

**REPORT ON THE ACTUARIAL VALUATION OF THE  
DISABILITY INCOME PLAN OF NORTH CAROLINA  
PREPARED AS OF DECEMBER 31, 2011**

October 3, 2012

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, 2011.

The plan sponsor selected the assumptions used for the results in this report. We believe that these assumptions are reasonable and comply with the requirements of GASB Nos. 43 and 45. We prepared this report in accordance with the requirements of these standards.

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. Ed Pudlowski 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.

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

Respectfully submitted,



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



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Principal, Consulting Actuary



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**REPORT ON THE ACTUARIAL VALUATION OF THE  
DISABILITY INCOME PLAN OF NORTH CAROLINA  
PREPARED AS OF DECEMBER 31, 2011**

**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, 2011. The purpose of the valuation is to determine the present value of future payments to disabled members as of December 31, 2011, to determine the expected cost of new claims for 2012, and to provide the Annual Required Contribution under GASB Statements 43 and 45 for postemployment benefits.
2. 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.
6. The valuation was based on provisions of the Plan as amended through December 31, 2011. 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**

<b>Valuation Data</b>	<b>12/31/2011</b>	<b>12/31/2010</b>
Number of active members		
Teachers' and State Employees'		
Retirement System	310,627	317,740
Optional Retirement Program	<u>13,663</u>	<u>13,511</u>
Total	324,290	331,251
Reported compensation		
Teachers' and State Employees'		
Retirement System	\$ 12,801,045,514	\$ 13,053,830,873
Optional Retirement Program	<u>1,338,421,732</u>	<u>1,306,542,480</u>
Total	\$ 14,139,467,246	\$ 14,360,373,353
Valuation compensation		
Teachers' and State Employees'		
Retirement System	\$ 13,527,097,648	\$ 13,831,161,230
Optional Retirement Program	<u>1,470,900,761</u>	<u>1,437,860,062</u>
Total	\$ 14,997,998,409	\$ 15,269,021,292
Number of disabled members receiving		
Long term disability benefits	6,754	6,480
Annual reported benefits	\$ 80,358,339	\$ 77,525,975
<b>Assets and Liabilities</b>		
Assets		
Actuarial Value	\$ 406,067,915	\$ 377,994,992
Market Value	419,781,645	376,808,920
Liability for currently disabled members	\$ 351,091,898	\$ 345,090,249
Deficit/(Surplus)	\$ (54,976,017)	\$ (32,904,743)
GASB 43/45		
Annual required contribution (ARC)		
Normal cost	0.43%	0.44%
Accrued liability	<u>-</u>	<u>-</u>
Total	0.43%	0.44%

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

Prior Year's Preliminary ARC (based on 12/31/10 valuation)	0.44%
Impact of Legislative Changes	<u>0.00%</u>
Prior Year's Final ARC	0.44%
Change Due to Demographic (Gain)/Loss	0.00%
Change Due to Contributions Greater than ARC	(0.01%)
Change Due to Investment (Gain)/Loss	<u>0.00%</u>
Current Year's Preliminary ARC (based on 12/31/11 valuation)	0.43%

**SECTION III - MEMBERSHIP DATA**

1. Data for 310,627 active members of the Teachers' and State Employees' Retirement System with reported compensation of \$12,801,045,514 and 13,663 members of the Optional Retirement Program with reported compensation of \$1,338,421,732 were furnished by the Retirement Systems Division as of December 31, 2011. The reported compensation includes annual longevity payments. The number and reported compensation of active members, distributed by age, as of December 31, 2011 are shown in Schedule A.
2. 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 6,754 disabled employees in receipt of annual long-term disability benefits totaling \$80,358,339 as of the valuation date. Of this number, 149 disabled employees are grandfathered under all provisions of the old Disability Salary Continuation Plan and 6,605 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**

1. 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 \$419,781,645 as of December 31, 2011.
2. For valuation purposes, the assets were valued at market related actuarial value. The market related actuarial value as of the valuation date was \$406,067,915. 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, 2011.

