SOUTH CAROLINA RETIREMENT SYSTEM

REPORT OF THE ACTUARY ON

THE FORTY-FOURTH VALUATION

PREPARED AS OF JULY 1, 1995



May 31, 1996

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

Dear Mr. Collins:

We are enclosing 12 copies of the "South Carolina Retirement System Report of the Actuary on the Forty-Fourth Valuation Prepared as of July 1, 1995". The signed bound copy will be sent to you shortly.

Based on current employer and employee contribution rates, it is expected that the present unfunded accrued liability will be liquidated within approximately 20 years from July 1, 1995.

Overholder by a

If you have any questions concerning the report, please contact us.

Sincerely yours,

Donald M. Overholser

Donald M.

Principal and Consulting Actuary

DMO:jq Enc.



May 31, 1996

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

#### Gentlemen:

We transmit herewith our report on the forty-fourth actuarial valuation of the South Carolina Retirement System, prepared as of July 1, 1995.

The valuation indicates that the total contribution rates may be continued at 7.70 percent of earnable compensation by the State and 6.85 percent 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 Principal and Consulting Actuary

# TABLE OF CONTENTS

Section	<u>ltem</u>	<u>Page No.</u>
I	Summary of Principal Results	1
11	Membership Data	2
Ш	Assets	4
IV	Comments on the Valuation	. 4
V	Contributions Payable Under the System	6
VI	Valuation Basis	6
VII	Accounting Information	6
Schedule		
Α	Results of the Valuation as of July 1, 1995	8
В	Development of July 1, 1995 Actuarial Value of Assets	9
С	Outline of Actuarial Assumptions and Methods	10
D	Summary of Main System Provisions as Interpreted for Valuation Purposes	13
E	Membership Data Tabulations	17

## REPORT ON AN ACTUARIAL VALUATION OF THE SOUTH CAROLINA RETIREMENT SYSTEM PREPARED AS OF JULY 1, 1995

# 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		7/1/95		7/1/94
Number of active members Annual earnable compensation	\$	175,410 4,318,827	\$	173,973 4,087,078
Number of retired members and beneficiaries Annual allowances	\$	52,076 538,289	\$	49,322 489,824
Assets at market value Assets for valuation purposes	\$ \$	12,518,000 11,453,462	\$ \$	10,841,871 10,308,386
Unfunded accrued liability (UAL) UAL liquidation period (years)	\$	1,527,035 20	\$	2,468,097 29
Normal contribution as percent of compensation		5.00%		3.93%
UAL contribution as percent of compensation: State Others		2.55% 1.70		3.62% 2.77
Pre-retirement death benefit contribution as percent of compensation		.15%		.15%
Total contributions as percent of compensation: State Others	***************************************	7.70% 6.85		7.70% 6.85

- Comments on the valuation results as of July 1, 1995 are given in Section IV and further discussion of the contribution levels is set out in Section V.
- 3. Since the previous valuation, the interest rate assumption has been decreased from 8.00% to 7.25%. Rates of salary increase, rates of separation from active service and post-retirement mortality tables have also been revised, and partial prefunding for cost-of-living increases has been eliminated. In addition, the asset valuation method has been changed from book value to the market related actuarial value of assets as developed in Schedule B. Schedule C of this report outlines the full set of actuarial assumptions and methods employed.

- 4. The major benefit and contribution provisions of the System as reflected in the current valuation are summarized in Schedule D. There have been no changes since the previous valuation.
- 5. The accounting information shown in Section VII has been revised to reflect the new requirements of Statements 25 and 27 of the Governmental Accounting Standards Board.

#### 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, 1995 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, 1995 classified by age. These tabulations are presented in Schedule E.
- The following table shows the number and annual earnable compensation of active members of the Retirement System as of July 1, 1995.

