

Report on the 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:

This report presents the results of the valuation of the Disability Income Plan of North Carolina, prepared as of December 31, 2012.

The valuation has been prepared in accordance with the parameters set forth in Statement Nos. 43 and 45 of the Governmental Accounting Standards Board.

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. 43 and 45. 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.

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

The undersigned actuaries together meet the Qualification Standards of the American Academy of Actuaries (AAA) to render the actuarial opinions contained in this report. Michael A. Ribble and Larry Langer meet the qualification standards of the AAA in the pension practice area and render the opinion related to the long-term aspects of this calculation. Melissa Bissett meets the qualification standards of the AAA in the health practice area and renders the opinion related to the short-term aspects of this calculation. 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

Melissa A. Bissett, ASA, MAAA

Senior Consultant, Health and Productivity

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## REPORT ON THE ACTUARIAL VALUATION OF THE DISABILITY INCOME PLAN OF NORTH CAROLINA PREPARED AS OF DECEMBER 31, 2012

#### **SECTION I - INTRODUCTION**

- 1. This report presents the results of the actuarial valuation of the Disability Income Plan of North Carolina, prepared as of December 31, 2012. The purpose of the valuation is to determine the present value of future payments to disabled members as of December 31, 2012, to determine the expected cost of new claims for 2013, and to provide the Annual Required Contribution under GASB Statements 43 and 45 for postemployment benefits.
- Schedule A of this report presents detailed tabulations of the active membership of the plan as of the valuation date.
- 3. Schedule B of this report presents detailed tabulations of the disabled membership of the plan as of the valuation date.
- 4. Schedule C of this report presents the development of the actuarial value of assets.
- 5. Schedule D outlines the full set of actuarial assumptions and methods employed.
- The valuation was based on provisions of the Plan as amended through December 31, 2012.
   A summary of the main Plan provisions used for valuation purposes appears in Schedule E.

#### **SECTION II - SUMMARY OF PRINCIPAL RESULTS**

For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized on the following page.

TABLE I SUMMARY OF PRINCIPAL RESULTS				
VALUATION DATE	12/31/2012	12/31/2011		
Number of active members Teachers' and State Employees' Retirement System Optional Retirement Program Total	312,512 14,082 326,594	310,627 13,663 324,290		
Reported compensation Teachers' and State Employees' Retirement System Optional Retirement Program Total	\$ 12,774,187,282	\$ 12,801,045,514		
Valuation compensation* Teachers' and State Employees' Retirement System Optional Retirement Program Total	\$ 13,597,412,201	\$ 13,527,097,648		
Number of disabled members receiving Long term disability benefits Annual reported benefits	6,884 \$ 77,153,069	6,754 \$ 80,358,339		
Assets and Liabilities				
Assets Actuarial Value Market Value	\$ 432,667,367 446,326,005	\$ 406,067,915 419,781,645		
Liability for currently disabled members	\$ 348,052,419	\$ 351,091,898		
Deficit/(Surplus)	\$ (84,614,948)	\$ (54,976,017)		
GASB 43/45 Annual required contribution (ARC) Normal cost Accrued liability Total	0.41% <u>0.00%</u> 0.41%	0.43% <u>0.00%</u> 0.43%		

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

TABLE II RECONCILIATION OF CHANGE IN ANNUAL REQUIRED CONTRIBUTION			
Fiscal year ending June 30, 2014 Preliminary ARC (based on			
12/31/11 valuation)	0.43%		
Impact of Legislative Changes	<u>0.00%</u>		
Fiscal year ending June 30, 2014 Final ARC	0.43%		
Change Due to Demographic (Gain)/Loss	(0.01%)		
Change Due to Investment (Gain)/Loss	0.00%		
Change Due to Contributions Greater Than ARC	<u>(0.01%)</u>		
Fiscal year ending June 30, 2015 Preliminary ARC (based on			
12/31/12 valuation)	0.41%		

#### SECTION III - MEMBERSHIP DATA

- 1. Data for 312,512 active members of the Teachers' and State Employees' Retirement System with reported compensation of \$12,774,187,282 and 14,082 members of the Optional Retirement Program with reported compensation of \$1,389,017,079 were furnished by the Retirement Systems Division as of December 31, 2012. The reported compensation includes annual longevity payments. The number and reported compensation of active members, distributed by age, as of December 31, 2012 are shown in Schedule A.
- The membership service requirement for short term disability benefits under the Plan is one year and the membership service requirement for long term disability benefits under the Plan is five years.
- 3. The Retirement Systems Division also supplied data for 6,884 disabled employees in receipt of annual long-term disability benefits totaling \$77,153,069 as of the valuation date. Of this number, 133 disabled employees are grandfathered under all provisions of the old Disability Salary Continuation Plan and 6,751 are receiving long-term disability benefits under the provisions of this Plan. Schedule B presents a comparison of the number and annual amount of benefits payable as of the current and previous valuation dates.

#### **SECTION IV - ASSETS**

- Asset information taken into account in this valuation is based principally on information reported by the Retirement Systems Division. The market value of assets was \$446,326,005 as of December 31, 2012.
- 2. For valuation purposes, the assets were valued at market related actuarial value. The market related actuarial value as of the valuation date was \$432,667,367. The development of this amount is shown in Schedule C.
- 3. The following table shows an allocation of investments by category as of December 31, 2012.

