

**TEACHERS' AND STATE EMPLOYEES'  
RETIREMENT SYSTEM OF NORTH CAROLINA**

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**Report on the Seventieth Annual Valuation  
Prepared as of December 31, 2012**

*October 2013*

October 2, 2013

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 seventieth annual valuation of the Teachers' and State Employees' Retirement System of North Carolina prepared as of December 31, 2012. The report has been prepared in accordance with North Carolina General Statute 135-6(o).

The 2013 Appropriations Act (Session Law 2013-360) sets contributions at 8.69% of payroll effective for the fiscal year ending June 30, 2014. 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 2014-2015 fiscal year is 8.76% of payroll, which will liquidate the unfunded accrued liability within a 12-year period from July 1, 2014. On this basis, these contributions would provide no undistributed gains.

The valuation is based upon membership data and financial information as furnished by the Retirement Systems Division and as summarized in this report. Although reviewed for reasonableness and consistency with the prior valuation, these elements have not been audited by Buck and we cannot certify as to the accuracy and completeness of the data supplied. The valuation is also based on benefit and contribution provisions as presented in this report. If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, or that conditions have changed since the calculations were made, you should contact the authors of this actuarial report prior to relying on this information. The valuation is further based on the actuarial valuation assumptions, approved by the Board of Trustees, as presented 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.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

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

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.

Respectfully submitted,



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



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

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# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

## SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of December 31, 2012, presents the results of the seventieth 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.

<b>TABLE I</b>		
<b>SUMMARY OF PRINCIPAL RESULTS</b>		
<b>VALUATION DATE</b>	<b>12/31/12</b>	<b>12/31/11</b>
Active members		
Number	312,512	310,627
Reported compensation	\$ 12,774,187,282	\$ 12,801,045,514
Valuation compensation*	\$ 13,597,412,201	\$ 13,527,097,648
Retired members and survivors of deceased members currently receiving benefits		
Number	179,908	171,786
Annual allowances	\$ 3,712,698,650	\$ 3,507,222,607
Assets		
Actuarial value (AVA)	\$ 59,911,833,028	\$ 58,125,010,880
Market value	57,780,471,482	53,402,204,951
Actuarial accrued liability (AAL)	\$ 63,630,278,472	\$ 61,846,696,903
Unfunded actuarial accrued liability (AAL-AVA)	3,718,445,444	3,721,686,023
Funded ratio (AVA/AAL)	94.2%	94.0%
<b>GASB 25/27 for Fiscal Year Ending</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
Annual required contribution (ARC) of employer, as a percentage of payroll		
Normal cost	5.15%	5.14%
Accrued liability	<u>3.61</u>	<u>3.55</u>
Total	8.76%	8.69%
Impact of legislative changes	<u>N/A</u>	<u>0.00</u>
Final ARC of employer	N/A	8.69%
<u>Appropriations Act for Prior Fiscal Year</u>		
Employer contribution rate, as a percentage of payroll		
Normal cost	5.15%	5.14%
Accrued liability	<u>3.54</u>	<u>3.19</u>
Total	8.69%	8.33%
Reserve from undistributed gains/(losses)	(0.07)%	(0.36)%

\* Reported compensation adjusted to reflect the assumed rate of pay increase prior to the valuation date.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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2. The following table shows a reconciliation of the change in the annual required contribution, as a percentage of payroll, computed to be 8.69% based on the December 31, 2011 valuation and 8.76% based on the December 31, 2012 valuation.

TABLE II RECONCILIATION OF CHANGE IN ANNUAL REQUIRED CONTRIBUTION	
Fiscal year ending June 30, 2014 Preliminary ARC (based on December 31, 2011 valuation)	8.69%
Impact of Legislative Changes	<u>0.00%</u>
Fiscal year ending June 30, 2014 Final ARC	8.69%
Change Due to Demographic (Gain)/Loss	(0.43%)
Change Due to Investment (Gain)/Loss	0.54%
Change Due to Contributions Greater Than ARC	<u>(0.04%)</u>
Fiscal year ending June 30, 2015 Preliminary ARC (based on December 31, 2012 valuation)	8.76%

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.

# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

## 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, 2012 upon which the valuation was based. Detailed tabulations of the data are provided in Schedule E.

<b>TABLE III</b>				
<b>THE NUMBER AND REPORTED COMPENSATION OF ACTIVE MEMBERS* INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2012</b>				
GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	REPORTED COMPENSATION
Classroom Teachers	152,763	43.08	10.32	\$ 6,179,738,666
Other Education	46,097	49.04	11.15	1,727,150,181
General Employees	110,211	46.16	10.46	4,684,217,385
Law Enforcement Officers	<u>3,441</u>	<u>40.40</u>	<u>12.92</u>	<u>183,081,050</u>
Total	312,512	45.02	10.52	\$ 12,774,187,282

\* Includes members not in receipt of benefits who have reported compensation in 2012.

<b>TABLE IV</b>				
<b>THE NUMBER AND VALUATION COMPENSATION OF DISABLED MEMBERS** INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2012</b>				
GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	VALUATION COMPENSATION
Classroom Teachers	1,501	53.99	12.62	\$ 47,643,238
Other Education	520	55.50	11.99	11,594,596
General Employees	5,413	55.47	11.52	166,005,757
Law Enforcement Officers	<u>53</u>	<u>49.92</u>	<u>13.02</u>	<u>5,614,546</u>
Total	7,487	55.14	11.78	\$ 230,858,137

\*\* Includes members not in receipt of benefits who did not have reported compensation in 2012 and who were reported as disabled in the current or prior valuations and not subsequently reported as returned to work.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

<b>TABLE V</b>				
<b>THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF TERMINATED VESTED MEMBERS*** INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2012</b>				
GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	ACCUMULATED CONTRIBUTIONS
Classroom Teachers	33,632	39.40	4.21	\$ 359,097,998
Other Education	7,596	45.39	4.45	81,909,581
General Employees	75,397	44.82	3.99	860,891,100
Law Enforcement Officers	<u>864</u>	<u>41.00</u>	<u>6.08</u>	<u>16,921,615</u>
Total	117,489	43.28	4.10	\$ 1,318,820,294

\*\*\* Includes members not in receipt of benefits who did not have reported compensation in 2012 and who were not valued as disabled members.

