

**REPORT ON THE SIXTY-NINTH ANNUAL VALUATION
OF THE TEACHERS' AND STATE EMPLOYEES'
RETIREMENT SYSTEM OF NORTH CAROLINA
PREPARED AS OF DECEMBER 31, 2011**

October 2, 2012

Board of Trustees
Teachers' and State Employees'
Retirement System of North Carolina
325 North Salisbury Street
Raleigh, NC 27603

Members of the Board:

We submit herewith our report on the sixty-ninth annual valuation of the Teachers' and State Employees' Retirement System of North Carolina prepared as of December 31, 2011. The report has been prepared in accordance with North Carolina General Statute 135-6(o).

The Modification of 2011 Appropriations Act (Session Law 2012-142) sets contributions at 8.33% of payroll effective for the fiscal year ending June 30, 2013. The valuation has been prepared in accordance with the parameters of Statement Nos. 25 and 27 of the Governmental Accounting Standards Board. The annual required contribution (ARC) under GASB for the 2013-2014 fiscal year is 8.69% of payroll, which will liquidate the unfunded accrued liability within a 12-year period from July 1, 2013. On this basis, these contributions would provide no undistributed gains.

Session Law 2012-142 also amended the System effective July 1, 2012 to provide a 1.00% increase in the benefit to beneficiaries on the roll as of July 1, 2011 and to provide a prorated portion of a 1.00% increase for beneficiaries who retired after July 1, 2011 but before June 30, 2012. The cost of this amendment was 0.33% of payroll. The annual required contribution rate of 8.69% of payroll reflects this change.

The plan sponsor selected the assumptions used for the results in this report. We believe that these assumptions are reasonable and comply with the requirements of GASB Nos. 25 and 27. We prepared this report in accordance with the requirements of these standards.

The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,



Michael A. Ribble, FSA, EA, MAAA
Director, Consulting Actuary



Larry Langer, ASA, EA, MAAA
Principal, Consulting Actuary

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**REPORT ON THE SIXTY-NINTH ANNUAL VALUATION OF THE
TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM OF NORTH CAROLINA
PREPARED AS OF DECEMBER 31, 2011**

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of December 31, 2011, presents the results of the sixty-ninth actuarial valuation of the system. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below.

**TABLE I
SUMMARY OF PRINCIPAL RESULTS**

VALUATION DATE	12/31/11	12/31/10
Active members included in valuation		
Number	310,627	317,740
Reported compensation	\$ 12,801,045,514	\$ 13,053,830,873
Valuation compensation	\$ 13,527,097,648	\$ 13,831,161,230
Beneficiaries		
Number	171,786	163,938
Annual allowances	\$ 3,507,222,607	\$ 3,334,806,219
Assets		
Actuarial value	\$ 58,125,010,880	\$ 57,102,198,448
Market value	53,402,204,951	54,108,134,326
Unfunded accrued liability	\$ 3,721,686,023	\$ 2,773,867,483
<u>GASB 25/27 for Fiscal Year Ending</u>	June 30, 2014	June 30, 2013
Annual required contribution (ARC) of employer, as a percentage of payroll		
Normal cost	5.14%	5.12%
Accrued liability	<u>3.55</u>	<u>2.57</u>
Total	8.69%	7.69%
Impact of legislative changes	<u>N/A</u>	<u>0.33</u>
Final ARC of employer	N/A	8.02%
<u>Appropriations Act for Prior Fiscal Year</u>		
Employer contribution rate, as a percentage of payroll		
Normal cost	5.14%	5.12%
Accrued liability	<u>3.19</u>	<u>2.32</u>
Total	8.33%	7.44%
Reserve from undistributed gains/(losses)	(0.36)%	(0.58)%

2. The following table shows a reconciliation of the change in the annual required contribution, as a percentage of payroll, computed to be 7.69% based on the December 31, 2010 valuation and 8.69% based on the December 31, 2011 valuation.

**TABLE II
RECONCILIATION OF CHANGE IN ANNUAL REQUIRED CONTRIBUTION**

Prior Year's Preliminary ARC (based on 12/31/10 valuation)	7.69%
Impact of Legislative Changes	<u>0.33%</u>
Prior Year's Final ARC	8.02%
Change Due to Demographic Gain/Loss	(0.67%)
Change Due to Investment Gain/Loss	1.19%
Change Due to Contributions Less Than ARC	<u>0.15%</u>
Current Year's Preliminary ARC (based on 12/31/11 valuation)	8.69%

3. Tables summarizing the membership of the system as of the valuation date are shown in Section II.
4. The valuation balance sheet showing the assets and liabilities of the retirement system as of the current and previous valuation dates is provided in Section III.
5. An allocation of investments by category is shown in Section IV.
6. Comments on the valuation results are provided in Section V.
7. Comments on the experience and actuarial gains during the valuation year are provided in Section VI.
8. Accounting information to be disclosed in the financial statements of the System and the employer is provided in Section VII.
9. Schedule A of this report presents the development of the actuarial value of assets.
10. Schedule B of this report presents the development of the amortization of the unfunded accrued liability.
11. Schedule C of this report outlines the full set of actuarial assumptions and methods employed.
12. Schedule D gives a summary of the benefit and contribution provisions of the system.
13. Schedule E provides detailed tabulations of the membership of the system as of the valuation date.

SECTION II - MEMBERSHIP DATA

Data regarding the membership of the system for use as a basis for the valuation were furnished by the system's office. The following tables summarize the membership of the system as of December 31, 2011 upon which the valuation was based. Detailed tabulations of the data are provided in Schedule E.

TABLE III

**THE NUMBER AND REPORTED COMPENSATION OF ACTIVE MEMBERS
INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011**

GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	REPORTED COMPENSATION
Classroom Teachers	150,598	43.29	10.46	\$ 6,189,264,414
Other Education	46,278	48.99	11.06	1,727,621,964
General Employees	110,269	46.07	10.40	4,696,617,777
Law Enforcement Officers	<u>3,482</u>	<u>40.34</u>	<u>13.06</u>	<u>187,541,359</u>
Total	310,627	45.09	10.56	\$ 12,801,045,514

TABLE IV

**THE NUMBER AND VALUATION COMPENSATION OF DISABLED MEMBERS
INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011**

GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	VALUATION COMPENSATION
Classroom Teachers	1,225	53.67	12.31	\$ 39,276,862
Other Education	424	55.36	12.03	9,833,090
General Employees	5,578	55.50	11.64	172,783,972
Law Enforcement Officers	<u>52</u>	<u>50.48</u>	<u>13.43</u>	<u>2,280,897</u>
Total	7,279	55.15	11.79	\$ 224,174,821

TABLE V

**THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF TERMINATED
VESTED MEMBERS INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011**

GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	ACCUMULATED CONTRIBUTIONS
Classroom Teachers	28,843	39.16	4.14	\$ 291,960,365
Other Education	6,581	45.04	4.41	67,492,908
General Employees	74,443	44.48	4.10	840,206,329
Law Enforcement Officers	<u>819</u>	<u>40.80</u>	<u>6.12</u>	<u>15,645,114</u>
Total	110,686	43.10	4.14	\$ 1,215,304,716

TABLE VI

**THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES
AND SURVIVORS INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011**

GROUP	NUMBER	AVERAGE AGE	ANNUAL RETIREMENT ALLOWANCES
<u>Beneficiaries Receiving Service Retirement Allowances</u>			
Classroom Teachers and Other Education	77,297	69.08	\$ 1,925,667,533
General Employees	68,396	70.84	1,150,252,568
Law Enforcement Officers	<u>2,307</u>	<u>64.76</u>	<u>69,915,426</u>
Total	148,000	69.83	\$ 3,145,835,527
<u>Beneficiaries Receiving Disability Retirement Allowances</u>			
Classroom Teachers and Other Education	3,915	66.93	\$ 82,707,661
General Employees	6,820	67.96	102,098,582
Law Enforcement Officers	<u>178</u>	<u>66.22</u>	<u>4,335,235</u>
Total	10,913	67.56	\$ 189,141,478
<u>Benefits to Survivors of Deceased Beneficiaries</u>			
Classroom Teachers and Other Education	4,011	72.67	\$ 68,156,583
General Employees	8,504	73.58	97,187,548
Law Enforcement Officers	<u>358</u>	<u>71.50</u>	<u>6,901,473</u>
Total	12,873	73.24	\$ 172,245,604
Grand Total	<u>171,786</u>	<u>69.94</u>	<u>\$ 3,507,222,609</u>

SECTION III - VALUATION BALANCE SHEET

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of December 31, 2011 and, for comparison purposes, as of the prior valuation date of December 31, 2010. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.

