

ACTUARIAL VALUATION

**South Carolina
Retirement System
(SCRS)**

As of July 1, 1999

26 **W**

Table of Contents

	<u>Page No.</u>
Commentary	1
Table I Summary of Actuarial Valuation Results	4
Table II Determination and Amortization of Unfunded Liability	5
Table III Development of Actuarial Value of Assets	6
Table IV Accounting Information	7
Table V Valuation Balance Sheet	9
Table VI Number and Annual Retirement Allowances of Benefit Recipients	10
Table VII Distribution of Active Members by Attained Age Groups And Service Groups	12
Table VIII Distribution of Participants Receiving Benefits	13
Table IX Outline of Actuarial Assumptions and Methods	14
Table X Outline of Principal Plan Provisions	18
Appendix Outline of Prior Actuarial Assumptions and Methods	21





Watson Wyatt & Company
Alhambra International Center
Suite 950
255 Alhambra Circle
Coral Gables, FL 33134-7400
Telephone 786 552 1100
FL Wats 800 432 0202
Fax 786 552 1101

March 16, 2000

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

Gentlemen:

This report constitutes the July 1, 1999 actuarial valuation for the South Carolina Retirement System (SCRS). The report includes this commentary and a series of actuarial tables and summaries of the plan provisions and methods and assumptions.

Basic Contribution Requirements

Our valuation finds the SCRS in excellent actuarial condition. The current plan benefits, including the COLA of 2.7% that may be granted as of July 1, 2000, are adequately funded by the current contribution levels which consist of employee contributions of 6.0% and employer contributions of 7.55% for State employees including teachers and 6.7% for other employers.

The employer contribution rates are also reasonably split between 5.0% for normal cost contributions and the remainder for amortization of the unfunded liability. With these amortization payments, the current unfunded liability will be eliminated in 2 years. Based on the previous actuarial valuation, the unfunded liability was expected to be eliminated in 10 years, prior to the assumptions change. The decrease from the 10 year amortization period to the 2 year period occurred as a result of favorable experience and the change in actuarial assumptions approved by the Budget and Control Board.

We have also determined that the Group Life Insurance employer contribution of 0.15% is reasonable and will adequately fund the expected benefit payments. The separate fund for this benefit has built sufficient reserves.

Changes in System Benefits, Actuarial Assumptions and Methods

This actuarial valuation reflects the current provisions of the System as outlined on Table X. The provisions have remained the same since the last actuarial valuation. However, our report does contain provisions for a 2.7% COLA which may be granted effective July 1, 2000.

The actuarial assumptions and methods are outlined on Table IX. These assumptions and methods have been revised as a result of the Five - Year Experience Study mandated for the period July 1, 1993 through June 30, 1998. The revised assumptions are outlined in Table IX. An outline of the prior assumptions and methods can be found in the Appendix.



Valuation Data

This valuation was based on approximately 193,200 active members with a payroll of \$5.5 billion. This represents an increase in the number of active members of about 1.6% and an increase of 5.4% in covered payroll since the previous year's valuation.

The number of people receiving benefits increased since the last valuation by 4.3%. The annual benefits being paid increased by about 8.1%. This takes into account the 1.6% COLA that was effective July 1, 1999.

Valuation Assets

The market value of the SCRS assets as of July 1, 1999 was \$16.6 billion. The comparable figure one year before was \$16.3 billion. The market value rate of investment return on assets for the 1998/99 year was 2.4%.

For purposes of the actuarial valuation, we are using an actuarial value of assets that phases-in investment return different than the assumed 7.25% rate over a 5-year period. This actuarial value as of July 1, 1999 was \$16.1 billion as compared to \$14.9 billion the previous year. The estimated rate of return on an actuarial value basis was 8.1%.

Unfunded Liability and Experience Factors

As mandated by the South Carolina Code, a Five -Year Experience study was performed for the plan years July 1, 1993 through June 30, 1998. Assumptions on salary increases, rates of retirement, disability rates, withdrawal rates, post retirement mortality rates, and post disability mortality rates were revised as a result.