**TABLE III**  
**ALLOCATION OF INVESTMENTS BY CATEGORY**  
**AS OF DECEMBER 31, 2011**

Cash and Receivables	7.6%
Fixed Income (LTIF)	92.4
Public Equity	0.0
Other*	<u>0.0</u>
Total	100.0%

\* Real Estate, Alternatives, Inflation and Credit.

**SECTION V - CONDITION OF THE PLAN**

1. The following table shows the assets and liabilities of the Plan as of the current valuation date of December 31, 2011. 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, 2011**

Present value of prospective benefits payable to all disabled members on LTD as of the valuation date for:	
LTD approved claims	\$ 278,334,696
LTD incurred but not reported claims	61,934,529
STD incurred but not reported claims	10,822,673
Total claim liability	\$ 351,091,898
Actuarial value of assets	406,067,915
Deficit/(Surplus)	\$ (54,976,017)
Prospective present value of benefits for current active members	\$ 621,737,718
Present value of benefits not covered by actuarial value of assets	\$ 566,761,701
Present value of compensation for active members	\$132,433,947,500
Level contribution as a percentage of compensation to fund present value of benefits not covered by actuarial value of assets	0.43%

2. 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 number of expected disabilities for prior years.

(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 number of expected disabilities for prior years.

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

3. The total claim liability as of December 31, 2011 was \$351,091,898 of which \$278,334,696 was on account of claimants receiving benefits, and \$72,757,202 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 \$406,067,915. The difference between the total claim liability and the assets represents a deficit/(surplus) as of the valuation date of \$(54,976,017). This compares with a deficit/(surplus) of \$(32,904,743) 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 \$621,737,718. After adding the deficit/(surplus) of \$(54,976,017), the present value of benefits not covered by current assets is \$566,761,701. The present value of compensation for active members is \$132,433,947,500. 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 0.43% of compensation.

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

1. Section V shows that the deficit/(surplus) under the Plan has decreased by \$22,071,274 from \$(32,904,743) to \$(54,976,017) 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)	\$(32,904,743)
Prior Year Term Cost	63,777,944
Actual Contributions	(77,044,109)
Interest Adjustment	(2,273,425)
STD Experience	(3,187,287)
LTD Experience	84,035
Asset Loss	<u>(3,428,432)</u>
Current Deficit/(Surplus)	\$(54,976,017)

**SECTION VII - ACCOUNTING INFORMATION**

1. 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, 2011**

GROUP	NUMBER
Disabled participants receiving long-term disability benefits	6,754
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	0
Active participants, including those in the waiting period or on short-term disability	<u>324,290</u>
Total	331,044

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

**SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/06	\$302,631,878	\$459,284,494	\$156,652,616	65.9%	\$12,736,914,993	1.23%
12/31/07	326,674,352	474,614,167	147,939,815	68.8	13,849,158,462	1.07
12/31/08	350,145,153	477,574,565	127,429,412	73.3	14,493,066,028	0.88
12/31/09	352,627,921	492,731,413	140,103,492	71.6	14,534,661,403	0.96
12/31/10	377,994,992	498,505,723	120,510,731	75.8	14,360,373,354	0.84
12/31/11	406,067,915	511,416,654	105,348,739	79.4	14,139,467,246	0.75

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.

3. Following is a reconciliation of the preliminary employer annual required contribution rate to the final employer annual required contribution for fiscal year ending June 30, 2012. The preliminary annual required contribution rate is based on the December 31, 2009 valuation.

	Fiscal Year Ending June 30, 2012
Preliminary Annual Required Contribution Rate	
Normal	0.46%
Accrued Liability	0.00
Total	0.46%
Impact of Legislative Changes	0.00
Final Annual Required Contribution Rate	0.46%
Actual Payroll for Fiscal Year Ending June 30, 2012	\$ 14,647,280,243
Annual Required Contribution	\$ 67,377,489

