SOUTH CAROLINA RETIREMENT SYSTEM

REPORT OF THE ACTUARY ON

THE THIRTY-FOURTH VALUATION

PREPARED AS OF JUNE 30, 1985

February 20, 1986

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

Gentlemen:

We transmit herewith our report on the thirty-fourth actuarial valuation of the South Carolina Retirement System, prepared as of June 30, 1985.

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

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

The valuation indicates that for Class One employers the total contribution rate payable, exclusive of the pre-retirement death benefit, should be continued at 3.20 per cent of earnable compensation. For Class Two employers the contribution rates, exclusive of the pre-retirement death benefit, should be continued at 6.50 per cent of earnable compensation by the State and 5.65 per cent of earnable compensation by other employers. These rates are exclusive of any payments to the post-retirement increase special fund. In addition, the contribution rates of participating employers should be continued at .30 per cent of payroll to provide the pre-retirement death benefits.

Also, .30 per cent of compensation was diverted from regular funding to the post-retirement increase special fund. The Law requires employers to make an additional contribution to this fund of .20 per cent of compensation. Thus, the total contribution rate to the post-retirement increase special fund should be .50 per cent of compensation.

Comencing with the June 30, 1986 valuation of the System, the liabilities for cost-of-living increases for retirees and active members eligible for service retirement will be included in the valuation results, and the post-retirement increase special fund will be eliminated. The estimated effect of these changes will be to increase the funding period to about 19 years.

State Budget and Control Board February 20, 1986 Page 2

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

Section	<u>Item</u>	Page No.
ī	Summary of Principal Results	1
II	Membership Data	2
III	Assets	5
IV	Comments on the Valuation	5
v	Contributions Payable Under the System	7
۷I	Valuation Basis	7
VII	Accounting Information	8
Schedule		
A	Valuation Results	9
В	Outline of Actuarial Assumptions and Methods	10
С	Summary of Main System Provisions as Interpreted for Valuation Purposes	12
ħ	Membership Data Tabulations	19

REPORT ON AN ACTUARIAL VALUATION OF THE SOUTH CAROLINA RETIREMENT SYSTEM PREPARED AS OF JUNE 30, 1985

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:

Valuation Date	6/30/85	6/30/84
Number of active members: Men Women Total	52,237 : 93,558 : 145,795 :	51,093 88,617 139,710
Annual earnable compensation of active members during year: Men Women Total	\$ 1,013,741,749 1,377,549,869 \$ 2,391,291,618	\$ 918,725,667 1,179,538,433 \$ 2,098,264,100
Number of retired members and beneficiaries Annual retirement allowances Assets for valuation purposes	30,977 \$ 142,455,214 \$ 3,576,866,838	29,402 \$ 122,284,319 \$ 3,084,231,278
Normal contribution as per cent of compensation: Class One Service Class Two Service: State Others	2.32% 37% 3.74 3.19	2.32% : 2.32% : 3.74 : 3.19
Unfunded accrued liability (UAL)	: : \$ 210,042,646 ~	\$ 241,369,533
Unfunded accrued liability contribution as per cent of compensation: Class One Service Class Two Service: State Others		

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	(continued)	
Valuation Date	6/30/85	6/30/84
Unfunded accrued liability liquidation period (years)	4/	5
Pre-retirement death benefit contribution as per cent of compensation	.30%	.30%
Post-retirement increase special fund contribution as per cent of compensation*	.50%	.50%

^{*}Includes .30% diverted from the regular funding to the post-retirement increase special fund established by legislation effective July 1, 1981. Remainder is additional contribution required of all employers.

- 2. Comments on the valuation results as of June 30, 1985 are given in Section IV and further discussion of the contribution levels is set out in Section V. There were no amendments made to the provisions of the Retirement System since the June 30, 1984 valuation that affected the valuation results.
- 3. Schedule B of this report outlines the full set of actuarial assumptions and methods employed. The provisions of the System are summarized in Schedule C.

SECTION II - MEMBERSHIP DATA

1. In order to obtain the aggregate liabilities and assets on account of members of the System as of June 30, 1985, data were needed with respect to each active member and beneficiary of the System and also with respect to terminations during the valuation year. The data with respect to both active and terminated members and beneficiaries were furnished to the actuary by the Retirement System office on a magnetic tape.

- 2. From the data, tabulations were made showing as of June 30, 1985 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 on the roll as of June 30, 1985 classified by age. These tabulations are presented in Schedule D.
- 3. The following table shows the number of active members of the Retirement System together with earnable compensation as of June 30, 1985.

