

**ACTUARIAL VALUATION**

**South Carolina  
Retirement System  
(SCRS)**

**As of July 1, 1998**



# South Carolina Retirement System (SCRS)

Years of Service

	Prior Year	Current Year
Average Age	42.96 years	43.20 years
Average Service	10.19 years	10.23 years
Average Pay	\$27,285	\$27,750
Percent Female	68.5%	68.9%

# Preliminary

## South Carolina Police Officers Retirement System (PORS)

### Distribution of Active Members by Age Groups and Service Groups as of July 1, 1999

		Years of Service							
Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	Total	
Under 25	1,359	1	.	.	.	.	.	1,360	
25 - 29	3,237	913	10	.	.	.	.	4,160	
30 - 34	1,799	1,681	683	12	.	.	.	4,175	
35 - 39	1,191	891	1,275	400	11	.	.	3,768	
40 - 44	945	662	718	522	340	14	.	3,201	
45 - 49	710	541	529	314	420	201	7	2,722	
50 - 54	445	415	479	221	239	238	56	2,093	
55 - 59	243	225	267	119	101	66	58	1,079	
60 - 64	92	96	100	76	40	26	35	465	
65 & Up	<u>16</u>	<u>26</u>	<u>26</u>	<u>16</u>	<u>9</u>	<u>5</u>	<u>6</u>	<u>104</u>	
Total	10,037	5,451	4,087	1,680	1,160	550	162	23,127	

Average Age  
 Average Service  
 Average Pay  
 Percent Female

Prior Year  
 38.08 years  
 7.48 years  
 \$26,501  
 22.5%

Current Year  
 38.21 years  
 7.67 years  
 \$26,715  
 23.3%

OK  
 12-8-99

## Preliminary

### Retirement System for Judges and Solicitors of the State of South Carolina (JSRS)

#### Distribution of Active Members by Age Groups and Service Groups as of July 1, 1999

	Years of Service							
Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	Total
Under 25	.	.	.	.	.	.	.	0
25-29	.	.	.	.	.	.	.	0
30-34	.	.	.	.	.	.	.	0
35-39	6	.	.	1	.	.	.	7
40-44	9	3	3	2	.	.	.	17
45-49	6	6	1	6	2	.	.	21
50-54	6	6	4	4	8	3	1	32
55-59	4	3	4	3	8	5	1	28
60-64	1	2	2	1	1	3	3	13
65 & Up	—	2	—	2	3	—	1	8
Total	32	22	14	19	22	11	6	126

Average Age  
Average Service  
Average Pay  
Percent Female

Prior Year	Current Year
51.84 years	52.09 years
13.52 years	13.27 years
\$96,363	\$101,174
12.5%	13.5%

# Preliminary

## Retirement System for Members of the General Assembly of the State of South Carolina (GARS)

### Distribution of Active Members by Age Groups and Service Groups as of July 1, 1999

<u>Age Group</u>	<u>Years of Service</u>						<u>Total</u>
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30 &amp; Up</u>
Under 25	.	.	.	.	.	.	0
25-29	2	1	.	.	.	.	3
30-34	5	3	2	.	.	.	10
35-39	4	6	3	.	.	.	13
40-44	7	9	7	2	2	.	27
45-49	7	8	4	9	7	1	36
50-54	3	10	10	16	5	3	47
55-59	5	6	5	6	4	4	32
60-64	4	4	3	4	3	2	20
65-69	2	7	2	4	.	2	19
70 & Up	1	1	.	2	1	1	12
Total	40	55	36	43	22	13	219