TABLE I

THE NUMBER AND EARNABLE COMPENSATION OF ACTIVE MEMBERS
AS OF JULY 1, 1995

GROUP	MEN	WOMEN	TOTAL
EMPLOYEES  Number Earnable Compensation (\$1,000's)	42,826 \$ 1,202,829	59,308 \$ 1,329,991	102,134 \$ 2,532,820
TEACHERS Number Earnable Compensation (\$1,000's)	13,657 \$ 391,952	59,619 \$ 1,394,055	73,276 \$ 1,786,007
TOTAL Number Eamable Compensation (\$1,000's)	56,483 \$ 1,594,781	118,927 \$ 2,724,046	175,410 \$ 4,318,827

NOTE: In addition, there are 122,253 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, 1995.

TABLE II

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL

AS OF JULY 1, 1995

GROUP	NUMBER	TOTAL ANNUAL RETIREMENT ALLOWANCES (\$1,000'S)				
	Service Retirements					
Employees: Men Women	10,788 9,536	\$ 138,582 81,326				
Teachers: Мел Women	4,249 <u>17,359</u>	64,036 178,358				
Total	<u>41,932</u>	<u>\$ 462,302</u>				
	<u>Disability Retirements</u>					
Employees: Men Women	1,818 1,710	\$ 14,485 12,641				
Teachers: Men Women	520 _1,715	5,224 13.970				
Total	5,763	<u>\$ 46,320</u>				
Beneficiaries of Dec	Beneficiaries of Deceased Retired Members and Active Members					
Men Women	706 _3,675	<u>25,651</u>				
Total	4,381					
Grand Total	52.076	Ø 330.209				

#### SECTION III - ASSETS

- The amounts of the present 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 preretirement lump sum death benefits.
- 2. Included in the valuation are the assets of the employee annuity savings fund which represent the accumulated contributions of active members together with interest thereon. As of July 1, 1995, these assets amounted to \$3,085,531,000. 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 book value of assets of the accumulation fund amounted to \$8,187,499,000 as of July 1, 1995.
- 3. The total book value of assets as of July 1, 1995 amounted to \$11,273,030,000. The corresponding market value of assets as of July 1, 1995 was \$12,518,000,000. The market related actuarial value of assets used for the current valuation was \$11,453,462,000. Schedule B shows the development of the actuarial value of assets as of July 1, 1995.
- During the year ended June 30, 1995, the investment rate of return on book value assets was 8,91%. This compares with an investment rate of return of 8.86% 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, 1995 (all dollar amounts are in thousands).
- 2. The schedule shows that the System has actuarial liabilities of \$18,050,272, of which \$4,950,378 is for the prospective benefits payable on account of present retired members and beneficiaries and \$13,099,894 is for the prospective benefits payable on account of present active and

BUCS CONSULTANTS inactive members. Against these liabilities, the System has present assets of \$11,453,462 and anticipated future contributions by members of \$2,765,196 leaving a balance of \$3,831,614 to be provided by future contributions of the employers. Of this amount, \$2,304,579 represents the present value of normal contributions by the employers and the balance of \$1,527,035 represents the present value of unfunded accrued liability contributions.

- 3. 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 valuation indicates that level employer normal contributions at the rate of 5.00% of payroll are required from the time of entry to the System, in addition to member contributions, to provide the benefits of the System for the average member.
- 4. The total contribution rates exclusive of the rate required for the pre-retirement lump sum death benefit are 7.55% payable by the State and 6.70% by other employers. Of the total rates, 5.00% is attributable to normal contributions of the State and other employers. The remaining unfunded accrued liability rates are therefore 2.55% for the State and 1.70% for other employers. On the basis of these unfunded accrued liability contribution rates and assuming that total active payroll will increase by 4.25% each year, it is anticipated that the unfunded accrued liability of \$1,527,035 shown in the valuation balance sheet will be liquidated within a period of approximately 20 years from the valuation date.
- 5. We recommend that the rate for employers participating in the Pre-retirement Death Benefit Program remain at 0.15% 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.

