

North Carolina State Health Plan

Actuarial Valuation and Review of Other
Postemployment Benefits (OPEB) as of
December 31, 2014 In accordance with GASB
Statements No. 43 and No. 45





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August 26, 2015

*Committee on Actuarial Valuation
of Retired Employees' Health Benefits (OPEB)
State of North Carolina
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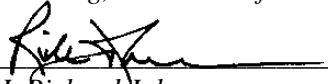
Dear Committee members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of December 31, 2014 under Governmental Accounting Standards Board Statements 43 and 45. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB obligation (NOO) as of June 30, 2015, establishes the Annual Required Contribution (ARC) for the coming year, and analyzes the preceding year's experience. This report was based on the census data provided by the Teachers' and State Employees' Retirement System (TSERS), the financial information prepared by the Department of State Treasurer, and the terms of the Plan. The actuarial calculations were completed under the supervision of K. Eric Fredén, FSA, MAAA, FCA, Vice President & Actuary.

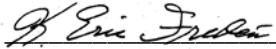
This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valuation and described in Exhibit II are reasonably related to the experience of and the expectations for the Plan. The actuarial projections are based on these assumptions and the plan of benefits as summarized in Exhibit III.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: 

J. Richard Johnson
Senior Vice President



K. Eric Fredén, FSA, MAAA, FCA
Vice President & Actuary

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IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS

An actuarial valuation is a budgeting tool with respect to defining future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may require the award of a Social Security disability pension as a condition for receiving a disability pension from the plan and subsequent health benefits. If so, changes in the Social Security law or administration may change the plan’s costs without any change in the terms of the plan itself. It is important for the Committee to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. For most plans, it is not possible or desirable to take a snapshot of the actual work force on the valuation date. In any event, the actuarial valuation is based on a future work force that is presumed to be the same as the active population included in the valuation, but in fact, employment varies from year to year, sometimes quite considerably. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds, that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. Plan sponsors often use an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan’s benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan’s assets or, if there are no assets, a rate of return on high quality fixed income investments. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results and will have no impact on the actual cost of the plan. In addition, the actuarial

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assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the State for financial reporting purposes. It includes information for compliance with accounting standards and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial snapshot is a measurement at a specific date – it is not a prediction of a plan's future financial condition.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in employment levels and variation in claims, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Committee should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Committee upon delivery and review. The Committee should notify Segal immediately of any questions or concerns about the final content.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

SECTION 1: Executive Summary for North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

PURPOSE

This report presents the results of our actuarial valuation of the State of North Carolina (the “Employer”) OPEB plan as of December 31, 2014. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants’ active working lifetimes.

HIGHLIGHTS OF THE VALUATION

- The **unfunded actuarial accrued liability (UAAL)** as of December 31, 2014 is \$26,614,525,733, an increase of \$1,085,113,560, from the prior valuation UAAL of \$25,529,412,173. Net unfunded plan obligations had been expected to increase to \$27,153,024,980, due to normal plan operations. The difference between actual and expected unfunded actuarial accrued liabilities was the net effect of several factors:
 - An **actuarial experience loss** increased the UAAL by \$472,822,980. This was the net result of gains and losses due to fund investment performance, demographic changes and actual 2014 contributions and benefit payments that were different from expected. We have taken these actuarial gains and losses into account in reviewing our assumptions for the current valuation.
 - **Valuation assumption changes** decreased the AAL by \$1,011,322,227. This was a net result of updating the valuation-year per capita health costs and future trend on such costs.

- As of December 31, 2014, the ratio of assets to the AAL (the funded ratio) is 3.43%.
- The **Net OPEB Obligation (NOO)** increased to \$15,836,661,161 for the year ending June 30, 2015. The NOO generally increases if the contributions in relation to the ARC are less than the ARC. The contributions in relation to the ARC during the year ending June 30, 2015 were \$780,254,606 compared to the ARC of \$2,223,032,389. Contributions in relation to the ARC totaled 35.10% of the ARC in the year ending June 30, 2015. Chart 6 shows the detailed derivation of the NOO as of June 30, 2015.
- The **Annual Required Contribution (ARC)** decreased to \$2,223,032,389 for the year ending June 30, 2015. The ARC was \$2,223,900,337 for the last year. As a percentage of payroll, the ARC decreased from 14.75% last year to 14.21% this year.
- The **Annual OPEB Cost (AOC)** increased to \$2,302,617,504 for the year ending June 30, 2015. The AOC was \$2,295,163,705 last year.