Average Age  
Average Service  
Average Pay  
Percent Female

Prior Year  
51.41 years  
12.49 years  
\$22,797  
13.3%

Current Year  
51.86 years  
12.96 years  
\$ 22,737  
12.3%

CK GA  
Spec. Committee

# South Carolina Retirement Systems

## Comparison of 1998 and 1999 Active Data

	SCRS			PORS			GARS			JSRS		
	7/1/98	7/1/99	Increase	7/1/98	7/1/99	Increase	7/1/98	7/1/99	Increase	7/1/98	7/1/99	Increase
<b>State EE</b>												
Number:	66,018	66,020	0.003%									
Avg. Age	43.37	43.72	0.807%									
Avg. Service	10.91	11.05	1.283%									
Avg. Pay	29,730	30,318	1.978%									
<b>Teachers</b>												
Number:	80,918	83,765	3.518%									
Avg. Age	43.38	43.45	0.161%									
Avg. Service	11.28	11.19	-0.798%									
Avg. Pay	26,916	27,563	2.404%									
<b>Others</b>												
Number:	43,323	43,428	0.242%									
Avg. Age	41.56	41.93	0.890%									
Avg. Service	7.04	7.13	1.278%									
Avg. Pay	24,248	24,208	-0.165%									
<b>Special Contributors</b>												
Number:												
Avg. Age												
Avg. Service												
Avg. Pay												
<b>Total</b>												
Number:	190,259	193,213	1.553%	22,883	23,127	1.066%	211	219	3.791%	120	126	5.000%
Avg. Age	42.96	43.20	0.559%	38.08	38.21	0.341%	51.41	51.86	0.875%	51.84	52.09	0.482%
Avg. Service	10.19	10.23	0.393%	7.48	7.67	2.540%	12.49	12.96	3.763%	13.52	13.27	-1.849%
Avg. Pay	27,285	27,750	1.704%	26,501	26,715	0.808%	22,797	22,737	-0.263%	96,363	101,174	4.993%

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January 27, 1999

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

Gentlemen:

This report constitutes the July 1, 1998 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 1.6% that may be granted as of July 1, 1999, 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 10 years. Based on the previous actuarial valuation, the unfunded liability was expected to be eliminated in 14 years.

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.

### **Valuation Data**

This valuation was based on approximately 190,300 active members with a payroll of \$5.2 billion. This represents an increase in the number of active members of about 2.5% and an increase of 5.4% in covered payroll since the previous year's valuation. The increases were greater among the "other" employee category and less among State employees.





The number of people receiving benefits increased since the last valuation by 4.3%. The annual benefits being paid increased by about 7.5%. This takes into account the 1.5% COLA that was effective July 1, 1998.

#### **Valuation Assets**

The market value of the SCRS assets as of July 1, 1998 was \$16.3 billion. The comparable figure one year before was \$14.4 billion. The rate of investment return on assets for the 1997/98 year was 13.4%.

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, 1998 was \$14.9 billion as compared to \$13.6 billion the previous year.

#### **Unfunded Liability and Experience Factors**

After recognizing the actuarial value of assets, the unfunded liability as of July 1, 1998 was \$1.01 billion. There was a decrease in unfunded liability of \$349.5 million. The factors causing the decrease (in millions) are:

Required amortization payment	\$ (19.1)
Asset experience	(337.8)
Salary experience	(48.2)
Other experience	(43.7)
COLA effective July 1, 1999	<u>99.3</u>
Net change	\$(349.5)

#### **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 90.9%. This has improved to 93.7%. In addition, the unfunded liability as a percentage of covered payroll has decreased from 27.5% to 19.4%. Both of these statistics indicate that the funded status of the System has improved.

Table I

# South Carolina Retirement System (SCRS)

## Summary of Actuarial Valuation Results

	<u>July 1, 1998</u>	<u>July 1, 1997</u>
<b>1. <u>Number of Active Members and Compensation</u></b>		
a. State Employees	66,018	65,695
b. Compensation	\$ 1,962,635	\$ 1,890,977
c. Teachers	80,918	78,345
d. Compensation	\$ 2,177,971	\$ 2,064,157
e. Others	43,323	41,557
f. Compensation	\$ 1,050,442	\$ 971,990
g. Total number of active members	190,259	185,597
h. Total compensation	\$ 5,191,048	\$ 4,927,124
<b>2. <u>Number of Persons Receiving Benefits and Benefits</u></b>		
a. Total number receiving benefits	58,538	56,127
b. Total amount of benefits	\$ 691,963	\$ 643,804
<b>3. <u>Trust Fund Assets</u></b>		
a. Market value	\$ 16,297,205	\$ 14,413,956
b. Actuarial value	\$ 14,946,070	\$ 13,621,362
<b>4. <u>Unfunded Actuarial Accrued Liability (UAAL)</u></b>	\$ 1,006,275	\$ 1,355,817
<b>5. <u>Remaining Liquidation Period (Years)</u></b>	10	14
<b>6. <u>Required Contribution as a Percent of Compensation</u></b>		
a. State Employees and Teachers		
i) Normal cost contribution	5.00%	5.00%
ii) UAAL contribution	2.55%	2.55%
iii) Pre-retirement death contribution	0.15%	0.15%
iv) Total	7.70%	7.70%
b. Others		
i) Normal cost contribution	5.00%	5.00%
ii) UAAL contribution	1.70%	1.70%
iii) Pre-retirement death contribution	0.15%	0.15%
iv) Total	6.85%	6.85%

