SC Budget and Control Board

SOUTH CAROLINA RETIREMENT SYSTEMS

South Carolina National Guard Retirement System Annual Actuarial Valuation as of July 1, 2010

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February 24, 2011

State Budget and Control Board
South Carolina Retirement Systems
P.O. Box 11960
Columbia, SC 29211-1960

Members of the Board:

The laws governing the operation of the South Carolina National Guard Retirement System provide that actuarial valuations of the assets and liabilities of the System shall be made at least every other year. We have conducted the annual actuarial valuation of the Retirement System as of July 1, 2010 and the results of the valuation are contained in the following report. The results of this valuation apply to the fiscal year beginning July 1, 2011 and ending June 30, 2012 (FY 2012).

A funding objective of the System is that the required contribution will remain relatively level over time. As these contributions are set by the Board, the valuation is used to determine the sufficiency of the contributions to maintain or improve the measures of the System's funding progress (i.e. *funded ratio, funding period)* and provide for the complete funding of all actuarial liabilities over the prescribed amortization periods, currently approximately 22 years.

In performing the valuation, we relied on data supplied by the System and performed limited tests on the data for consistency and reasonableness. All benefits provided under the South Carolina Code of Laws are included in the valuation. The normal cost and accrued liability of the System are developed using the entry age normal cost method. Under this method, the normal cost is the level dollar amount necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is funded by employer contributions.

In determining the System's liabilities, future events, such as investment returns, deaths, retirements, etc., are anticipated based upon the set of actuarial assumptions as approved by the Board. The assets of the System for valuation purposes are developed using an asset smoothing technique which spreads the recognition of the unexpected portion market related gains and losses over a period of years with the goal of dampening the impact of market volatility upon valuation results.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144
Phone (678) 388-1700 • Fax (678) 388-1730
www.CavMacConsulting.com
Offices in Englewood, CO • Kennesaw, GA • Omaha, NE • Hilton Head Island, SC

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The July 1, 2010 valuation determines the contribution required for the fiscal year beginning July 1, 2011. The System's current assets together with the scheduled contributions are expected to fully fund the System's liabilities by June 30, 2036. In our opinion, the System continues to operate on an actuarially sound basis.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

This is to certify that the undersigned are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions and methods that are internally consistent and reasonably based on the actual experience of the System.

Respectfully submitted,

John J. Garrett, ASA, FCA, MAAA
Principal and Consulting Actuary

Edward A. Macdonald, ASA, FCA, MAAA
President

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The table below summarizes the results of the July 1, 2010 actuarial valuation as compared with the prior year.

Table I-1: Comparative Summary of Principal Results

	July 1, 2010	July 1, 2009
Membership		
Number of:		
Active Members	12,445	12,599
Retirees and Beneficiaries	3,951	3,785
Former Members Entitled to Deferred Pensions	2,683	2,786
Total	19,079	19,170
Annual Required Contributions		
Employer (for Applicable FY)	$3,937,483	$3,904,715
Assets		
Market Value	$15,053,000	$12,773,000
Actuarial Value	$19,457,591	$18,599,557
Return on Market Value	14.4%	(24.4%)
Return on Actuarial Value	2.4%	3.2%
Ratio of Actuarial to Market Value	129.3%	145.6%
Actuarial Information		
Employer Normal Cost	523,966	533,736
Unfunded Actuarial Liability (UAL)	$34,695,473	$34,820,939
Funded Ratio	35.9%	34.8%
Amortization Period (Blended)*	22 years	23 years
Change in Unfunded Actuarial Liability		
Beginning of Year Unfunded Actuarial Liability	$34,820,939	$36,108,299
Interest on Unfunded Actuarial Liability	2,785,675	2,888,664
Amortization Payment with Interest	(3,575,967)	(3,638,616)
Salary Experience	N/A	N/A
Other Liability Experience (Including transition and new entrants)	(396,705)	(1,387,017)
Benefit Changes	0	0
Assumption Changes	0	0
Asset Experience	1,061,531	849,609
Total Increase / (Decrease)	(125,466)	(1,287,360)
End of Year Unfunded Actuarial Liability	$34,695,473	$34,820,939

*See Section V for a description of the derivation of the amortization period.