SECTION 1: Executive Summary for North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

The key valuation results for the current and prior years are shown.

SUMMARY OF VALUATION RESULTS

	December 31, 2014	December 31, 2013
Actuarial Accrued Liability (AAL)	\$27,559,480,734	\$26,420,167,735
Actuarial Value of Assets	944,955,001	890,755,562
Unfunded Actuarial Accrued Liability	26,614,525,733	25,529,412,173
Funded Ratio	3.43%	3.37%
Market Value of Assets	\$944,955,001	\$890,755,562
Annual Required Contribution (ARC) for Fiscal Year Ending:	June 30, 2015	June 30, 2014
Normal cost (beginning of year)	\$1,239,887,380	\$1,280,839,603
Amortization of the unfunded actuarial accrued liability	<u>983,145,009</u>	<u>943,060,734</u>
Total Annual Required Contribution	\$2,223,032,389	\$2,223,900,337
Covered payroll	\$15,642,889,820	\$15,080,626,734
ARC as a percentage of pay	14.21%	14.75%
Total Participants	570,075	571,854
Annual OPEB Cost (AOC) for Fiscal Year Ending:	June 30, 2015	June 30, 2014
Annual Required Contributions	\$2,223,032,389	\$2,223,900,337
Interest on Net OPEB Obligations	608,357,676	544,745,285
ARC Adjustments	<u>-528,772,561</u>	<u>-473,481,917</u>
Total Annual OPEB Cost	\$2,302,617,504	\$2,295,163,705
AOC as a percent of pay	14.72%	15.22%

August 26, 2015

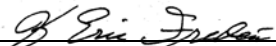
ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. has conducted an actuarial valuation of certain benefit obligations of North Carolina State Health Plan's other postemployment benefit programs as of December 31, 2014, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the Employer and reliance on participant, premium, claims and expense data provided by the Employer or from vendors employed by the Employer. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

To the best of my knowledge, this report is complete and accurate and in my opinion presents the information necessary to comply with GASB Statements 43 and 45 with respect to the benefit obligations addressed. I am a member of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and meet their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.



K. Eric Fredén, FSA, MAAA, FCA
Vice President & Actuary

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

The actuarial present value of total projected benefits uses the actuarial assumptions disclosed in Section 4 to calculate the value today of all benefits expected to be paid to current actives and retired plan members. The actuarial balance sheet shows the expected breakdown of how these benefits will be financed.

CHART 1

Actuarial Present Value of Total Projected Benefits (APB) and Actuarial Balance Sheet

	Actuarial Present Value of Total Projected Benefits (APB)	
	December 31, 2014	December 31, 2013
Participant Category		
Current retirees, beneficiaries, and dependents	\$10,447,612,154	\$9,810,405,584
Current active members	30,936,646,701	32,406,097,969
Terminated members entitled but not yet eligible	<u>2,531,522,377</u>	<u>2,425,418,463</u>
Total	\$43,915,781,232	\$44,641,922,016
	December 31, 2014	December 31, 2013
Actuarial Balance Sheet		
The actuarial balance sheet as of the valuation date is as follows:		
Assets		
1. Actuarial value of assets	\$944,955,001	\$890,755,562
2. Present value of future normal costs	16,356,300,498	18,221,754,281
3. Unfunded actuarial accrued liability	<u>26,614,525,733</u>	<u>25,529,412,173</u>
4. Present value of current and future assets	\$43,915,781,232	\$44,641,922,016
Liabilities		
5. Actuarial Present Value of total Projected Benefits	\$43,915,781,232	\$44,641,922,016

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

The actuarial accrued liability shows that portion of the APB (Chart 1) allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion covered by retiree contributions, the portion

covered by accumulated plan assets, and reconciles the unfunded actuarial liability from last year to this year.