TABLE III
RATES OF CONTRIBUTION RECOMMENDED FOR PAYMENT BY EMPLOYERS

RATES OF CONTRIBUTION	STATE	OTHERS
Normal Unfunded Accrued Liability	5.00% <u>2.55</u>	5.00% <u>1.70</u>
Subtotal	7.55	6.70
Pre-retirement Death Benefit	<u>.15</u>	.15
Total	7.70%	6.85%

#### SECTION VI - VALUATION BASIS

The valuation of the Retirement System was made on the basis of the 7.25% interest rate, active service tables and mortality tables adopted by the Board on April 23, 1996. An outline of the actuarial assumptions and methods employed is presented in Schedule C.

# SECTION VII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary 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, 1995

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving benefits	174,329
Active Members: Vested Non-vested Total Actives	114,472 60,938 175,410

BUCS CONSULTANTS 2. Another such item is the schedule of funding progress as shown below.

## **SCHEDULE OF FUNDING PROGRESS**

(Dollar amounts in thousands)

Actuarial Valuation <u>Date</u>	Actuarial Value of Assets <u>( a )</u>	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
07/01/95	11,453,462	12,980,497	1,527,035	88.2%	4,318,827	35.4%

 The information presented in the required supplementary schedules was determined as part of the actuarial valuation at July 1, 1995. Additional information as of the latest actuarial valuation follows.

Valuation date	07/01/95
Actuarial cost method	Entry age
Amortization method	Level percent open
Remaining amortization period	20 years
Asset valuation method	5 year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.25%
Projected salary increases	<b>4.25 - 11.35</b> %
*Includes inflation at	4.25%
Cost-of-living adjustments	None

# SCHEDULE A

# RESULTS OF THE VALUATION AS OF JULY 1, 1995 (All dollar amounts are in thousands)

(1)	Actuarial liabilities	
	Present value of prospective benefits payable in respect of:	
	(a) Present retired members and beneficiaries	\$ 4,950,378
	(b) Present active and inactive members	13,099,894
	(c) Total actuarial liabilities	\$ 18,050,272
(2)	Assets of the System	<u>11,453,462</u>
(3)	Present value of future contributions = (1)(c) - (2)	\$ 6,596,810
(4)	Present value of future contributions by members	2,765,196
(5)	Present value of future contributions by employers = (3) - (4)	\$ 3,831,164
(6)	Present value of future normal contributions by employers	\$ 2,304,579
(7)	Present value of unfunded accrued liability contributions by employers = (5) - (6)	\$ 1,527,035
(8)	Unfunded accrued liability rates	
	(a) State (b) Others	2.55% 1.70
(9)	Unfunded accrued liability liquidation period	20 years
(10)	Pre-retirement death benefit contribution rate	.15%

## **SCHEDULE B**

# DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS (All dollar amounts are \$1,000's)

(1)	Actuarial Value of Assets on July 1, 1994*	\$	10,308,386
(2)	1994/1995 Net Cash Flow		52,184
(3)	(Contributions less Benefits)  Value of Assets on July 1, 1995 assuming 8.0%		02,104
	interest on (1) and (2) [((1) x 1.08) + ((2) x 1.04)]		11,187,328
(4)	Market Value of Assets on July 1, 1995		12,518,000
(5)	Actuarial Value of Assets on July 1, 1995 (3) + 20% [(4) - (3)]	\$ ;	11,453,462

<sup>\*</sup> Book Value

#### SCHEDULE C

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

INTEREST RATE: 7.25% per annum, compounded annually.