<b>TABLE VI</b>			
<b>THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS CURRENTLY RECEIVING BENEFITS INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2012</b>			
GROUP	NUMBER	AVERAGE AGE	ANNUAL RETIREMENT ALLOWANCES
<u>Retired Members (Healthy at Retirement)</u>			
Classroom Teachers and Other Education	82,469	69.17	\$ 2,058,898,907
General Employees	70,630	71.00	1,205,027,960
Law Enforcement Officers	<u>2,418</u>	<u>64.82</u>	<u>74,397,258</u>
Total	155,517	69.93	\$ 3,338,324,125
<u>Retired Members (Disabled at Retirement)****</u>			
Classroom Teachers and Other Education	3,937	67.61	\$ 82,906,740
General Employees	7,078	68.30	106,860,490
Law Enforcement Officers	<u>181</u>	<u>66.54</u>	<u>4,416,700</u>
Total	11,196	68.03	\$ 194,183,930
<u>Survivors of Deceased Members</u>			
Classroom Teachers and Other Education	4,112	72.89	\$ 71,099,574
General Employees	8,703	73.65	101,528,556
Law Enforcement Officers	<u>380</u>	<u>71.21</u>	<u>7,562,465</u>
Total	13,195	73.34	\$ 180,190,595
Grand Total	<u>179,908</u>	<u>70.06</u>	<u>\$ 3,712,698,650</u>

\*\*\*\* Includes retired members reported as disabled in a prior valuation and not subsequently reported as returned to work.

# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

## 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, 2012 and, for comparison purposes, as of the prior valuation date of December 31, 2011. 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.

<b>TABLE VII</b>		
<b>VALUATION BALANCE SHEET SHOWING THE ASSETS AND LIABILITIES OF THE TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM OF NORTH CAROLINA</b>		
<b>ASSETS</b>	<b>DECEMBER 31, 2012</b>	<b>DECEMBER 31, 2011</b>
Current actuarial value of assets:		
Annuity Savings Fund	\$ 11,116,379,969	\$ 10,752,336,286
Pension Accumulation Fund	<u>48,795,453,059</u>	<u>47,372,674,594</u>
Total current assets	\$ 59,911,833,028	\$ 58,125,010,880
Future member contributions to Annuity Savings Fund	\$ 6,819,493,041	\$ 6,805,113,560
Prospective contributions to Pension Accumulation Fund:		
Normal contributions	\$ 5,739,739,976	\$ 5,716,295,391
Unfunded accrued liability contributions	3,718,445,444	3,721,686,023
Undistributed gain contributions	<u>(76,897,567)</u>	<u>(381,514,173)</u>
Total prospective contributions	\$ 9,381,287,853	\$ 9,056,467,241
Total Assets	<u>\$ 76,112,613,922</u>	<u>\$ 73,986,591,681</u>
<b>LIABILITIES</b>		
Annuity Savings Fund:		
Past member contributions	\$ 11,116,379,969	\$ 10,752,336,286
Future member contributions	<u>6,819,493,041</u>	<u>6,805,113,560</u>
Total contributions to Annuity Savings Fund	\$ 17,935,873,010	\$ 17,557,449,846
Pension Accumulation Fund:		
Benefits currently in payment	\$ 33,504,462,705	\$ 31,664,133,498
Benefits to be paid to current active members	24,749,175,774	24,821,838,190
Reserve for increases in retirement allowances effective July 1, 2013 (July 1, 2012 for December 31, 2011 figure)	0	324,684,320
Reserve from undistributed gains/(losses)	<u>(76,897,567)</u>	<u>(381,514,173)</u>
Total benefits payable from Pension Accumulation Fund	\$ 58,176,740,912	\$ 56,429,141,835
Total Liabilities	<u>\$ 76,112,613,922</u>	<u>\$ 73,986,591,681</u>

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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The valuation balance sheet gives the following information with respect to the funds of the system as of December 31, 2012.

### 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, 2012, which represent the accumulated contributions of members to that date, amounted to \$11,116,379,969. The balance sheet also shows that the future contributions by members have a present value of \$6,819,493,041. The present value of both past and future contributions of members is therefore equal to \$17,935,873,010. The liabilities of this fund are also shown to be equal to \$17,935,873,010.

### 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, 2012 amounted to \$48,795,453,059. The liabilities on account of active members amounted to \$24,749,175,774. In addition, the balance sheet indicates liabilities of \$33,504,462,705 on account of all benefits payable to retired members and survivors of deceased members as of December 31, 2012. The balance sheet also shows a reserve from undistributed gains/(losses) of \$(76,897,567) and a reserve for increases in retirement allowances of \$0. The total liabilities of the Pension Accumulation Fund, therefore, amounted to \$58,176,740,912. The difference between these liabilities and the current assets credited to this fund is \$9,381,287,853 which represents the present value of future contributions to be made by the employers. Of this amount, \$5,739,739,976 represents the present value of prospective normal contributions by the employers, \$3,718,445,444 represents the present value of prospective accrued liability contributions by employers and the balance of \$(76,897,567) represents the present value of prospective contributions on account of undistributed actuarial gains/(losses).

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## 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, 2012.

<b>TABLE VIII</b>	
<b>ALLOCATION OF INVESTMENTS BY CATEGORY FOR THE ANNUITY SAVINGS FUND AND PENSION ACCUMULATION FUND AS OF DECEMBER 31, 2012</b>	
Cash and Receivables	0.3%
Fixed Income (LTIF)	35.3
Public Equity	44.5
Other*	<u>19.9</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(g) allows for the Board of Trustees of the retirement system to make changes to accounting methods and procedures that, in its opinion, are in the best interest of the retirement system. This valuation utilizes the Entry Age Normal Cost Method to allocate the costs of the retirement system. Under this method, the cost of each individual's pension is allocated on a level percent of payroll between the time employment starts (entry age) and the assumed retirement date. The goal is to spread the cost over the career of the member as a level percentage of payroll. The total normal cost is then expressed as a level percentage of compensation for all active members to arrive at a normal cost contribution rate. The valuation indicates that the normal cost contribution rate should be set at 5.15% of payroll.