After recognizing the actuarial value of assets and the change in actuarial assumptions, the unfunded liability as of July 1, 1999 was \$177.9 million. There was a decrease in unfunded liability of \$828.4 million. The factors causing the decrease (in millions) are:

Required amortization payment	\$ (50.5)
Asset experience	(129.7)
Salary experience	107.3
Other experience	(298.9)
COLA effective July 1, 2000	181.8
Assumption Change	<u>(638.4)</u>
Net change	\$(828.4)



State Budget and Control Board
March 16, 2000
Page 3

Governmental Accounting Standards Board (GASB) Calculations

Our report includes information that is required by GASB. Basically, the calculations indicate that the System's funded ratio has increased since the previous valuation. As of the last valuation the funded ratio was 93.7%. This has improved to 98.9%. In addition, the unfunded liability as a percentage of covered payroll has decreased from 19.4% to 3.3%. Both of these statistics indicate that the funded status of the System has improved.

Census Data and System Assets

The Retirement System staff provided the census data that was used for this valuation. The System assets that were used for this valuation were supplied in the June 30, 1999 Retirement System Comprehensive Annual Financial Report.

Conclusions

In our opinion, the information contained in this actuarial report fairly represents the actuarial condition of the South Carolina Retirement System.

We look forward to review this report with the State Budget and Control Board and the Director and staff of the Retirement System.

Sincerely,

Wallace W. Wilson, F.S.A.
Consulting Actuary

Donald A. DuLaney, Jr., A.S.A.
Actuary

WWW\DAD:ll

Table I
South Carolina Retirement System (SCRS)

Summary of Actuarial Valuation Results

	Revised Assumptions July 1, 1999	Prior Assumptions July 1, 1999	July 1, 1998
1. <u>Number of Active Members and Compensation</u>			
a. State Employees	66,020	66,020	66,018
b. Compensation	\$ 2,038,900	\$ 2,038,900	\$ 1,962,635
c. Teachers	83,765	83,765	80,918
d. Compensation	\$ 2,343,149	\$ 2,343,149	\$ 2,177,971
e. Others	43,428	43,428	43,323
f. Compensation	\$ 1,091,710	\$ 1,091,710	\$ 1,050,442
g. Total number of active members	193,213	193,213	190,259
h. Total compensation	\$ 5,473,759	\$ 5,473,759	\$ 5,191,048
2. <u>Number of Persons Receiving Benefits and Benefits</u>			
a. Total number receiving benefits	61,063	61,063	58,538
b. Total amount of benefits	\$ 748,310	\$ 748,310	\$ 691,963
3. <u>Trust Fund Assets</u>			
a. Market value	\$ 16,639,506	\$ 16,639,506	\$ 16,297,205
b. Actuarial value	\$ 16,120,513	\$ 16,120,513	\$ 14,946,070
4. <u>Unfunded Actuarial Accrued Liability (UAAL)</u>			
	\$ 177,925	\$ 816,359	\$ 1,006,275
5. <u>Remaining Liquidation Period (Years)</u>			
	2	7	10
6. <u>Required Contribution as a Percent of Compensation</u>			
a. State Employees and Teachers			
i) Normal cost contribution	5.00%	5.00%	5.00%
ii) UAAL contribution	2.55%	2.55%	2.55%
iii) Pre-retirement death contribution	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>
iv) Total	7.70%	7.70%	7.70%
b. Others			
i) Normal cost contribution	5.00%	5.00%	5.00%
ii) UAAL contribution	1.70%	1.70%	1.70%
iii) Pre-retirement death contribution	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>
iv) Total	6.85%	6.85%	6.85%

All dollar amounts in thousands



Table II

South Carolina Retirement System (SCRS)