TABLE VII

VALUATION BALANCE SHEET
SHOWING THE ASSETS AND LIABILITIES OF THE
TEACHERS' AND STATE EMPLOYEES'
RETIREMENT SYSTEM OF NORTH CAROLINA

ASSETS	DECEMBER 31, 2011	DECEMBER 31, 2010
Current actuarial value of assets:		
Annuity Savings Fund	\$ 10,752,336,286	\$ 10,374,986,307
Pension Accumulation Fund	<u>47,372,674,594</u>	<u>46,727,212,141</u>
Total current assets	\$ 58,125,010,880	\$ 57,102,198,448
Future member contributions to Annuity Savings Fund	\$ 6,805,113,560	\$ 6,982,786,111
Prospective contributions to Pension Accumulation Fund:		
Normal contributions	\$ 5,716,295,391	\$ 5,842,264,379
Unfunded accrued liability contributions	3,721,686,023	2,773,867,483
Undistributed gain contributions	<u>(381,514,173)</u>	<u>(269,831,467)</u>
Total prospective contributions	\$ <u>9,056,467,241</u>	\$ <u>8,346,300,395</u>
Total Assets	\$ <u>73,986,591,681</u>	\$ <u>72,431,284,954</u>
LIABILITIES		
Annuity Savings Fund:		
Past member contributions	\$ 10,752,336,286	\$ 10,374,986,307
Future member contributions	<u>6,805,113,560</u>	<u>6,982,786,111</u>
Total contributions to Annuity Savings Fund	\$ 17,557,449,846	\$ 17,357,772,418
Pension Accumulation Fund:		
Benefits currently in payment	\$ 31,664,133,498	\$ 30,098,133,293
Benefits to be paid to current active members	24,821,838,190	25,245,210,710
Reserve for increases in retirement allowances effective July 1, 2012 (July 1, 2011 for December 31, 2010 figure)	324,684,320	0
Reserve from undistributed gains/(losses)	<u>(381,514,173)</u>	<u>(269,831,467)</u>
Total benefits payable from Pension Accumulation Fund	\$ <u>56,429,141,835</u>	\$ <u>55,073,512,536</u>
Total Liabilities	\$ <u>73,986,591,681</u>	\$ <u>72,431,284,954</u>

The valuation balance sheet gives the following information with respect to the funds of the system as of December 31, 2011.

Annuity Savings Fund

The Annuity Savings Fund is the fund to which contributions made by members together with interest are credited thereon. When a member retires, the amount of his accumulated contributions is transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The assets credited to the Annuity Savings Fund on December 31, 2011, which represent the accumulated contributions of members to that date, amounted to \$10,752,336,286. The balance sheet also shows that the future contributions by members have a present value of \$6,805,113,560. The present value of both past and future contributions of members is therefore equal to \$17,557,449,846. The liabilities of this fund are also shown to be equal to \$17,557,449,846.

Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which the contributions made by employers are credited and from which are paid all benefits on account of beneficiaries and their survivors.

The actuarial value of assets creditable to the Pension Accumulation Fund on December 31, 2011 amounted to \$47,372,674,594. The liabilities on account of active members amounted to \$24,821,838,190. In addition, the balance sheet indicates liabilities of \$31,664,133,498 on account of all benefits payable to beneficiaries and survivors as of December 31, 2011. The balance sheet also shows a reserve from undistributed gains/(losses) of \$(381,514,173) and a reserve for increases in retirement allowances of \$324,684,320. The total liabilities of the Pension Accumulation Fund, therefore, amounted to \$56,429,141,835. The difference between these liabilities and the current assets credited to this fund is \$9,056,467,241 which represents the present value of future contributions to be made by the employers. Of this amount, \$5,716,295,391 represents the present value of prospective normal contributions by the employers, \$3,721,686,023 represents the present value of prospective accrued liability contributions by employers and the balance of \$(381,514,173) represents the present value of prospective contributions on account of undistributed actuarial gains/(losses).

SECTION IV – ASSET ALLOCATION

The following table shows an allocation of investments by category for the Annuity Savings Fund and Pension Accumulation Fund as of December 31, 2011.

TABLE VIII
ALLOCATION OF INVESTMENTS BY CATEGORY
FOR THE ANNUITY SAVINGS FUND AND
PENSION ACCUMULATION FUND AS OF DECEMBER 31, 2011

Cash and Receivables	0.4%
Fixed Income (LTIF)	37.5
Public Equity	42.8
Other*	<u>19.3</u>
Total	100.0%

* Real Estate, Alternatives, Inflation and Credit.

SECTION V - COMMENTS ON VALUATION

The retirement act provides that the contributions of employers shall consist of a normal contribution and an accrued liability contribution. G.S. 135-8(d)(2) of the retirement act provides that the normal contribution rate is to be determined as the uniform percentage of the earnable compensation of the average new entrant throughout his entire period of active service and is to be determined after each valuation. The valuation indicates that the uniform normal percentage contribution rate should be set at 5.14% of compensation.

The Modification of 2011 Appropriations Act (Session Laws 2012-142) sets contributions at 8.33% of payroll effective for the fiscal year ending June 30, 2013. The valuation has been prepared in accordance with the parameters of Statement Nos. 25 and 27 of the Governmental Accounting Standards Board. The annual required contribution (ARC) under GASB for the 2013-2014 fiscal year is 8.69% of payroll, which will liquidate the unfunded accrued liability within a 12-year period from July 1, 2013. On this basis, these contributions would provide no undistributed gains.

Session Law 2012-142 also amended the System effective July 1, 2012 to provide a 1.00% increase in the benefit to beneficiaries on the roll as of July 1, 2011 and to provide a prorated portion of a 1.00% increase for beneficiaries who retired after July 1, 2011 but before June 30, 2012. The cost of this amendment was 0.33% of payroll. The annual required contribution rate of 8.69% of payroll reflects this change.

SECTION VI - COMMENTS ON EXPERIENCE AND GAINS

The following table shows a detailed reconciliation of the change in unfunded accrued liability since the prior valuation.

TABLE IX

RECONCILIATION OF CHANGE IN UNFUNDED ACCRUED LIABILITY SINCE THE PRIOR VALUATION (IN MILLIONS)

Unfunded accrued liability as of 12/31/10	\$ 2,774
Normal cost during 2011	1,538
Reduction due to actual contributions during 2011	(1,669)
Interest on unfunded accrued liability, normal cost and contributions	252
Asset (gain)/loss	1,181
Accrued liability (gain)/loss	(675)
Impact of legislative changes	<u>321</u>
Unfunded accrued liability as of 12/31/11	\$ 3,722

The valuation results indicate that there is no preliminary reserve from undistributed gains. Each 1.0% increase in retirement allowances as of July 1, 2013 to beneficiaries on the retirement roll on July 1, 2012 and a prorated portion of each 1.0% increase as of July 1, 2012 for beneficiaries who retired after July 1, 2012 but before June 30, 2013 is equivalent to 0.36% of payroll. The cost of each 0.01% increase in the defined benefit formula with a corresponding increase in retirement allowances to all current benefit recipients is 0.41% of payroll.

SECTION VII - ACCOUNTING INFORMATION

1. Statement Nos. 25 and 27 of the Governmental Accounting Standards Board (GASB) set forth certain items of information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF DECEMBER 31, 2011**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	171,786
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	110,686
Active participants*	<u>317,906</u>
Total	600,378

* Includes current recipients of DIP benefits.