TABLE III		
ALLOCATION OF INVESTMENTS BY CATEGORY AS OF DECEMBER 31, 2012		
Cash and Receivables	8.0%	
Fixed Income (LTIF)	92.0	
Public Equity	0.0	
Other*	<u>0.0</u>	
Total	100.0%	

<sup>\*</sup> Real Estate, Alternatives, Inflation and Credit.

#### **SECTION V - CONDITION OF THE PLAN**

 The following table shows the assets and liabilities of the Plan as of the current valuation date of December 31, 2012. The items shown in the table, other than the actuarial value of assets, are present values actuarially determined as of the valuation date.

TABLE IV			
STATEMENT OF CONDITION OF THE PLAN AS OF DECEMBER 31, 2012			
Present value of prospective benefits payable to all disabled members on LTD as of the valuation date for:			
LTD approved claims	\$	273,169,064	
LTD incurred but not reported claims STD incurred but not reported claims		64,001,510 10,881,845	
Total claim liability	\$	348,052,419	
Actuarial value of assets		432,667,367	
Deficit/(Surplus)	\$	(84,614,948)	
Prospective present value of benefits for current active members	\$	627,731,344	
Present value of benefits not covered by actuarial value of assets	\$	543,116,396	
Present value of compensation for active members	\$13	35,303,085,300	
Level contribution as a percentage of compensation to fund present value of benefits not covered by actuarial value of assets		0.41%	

Claim liabilities are equal to the present value of future claim payments the Plan is obligated to
make to members disabled as of the valuation date. The claim liabilities are separated into three
classifications, which reflect the status of each claim as of the valuation date.



- (a) Approved claim liabilities are for long term disabilities which have occurred, have been approved, and are in long term payment status as of the valuation date.
- (b) LTD incurred but not reported liabilities are for disabilities which have occurred but are not in payment status as of the valuation date. These liabilities are estimated based on the one-year term cost for expected disablements during the year and a reserve of 14/12 of the term cost is added to account for the time after disability to receive LTD benefits.
- (c) STD incurred but not reported liabilities are for disabilities which have occurred but are not in payment status as of the valuation date. These liabilities are estimated based on the one-year term cost for expected disablements during the year and a reserve of 62/72 of the term cost is added to account for the timing of STD payments.

The method of determining claim liabilities and the assumptions used are described in Schedule D.

- 3. The total claim liability as of December 31, 2012 was \$348,052,419 of which \$273,169,064 was on account of claimants receiving benefits, and \$74,883,355 was on account of claimants assumed to be in the waiting period or receiving short-term payments. Against these liabilities the Plan had actuarial value of assets of \$432,667,367. The difference between the total claim liability and the assets represents a deficit/(surplus) as of the valuation date of \$(84,614,948). This compares with a deficit/(surplus) of \$(54,976,017) as of the previous valuation date.
- 4. Statements 43 and 45 of the Governmental Accounting Standards Board (GASB) require that an annual required contribution be calculated that will fund any deficit and the present value of prospective benefits for active members. The present value of prospective benefits for active members is \$627,731,344. After adding the deficit/(surplus) of \$(84,614,948), the present value of benefits not covered by current assets is \$543,116,396. The present value of compensation for active members is \$135,303,085,300. The normal cost is equal to the present value of benefits not covered by current assets divided by the present value of compensation for active members, or 0.41% of compensation.

#### **SECTION VI - EXPERIENCE**

- 1. Section V shows that the deficit/(surplus) under the Plan has decreased by \$29,638,931 from \$(54,976,017) to \$(84,614,948) since the previous valuation date.
- 2. The following table shows a detailed reconciliation of the change in deficit/(surplus) since the prior valuation.

TABLE V		
RECONCILIATION OF CHANGE IN DEFICIT/(SURPLUS) SINCE THE PRIOR VALUATION		
Prior Year Deficit/(Surplus)	\$(54,976,017)	
Prior Year Term Cost	65,655,004	
Actual Contributions	(74,877,001)	
Interest Adjustment	(3,426,253)	
STD Experience	1,254,695	
LTD Experience	(14,830,717)	
Asset Loss/(Gain)	(3,414,659)	
Current Deficit/(Surplus)	\$(84,614,948)	

#### **SECTION VII - ACCOUNTING INFORMATION**

Statement Nos. 43 and 45 of the Governmental Accounting Standards Board (GASB) set forth certain items of information to be disclosed in the financial statements of the Plan. One such item is a distribution of the number of employees by type of membership, as follows:

#### NUMBER OF ACTIVE AND DISABLED PARTICIPANTS AS OF DECEMBER 31, 2012

GROUP	NUMBER
Disabled members receiving long-term disability benefits	6,884
Terminated members and survivors of deceased members entitled to benefits but not yet receiving benefits	0
Active members, including those in the waiting period or on short-term disability  Total	326,594 333,478



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 )	Funde d Ratio (a/b)	Covered Payroll ( c )	UAAL as a Percentage of Covered Payroll ((b-a)/c)
12/31/07 12/31/08 12/31/09 12/31/10 12/31/11 12/31/12	\$326,674,352 350,145,153 352,627,921 377,994,992 406,067,915 432,667,367	\$474,614,167 477,574,565 492,731,413 498,505,723 511,416,654 503,192,392	\$147,939,815 127,429,412 140,103,492 120,510,731 105,348,739 70,525,025	68.8% 73.3 71.6 75.8 79.4 86.0	\$13,849,158,462 14,493,066,028 14,534,661,403 14,360,373,354 14,139,467,246 14,163,204,361	1.07% 0.88 0.96 0.84 0.75 0.50

The aggregate cost method does not identify or separately amortize unfunded liabilities. Information about the plan's funded status and funding progress have been prepared using the entry age actuarial cost method as an approximation and as required by GASB Statements 43 and 45.