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

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

(a)	Employer annual required contribution	\$ 67,377,489
(b)	Interest on net OPEB obligation*	(976,990)
(c)	Adjustment to annual required contribution**	<u>1,909,916</u>
(d)	Annual OPEB cost: (a) + (b) + (c)	\$ 68,310,415
(e)	Employer contributions made for fiscal year ending 6/30/2012	<u>76,165,857</u>
(f)	Increase (decrease) in net OPEB obligation: (d) – (e)	\$ (7,855,442)
(g)	Net OPEB obligation beginning of fiscal year	<u>(16,991,132)</u>
(h)	Net OPEB obligation end of fiscal year: (f) + (g)	\$ (24,846,574)

**TREND INFORMATION**

<u>Year Ending</u>	<u>Annual OPEB Cost (AOC)</u>	<u>Percentage of AOC Contributed</u>	<u>Net OPEB Obligation</u>
June 30, 2010	\$72,588,482	105.9%	\$(8,466,951)
June 30, 2011	68,166,067	112.5	(16,991,132)
June 30, 2012	68,310,415	111.5	(24,846,574)

\* Based on the 5.75% investment rate of return assumption used for the December 31, 2009 valuation.

\*\* Based on the ratio of the present value of future salary to valuation compensation for the December 31, 2009 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.

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

<b>ANNUAL REQUIRED CONTRIBUTION (ARC)</b>	<b>RATE</b>
Normal cost	0.43%
Accrued liability	<u>—</u>
Total	0.43%

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

Valuation date	12/31/11
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	3.00%
** Includes inflation and productivity of	3.50%
Cost-of-living adjustments	3.50% for gross long term disability benefits
Total Claim Liability	\$ 351,091,898
Market Related Value of Assets	<u>406,067,915</u>
Deficit/(Surplus)	\$ (54,976,017)

**SCHEDULE A****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, 2011**

AGE	YEARS OF SERVICE										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	2,899	4,026	53	0	0	0	0	0	0	0	0	6,978
	12,288	28,611	26,584	0	0	0	0	0	0	0	0	21,815
25 to 29	3,120	16,040	7,800	46	0	0	0	0	0	0	0	27,006
	11,975	32,635	34,948	31,836	0	0	0	0	0	0	0	30,915
30 to 34	1,829	10,876	16,434	4,867	23	0	0	0	0	0	0	34,029
	13,462	37,027	39,360	43,176	40,222	0	0	0	0	0	0	37,769
35 to 39	1,560	9,212	11,915	11,151	3,580	26	0	0	0	0	0	37,444
	13,862	41,391	42,102	46,000	48,597	37,998	0	0	0	0	0	42,530
40 to 44	1,509	9,553	12,757	9,929	9,597	3,091	57	0	0	0	0	46,493
	12,963	39,201	42,692	46,207	50,545	52,434	46,515	0	0	0	0	44,034
45 to 49	1,168	7,967	11,309	9,130	6,778	6,929	2,883	42	0	0	0	46,206
	11,279	38,189	40,760	45,607	49,013	53,721	55,595	48,263	0	0	0	44,616
50 to 54	958	6,684	10,389	9,224	7,077	5,830	6,361	1,451	19	0	0	47,993
	11,800	39,549	40,235	43,828	48,940	53,904	58,802	59,534	46,024	0	0	46,253
55 to 59	656	5,159	8,785	7,699	6,713	5,977	4,627	2,471	620	8	0	42,715
	12,115	40,862	41,818	45,000	47,940	54,796	60,464	65,828	67,450	59,044	0	48,382
60 to 64	267	2,995	5,776	4,755	4,040	3,801	2,508	1,215	737	145	0	26,239
	14,408	43,364	43,669	46,703	51,478	55,865	66,328	76,043	76,476	72,148	0	51,599
65 to 69	65	745	1,801	1,449	986	886	527	382	271	126	0	7,238
	9,079	43,795	45,864	50,707	58,371	66,869	75,026	93,885	103,599	90,098	0	58,155
70 & up	23	249	432	384	255	205	136	83	84	98	0	1,949
	11,746	37,212	35,666	47,660	52,454	68,193	67,814	84,594	86,865	106,256	0	53,645
Total	14,054	73,506	87,451	58,634	39,049	26,745	17,099	5,644	1,731	377	0	324,290
	12,518	37,389	40,751	45,440	49,662	54,688	60,346	68,453	77,659	86,735	0	43,601