The actuarial accrued liability is calculated as the present value of future projected benefits of the retirement system less the present value of future normal costs. The accrued liability contribution rate is determined based on the amortization Schedule for Unfunded Actuarial Accrued Liability, as shown

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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in Schedule B of this report, and will liquidate the unfunded accrued liability within a 12-year period from July 1, 2014. As shown in Schedule B, the accrued liability contribution rate should be set at 3.61% of payroll.

The December 31, 2011 valuation suggested that the total employer contribution rate be set at 8.69% of payroll for the fiscal year ending June 30, 2014. Subsequently, the 2013 Appropriations Act (Session Laws 2013-360) set contributions at 8.69% of payroll effective for the fiscal year ending June 30, 2014. As a result of this December 31, 2012 valuation, the preliminary total employer contribution rate should be set at 8.76% of payroll for the fiscal year ending June 30, 2015, subject to the impact of any future legislative changes effective during that fiscal year. On this basis, these contributions would provide no undistributed gains. The valuation has been prepared in accordance with the parameters of Statement Nos. 25 and 27 of the Governmental Accounting Standards Board and all applicable Actuarial Standards of Practice. The annual required contribution (ARC) under GASB for the fiscal year ending June 30, 2015 is 8.76% of payroll.

The undistributed loss of (0.07)% of payroll is the difference between the employer contribution rate set forth in the 2013 Appropriation Act of 8.69% and the Annual Required Contribution (ARC) of 8.76% under GASB 25/27 using an amortization period of 12 years as required by the Legislature. The undistributed loss as a result of this valuation will not allow the General Assembly to increase retirement benefits without increasing contributions. Additionally, the employer contribution rate must be increased to 8.76% to comply with the funding policy as required by the Legislature. At the employer contribution rate of 8.76%, no undistributed gain is available for a cost of living adjustment or other benefit improvements.

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## 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.

<b>TABLE IX RECONCILIATION OF CHANGE IN UNFUNDED ACCRUED LIABILITY SINCE THE PRIOR VALUATION (IN MILLIONS)</b>	
Unfunded accrued liability as of 12/31/11	\$3,722
Normal cost during 2012	1,506
Reduction due to actual contributions during 2012	(1,897)
Interest on unfunded accrued liability, normal cost and contributions	310
Asset (gain)/loss	533
Accrued liability (gain)/loss	(456)
Impact of legislative changes	<u>0</u>
Unfunded accrued liability as of 12/31/12	\$3,718

The valuation results indicate that there is no preliminary reserve from undistributed gains. Each 1.0% increase in retirement allowances as of July 1, 2014 to retired members and survivors of deceased members on the retirement roll on July 1, 2013 and a prorated portion of each 1.0% increase as of July 1, 2014 for retired members and survivors of deceased members who commence benefits after July 1, 2013 but before June 30, 2014 is equivalent to 0.37% 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.

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## 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:

<b>NUMBER OF ACTIVE AND RETIRED PARTICIPANTS AS OF DECEMBER 31, 2012</b>	
<b>GROUP</b>	<b>NUMBER</b>
Retired members and survivors of deceased members currently receiving benefits	179,908
Terminated members and survivors of deceased members entitled to benefits but not yet receiving benefits	117,489
Active participants*	<u>319,999</u>
Total	617,396

\* Includes current recipients of Disability Income Plan benefits.

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

<b>SCHEDULE OF FUNDING PROGRESS</b>						
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
12/31/12	59,911,833,028	63,630,278,472	3,718,445,444	94.2	12,774,187,282	29.11

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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, 2013.

Fiscal Year Ending June 30, 2013	
Preliminary Annual Required Contribution Rate	
Normal Cost	5.12%
Accrued Liability	<u>2.57</u>
Total	7.69%
Impact of Legislative Changes	<u>0.33</u>
Final Annual Required Contribution Rate	8.02%
Payroll	<u>13,125,804,281</u>
Annual Required Contribution	\$ 1,052,690,000

The appropriation for fiscal year ending June 30, 2013 is 8.33%.

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2013.

### Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending 6/30/2013

(a) Employer annual required contribution	\$ 1,052,690,000
(b) Interest on net pension obligation	14,018,000
(c) Adjustment to annual required contribution	<u>(26,457,000)</u>
(d) Annual pension cost: (a) + (b) + (c)	\$ 1,040,251,000
(e) Employer contributions made for fiscal year ending 6/30/2013	<u>1,093,379,000</u>
(f) Increase (decrease) in net pension obligation: (d) – (e)	\$ (53,128,000)
(g) Net pension obligation beginning of fiscal year	<u>193,352,000</u>
(h) Net pension obligation end of fiscal year: (f) + (g)	\$ 140,224,000

TREND INFORMATION			
Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation
June 30, 2011	\$906,060,000	73.2%	\$206,646,000
June 30, 2012	975,124,000	101.4	193,352,000
June 30, 2013	1,040,251,000	105.1	140,224,000

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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.