#### **SALARY INCREASES:**

<u>Age</u>	Annual Rate	<u>Age</u>	Annual Rate
25	10.15%	45	4.75%
30	7.95	50	4.45
35	6.45	55	4.25
40	5.55	60	4.25

SEPARATIONS FROM SERVICE: Representative values of the assumed and annual rates of separation from active service are as follows:

## **SERVICE RETIREMENT:**

			Annua	Rates of		
•	Retirement		Retirement		Retirement	
	on a	Unreduced	on a	Unreduced	on a	Unreduced
	Reduced	Service	Reduced	Service	Reduced	Service
<u>Age</u>	<u>Benefit</u>	Retirement*	Benefit	Retirement*	<u>Benefit</u>	Retirement*
	Men T	eachers	Women	Teachers	Men & Wom	en Employees
50		10.0%		15.0%		10.0%
55	5.0%	10.0	5.0%	15.0	5.0%	10.0
60	7.5	15.0	10.0	25.0	7.5	15.0
61	10.0	20.0	10.0	25.0	7.5	15.0
62	20.0	30.0	25.0	45.0	20.0	30.0
63	15.0	25.0	15.0	30.0	15.0	25.0
64	15.0	25.0	15.0	30.0	15.0	25.0
65		35.0		45.0		35.0
66		20.0		<b>25.0</b> ·		25.0
67		15.0		20.0		20.0
68		15.0		20.0		20.0
69		15.0		25.0		20.0
70		100.0		100.0		100.0

<sup>\*</sup> Plus 25% in year when first eligible for unreduced service retirement before age 65.

# SEPARATIONS FROM SERVICE (CON'T)

# SEPARATION BEFORE SERVICE RETIREMENT:

			Annual Rate of			
<u>Age</u>	<u>Death</u>	<u>Disability</u>	Withdrawal			
		-	0-4	Years of Service 5-9	<u>10+</u>	
		Men Te		<u> </u>	191	
		111011 13			÷	
25	0.06%	0.02%	11.90%	7.50%		
30	0.07	0.04	10.20	4.20	2.80%	
35	0.07	0.05	10.50	4.80	2.10	
40	0.10	0.11	8.10	4.60	1.50	
45	0.18	0.19	9.40	4.00	1.50	
50 55	0.30	0.35	7.70 7.70	4.00 3.60	1.90 2.90	
55 60	0.46 · 0.65	0.60 1.03	7.70	3.00	2.90	
60 64	0.90	1.65				
<b>0</b> 4	0.00					
		<u>Women T</u>	<u>eachers</u>			
25	0.03%	0.05%	8.80%	6.10%		
30	0.04	0.07	9.30	4,20	2.40%	
35	0.04	0.07	8.20	4.00	1.70	
40	0.05	0.12	6.70	3.30	1.40	
45	0.08	0.21	6.30	2.90	1.20	
50	0.13	0.35	6.30	3.00	1.20	
55	0.21	0.61	6.60	2.80	1.60	
60 64	0.33 0.49	1.07 1.44				
04	0.45	1.77				
		<u>Men Em</u>	oloyees			
25	0.06%	0.07%	15.10%	8.70%		
30	0.07	0.11	12.50	6.40	3.60%	
35	0.07	0.14	11.50	5.90	2.90	
40	0.10	0.18	10.60	5.50	2.30	
45	0.18	0.26	9.20	4.60	2.00	
50	0.30	0.44	7.90	4.60	1.70	
55	0.46	0.70	7.70	4.00	2.10	
60	0.65	1.07 1.49			• .	
64	0.90	1.49				
		<u>Women Er</u>	nployees			
25	0.03%	0.07%	13.40%	7.90%		
30	0.04	0.11	12.00	6.70	4.00%	
35	0.04	0.14	11.10	5.40	2.70	
40	0.05	0.18	9.90	4.90	2.40	
45	0.08	0.26	8.50	4.60	1.80	
50	0.13	0.44	8.20	4.00	2.10	
55	0.21	0.70	6.80	3.90	2.00	
60	0.33	1.07				
64	0.49	1.49				

BUCS CONSULTANTS DEATHS AFTER RETIREMENT: 1983 Group Annuity Mortality Tables 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 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: Actuarial Value, as developed in Schedule B. For years prior to July 1, 1995, assets were used at book value. For the July 1, 1995 valuation, the actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected value. The actuarial value of assets is limited to a range between 80% and 120% of market value.

COST-OF-LIVING INCREASES: None assumed.