Summary of Key Findings

The annual employer contribution for the System in the fiscal year ending June 30, 2012 (FY 2012) is $3,937,483. This is an increase to the employer contribution requirement of $32,768 from the prior valuation. The funding method for the System determines the employer contribution required to fund the annual normal cost plus an amount to fully amortize the unfunded actuarial accrued liability (UAAL) by June 30, 2036 (30 years from July 1, 2006). See Section V for a description of the derivation of the amortization period.

The employer normal cost contribution decreased from $533,736 to $523,966. The unfunded actuarial accrued liability decreased slightly from $34,820,939 to $34,695,473; however, due primarily to investment losses, the amortization payment required has increased from $3,370,979 for FY 2011 to $3,413,517 for FY 2012. We note the following key findings:

- The UAL grew by $2,785,675 due to interest and decreased by $3,575,967 due to the amortization payment.

- The System experienced an actuarial loss on plan assets of $1,061,531 as a result of investment return on the actuarial value of assets being less than the assumed rate. Table III-3 provides the calculation of the investment loss for this year.

- The System experienced a net actuarial gain of $396,705 on plan liabilities due to non-investment related experience. Table IV-4 provides the reconciliation of the UAAL.

Section II of the report provides summarized information on the membership data used in the valuation. Section III of the report covers the System's assets and Section IV of the report covers the System's liabilities. The results of the valuation are provided in Section V of the report and the accounting information is in Section VI. The appendices provide additional information on: A) the System members; B) the actuarial assumptions and methods; and C) the summary of plan provisions. It is important to note that all information contained in this report for periods prior to June 30, 2005 were produced by a prior actuarial consulting firm.

Data regarding the membership of the System for use in the valuation were furnished by the Retirement Systems. The following table summarizes the membership data as of July 1, 2010 and is compared with that reported for the prior year.

Table II-1: Summary of Membership Data

	July 1, 2010	July 1, 2009
Active Members		
Total Number	12,445	12,599
Retirees and Beneficiaries		
Number of Retired Members	3,951	3,785
Total Annual Benefit Payments	$3,674,040	$3,536,280
Inactive Members		
Number of Vested Inactive Members	2,683	2,786

Section III: System Assets

The following tables provide information on the System's assets and cash flow.

Table III-1: Market Value Reconciliation and Cash Flow

	July 1, 2010	July 1, 2009
1. Beginning of Year Market Value of Assets	$12,773,000	$16,188,000
Income		
2. Employer Contributions	$4,052,000	$4,052,000
3. Investment Income (net of expenses)	$1,865,000	($4,020,000)
Disbursements		
4. Benefit Payments	$3,624,000	$3,432,000
5. Administrative Expenses	$13,000	$15,000
6. Net Change in Market Value of Assets (2 + 3 - 4 - 5)	$2,280,000	($3,415,000)
7. End of Year Market Value of Assets (1 + 6)	$15,053,000	$12,773,000
Approximate Rate of Return on Market Value of Assets	14.4%	(24.4%)
Net Cash Flow (Contributions less Disbursements)	$415,000	$605,000
Cash Flow as a % of Average Market Value	3.0%	4.2%

Development of Actuarial Value of Assets

The Actuarial Value of Assets represents a "smoothed" value developed with the purpose to dampen the impact of market volatility on the assets used in determining valuation results. The Actuarial Value of Assets has been calculated by spreading the recognition of excess investment income over ten years (five years for income prior to July 1, 2007). The amount of excess investment income in each year is the difference between expected and actual market value investment income. Table III-2 provides the calculation of the amount of the current year market value excess investment income to be phased-in as well as the total amount of deferred excess investment income from the current and prior years calculated in the development of the actuarial value of assets.