 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. The preliminary annual required contribution rate is based on the December 31, 2010 valuation.

	Fiscal Year Ending June 30, 2013
Preliminary Annual Required Contribution Rate	
Normal	0.44%
Accrued Liability	0.00
Total	0.44%
Impact of Legislative Changes	0.00
Final Annual Required Contribution Rate	0.44%
Actual Payroll for Fiscal Year Ending June 30, 2013	\$ <u>14,560,253,043</u>
Annual Required Contribution	\$ 64,065,113

The appropriation for fiscal year ending June 30, 2013 is 0.44%.

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

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

(a)	Employer annual required contribution	\$ 64,065,113
(b)	Interest on net OPEB obligation*	(1,428,678)
(c)	Adjustment to annual required contribution**	 2,800,808
(d)	Annual OPEB cost: (a) + (b) + (c)	\$ 65,437,243
(e)	Employer contributions made for fiscal year ending 6/30/2013	 64,065,113
(f)	Increase (decrease) in net OPEB obligation: (d) – (e)	\$ 1,372,130
(g)	Net OPEB obligation beginning of fiscal year	 (24,846,574)
(h)	Net OPEB obligation end of fiscal year: (f) + (g)	\$ (23,474,444)

#### TREND INFORMATION

Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation
June 30, 2011	\$68,166,067	112.5%	\$(16,991,132)
June 30, 2012	68,310,415	111.5	(24,846,574)
June 30, 2013	65,437,243	97.9	(23,474,444)

<sup>\*</sup> Based on the 5.75% investment rate of return assumption used for the December 31, 2010 valuation.

5. The annual required contribution (ARC) of the employer as a percentage of payroll, determined in accordance with the parameters of GASB 43/45, is shown below.

2014/2015 FISCAL YEAR ANNUAL REQUIRED CONTRIBUTION (ARC) BASED ON THE VALUATION AS OF DECEMBER 31, 2012		
ANNUAL REQUIRED CONTRIBUTION (ARC) RATE		
Normal cost Accrued liability Total	0.41% <u>0.00%</u> 0.41%	

<sup>\*\*</sup> Based on the ratio of the present value of future salary to valuation compensation for the December 31, 2010 valuation.

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

Valuation date 12/31/12

Actuarial cost method Aggregate

Amortization method Level percent

Remaining amortization period The aggregate cost method does not

identify or separately amortize

unfunded liabilities

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\* 5.75%

Projected salary increases\*\* 4.25% - 9.10%

\* Includes inflation of
\*\* Includes inflation and productivity of
3.00%
3.50%

Cost-of-living adjustments 3.50% for gross long term disability

benefits

 Total Claim Liability
 \$ 348,052,419

 Market Related Value of Assets
 432,667,367

 Deficit/(Surplus)
 \$ (84,614,948)

#### DETAILED TABULATIONS OF THE ACTIVE MEMBER DATA

#### TABLE 1

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

AGE	Under 1	1 to 4	5 to 9		/EARS 0		25 to 29	30 to 34	35 to 30	40 & un	Total
AGE	Olidei i	1104	3 10 3	10 10 14	13 10 13	20 10 24	23 10 23	30 10 34	33 10 33	40 & up	Total
Under 25	3,696	4,353	60	0	0	0	0	0	0	0	8,109
	12,593	28,342	27,287	0	0	0	0	0	0	0	21,156
25 to 29	3,992	15,882	7,477	35	0	0	0	0	0	0	27,386
	11,995	32,522	34,704	36,391	0	0	0	0	0	0	30,130
30 to 34	2,481	10,224	16,716	4,978	50	0	0	0	0	0	34,449
30 10 34	13,236	37,036	38,780	42,767	38,486	0	0	0	0	0	3 <del>4,449</del> 36,999
	10,200	37,000	30,700	42,707	50,400	O	O	O	O .	O	30,333
35 to 39	1,966	8,598	11,995	11,083	3,734	29	0	0	0	0	37,405
	13,471	41,714	42,468	46,249	48,316	37,059	0	0	0	0	42,470
40 to 44	1,840	8,720	12,928	9,889	10,125	3,214	69	0	0	0	46,785
	12,072	39,918	42,983	46,705	50,445	53,314	46,183	0	0	0	44,312
45 / 40	4 400	7.005	44 474	0.444	0.070	0.000	0.077	40	•		10.004
45 to 49	1,463 11,707	7,235 38,363	11,471 40,995	9,114 46,370	6,973 49,034	6,888 54,279	2,877 55,205	43 43,453	0	0	46,064 44,808
	11,707	30,303	40,995	40,370	49,034	54,279	55,205	43,433	U	U	44,000
50 to 54	1,150	6,083	10,609	9,062	7,402	5,624	6,476	1,288	15	0	47,709
	11,617	39,439	40,645	44,221	47,807	54,295	58,434	59,735	52,127	0	46,125
55 to 59	832	4,616	8,855	7,896	6,870	5,827	4,843	2,175	590	7	42,511
	11,941	41,093	41,631	44,516	48,247	55,118	59,654	66,584	65,214	56,031	48,105
00.15.04	000	0.000	5 000	4 000	4.040	0.770	0.007	4 440	7.5	457	00.440
60 to 64	389 12,509	2,628 42,163	5,820 43,431	4,929 46,730	4,218 50,647	3,773 56,559	2,627 65,819	1,112 77,553	757 76,622	157 72,555	26,410
	12,509	42,103	43,431	40,730	50,647	36,339	05,619	11,555	70,022	72,555	51,281
65 to 69	89	661	1,860	1,575	1,033	914	640	400	287	146	7,605
	13,548	46,483	45,251	51,584	57,726		76,118	94,581	102,113	84,828	58,888
70 & up	36	235	473	434	300	229	154	87	91	122	2,161
	8,185	39,946	37,482	48,566	50,383	67,055	72,383	82,380	96,492	101,436	54,803
Total	17,934	69,235	88,264	58,995	40,705	26,498	17,686	5,105	1,740	432	326,594
	12,421	37,313	40,778	45,701	49,348	55,257	60,053	69,513	77,787	84,591	43,366