Determination and Amortization of Unfunded Liability

	<u>Revised Assumptions</u>	<u>Prior Assumptions</u>
1. <u>Actuarial Present Value of Future Benefits</u>		
a. Present retired members and beneficiaries	\$ 6,944,021	\$ 6,915,774
b. Present active and inactive members	<u>14,961,188</u>	<u>16,091,635</u>
c. Total Actuarial Present Value	\$ 21,905,209	\$ 23,007,409
2. <u>Present Value of Future Normal Contributions</u>		
a. Employee at 6.00%	\$ 3,058,239	\$ 3,311,202
b. Employer at 5.00%	<u>2,548,532</u>	<u>2,759,335</u>
c. Total Future Normal Contributions	\$ 5,606,771	\$ 6,070,537
3. <u>Actuarial Accrued Liability = 1.c. - 2.c.</u>	\$ 16,298,438	\$ 16,936,872
4. <u>Current Actuarial Value of Assets</u>	\$ 16,120,513	\$ 16,120,513
5. <u>Unfunded Actuarial Accrued Liability = 3. - 4.</u>	\$ 177,925	\$ 816,359
6. <u>Unfunded Accrued Liability Rates</u>		
a. State Employees and Teachers	2.55%	2.55%
b. Others	1.70%	1.70%
7. <u>Unfunded Accrued Liability Liquidation Period</u>	2 years	7 years

All dollar amounts in thousands



Table III

South Carolina Retirement System (SCRS)

Development of Actuarial Value of Assets

1. <u>Actuarial Value of Assets on July 1, 1998</u>	\$ 14,946,070
2. <u>1998/1999 Net Cash Flow</u>	
a. Contributions	769,149
b. Disbursements	<u>806,683</u>
c. Net Cash Flow	\$ (37,534)
3. <u>Expected Investment Return</u> [1. x .0725] + [2.c. x .03625]	\$ 1,082,229
4. <u>Expected Actuarial Value of Assets on July 1, 1999</u> (1. + 2.c. + 3.)	\$ 15,990,765
5. <u>Market Value of Assets on July 1, 1999</u>	\$ 16,639,506
6. <u>Excess of Market Value over Expected Actuarial Value</u> (5. - 4.)	\$ 648,741
7. <u>20% Adjustment towards Market</u> (.20 x 6.)	\$ 129,748
8. <u>Actuarial Value of Assets on July 1, 1999</u> (4. + 7.)	<u>\$ 16,120,513</u>

All dollar amounts in thousands

Table IV

South Carolina Retirement System (SCRS)

Accounting Information

1. Number of Active and Retired Members as of July 1, 1999

<u>Group</u>	<u>Number</u>
Retiree and Beneficiaries Currently Receiving Benefits *	61,063
Terminated Employees Entitled to Benefits But not yet Receiving Benefits	130,559
Active Members	<u>193,213</u>
Total	<u><u>384,835</u></u>

2. Schedule of Funding Progress

<u>Actuarial Valuation Date</u>	(a) <u>Actuarial Value of Assets</u>	(b) <u>Actuarial Accrued Liability (AAL)</u>	(c) <u>Unfunded AAL (UAAL) (b - a)</u>	(d) <u>Funded Ratio (a / b)</u>	(e) <u>Covered Payroll</u>	(f) <u>UAAL as a Percentage of Covered Payroll (c / e)</u>
07/01/99 ¹	\$ 16,120,513	\$ 16,298,438	\$ 177,925	98.9%	\$ 5,473,759	3.3%
07/01/98	14,946,070	15,952,345	1,006,275	93.7%	5,191,048	19.4%
07/01/97	13,621,362	14,977,179	1,355,817	90.9%	4,927,124	27.5%
07/01/96	12,499,235	14,062,092	1,562,857	88.9%	4,540,100	34.4%
07/01/95	11,453,462	12,980,497	1,527,035	88.2%	4,318,827	35.4%

All dollar amounts in thousands

¹ Under the prior assumptions: UAAL = \$816,359, Funded Rate = 95.2%, UAAL as Percentage of Covered Payroll = 14.9%.



