		47,535,217	2,921	68,442,964
51	1,377		44,717,887	2,745	64,585,227
52	1,214		39,658,641	2,374	55,883,851
53	1,149		38,301,958	2,095	48,331,011
54	1,036		33,700,201	1,912	43,295,629
55	1,071		35,198,912	1,796	39,731,750

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF JULY 1, 1993

#### CONTINUED

			MEN			WOMEN	
AGE	NUMBE	R	AMOUNT	NUMBER		AMOUNT	
56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83	889 907 888 833 826 746 552 420 338 256 143 119 98 76 83 57 45 32 24 16 10 3 4 1 2 2	\$	27,638,195 27,769,149 27,259,873 26,153,081 24,993,356 21,762,494 17,503,211 12,830,023 10,589,647 7,637,364 4,470,964 4,093,110 3,091,462 2,825,199 1,819,432 1,662,026 1,269,872 714,000 573,632 513,848 240,156 89,378 60,150 33,743 31,811 7,419 23,485 9,551	1,657 1,510 1,465 1,351 1,150 1,120 777 567 458 351 248 146 124 104 69 52 48 30 17 18 8 6 2 3 1	\$	36,381,947 32,345,677 30,451,993 28,038,926 23,628,068 22,438,715 15,588,735 11,381,602 8,877,501 6,672,674 5,005,223 2,609,899 2,062,638 1,672,223 1,207,053 716,398 586,572 446,422 216,428 238,912 88,708 80,434 10,007 24,131 2,812 2,870	
84 85 86 88	1 1 3 1		1,292 180 11,142 2,261				
TOTAL	56,236	\$	1,492,839,084	115,310	\$	2,497,121,434	
SUMMARY							
EMPLOYEES TEACHERS	42,871 13,365	\$	1,122,558,078 370,281,006	56,579 58,731	\$	1,192,371,913 1,304,749,521	

SEE FOOTNOTE TABLE I

TABLE 2

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY SERVICE
AS OF JULY 1, 1993

YEARS OF	М	EN	wo	WOMEN		
SERVICE	NUMBER	AMOUNT	NUMBER	AMOUNT		
0	2,440 \$	22,560,269	4,234 \$	39,296,928		
1	5,397	95,963,062	10,758	186,871,339		
2	4,279	81,489,497	8,741	154,450,368		
3	4,387	88,933,564	9,269	165,883,389		
4	3,640	77,940,632	7,870	147,028,417		
5	3,158	70,941,972	6,898	133,757,518		
6	2,738	65,540,206	5,528	111,168,815		
7	2,573	67,662,654	5,035	105,962,777		
. 8	2,403	63,969,999	4,972	107,200,886		
9	2,210	60,984,473	4,973	109,538,857		
10	1,694	46,852,807	3,412	77,546,319		
11	1,347	39,417,200	2,982	70,893,348		
12	1,513	44,741,954	3,203	77,616,948		
13	1,488	45,941,355	3,361	80,572, <b>043</b>		
14	1,632	49,055,336	3,840	90,988,554		
15	1,516	47,681,673	3,556	88,268,168		
16	1,304	42,003,912	3,093	77,574,010		
17	1,231	40,736,285	2,803	72,771,832		
18	1,079	38,111,762	2,678	71,690,470		
19	1,291	44,690,4 <b>9</b> 3	2,962	80,456,044		
20	1,291	46,716,931	2,683	74,378,562		
21	1,143	44,494,345	2,305	65,508,890		
22	998	39,325,109	2,021	57,856,787		
23	882	34,622,036	1,625	47,608,349		
24	816	31,508,359	1,424	42,362,733		
25	690	27,959,545	1,127	33,721,307		
26	575	23,182,320	930	28,169,827		
27	542	22,160,452	818	24,844,246		
28	420	17,086,695	595	19,212,949		
29	341	14,196,183	499	16,293,060		
30	333	14,914,308	382	12,635,550		
31	180	7,955,911	215	7,268,805		
32	126	6,015,445	124	4,243,987		
33	140	6,329,529	85	2,640,546		
34	103	4,521,642	71	2,304,994		
35	88	4,215,497	39	1,358,859		

TABLE 2

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY SERVICE
AS OF JULY 1, 1993

## CONTINUED

YEARS OF		MEN			WOMEN		
SERVICI	E NUMBER		AMOUNT	NUMBER		AMOUNT	
36	58	\$	2,861,373	46	\$	1,706,504	
37	53		2,749,001	49		1,767,267	
38	40		2,019,665	23		761,610	
39	24		1,118,012	23		885,407	
40	20		975,918	12		381,318	
41	18		852,715	9		301,820	
42	10		501,023	14		476,329	
43	7		347,991	6		224,306	
44	4		195,356	3		147,661	
45	2 2		107,603	3 3 3		130,477	
46	2		148,845	3		107,689	
47	4		218,484	4		130,929	
48	2 2		81,626				
49	2		105,538				
50				1		47,872	
51	1		69,876	2 ·		75,328	
52	1		62,646				
55				1		30,436	
TOTAL	56,236	\$	1,492,839,084	115,310	\$	2,497,121,434	
SUMMARY							
EMPLOYEES	42,871	\$	1,122,558,078	56,579	\$	1,192,371,913	
TEACHERS	13,365	•	370,281,006	58,731	*	1,304,749,521	