**SCHEDULE A****TABLE 2**

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

Age	Men		Women	
	Number	Amount	Number	Amount
15			1	\$ 16,553
16			1	11,181
17	1	\$ 46,458		
18				
19	10	86,878	7	70,138
20	42	608,791	23	301,419
21	103	1,512,050	70	956,574
22	275	5,046,700	550	8,646,182
23	617	12,978,991	1,768	33,794,493
24	870	21,091,771	2,640	67,053,761
25	1,218	33,196,333	3,019	83,678,764
26	1,406	41,238,195	3,589	106,071,929
27	1,608	49,159,814	3,893	119,031,657
28	1,712	55,449,428	4,185	134,624,958
29	1,940	65,686,054	4,436	146,747,983
30	1,965	68,879,917	4,573	159,848,786
31	2,087	77,562,784	4,621	166,814,863
32	2,179	85,495,746	4,682	173,804,255
33	2,166	88,819,679	4,722	182,132,505
34	2,296	96,860,864	4,738	185,014,848
35	2,289	102,547,292	4,792	190,224,832
36	2,294	105,185,955	4,711	188,964,402
37	2,418	116,077,366	5,139	208,546,391
38	2,534	119,916,735	5,187	212,641,828
39	2,616	124,948,226	5,464	223,429,566
40	2,865	139,189,932	5,961	244,143,483
41	3,161	153,507,862	6,682	273,200,931
42	3,071	157,738,120	6,577	273,168,962
43	2,960	151,395,997	6,377	263,440,030
44	2,860	146,536,163	5,979	244,944,178
45	2,811	146,979,218	6,087	248,983,341
46	2,915	151,669,273	6,043	244,874,570
47	2,956	151,879,480	6,304	257,585,087
48	3,042	160,929,360	6,387	262,768,487
49	3,123	164,493,164	6,538	271,355,669
50	3,053	160,690,626	6,797	283,897,371
51	3,035	161,786,705	6,744	284,925,399
52	2,911	157,458,390	6,685	287,897,678
53	2,922	159,618,948	6,460	277,594,931
54	2,917	160,005,873	6,469	285,954,768

**TABLE 2**  
**THE NUMBER AND REPORTED COMPENSATION OF**  
**ACTIVE MEMBERS DISTRIBUTED BY AGE**  
**AS OF DECEMBER 31, 2011**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
55	2,859	\$ 154,626,698	6,402	\$ 285,281,815
56	2,702	146,231,126	6,002	270,087,085
57	2,645	149,915,288	5,800	262,702,315
58	2,720	152,938,664	5,694	257,429,408
59	2,540	142,424,146	5,351	245,005,876
60	2,483	144,381,906	4,900	226,882,593
61	2,270	130,766,222	4,061	188,111,860
62	1,886	109,680,921	3,359	153,594,547
63	1,493	97,425,759	2,461	117,720,708
64	1,290	86,911,424	2,036	98,432,756
65	1,174	79,192,896	1,735	85,937,637
66	677	50,662,897	851	41,443,133
67	563	39,134,800	601	29,317,793
68	423	29,922,231	460	21,568,898
69	385	27,445,279	369	16,298,329
70	278	20,034,243	218	9,408,416
71	190	12,159,782	158	5,929,483
72	163	9,709,428	133	5,823,713
73	120	6,795,042	84	3,241,283
74	84	5,579,105	68	2,303,097
75	72	5,648,108	53	2,225,125
76	43	1,714,215	37	1,536,422
77	34	2,381,969	41	1,472,919
78	36	2,020,366	19	701,023
79	18	828,462	19	556,413
80	22	1,226,712	7	263,496
81	9	740,339	8	217,228
82	10	698,403	2	61,211
83	4	257,828		
84	4	313,308	2	80,630
85	1	131,534	3	108,234
86			3	67,094
87	4	276,262		
89	1	15,676		
90			1	27,776
	104,451	\$ 5,208,466,177	219,839	\$ 8,931,001,069