Table IV
(continued two)

3. Assumptions and Methods

Valuation date	July 1, 1999
Actuarial cost method	Entry-Age-Normal
Amortization method	Level percent open
Remaining amortization period	2 years
Asset valuation method	5 year smoothed market
Actuarial assumptions	
Investment rate of return*	7.25%
Projected salary increases*	4.00% - 9.00% (changed from prior assumptions of 4.25% - 11.35%)
*Including inflation at	3.75% (changed from prior assumption of 4.25%)
Cost-of-living adjustments	None



Table V

South Carolina Retirement System (SCRS)

Valuation Balance Sheet

	<u>July 1, 1999</u>	<u>July 1, 1998</u>
1. <u>Assets</u>		
a. <u>Current Assets</u>		
i) Employee Annuity Savings Fund	\$ 4,278,861	\$ 3,972,263
ii) Employer Annuity Accumulation Fund	<u>11,841,652</u>	<u>10,973,807</u>
iii) Total Current Assets	\$ 16,120,513	\$ 14,946,070
b. <u>Future Member Contributions to Employee Annuity Savings Fund</u>	\$ 3,058,239	\$ 3,180,544
c. <u>Prospective Contributions to Employer Annuity Accumulation Fund</u>		
i) Normal Contributions	\$ 2,548,532	\$ 2,650,454
ii) Accrued Liability Contributions	<u>177,925</u>	<u>1,006,275</u>
iii) Total Prospective Employer Contributions	\$ 2,726,457	\$ 3,656,729
d. <u>Total Assets</u>	<u>\$ 21,905,209</u>	<u>\$ 21,783,343</u>
2. <u>Liabilities</u>		
a. <u>Employee Annuity Savings Fund</u>		
i) Past Member Contributions	\$ 4,278,861	\$ 3,972,263
ii) Future Member Contributions	<u>3,058,239</u>	<u>3,180,544</u>
iii) Total Contributions to Employee Annuity Savings Fund	\$ 7,337,100	\$ 7,152,807
b. <u>Employer Annuity Accumulation Fund</u>		
i) Benefits Currently in Payment	\$ 6,944,021	\$ 6,305,903
ii) Benefits to be Paid to Current Active Members	<u>7,624,088</u>	<u>8,324,633</u>
iii) Total Benefits Payable from Employer Annuity Accumulation Fund	\$ 14,568,109	\$ 14,630,536
c. <u>Total Liabilities</u>	<u>\$ 21,905,209</u>	<u>\$ 21,783,343</u>

All dollar amounts in thousands



Table VI

South Carolina Retirement System (SCRS)

Number and Annual Retirement Allowances of Benefit Recipients as of July 1, 1999

	<u>Number</u>	<u>Annual Retirement Allowances</u>
1. <u>Service Retirement</u>		
a. <u>Employees</u>		
Life Annuity	13,525	\$ 135,884
10 Year Certain and Life	869	10,290
100% J & S	2,014	30,725
100 % Pop-Up	1,301	17,664
50% J & S	1,311	26,669
50% Pop-Up	1,375	26,746
Level Off	<u>3,030</u>	<u>54,207</u>
	23,425	\$ 302,185
b. <u>Teachers</u>		
Life Annuity	15,586	\$ 168,201
10 Year Certain and Life	1,002	12,933
100% J & S	781	9,232
100 % Pop-Up	619	8,383
50% J & S	582	10,717
50% Pop-Up	813	15,479
Level Off	<u>5,243</u>	<u>106,814</u>
	24,626	\$ 331,759
c. <u>Total</u>		
Life Annuity	29,111	\$ 304,085
10 Year Certain and Life	1,871	23,223
100% J & S	2,795	39,957
100 % Pop-Up	1,920	26,047
50% J & S	1,893	37,386
50% Pop-Up	2,188	42,225
Level Off	<u>8,273</u>	<u>161,021</u>
	48,051	\$ 633,944



Table VI
(continued two)