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

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/06	\$52,420,807,724	\$49,391,906,996	\$(3,028,900,728)	106.1%	\$11,711,385,640	(25.86)%
12/31/07	55,283,120,813	52,815,089,477	(2,468,031,336)	104.7	12,701,016,741	(19.43)
12/31/08	55,127,658,183	55,518,744,699	391,086,516	99.3	13,267,554,255	2.95
12/31/09	55,818,099,117	58,178,272,142	2,360,173,025	95.9	13,253,029,516	17.81
12/31/10	57,102,198,448	59,876,065,931	2,773,867,483	95.4	13,053,830,873	21.25
12/31/11	58,125,010,880	61,846,696,903	3,721,686,023	94.0	12,801,045,514	29.07

3. Following is a reconciliation of the preliminary employer annual required contribution rate to the final employer annual required contribution for fiscal year ending June 30, 2012.

	Fiscal Year Ending June 30, 2012
Preliminary Annual Required Contribution Rate	
Normal Cost	5.12%
Accrued Liability	2.82
Total	<u>7.94%</u>
Impact of Legislative Changes	<u>(0.50)</u>
Final Annual Required Contribution Rate	7.44%
Payroll	<u>13,285,190,416</u>
Annual Required Contribution	<u>\$ 988,418,000</u>

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2012.

Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending 6/30/2012

(a) Employer annual required contribution	\$ 988,418,000
(b) Interest on net pension obligation	14,982,000
(c) Adjustment to annual required contribution	<u>(28,276,000)</u>
(d) Annual pension cost: (a) + (b) + (c)	\$ 975,124,000
(e) Employer contributions made for fiscal year ending 6/30/2012	<u>988,418,000</u>
(f) Increase (decrease) in net pension obligation: (d) – (e)	\$ (13,294,000)
(g) Net pension obligation beginning of fiscal year	<u>206,646,000</u>
(h) Net pension obligation end of fiscal year: (f) + (g)	\$ 193,352,000

TREND INFORMATION

<u>Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
June 30, 2010	\$486,237,000	99.4%	\$(36,207,000)
June 30, 2011	906,060,000	73.2	206,646,000
June 30, 2012	975,124,000	101.4	193,352,000

5. The annual required contribution (ARC) of the employer as a percentage of payroll, determined in accordance with the parameters of GASB 25/27, is shown below. The accrued liability rate is based on the amortization schedule shown in Schedule B.

**2013/2014 FISCAL YEAR
ANNUAL REQUIRED CONTRIBUTION (ARC)
BASED ON THE VALUATION AS OF DECEMBER 31, 2011**

ANNUAL REQUIRED CONTRIBUTION (ARC)	RATE
Normal cost	5.14%
Accrued liability	<u>3.55</u>
Total	8.69%

6. Additional information as of December 31, 2011 follows.

Valuation date	12/31/11
Actuarial cost method	Entry age
Amortization method	Level dollar closed
Amortization period	12 years
Asset valuation method	20% of market value plus 80% of expected actuarial value (not greater than 120% of market value and not less than 80% of market value)
Actuarial assumptions:	
Investment rate of return*	7.25%
Projected salary increases**	4.25% - 9.10%
*Includes inflation of	3.00%
**Includes inflation and productivity of	3.50%
Cost-of-living adjustments	N/A

SCHEDULE A**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2011**

1.	Actuarial Value of Assets as of December 31, 2010	\$ 57,102,198,448
2.	2011 Net Cash Flow	
	a. Contributions	1,669,391,367
	b. Disbursements	<u>3,538,048,036</u>
	c. Net Cash Flow: (a) - (b)	(1,868,656,669)
3.	Expected Investment Return: [(1) x .0725] + [(2)c x .03625]	4,072,170,583
4.	Expected Actuarial Value of Assets as of December 31, 2011: (1) + (2)c + (3)	59,305,712,362
5.	Market Value of Assets as of December 31, 2011	53,402,204,951
6.	Excess of Market Value over Expected Actuarial Value of Assets: (5) - (4)	(5,903,507,411)
7.	20% Adjustment towards Market Value: (6) x .20	(1,180,701,482)
8.	Preliminary Actuarial Value of Assets as of December 31, 2011: (4) + (7)	58,125,010,880
9.	Final Actuarial Value of Assets as of December 31, 2011 [(8) not less than 80% of (5) and not greater than 120% of (5)]	58,125,010,880
10.	Rate of investment return on actuarial value	5.15%
11.	Rate of investment return on market value	2.19%

SCHEDULE B
AMORTIZATION SCHEDULE FOR
UNFUNDED ACTUARIAL ACCRUED LIABILITY

DATE ESTABLISHED	OUTSTANDING BALANCES		ANNUAL PAYMENT
	INCEPTION	DECEMBER 31, 2011	
December 31, 2009	\$ 2,360,173,025	\$ 2,550,478,931	\$ 322,948,963
December 31, 2010	242,581,914	260,169,103	33,193,150
December 31, 2011	911,037,989	<u>911,037,989</u>	<u>124,659,832</u>
Total		\$ 3,721,686,023	\$ 480,801,945
Valuation Compensation			\$ 13,527,097,648
Unfunded Accrued Liability Contribution Rate			3.55%

SCHEDULE C**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

Assumptions are based on the experience investigation prepared as of December 31, 2009 and adopted by the Board of Trustees on October 21, 2010.

INTEREST RATE: 7.25% per annum, compounded annually.

INFLATION: Both general and wage inflation are assumed to be 3.00% per annum.

PRODUCTIVITY INCREASE: 0.50% per annum.

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

ANNUAL RATES OF WITHDRAWAL						
<u>Service</u>	<u>General Employees and Other Education</u>		<u>Classroom Teachers</u>		<u>Law Enforcement Officers</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
0	.270	.270	.260	.220	.180	.180
1	.180	.185	.180	.170	.090	.090
2	.120	.120	.130	.130	.070	.070
3	.080	.100	.100	.100	.070	.070
4	.070	.090	.080	.080	.060	.060

GENERAL EMPLOYEES AND OTHER EDUCATION

Annual Rates of						
<u>Age</u>	<u>Withdrawal and Vesting*</u>		<u>Base Mortality**</u>		<u>Disability</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	.0650	.0900	.0004	.0002	.0002	.0002
30	.0650	.0800	.0005	.0003	.0004	.0004
35	.0500	.0600	.0008	.0005	.0010	.0010
40	.0400	.0400	.0011	.0008	.0030	.0018
45	.0350	.0400	.0016	.0012	.0050	.0032
50	.0350	.0400	.0023	.0018	.0084	.0050
55	.0350	.0400	.0033	.0028	.0144	.0088
60	.0350	.0400	.0054	.0043	.0240	.0138
65			.0081	.0062		
69			.0099	.0076		

* These rates apply only after five years of membership in the system.

** Base mortality rates as of December 31, 2003.

CLASSROOM TEACHERS

Annual Rates of

Age	Withdrawal and Vesting*		Base Mortality**		Disability	
	Male	Female	Male	Female	Male	Female
25	.0600	.0700	.0004	.0002	.0001	.0002
30	.0550	.0600	.0004	.0003	.0001	.0003
35	.0400	.0450	.0007	.0005	.0003	.0006
40	.0350	.0300	.0010	.0007	.0007	.0010
45	.0350	.0300	.0014	.0011	.0014	.0018
50	.0350	.0300	.0020	.0017	.0023	.0032
55	.0350	.0300	.0028	.0025	.0047	.0055
60	.0350	.0300	.0044	.0039	.0077	.0102
65			.0070	.0058		
69			.0091	.0073		

* These rates apply only after five years of membership in the system.

** Base mortality rates as of December 31, 2003.

LAW ENFORCEMENT OFFICERS

Annual Rates of

Age	Withdrawal and Vesting*		Base Mortality**		Disability	
	Male	Female	Male	Female	Male	Female
25	.0400	.0400	.0004	.0002	.0033	.0033
30	.0350	.0350	.0004	.0003	.0043	.0043
35	.0300	.0300	.0008	.0005	.0060	.0060
40	.0300	.0300	.0011	.0007	.0079	.0079
45	.0300	.0300	.0015	.0011	.0110	.0110
50	.0300	.0300	.0021	.0017	.0176	.0176
55	.0300	.0300	.0030	.0025		
60	.0300	.0300	.0049	.0039		
65			.0076	.0058		
69			.0095	.0073		

* These rates apply only after five years of membership in the system.