TABLE 2

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

		Men			Women	
Age	Number		Amount	Number		Amount
4.0	•	•	10.000			
18	2	\$	48,963	_	•	50.504
19	10		134,762	7	\$	56,501
20	43		527,070	32		348,278
21	130		2,054,935	109		1,369,792
22	277		4,847,686	630		9,474,554
23	711		13,685,355	2,199		40,981,934
24	1,040		24,716,143	2,917		73,276,276
25	1,180		30,512,112	3,430		93,722,030
26	1,457		40,786,176	3,618		104,243,862
27	1,639		48,954,882	3,955		118,506,514
28	1,779		56,202,541	4,153		129,638,047
29	1,833		60,383,122	4,342		142,199,701
30	2,029		70,936,397	4,558		153,534,472
31	2,083		74,144,021	4,666		163,468,371
32	2,202		83,837,324	4,755		173,233,402
33	2,301		92,062,357	4,801		180,160,831
34	2,232		95,290,336	4,822		187,899,375
35	2,337		103,068,816	4,915		194,282,702
36	2,358		108,987,186	5,000		200,166,149
37	2,316		109,254,296	4,875		197,827,263
38	2,480		119,684,323	5,270		214,308,090
39	2,551		122,312,497	5,303		218,709,082
40	2,639		128,215,864	5,615		231,044,910
41	2,934		143,580,578	6,136		254,155,686
42	3,217		158,034,869	6,840		282,773,816
43	3,112		161,833,334	6,775		284,764,862
44	3,017		157,471,768	6,500		271,263,396
45	2,914		149,977,414	6,110		252,059,530
46	2,855		150,330,606	6,172		255,595,923
47	2,954		154,910,873	6,112		249,795,767
48	2,970		154,325,132	6,397		262,914,623
49	3,077		164,787,470	6,505		269,378,261
50	3,121		165,836,005	6,573		276,030,597
51	3,021		159,568,156	6,786		286,884,884
52	3,014		160,725,988	6,658		284,723,394
53	2,832		153,313,664	6,554		285,109,551
54	2,866		157,312,061	6,284		271,058,820
55	2,807		154,714,417	6,247		276,090,465
56	2,781		150,418,857	6,140		273,510,323
57	2,643		142,952,889	5,764		258,228,780

TABLE 2

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

#### CONTINUED

		Men			Women			
Age	Number		Amount	Number		Amount		
58	2,610	\$	147,114,335	5,487	\$	247,576,489		
59	2,595	Ψ	147,114,333	5,437	Ψ	247,109,378		
60	2,393		134,782,764	4,974		227,578,715		
61	2,36 <i>1</i> 2,254		131,734,911	4,165		193,105,638		
62	2,23 <del>4</del> 1,993		117,855,504	3,442		160,972,003		
63	1,445		89,150,616	2,511		117,061,637		
64	•			1,965				
_	1,274		86,674,009	•		95,420,254		
65 66	1,101 917		77,347,929	1,615 1,228		78,715,099		
66 67	516		64,739,012	601		62,424,400		
68	465		39,148,791	471		29,372,314		
			32,423,439			22,653,249		
69 70	351		25,407,796	340		15,614,999		
70 71	321 225		22,459,494	287 167		11,946,964		
			16,792,432			7,072,486		
72 72	161		10,526,536	133		5,128,069		
73 74	137		8,084,353	100 74		4,502,402		
	101		5,669,589			2,661,209		
75 70	75		5,058,067	57		1,870,532		
76	57		5,005,443	36		1,675,865		
77	36		1,482,567	31		1,211,694		
78 70	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			07.000		
85	4		311,327	1		67,023		
86				3		110,130		
87				2		40,373		
88 100	3		57,604	1		39,120		
	404.004	Ф	E 004 744 700		Φ.			
Total	104,881	\$	5,204,714,793	221,713	\$	8,958,489,568		