2. Disability Retirement

a. Employees

Life Annuity	3,379	\$ 30,798
10 Year Certain and Life	231	2,074
100% J & S	503	3,713
100 % Pop-Up	199	1,507
50% J & S	195	2,108
50% Pop-Up	174	2,038
	4,681	\$ 42,238

b. Teachers

Life Annuity	2,435	\$ 24,326
10 Year Certain and Life	124	1,280
100% J & S	183	1,297
100 % Pop-Up	59	552
50% J & S	70	832
50% Pop-Up	70	1,024
	2,941	\$ 29,311

c. Total

Life Annuity	5,814	\$ 55,124
10 Year Certain and Life	355	3,354
100% J & S	686	5,010
100 % Pop-Up	258	2,059
50% J & S	265	2,940
50% Pop-Up	244	3,062
	7,622	\$ 71,549

3. Beneficiaries of Deceased Retired Members and Active Members

a. Employees and Teachers	5,390	\$ 42,817
---------------------------	-------	-----------

4. <u>Grand Total</u>	61,063	\$ 748,310
------------------------------	---------------	-------------------

All dollar amounts in thousands



ACTUARIAL VALUATION

**South Carolina
Retirement System
(SCRS)**

As of July 1, 1999

Table VIII

South Carolina Retirement System (SCRS)

Distribution of Participants Receiving Benefits

1. Service Retirement

<u>Current Age Group</u>	<u>Number</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Under 50	116	\$ 1,116,636	\$ 9,626
50 - 54	1,242	28,696,887	23,105
55 - 59	3,318	82,692,619	24,922
60 - 64	6,571	103,908,518	15,813
65 - 69	10,539	130,937,167	12,424
70 - 74	9,574	114,614,343	11,971
75 - 79	7,829	86,644,221	11,067
80 & Over	<u>8,862</u>	<u>85,333,425</u>	<u>9,629</u>
Total	48,051	\$ 633,943,816	\$ 13,193

2. Disability Retirement

<u>Current Age Group</u>	<u>Number</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Under 50	1,331	\$ 11,529,763	\$ 8,662
50 - 54	1,117	12,200,086	10,922
55 - 59	1,291	13,214,739	10,236
60 - 64	1,307	11,559,870	8,845
65 - 69	1,018	8,904,537	8,747
70 - 74	697	6,329,901	9,082
75 - 79	482	4,539,839	9,419
80 & Over	<u>379</u>	<u>3,269,377</u>	<u>8,626</u>
Total	7,622	\$ 71,548,112	\$ 9,387

3. Beneficiaries

<u>Current Age Group</u>	<u>Number</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Under 50	819	\$ 4,610,917	\$ 5,630
50 - 54	315	2,491,715	7,910
55 - 59	352	2,860,100	8,125
60 - 64	481	4,391,355	9,130
65 - 69	571	4,755,338	8,328
70 - 74	734	6,866,746	9,355
75 - 79	847	6,947,424	8,202
80 & Over	<u>1,271</u>	<u>9,893,780</u>	<u>7,784</u>
Total	5,390	\$ 42,817,375	\$ 7,944



Table IX

South Carolina Retirement System (SCRS)
Outline of Actuarial Assumptions and Methods

1. Interest to be Earned by Fund

7.25% per annum, compounded annually, composed of an assumed 3.75% inflation rate and a 3.50% real rate of return.

2. Salary Increases

Salary increases are assumed in accordance with the following representative rates:

<u>Age</u>	<u>Annual Increases</u>	<u>Age</u>	<u>Annual Increases</u>
25	9.00%	45	4.50%
30	7.50%	50	4.25%
35	6.00%	55	4.00%
40	5.25%	60	4.00%