**SCHEDULE A****TABLE 3**

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

Years of Service	Number	Men		Women	
		Number	Amount	Number	Amount
0	4,381		\$ 57,525,283	9,673	\$ 118,402,359
1	7,406		265,044,372	13,518	430,289,200
2	6,056		254,521,136	10,465	381,798,941
3	4,870		232,472,549	9,130	339,990,814
4	7,326		314,719,483	14,735	529,476,711
5	6,368		288,515,617	13,876	508,086,396
6	6,133		278,223,071	14,012	521,125,808
7	5,391		247,149,184	12,021	460,205,790
8	5,010		238,284,032	10,876	427,082,835
9	4,331		212,045,851	9,433	382,963,160
10	3,664		191,273,551	8,345	347,304,992
11	3,787		201,462,415	9,011	377,638,713
12	3,668		193,758,443	8,629	360,826,477
13	3,355		178,714,228	8,046	339,590,044
14	2,998		163,613,399	7,131	310,129,642
15	2,745		150,524,910	6,301	276,657,257
16	2,619		146,656,676	5,807	263,220,410
17	2,389		134,110,886	5,227	244,544,375
18	2,519		145,536,139	4,902	231,457,121
19	2,049		127,635,553	4,491	218,924,289
20	2,025		124,573,967	4,123	202,315,582
21	1,551		99,744,180	3,223	166,922,957
22	1,864		115,414,161	3,579	183,697,326
23	1,675		102,764,184	3,637	185,874,004
24	1,580		100,827,262	3,487	180,448,400
25	1,384		92,242,875	2,788	151,380,549
26	1,098		74,531,809	2,354	132,349,656
27	1,258		86,935,492	2,360	131,075,199
28	1,285		87,232,754	2,222	127,818,845
29	828		58,037,316	1,521	90,185,160
30	524		41,552,111	1,079	66,010,827
31	387		31,307,275	787	47,696,939
32	371		29,956,855	732	44,228,454
33	351		29,961,386	635	38,669,624
34	282		25,932,826	496	31,034,369
35	240		21,464,584	337	22,379,894
36	153		14,460,793	220	14,501,492
37	126		11,253,788	181	13,674,678
38	112		10,279,104	153	9,902,762
39	98		8,648,124	111	7,862,718

TABLE 3

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

CONTINUED

Years of Service	Number	Men		Women	
		Number	Amount	Number	Amount
40	62		\$ 5,693,089	60	\$ 4,313,274
41	36		3,403,823	37	2,872,712
42	28		2,504,838	28	1,991,454
43	17		1,767,372	19	1,525,491
44	23		2,848,017	14	864,410
45	8		783,988	7	458,398
46	4		773,459	1	27,070
47	4		483,560	4	285,544
48	4		398,978	3	150,112
49	3		370,050	5	394,302
50	1		97,891	3	141,563
51	2		337,838	1	47,791
52	1		55,579	1	65,061
55				1	49,188
56				1	69,930
59	1		40,071		
Total	104,451		\$ 5,208,466,177	219,839	\$ 8,931,001,069

**SCHEDULE B****DETAILED TABULATIONS OF THE DISABLED MEMBER DATA****TABLE I****NUMBER AND ANNUAL AMOUNT OF  
LONG TERM DISABILITY BENEFITS REPORTED**

GROUP	As of December 31, 2011		As of December 31, 2010	
	NUMBER	ANNUAL REPORTED BENEFITS	NUMBER	ANNUAL REPORTED BENEFITS
Disabled prior to January 1, 1988	149	\$ 283,708	160	\$ 302,090
Disabled after January 1, 1988	<u>6,605</u>	<u>80,074,631</u>	<u>6,320</u>	<u>77,223,885</u>
Total	6,754	\$ 80,358,339	6,480	\$ 77,525,975

**SCHEDULE B****TABLE 2**

**THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS  
OF DISABLED MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2011**