*All dollar amounts in thousands*



Table II

# South Carolina Retirement System (SCRS)

## Determination and Amortization of Unfunded Liability

<b>1. <u>Actuarial Present Value of Future Benefits</u></b>		
a.	Present retired members and beneficiaries	\$ 6,305,903
b.	Present active and inactive members	<u>15,477,440</u>
c.	Total Actuarial Present Value	\$ 21,783,343
<b>2. <u>Present Value of Future Normal Contributions</u></b>		
a.	Employee at 6.00%	\$ 3,180,544
b.	Employer at 5.00%	<u>2,650,454</u>
c.	Total Future Normal Contributions	\$ 5,830,998
<b>3. <u>Actuarial Accrued Liability = 1.c. - 2.c.</u></b>		\$ 15,952,345
<b>4. <u>Current Actuarial Value of Assets</u></b>		\$ 14,946,070
<b>5. <u>Unfunded Actuarial Accrued Liability</u> <u>= 3. - 4.</u></b>		\$ 1,006,275
<b>6. <u>Unfunded Accrued Liability Rates</u></b>		
a.	State Employees and Teachers	2.55%
b.	Others	1.70%
<b>7. <u>Unfunded Accrued Liability Liquidation Period</u></b>		10 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, 1997</u>	\$ 13,621,362
2. <u>1997/1998 Net Cash Flow</u>	
a. Contributions	731,719
b. Disbursements	<u>732,322</u>
c. Net Cash Flow	\$ (603)
3. <u>Expected Investment Return</u> [1. x .0725] + [2.c. x .03625]	\$ 987,527
4. <u>Expected Actuarial Value of Assets on July 1, 1998</u> (1. + 2.c. + 3.)	\$ 14,608,286
5. <u>Market Value of Assets on July 1, 1998</u>	\$ 16,297,205
6. <u>Excess of Market Value over Expected Actuarial Value</u> (5. - 4.)	\$ 1,688,919
7. <u>20% Adjustment towards Market</u> (.20 x 6.)	\$ 337,784
8. <u>Actuarial Value of Assets on July 1, 1998</u> (4. + 7.)	<u>\$ 14,946,070</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, 1998

<u>Group</u>	<u>Number</u>
Retiree and Beneficiaries Currently Receiving Benefits	58,538
Terminated Employees Entitled to Benefits But not yet Receiving Benefits	126,634
Active Members	<u>190,259</u>
Total	<u>375,431</u>

### 2. Schedule of Funding Progress

<u>Actuarial Valuation Date</u>	<u>(a) Actuarial Value of Assets</u>	<u>(b) Actuarial Accrued Liability (AAL)</u>	<u>(c) Unfunded AAL (UAAL) (b - a)</u>	<u>(d) Funded Ratio (a / b)</u>	<u>(e) Covered Payroll</u>	<u>(f) UAAL as a Percentage of Covered Payroll (c / e)</u>
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*



**Table IV**  
**(continued two)**

**3.     Assumptions and Methods**

Valuation date	July 1, 1998
Actuarial cost method	Entry-Age-Normal
Amortization method	Level percent open
Remaining amortization period	10 years
Asset valuation method *	5 year smoothed market
Actuarial assumptions	
Investment rate of return*	7.25%
Projected salary increases*	4.25% - 11.35%
*Including inflation at	4.25%
Cost-of-living adjustments	None