TABLE I

THE NUMBER AND EARNABLE COMPENSATION OF ACTIVE MEMBERS
AS OF JUNE 30, 1985

GROUP	MEN	women	TOTAL
EMPLOYEES :		: 	
Number	39,349	43,022	82,371
Earnable : Compensation :	\$ 758,937,637	: : \$ 626,446,299	\$ 1,385,383,936
TEACHERS	;	:	
Number	12,888	50,536	63,424
Earnable Compensation	\$ 254,804,112	: : \$ 751,103,570	: : \$ 1,005,907,682 :
TOTAL		:	:
Number	52,237	93,558	: 145,795
Earnable Compensation	\$ 1,013,741,749	: : \$ 1,377,549,869	: \$ 2,391,291,618

NOTE: There are in addition 78,320 inactive members, 8,068 active members not on the payroll as of the valuation date, and 328 members with insufficient information. 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 June 30, 1985.

TABLE II

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL AS OF JUNE 30, 1985

AS	OF JUNE 30, 1907	·
GROUP	: NUMBER	TOTAL ANNUAL RETIREMENT ALLOWANCES
Ser	vice Retirements	:
Teachers: Men Women	2,613 : 12,018	\$ 15,780,427 : 56,663,697
Employees: Men Women	6,104 4,723	: 31,652,311 : 17,930,558
Total	<u>25,458</u>	\$ 122,026,993 :
Disa	: bility Retirement	: :s
Teachers: Men Women	344 974	: \$ 1,722,668 : 4,196,434
Employees: Men Women	1,244	4,944,401 2,719,486
Total	3,306	\$ 13,582,989 ===================================
Beneficiaries ar	: s of Deceased Ret nd Active Members	: ired Members
Men Women	290 1,923	\$ 854,369 5,990,863
Total	2,213	* 6,845,232 *
Grand Total	30,977	\$ 142,455,214 :

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 and the Cost-of-Living Fund for post-retirement increases.

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 June 30, 1985, these assets amounted to \$979,989,936.

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 \$2,596,876,902 as of June 30, 1985.

SECTION IV - COMMENTS ON THE VALUATION

Schedule A of this report contains the results of the valuation which show present and prospective assets and liabilities of the System as of June 30, 1985. The following comments on the valuation are pertinent:

The schedule shows that the System has actuarial liabilities of \$6,539,765,544, of which \$1,146,520,792 is for the prospective benefits payable on account of present retired members and beneficiaries and \$5,393,244,752 is for the prospective benefits payable on account of present active and inactive members. Against these liabilities, the System has present assets of \$3,576,866,838 and anticipated future contributions by members of \$1,670,391,218, leaving a balance of \$1,292,507,488 to be provided by future contributions of the employers. Of this amount, \$1,082,464,842

represents the present value of normal contributions by the employers and the balance of \$210,042,646 represents the present value of 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 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 and post-retirement increase special fund:

For Class One employers, the total employer contribution rate should be continued at 3.20 per cent of earnable compensation, of which 2.32 per cent is attributable to the normal contribution and .88 per cent is attributable to the accrued liability contribution for the period July 1, 1985 to June 30, 1986.

For Class Two employers, the total contribution rate should be continued at 6.50 per cent payable by the State and 5.65 per cent by the other Class Two employers. Of the total rates, 3.74 per cent and 3.19 per cent are attributable to normal contributions of the State and other employers, respectively. The accrued liability rates are therefore 2.76 per cent for the State and 2.46 per cent for other employers for the period July 1, 1985 to June 30, 1986.

On the basis of the above accrued liability contribution rates it is anticipated that the accrued liability of \$210,042,646 shown in the valuation balance sheet will be liquidated within a period of four years from the valuation date.

The rate necessary to provide the pre-retirement lump sum death benefit on a one-year term cost basis may be continued at .30 per cent of earnable compensation on the basis of the valuation. In view of the development of reserve assets of \$36,904,973 creditable to the Group Life Insurance Fund, consideration should be given to reducing the rate in the near future. Employers participating in the Pre-retirement Death Renefit Program should contribute .30 per cent of earnable compensation in addition to the appropriate rate above.

The employer contribution rate of .30 per cent of compensation has been diverted from regular funding to the post-retirement increase special fund established by legislation effective July 1, 1981. In addition, all employers are required by Law to make an additional contribution of .20 per cent of compensation to this fund which had assets in the amount of \$9,230,937 as of June 30, 1985. Therefore, a total contribution rate of .50 per cent of compensation should be made by all employers to the post-retirement increase special fund.

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.

RATES OF		CLASS	:	CLASS TWO		
CONTRIBUTION	:	ONE	:	State	:	Others
Normal	:	2.32%	:	3.74%	:	3.19%
Accrued Liability	: :	.88	:	2.76	:	2.46
Pre-retirement Death Benefit	:	.30	:	.30	:	.30
Post-retirement Increase Special Fund	:	.50	:	.50	:	.50
Total	:	4.00%	:	7.30%	:	6.45%

SECTION VI - VALUATION BASIS

The valuation of the Retirement System was made on the basis of the rates of separation and mortality tables in effect since June 11, 1974 and a salary scale and interest rate of 7% adopted by the Board on April 8, 1980. An outline of the actuarial assumptions and methods employed is presented in Schedule B.