**DISABLED PRIOR TO JANUARY 1, 1988**

Age	Number	Men		Women	
		Number	Amount	Number	Amount
51				1	\$ 4,973
55				1	4,478
56				3	6,048
57				5	15,292
58	1	\$	471	3	10,488
59	1		1,078		
60	1		2,315	5	11,380
61	2		4,351	1	176
62	2		3,621	1	472
63	2		4,081	1	3,078
64	2		6,256	2	3,477
65	3		5,184	6	18,588
66	2		5,539	2	2,244
67	1		2,140	2	3,023
68	1		2,090	2	7,770
69	1		2,203	3	4,921
70	1		1,127	4	5,620
71	3		10,531	3	7,225
72	2		5,959	2	3,946
73	1		3,275		
74	1		307	1	2,298
75				1	1,764
76	1		2,717	2	2,114
77				1	6,443
78				1	130
79	2		5,500	1	1,209
80				2	3,342
81				3	4,406
82				2	858
83	1		2,114	4	7,579
84				6	13,884
85	1		489	4	3,477
86	1		1,664	1	4,645
87				9	14,799
88	1		1,649	1	622
89	1		1,144	6	5,452
90				5	6,137
91	1		1,229	1	319
92	1		121	1	1,052
93				1	1,550

**TABLE 2**  
**THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS**  
**OF DISABLED MEMBERS DISTRIBUTED BY AGE**  
**AS OF DECEMBER 31, 2011**

**DISABLED PRIOR TO JANUARY 1, 1988**

CONTINUED

Age	Number	Men		Women	
		Number	Amount	Number	Amount
94	1		\$ 1,259	2	\$ 3,741
95				2	2,587
96				2	835
97				1	49
98	1		623	3	2,180
Total	39		\$ 79,037	110	\$ 204,671

**SCHEDULE B****TABLE 3**

**THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS  
OF DISABLED MEMBERS DISTRIBUTED BY AGE  
AS OF DECEMBER 31, 2011**

**DISABLED AFTER JANUARY 1, 1988**

Age	Number	Men		Women	
		Number	Amount	Number	Amount
24	1		\$ 12,431		
27	1		16,616		
28				1	\$ 17,669
29	3		38,006		
30	1		19,155	3	36,622
31	1		14,735	2	40,611
32	1		19,155	6	85,953
33	3		28,279	8	174,025
34	5		69,537	10	181,843
35	2		11,275	14	228,669
36	12		163,980	20	331,874
37	13		230,099	17	285,426
38	16		250,766	18	272,735
39	14		254,464	30	488,989
40	14		142,374	42	665,475
41	16		237,426	58	771,618
42	16		153,263	64	884,096
43	26		327,539	51	862,375
44	38		404,115	70	1,095,395
45	40		497,193	74	1,051,660
46	47		707,070	77	1,025,967
47	52		688,794	106	1,310,617
48	58		801,547	123	1,604,062
49	79		1,048,852	129	1,938,058
50	79		888,874	155	2,165,818
51	70		963,485	191	2,355,200
52	93		1,199,157	167	2,092,285
53	88		1,109,151	193	2,390,124
54	108		1,376,756	207	2,659,422
55	127		1,766,365	212	2,448,694
56	107		1,167,148	238	3,051,087
57	115		1,325,719	262	3,160,237
58	133		1,540,677	270	3,168,847
59	134		1,497,468	255	3,033,968
60	137		1,545,352	270	3,130,435
61	142		1,253,199	235	2,920,493
62	125		1,124,372	230	2,388,487
63	141		1,072,379	208	2,333,057
64	139		1,243,127	219	2,489,815
65	57		450,086	106	1,103,957

**TABLE 2**  
**THE NUMBER AND ANNUAL LONG TERM DISABILITY BENEFITS**  
**OF DISABLED MEMBERS DISTRIBUTED BY AGE**  
**AS OF DECEMBER 31, 2011**

**DISABLED PRIOR TO JANUARY 1, 1988**

CONTINUED

Age	Number	Men		Women	
		Number	Amount	Number	Amount
67				2	\$ 44,353
68				1	33,962
70	1	\$	22,719	1	15,906
71	1		10,056		
74				2	18,151
77	1		12,351		
78	1		11,482		
Total	2,258	\$	25,716,594	4,347	\$ 54,358,037