<b>2014/2015 FISCAL YEAR ANNUAL REQUIRED CONTRIBUTION (ARC) BASED ON THE VALUATION AS OF DECEMBER 31, 2012</b>	
<b>ANNUAL REQUIRED CONTRIBUTION (ARC)</b>	<b>RATE</b>
Normal cost	5.15%
Accrued liability	<u>3.61</u>
Total	8.76%

6. Additional information as of December 31, 2012 follows.

Valuation date	12/31/12
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

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## SCHEDULE A

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS FOR THE YEAR ENDING DECEMBER 31, 2012	
1. Actuarial Value of Assets as of December 31, 2011	\$ 58,125,010,880
2. 2012 Net Cash Flow	
a. Contributions	1,897,179,772
b. Disbursements	<u>3,725,310,777</u>
c. Net Cash Flow: (a) - (b)	(1,828,131,005)
3. Expected Investment Return: [(1) x .0725] + [(2)c x .03625]	4,147,793,540
4. Expected Actuarial Value of Assets as of December 31, 2012: (1) + (2)c + (3)	60,444,673,415
5. Market Value of Assets as of December 31, 2012	57,780,471,482
6. Excess of Market Value over Expected Actuarial Value of Assets: (5) - (4)	(2,664,201,933)
7. 20% Adjustment towards Market Value: (6) x .20	(532,840,387)
8. Preliminary Actuarial Value of Assets as of December 31, 2012: (4) + (7)	59,911,833,028
9. Final Actuarial Value of Assets as of December 31, 2012 [(8) not less than 80% of (5) and not greater than 120% of (5)]	59,911,833,028
10. Rate of investment return on actuarial value	6.32%
11. Rate of investment return on market value	11.82%

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## SCHEDULE B

<b>AMORTIZATION SCHEDULE FOR UNFUNDED ACTUARIAL ACCRUED LIABILITY</b>			
<b>DATE ESTABLISHED</b>	<b>OUTSTANDING BALANCES</b>		<b>ANNUAL PAYMENT</b>
	<b>INCEPTION</b>	<b>DECEMBER 31, 2012</b>	
December 31, 2009	\$ 2,360,173,025	\$ 2,400,937,618	\$ 322,948,963
December 31, 2010	242,581,914	262,141,824	33,193,150
December 31, 2011	911,037,989	977,088,243	124,659,832
December 31, 2012	78,277,759	<u>78,277,759</u>	<u>10,710,961</u>
Total		\$ 3,718,445,444	\$ 491,512,906
Valuation Compensation			\$ 13,597,412,201
Unfunded Accrued Liability Contribution Rate			3.61%

# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

## 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. The next experience investigation will be based on the five-year period ending December 31, 2014. The actuary will present this investigation during the fall of 2015 for adoption by the Board of Trustees with the intent of using the assumptions recommended in the December 31, 2014 experience review beginning with the December 31, 2014 annual actuarial valuations.

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:

<u>Service</u>	<b>ANNUAL RATES OF WITHDRAWAL</b>					
	General Employees and Other Education		Classroom Teachers		Law Enforcement Officers	
	<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

<u>Age</u>	<b>GENERAL EMPLOYEES AND OTHER EDUCATION</b>					
	Annual Rates of					
	Withdrawal and Vesting*		Base Mortality**		Disability	
	<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.

# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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## CLASSROOM TEACHERS

Annual Rates of

Age	Withdrawal and Vesting*		Base Mortality**		Disability	
	Male	Female	Male	Female	Male	Female
	25	.0600	.0700	.0004	.0002	.0001
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
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.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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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

# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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## 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

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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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 (Members Healthy at Retirement)

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<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 (Survivors of Deceased Members and Members Disabled at Retirement)

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<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male Retired</u>	<u>Female Retired</u>
	<u>Survivors of Deceased Members</u>	<u>Survivors of Deceased Members</u>	<u>Members Disabled at Retirement</u>	<u>Members Disabled at Retirement</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 retirees (healthy at retirement) and survivors 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

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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**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 survivors of deceased members and set forward two years for female survivors 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 set back or set forward.

**DEATH AFTER RETIREMENT (DISABLED):** According to the RP-2000 Mortality tables for retirees disabled at retirement 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. The rates from ages 71 to 79 are smoothed based on the active rate at age 70 and the retiree rate at age 80. Retiree rates are used for age 80 and beyond.

**MORTALITY PROJECTION (NON-DISABLED):** All mortality rates are projected from December 31, 2003 using generational improvement with 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 male spouses four years older than female spouses.

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

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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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: None.

# TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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## 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 (not applicable to law enforcement officers);  
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.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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### 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.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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### 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 has at least 5 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.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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- (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 receiving a benefit from the Disability Income Plan 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

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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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,

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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(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. A member who became a member of the Supplemental Retirement Income Plan prior to retirement and who remains a member of the Supplemental Retirement Income Plan may also make a one-time election to transfer eligible balances, not including any Roth after-tax contributions, from any of the following plans to the Supplemental Retirement Income Plan, subject to the applicable requirements of the Supplemental Retirement Income Plan, and then through the Supplemental Retirement Income Plan to this Retirement System:

- (1) A plan participating in the North Carolina Public School Teachers' and Professional Educators' Investment Plan.
- (2) A plan described in section 403(b) of the Internal Revenue Code.

## TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM

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- (3) A plan described in section 457(b) of the Internal Revenue Code that is maintained by a state, political subdivision of a state, or any agency or instrumentality of a state or political subdivision of a state.
- (4) An individual retirement account or annuity described in Section 408(a) or 408(b) of the Internal Revenue Code that is eligible to be rolled over and would otherwise be includible in gross income.
- (5) A tax-qualified plan described in section 401(a) or 403(a) of the Internal Revenue Code.

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

A member of the Supplemental Retirement Income Plan may make a one-time election to transfer eligible balances, not including any Roth after-tax contributions, and the earnings thereon, from any of the eligible plan as described above to the Supplemental Retirement Income Plan and then to this Retirement System.