SECTION VII - ACCOUNTING INFORMATION

- 1. Opinion No. 8 of the Accounting Principles Board of the American Institute of Certified Public Accountants, as amended by Statement No. 36 of the Financial Accounting Standards Board, requires that certain items of information concerning retirement systems be furnished by the actuary for the State's audited financial statements.
- 2. Statement No. 35 of the Financial Accounting Standards Board requires that certain items of information be furnished by the actuary for the system's audited financial statements.
- 3. The information required by the amended Opinion No. 8 and Statement No. 35 includes the actuarial present value of accrued (accumulated) benefits as of the valuation date. The relevant amounts as of June 30, 1985 are:

Actuarial present value of accrued benefits:

Vested benefits

Participants currently receiving payments	\$ 985,744,096
Other participants	 777,069,998
	\$ 1,762,814,094
Nonvested benefits	 242,676,720
Total	\$ 2,005,490,814

The actuarial present value of vested and nonvested accrued benefits is based on an interest rate of 9-1/2%. This rate represents the estimated constant equivalent rate of return for the periods during which payment of these benefits will be deferred based on the interest rates in use as of the valuation date to calculate the Pension Benefit Guaranty Corporation's annuity values for terminating plans covered by the Employee Retirement Income Security Act of 1974.

.50%

SCHEDULE A

RESULTS OF THE VALUATION AS OF JUNE 30, 1985

	N3501120 01 2112 01 11 11 11 11 11 11 11 11 11 11 11 11	
(1)	Actuarial Liabilities	
	Present value of prospective benefits payable in respect of:	
	(a) Present retired members and beneficiaries	\$ 1,146,520,792
	(b) Present active and inactive members	5,393,244,752
	(c) Total actuarial liabilities	\$ 6,539,765,544
(2)	Assets of the System	3,576,866,838
(3)	Unfunded Value of Prospective Benefits = (1)(c) - (2)	\$ 2,962,898,706
(4)	Present Value of Future Contributions by Members	1,670,391,218
(5)	Total Prospective Contributions by Employers = (3) - (4)	\$ 1,292,507,488
(6)	Present Values of 1 Per Cent of Future Compensation	
	(a) Class One Service(b) Class Two Service: State(c) Class Two Service: Others	\$ 2,348,554 256,077,368 37,393,994
(7)	Present Value of Future Normal Contributions by Employers at	
	(a) $2.32\% = (6)(a) \times 2.32$ (b) $3.74\% = (6)(b) \times 3.74$ (c) $3.19\% = (6)(c) \times 3.19$	\$ 5,448,645 957,729,356 119,286,841
	(d) Total	\$ 1,082,464,842
(8)	Present Value of Accrued Liability Contributions by Employers = (5) - (7)(d)	\$ 210,042,646
(9)	Accrued Liability Rates	
	(a) Class One Service(b) Class Two Service: State(c) Class Two Service: Others	.88% 2.76 2.46
(10)	Accrued Liability Liquidation Period	4 years
(11)	Pre-retirement Death Benefit Contribution Rate	.30%

Post-retirement Increase Special Fund Contribution

(12)

Rate

SCHEDULE B

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: 7% 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							
Age	With- drawal	Death	Dis- ability	Service Retire- ment	With- drawal	<u>Death</u>	Dis- ability	Service Retire- ment
		Mer	Teachers			Women	Teachers	
20 25 30 35 40 45 50 55 60 64	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	4.00% 5.50 7.50 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	4.00% 6.00 8.00 35.00
Age	Wit draw		Death	Dis- ability	Servic Retire ment		Salary In	crease

With- drawal	Death	Dis- ability	Service Retire- ment	Salary Increase
	Emp.	loyees		Teachers and Employees
11.11%	.07%	.04%		11.31%
	.09	.04		10.40
	.11	.06		9.00
· ·		.08		7.30
		.10		6.51
				6.10
			2.00%	5.80
			3.50	5.60
2,03			5.00	5.40
	1.36	.85	17.50	5.30
		drawal Death 11.11% .07% 9.97 .09 7.91 .11 6.06 .14 4.67 .18 3.67 .28 2.83 .46 2.03 .75 1.08	drawal Death ability Employees 11.11% .07% .04% 9.97 .09 .04 7.91 .11 .06 6.06 .14 .08 4.67 .18 .10 3.67 .28 .15 2.83 .46 .25 2.03 .75 .40 1.08 .61	With-drawal Death Dis-ability Retirement Employees 11.11% .07% .04% 9.97 .09 .04 7.91 .11 .06 6.06 .14 .08 4.67 .18 .10 3.67 .28 .15 2.83 .46 .25 2.00% 2.03 .75 .40 3.50 1.08 .61 5.00

DEATHS AFTER RETIREMENT: Combined Annuity Mortality Tables, Modified and Makehamized, for service retirement and dependent beneficiaries with a 2 year setback in ages for men employees, a 3 year setback for women employees, men teachers and men dependents and a 4 year setback for women teachers and women dependents. 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: Adjusted amortized cost.