SEE FOOTNOTE TABLE I

WOMEN

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JULY 1, 1993

#### SERVICE RETIREMENTS AND BENEFICIARIES

MEN

		1501		
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
7	1 \$	1,534		
9		.,	1 \$	1,534
11			3	4,080
12	2	3,220	1	1,041
13	4	25,716	1	4,714
14	1	7,566	4	9,832
15	1	5,005	2	23,255
16	2	8,552		
17	1	2,978	2	12,162
18	1	2,837	4	22,205
19	2	7,275	2	11,584
20	2	5,168		
21	1	4,727	3	18,829
22	4	28,496	5	23,037
23	5	37,980	6	51,490
24	6	24,959	6	32,478
25	5	26,968	8	42,046
26	5	39,521	2	2,347
27	<u>1</u>	275	6	19,445
28	5	14,678	5	28,913
29	6	26,254	6	41,522
30	3	20,729	2	13,445
31	3	10,201	7	40,860
32	6	29,398	6	14,562
33	5	21,058	4	14,031
34	7	23,262	7	17,791
35	8	48,535	7 8	20,030 46,017
36	9	40,315	0 11	51,760
37	8	48,497 31,776	10	51,688
38	7	42,668	7	45,497
39 40	10 8	50,391	12	31,134
41	5	46,500	19	145,880
42	5 5	16,406	22	109,230
42 43	9	45,666	15	77,431
43 44	6	32,508	7	43,260
4 <del>4</del> 45	16	64,282	17	83,055
45 46	13	68,307	24	199,323
47	13	108,552	30	159,731
48	14	121,251	27	192,470
49	8	90,684	24	208,278
70	9	55,554	<b>←</b> ¬ <b>f</b>	200,270

TABLE 3

# THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JULY 1, 1993

### SERVICE RETIREMENTS AND BENEFICIARIES

#### **CONTINUED**

	MEN			WOMEN		
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT		
50	28 \$	408,101	28 \$	275,644		
51	31	403,722	48	513,940		
52	39	867,891	66	856,979		
53	81	1,719,814	93	1,468,251		
54	81	1,717,155	123	2,233,936		
55	113	2,549,728	182	3,008,836		
56	146	3,138,464	168	3,035,892		
57	143	3,264,340	203	3,494,030		
58	174	3,909,270	299	5,437,384		
59	209	4,743,193	258	4,782,740		
60	235	5,259,374	378	6,248,847		
61	329	6,778,407 ·	545	7,798,296		
62	336	5,807,985	716	8,183,872		
63	563	6,797,799	889	8,027,810		
64	558	7,483,993	930	8,716,982		
65	650	7,659,913	1,067	9,530,660		
66	. 663	7,726,556	1,271	11,505,633		
67	688	8,390,878	1,204	10,532,145		
68	666	8,254,949	1,237	10,574,038		
69	719	8,476,412	1,282	10,293,611		
70	675	7,687,640	1,154	9,285,122		
71	690	7,639,705	1,257	10,002,769		
72	682	7,555,263	1,168	8,622,875		
73	623	6,472,605	1,167	8,765,808		
74	510	5,217,992	1,064	8,100,912		
75	522	4,872,376	924	6,675,353		
76	435	4,422,101	876	6,279,091		
77	431	4,000,044	923	6,281,608		
78	402	3,637,159	769	5,709,338		
79	329	2,543,161	750	5,522,282		
80	320	2,806,707	701	4,865,550		
81	263	2,001,014	722	5,028,895		
82	238	1,927,401	629	4,495,935		
83	199	1,690,799	577	3,970,838		
84	178	1,466,945	539	4,162,606		
85	150	1,365,630	511	3,622,823		
86	107	885,820	416	3,157,767		
87	96	780,958	340	2,540,713		
88	68	559,396	288	2,049,778		