** Base mortality rates as of December 31, 2003. In addition, 90% of all deaths in active service for law enforcement officers are assumed to be ordinary and 10% assumed to be accidental.

RETIREMENTS: Representative values of the assumed rates of retirement from active service are as follows:

GENERAL EMPLOYEES AND OTHER EDUCATION - MALES

Age	Service						
	5	10	15	20	25	30	35
50				0.0370	0.1000	0.3500	0.3500
55				0.0550	0.1000	0.3000	0.2000
60	0.1000	0.1000	0.1000	0.1000	0.3500	0.3000	0.2250
65	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
70	0.2250	0.2250	0.2250	0.2250	0.2250	0.2250	0.2250
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

GENERAL EMPLOYEES AND OTHER EDUCATION - FEMALES

Age	Service						
	5	10	15	20	25	30	35
50				0.0400	0.0350	0.3500	0.3500
55				0.0550	0.0900	0.3500	0.2250
60	0.1400	0.1400	0.1400	0.1400	0.4500	0.3500	0.2500
65	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
70	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

CLASSROOM TEACHERS - MALES

Age	Service						
	5	10	15	20	25	30	35
50				0.0300	0.0900	0.3000	0.3000
55				0.0450	0.0900	0.3750	0.3000
60	0.1200	0.1200	0.1200	0.1200	0.4000	0.3750	0.3000
65	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
70	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

CLASSROOM TEACHERS - FEMALES

Age	Service						
	5	10	15	20	25	30	35
50				0.0350	0.0900	0.3000	0.3000
55				0.0550	0.1000	0.4500	0.2750
60	0.1500	0.1500	0.1500	0.1500	0.5000	0.4500	0.2750
65	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
70	0.2750	0.2750	0.2750	0.2750	0.2750	0.2750	0.2750
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

LAW ENFORCEMENT OFFICERS

Age	Service						
	5	10	15	20	25	30	35
50			0.0600	0.0600	0.0600	0.5000	0.5000
55	0.3000	0.3000	0.3000	0.3000	0.3000	0.5000	0.5000
60	0.2500	0.2500	0.2500	0.2500	0.2500	0.5000	0.5000
65	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
70	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Note: For members hired on or after August 1, 2011, retirement rates are reduced to 0% if service is less than 10 years since they are not eligible to retire with less than 10 years of service. In their first year of eligibility, retirement rates for these members are an accumulation of the rates assumed above for all previous years. All other retirement rates for such members are equal to those shown above.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Annual Rate of Salary Increase			
<u>Service</u>	<u>Classroom Teachers</u>	<u>General Employees and Other Education</u>	<u>Law Enforcement Officers</u>
0	7.55%	5.50%	9.10%
5	6.55	5.50	7.10
10	5.70	5.45	5.40
15	5.45	5.25	4.95
20	5.25	5.25	4.65
25	5.25	5.25	4.25
30	5.25	5.25	4.25
35	5.25	5.25	4.25
40	4.75	4.75	4.25
45	4.25	4.25	4.25
50	4.25	4.25	4.25

Representative values of the assumed post-retirement mortality rates as of December 31, 2003 prior to any mortality improvements are as follows:

Annual Rate of Death after Retirement (Healthy Retirees)						
<u>Age</u>	<u>Classroom Teachers</u>		<u>General Employees and Other Education</u>		<u>Law Enforcement Officers</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
55	.0058	.0035	.0061	.0039	.0059	.0035
60	.0075	.0062	.0090	.0069	.0082	.0062
65	.0121	.0104	.0149	.0114	.0134	.0104
70	.0201	.0167	.0246	.0186	.0222	.0167
75	.0339	.0281	.0422	.0310	.0378	.0281
80	.0579	.0459	.0720	.0508	.0644	.0459

Annual Rate of Death after Retirement (Beneficiaries of Deceased Members and Disabled Retirees)				
<u>Age</u>	<u>Male Beneficiaries of Deceased Members</u>		<u>Female Beneficiaries of Deceased Members</u>	
	<u>Male</u>	<u>Female</u>	<u>Male Disabled Retirees</u>	<u>Female Disabled Retirees</u>
55	.0061	.0044	.0277	.0176
60	.0090	.0077	.0342	.0229
65	.0149	.0125	.0407	.0296
70	.0246	.0207	.0483	.0401
75	.0422	.0341	.0596	.0558
80	.0720	.0563	.0775	.0771

MORTALITY IMPROVEMENTS: Representative values of the assumed mortality improvement rates (applied to pre-retirement mortality rates for active members and post-retirement mortality rates for healthy retirees and beneficiaries of deceased members after such tables have been set back or set forward) are as follows:

<u>Age</u>	<u>Male Projection Scale</u>	<u>Female Projection Scale</u>
25	0.010	0.014
30	0.005	0.010
35	0.005	0.011
40	0.008	0.015
45	0.013	0.016
50	0.018	0.017
55	0.019	0.008
60	0.016	0.005
65	0.014	0.005
70	0.015	0.005
75	0.014	0.008
80	0.010	0.007

DEATHS AFTER RETIREMENT (NON-DISABLED): According to the RP-2000 Mortality tables for retirees. These tables are set back one year for male teachers, set forward one year for all general employees and unadjusted for female teachers and all law enforcement officers. These tables are also set forward one year for male beneficiaries of deceased members and set forward two years for female beneficiaries of deceased members. The base retiree RP-2000 tables have no rates prior to age 50. The active employee rates of RP-2000 are used for ages less than 50 prior to any adjustments for setbacks.

DEATH AFTER DISABILITY: According to the RP-2000 Mortality tables for disabled annuitants set back six years for males and set forward one year for females.

DEATHS PRIOR TO RETIREMENT: According to the RP-2000 Mortality tables for active employees. These tables are set back one year for male teachers, set forward one year for all general employees and unadjusted for female teachers and all law enforcement officers. The base RP-2000 tables for active employees have no rates after age 70. A blend of active rates and retired rates are used from ages 70 to 80 prior to any set back and adjustments.

MORTALITY PROJECTION (NON-DISABLED): All mortality rates are projected from December 31, 2003 using Scale AA.

TIMING OF ASSUMPTIONS: All withdrawals, deaths, disabilities, retirements and salary increases are assumed to occur on July 1 of each year.

LEAVE CONVERSIONS: Sick leave can be converted to increase creditable service and used to meet the eligibility requirements for retirement. Unused vacation leave can be converted to increase creditable service or compensation, but does not add to the eligibility service. The assumed impact of these conversions is shown in the table below.

	Classroom Teachers		General		Law Enforcement		Other Education	
	Males	Females	Males	Females	Males	Females	Males	Females
Increase in AFC	2.25%	2.25%	2.25%	2.25%	1.50%	1.50%	3.50%	3.50%
Increase in Creditable Service (years)								
Credited	1.25	1.00	0.90	0.65	1.50	1.50	1.25	1.00
Eligibility	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

LIABILITY FOR INACTIVE MEMBERS: The data provided for inactive members does not contain all the elements to calculate the member's deferred benefit. The liability for these members is estimated to be 200% of the member's accumulated contributions. The actuary is collecting data so that future members' deferred benefits can be estimated.

ADMINISTRATIVE EXPENSES: 0.10% of payroll.

MARRIAGE ASSUMPTION: 100% married with the husband four years older than his wife.

REPORTED COMPENSATION: Calendar year compensation as furnished by the system's office.

VALUATION COMPENSATION: Reported compensation adjusted to reflect the assumed rate of pay as of the valuation date.

VALUATION METHOD: Entry age normal cost method. Entry age is established on an individual basis.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected actuarial value. The actuarial value of assets is not allowed to be greater than 120% of the market value of assets or less than 80% of the market value of assets.

CHANGES SINCE PRIOR VALUATION: Retirement rates were updated for members hired on or after August 1, 2011 to reflect the increase in years of service for benefit eligibility.

SCHEDULE D**SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS**

A summary of the main benefit provisions of the Retirement System and of the sources of revenue from which benefits are paid is presented in the following digest. Items in parentheses in the text are the provisions applicable to law enforcement officers.

"Average final compensation" as used in the summary means the average annual compensation during the four consecutive years of membership service which afford the highest such average. "Membership service" means service represented by regular contributions. "Creditable service" means membership service and may also include certain special purchased service.