**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, 2012**

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	
<b>Under 25</b>	3,671	4,331	60	0	0	0	0	0	0	0	8,062
	12,590	28,300	27,287	0	0	0	0	0	0	0	21,139
<b>25 to 29</b>	3,807	15,534	7,448	35	0	0	0	0	0	0	26,824
	11,730	32,264	34,651	36,391	0	0	0	0	0	0	30,018
<b>30 to 34</b>	2,247	9,461	16,376	4,964	50	0	0	0	0	0	33,098
	11,356	34,239	38,366	42,718	38,486	0	0	0	0	0	36,006
<b>35 to 39</b>	1,786	7,591	11,210	10,966	3,726	28	0	0	0	0	35,307
	10,908	35,021	39,733	45,919	48,278	36,475	0	0	0	0	40,082
<b>40 to 44</b>	1,751	8,086	11,974	9,469	10,053	3,205	68	0	0	0	44,606
	11,010	35,410	38,954	44,330	50,204	53,220	45,958	0	0	0	41,927
<b>45 to 49</b>	1,399	6,901	10,777	8,564	6,756	6,855	2,874	43	0	0	44,169
	10,614	35,300	37,630	41,587	47,122	53,956	55,141	43,453	0	0	42,308
<b>50 to 54</b>	1,107	5,840	10,168	8,639	7,073	5,385	6,442	1,288	15	0	45,957
	10,460	36,006	37,961	40,750	44,226	50,977	58,113	59,735	52,127	0	43,503
<b>55 to 59</b>	791	4,455	8,574	7,596	6,561	5,473	4,655	2,137	590	7	40,839
	10,421	38,356	39,428	41,906	44,998	50,002	56,793	65,680	65,214	56,031	45,250
<b>60 to 64</b>	356	2,526	5,630	4,706	4,023	3,492	2,404	961	713	146	24,957
	10,584	39,362	41,218	43,560	47,076	51,071	58,903	68,662	73,421	71,087	47,213
<b>65 to 69</b>	81	626	1,780	1,452	953	766	533	282	176	120	6,769
	10,642	41,341	41,990	45,923	51,635	56,978	64,767	75,826	76,108	77,743	50,177
<b>70 &amp; up</b>	35	226	459	397	272	191	121	66	56	101	1,924
	7,805	37,644	35,384	39,508	41,962	52,710	54,076	68,481	76,678	99,210	45,512
<b>Total</b>	17,031	65,577	84,456	56,788	39,467	25,395	17,097	4,777	1,550	374	312,512
	11,434	34,439	38,511	43,152	47,202	52,045	57,496	65,115	70,514	80,536	40,876

**SCHEDULE E**

**TABLE 2**

**THE NUMBER AND REPORTED COMPENSATION OF  
ACTIVE MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2012**

Age	Men		Women	
	Number	Amount	Number	Amount
16			1	\$ 8,795
17			1	24,085
18	2	\$ 48,963		
19	10	134,762	7	56,501
20	43	527,070	32	348,278
21	130	2,054,935	109	1,369,792
22	276	4,831,686	626	9,417,242
23	709	13,618,537	2,190	40,818,738
24	1,032	24,522,735	2,894	72,637,966
25	1,158	30,016,109	3,379	92,418,732
26	1,426	39,896,392	3,573	102,851,120
27	1,587	47,122,889	3,884	116,189,511
28	1,732	54,586,846	4,060	126,244,398
29	1,764	57,051,420	4,261	138,818,789
30	1,952	66,347,724	4,457	149,264,403
31	1,994	69,056,663	4,525	156,176,634
32	2,100	77,232,084	4,604	165,049,219
33	2,156	82,457,259	4,625	169,372,051
34	2,072	82,759,942	4,613	173,999,134
35	2,147	87,479,547	4,708	179,404,420
36	2,161	90,942,738	4,781	183,396,686
37	2,126	91,931,713	4,650	181,138,102
38	2,270	99,905,697	5,044	197,657,653
39	2,352	103,464,410	5,068	199,863,781
40	2,427	107,785,010	5,396	213,494,129
41	2,730	123,569,707	5,952	239,191,063
42	2,991	135,444,609	6,607	263,792,073
43	2,854	134,885,342	6,550	264,939,328
44	2,771	130,747,062	6,328	256,354,702
45	2,716	129,221,248	5,918	235,278,563
46	2,652	126,653,621	5,992	240,019,989
47	2,736	130,794,016	5,952	234,935,998
48	2,758	129,494,185	6,250	250,122,549
49	2,845	136,599,388	6,350	255,593,590
50	2,906	139,821,632	6,432	262,806,903
51	2,833	136,282,064	6,624	271,840,803
52	2,829	136,743,807	6,519	271,534,671
53	2,630	125,636,542	6,406	271,258,932
54	2,638	126,175,679	6,140	257,178,637
55	2,582	124,947,738	6,105	262,091,984
56	2,596	127,116,372	5,994	259,325,685

**SCHEDULE E**

**TABLE 2**

**THE NUMBER AND REPORTED COMPENSATION OF  
ACTIVE MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2012**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
57	2,479	\$ 121,915,761	5,602	\$ 242,779,036
58	2,435	123,028,834	5,342	232,494,117
59	2,393	119,868,226	5,311	234,410,552
60	2,191	109,754,856	4,838	214,060,469
61	2,025	103,732,575	4,042	180,518,385
62	1,815	91,596,220	3,360	152,134,136
63	1,280	67,964,317	2,432	109,192,899
64	1,104	63,175,125	1,870	86,158,180
65	944	55,703,600	1,528	69,069,074
66	769	44,929,091	1,152	54,154,582
67	408	23,692,738	560	25,046,023
68	382	20,641,909	436	18,355,613
69	273	14,988,676	317	13,063,681
70	260	13,873,039	275	10,658,743
71	168	8,926,526	158	6,016,972
72	135	7,190,055	127	4,726,975
73	126	6,871,451	93	3,799,928
74	87	4,047,450	72	2,444,767
75	56	2,533,784	57	1,870,532
76	44	2,952,362	36	1,675,865
77	36	1,482,567	31	1,211,694
78	23	1,568,500	28	805,996
79	26	1,155,703	12	349,385
80	8	336,499	11	332,635
81	16	873,585	3	123,639
82	6	513,821	5	112,062
83	7	349,120	1	44,995
84	3	90,608		
85	4	311,327	1	67,023
86			3	110,130
87			2	40,373
88	3	57,604		
100			1	39,120
Total	97,199	\$ 4,342,034,072	215,313	\$ 8,432,153,210