#### SCHEDULE D

# SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

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,
- attained age 55 and rendered 25 or more years of creditable service.

#### **Amount of Allowance**

A 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 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 Allowance

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

CONSULTANTS

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.

ÖNSULTANTS

# 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

Each member contributes 6% of his compensation.

By Employers

Employers make annual contributions consisting of a normal contribution and an accrued liability contribution. The normal contribution covers the liability on account of current service and is determined by the actuary after each valuation.

The accrued liability contribution covers the liability on account of service rendered before the establishment of the retirement system and the liability on account of increases in benefits for service rendered prior to the effective date of any amendment.

## SCHEDULE E

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION
OF ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF JULY 1, 1995

	N	1EN	w	OMEN
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
16	5	\$ 9,301	3	\$ 1,711
17	7	19,150	7	18,910
18	9	39,800	13	50,456
19	80	751,945	48	294,153
20	142	1,524,959	138	1,247,077
21	277	3,281,909	248	2,649,071
22	321	4,067,309	423	4,814,909
23	543	7,977,573	1,102	17,491,290
24	752	12,872,137	1,765	31,060,354
25	924	16,616,544	2,167	39,810,765
26	1,054	19,904,985	2,320	43,979,226
27	1,102	21,859,167	2,409	47,317,432
28	1,122	22,943,337	2,476	49,521,612
29	1,144	23,928,601	2,474	50,638,087
30	1,164	25,351,909	2,495	51,283,437
31	1,404	31,493,349	2,755	56,810,807
32	1,430	32,222,545	2,948	62,230,664
33	1,402	33,416,115	3,028	64,502,554
34	1,452	34,577,598	3,277	71,366,192
35	1,499	36,212,001	3,276	70,468,913
36	1,533	37,704,440	3,426	74,096,288
37	1,594	40,605,492	3,493	77,197,748
38	1,680	42,537,681	3,944	87,285,300
39	1,678	44,820,194	4,007	92,150,304
40	1,623	45,147,557	4,201	98,563,834
41	1,721	47,304,991	4,461	106,153,696
42	1,815	52,819,054	4,436	107,279,901
43	1,894	56,933,657	4,619	114,210,838
44	1,898	58,077,952	4,563	113,964,653
45	1,941	61,175,459	4,407	112,351,487
46	2,010	64,872,875	4,353	111,939,398
47	2,002	65,877,276	4,238	107,612,452
48	2,097	71,573,125	4,494	116,417,710
49	1,886	65,100,262	3,832	98,427,318
50	1,476	50,508,683	3,045	77,722,821
51	1,498	51,986,918	2,934	75,573,355
52	1,412	50,234,944	2,851	71,114,028
53	1,321	46,559,467	2,667	65,184,023

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION
OF ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF JULY 1, 1995

# CONTINUED

		MEN		WOMEN
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
54	1,150	\$ 39,679,233	2,277	\$ 56,063,849
55	1,072	37,907,003	1,945	46,474,060
56	963	32,555,964	1,768	41,478,440
57	949	32,628,890	1,631	37,198,087
· 58	839	26,567,576	1,523	34,331,624
59	814	26,742,843	1,368	30,511,644
60	785	24,876,669	1,266	27,671,479
61	686	22,657,677	1,019	21,898,462
62	562	17,891,504	721	15,640,873
63	381	12,199,790	603	12,761,080
64	278	10,200,805	397	7,965,175
65	241	7,893,853	309	. 6,523,554
66	159	4,535,683	170	3,241,644
67	126	3,296,481	147	2,425,389
68	105	2,298,028	112	2,167,932
69	99	2,600,626	71	1,199,753
70	81	1,886,403	63	1,014,447
71	76	1,886,864	62	1,008,442
72	59	1,434,033	27	347,080
73	44	655,856	36	498,143
74	31	518,724	30	351,669
75	18	210,060	14	246,179
76	19	201,963	7	56,340
77	15	315,996	6	80,296
78	7	99,668	3	31,042
79	4	67,321	5	27,512
80	5 3	35,822	1	3,726
81	3	24,957	3	25,609
TOTAL	56,483	\$1,594,780,553	118,927	\$2,724,046,304