TABLE 3

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

Years		Men			Women	
of		111011			***********	
Service	Number		Amount	Number		Amount
0	5,245	\$	67,293,691	12,689	\$	155,458,204
1	8,095		281,443,518	15,136		467,845,388
2	6,346		271,560,548	11,946		439,349,572
3	5,339		230,587,780	9,459		352,769,210
4	4,465		218,399,725	8,449		321,384,150
5	6,632		293,053,066	13,511		499,379,037
6	5,842		272,337,328	12,703		474,560,715
7	5,611		261,763,117	12,901		489,190,607
8	5,013		234,395,065	11,259		441,565,857
9	4,601		224,216,773	10,191		408,772,153
10	4,074		203,351,213	8,894		371,025,709
11	3,456		184,962,207	7,879		337,223,875
12	3,560		193,353,460	8,623		368,804,852
13	3,420		184,423,452	8,240		351,117,462
14	3,165		171,895,765	7,684		329,954,795
15	2,837		157,265,954	6,802		302,011,658
16	2,617		146,130,620	6,027		270,793,131
17	2,487		142,451,530	5,531		255,225,634
18	2,277		129,072,153	5,012		238,434,888
19	2,418		141,207,977	4,697		226,105,911
20	1,946		123,662,375	4,248		211,816,761
21	1,914		119,025,715	3,766		189,856,682
22	1,456		95,181,298	3,028		159,249,079
23	1,769		111,944,797	3,367		176,163,952
24	1,577		98,197,805	3,426		179,058,725
25	1,471		95,615,711	3,139		165,539,710
26	1,282		87,677,051	2,450		136,135,801
27	1,032		72,083,387	2,137		122,578,993
28	1,126		79,375,314	2,106		118,744,248
29	1,032		72,401,848	1,910		111,885,634
30	589		44,389,668	1,064		64,772,825
31	367		31,495,858	697		45,002,619
32	322		26,848,590	542		33,804,132
33	285		24,470,065	508		31,245,421
34	267		23,830,453	464		29,005,234
35	222		21,253,412	362		23,012,641
36	188		17,179,094	242		16,215,423
37	123		11,692,590	162		11,031,536
38	99		9,049,153	127		9,467,248
39	95			120		
39	95		8,781,835	120		7,665,601

#### TABLE 3

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

#### CONTINUED

Years		Men			Womer	1
of Service	Number		Amount	Number		Amount
40	73	\$	7,016,620	74	\$	5,099,337
41	50		4,504,603	46		3,442,783
42	25		2,318,169	28		2,037,375
43	20		1,881,773	24		1,666,031
44	13		1,299,575	13		1,095,211
45	18		1,800,159	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	104,881	\$	5,204,714,793	221,713	\$	8,958,489,568

## SCHEDULE B DETAILED TABULATIONS OF THE DISABLED MEMBER DATA

TABLE I  NUMBER AND ANNUAL AMOUNT OF LONG TERM DISABILITY BENEFITS REPORTED									
	As of Decer	nber 31, 2012	As of Decei	mber 31, 2011					
GROUP	NUMBER	ANNUAL REPORTED BENEFITS	NUMBER	ANNUAL REPORTED BENEFITS					
Disabled prior to January 1, 1988	133	\$ 252,549	149	\$ 283,708					
Disabled after January 1, 1988 Total	<u>6,751</u> 6,884	<u>76,900,520</u> \$77,153,069	<u>6,605</u> 6,754	80,074,631 \$80,358,339					

TABLE 2

## THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS OF DISABLED MEMBERS DISTRIBUTED BY AGE AS OF DECEMBER 31, 2012

#### **DISABLED PRIOR TO JANUARY 1, 1988**

		Men		W	/omen	
Age	Number		Amount	Number		Amount
52				1	\$	4,973
56				1		4,478
57				3		6,048
58				5		15,292
59	1	\$	471	3		10,488
60	1		1,078			
61	1		2,315	5		11,380
62	2		4,351	1		176
63	2		3,621	1		472
64	2		4,081	1		3,078
65	2		6,256	2		3,477
66	3		5,184	6		18,591
67	2		5,539	2		2,244
68	1		2,140	2 2 2		3,023
69	1		2,090			7,770
70	1		2,203	2 3		4,739
71	1		1,127	3		3,325
72	2		2,955	3		7,225
73				2		3,946
75	1		307	1		2,298
76				1		1,764
77	1		2,717	1		1,059
78				1		6,443
79				1		130
80	2		5,500	1		1,209
81				3		3,836
82				2		3,911
83				2		858
84	1		2,114	3		5,994
85				6		13,884
86	1		489	4		3,477
87	1		1,664	1		4,645
88				7		11,881
89				1		622
90	1		1,144	6		5,452
91				4		4,399
92	1		1,229			
93	1		121	1		1,052
94				1		1,550
95				1		2,660

#### TABLE 2

## THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS OF DISABLED MEMBERS DISTRIBUTED BY AGE AS OF DECEMBER 31, 2012

#### **DISABLED PRIOR TO JANUARY 1, 1988**

#### CONTINUED

			Women			
Age	Number		Amount	Number		Amount
96		\$		2	\$	2,587
97				1		565
98				1		49
99	1		623	3		2,180
Total	33	\$	59,319	100	\$	193,230

TABLE 3

### THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS OF DISABLED MEMBERS DISTRIBUTED BY AGE AS OF DECEMBER 31, 2012