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 three consecutive fiscal years 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 attained age 60 or has rendered 30 or more years of creditable service.

A member must retire at age 70 except that with the approval of both his employer and the Board, the member may remain in service to the end of the fiscal year in which he reaches his seventy-second birthday.

Amount of Allowance

Effective July 1, 1976 on service retirement, a Class One member receives a retirement allowance equal to 1% of the portion of his average final compensation not in excess of \$4,800, plus 1.30% of such compensation in excess of \$4,800, multiplied by the number of years of his creditable service.

On service retirement, a Class Two member receives a retirement allowance equal to 1.25% of the portion of his average final compensation not in excess of \$4,800, plus 1.65% of the portion of such compensation in excess of \$4,800, multiplied by the number of years of his creditable service.

If a member 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.

In no event will a Class One member who retires on or subsequent to July 1, 1976 or a Class Two member whose creditable service commenced on or before June 30, 1964 receive a smaller retirement allowance than he would have received under the benefit provisions applicable to a Class One member in effect prior to July 1, 1976.

Effective July 1, 1975 out-of-State service means service as a teacher or employee rendered by a member of the System for any state, territory or other governmental subdivision under the jurisdiction of the United States other than this State.

Effective July 1, 1975 out-of-State service is creditable irrespective of when it was performed at a cost of 10% of current annual earnable compensation for each year established, provided that the earnable compensation used cannot be less than his earnable compensation in any one of the three preceding fiscal years.

If the member's creditable service does not, at his retirement, exceed his out-of-State service, the employer annuity based on his total out-of-State service before and after July 1, 1945 shall be reduced in the proportion which his creditable service bears to his out-of-State service.

Disability Retirement Allowance

Condition for Allowance

Amount of Allowance

A disability retirement allowance is payable to any member who while in service becomes permanently incapacitated for duty mentally or physically, and who has had 5 or more years of creditable service.

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.

In no event will a Class One member whose creditable service commenced prior to July 1, 1976 receive a smaller allowance than he would have received under the disability benefit provisions applicable to Class One members prior to July 1, 1976.

In no event will a Class Two member whose creditable service commenced on or before June 30, 1964 receive a smaller allowance than he would have received under the disability benefit provisions applicable to a Class One member.

Deferred Retirement Allowance

Condition for Allowance

Amount of Allowance

Supplemental Minimum Allowance

Return of Contributions and Optional Death Benefit

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.

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.

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.

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 30 years of creditable service or had attained age 65, or who had 20 years of creditable service and attained age 60, 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 an amount as if the member had retired on the date of his death under Option 2 as described below. If such a person has received a refund of the

member's accumulated contributions, he may, upon repayment of such refund in a single sum, receive the allowance under Option 2 from the time of the repayment of the contributions to the System.

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 payments to commence at age 60 under Option 2 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.

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.

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.

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,

Lump Sum Death Benefit

Optional Allowance

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 said December 31 is to be increased by 4%. Any increase in allowance granted hereunder through July 1, 1980 is to be permanent, irrespective of any subsequent decrease in the Consumer Price Index, and is to be included in determining any subsequent increase. Effective July 1, 1981 all

subsequent increases in allowances will be paid from the post-retirement increase special fund and are guaranteed only to the extent of the assets in that fund.

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

Effective July 1, 1964, without regard to the member's Social Security coverage, Class One members contribute at the rate of 3% of earnable compensation not in excess of \$4,800, and 5% of the portion in excess of \$4,800, and Class Two members contribute at the rate of 4% of earnable compensation not in excess of \$4,800, and 6% of the portion in excess of \$4,800.

Employers make annual contributions consisting of a "normal contribution" and an "accrued liability contribution". "normal contribution" rate is determined by the actuary after each valuation. "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 valuations if benefits subsequent Such rate may be decreased if increased. the actuary engaged by the Board certifies that such reduction will not impair the 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.

Effective July 1, 1981, .30% of payroll will be diverted from the accrued liability rate to the post-retirement increase special fund and employers will make an additional .20% of payroll contribution to that fund.