BENEFITS**Unreduced Retirement Allowance****Condition for Allowance**

An unreduced retirement allowance is payable to any member who retires from service:

- (a) if hired before August 1, 2011, after attained age 65 (55) and 5 years of creditable service;
- (b) if hired on or after August 1, 2011, after attained age 65 (55) and 10 years of creditable service;
- (c) after age 60 and completion of 25 years of creditable service; or
- (d) after completion of 30 years of creditable service.

Amount of Allowance

1.82% of his average final compensation multiplied by the number of years of his creditable service.

In no event will a member whose creditable service commenced on or before June 30, 1963 receive a smaller retirement allowance than he would have received under the benefit provisions of the system in effect on that date.

Reduced Retirement Allowance

Condition for Allowance

A reduced retirement allowance is payable to any member who retires from service prior to becoming eligible for unreduced retirement allowance as described in (a) or (b) below:

- (a) if hired before August 1, 2011, after attained age 60 and 5 years of membership service (age 55 and 5 years of creditable service); or
- (b) if hired on or after August 1, 2011, after attained age 60 and 10 years of membership service (age 55 and 10 years of creditable service).

Amount of Allowance

The member's reduced retirement allowance is equal to 1.82% of his average final compensation multiplied by the number of years of his creditable service at his date of retirement reduced by 1/4 of 1% for each month by which the member's age at retirement is less than age 65.

In no event will a member whose creditable service commenced on or before June 30, 1963 receive a smaller retirement allowance than he would have received under the benefit provisions of the system in effect on that date.

OR

Condition for Allowance

A reduced retirement allowance is payable to any member who retires from service after he has attained age 50 and completed 20 (15) years of creditable service but prior to becoming eligible for a reduced or unreduced retirement allowance.

Amount of Allowance

The member's reduced retirement allowance is equal to 1.82% of his average final compensation multiplied by the number of years of his creditable service at his date of retirement reduced by the lesser of:

- (i) 5/12 (1/3) of 1% for each month by which his age is less than 60 (55), plus, if the member is not a law enforcement officer, 1/4 of 1% for each month by which his age is less than 65.
- (ii) 5% times the difference between 30 years and his creditable service at retirement.

Deferred Retirement Allowance

Any member who separates from service as described in (a) or (b) below, prior to becoming eligible for an unreduced or reduced retirement allowance and who leaves his total accumulated contributions in the system may receive a deferred retirement allowance, beginning at age 60 (55), computed in the same way as a reduced retirement allowance, or, if the member has 20 or more years of service, at age 50 computed in the same way as a reduced service retirement allowance, on the basis of his creditable service and compensation to the date of separation.

- (a) If hired before August 1, 2011, after completing 5 or more years of membership service
- (b) If hired on or after August 1, 2011, after completing 10 or more years of membership service

Return of Contributions

Upon the withdrawal of a member without a retirement allowance and upon his request, the member's contributions are returned, together with accumulated regular interest thereon if the member meets condition (a) or (b) below:

- (a) if hired before August 1, 2011, and the member has at least 5 years of membership service; or
- (b) if hired on or after August 1, 2011, and the member has at least 10 years of membership service.

Upon the death of a member before retirement, his contributions, together with the full accumulated regular interest thereon, are paid to his estate or to person(s) designated by the member unless the designated beneficiary, if eligible, elects the survivor's alternate benefit described below.

The current interest rate on member contributions is 4%.

Survivor's Alternate Benefit

Upon the death of a member in service who has met conditions (a), (b), or (c) below, his designated beneficiary may elect to receive a benefit equal to that which would have been payable under the provisions of Option 2 had the member retired on the first day of the month following his death and elected such option, in lieu of the member's accumulated contributions, provided the member had not instructed the Board of Trustees in writing that he did not wish the alternate benefit to apply.

- (a) If hired before August 1, 2011, has attained age 60 (55) and completed 5 years of membership (creditable) service;
- (b) If hired on or after August 1, 2011, has attained age 60 (55) and completed 10 years of membership (creditable) service; or
- (c) Completed 20 years of creditable service.

Members on short-term or long-term disability are eligible for this benefit.

Death After Retirement

Upon the death of a beneficiary who did not retire under an effective election of Option 2 or Option 3, an amount equal to the excess if any, of his accumulated contributions at retirement over the retirement allowance payments received is paid to a designated person or to the beneficiary's estate.

Upon the death of the survivor of a beneficiary who retired under an effective election of Option 2 or Option 3, an amount equal to the excess, if any, of the beneficiary's accumulated contributions at retirement over the total retirement allowance payments received is paid to such other person designated by the beneficiary or to the beneficiary's estate.

Upon the death of a beneficiary, a benefit may be provided by the Retirees' Contributory Death Benefit Plan.

Other Death Benefits

Upon the death of a member in service, other benefits may be provided by the Death Benefit Plan or Separate Insurance Benefit Plan for Law Enforcement Officers.

Optional Arrangements at Retirement

In lieu of the full retirement allowance, any member may elect to receive a reduced retirement allowance equal in value to the full allowance, with the provision that:

Option 1 - A member retiring prior to July 1, 1993, may elect that at his death within 10 years from his retirement date, an amount equal to his accumulated contributions at retirement, less 1/120 for each month he has received a retirement allowance, is paid to his estate, or to a person(s) designated by the member, or

Option 2 - At the death of the member his allowance shall be continued throughout the life of such other person as the member shall have designated at the time of his retirement, or

Option 3 - At the death of the member one-half of his allowance shall be continued throughout the life of such other person as the member shall have designated at the time of his retirement.

Option 4 - A member may elect to receive 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 becomes eligible to receive the Social Security benefit.

Option 5 - A member retiring prior to July 1, 1993 may elect to receive a reduced retirement allowance under the

provisions of Option 2 or Option 3 in conjunction with the provisions of Option 1.

Option 6 - A member may elect either 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

Future increases in allowances may be granted at the discretion of the State.

Service Reciprocity

For the purpose of determining eligibility for a deferred, reduced or unreduced service retirement allowance, the membership and creditable service of a member shall include such prior service earned as a member of the Local Governmental Employees' Retirement System (LGERS), the Consolidated Judicial Retirement System (CJRS), or the Legislative Retirement System (LRS). In addition, if the member's accumulated contributions and reserves are transferred from the prior System to this System, the creditable service earned as a member of the prior System may be included for purposes of determining the amount of benefits payable under this System.

Military Service

For periods of active duty in the United States military may be counted as creditable service if the member was an employee upon entering the military and returned to employment within two years of discharge or for a period of 10 additional years.

Service Purchases

Additional creditable service may include service that the member purchased to restore a period of service for which the member (1) received a refund of contributions, (2) had a leave of absence for educational purposes, extended illness or parental or maternity reasons, (3) had full-time temporary or part-time local or State government employment, (4) was in a probationary or waiting period with a unit of the LGERS, (5) had a leave of absence under Workers' Compensation, (6) performed service with a unit of local government not covered by LGERS, (7) performed service with the federal government not covered by any other retirement system, (8) performed service with a public community service entity funded entirely with federal funds, (9) performed service as a member of the General Assembly, (10) performed service as a member of a charter school not participating in the system, (11) was employed by The University of North Carolina and participated in the Optional Retirement Program but not eligible to receive any benefits from that program, or (12) performed service which was omitted by reason of error.

Unused Sick Leave

Unused sick leave counts as creditable service at retirement. Sick leave which was converted from unused vacation leave is also creditable. One month of credit is allowed for each 20 days of unused sick leave, plus an additional month for any part of 20 days left over.

Transfer of Defined Contribution Balances (Special Retirement Allowances)

A member may make a one-time election to transfer any portion of their eligible accumulated contributions to this plan on or after retirement. Eligible accumulated contributions are those from the Supplemental Retirement Income Plan or Public Employee Deferred Compensation Plan, not including Roth after-tax contributions. The member may elect to convert the accumulated contributions to a life annuity with or without annual increases equal to the annual increase in the U.S. Consumer Price Index. Any ad-hoc COLA increases granted will not apply to benefits under this section. A member may elect Options 2, 3, or 6 under the Plan and may also elect either a guaranteed number of months of payments or a guarantee of total payments at least equal to the amount of contributions transferred to the Plan.