#### **DISABLED AFTER JANUARY 1, 1988**

		Men			Women	
Age	Number		Amount	Number		Amount
00	4	Φ.	40.050	4	Φ.	40.047
28	1	\$	12,650	1	\$	16,617
29	2		13,818			
30	1		23,550	4		47.005
31	2		19,568	4		47,025
32	2		20,416	3		21,901
33	1		19,385	8		114,254
34	5		64,967	12		255,641
35	7		113,221	13		223,075
36	6		73,465	21		379,119
37	12		187,869	25		393,955
38	15		259,734	24		420,479
39	12		133,216	20		286,830
40	18		304,399	33		452,656
41	20		230,929	49		716,851
42	16		218,548	61		770,889
43	19		182,764	72		894,640
44	29		347,617	62		954,914
45	44		450,783	87		1,279,167
46	41		453,255	92		1,230,414
47	51		631,440	102		1,304,413
48	59		802,107	125		1,425,449
49	65		816,806	135		1,644,408
50	86		1,001,041	151		2,080,520
51	83		781,247	171		2,237,217
52	78		994,069	219		2,558,628
53	104		1,325,821	207		2,503,195
54	103		1,204,814	232		2,740,150
55	116		1,220,783	227		2,773,775
56	134		1,683,600	243		2,626,565
57	129		1,388,637	256		2,985,803
58	121		1,180,156	282		3,074,788
59	145		1,523,221	299		3,380,213
60	124		1,204,783	248		2,778,796
61	114		1,012,844	261		2,968,426
62	140		1,126,879	241		2,733,182
63	126		993,224	221		1,979,137
64	138		917,322	206		2,072,116
65	62		426,436	97		1,060,410
66	_			3		54,767
68	2		38,646			

#### TABLE 2

## THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS OF DISABLED MEMBERS DISTRIBUTED BY AGE AS OF DECEMBER 31, 2012

#### **DISABLED PRIOR TO JANUARY 1, 1988**

#### CONTINUED

			Women			
Age	Number		Amount	Number		Amount
69	1	\$	12,042	1	\$	14,912
71				1		10,712
72				1		10,493
76				1		7,946
Total	2,234	\$	23,416,072	4,517	\$	53,484,448

#### **SCHEDULE C**

	DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS FOR THE YEAR ENDING DECEMBER 31, 2012									
1.	Actuarial Value of Assets as of December 31, 2011	\$	406,067,915							
2.	2012 Net Cash Flow a. Contributions b. Disbursements c. Net Cash Flow: (a) - (b)		74,877,001 75,036,527 (159,526)							
3.	Expected Investment Return: [(1) x .0575] + [(2)c x .02875]		23,344,319							
4.	Expected Actuarial Value of Assets as of December 31, 2012: (1) + (2)c + (3)		429,252,708							
5.	Market Value of Assets as of December 31, 2012		446,326,005							
6.	Excess of Market Value over Expected Actuarial Value of Assets: (5) - (4)		17,073,297							
7.	20% Adjustment towards Market Value: (6) * .20		3,414,659							
8.	Preliminary Actuarial Value of Assets as of December 31, 2012 (4) + (7)	\$	432,667,367							
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)]	\$	432,667,367							
10.	Rate of investment return on actuarial value		6.59%							
11.	Rate of investment return on market value		6.36%							

#### **SCHEDULE D**

#### STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

Assumptions are based on the experience investigation of the Teachers' and State Employees' Retirement System of North Carolina 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 valuation.

INTEREST RATE: 5.75% per annum, compounded annually.

INFLATION: General inflation is 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**

•	General En	nployees and	Clas	sroom	Law Enforcement		
	Other Education		<u>Tea</u>	<u>chers</u>	Officers		
<u>Service</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

	Witho	Irawal				
<u>Age</u>	and V	esting*	Base Mortality**			
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>		
25	.0650	.0900	.0004	.0002		
30	.0650	.0800	.0005	.0003		
35	.0500	.0600	.0008	.0005		
40	.0400	.0400	.0011	.0008		
45	.0350	.0400	.0016	.0012		
50	.0350	.0400	.0023	.0018		
55	.0350	.0400	.0033	.0028		
60	.0350	.0400	.0054	.0043		
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

	Witho	Irawal								
<u>Age</u>	and Vo	esting*	Base Mortality**							
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>						
25	.0600	.0700	.0004	.0002						
30	.0550	.0600	.0004	.0003						
35	.0400	.0450	.0007	.0005						
40	.0350	.0300	.0010	.0007						
45	.0350	.0300	.0014	.0011						
50	.0350	.0300	.0020	.0017						
55	.0350	.0300	.0028	.0025						
60	.0350	.0300	.0044	.0039						
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

		, unida i tatoo oi								
•	Witho	drawal								
<u>Age</u>	and V	esting*	Base M	ortality**						
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>						
25	.0400	.0400	.0004	.0002						
30	.0350	.0350	.0004	.0003						
35	.0300	.0350	.0008	.0005						
40	.0300	.0350	.0011	.0007						
45	.0300	.0350	.0015	.0011						
50	.0300	.0350	.0021	.0017						
55	.0300	.0350	.0030	.0025						
60	.0300	.0350	.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.

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

#### **GENERAL EMPLOYEES AND OTHER EDUCATION - MALES**

_				Service			
Age	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**

				Service			
Age	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**

				Service			
<u>Age</u>	5	10	<u>15</u>	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**

				Service			
Age	5	10	<u> 15</u>	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

	Service							
<u>Age</u>	5	10	15	20	25	30_	<u>35</u>	
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 from the Teachers' and State Employees' Retirement System 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

Service	<u>Teachers</u>	General Employees	Law Enforcement Officers
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

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 ages 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.