SCHEDULE D

TABLE 1
THE NUMBER AND EARNABLE COMPENSATION OF MEMBERS DISTRIBUTED BY

AGE AS OF JUNE 30, 1985

	!	MEN	WOMEN			
AGE	NUMBER	AMOUNT	NUMBER	TRUOMA		
16	1 \$	8,516	3 \$	2,689		
17	4	5,968	4	6,881		
18	25	75,341	17	71,518		
19	164	1,175,971	111	727,529		
20	332	2,575,921	256	1,930,020		
21	481	3,828,058	463	3,825,786		
22	581	5,092,009	689	6,250,087		
23	767	7,708,671	1,585	16,944,731		
24	1,040	11,329,332	2,114	24,562,972		
25	1,078	12,975,896	2,280	27,480,456		
26	1 .260	15,575,056	2,527	32,104,865		
27	1.222	16,276,488	2,669	34,937,607		
28	1,338	18,714,555	2,943	38,919,410		
29	1,518	21,536,969	3,057	42,678,841		
30	1,485	22,584,348	3,144	44,295,940		
31	1,535	24,307,925	3,404	49,361,313		
32	1,652	27,323,150	3,413	50.585.052		
33	1,723	30,463,272	3,569	54,092,381		
34	1 • 698	30,913,422	3,493	54,448,365		
35	1.768	33,185,903	3,465	53,974,040		
36	1.851	36,770,365	3,453	54,109,680		
37	1,767	36,960,576	3, 353	52,797,255		
38	1.918	41,303,913	3,694	58,009,040		
39	1,727	38,223,186	3,216	50,518,880		
40	1.369	31,014,850	2,520	39,915,410		
41	1,386	31,663,667	2,535	39,492,807		
42	1,347	31,663,377	2,532	39,754,989		
43	1,253	29,497,728	2,388	37,177,544		
44	1,175	27,807,399	2, 124	33,372,299		
45	1,130	27,366,239	1,987	31,133,642		
46	1,069	25,001,844	1,898	29,144,948		
47	1,118	27,003,110	1,798	27,769,194		
48	1,005	22,414,555	1,734	26,567,886		
49	1.042	24,224,407	1,642	24,907,919		
50	1.012	22,932,587	1,730	26,487,039		
51	1 •035	24,105,595	1,653	25,201,020		
52	1,043	23,526,745	1,555	24,338,496		
53	1,102	24,787,890	1,610	24,441,863		
54	896	20,975,509	1,471	22,928,735		
55	987	21,579,936	1,390	21,595,474		

TABLE 1

THE NUMBER AND EARNABLE COMPENSATION OF MEMBERS DISTRIBUTED BY AGE AS OF JUNE 30, 1985

CONTINUED

		MEN		WOMEN		
AGE	NUMBER	AMOUNT	NUMBER			
56	900 \$	20,451,444	1,364	\$ 20,689,046		
57	899	19,293,987	1,378	20,774,087		
58	831	18,036,066	1,366	21,033,604		
59	783	17,156,794	1,160	17,353,952		
60	793	16,683,741	1,105	16,863,652		
61	711	15,553,843	1,001	15,277,068		
62	607	13,399,079	691	10,440,833		
63	509	11,121,324	582	8,640,846		
64	393	9,200,755	447	6,469,477		
65	298	6,506,728	360	5,396,895		
56	169	3,735,489	208	2,706,475		
67	115	2,331,838	122	1,573,089		
68	82	1,703,625	95	1,126,752		
69	74	1,384,354	73	868,507		
<i>1</i> 70	55	1,076,040	42	562,759		
71	43	752,473	32	392,625		
72	28	356,884	27	286,797		
73	13	162,330	8	85,505		
74	5	114,060	2	18,828		
7 5	6	48,183	3	50,520		
76	3 2	11,044	2	54,225		
77	2	6,720				
7 8	4	5,013				
79	4	27,695				
80	1	16,120				
18	2	49,647				
82	1	10,560	1	19,724		
84	1	40,598				
85	1	25,066				
TOTAL	52,237 \$1	1,013,741,749	93,558	\$1,377,549,869		
SUMMARY		V		V		
EMPLOYEES	39,349 \$	758,937,637	43,022	\$ 626,446,299		
TEACHERS	12,888 \$	254,804,112	50,536	\$ 751,103,570		
CCC POOTHOTE TABLE T						