Table III-2: Development of Actuarial Value of Assets

Calculation of Current Year Excess Investment Income	
1. Actuarial Value of Assets at Beginning of Year	$18,599,557
2. Market Value of Assets at Beginning of Year	$12,773,000
3. Total Net Cash Flow During the Year (Table III-1 Net Cash Flow)	$415,000
4. Market Value of Assets at End of Year	$15,053,000
5. Actual Investment Income During the Year Based on Market Value	$1,865,000
6. Expected Earnings for the Year	
a. Market Value of Assets, Beginning of Year (2 x 8.00%)	$1,021,840
b. Net Cash Flow (3 x 8.00% x .5)	$16,600
c. Total (a) + (b)	$1,038,440
7. Current Year Excess Investment Income: (5 - 6(c))	$826,560
Calculation of Total Amount of Deferred Investment Income	
8. Amounts of Deferred Investment Income from Current and Prior Years	

Valuation Year	Excess Investment Income	Percent Deferred	Amount Deferred
2010	826,560	90%	743,904
2009	(5,339,240)	80%	(4,271,393)
2008	(1,523,550)	70%	(1,066,485)
2007	946,915	20%	189,383
Total Amount of Deferred Investment Income			(4,404,591)

9. Actuarial Value of Assets as of July 1, 2010 (4 - 8)	$19,457,591
Approximate Rate of Return on Actuarial Value of Assets	2.4%

The actuarial valuation assumes the investment income on the assets of the System is 8.00% annually. This assumption is based upon the reasonable long-term expected return on the assets. In each year, the System will experience actuarial gains and losses due to the actual investment return of the assets. Table III-3 provides the calculation of the gain or loss due to the investment experience on the actuarial value of assets.

Table III-3: Calculation of Actuarial Investment Gain/(Loss)

1. Actuarial Value of Assets at Beginning of Year	$18,599,557
2. Total Net Cash Flow (Table III-2(3))	415,000
3. Expected Return on Actuarial Value of Assets (1 x 8.00% + 2 x .5 x 8.00%)	1,504,565
4. Expected Actuarial Value of Assets at End of Year (1 + 2 + 3)	$20,519,122
5. Actual Actuarial Value of Assets at End of Year (Table III-2(9))	$19,457,591
6. Actuarial Gain/(Loss) Due to Investment Experience (5 - 4)	($1,061,531)

As recommended in the latest experience study for SCRS (covering the 5 year period ending June 30, 2007), the Board moved to adopt an increase to the asset smoothing period from 5 to 10 years for gains and losses experienced after June 30, 2007 for all Systems. The change to a longer asset smoothing period had the purpose of adjusting for the additional expected volatility of returns due to less restrictive asset allocation and the expansion of allowable asset classes in which the system can now invest.

The present value of benefits is the value as of the valuation date of all future benefits expected to be paid to current members of the System. Table IV-1 presents the present value of benefits by category as of the valuation date.

Table IV-1: Present Value of Benefits	
Active Members	$18,015,838
Vested Inactive Members	$12,410,496
Retirees and Beneficiaries	$28,492,374
Total Present Value of Benefits	$58,918,708

An actuarial cost method allocates each individual's present value of benefits to past and future years of service. The actuarial accrued liability includes the portion of the active member present value of benefits allocated to past service as well as the entire present value of benefits for retirees, beneficiaries and inactive members. Table IV-2 presents the actuarial accrued liability as of the valuation date for active members.

Table IV-2: Actuarial Accrued Liability	
Total for Active Members	$13,250,194
Total for Inactive Members (Table IV-1)	12,410,496
Total for Retirees and Beneficiaries (Table IV-1)	28,492,374
Total Actuarial Accrued Liability	$54,153,064

The funded ratio of the System is the ratio of the actuarial value of assets (Table III-2) divided by the actuarial accrued liability (Table IV-2) as of the valuation date. As of July 1, 2010, the funded ratio of the System is 35.9% as compared to the ratio in prior valuation of 34.8%. The increase in the funded ratio is primarily attributable to the contributions made toward payment of the unfunded actuarial accrued liability during the year. The ratio is a commonly used measure of the funding progress of a System and can be useful in reviewing the historical trend of a System's funding progress. Such a review should also consider the impact to this measure over the historical period due to changes to plan benefits, changes to the actuarial assumptions and methods, and significant impact that investment experience can have on the ratio over short-term periods. We caution that no single "point in time" measure can provide a universal basis for comparing one System to another.