**SCHEDULE E**

**TABLE 3**

**THE NUMBER AND REPORTED COMPENSATION OF  
ACTIVE MEMBERS DISTRIBUTED BY SERVICE  
AS OF DECEMBER 31, 2012**

Years of Service	Men		Women	
	Number	Amount	Number	Amount
0	4,857	\$ 53,701,889	12,174	\$ 141,024,899
1	7,514	225,993,218	14,576	427,068,331
2	5,903	228,967,156	11,436	400,677,055
3	5,028	194,887,769	9,134	326,523,219
4	4,000	168,993,677	7,986	285,325,808
5	6,141	244,597,034	13,022	461,577,640
6	5,394	226,968,678	12,301	444,373,622
7	5,244	223,295,228	12,578	462,682,900
8	4,702	203,164,001	10,935	415,434,224
9	4,258	188,276,566	9,881	382,094,642
10	3,812	174,476,321	8,672	351,610,016
11	3,187	151,962,955	7,659	316,928,246
12	3,303	159,535,692	8,409	347,443,098
13	3,188	153,728,103	8,069	334,153,526
14	2,970	147,091,013	7,519	313,563,730
15	2,678	135,809,151	6,675	288,706,522
16	2,468	127,145,021	5,919	261,362,477
17	2,340	124,372,241	5,436	245,893,712
18	2,141	112,867,427	4,915	228,202,832
19	2,273	120,772,390	4,622	217,779,505
20	1,779	100,605,856	4,151	201,242,019
21	1,792	99,453,580	3,701	182,570,572
22	1,330	78,663,647	2,952	150,477,665
23	1,604	90,225,715	3,285	167,096,482
24	1,452	81,124,627	3,349	170,226,011
25	1,369	81,761,176	3,086	159,437,648
26	1,195	74,928,467	2,404	131,108,617
27	958	62,426,123	2,100	117,859,827
28	1,054	67,909,724	2,081	115,925,182
29	963	62,306,104	1,887	109,337,789
30	521	35,331,508	1,042	62,028,904
31	312	23,453,784	678	42,497,197
32	274	20,290,442	530	32,554,050
33	250	19,447,175	497	30,098,245
34	219	17,382,520	454	27,968,436
35	180	14,927,161	354	22,067,692
36	141	10,796,288	238	15,791,425
37	97	7,860,614	158	10,556,472
38	75	5,803,858	123	9,006,016
39	67	5,230,002	117	7,256,827

**SCHEDULE E**

**TABLE 3**

**THE NUMBER AND REPORTED COMPENSATION OF  
ACTIVE MEMBERS DISTRIBUTED BY SERVICE  
AS OF DECEMBER 31, 2012**

CONTINUED

Years of Service	Men		Women	
	Number	Amount	Number	Amount
40	41	\$ 3,308,306	74	\$ 5,099,337
41	33	2,727,813	41	2,940,490
42	24	2,194,230	27	1,983,957
43	19	1,820,246	24	1,666,031
44	12	1,182,940	12	1,006,557
45	17	1,693,703	10	600,605
46	5	486,322	5	353,919
47	4	779,353		
48	3	415,684	3	183,970
49	3	236,841	1	57,590
50	2	258,280	5	401,068
51			3	143,126
52	2	340,541	1	48,065
53	1	55,912	1	65,038
57			1	70,377
Total	97,199	\$ 4,342,034,072	215,313	\$ 8,432,153,210

**SCHEDULE E**

**TABLE 4**

**THE NUMBER AND VALUATION COMPENSATION OF  
DISABLED MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2012**

Age	Men		Women	
	Number	Amount	Number	Amount
25	1	\$ 26,230		
28	2	60,260	1	\$ 10,175
29	3	60,352	4	104,962
30	2	63,900	5	129,794
31	2	53,988	8	258,819
32	4	131,298	5	156,471
33	2	56,528	9	242,899
34	7	206,351	14	471,812
35	8	179,758	18	464,195
36	10	257,587	25	799,867
37	14	476,150	33	1,125,348
38	17	526,650	32	863,613
39	16	450,586	25	686,518
40	19	562,429	40	1,180,545
41	23	637,280	51	1,497,388
42	17	407,029	68	1,779,887
43	22	630,666	82	2,368,836
44	36	1,118,254	73	2,187,142
45	48	1,558,632	90	2,774,060
46	46	4,590,351	100	2,777,170
47	58	1,880,671	110	3,055,245
48	65	1,964,202	135	4,071,736
49	65	2,243,576	146	4,011,714
50	87	2,786,233	166	5,084,063
51	88	2,655,732	188	5,776,109
52	79	2,532,493	223	6,142,376
53	106	3,604,441	214	6,277,821
54	107	3,077,104	240	6,552,338
55	120	3,878,700	241	7,237,711
56	142	4,657,009	251	7,299,596
57	135	4,334,016	264	8,257,695
58	130	4,246,725	299	9,127,489
59	155	4,993,740	320	10,126,885
60	135	4,362,839	275	8,199,869
61	124	3,965,330	288	8,764,373
62	152	4,680,993	257	7,929,120
63	138	4,371,346	240	6,876,271
64	153	4,882,701	223	6,816,195
65	79	2,585,384	134	4,149,461
66	8	329,965	25	717,477

**SCHEDULE E**

**TABLE 4**

**THE NUMBER AND VALUATION COMPENSATION OF  
DISABLED MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2012**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
67	10	\$ 352,484	16	\$ 469,186
68	8	257,015	16	625,577
69	10	301,138	16	481,376
70	8	232,592	9	256,196
71	1	30,525	7	315,924
72	2	61,050	6	162,624
73	4	112,386	4	101,037
74			2	77,867
75	2	52,034	4	124,350
76			2	50,540
77	1	30,525	1	30,525
78	3	61,162		
79	2	61,050	1	30,525
81	1	30,525	2	61,050
87			1	17,825
92	1	30,525		
Total	2,478	\$ 81,700,490	5,009	\$ 149,157,647

**SCHEDULE E**

**TABLE 5**

**THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF  
TERMINATED VESTED MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2012**