Contributions

Member Contributions

Each member contributes 6% of his compensation.

Employer Contributions

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

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

Changes Since Prior Valuation

Session Law 2012-142 amended the System effective July 1, 2012 to provide a 1.00% increase in the benefit to beneficiaries on the roll as of July 1, 2011 and to provide a prorated portion of a 1.00% increase for beneficiaries who retired after July 1, 2011 but before June 30, 2012.

SCHEDULE E**DETAILED TABULATIONS OF THE DATA****TABLE 1**

**THE NUMBER AND AVERAGE REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
AS OF DECEMBER 31, 2011**

AGE	YEARS OF SERVICE										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	2,879	4,016	53	0	0	0	0	0	0	0	6,948
	12,287	28,597	26,584	0	0	0	0	0	0	0	21,823
25 to 29	3,001	15,741	7,783	46	0	0	0	0	0	0	26,571
	11,673	32,445	34,916	31,836	0	0	0	0	0	0	30,822
30 to 34	1,612	10,059	16,109	4,855	23	0	0	0	0	0	32,658
	10,935	34,456	38,983	43,151	40,222	0	0	0	0	0	36,825
35 to 39	1,374	8,183	11,207	11,044	3,570	25	0	0	0	0	35,403
	10,851	35,569	39,605	45,670	48,544	37,250	0	0	0	0	40,348
40 to 44	1,417	8,870	11,849	9,532	9,539	3,088	56	0	0	0	44,351
	10,789	35,264	38,907	43,832	50,385	52,400	46,294	0	0	0	41,756
45 to 49	1,117	7,574	10,669	8,617	6,540	6,903	2,882	42	0	0	44,344
	9,851	35,091	37,515	41,080	46,908	53,439	55,578	48,263	0	0	42,145
50 to 54	919	6,414	10,005	8,805	6,698	5,605	6,323	1,451	19	0	46,239
	10,355	36,288	37,934	40,566	44,607	50,914	58,443	59,534	46,024	0	43,684
55 to 59	629	4,988	8,500	7,382	6,432	5,634	4,447	2,437	620	7	41,076
	10,917	38,507	39,575	42,020	45,298	50,064	57,678	65,040	67,450	55,765	45,675
60 to 64	253	2,891	5,593	4,547	3,831	3,545	2,295	1,061	686	132	24,834
	11,124	40,865	41,589	43,627	47,314	50,951	59,853	68,130	73,026	68,295	47,619
65 to 69	64	706	1,708	1,349	904	744	439	272	161	117	6,464
	8,049	39,824	42,283	44,972	52,307	56,242	61,769	74,440	82,125	89,207	49,764
70 & up	19	240	422	350	229	167	108	62	51	91	1,739
	8,588	34,755	34,410	39,159	43,105	50,802	52,563	69,687	68,456	106,686	45,016
Total	13,284	69,682	83,898	56,527	37,766	25,711	16,550	5,325	1,537	347	310,627
	11,225	34,746	38,636	42,940	47,402	51,729	57,943	64,557	71,244	85,161	41,210

SCHEDULE E**TABLE 2**

**THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

Age	Men		Women	
	Number	Amount	Number	Amount
15			1	\$ 16,553
16			1	11,181
17	1	\$ 46,458		
19	10	86,878	7	70,138
20	42	608,791	23	301,419
21	103	1,512,050	70	956,574
22	274	5,039,363	549	8,629,363
23	615	12,971,015	1,764	33,735,294
24	865	20,976,043	2,623	66,666,939
25	1,196	32,679,025	2,997	83,195,202
26	1,377	40,369,456	3,543	104,757,043
27	1,579	48,280,293	3,837	117,078,323
28	1,661	53,373,774	4,137	132,803,177
29	1,881	62,530,959	4,363	143,901,151
30	1,898	65,348,853	4,457	154,569,047
31	2,002	72,941,126	4,491	160,736,688
32	2,050	77,474,885	4,522	164,971,479
33	2,028	78,976,498	4,533	170,254,312
34	2,130	84,949,065	4,547	172,399,065
35	2,114	87,804,404	4,598	175,723,251
36	2,114	90,092,654	4,502	174,577,802
37	2,211	97,148,973	4,911	192,519,366
38	2,337	102,657,748	4,957	195,156,870
39	2,411	106,062,293	5,248	206,696,114
40	2,659	119,977,827	5,781	229,992,628
41	2,927	131,354,761	6,456	254,951,263
42	2,813	131,697,629	6,354	254,572,035
43	2,723	127,227,238	6,196	248,506,714
44	2,652	124,991,810	5,790	228,647,760
45	2,609	123,397,960	5,910	233,984,731
46	2,701	127,897,271	5,883	230,037,504
47	2,745	127,876,348	6,154	244,569,216
48	2,809	133,931,697	6,229	249,337,517
49	2,909	139,287,406	6,395	258,555,355
50	2,862	138,176,722	6,640	269,843,652
51	2,850	138,452,432	6,607	272,126,978
52	2,708	130,257,588	6,544	275,064,298
53	2,694	129,766,597	6,314	263,808,602
54	2,688	129,881,772	6,332	272,547,407
55	2,677	131,674,594	6,255	270,948,453
56	2,535	124,902,837	5,848	255,938,619

SCHEDULE E**TABLE 2**

**THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
57	2,471	\$ 126,338,755	5,650	\$ 247,273,443
58	2,513	125,907,144	5,570	244,655,723
59	2,343	117,272,731	5,214	231,229,642
60	2,255	116,463,560	4,770	213,626,029
61	2,094	105,110,553	3,978	179,263,699
62	1,715	88,079,357	3,276	145,392,218
63	1,321	73,499,131	2,358	108,085,322
64	1,124	64,478,973	1,943	88,572,588
65	1,016	57,874,702	1,642	76,313,430
66	550	32,866,954	800	36,112,612
67	473	26,194,990	558	24,114,887
68	337	18,754,238	429	18,161,603
69	309	17,003,934	350	14,274,186
70	217	11,772,301	205	7,980,161
71	162	8,713,985	152	5,501,709
72	148	8,069,572	125	5,141,951
73	102	4,757,665	81	2,829,045
74	65	2,890,697	68	2,303,097
75	58	3,522,600	52	2,068,908
76	42	1,610,771	37	1,536,422
77	30	1,815,357	38	1,169,538
78	32	1,500,115	18	606,232
79	17	674,272	17	454,508
80	20	985,495	6	183,327
81	8	634,758	8	217,228
82	8	353,966	2	61,211
83	4	257,828		
84	4	313,308	2	80,630
85			3	108,234
86			3	67,094
87	3	57,497		
89	1	15,676		
90			1	27,776
Total	96,902	\$ 4,370,473,978	213,725	\$ 8,430,571,536

SCHEDULE E**TABLE 3**

**THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY SERVICE
AS OF DECEMBER 31, 2011**

Years of Service	Number	Men		Women	
		Number	Amount	Number	Amount
0	3,990		\$ 42,554,534	9,294	\$ 106,556,534
1	6,923		222,669,767	12,967	391,512,509
2	5,703		216,988,113	10,099	354,142,899
3	4,359		180,400,588	8,624	302,067,766
4	6,797		263,335,932	14,210	490,086,719
5	5,889		241,783,813	13,434	476,063,147
6	5,740		238,538,075	13,660	492,442,217
7	5,062		214,464,082	11,676	433,361,572
8	4,640		200,532,217	10,543	399,714,409
9	4,058		181,742,067	9,196	362,871,196
10	3,386		157,827,635	8,117	326,549,231
11	3,512		166,824,124	8,787	355,896,910
12	3,425		162,288,806	8,451	343,814,960
13	3,154		153,590,512	7,870	322,355,325
14	2,828		141,318,430	6,997	296,785,759
15	2,588		130,666,487	6,182	266,638,602
16	2,467		128,425,952	5,705	253,530,038
17	2,245		117,017,296	5,126	234,205,403
18	2,364		123,917,022	4,824	223,073,284
19	1,875		104,421,971	4,390	208,278,302
20	1,896		103,871,313	4,054	194,561,520
21	1,424		82,584,192	3,143	158,012,941
22	1,693		93,475,675	3,493	174,566,000
23	1,546		85,366,109	3,557	177,141,056
24	1,476		86,600,577	3,429	173,835,184
25	1,295		79,282,412	2,738	146,029,376
26	1,021		64,851,682	2,313	127,247,909
27	1,184		75,298,153	2,333	128,033,066
28	1,214		76,841,158	2,196	125,085,164
29	757		48,790,048	1,499	87,496,042
30	465		32,853,329	1,058	63,440,917
31	333		24,052,219	773	46,235,123
32	333		24,604,658	719	43,039,411
33	299		23,134,264	624	37,517,683
34	234		18,862,077	487	30,028,763
35	187		14,209,098	328	21,420,358
36	124		10,307,593	217	14,171,148
37	100		7,858,543	176	13,100,995
38	82		6,333,431	149	9,396,508
39	64		4,907,252	110	7,797,444