RATES OF DISABILITY: The assumed rates of disability per 1,000 lives exposed are as follows:

	RATE OF DISABILITY PER 1,000 LIVES					
AGE	MALES	FEMALES				
20 - 24	1.18	1.50				
25 - 29	1.26	1.63				
30 - 34	1.44	2.13				
35 - 39	1.87	3.16				
40 - 44	2.66	4.02				
45 – 49	4.31	5.60				
50 – 54	7.18	7.89				
55 – 59	12.03	10.83				
60 – 64	17.07	12.80				

RATES OF TERMINATION: Monthly select rates of termination of disability were used for the first 24 months of disability. Sample rates of termination per 1,000 lives are as follows:

MALES									
Duration of Disability (in months)		Age at Disability							
	22	27	32	37	42	47	52	57	62
5	142.2	129.1	118.7	106.4	94.1	81.5	67.3	49.8	27.5
10	69.0	60.0	52.3	45.6	39.0	32.9	26.4	18.5	11.2
15	44.0	38.6	34.0	29.9	25.2	21.3	17.8	12.2	6.3
20	28.0	25.5	23.0	21.2	18.5	15.3	13.1	8.9	4.9
24	20.2	18.6	16.7	15.7	14.0	11.6	9.8	7.5	4.8

FEMALES									
Duration of Disability (in months)		Age at Disability							
	22	27	32	37	42	47	52	57	62
5	147.7	134.1	123.3	110.5	97.8	84.7	69.9	51.7	28.6
10	78.6	68.3	59.6	51.9	44.4	37.5	30.1	21.1	12.8
15	45.9	40.3	35.5	31.2	26.3	22.2	18.6	12.7	6.6
20	28.2	25.7	23.1	21.3	18.6	15.4	13.2	9.0	4.9
24	19.7	18.1	16.3	15.3	13.6	11.3	9.5	7.3	4.7

Annual select and ultimate rates of termination of disability were used after the first 24 months of disability, with select rates effective from 24 months to 10 years. Sample rates per 1,000 lives are as follows:

MALES									
Duration of Disability (in years)		Age at Disability							
	22	27	32	37	42	47	52	57	62
5 10 15 20	105.9 27.3 25.1 27.0	93.8 28.5 27.0 29.9	78.4 30.3 29.9 34.2	63.5 32.6 34.2 36.3	52.9 36.4 36.3 38.2	48.2 36.9 38.2 46.0	48.5 37.3 46.0 64.1	50.5 44.9 64.1 90.9	48.8 57.2 90.9 131.4

FEMALES									
Duration of Disability (in years)	Age at Disability								
	22	27	32	37	42	47	52	57	62
5 10	73.7 18.2	65.3 19.0	54.6 20.2	44.2 21.7	36.8 24.3	33.5 24.6	33.8 24.9	35.1 29.9	34.0 38.2
15 20	16.8 18.1	18.1 20.0	20.0 22.9	22.9 24.3	24.3 25.6	25.6 30.8	30.8 42.9	42.9 60.9	60.9 88.1

SOCIAL SECURITY ASSUMPTIONS: The assumed rate of approval for Social Security disability benefits prior to completion of four years of disability from the conclusion of the waiting period is 50%.

NATIONAL AVERAGE WAGE: National average wage growth is assumed to be 3.50% per year for purposes of calculating Social Security benefits.

FUTURE INCREASES IN SOCIAL SECURITY BENEFITS: Social Security disability benefits are assumed to increase by 3.00% per year. This impacts those disabled on or after January 1, 1988.

ACROSS-THE-BOARD SALARY INCREASES: 3.50% per year. This impacts the LTD benefits (before reductions) for those disabled on or after January 1, 1988.

OTHER OFFSETS: No additional offsets due to Worker's Compensation or Outside Earnings, other than those reported, have been assumed.

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, but does not add to the eligibility service. The assumed impact of these conversions is shown on the table below.

	Classroom		Comorol		Law		Other	
	Teachers		General		Enforcement		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

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

VALUATION COMPENSATION: Reported compensation adjusted based on the assumed annual rates of salary increase to reflect the assumed rate of pay as of the valuation date.



ADMINISTRATIVE EXPENSES: No allowance made. It is assumed that the administrative costs of the plan are provided for out of the general operating funds of the state.

VALUATION METHOD: Aggregate.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule C. 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.

INCURRED BUT NOT REPORTED CLAIMS (IBNR): IBNR claims are based on the one-year term cost for expected disablements during the year. For short-term disability, a reserve of 62/72 of the term cost is added to account for the timing of STD payments. That reserve includes an allowance for STD that has been incurred but not reported, as well as STD in pay status. For long-term disability, a reserve of 14/12 of the term cost is added to account for the waiting time after disability to receive LTD benefits.

CHANGES SINCE PRIOR VALUATION: None.

#### **SCHEDULE E**

### SUMMARY OF MAIN BENEFIT PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

The Disability Income Plan of North Carolina became effective January 1, 1988. The Plan replaced the Disability Salary Continuation Plan for Teachers and State Employees of North Carolina (DSC Plan). Those beneficiaries disabled prior to January 1, 1988 continue to be covered under the provisions of the DSC Plan as in effect December 31, 1987. Beneficiaries disabled on or after January 1, 1988 are covered under the provisions of the Disability Income Plan. The following summary describes the main membership, benefit and contribution provisions of the Plan as interpreted for the valuation.

#### 1 - MEMBERSHIP IN THE PLAN

All teachers and other employees who are in active service and are members of the Teachers and State Employees' Retirement System or the Optional Retirement Program on or after January 1, 1988 are eligible to participate in the Plan.