Under the valuation funding method, an unfunded actuarial accrued liability (UAAL) exists to the extent that the actuarial accrued liability exceeds the actuarial value of assets as presented in Section III. The calculation of the UAAL as of the valuation date is shown in Table IV-3.

Table IV-3: Unfunded Actuarial Accrued Liability (UAAL)	
1. Total Actuarial Accrued Liability (Table IV-2)	$54,153,064
2. Actuarial Value of Assets (Table III-2(9))	$19,457,591
Unfunded Actuarial Accrued Liability (UAAL) (1 – 2)	$34,695,473

Although the terminology used to describe the excess of the System's actuarial accrued liability over the System's actuarial value of assets is call the "unfunded" actuarial accrued liability, the annual contribution calculated in the valuation includes an annual amortization payment required to fully amortize the UAAL by June 30, 2036.

The calculation of the System's actuarial assets and liabilities require the use of several assumptions concerning the future experience of the System and its members. In each annual valuation, the latest year of actual experience is compared to that expected by the prior valuation. The differences are actuarial gains and losses which decrease or increase the UAAL. Table IV-4 provides for the reconciliation of the UAAL and shows the primary sources of this year's gains and losses due to actuarial experience.

Table IV-4: Reconciliation of UAAL

1.	Beginning of Year UAAL	$34,820,939
2.	Expected Amortization Payment	(3,438,430)
3.	Expected Interest (1 x 8.00% + 2 x 8.00% x .5)	2,648,138
4.	Expected End of Year UAAL (1 + 2 + 3)	$34,030,647
5.	Actuarial Experience (Gain)/Loss	
	Other Liability Experience	(396,705)
	Asset Experience	1,061,531
	Total Actuarial (Gain)/Loss	$664,826
6.	End of Year UAAL (4 + 5)	$34,695,473

The employer contribution amount established by the Board funds the employers' portion of the normal cost and amortizes the UAAL over a period not to exceed 30 years from July 1, 2006. The actuarial valuation is used to determine the contribution amount to meet these funding requirements.

Section IV of this report presented the System's actuarial accrued liability as the portion of the present value of benefits allocated to past years of service. The portion of the active members' present value of benefits allocated to future years of service is funded through annual employer normal cost contributions. The System's annual normal cost is calculated as a dollar amount which is expected to remain level over all future years of service. The normal cost developed as of the valuation date is $523,966.

The employer annual required contribution is the dollar amount necessary to fund the annual normal cost of the System and fully amortize the UAAL. The UAAL is amortized through annual unfunded accrued liability contributions. Level annual accrued liability contributions of $600,534 will amortize $4,287,188 which is the remaining balance of unfunded accrued liability due to legislation which allows those guardsmen who became members of the National Guard after June 30, 1993 to become eligible for membership in the System effective January 1, 2007, over a 15-year period beginning July 1, 2006. The remaining amortization period as of July 1, 2010 is 11 years. An additional $2,812,983 is required to amortize the unfunded accrued liability from other sources of $30,408,285 over a 30 year period beginning July 1, 2006. The remaining amortization period as of July 1, 2010 is 26 years. The total unfunded accrued liability contribution is, therefore, $3,413,517 and based on the total unfunded accrued liability of $34,695,473, the resulting blended amortization period as of July 1, 2010 is approximately 22 years. The amount calculated is expected to remain constant over the remaining amortization period and is provided in Table V-1.

Table V-1: Calculation of Employer Required Contribution	
Normal Cost Component	
1. Employer Normal Cost Contribution	$523,966
UAAL Amortization Component	
2. UAAL at Valuation Date (Table IV-4)	$34,695,473
3. Remaining Amortization Period at July 1, 2010	22 years
4. Required Amortization Payment FY 2012	$3,413,517
Total Employer Required Contribution FY 2012 (1 + 4)	$3,937,483

The Tables provided in this Section present disclosure information necessary to comply with GASB requirements and are relevant for the annual financial reporting of the System.