Table V

# South Carolina Retirement System (SCRS)

## Valuation Balance Sheet

	<u>July 1, 1998</u>	<u>July 1, 1997</u>
<b>1. <u>Assets</u></b>		
a. <u>Current Assets</u>		
i) Employee Annuity Savings Fund	\$ 3,972,263	\$ 3,657,217
ii) Employer Annuity Accumulation Fund	<u>10,973,807</u>	<u>9,964,145</u>
iii) Total Current Assets	\$ 14,946,070	\$ 13,621,362
b. <u>Future Member Contributions to Employee Annuity Savings Fund</u>	\$ 3,180,544	\$ 2,952,247
c. <u>Prospective Contributions to Employer Annuity Accumulation Fund</u>		
i) Normal Contributions	\$ 2,650,454	\$ 2,460,206
ii) Accrued Liability Contributions	<u>1,006,275</u>	<u>1,355,817</u>
iii) Total Prospective Employer Contributions	\$ 3,656,729	\$ 3,816,023
d. <u>Total Assets</u>	<u>\$ 21,783,343</u>	<u>\$ 20,389,632</u>
<b>2. <u>Liabilities</u></b>		
a. <u>Employee Annuity Savings Fund</u>		
i) Past Member Contributions	\$ 3,972,263	\$ 3,657,217
ii) Future Member Contributions	<u>3,180,544</u>	<u>2,952,247</u>
iii) Total Contributions to Employee Annuity Savings Fund	\$ 7,152,807	\$ 6,609,464
b. <u>Employer Annuity Accumulation Fund</u>		
i) Benefits Currently in Payment	\$ 6,305,903	\$ 5,866,156
ii) Benefits to be Paid to Current Active Members	<u>8,324,633</u>	<u>7,914,012</u>
iii) Total Benefits Payable from Employer Annuity Accumulation Fund	\$ 14,630,536	\$ 13,780,168
c. <u>Total Liabilities</u>	<u>\$ 21,783,343</u>	<u>\$ 20,389,632</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, 1998

	<u>Number</u>	<u>Annual Retirement Allowances</u>
<b>1. <u>Service Retirement</u></b>		
<b>a. <u>Employees</u></b>		
Life Annuity	13,808	\$ 134,043
10 Year Certain and Life	923	10,443
100% J & S	1,979	28,781
100 % Pop-Up	1,282	16,647
50% J & S	1,310	25,595
50% Pop-Up	1,345	25,195
Level Off	<u>2,932</u>	<u>52,141</u>
	23,579	\$ 292,845
<b>b. <u>Teachers</u></b>		
Life Annuity	14,206	\$ 147,136
10 Year Certain and Life	1,038	12,990
100% J & S	742	8,546
100 % Pop-Up	531	7,134
50% J & S	560	9,875
50% Pop-Up	717	13,588
Level Off	<u>4,802</u>	<u>94,320</u>
	22,596	\$ 293,589
<b>c. <u>Total</u></b>		
Life Annuity	28,014	\$ 281,179
10 Year Certain and Life	1,961	23,433
100% J & S	2,721	37,327
100 % Pop-Up	1,813	23,781
50% J & S	1,870	35,470
50% Pop-Up	2,062	38,783
Level Off	<u>7,734</u>	<u>146,461</u>
	46,175	\$ 586,434





**Table VI**  
**(continued two)**

**2. Disability Retirement**

**a. Employees**

Life Annuity	3,143	\$ 27,924
10 Year Certain and Life	228	1,994
100% J & S	483	3,476
100 % Pop-Up	185	1,355
50% J & S	189	2,037
50% Pop-Up	168	1,907
	<u>4,396</u>	<u>\$ 38,693</u>

**b. Teachers**

Life Annuity	2,263	\$ 21,892
10 Year Certain and Life	128	1,321
100% J & S	181	1,246
100 % Pop-Up	53	450
50% J & S	65	751
50% Pop-Up	67	941
	<u>2,757</u>	<u>\$ 26,601</u>