Age	Men		Women	
	Number	Amount	Number	Amount
19	2	\$ 391		
20	10	5,891	4	\$ 2,051
21	14	11,273	15	10,077
22	48	46,939	47	39,363
23	108	152,713	135	153,954
24	223	322,271	396	675,204
25	331	641,026	729	1,785,078
26	498	1,266,042	1,013	2,984,930
27	642	1,938,459	1,466	5,594,943
28	786	2,620,176	2,006	8,710,499
29	780	3,038,719	2,347	11,645,183
30	948	4,129,893	2,531	13,794,431
31	991	5,126,326	2,920	17,896,314
32	959	5,211,894	2,836	19,234,323
33	1,031	5,746,853	2,941	21,467,446
34	996	6,635,599	2,876	22,255,576
35	1,031	7,481,054	2,854	23,642,971
36	1,034	8,045,424	2,775	24,236,211
37	926	7,952,015	2,603	24,442,317
38	1,020	9,608,031	2,685	26,399,298
39	1,006	10,496,247	2,479	25,231,309
40	1,086	12,234,839	2,500	26,069,497
41	1,041	11,668,123	2,477	26,151,226
42	1,176	13,971,113	2,708	30,653,628
43	1,103	14,254,729	2,661	29,121,035
44	996	13,139,855	2,390	29,082,454
45	915	13,202,676	2,234	27,759,177
46	898	14,197,723	2,046	26,170,332
47	905	13,337,579	1,958	25,936,426
48	870	14,333,737	2,037	25,743,848
49	857	15,375,149	1,986	28,064,621
50	877	15,157,119	1,946	26,572,123
51	798	14,168,912	1,873	25,954,949
52	805	13,539,147	1,939	28,224,132
53	761	14,646,480	1,732	27,299,459
54	752	15,045,418	1,783	27,699,543
55	738	13,398,024	1,757	29,839,666
56	702	13,428,442	1,682	27,022,250
57	702	13,327,370	1,639	29,168,505
58	696	13,183,375	1,616	30,682,042

**SCHEDULE E**

**TABLE 5**

**THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF  
TERMINATED VESTED MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2012**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
59	622	\$ 13,451,873	1,591	\$ 31,157,393
60	640	13,600,407	1,439	28,849,652
61	490	8,901,726	980	16,709,318
62	451	7,996,225	874	14,298,342
63	359	6,080,090	717	10,631,760
64	328	5,535,452	561	7,965,978
65	823	4,469,059	766	6,414,677
66	201	3,257,617	346	4,207,728
67	141	1,374,987	233	2,700,378
68	130	1,073,872	171	1,560,111
69	104	715,974	156	1,327,625
70	78	846,033	92	1,413,840
71	56	496,409	69	628,610
72	43	377,444	48	619,945
73	34	276,912	30	477,247
74	25	238,702	28	177,393
75	25	154,466	16	82,871
76	13	49,702	21	162,662
77	12	74,421	18	186,704
78	10	107,034	14	134,701
79	5	17,892	10	117,275
80	5	46,290	3	6,389
81	7	14,829	3	14,876
82	2	146,494	2	24,385
83	3	109,274	1	23
84	3	14,502	1	2
86	1	15,179	1	2,591
103			1	75
105	1	823	1	618
Total	34,674	\$ 411,530,734	82,815	\$ 907,289,560

**SCHEDULE E**

**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (HEALTHY AT RETIREMENT) AND  
SURVIVORS OF DECEASED MEMBERS BY AGE AS OF DECEMBER 31, 2012**

Age	Men		Women	
	Number	Amount	Number	Amount
18	1	\$ 8,103		
19	4	38,720		
20			2	\$ 36,524
21			2	17,120
22	2	7,170	3	14,796
23	2	26,139	2	27,801
24	6	51,730	1	3,356
25	4	48,192	5	85,013
26	2	26,239	3	57,099
27	3	23,792	5	37,011
28	7	108,626	5	70,123
29	4	37,005	8	82,621
30	4	75,079	11	136,981
31	9	47,175	9	140,132
32	10	155,685	12	63,162
33	3	57,216	6	94,409
34	5	46,459	9	118,688
35	7	86,496	14	127,050
36	17	263,687	14	142,559
37	8	128,330	11	181,339
38	12	105,691	10	124,884
39	8	107,387	14	110,976
40	10	125,736	14	148,892
41	17	180,177	22	202,727
42	16	191,076	22	251,507
43	12	125,220	26	308,571
44	21	232,116	34	400,939
45	20	156,775	30	330,105
46	28	325,229	30	294,004
47	27	391,928	41	491,839
48	42	933,945	41	454,262
49	64	1,444,581	47	640,331
50	108	2,813,975	113	2,040,896
51	191	4,877,646	212	4,509,239
52	284	7,619,135	355	8,741,462
53	353	10,040,604	542	13,551,605
54	451	13,241,846	774	20,951,565
55	532	16,620,035	1,104	32,149,327
56	651	19,957,576	1,502	45,044,231
57	723	22,521,987	1,835	56,382,232

**SCHEDULE E**

**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (HEALTHY AT RETIREMENT) AND  
SURVIVORS OF DECEASED MEMBERS BY AGE AS OF DECEMBER 31, 2012**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
58	890	\$ 28,504,365	2,147	\$ 66,698,334
59	1,031	32,557,381	2,591	79,983,756
60	1,261	40,390,515	3,152	95,276,134
61	1,643	48,658,716	4,033	108,329,645
62	1,846	50,092,171	4,493	110,456,996
63	2,271	54,916,756	5,172	108,132,102
64	2,531	59,636,169	5,613	112,641,278
65	2,731	63,049,047	5,904	114,769,088
66	3,254	75,381,537	6,742	128,303,687
67	2,367	53,883,216	4,827	88,374,873
68	2,371	53,811,682	4,625	84,070,159
69	2,254	51,038,659	4,741	86,636,277
70	2,348	54,900,422	4,808	86,092,934
71	1,973	45,063,525	4,016	70,998,935
72	1,838	42,049,313	3,745	64,537,895
73	1,693	38,519,274	3,451	58,428,329
74	1,682	38,597,960	3,182	53,383,159
75	1,541	34,606,251	3,137	51,586,611
76	1,422	32,889,759	2,908	47,534,325
77	1,395	32,274,333	2,799	45,247,396
78	1,282	28,926,934	2,808	45,005,260
79	1,238	28,648,091	2,363	36,124,971
80	1,113	25,422,916	2,334	36,052,626
81	1,046	23,948,694	2,268	33,670,168
82	973	23,071,786	2,131	32,712,182
83	922	21,801,382	1,936	29,038,061
84	722	16,703,157	1,861	26,913,424
85	670	15,701,696	1,660	23,836,339
86	571	12,702,691	1,501	21,620,501
87	493	11,121,752	1,375	18,922,458
88	427	8,793,426	1,220	15,904,106
89	320	6,748,919	1,026	13,159,162
90	305	6,048,490	846	11,089,101
91	202	5,278,556	820	10,220,085
92	215	4,232,187	691	8,593,777
93	116	2,175,578	531	6,687,225
94	100	1,943,657	392	4,829,740
95	74	1,207,169	297	3,691,218
96	38	674,869	228	2,898,450