SEE FOOTNOTE TABLE I

TABLE 2

THE NUMBER AND EARNABLE COMPENSATION
OF MEMBERS DISTRIBUTED BY
YEARS OF CREDITED SERVICE AS OF JUNE 30: 1985

YEARS OF	MEN		WOMEN		
SERVICE	NUMBER	AMOUNT	NUMBER	AMOUNT	
	2 201 *	E1 035 181	/ F20 +		
0	3 - 894 \$	51,835,454	4,530 \$	51,764,397	
1	6,234	78,970,051	12,160	128,831,277	
2	4,120	59,670,225	7,205	88,442,907	
3	3,031	47, 187, 406	5,582 5,000	73,007,532	
4	3,179	52,891,133	5,680	76,328,493	
5	2,842	49,492,988	5,611	75,245,976	
6	3,038	54,174,200	6,143	82,774,007	
7	2,619	49,496,977	5,540	79,642,370	
8	2,200	43,143,268	4,586	68,026,985	
9	1,915	38,916,521	4,005	60,913,291	
10	1,739	38,213,573	3,712	57,531,883	
11	2,028	44,590,169	4,119	67,428,765	
12	1,973	45,698,650	3,593	60,671,164	
13	1,717	41,751,665	3,088	53,931,596	
14	1,440	36,390,600	2,669	47,553,675	
15	1,248	31,497,297	2,276	41,033,321	
16	1,158	29,128,427	1,982	37,008,285	
17	916	23,780,171	1,613	30,066,520	
18	799	21,141,381	1,324	24,955,070	
19	731	19,769,778	1, 191	22,812,941	
20	637	17,039,161	906	18,303,804	
21	527	14,425,927	806	16,340,434	
22	486	13,449,987	646	13,698,974	
23	419	11.620.896	561	11,864,697	
24	363	10,335,964	518	10.869.610	
25	394	10,886,635	475	10,100,720	
26	353	9,802,668	432	9,335,174	
27	324	9,386,666	370	8,202,880	
28	296	8,618,172	411	9,290,634	
29	307	8,875,532	400	8,732,595	
30	265	7,936,071	336	7,378,060	
31	148	4,472,182	216	5,125,958	
32	175	5,186,157	179	4,118,908	
33	127	3,739,140	134	3,142,882	
34	134	3,956,949	146	3,295,549	
35	102	3,286,534	96	2,115,954	

TABLE 2

THE NUMBER AND EARNABLE COMPENSATION
OF MEMBERS DISTRIBUTED BY
YEARS OF CREDITED SERVICE AS OF JUNE 30, 1985

CONTINUED

YEARS		MEN	WOMEN	
OF SERVICE	NUMBER	AMOUNT	NUMBER	R AMOUNT
. 36	88 \$	2,705,834	78	\$ 1,831,909
37	72	2,534,976	68	1,667,508
38	60	2,321,644	55.	1,241,133
39	40	1,470,893	35	894,500
40	26	1,020,707	28	725,403
41	28	1,138,860	8	210,148
42	15	635,514	14	317,331
43	10	344,733	15	328,110
44	7	282,244	5	137,493
45	6	265,662	5 2	76,976
46	6 2 2	42,078	4 2 1	105,339
47	2	112,463	2	46,772
48			1	16,408
49	2	65,859	•	
. 50			2	63,551
51	1	41,707		
TOTAL	52,237 4	51,013,741,749	93,558	\$1,377,549,869
SUMMARY				
EMPLOYEES	39,349	758,937,637	43,022	\$ 626,446,299
TEACHERS	12.888		50,536	\$ 751,103,570
SEE FOOTNO	TE TABLE	I		

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TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JUNE 30. 1985

SERVICE RETIREMENTS AND BENEFICIARIES

	MEN		WOMEN	
AGE	NUMBER	AMOUNT	NUMBER	TAUONA
8	1 \$	2,779		
9	1	1,934	1 \$	7, 101
14			1	200
15			1	3,914
16	1 .	7,043	1	5, 403
18		•	ī	5,414
19			2	2,777
20	1	2,502	2	3,065
21	3	3,152	2 2 2	2,230
22		•	2	4, 225
23	1	4,805	2	3,018
24	1	4,648	_	3,020
25	1	737	1	574
26	2	3,919	2	12,741
27	1	2,593	2	2,958
28	4	10,420	2 2	7,461
29	. 4	13,335	3	3, 782
30	4	12,004	6	20,423
31	5	18,083	4.	14,781
32	1	5,421	1	1,241
33	2	3,813	4	13,948
34	2 3	6,932	9	23,084
35	1	1,156	3	6,804
36	4	13,220	2	6,050
37	8	17,683	3	14,398
38	6	15,676	5	12,441
39	2	2,342	2 3 5 5	4,329
40	4	7,262	7	13,569
41	2	1,710	ì	3, 761
42	2 5	11,669	3	39,867
43	6	16,314	9	24, 147
44	6 2	2,320	6	7,344
45	4	7,007	9	23,956
46	3	6,117	6	10,560
47	4	20,158	8	26,810
48	3	18,203	9	40,543
49	8	27,393	13	49,051
50	11	88,821	13	53,347
51	13	90,318	12	61,863
52	19	121,440	21	80,056
53	21	238,484	43	264,714
54	32	344,080	54	377, 357