3. Decrement Rates

a. Service Retirement

<u>Age</u>	<u>Annual Rates of</u>					
	<u>Reduced Service Retirement</u>	<u>Unreduced Service Retirement*</u>	<u>Reduced Service Retirement</u>	<u>Unreduced Service Retirement*</u>	<u>Reduced Service Retirement</u>	<u>Unreduced Service Retirement*</u>
	<u>Male Teachers</u>		<u>Female Teachers</u>		<u>Male & Female Employees</u>	
50		10.0%		15.0%		12.0%
55	10.0%	15.0%	10.0%	20.0%	7.5%	15.0%
60	10.0%	15.0%	12.0%	20.0%	7.5%	15.0%
61	15.0%	20.0%	15.0%	25.0%	10.0%	20.0%
62	20.0%	30.0%	20.0%	45.0%	25.0%	30.0%
63	15.0%	30.0%	20.0%	30.0%	15.0%	25.0%
64	15.0%	30.0%	20.0%	30.0%	15.0%	30.0%
65		30.0%		30.0%		30.0%
66		20.0%		20.0%		20.0%
67		10.0%		20.0%		15.0%
68		10.0%		20.0%		15.0%
69		10.0%		20.0%		15.0%
70		100.0%		100.0%		100.0%

*Plus 25% in year when first become eligible for unreduced service retirement before age 65.



**Table IX
(continued two)**

b. In-service Mortality, Disability and Withdrawal

<u>Age</u>	<u>Mortality</u>	<u>Disability</u>	<u>Annual Rates of</u>		
			<u>Withdrawal</u>		
			<u>Years of Service</u>		
			<u>0-4</u>	<u>5-9</u>	<u>10+</u>
<u>Male Teachers</u>					
25	0.06%	0.04%	12.65%	8.25%	
30	0.07%	0.06%	10.95%	4.95%	2.80%
35	0.07%	0.08%	11.25%	5.55%	2.10%
40	0.10%	0.15%	8.85%	5.35%	1.50%
45	0.18%	0.25%	10.15%	4.75%	1.50%
50	0.30%	0.40%	8.45%	4.75%	1.90%
55	0.46%	0.65%	8.45%	4.35%	2.90%
60	0.65%	1.00%			
64	0.90%	1.25%			
<u>Female Teachers</u>					
25	0.03%	0.05%	9.55%	6.85%	
30	0.04%	0.07%	10.05%	4.95%	3.15%
35	0.04%	0.07%	8.95%	4.75%	2.45%
40	0.05%	0.12%	7.45%	4.05%	2.15%
45	0.08%	0.25%	7.05%	3.65%	1.95%
50	0.13%	0.40%	7.05%	3.75%	1.95%
55	0.21%	0.65%	7.35%	3.55%	2.35%
60	0.33%	1.00%			
64	0.49%	1.25%			
<u>Male Employees</u>					
25	0.06%	0.05%	15.85%	9.45%	
30	0.07%	0.10%	13.25%	7.15%	4.35%
35	0.07%	0.15%	12.25%	6.65%	3.65%
40	0.10%	0.25%	11.35%	6.25%	3.05%
45	0.18%	0.35%	9.95%	5.35%	2.75%
50	0.30%	0.50%	8.65%	5.35%	2.45%
55	0.46%	0.80%	8.45%	4.75%	2.85%
60	0.65%	1.00%			
64	0.90%	1.25%			
<u>Female Employees</u>					
25	0.03%	0.05%	14.15%	8.65%	
30	0.04%	0.07%	12.75%	7.45%	4.75%
35	0.04%	0.14%	11.85%	6.15%	3.45%
40	0.05%	0.18%	10.65%	5.65%	3.15%
45	0.08%	0.26%	9.25%	5.35%	2.55%
50	0.13%	0.44%	8.95%	4.75%	2.85%
55	0.21%	0.70%	7.55%	4.65%	2.75%
60	0.33%	1.07%			
64	0.49%	1.49%			



**Table IX
(continued three)**

4. Mortality After Retirement

For healthy retirees and beneficiaries, the 1983 Group Annuity Mortality Table rates. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the healthy retirees and beneficiaries:

<u>Age</u>	<u>Male</u>	<u>Female</u>
50	0.39%	0.18%
55	0.61%	0.28%
60	0.92%	0.47%
65	1.56%	0.78%
70	2.75%	1.41%
75	4.46%	2.72%
80	7.41%	4.77%
85	11.48%	7.66%

5. Marriage Assumption

100% of all active members are assumed to be married, with female spouses being 3 years younger.