CHART 2

Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

	December 31, 2014	December 31, 2013
Participant Category		
Current retirees, beneficiaries, and dependents	\$10,447,612,154	\$9,810,405,584
Current active members	14,580,346,203	14,184,343,688
Terminated members entitled but not yet eligible	<u>2,531,522,377</u>	<u>2,425,418,463</u>
Total	\$27,559,480,734	\$26,420,167,735
Effect of Retiree Contributions		
Actuarial accrued liability before reduction for retiree contributions	\$33,199,083,469	\$30,210,097,630
Less projected retiree contributions	<u>5,639,602,735</u>	<u>3,789,929,895</u>
Net employer actuarial accrued liability	27,559,480,734	26,420,167,735
Actuarial value of assets	<u>944,955,001</u>	<u>890,755,562</u>
Unfunded actuarial accrued liability	\$26,614,525,733	\$25,529,412,173
Development of Unfunded Actuarial Accrued Liability		
1. Unfunded actuarial accrued liability as of December 31, 2013		\$25,529,412,173
2. Employer normal cost at beginning of year		1,280,839,603
3. Total employer contributions at beginning of year		-764,184,649
4. Interest		<u>\$1,106,957,853</u>
5. Expected unfunded actuarial accrued liability		\$27,153,024,980
6. Change due to the combined effect of experience loss and updated assumptions		<u>-538,499,247</u>
7. Unfunded actuarial accrued liability as of December 31, 2014		\$26,614,525,733

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

The Annual Required Contribution (ARC) is the amount calculated to determine the annual cost of the OPEB plan for accounting purposes *as if* the plan were being funded through contributions to a trust fund. The GASB standards cannot require the contributions actually be made to a trust fund. The ARC is simply a device used to measure annual plan costs on an accrual basis. The calculation consists of adding the Normal Cost of the plan to an amortization payment. The resulting sum is assumed to be contributed in the middle of the fiscal year.

The amortization payment is based on a 30-year amortization of the Unfunded Actuarial Accrued Liability on a increasing payment basis at 3.50%.

CHART 3

Determination of Annual Required Contribution (ARC) – Payable During Fiscal Year

Cost Element	Fiscal Year Beginning July 1, 2014 and Ending June 30, 2015		Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	\$1,239,887,380	7.93%	\$1,280,839,603	8.49%
2. Amortization of the unfunded actuarial accrued liability (30 years)	<u>983,145,009</u>	6.28%	943,060,734	6.25%
3. Total Annual Required Contribution (ARC)	<u>\$2,223,032,389</u>	<u>14.21%</u>	<u>\$2,223,900,337</u>	<u>14.75%</u>
4. Total Compensation	\$15,642,889,820		\$15,080,626,734	

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

The Annual OPEB Cost (AOC) adjusts the ARC for timing differences between the ARC and contributions in relation to the ARC. The AOC is the cost of OPEB actually booked as an expense for the Fiscal Year under GASB 45.

CHART 3 (continued)
Determination of Annual OPEB Cost (AOC) – Payable During Fiscal Year

Cost Element	Fiscal Year Beginning July 1, 2014 and Ending June 30, 2015		Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Annual Required Contribution	\$2,223,032,389	14.21%	\$2,223,900,337	14.75%
2. Interest on Beginning of Year Net OPEB Obligation (NOO)	608,357,676	3.89%	544,745,285	3.61%
3. ARC adjustment	<u>-528,772,561</u>	<u>-3.38%</u>	<u>-473,481,917</u>	<u>-3.14%</u>
4. Annual OPEB Cost	<u>\$2,302,617,504</u>	<u>14.72%</u>	<u>\$2,295,163,705</u>	<u>15.22%</u>

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. For GASB 45 (employer reporting) purposes, the

schedule of employer contributions compares actual contributions to the AOC.

CHART 4

**Required Supplementary Information – Schedule of Employer Contributions
GASB 43**

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2010	\$3,018,959,000	\$677,827,218	22.45%
2011	2,910,615,707	868,263,454	29.83%
2012	2,480,159,722	852,358,729	34.37%
2013	2,021,026,309	844,452,283	41.78%
2014	2,223,900,337	798,401,569	35.90%
2015	2,223,032,389	780,254,606	35.10%

**Required Supplementary Information – Schedule of Employer Contributions
GASB 45**

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions	Percentage Contributed
2010	\$3,049,870,032	\$677,827,218	22.22%
2011	2,954,027,031	868,263,454	29.39%
2012	2,535,167,544	852,358,729	33.62%
2013	2,085,390,268	844,452,283	40.49%
2014	2,295,163,705	798,401,569	34.79%
2015	2,302,617,504	780,254,606	33.89%