Table VI-1: GASB Statement No. 25 Schedule of Funding Progress

Actuarial Valuation as of July 1	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Actuarial Assets as a % of Actuarial Liabilities	Unfunded AAL (UAAL)	Annual Active Member Payroll	UAL as a % of Active Member Payroll
2010	$19,457,591	$54,153,064	35.9%	$34,695,473	N/A	N/A
2009	18,599,557	53,420,496	34.8%	34,820,939	N/A	N/A
2008	17,425,894	53,534,193	32.6%	36,108,299	N/A	N/A
2007	15,937,090	55,916,798	28.5%	39,979,708	N/A	N/A
2006	14,046,397	48,755,541	28.8%	34,709,144	N/A	N/A
2005	12,150,817	46,985,420	25.9%	34,834,603	N/A	N/A
2004	13,566,711	47,280,891	28.7%	33,714,180	N/A	N/A
2002	12,608,347	44,677,656	28.2%	32,069,309	N/A	N/A
2000*	11,089,065	43,426,627	25.5%	32,337,562	N/A	N/A
1998	8,639,560	41,478,339	20.8%	32,838,779	N/A	N/A

*As of April 30, 2000.
Results prior to the 6/30/2005 valuation were prepared by the previous actuarial firm.

Table VI-2: Solvency Test

	Actuarial Accrued Liability for:						
Actuarial Valuation as of 7/1	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Funded Portion)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
2010	$0	$28,492	$25,661	$19,458	N/A	68.3%	0.0%
2009	0	27,558	25,863	18,600	N/A	67.5%	0.0%
2008	0	25,554	27,980	17,426	N/A	68.2%	0.0%
2007	0	24,627	31,290	15,937	N/A	64.7%	0.0%
2006	0	22,366	26,389	14,046	N/A	62.8%	0.0%
2005	0	20,804	26,181	12,151	N/A	58.4%	0.0%
2004	0	19,704	27,577	13,567	N/A	68.9%	0.0%
2002	0	17,597	27,081	12,608	N/A	71.7%	0.0%
2000	0	16,186	27,241	11,089	N/A	68.5%	0.0%
1998	0	14,651	26,827	8,640	N/A	59.0%	0.0%

All dollar amounts are in thousands.

Table VI-3: Active Member and Payroll Information

Actuarial Valuation as of July 1	Number of Employers	Number of Active Members	Annual Payroll ($ thousands)	Annual Average Pay	Percentage Increase in Average Pay
2010	1	12,445	N/A	N/A	N/A
2009	1	12,599	N/A	N/A	N/A
2008	1	12,559	N/A	N/A	N/A
2007	1	11,076	N/A	N/A	N/A
2006	1	2,502	N/A	N/A	N/A
2005	1	2,864	N/A	N/A	N/A
2004	1	3,425	N/A	N/A	N/A
2002	1	4,010	N/A	N/A	N/A
2000	1	5,289	N/A	N/A	N/A
1998	1	9,604	N/A	N/A	N/A

Table VI-4: Schedule of Retirants Added to and Removed from Rolls

	Added to Rolls*		Removed from Rolls*		Roll End of Year			
Year Ended	Number	Annual Allowances ($ thousands)	Number	Annual Allowances ($ thousands)	Number	Annual Allowances ($ thousands)	% Increase in Annual Allowances	Average Annual Allowances
July 1, 2010	267	$237	101	$99	3,951	$3,674	3.9%	$930
July 1, 2009	378	335	85	83	3,785	3,536	7.7%	934
July 1, 2008	364	331	76	75	3,492	3,284	8.5%	940
July 1, 2007	362	329	61	58	3,204	3,028	9.8%	945
July 1, 2006	303	276	90	91	2,903	2,757	7.2%	950
June 1, 2005	244	214	89	81	2,690	2,572	5.5%	956
June 1, 2004	0	0	0	0	2,535	2,439	12.9%	962
June 1, 2002	0	0	0	0	2,213	2,160	10.9%	976
June 1, 2000	0	0	0	0	1,962	1,947	7.7%	992
June 1, 1998	0	0	0	0	1,801	1,808	13.6%	1,004

* Sufficient data is not available to complete these columns for years ending before 6/30/2005.