6. Asset Valuation Method

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 investment rate of return. The amount recognized each year is 20% of the difference between market and expected value. The actuarial value of assets is limited to a range between 80% and 120% of market value.

7. Cost Methods

a. Normal Retirement, Termination, Death and Disability Benefits

Projected benefit with level percentage entry age normal cost and open-end unfunded actuarial accrued liability. Gains and losses are reflected in the period remaining to liquidate the unfunded actuarial accrued liability.

b. Group Life Insurance Benefit

One-year term cost method.



Table IX
(continued four)

8. Additional Assumptions

There are certain other assumptions made that have a relatively minor effect on liabilities. These assumptions are available upon request.

9. Cost-of-Living Increases

None assumed.

10. Changes from Prior Valuation

The following assumptions/methods have been revised as the result of the Five (5) Year Experience Study:

- Inflation and real return components of investment return rate.
- Salary increases.
- Service retirement rates.
- Disability rates.
- Withdrawal rates.
- Post retirement mortality rates for healthy and disabled retirees.

The Appendix at the end of this report contains an outline of the prior assumptions and methods.



Table X

South Carolina Retirement System (SCRS)

Outline of Principal Plan Provisions

1. Effective Date

July 1, 1945.

2. Eligibility Requirements

All full-time, part-time, or temporary personnel who fill a permanent position as a public school employee, public higher education personnel, state employees, and city, county and other local public employees of participating employers must join as a condition of employment as of the effective date of employment.

Employees in non-permanent positions may choose to join.

3. Creditable Service

The sum of "prior service" and "membership service." Prior service means service rendered prior to membership for which credit is allowed. Membership service means service during which contributions have been made. This is counted in years, months, and days.

There are a number of different types of service that may be purchased by an employee under special rules, including educational leave, medical leave, federal service, maternity leave, military leave, municipality service, non-member service, out-of-state service, additional service credit, and others.

4. Average Final Compensation

The total of the highest 12 consecutive quarters of compensation earned divided by 3. Denoted AFC. Compensation generally includes gross salary or wages, overtime, sick pay, wage deferrals, and termination pay for unused annual leave. For member who joined the system on or after January 1, 1997, compensation for benefit and contribution purposes is limited to \$160,000, subject to annual index.

5. Normal Retirement

- a. Eligibility Attainment of age 65, or completion of 30 years of creditable service.
- b. Benefit 1.82% of AFC times creditable service.



Table X
(continued two)

6. Early Retirement

- a. Eligibility Attainment of age 60, or attainment of age 55 with 25 years of creditable service.
- b. Benefit Benefit accrued to date of retirement, reduced 5% for each year prior to 65 (for age 60 eligibility), or 4% for each year prior to 30 years (for age 55 with 25 years eligibility).

7. Disability Retirement

- a. Eligibility Disability prior to normal retirement age with at least 5 years of creditable service. The service requirement is waived for job related disability.
- b. Benefit Benefit equal to the amount that would have been payable at age 65 assuming continued employment and AFC at date of disability, less the equivalent benefit that would have been provided by the employee contributions that would have been made until age 65.

8. Death Benefits

- a. Death prior to age 60 or 15 years of creditable service

Refund of employee contributions with interest plus Group Life Insurance in a lump sum equal to annual earnable compensation at death of death. Group life Insurance only payable to those with at least 1 year of creditable service, unless death is job related, and whose employer participates.
- b. Death after age 60 or with 15 years of creditable service

Same as above, however, instead of the refund of employee contributions with interest, the beneficiary may elect to receive an annuity equal to the amount that would have been payable had the employee retired the day before death under option 2 described below.

9. Employee Contributions

6% of earnable compensation.



Table X
(continued three)

10. Vested Benefit upon Termination

- a. Eligibility 100% vesting upon completion of 5 years of creditable service.
- b. Benefit Accrued benefit as of date of termination payable as of age 60.

11. Termination Benefit

- a. Eligibility Elect return of accumulated employee contributions.
- b. Benefit Return of employee contributions plus interest.