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 5

Required Supplementary Information – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)
12/31/2005	139,174,878	23,925,138,742	23,785,963,864	0.58%	12,359,975,359	192.44%
12/31/2007	296,500,252	28,890,229,747	28,593,729,495	1.03%	14,810,270,168	193.07%
12/31/2008	434,768,521	28,288,439,376	27,853,670,855	1.54%	15,295,559,646	182.10%
12/31/2009	556,303,039	33,321,783,854	32,765,480,815	1.67%	15,131,145,834	216.54%
12/31/2010	655,445,062	33,494,640,678	32,839,195,616	1.96%	15,098,336,130	217.50%
12/31/2011	729,094,584	30,339,346,481	29,610,251,897	2.40%	14,851,954,027	199.37%
12/30/2012	765,827,946	23,883,106,962	23,117,279,016	3.21%	14,957,178,663	154.56%
12/30/2013	890,755,562	26,420,167,735	25,529,412,173	3.37%	15,080,626,734	169.29%
12/31/2014	944,955,001	27,559,480,734	26,614,525,733	3.43%	15,642,889,820	170.14%

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

The Net OPEB obligation measures the accumulated differences between the annual OPEB cost and the actual contributions in relation to the ARC.

CHART 6

Required Supplementary Information – Net OPEB Obligation (NOO)

Actuarial Valuation Date	Fiscal Year End	Annual Required Contribution (a)	Interest on Existing NOO (b)	ARC Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount (e)	Net Increase in NOO (d) – (e) (f)	NOO as of Fiscal Year (g)
12/31/2010	06/30/2011	\$2,910,615,707	\$331,841,094	-\$288,429,771	\$2,954,027,031	\$868,263,454	\$2,085,763,576	\$9,893,789,327
12/31/2011	06/30/2012	2,480,159,722	420,486,046	-365,478,224	2,535,167,544	852,358,729	1,682,808,815	11,576,598,142
12/30/2012	06/30/2013	2,021,026,309	492,005,421	-427,641,462	2,085,390,268	844,452,283	1,240,937,985	12,817,536,127
12/30/2013	06/30/2014	2,223,900,337	544,745,285	-473,481,917	2,295,163,705	798,401,569	1,496,762,136	14,314,298,263
12/31/2014	06/30/2015	2,223,032,389	608,357,676	-528,772,561	2,302,617,504	780,254,606	1,522,362,898	15,836,661,161

SECTION 2: Valuation Results for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Employer contribution in relation to the ARC consist of benefits paid directly to or on behalf of a retiree or beneficiary, premiums paid to an insurer, or assets irrevocably transferred to OPEB trust.

CHART 7

Net Contribution In Relation to the ARC

Transaction	06/30/2015	Source of information	06/30/2014	Source of information
Claims paid net of refunds	\$827,710,141	SAS claims database	\$840,259,194	SAS claims database
Administrative load	51,234,982	Segal FYE 2015 Q4 financial updates	43,866,132	Segal FYE 2014 Q4 financial updates
Retiree/Dependent premiums	<u>-104,097,687</u>	Enrollment & retiree contribution rates	<u>-104,030,070</u>	Enrollment & retiree contribution rates
Net benefits paid	774,847,436	Sum of above	780,095,256	Sum of above
Employer contribution to trust	833,841,961	Retiree health reserve statement 06/30/2015	813,956,238	Retiree health reserve statement 06/30/2014
Transfer to SHP from trust	-828,434,791	Retiree health reserve statement 06/30/2015	-795,649,925	Retiree health reserve statement 06/30/2014
Net contribution in relation to the ARC	780,254,606	P. 16 Exh D Col [e]	798,401,569	P. 16 Exh D Col [e]

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
Measurement Under GASB 43 and 45**

This exhibit summarizes the participant data used for the current and prior valuations.