**c. Total**

Life Annuity	5,406	\$ 49,816
10 Year Certain and Life	356	3,315
100% J & S	664	4,722
100 % Pop-Up	238	1,805
50% J & S	254	2,788
50% Pop-Up	235	2,848
	<u>7,153</u>	<u>\$ 65,294</u>

**3. Beneficiaries of Deceased Retired Members and Active Members**

a. Employees and Teachers	5,210	\$ 40,235
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**4. Grand Total**

<u>58,538</u>	<u>\$ 691,963</u>
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*All dollar amounts in thousands*



Table VII

## South Carolina Retirement System (SCRS)

Distribution of Active Members by Age Groups and Service Groups as of July 1, 1998

Age Group	Years of Service										Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45 & Up	
Under 20	249	.	.	.	.	.	.	.	.	.	249
20-24	5,683	78	.	.	.	.	.	.	.	.	5,761
25-29	15,055	3,586	112	1	.	.	.	.	.	.	18,754
30-34	10,106	7,461	2,932	117	.	.	.	.	.	.	20,616
35-39	9,746	6,301	6,748	2,769	183	.	.	.	.	.	25,747
40-44	9,119	6,529	5,584	5,638	3,867	215	.	.	.	.	30,952
45-49	7,369	6,212	5,386	4,186	6,315	4,076	92	.	.	.	33,636
50-54	5,159	4,483	4,410	3,425	3,723	5,080	1,407	15	.	.	27,702
55-59	2,954	2,698	2,679	2,131	2,404	2,061	1,127	188	5	1	16,248
60-64	1,339	1,282	1,287	1,026	1,112	1,048	423	172	46	2	7,737
65-69	507	334	301	201	201	154	77	27	32	9	1,843
70-74	280	148	79	66	48	46	20	10	9	7	713
75-79	81	40	20	16	18	9	9	1	2	2	198
80 & Up	76	10	5	4	5	2	1	.	.	.	103
Total	67,723	39,162	29,543	19,580	17,876	12,691	3,156	413	94	21	190,259

2857

	Prior Year		Current Year	
	Average Age	42.75 years	Average Age	42.96 years
	Average Service	10.02 years	Average Service	10.19 years
	Average Pay	\$26,545	Average Pay	\$27,285
Percent Female	68.3%		68.5%	

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	90	\$ 678,228	\$ 7,536
50 - 54	1,025	23,383,488	22,813
55 - 59	2,905	71,453,616	24,597
60 - 64	6,352	97,540,776	15,356
65 - 69	10,298	124,905,072	12,129
70 - 74	9,459	109,301,340	11,555
75 - 79	7,536	79,881,228	10,600
80 & Over	8,510	79,289,856	9,317
Total	46,175	\$ 586,433,604	\$ 12,700

### 2. Disability Retirement

<u>Current Age Group</u>	<u>Number</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Under 50	1,269	\$ 10,839,180	\$ 8,542
50 - 54	993	10,370,964	10,444
55 - 59	1,152	11,414,112	9,908
60 - 64	1,234	10,666,644	8,644
65 - 69	970	8,337,696	8,596
70 - 74	700	6,291,432	8,988
75 - 79	519	4,683,588	9,024
80 & Over	316	2,690,292	8,514
Total	7,153	\$ 65,293,908	\$ 9,128

### 3. Beneficiaries

<u>Current Age Group</u>	<u>Number</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Under 50	780	\$ 4,381,356	\$ 5,617
50 - 54	297	2,277,360	7,668
55 - 59	336	2,804,400	8,346
60 - 64	473	4,127,088	8,725
65 - 69	558	4,635,396	8,307
70 - 74	740	6,534,576	8,831
75 - 79	823	6,426,588	7,809
80 & Over	1,203	9,048,060	7,521
Total	5,210	\$ 40,234,824	\$ 7,723



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.

### 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 &amp; 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.



**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>
<b><u>Male Teachers</u></b>					
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%			
<b><u>Female Teachers</u></b>					
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%			
<b><u>Male Employees</u></b>					
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%			
<b><u>Female Employees</u></b>					
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%			



**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%	0.16%
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.



**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.



## 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. <u>Eligibility</u> | Attainment of age 65, or completion of 30 years of creditable service. |
| b. <u>Benefit</u>     | 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.