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JUNE 30. 1985

SERVICE RETIREMENTS AND BENEFICIARIES

CONTINUED

	MEN		WOMEN	
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
55	38 \$	425,369	94 \$	762,951
56	63	833, 240	120	1, 064, 055
57	54	612,772	126	1,057,635
58	74	900,933	174	1, 592, 636
59	90	1,112,260	182	1,632,169
60	126	1,449,876	230	1,844,908
61	156	1,710,878	367	2, 456, 181
62	206	1,654,337	462	2, 533, 065
63	336	2,048,818	677	3, 278, 482
64	469	2,893,044	759	3, 320, 682
65	475	2,655,672	853	3, 658, 842
66	484	2,744,891	866	3,941,304
67	572	2,908,947	839	3,461,374
68	516	2,601,114	880	3, 547, 225
69	557	2,709,384	915	3,487,395
70	497	2,382,331	832	3 , 379, 711
71	467	1,987,333	828	3, 281, 149
72	454	2,050,477	787	2,969,273
73	422	1,767,174	844	3, 140, 536
74	405	1,673,260	774	2,962,808
7 5	381	1,572,145	763	2,817,413
76	328	1,397,209	720	2,921,385
77	267	1,255,455	714	2,754,262
78	224	875,202	665	2, 791, 844
79	203	912,835	562	2, 188, 723
80	190	822,112	547	2, 129, 212
81	162	676,430	499	2,007,453
82	118	467,062	399	1,564,494
83	120	412,473	348	1, 191, 312
84	71	390,828	309	1, 131, 307
85	70	315,539	248	862,506
86	41	164,683	196	671,704
87	38	205,614	162	592,710
88	32	124,131	123	433,066
89	26	108,304	113	404, 674

TABLE 3

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES BY AGE AS OF JUNE 30, 1985

SERVICE RETIREMENTS AND BENEFICIARIES

CONTINUED

		MEN	WOME	N
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
90	28 \$	101,307	111 \$	368,831
91	8	36,252	75	266,024
92	14	49,323	64	220,548
93	13	47,793	46	171,460
94	3	15,567	35	162,474
95	6	30,772	31	130, 928
96	5	20,957	19	68,772
97	-		7	25,511
98	3	3,934	7	25,825
99	-	•	5	21,674
100	1.	3,577		
101		•	2	8,262
103			2	10,665
104			2	10,391
TOTAL	9,007 \$	48,287,107	18,664 \$	80,585,118
SUMMARY				
LIFE		•		
ANNUITY	3,888 \$	15,483,526	12,595 \$	50, 762, 069
CASH				
REFUND	1,096	5,670,797	1.674	7,763,594
100% J+S	1.343	6,413,045	456	1,403,379
50% J+S	1,258	9,301,868	443	2, 242, 814
SOC. SEC.				** 020 705
LE VELING	650	6,948,431	1,380	11, 239, 795
BENEFIC IARIES	290	854,369	1,923	5, 990, 863
100%			00	479,534
POP-UP	250	1,563,376	90	*** 78 734
50% POP-UP	232	2,051,695	103	703,070

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY AGE AS IF JUNE 30, 1985

DISABILITY RETIREMENTS

	M	EN	WOMEN	
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
27			1.4	1,512
28	1 \$	1,518	•	2 000
29	1	1,594	2	3,900
30	r	11 450	2 4	8,928 9,664
31	5	11,658 5,830	1	2,132
32 33	2 1	1,329	3	11,889
33 34	3	6,856	3	6,543
35	4	7,779	5	13,955
36	3	8, 285	4	7, 392
37	4	11,280	12	41,783
38	4	15,523	8	23,449
39	8	20,057	6	17,406
40	8	29,000	8	29,895
41	13	40,885	10	41,783
42	6	31,319	15	50, 267
43	6	36,066	16	57, 296
44	13	46,252	12	51,572
45	13	45,390	11	40,073
46	9	40,207	11	43,408
47	19	66,004	15	33,390
48	16	82,308	15	43,758
49	18	86,161	14	55, 945
50	29	122,012	20	63,442
51	21	100,933	19	89,314
52	27	139,600	33	135, 179
53	36	143,982	37	181,083
54	45	220, 204	30	141,456
55	43	211,582	42	214,868
56	58	286,013	42	181, 839
57	62	309,065	60	259, 482
58	52	246,342	68 77	310,447
59	58	256,067	77	337, 142
60	76	377,953	83 74	348,968 336,738
61	68	328,034 381,098	74 93	390, 234
62	84 91	_		402,308
63	91	325, 055 538, 055	104 116	488, 259
64 65	119	359,611	93	424, 587
65 44	8 4	365, 176	107	387,707
66	100	DITTO	701	~~ 47 101

TABLE 4

THE DISTRIBUTION OF THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS BY AGE AS OF JUNE 30, 1985