#### 2 - BENEFITS

Definition of Disability The mental or physical incapacity for the further

performance of duty of a beneficiary; provided that such incapacity was not the result of terrorist activity, of active participation in a riot, of the commission or attempt to commit a felony, or of the intentional self-

infliction of an injury.

Waiting Period A beneficiary shall receive no benefits from the Plan for

a period of 60 continuous calendar days from the onset of disability determined as the last actual day of service or the day succeeding at least 365 calendar days after the commencement of service as a teacher or

employee, whichever is later.

Salary Continuation Benefits During the waiting period, a beneficiary may be paid

such salary continuation as provided by an employer through the use of sick leave, vacation leave or any

other salary continuation.

A disabled beneficiary may elect to receive any such salary continuation in lieu of STD benefits provided such election shall not extend the 365 days duration of the STD period.

A disabled beneficiary may elect to receive any such salary continuation in lieu of LTD benefits provided such election shall not extend the first 36 consecutive calendar months of the LTD period.

Eligibility for Short Term Disability (STD) Benefits

Any beneficiary who becomes disabled and is no longer able to perform his usual occupation after at least 365 calendar days succeeding his date of initial employment and at least one year of contributing membership service in the Teachers' and State Employees' Retirement System (TSERS) may be eligible for STD benefits.

Commencement of STD Benefits

The STD benefit commences on the first day succeeding the waiting period.

**Duration of STD Benefits** 

These benefits are payable for 365 days following the waiting period. The first six months of benefits are payable by the employer outside of the trust. The remaining six months are paid by the employer outside of the trust but the employer is reimbursed by the trust quarterly. STD benefits may be extended up to an additional 365 days if the Medical Board determines that the beneficiary's disability is temporary and is likely to end within the extended period. During this extended period, STD benefits are paid directly from the trust.

Amount of Monthly STD Benefits

50% of 1/12th of the annual base rate of compensation last payable to the beneficiary prior to the beginning of the STD period plus 50% of 1/12th of the annual longevity payment (see below) to which the beneficiary would be eligible, to a maximum of \$3,000 per month, reduced by monthly payments for Workers' Compensation. Provided that a beneficiary has earnings in excess of the STD benefit, the STD benefit shall be reduced on a dollar-for-dollar basis by the amount that exceeds the STD benefit.

Eligibility for Long Term Disability (LTD) Benefits

Any beneficiary who has five or more years of membership service may receive LTD benefits from the Plan upon approval by the Board of Trustees provided that the disability is likely to be permanent.

Commencement of LTD Benefits

Benefits commence on the first day succeeding the conclusion of the short-term disability period provided the beneficiary makes application for such benefits within 180 days after the short-term disability period ceases or after salary continuation payments cease, whichever is later

**Duration of LTD Benefits** 

The LTD benefit is payable until the earliest date at which the beneficiary is eligible for an unreduced service retirement allowance from TSERS as described in the December 31, 2012 valuation report for TSERS.

Amount of Monthly LTD Benefits

65% of 1/12th of the annual base rate of compensation last payable to the beneficiary prior to the beginning of the STD benefit period plus 65% of 1/12th of the annual longevity payment (see below) to which the beneficiary would be eligible, to a maximum of \$3,900 per month, reduced by benefits payable from other plans including but not limited to the "Plan Offsets" (listed below).

Post Disability Benefit Adjustments

The compensation upon which the short-term or long-term disability benefit is calculated may be increased by any percentage across-the-board salary increases granted by the General Assembly. Benefits shall be reduced by future increases granted by the Social Security Administration.

Plan Offsets

- (1) Primary Social Security disability benefits. For beneficiaries not approved for Primary Social Security disability benefits, upon completion of four years from the conclusion of the waiting period, the beneficiary's benefit shall be reduced by an amount as determined by the Board of Trustees, equal to a Primary Social Security disability benefit to which the beneficiary might be entitled had the beneficiary been awarded Social Security disability benefits. For members with less than five years of service as of July 31, 2007, the LTD benefit ceases after 36 months if the member has not been approved for Social Security disability benefits.
- (2) Workers' Compensation and statutory disability plans.
- (3) Teachers' and State Employees' Retirement System, or other retirement systems supported by the State.
- (4) Other insurance plans to which the State contributes.
- (5) Wages or other income paid by public or private employers.

#### **Annual Longevity Payments**

These payments are based on service and are additional components of the STD and LTD benefit formulas.

Years of <u>Service</u>	Percentage of Base Salary
less than 10	0.00%
10 - 14	1.50%
15 - 19	2.25%
20 - 24	3.25%
25 and over	4.50%

Benefits for Participants Disabled Prior to January 1, 1988 and Receiving Payments Under Former Disability Salary Continuation Plan The LTD benefit is payable until termination of disability and pays 60% of monthly salary to a maximum of \$1,000 per month reduced by benefits payable from other plans including but not limited to the "Plan Offsets."

#### Plan Offsets include:

- Social Security benefits payable:

Prior to July 1, 1974 - Full family benefits.

July 1, 1974 and after – Primary benefits only.

- Workers' Compensation and statutory disability plans.
- Teachers' and State Employees' Retirement System, or other retirement systems supported by the State.
- Other insurance plans to which the State contributes.
- Wages or other income paid by public or private employers.

Benefits shall not be increased by future across-theboard salary increases granted by the General Assembly nor decreased by any future increases granted by the Social Security Administration.

#### 3 - CONTRIBUTIONS

All contributions are to be made by the State or Employing Units.

Changes Since Prior Valuation None.