SCHEDULE E**TABLE 3**

**THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY SERVICE
AS OF DECEMBER 31, 2011**

CONTINUED

Years of Service	Number	Men		Women	
		Number	Amount	Number	Amount
40	42		\$ 3,620,905	54	\$ 3,668,654
41	35		3,280,623	36	2,816,012
42	27		2,445,914	28	1,991,454
43	16		1,651,480	18	1,438,657
44	22		2,742,436	14	864,410
45	8		783,988	7	458,398
46	4		773,459	1	27,070
47	4		483,560	4	285,544
48	4		398,978	3	150,112
49	3		370,050	5	394,302
50	1		97,891	3	141,563
51	2		337,838	1	47,791
52	1		55,579	1	65,061
55				1	49,188
56				1	69,930
59	1		40,071		
Total	96,902		\$ 4,370,473,978	213,725	\$ 8,430,571,536

SCHEDULE E**TABLE 4**

**THE NUMBER AND VALUATION COMPENSATION OF
DISABLED MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

Age	Men		Women	
	Number	Amount	Number	Amount
24	1	\$ 26,230		
27	1	33,782	1	\$ 10,175
28	2	14,826	4	104,962
29	2	63,900	5	129,794
30	1	21,255	6	206,384
31	3	121,123	1	40,343
32	3	63,187	7	194,258
33	4	93,358	11	335,453
34	6	136,117	13	351,236
35	5	113,938	19	582,375
36	13	368,051	28	882,128
37	14	425,213	25	654,489
38	17	491,863	20	603,803
39	15	435,475	36	1,041,542
40	17	455,136	42	1,174,529
41	17	390,308	64	1,853,446
42	18	479,619	72	2,153,908
43	30	972,178	60	1,728,968
44	42	1,320,966	75	2,406,860
45	43	1,215,850	82	2,293,130
46	55	1,722,155	83	2,436,849
47	56	1,787,678	113	3,349,906
48	59	2,045,768	130	3,553,656
49	79	2,534,498	140	4,348,055
50	84	2,622,207	157	4,903,024
51	71	2,413,032	194	5,377,744
52	94	3,169,457	174	5,268,170
53	94	2,920,015	203	5,824,071
54	112	3,508,776	216	6,697,647
55	132	4,333,070	225	7,071,095
56	114	3,636,955	248	7,624,466
57	121	3,974,029	277	8,540,227
58	146	4,724,356	288	8,976,712
59	140	4,518,358	275	8,309,116
60	149	4,849,287	297	8,999,804
61	148	4,575,035	253	7,930,722
62	137	4,375,672	252	7,286,852
63	155	4,904,600	227	6,855,545
64	145	5,006,880	235	7,144,889
65	76	2,683,854	145	4,337,441

SCHEDULE E**TABLE 4**

**THE NUMBER AND VALUATION COMPENSATION OF
DISABLED MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
66	10	\$ 352,484	18	\$ 518,353
67	6	179,141	23	868,384
68	11	355,275	16	529,996
69	9	263,117	9	256,196
70	2	128,577	9	374,438
71	4	110,761	5	152,625
72	4	112,386	4	101,037
73			2	77,867
74	2	52,034	3	91,575
75			1	30,525
76	1	30,525	1	30,525
77	3	86,113		
78	3	83,549	1	30,525
79	1	30,525		
80	1	30,525	2	61,050
82			1	26,007
86			1	17,825
87	1	30,525		
91	1	30,525		
Total	2,480	\$ 79,424,119	4,799	\$ 144,750,702

SCHEDULE E**TABLE 5**

**THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF
TERMINATED VESTED MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

Age	Men		Women	
	Number	Amount	Number	Amount
19	2	\$ 259	2	\$ 480
20	5	3,725	8	7,125
21	16	11,518	19	19,982
22	56	60,353	48	48,619
23	121	121,128	157	208,546
24	220	353,678	395	686,874
25	342	715,150	704	1,669,174
26	496	1,217,282	1,125	3,356,426
27	658	1,905,984	1,640	6,059,804
28	676	2,221,920	2,020	8,465,873
29	826	3,099,346	2,213	10,180,347
30	903	4,003,070	2,606	13,737,028
31	863	4,147,453	2,587	15,170,674
32	952	4,683,590	2,730	17,517,753
33	910	5,456,696	2,690	18,565,259
34	951	6,087,984	2,715	20,514,749
35	967	6,636,348	2,665	21,359,647
36	883	6,904,441	2,464	20,764,062
37	963	8,315,090	2,557	23,176,916
38	930	8,806,643	2,340	21,993,488
39	1,012	10,369,477	2,388	23,047,380
40	985	10,509,234	2,377	23,777,205
41	1,109	12,393,916	2,580	27,323,816
42	1,031	12,536,058	2,562	27,736,854
43	939	11,305,116	2,308	26,684,949
44	886	11,733,680	2,150	25,603,322
45	869	12,837,808	1,917	22,956,913
46	854	11,762,544	1,867	23,092,182
47	825	12,800,125	1,941	22,846,390
48	799	13,467,791	1,917	25,273,570
49	831	14,342,686	1,866	24,799,714
50	766	14,109,327	1,813	25,085,788
51	772	12,769,132	1,873	26,293,344
52	720	13,074,798	1,651	24,707,518
53	716	14,595,391	1,719	26,054,614
54	703	12,648,395	1,716	27,643,675
55	677	12,525,668	1,613	25,346,912
56	688	12,972,269	1,601	27,005,917
57	671	12,934,539	1,559	27,137,576
58	609	12,164,442	1,537	28,420,136

SCHEDULE E**TABLE 5****THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF
TERMINATED VESTED MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

CONTINUED

Age	Number	Men		Women	
		Number	Amount	Number	Amount
59	634		\$ 13,763,256	1,498	\$ 28,203,609
60	599		12,567,992	1,285	24,701,009
61	464		9,044,448	994	17,007,922
62	389		6,922,389	820	13,028,042
63	354		5,962,395	616	9,273,570
64	302		5,282,162	511	7,491,720
65	815		5,320,558	760	6,584,467
66	155		1,919,057	262	3,213,024
67	150		1,421,054	198	1,928,350
68	110		885,948	170	1,789,378
69	90		1,100,654	115	1,528,335
70	58		541,069	90	852,562
71	45		439,043	52	638,519
72	31		365,186	35	450,348
73	26		278,699	30	265,367
74	25		239,125	18	108,061
75	10		44,455	23	181,093
76	12		76,309	19	216,972
77	11		142,553	14	161,537
78	8		26,681	8	110,009
79	5		44,509	3	6,143
80	6		6,742	3	14,304
81	2		140,743	2	21,979
82	2		13,734	1	22
83	3		13,945	1	2
84	1		0		
85	1		14,595	1	2,491
90				1	39
102				1	72
104	1		791	1	595
105				3	2,428
Total	32,511	\$	383,182,146	78,175	\$ 832,122,570