TABLE 2

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY SERVICE AS OF JULY 1, 1995

	N	MEN	wo	MEN
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
0	2,693	\$ 28,849,363	4,784	\$ 45,151,874
Ï	6,034	118,636,076	12,068	210,321,350
2	4,112	85,429,812	8,635	160,290,978
3	3,374	73,752,069	7,369	145,249,670
4	3,013	68,527,903	6,506	131,187,096
5	3,339	78,281,799	7,261	146,295,772
6	2,896	70,587,702	6,379	133,145,903
7	2,574	65,974,430	5,855	126,431,481
8	2,279	61,481,427	4,735	105,916,681
9	2,198	65,426,811	4,401	102,010,643
10	2,073	61,459,257	4,409	104,480,841
11	1,908	58,180,284	4,481	108,231,894
12	1,490	45,835,159	3,082	77,763,332
13	1,177	38,909,805	2,705	70,323,146
14	1,330	43,802,117	2,892	77,277,045
15	1,318	44,279,841	3,054	80,784,271
16	1,428	47,580,910	3,507	90,888,684
17	1,325	46,465,502	3,248	88,155,281
18	1,179	41,704,565	2,837	78,364,262
19	1,100	39,751,278	2,576	73,454,641
20	957	37,050,024	2,455	72,265,368
21	1,182	44,395,515	2,737	81,301,078
22	1,171	46,461,638	2,494	75,373,962
23	1,041	43,738,220	2,168	67,721,830
24	915	39,737,345	1,862	57,913,304
25	808	35,202,663	1,503	47,870,698
26	777.	33,010,634	1,232	40,204,707
27	640	28,268,962	992	32,462,396
28	518	22,858,057	831	27,862,894
29	467	21,325,226	707	23,323,982
30	379	16,882,786	454	15,951,707
31	217	10,875,639	227	8,314,145
32	135	7,489,565	134	4,900,009
33	104	5,631,554	101	3,619,431
34	67	3,332,109	63	2,404,553

TABLE 2

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY SERVICE AS OF JULY 1, 1995

# CONTINUED

		MEN			WOMEN	
AGE	NUMBER		AMOUNT	NUMBER		AMOUNT
35	79	\$	3,653,204	35	\$	1,135,281
36	46		2,297,897	40		1,335,288
37	42		2,190,470	17		606,296
38	25		1,481,150	25		1,087,852
39	26		1,412,612	29	,	1,151,532
40	16		988,966	9		341,978
41	8		381,641	10	•	489,983
42	6		280,888	7		244,939
43	5		307,751	3		128,796
44	5		281,422	2		54,575
45	1		33,475			
46	2		120,940			
47	1		55,972	2		120,996
48				1		25,307
49	1		34,125	2		76,655
50	2		83,993			
57				1		31,917
TOTAL	56,483	\$ 1	,594,780,553	118,927	\$ 2,	724,046,304