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JULY 1, 1993

#### SERVICE RETIREMENTS AND BENEFICIARIES

#### CONTINUED

			MEN		wo	MEN
AGE	NUMBER	ł	AMOUNT	NUMBER		AMOUNT
89	71	\$	558,345	246	\$	1,836,449
90	41		336,658	192		1,372,911
91	36		278,316	160		920,292
92	16		133,425	126		830,946
93	21		181,275	86		518,466 331,421
94	11		57,278	66 57		345,329
95	7		43,246	57 21		177,173
96	7		40,816	31 21		116,491
97	5		34,271	21 17		109,453
98	2		11,684	15		89,919
99	1		2,046	11		55,588
100	2		12,618	6		38,840
101	2		5,909	7		53,644
102 . 103	2		5,308	3		22,112
105				2		12,518
105				<del>-</del>		12,010
TOTAL	13,810	\$	165,821,242	27,141	\$	234,407,128
SUMMARY						
LIFE						
ANNUITY CASH	5,483	\$	49,233,585	17,428	\$	134,975,484
REFUND	927		9,983,237	1,404		12,427,279
100% J&S	1,866		21,699,719	494		2,985,053
50% J&S	1,399		22,468,410	368		3,672,999
SOC. SEC.						
LEVELING	1,751		33,980,764	3,428		50,282,713
100% POP-UP	920		10,260,711	322		3,098,555
50% POP-UP	876		14,891,290	484		6,027,737
BENEFICIARIES	588		3,303,526	3,213		20,937,308

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY AGE AS OF JULY 1, 1993

#### **DISABILITY RETIREMENTS**

	IV.	IEN	WOMEN			
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT		
23 27	2 \$ 2	2.784 4,560				
28	1	3,335	3 \$	11,483		
29	2	4,380		·		
30	-	,,,,,,,	1	2,288		
31	4	14,971	5	17,786		
32	3	11,415	3	15,236		
33	5	17,364	6	30,745		
34	4	26,951	7	33,836		
35	6	32,039	12	77,141		
36	8	32,581	14	92,638		
37	8	37,992	21	138,580		
38	13	72,828	13	65,294		
39	20	99,561	22	120,761		
40	17	100,501	24	192,783		
41	13	93,418	30	183,146		
42	19	111,125	28	229,807		
43	18	146,307	33	234,662		
44	33	255,073	27	208,475		
45	22	163,178	45	309,155		
46	26	236,808	43	306,899		
47	38	292,767	45 40	314,113		
48	32	275,187	42	368,970		
49	35	306,829	39	261,505		
50	44	384,185	51 50	418,018		
51	39	388,230	59 50	458,370 317,036		
52	44	407,567	50 51	317,036		
53	40	373,854	51 50	421,505 409,627		
54	46	377,362	58 47			
55	52	364,476	47 59	331,227 390,639		
56	62	510,646 577,720	69	507,653		
57	62	577,720 560,515	78	512,556		
58	62	589,427	86	677,048		
59	72 72	644,097	105	755,293		
60	72 87	635,372	111	832,232		
61 62		693,479	104	785,615		
62 63	84 104	868,142	109	769,970		
63 64	10 <del>4</del> 87	614,471	104	738,249		
65	87 89	611,277	120	823,562		
ບວ	03	011,477	140	020,002		

BUCK

**TABLE 4** 

# THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY AGE AS OF JULY 1, 1993

#### **DISABILITY RETIREMENTS**

#### CONTINUED

		MEN		WO	MEN
AGE	NUMBER	AMOUNT	NUMBER		AMOUNT
66 67 68 69 70 71 72 73 74 75 76 77	81 74 82 62 65 47 69 54 65 43 30 32 25 20	\$ 585,832 532,717 683,733 475,685 583,359 329,258 549,090 454,040 434,212 307,870 236,393 220,899 171,742 135,737	112 98 95 82 86 87 88 76 77 64 62 56 48 36	\$	777,523 788,144 727,211 630,723 618,618 593,042 641,504 664,509 529,919 434,856 494,044 336,282 356,969 246,047
80 81	15	68,227 8,858	33 6		212,444 38,174
82 83	2	14,716	4 3		27,818 9,377
84 86 89 90	1	918	2 1 1 1	•	4,582 4,818 6,043 6,043
91	1	6,043	5 1		30,866 6,083
92 93 94 95 97 101	1	6,124	1 3 1 1		6,083 18,531 6,325 6,043 6,244
TOTAL	2,149	\$ 16,748,227	2,855	\$	20,592,768

BUCK

**TABLE 4** 

# THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY AGE AS OF JULY 1, 1993

## DISABILITY RETIREMENTS

#### CONTINUED

	ΛEN	WOMEN			
NUMBER		AMOUNT	NT NUMBER		AMOUNT
1,217	\$	9,825,040	2,378	\$	17,351,142
174 364 169 121		1,435,672 2,160,294 1,674,143 735,253 917,825	167 169 62 39 40		1,284,435 856,313 491,823 216,683 392,372
	1,217 174 364 169	1,217 \$ 174 364 169 121	1,217 \$ 9,825,040 174 1,435,672 364 2,160,294 169 1,674,143 121 735,253	NUMBER AMOUNT NUMBER  1,217 \$ 9,825,040 2,378  174 1,435,672 167 364 2,160,294 169 169 1,674,143 62 121 735,253 39	NUMBER AMOUNT NUMBER  1,217 \$ 9,825,040 2,378 \$  174 1,435,672 167 364 2,160,294 169 169 1,674,143 62 121 735,253 39