Table VI-5: Retired Members and Beneficiaries as of July 1, 2010		
Group	**Number**	**Annual Retirement Allowances**
Service Retirements:		
Male	3,911	$3,640,050
Female	40	33,990
Total	3,951	$3,674,040
Disability Retirements:		
Male	N/A	N/A
Female	N/A	N/A
Total	N/A	N/A
Beneficiaries:		
Male	N/A	N/A
Female	N/A	N/A
Total	N/A	N/A
Grand Total	**3,951**	**$3,674,040**

Table VI-6: Actuarial Balance Sheet		
	July 1, 2010	**July 1, 2009**
ASSETS		
1. Current Assets (Actuarial Value)	$19,457,591	$18,599,557
2. Present Value of Future Member Contributions	$0	$0
3. Present Value of Future Employer Contributions		
a. Normal Cost Contributions	$4,765,644	$4,890,520
b. Accrued Liability Contributions	34,695,473	34,820,939
c. Total Future Employer Contributions	$39,461,117	$39,711,459
4. Total Assets	$58,918,708	$58,311,016
LIABILITIES		
1. Benefits to be paid to Retired Members and Beneficiaries	$28,492,374	$27,558,353
2. Benefits to be paid to Former Members Entitled to Deferred Pensions	$12,410,496	$12,795,515
3. Benefits to be paid to Current Active Members	$18,015,838	$17,957,148
4. Total Liabilities	$58,918,708	$58,311,016

Table VI-7: Results of the Valuation As of July 1, 2010	
	July 1, 2010
Actuarial Present Value of Future Benefits	
Present Retired Members and Beneficiaries	$28,492,374
Present Active and Inactive Members	30,426,334
Total Actuarial Present Value	$58,918,708
Present Value of Future Normal Contributions	$4,765,644
Actuarial Liability	$54,153,064
Current Actuarial Value of Assets	$19,457,591
Unfunded Actuarial Liability	$34,695,473
Unfunded Actuarial Liability Liquidation Period	22 years

Appendix A: Additional Membership Data

Table A-1: Schedule of Active Participant Data as of July 1, 2010									
AGE	Years of Service								
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
Under 25	3,866	288	0	0	0	0	0	0	4,154
25 to 29	999	1,061	113	0	0	0	0	0	2,173
30 to 34	342	487	586	68	0	0	0	0	1,483
35 to 39	175	239	346	473	123	0	0	0	1,356
40 to 44	104	158	212	316	558	47	0	0	1,395
45 to 49	40	71	121	160	296	353	30	0	1,071
50 to 54	10	14	43	56	99	130	137	2	491
55 to 59	2	2	6	28	33	56	62	79	268
60 to 64	0	0	0	4	3	10	13	24	54
65 & up	0	0	0	0	0	0	0	0	0
Total	5,538	2,320	1,427	1,105	1,112	596	242	105	12,445

Table A-2: Comparative Summary of Active Data		
	Prior Year	Current Year
Average Age	31.7 years	31.9 years
Average Service	8.7 years	9.0 years
Percent Female	15.8%	15.5%

Table A-3: Number of Annual Retirement Allowances Of Benefit Recipients as of July 1, 2010		
Payee Type	Number	Annual Retirement Allowances
Service Retirement		
Maximum	3,951	$3,674,040
Total	3,951	$3,674,040
Grand Total	3,951	$3,674,040

Table A-4: Distribution of Participants Receiving Benefits as of July 1, 2010

NUMBER OF RETIRED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	0	$ 0	$ N/A
50 – 54	0	0	N/A
55 – 59	0	0	N/A
60 – 64	1,469	1,323,000	901
65 – 69	1,016	917,100	903
70 – 74	636	592,020	931
75 – 79	518	506,700	978
80 & Over	312	335,220	1,074
Total	3,951	$ 3,674,040	$ 930

Investment Rate of Return

Assumed annual rate of 8.00% net of investment and administrative expenses composed of a 3.00% inflation component and a 5.00% real rate of return component.