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JULY 1, 1995

# SERVICE RETIREMENTS AND BENEFICIARIES

	MEN			WOMEN			
AGE	NUMBER	•••	AMOUNT	NUMBER		AMOUNT	
5 6	1 1	\$	1,315 1,067	2	\$	11,560	
7	·		•	2		5,454	
8				1		2,888	
9	2		3,943	1		1,090	
10	2		2,180	1		3,090	
11				1		1,573	
12				1		2,888	
13	1		3,351	4		5,393	
14	2		3,395	2		2,311	
15	6		31,241	3		14,931	
16	3		12,936	4		10,371	
17	4		18,641	3		30,381	
18	4		21,541	1		1,919	
19	1		3,141	2		12,827	
20	2		7,670	5 2		25,280	
21	6		26,431	2		12,217	
22	4		12,424	1		4,011	
23	1 .		5,109	6		35,884	
24	6		39,425	6		26,415	
25	7		63,841	6		54,307	
26	6		26,324	10		60,346	
27	5		28,282	9		47,930	
28	8		57,060	4		13,593	
29	2		12,739	8		30,424	
30	7		24,436	6		38,005	
31	<sub>.</sub> 8		29,957	9		52,095	
32	5		30,626	4		21,489	
33	6 5 8 2 7 8 5 3		10,760	8		47,333	
34			41,813	9		27,641	
35	7		24,644	6		19,464	
36	10		45,117	9		22,693	
37	10		56,797	8		26,862	
38	11		49,145	12		65,543	
39	10		53,554	15		70,547	
40	9		36,682	18		95,318	
41	11		46,873	12		66,982	
42	14		79,463	21		82,915	
43	8		59,211	27		199,170	
44	8		25,937	26		139,457	
45	12		60,744	22		129,546	
46	12		72,166	15		79,769	

TABLE 3

# THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JULY 1, 1995

#### SERVICE RETIREMENTS AND BENEFICIARIES

## CONTINUED

	MEN			v	WOMEN		
AGE	NUMBER		AMOUNT	NUMBER		AMOUNT	
47	23	\$	113,727	24	\$	127,860	
48	19		114,452	40		401,286	
49	31		397,634	42		342,284	
50	31		385,323	55		702,886	
51	36		743,794	55		708,091	
52	78		1,683,115	96		1,608,864	
53	92		1,661,995	142		2,498,084	
54	118		2,944,693	188		3,571,058	
55	163		3,954,051	227		4,362,920	
56	175		4,116,802	258		5,046,254	
57	229		5,655,156	330		6,090,094	
58	215		4,955,101	310		6,019,474	
59	232		5,572,566	332		6,026,382	
60	298		6,482,184	490		8,295,160	
61	391		8,184,094	624		8,648,911	
62	485		8,269,453	857		9,724,961	
63	684		9,330,673	1,068		10,036,533	
64	615		8,375,908	1,189		11,140,222	
65	758		9,306,201	1,190		11,055,976	
66	763		10,540,465	1,248		11,991,215	
67	797		9,623,105	1,334		12,384,652	
68	708		8,702,443	1,421		13,493,717	
69	707		9,127,448	1,285		11,716,584	
70	682		8,810,685	1,315		11,774,562	
71	716		9,094,155	1,336		11,249,425	
72	667		7,960,281	1,201		10,147,791	
73	679		7,783,505	1,273		10,636,663	
74	667		7,894,329	1,168		9,015,297	
75	598		6,635,497	1,158		9,118,968、	
76	483		5,231,851	1,064		8,518,695	
77	496		4,910,694	902		6,907,155	
78	395		4,322,230	838		6,375,855	
79	387		3,931,748	880		6,371,964	
80	356		3,355,988	725		5,708,835	
81	291		2,391,981	716		5,525,642	
82	258		2,460,798	657		4,870,836	
83	220		1,832,282	648		4,762,479	
84	202		1,713,471	571		4,293,812	
85	159		1,472,557	511		3,716,469	