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

1.	Actuarial Value of Assets as of December 31, 2010	\$ 377,994,992
2.	2011 Net Cash Flow	
	a. Contributions	77,044,109
	b. Disbursements	<u>74,215,649</u>
	c. Net Cash Flow: (a) - (b)	2,828,460
3.	Expected Investment Return: [(1) x .0575] + [(2)c x .02875]	21,816,030
4.	Expected Actuarial Value of Assets as of December 31, 2011: (1) + (2)c + (3)	402,639,482
5.	Market Value of Assets as of December 31, 2011	419,781,645
6.	Excess of Market Value over Expected Actuarial Value of Assets: (5) - (4)	17,142,163
7.	20% Adjustment towards Market Value: (6) * .20	3,428,433
8.	Preliminary Actuarial Value of Assets as of December 31, 2011 (4) + (7)	\$ 406,067,915
9.	Final Actuarial Value of Assets as of December 31, 2011 [(8) not less than 80% of (5) and not greater than 120% of (5)]	\$ 406,067,915
10.	Rate of investment return on actuarial value	6.65%
11.	Rate of investment return on market value	10.61%



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

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

INTEREST RATE: 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:

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

**GENERAL EMPLOYEES AND OTHER EDUCATION**

<u>Age</u>	<u>Annual Rates of</u>			
	<u>Withdrawal and Vesting*</u>		<u>Base Mortality**</u>	
	<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

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

Age	Withdrawal and Vesting*		Base Mortality**	
	Male	Female	Male	Female
	25	.0400	.0400	.0004
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**

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

**GENERAL EMPLOYEES AND OTHER EDUCATION - FEMALES**

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

**CLASSROOM TEACHERS - MALES**

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

**CLASSROOM TEACHERS - FEMALES**

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

**LAW ENFORCEMENT OFFICERS**

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

Note: For members hired on or after August 1, 2011, retirement rates are reduced to 0% if service is less than 10 years since they are not eligible to retire 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			
<u>Service</u>	<u>Teachers</u>	<u>General Employees</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

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

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

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

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

AGE	RATE OF DISABILITY PER 1,000 LIVES	
	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	105.9	93.8	78.4	63.5	52.9	48.2	48.5	50.5	48.8
10	27.3	28.5	30.3	32.6	36.4	36.9	37.3	44.9	57.2
15	25.1	27.0	29.9	34.2	36.3	38.2	46.0	64.1	90.9
20	27.0	29.9	34.2	36.3	38.2	46.0	64.1	90.9	131.4

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

**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: Retirement rates were updated for members hired on or after August 1, 2011 to reflect the increase in years of service for benefit eligibility in the Teachers' and State Employees' Retirement System.

## 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	<p>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.</p> <p>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.</p>



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, 2011 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).
Plan Offsets	<p>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.</p> <p><i>Workers' Compensation</i></p> <p>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.</p> <p><i>Outside Earnings</i></p> <p>During the first 36 months of disability, the net monthly LTD benefit plus outside earnings cannot be greater than 100% of the monthly compensation used to calculate the LTD benefit including any across-the-board salary increases granted by the General Assembly.</p> <p>After the first 36 months of disability, a beneficiary's earnings will not result in any reduction of the monthly long-term disability benefit until the monthly earnings equal the net monthly long-term disability benefit. The monthly long-term disability benefit will be reduced by \$1.00 for each \$3.00 of monthly earnings in excess of the net long-term disability benefit until the sum of the monthly net long-term benefit and monthly earnings reaches 100% of monthly compensation adjusted for across-the-board salary increases, at which point the monthly long-term disability benefit shall be reduced dollar-for-dollar for the amount of earnings in excess of the 100% monthly limit.</p>
Post Disability Benefit Adjustments	

## Annual Longevity Payments

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

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

## Transition Provisions

Any participant in service as of August 7, 1987 who becomes disabled after one year of membership service may be eligible for LTD benefits regardless of the requirement of five years of membership service. However, any beneficiary who receives benefits under the transition provisions shall receive lifetime benefits in lieu of service accruals under the Retirement System.

## 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-the-board 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.