Active Member Decrement Rates

a. Table below provides a summary of the assumed rates of mortality and disability while actively employed. No death or disability benefits are payable from the System. No withdrawal from active membership is assumed for members with less than 20 years of service.

Annual Rates of Decrements		
Age	**Pre-Retirement Mortality**	**Disability***
25	0.05%	0.09%
30	0.06%	0.11%
35	0.09%	0.15%
40	0.12%	0.22%
45	0.22%	0.36%
50	0.39%	0.61%
55	0.61%	1.01%
60	0.92%	1.63%

*Applied only to members with less than 20 years of service.

b. Service Retirement and Deferred Early Retirement – Regular active members with twenty or more years of service are assumed to retire based upon the age-related rates in the table below. In addition to the tabular rates, members with 30 years of service are assumed to leave service immediately. Those members electing deferred early retirement prior to age 60 are assumed to defer retirement benefits until age 60.

Assumed Rates of Retirement	
Age	Assumed Rate
40	10%
45	10%
50	10%
55	10%
60	100%

Post-Retirement Mortality

Assumed rate of mortality for service retirees and deferred early retirees is the 1983 Group Annuity Mortality Table rates for males.

Post-Retirement Mortality Assumption		
Age	Male	Female
50	0.39%	0.39%
55	0.61%	0.61%
60	0.92%	0.92%
65	1.56%	1.56%
70	2.75%	2.75%
75	4.46%	4.46%
80	7.41%	7.41%
85	11.48%	11.48%

Marriage Assumption

Not applicable because no death benefits are payable.

Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a ten-year phase in of the excess (shortfall) between expected market investment return and actual net investment income (excess returns and shortfalls determined prior to July 1, 2008 remain with a five-year phase in).

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the plan's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level dollar amount necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is fully funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The portion of the unfunded accrued liability due to legislation which allows those guardsmen who became members of the National Guard after June 30, 1993 to become eligible for membership in the System effective January 1, 2007 is being amortized as a level dollar amount over a 15-year period beginning July 1, 2006. The remaining unfunded accrued liability from other sources is being amortized as a level dollar amount over a 30 year period beginning July 1, 2006.

Future Cost-of-living Increases

None assumed.

Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

Changes from Prior Valuation

None.

Appendix C: Summary of Plan Provisions

This summary of plan provisions is based on our understanding of the benefits as described by the South Carolina Code of Laws, summary plan descriptions and the South Carolina Retirement Systems. It is intended to only describe the essential features of the plan. All eligibility requirements and benefit amounts shall be determined in strict accordance with the law.

Eligibility Requirements

All members of the South Carolina National Guard who became members on or before June 30, 1993 are covered by the System. Effective January 1, 2007, eligibility for membership has been extended to those guardsmen who became members of the South Carolina National Guard after June 30, 1993.

Service Retirement

Eligibility – A member who retires after he has attained age 60 with credit for 20 years of military service, including at least 15 years, 10 of which immediately precede retirement, of South Carolina National Guard duty, both reserve and active, and who has received an honorable discharge, is entitled to a monthly pension.

Benefit - $50 per month for 20 years' creditable service with an additional $5 per month for each additional year of such service, provided that the total pension shall not exceed $100 per month.

Vested Benefit Upon Termination

Eligibility - A member whose service is terminated after he has credit for 20 years of military service, including at least 15 years, 10 of which immediately precede retirement, of South Carolina National Guard duty, both reserve and active, and who has received an honorable discharge, is eligible to receive a deferred retirement pension commencing at age 60.

Benefit - Accrued service retirement benefit as of date of termination at normal retirement age.

Normal Form of Retirement Income

Monthly life annuity.

Changes from Prior Valuation

None