SCHEDULE E**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 0000**

**SERVICE RETIREMENTS AND
DEPENDENTS OF DECEASED BENEFICIARIES**

Age	Men		Women	
	Number	Amount	Number	Amount
18	3	\$ 37,545		
19			2	\$ 36,162
20			2	16,951
21	2	7,099	1	5,705
22	2	25,880	1	17,856
23	4	34,155	1	3,322
24	4	47,715	3	34,775
25	2	25,994	2	43,564
26	1	18,163	5	36,645
27	6	96,061	5	69,429
28	4	36,639	7	65,096
29	4	74,335	9	121,767
30	9	46,718	7	128,436
31	8	128,977	10	57,970
32	3	56,650	5	53,594
33	5	45,999	8	113,297
34	6	63,909	12	107,157
35	16	255,744	13	134,698
36	7	120,757	10	159,046
37	10	96,573	8	99,817
38	6	50,173	14	109,878
39	8	77,025	11	121,359
40	15	161,086	18	186,252
41	15	177,180	21	222,916
42	11	115,525	23	270,492
43	17	206,245	26	291,638
44	19	152,720	26	309,726
45	25	238,345	29	286,369
46	21	234,192	33	357,936
47	24	405,808	34	321,060
48	41	728,375	35	452,446
49	52	1,168,709	69	947,166
50	96	2,281,154	92	1,711,491
51	203	5,104,815	225	4,923,669
52	252	6,543,358	363	8,289,744
53	358	10,061,744	567	14,541,051
54	426	12,742,728	829	23,035,340
55	546	16,263,082	1,218	35,574,153

SCHEDULE E**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 0000**

**SERVICE RETIREMENTS AND
DEPENDENTS OF DECEASED BENEFICIARIES**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
56	630	\$ 19,084,050	1,563	\$ 46,762,644
57	819	25,685,081	1,871	56,893,398
58	925	28,561,231	2,344	71,857,252
59	1,090	35,689,929	2,696	84,304,159
60	1,294	40,953,712	3,008	89,899,423
61	1,538	45,977,882	3,752	102,995,319
62	1,828	50,130,423	4,255	100,616,624
63	2,316	55,744,209	5,101	103,151,661
64	2,545	59,335,984	5,438	105,240,747
65	2,992	70,628,505	6,191	119,055,016
66	2,221	50,128,635	4,581	83,295,261
67	2,290	51,491,517	4,495	81,079,458
68	2,214	49,785,401	4,649	84,186,817
69	2,322	53,829,409	4,732	83,954,509
70	1,956	44,047,690	4,005	69,661,122
71	1,838	41,435,373	3,747	64,040,458
72	1,700	38,256,014	3,441	57,887,743
73	1,700	38,452,611	3,190	52,951,158
74	1,559	34,783,845	3,164	51,394,366
75	1,455	33,228,441	2,928	47,293,060
76	1,425	32,530,638	2,847	45,329,095
77	1,321	29,269,039	2,844	44,984,470
78	1,266	28,924,063	2,416	36,312,115
79	1,156	26,061,866	2,380	36,555,482
80	1,099	24,825,558	2,323	34,077,593
81	1,038	24,486,087	2,198	33,335,557
82	974	22,455,814	2,008	29,908,449
83	769	17,496,111	1,919	27,228,723
84	720	16,504,264	1,784	24,990,573
85	632	13,766,337	1,606	22,675,441
86	551	12,192,710	1,466	19,776,632
87	475	9,625,494	1,327	17,043,219
88	371	7,876,670	1,128	14,033,853
89	340	6,549,076	965	12,541,449
90	246	6,093,319	909	11,221,369
91	258	5,048,988	775	9,612,098
92	143	2,567,301	613	7,462,810

SCHEDULE E**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 0000**

**SERVICE RETIREMENTS AND
DEPENDENTS OF DECEASED BENEFICIARIES**

CONTINUED

Age	Number	Men		Women	
		Number	Amount	Number	Amount
93	132		\$ 2,339,179	479	\$ 5,939,459
94	86		1,498,782	353	4,289,056
95	46		853,389	265	3,332,592
96	45		881,383	225	2,693,732
97	26		454,440	173	2,227,812
98	21		327,112	125	1,622,644
99	12		262,633	78	943,700
100	7		142,216	49	638,776
101	5		68,220	31	425,039
102	1		4,056	27	346,176
103	1		10,533	23	352,730
104	1		8,124	6	48,550
105	2		20,906	4	48,342
Total	50,632		1,218,305,427	110,241	2,099,775,704

DISTRIBUTION BY ANNUITY TYPE

Annuity Type	Number	Men		Women	
		Number	Amount	Number	Amount
Maximum	16,504		\$ 380,371,413	57,335	\$ 1,059,804,148
Cash Refund	1,553		37,207,716	6,189	90,637,922
100% J&S	7,767		183,215,694	3,360	49,823,359
50% J&S	3,210		91,326,808	2,352	43,967,913
Soc Sec Level	8,576		221,837,545	20,606	494,193,015
Odd Surv	14		543,107	8	161,597
100% J&S Popup	6,510		159,099,818	4,819	93,709,048
50% J&S Popup	3,841		114,814,248	5,356	125,122,178
Beneficiary	2,657		29,889,078	10,216	142,356,524
Total	50,632		\$ 1,218,305,427	110,241	\$ 2,099,775,704

SCHEDULE E**TABLE 7**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 2011**

DISABILITY RETIREMENTS

Age	Men		Women	
	Number	Amount	Number	Amount
21			1	\$ 4,124
47	1	\$ 8,054	1	15,502
48	2	35,240	1	14,815
49	1	14,662	2	18,217
50	7	122,511	7	111,689
51	5	90,246	15	241,940
52	6	129,754	13	222,114
53	22	503,227	30	498,719
54	38	923,681	40	912,703
55	40	907,569	61	1,339,372
56	53	1,168,135	104	2,260,082
57	74	1,604,792	139	3,158,089
58	73	1,732,619	181	4,188,368
59	99	2,342,767	258	6,179,264
60	125	2,941,565	333	7,715,600
61	139	3,299,400	408	8,739,192
62	167	3,511,221	345	7,198,371
63	178	3,706,392	397	8,204,266
64	220	4,663,524	379	7,556,342
65	272	5,364,657	477	8,780,407
66	252	4,046,650	457	7,185,288
67	214	3,466,798	446	6,883,902
68	229	3,578,461	419	5,960,925
69	213	3,533,647	417	6,471,905
70	138	2,305,276	342	4,944,589
71	168	2,304,408	272	3,539,642
72	163	2,421,566	217	2,869,787
73	90	1,119,067	235	2,910,272
74	111	1,499,274	212	2,810,742
75	64	968,694	119	1,604,132
76	63	1,064,738	101	1,230,016
77	63	928,394	73	1,095,005
78	37	594,588	76	1,043,012
79	35	672,612	64	752,977
80	33	449,413	61	801,549
81	36	534,371	55	662,120
82	24	367,985	57	734,104
83	18	288,923	60	619,919
84	18	253,624	46	484,662
85	20	271,484	63	660,415

SCHEDULE E**TABLE 7**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 2011**

DISABILITY RETIREMENTS

CONTINUED

Age	Number	Men		Women	
		Number	Amount	Number	Amount
86	24		\$ 362,198	56	\$ 609,137
87	23		351,646	49	321,763
88	16		299,136	46	404,714
89	20		337,728	40	395,640
90	7		132,457	27	271,255
91	7		129,580	19	258,977
92	2		32,639	25	193,143
93	6		118,397	9	111,374
94	5		76,391	11	139,067
95				8	36,409
96	1		3,349	6	118,551
97				3	29,175
98	1		1,484	6	31,608
102				1	11,532
Total	3,623		\$ 65,584,994	7,290	\$ 123,556,484

DISTRIBUTION BY ANNUITY TYPE

Annuity Type	Number	Men		Women	
		Number	Amount	Number	Amount
Maximum	2,017		38,317,138	5,340	92,358,132
Cash Refund	159		2,859,055	512	6,832,934
100% J&S	447		5,676,126	280	3,235,281
50% J&S	250		4,519,856	173	2,700,747
Soc Sec Level	155		3,975,025	407	9,192,582
Odd Surv				2	32,454
100% J&S Popup	338		5,008,308	264	3,688,373
50% J&S Popup	257		5,229,486	312	5,515,981
Total	3,623		\$ 65,584,994	7,290	\$ 123,556,484