12. Normal Form of Retirement Income

Monthly life annuity with guaranteed return of employee contributions plus interest.

13. Optional Forms of Retirement Income

- a. Option 1. Monthly life annuity. If death occurs in first 10 years, employee contributions plus interest are refunded less 10% for each year of retirement.
- b. Option 2. Monthly life annuity with 100% of reduced benefit continued to beneficiary upon death.
- c. Option 2(a). Same as option 2 with revert to maximum option if beneficiary predeceases retiree.
- d. Option 3. Monthly life annuity with 50% of reduced benefit continued to beneficiary upon death.
- e. Option 3(a). Same as option 3 with revert to maximum option if beneficiary predeceases retiree.
- f. Option 4. Social security leveling option which provides additional benefits before eligibility for social security and a lesser benefit after social security eligibility.

14. Cost of Living Adjustment

Granted upon approval of State Budget and Control Board if funding objectives are met. The amount is the increase in the calendar year CPI, unless the CPI increases greater than 3%. If this occurs, a 4% increase is granted.



Appendix

South Carolina Retirement System (SCRS)

Outline of Prior Actuarial Assumptions and Methods

1. Interest to be Earned by Fund

7.25% per annum, compounded annually.

2. Salary Increases

Salary increases are assumed in accordance with the following representative rates:

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

3. Decrement Rates

a. Service Retirement

<u>Age</u>	<u>Annual Rates of</u>					
	<u>Reduced Service Retirement</u>	<u>Unreduced Service Retirement*</u>	<u>Reduced Service Retirement</u>	<u>Unreduced Service Retirement*</u>	<u>Reduced Service Retirement</u>	<u>Unreduced Service Retirement*</u>
	<u>Male Teachers</u>		<u>Female Teachers</u>		<u>Male & Female Employees</u>	
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%		25.0%		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%

*Plus 25% in year when first become eligible for unreduced service retirement before age 65.



**Appendix
(continued two)**

b. In-service Mortality, Disability and Withdrawal

<u>Age</u>	<u>Mortality</u>	<u>Disability</u>	<u>Annual Rates of</u>		
			<u>Withdrawal</u>		
			<u>Years of Service</u>		
			<u>0-4</u>	<u>5-9</u>	<u>10+</u>
<u>Male Teachers</u>					
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	0.30%	0.35%	7.70%	4.00%	1.90%
55	0.46%	0.60%	7.70%	3.60%	2.90%
60	0.65%	1.03%			
64	0.90%	1.65%			
<u>Female Teachers</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	0.33%	1.07%			
64	0.49%	1.44%			
<u>Male Employees</u>					
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%			
64	0.90%	1.49%			
<u>Female Employees</u>					
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%			



Appendix
(continued three)

4. Mortality After Retirement

For healthy retirees and beneficiaries, the 1983 Group Annuity Mortality Table rates. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the healthy retirees and beneficiaries:

<u>Age</u>	<u>Male</u>	<u>Female</u>
50	0.39%	0.16%
55	0.61%	0.25%
60	0.92%	0.42%
65	1.56%	0.71%
70	2.75%	1.24%
75	4.46%	2.40%
80	7.41%	4.29%
85	11.48%	6.99%

5. Marriage Assumption

100% of all active members are assumed to be married, with female spouses being 3 years younger.

6. Asset Valuation Method

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 investment rate of return. The amount recognized each year is 20% of the difference between market and expected value. The actuarial value of assets is limited to a range between 80% and 120% of market value.

7. Cost Methods

a. Normal Retirement, Termination, Death and Disability Benefits

Projected benefit with level percentage entry age normal cost and open-end unfunded actuarial accrued liability. Gains and losses are reflected in the period remaining to liquidate the unfunded actuarial accrued liability.

b. Group Life Insurance Benefit

One-year term cost method.



Appendix
(continued four)

8. Additional Assumptions

There are certain other assumptions made that have a relatively minor effect on liabilities. These assumptions are available upon request.

9. Cost-of-Living Increases

None assumed.