DISABILITY RETIREMENTS

CONTINUED

AGE NUMBER AMOUNT NUMBER AMOUNT 67 87 \$ 307,410 103 \$ 351,734 68 70 267,698 84 343,819 69 74 271,258 76 263,056 70 48 170,400 60 241,416 71 42 132,225 56 197,316 71 42 164,992 41 141,214 73 5 9,869 9 37,284 74 2 7,784 4 17,544 75 76 2 8,030 77 1 1,938 2 7,294 78 1 3,893 80 1 3,965 81 3,965 82 83 84 1 2,959		М	EN	WOMEN	
68 70 267.698 84 343.819 69 74 271.258 76 263.056 70 48 170.400 60 241.416 71 42 132.225 56 197.316 72 44 164.992 41 141.214 73 5 9.869 9 37.284 74 2 7.784 4 17.544 75 2 8.030 76 2 8.030 77 1 1.938 2 7.294 78 1 3.893 78 1 3.893 80 1 3.965 82 1 3.685	AGE	NUMBER	AMOUNT	NUMBER	THUCHA
68 70 267,698 84 343,819 69 74 271,258 76 263,056 70 48 170,400 60 241,416 71 42 132,225 56 197,316 72 44 164,992 41 141,214 73 5 9,869 9 37,284 74 2 7,784 4 17,544 75 2 8,030 76 2 8,030 77 1 1,938 2 7,294 78 1 3,893 78 1 3,893 80 1 3,965 82 1 3,685	4 110	07 t	207-410	103 \$	351,734
68 74 271,258 76 263,056 70 48 170,400 60 241,416 71 42 132,225 56 197,316 72 44 164,992 41 141,214 73 5 9,869 9 37,284 74 2 7,784 4 17,544 75 2 8,030 2 7,047 76 2 8,030 2 7,294 78 1 3,893 3,790 80 1 3,965 82 1 3,685 83 1 2,959 1 3,870	•	-			343,819
70				**	263,056
70 71 42 132,225 56 197,316 72 44 164,992 41 141,214 73 5 9,869 9 37,284 74 74 2 7,784 4 17,544 75 76 2 8,030 77 1 1,938 2 7,294 78 1 3,893 78 80 1 3,790 82 83 84 1 2,959 1 3,870					241,416
71 72 44 164,992 41 141,214 73 5 9,869 9 37,284 74 2 7,784 4 17,544 75 76 2 8,030 77 1 1,938 2 7,294 78 1 3,893 1 3,790 80 82 83 84 1 2,959 1 3,870			127-225		197, 316
72 73 74 74 75 76 76 77 76 1 1,938 2 7,294 77 1 1,938 2 7,294 1 3,893 1 3,790 1 3,965 1 3,870 1 3,870					141,214
73 74 74 75 75 76 2 8,030 7,294 77 1 1,938 2 7,294 77 3,893 1 3,790 1 3,965 82 83 84 1 2,959 1 3,870					
74 2 7,047 75 76 2 8,030 77 1 1,938 2 7,294 77 1 3,893 78 1 3,790 80 1 3,965 82 1 3,685 83 84 1 2,959 1 3,870				_	
75 76 2 8,030 77 77 1 1,938 2 7,294 77 80 1 3,893 80 1 3,965 82 1 3,685 83 84 1 2,959 1 3,870		2	19104	·	
77 1 1,938 2 7,294 78 1 3,893 78 1 3,790 80 1 3,965 82 1 3,685 83 84 1 2,959 85 1 3,870			6 V2V	6	• • • • • • • • • • • • • • • • • • • •
77 78 78 80 80 1 3,893 1 3,790 1 3,965 82 83 84 1 2,959 1 3,870				2	7.294
78 80 82 83 84 1 2,959 1 3,870	77	1	11420		-
80 82 83 84 84 1 2,959 1 3,870	78				_
82 83 84 1 2,959 1 3,870	80			_	_
83 84 1 2,959 1 3,870	82		•		
1 3,870	83			r	34003
95 · · · · · · · · · · · · · · · · · · ·	84	1	2,959	•	2. 970
	85	•		1	3,010
87 1 5, 203	87				
94 1 11,220		1	11,220		
TOTAL 1,588 \$ 6,667,069 1,718 \$ 6,915,920	TOTAL	1,588 \$	6,667,069	1,718 \$	6,915,920
SUMMARY	SUMMARY				
LIFE 926 \$ 3.547.539 1.391 \$ 5.685,163	LIFE		n 547 530	1_301 \$	5. 685. 163
ANNUITY 826 \$ 3,547,539 1,391 \$ 5,685,163	ANNUITY	826 \$	3+341+337	##37# T	
CASH 823-197 147 632-547	CASH		022 107	147	632.547
REFUND 180 023 710 114 326-498		,			
100% J+S 294 300, 100 100 106 842	100% J+S				
50% J+S 203 1,013,403 50 196,842	50% J+S	203	1,013,403	50	#3040
cor ser-				,	6 227
LEVELING 1 6,227					Oy ZZ.
100%				·	24.724
POP-UP 37 136,988 7 26,726		37	136,988		209120
50%				•	&1 = Q1 7
POP-UP 42 245,182 8 41,917		42	245, 182	Ö	474 274