TABLE 3

# THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JULY 1, 1995

## **SERVICE RETIREMENTS AND BENEFICIARIES**

## CONTINUED

		ı	MEN		WC	MEN
AGE	NUMBER		AMOUNT	NUMBER		AMOUNT
86	132	\$	1,201,188	462	\$	3,744,470
87	118		1,183,477	447		3,345,401
88	86		753,472	361		2,888,052
89	72		644,056	281		2,199,060
90	60		498,102	222		1,618,854
91	53		443,252	174		1,421,337
92	28		245,780	145		1,066,060
93	22		175,121	118		716,997
94	10		95,493	90		609,288
95	12		119,344	53		332,959
96	5		22,543	46		231,746
97	6		31,538	36		231,312
98	3		19,424	16		76,061
99	1		7,710	15		84,639
100	2		12,323	4		32,810
101	1		2,158	8		52,167
102				6		40,174
103				1		7,245
104	<b>.</b> 1		5,733	3		32,460
105			•	2		14,490
TOTAL	15,743	\$	206,633,130	30,570	\$	285,335,410
LIFE ANNUITY	6,204	\$	61,407,392	19,494	\$	162,266,752
CASH	·			•		,
REFUND	918		10,689,281	1,326		12,611,725
100% J&S	2,095		27,123,853	524		3,444,048
50% J&S SOC. SEC.	1,471		26,423,387	384		4,186,317
LEVELING	2,122		43,208,423	4,131		64,499,945
100% POP-UP	1,110		13,162,930	422		4,435,778
50% POP-UP	1,117		20,602,256	614		8,239,529
BENEFICIARIES	706		4,015,608	3,675		25,651,316

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY

#### **DISABILITY RETIREMENTS**

**AGE AS OF JULY 1, 1995** 

WOMEN MEN NUMBER **AMOUNT AMOUNT** AGE NUMBER 2 \$ 2,881 25 3,200 1 26 5,018 2 6,552 2 27 1 4,538 28 7,850 1 1,956 3 29 12,976 14,256 4 3 30 5 23,940 2 3,162 31 2 5,355 32 2 4,531 5 7 18,592 33 24,988 6 5 24,214 27,657 34 72,266 6 24,300 11 35 77,600 56,574 13 36 10 47,907 15 99,162 37 8 64,033 22 153,314 13 38 30 197,714 107,766 17 39 21 119,612 129,810 18 40 36 236,292 157,738 22 41 40 327,363 23 156,938 42 44 301,788 43 20 180,531 225,262 51 431,956 44 28 51 450,998 27 257,419 45 55 448,490 44 416,069 46 323,132 66 488,211 42 47 366,261 83 763,730 38 48 75 605,759 48 409,960 49 68 52 467,351 635,762 50 73 577,650 51 42 425,591 57 548,460 87 831,713 52 534,491 86 688,943 53 54 88 665,766 54 54 541,108 82 729,051 57 585,938 55 593,903 86 679,029 56 64 78 633,756 79 614,131 57 609,406 90 684,647 74 58 774,226 686,371 90 79 59 759,347 112 795,618 82 60 709,785 919,165 116 81 61 133 1,008,787 876,989 62 94 641,973 126 947,059 63 89 124 64 88 742,275 908,126 65 98 840,839 113 819,807 581,699 102 769,919 78 66 112 80 622,301 833,922 67

TABLE 4

# THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY AGE AS OF JULY 1, 1995

## **DISABILITY RETIREMENTS**

## CONTINUED

			MEN		WC	MEN
AGE	NUMBER	!	AMOUNT	NUMBER		AMOUNT
68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 88 91 92 93 94 95 96	74 60 72 51 56 35 57 48 58 36 22 25 21 17 10 2	\$	557,688 472,561 659,916 378,056 528,318 271,035 475,292 448,493 418,621 267,424 210,306 199,634 153,761 124,012 53,042 9,342 8,381	106 91 90 76 83 76 78 67 72 53 57 48 39 34 25 5 3 1 1 1 1	<b>\$</b>	765,246 779,800 727,225 630,194 632,230 550,702 621,433 635,788 525,289 376,095 477,673 314,871 310,973 240,134 172,288 28,187 26,135 9,890 2,817 5,081 6,373 26,002 6,416 6,416 19,545
97	2,338	\$	19,709,297	1 3,425	\$	6,671 26,610,957
TOTAL SUMMARY	∠,330	Ψ	19,100,231	0,720	*	20,0.0,001
LIFE ANNUITY CASH REFUND 100% J&S 50% J&S 100% POP-UP 50% POP-UP	1,346 165 389 174 143 121	\$	11,730,988 1,446,498 2,526,774 1,865,715 939,061 1,200,261	2,901 178 185 60 49 52	\$	22,795,318 1,443,288 1,008,959 488,539 304,512 570,341