**SCHEDULE E**

**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (HEALTHY AT RETIREMENT) AND  
SURVIVORS OF DECEASED MEMBERS BY AGE AS OF DECEMBER 31, 2012**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
97	34	\$ 692,663	176	\$ 2,159,442
98	17	314,675	130	1,631,697
99	10	196,923	86	1,059,567
100	9	214,950	56	712,078
101	5	107,985	27	361,668
102	5	68,902	23	317,651
103			13	162,401
104	2	22,001	14	214,580
105	1	8,205	3	31,678
Total	52,920	1,280,847,813	115,792	2,237,666,907

**SCHEDULE E**

**TABLE 7**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (HEALTHY AT RETIREMENT) AND  
SURVIVORS OF DECEASED MEMBERS BY ANNUITY TYPE AS OF DECEMBER 31, 2012**

Annuity Type	Men		Women	
	Number	Amount	Number	Amount
Maximum	17,584	\$ 406,518,078	61,155	\$ 1,148,332,279
Option 1	1,411	34,911,033	5,664	84,598,987
Option 2	8,255	195,582,410	3,729	56,346,038
Option 3	3,249	94,042,584	2,494	48,011,745
Option 4	8,719	226,280,554	21,237	509,434,857
Option 5-2	225	6,341,157	85	854,085
Option 5-3	153	5,185,970	140	2,228,882
Option 6-2	6,724	165,228,639	5,323	105,455,715
Option 6-3	3,806	114,429,072	5,544	133,897,129
Other	13	484,062	7	160,849
Survivors of Deceased Members	2,781	31,844,254	10,414	148,346,341
Total	52,920	\$ 1,280,847,813	115,792	\$ 2,237,666,907

**SCHEDULE E**

**TABLE 8**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (DISABLED AT RETIREMENT)  
BY AGE AS OF DECEMBER 31, 2012**

Age	Men		Women	
	Number	Amount	Number	Amount
48	2	\$ 30,560	1	\$ 15,657
49	2	35,820	1	14,964
50	1	14,809	2	18,400
51	10	172,896	9	158,656
52	5	102,560	17	278,774
53	8	180,133	13	224,176
54	25	565,397	38	668,730
55	40	971,030	44	975,822
56	44	993,914	64	1,418,076
57	54	1,195,754	108	2,359,746
58	75	1,642,470	141	3,254,169
59	75	1,821,973	184	4,292,955
60	114	2,653,905	286	6,681,770
61	153	3,389,556	372	8,310,327
62	141	3,259,835	427	8,924,351
63	173	3,475,523	374	7,598,431
64	183	3,747,519	413	8,492,056
65	285	5,487,352	477	8,685,648
66	336	6,119,596	599	10,137,580
67	242	3,954,298	451	7,168,353
68	204	3,351,435	441	6,903,024
69	220	3,455,011	409	5,935,692
70	205	3,450,404	410	6,437,420
71	134	2,279,229	334	4,840,946
72	153	2,155,361	265	3,498,545
73	156	2,327,774	212	2,851,357
74	85	1,054,328	226	2,823,579
75	107	1,477,320	208	2,773,558
76	61	927,628	111	1,489,418
77	54	976,695	96	1,190,688
78	60	898,578	71	1,071,942
79	36	584,253	70	969,059
80	30	595,778	63	754,562
81	29	398,301	53	725,945
82	34	506,051	52	654,271
83	23	362,208	52	669,960
84	15	241,930	55	539,788
85	15	215,840	43	461,327
86	13	169,243	58	602,362
87	21	342,648	50	572,352

**SCHEDULE E**

**TABLE 8**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (DISABLED AT RETIREMENT)  
BY AGE AS OF DECEMBER 31, 2012**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
88	21	\$ 321,500	36	\$ 205,061
89	12	232,134	36	334,913
90	17	288,233	33	338,612
91	5	103,015	23	217,112
92	7	130,876	16	205,489
93	2	32,966	19	166,831
94	4	107,825	7	89,875
95	4	70,397	6	80,898
96			8	36,773
97	1	3,382	5	114,150
98			3	29,467
99	1	1,499	6	31,924
103			1	11,647
Total	3,697	\$ 66,876,742	7,499	\$ 127,307,188

**SCHEDULE E**

**TABLE 9**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL  
RETIREMENT ALLOWANCES OF RETIRED MEMBERS (DISABLED AT RETIREMENT)  
BY ANNUITY TYPE AS OF DECEMBER 31, 2012**

Annuity Type	Men		Women	
	Number	Amount	Number	Amount
Maximum	2,030	\$ 38,735,591	5,501	\$ 95,412,158
Option 1	145	2,676,588	465	6,399,625
Option 2	491	6,329,841	321	3,797,514
Option 3	244	4,486,766	177	2,812,179
Option 4	153	3,785,424	408	8,930,567
Option 5-2	3	43,872	5	31,440
Option 5-3	3	47,344	2	18,424
Option 6-2	375	5,603,044	300	4,163,019
Option 6-3	253	5,168,272	318	5,709,484
Other	0	0	2	32,778
Total	3,697	\$ 66,876,742	7,499	\$ 127,307,188