**EXHIBIT A
Summary of Participant Data**

	December 31, 2014	December 31, 2013
Retirees		
Number of retirees	186,718	182,146
Average age of retirees	69.7	69.3
Number of spouses	12,251	12,690
Average age of spouses	67.0	68.4
Surviving Spouses		
Number	2,243	2,359
Average age	81.7	80.6
Inactive Vesteds		
Number of inactive vested	34,150	31,610
Average age of inactive vested	48.1	48.0
Average expected retirement age	63.1	63.0
Active Participants		
Number	346,964	343,049
Average age	44.9	44.8
Average years of service	10.0	9.9
Average expected retirement age	59.0	59.0

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
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EXHIBIT B

Members in Active Service as of December 31, 2014 By Age and Service

Age	Service									
	Total	0-4	5-9	10-14	15-19	20-24	25 – 29	30 – 34	35 – 39	40 & Over
Under 25	11,698	11,680	18	--	--	--	--	--	--	--
25 - 29	32,809	27,171	5,601	37	--	--	--	--	--	--
30 - 34	37,505	16,783	15,713	4,936	73	--	--	--	--	--
35 - 39	40,597	14,449	10,543	11,684	3,890	31	--	--	--	--
40 - 44	48,304	13,946	10,569	9,548	10,943	3,234	64	--	--	--
45 - 49	49,477	12,091	10,210	9,001	7,637	7,671	2,820	47	--	--
50 - 54	48,575	10,215	9,144	8,835	7,610	5,497	6,045	1,196	33	--
55 - 59	42,967	7,977	7,649	7,776	7,196	5,433	4,497	1,859	530	50
60 - 64	25,573	4,938	4,888	4,616	4,021	3,267	2,130	1,003	561	149
65 - 69	7,262	1,709	1,492	1,404	961	659	451	289	166	131
70 & over	2,197	590	415	395	268	188	118	73	50	100
Total	346,964	121,549	76,242	58,232	42,599	25,980	16,125	4,467	1,340	430

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
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EXHIBIT C

Cash Flow Projections

The ARC generally exceeds the current pay-as-you-go (“paygo”) cost of an OPEB plan. Over time the paygo cost will tend to grow and may even eventually exceed the ARC in a well funded plan. The following table projects the paygo cost as the projected net fund payment over the next ten years.

Year Ending December 31	Projected Number of Retirees*			Projected Benefit Payments			Projected Retiree Contributions	Projected Net Fund Payment**	Contribution Ratio***
	Current	Future	Total	Current	Future	Total			
2015	201,212	17,011	218,223	\$892,481,129	\$68,841,049	\$961,322,178	\$91,045,682	\$870,276,496	9.47%
2016	195,632	31,183	226,815	888,421,691	187,088,350	1,075,510,041	138,611,177	936,898,864	12.89%
2017	189,956	44,841	234,797	857,763,512	307,553,246	1,165,316,758	156,201,638	1,009,115,120	13.40%
2018	184,196	58,384	242,580	821,723,277	425,913,070	1,247,636,347	192,141,206	1,055,495,141	15.40%
2019	178,360	71,794	250,154	794,126,539	545,216,885	1,339,343,424	213,354,570	1,125,988,854	15.93%
2020	172,440	86,148	258,588	765,773,451	663,741,043	1,429,514,494	237,787,604	1,191,726,890	16.63%
2021	166,445	99,595	266,040	747,651,026	786,575,303	1,534,226,329	263,842,771	1,270,383,558	17.20%
2022	160,382	112,512	272,894	729,720,274	909,452,311	1,639,172,585	287,013,636	1,352,158,949	17.51%
2023	154,252	124,722	278,974	713,759,702	1,031,185,191	1,744,944,893	309,914,045	1,435,030,848	17.76%
2024	148,058	136,473	284,531	699,426,228	1,154,736,376	1,854,162,604	333,139,778	1,521,022,826	17.97%

* Includes spouses of retirees.

** Total projected benefit payments less projected retiree contributions.

*** Ratio of projected retiree contributions to projected benefit payments.

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
Measurement Under GASB 43 and 45**

**EXHIBIT D
ARC and NOO Projection**

The following charts project the ARC and NOO through June 30, 2025 assuming a stable active population and that State contributions to the trust fund follow the current percent of pay methodology through the 2015 fiscal year and remain at 5.3% of pay thereafter. These contributions are expected to exceed transfers to the SHP by amounts similar to recent experience.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Normal Cost (c)	Unfunded AAL (b) - (a)	30-Year Amortization (d)	Annual Required Contribution (c) + (d)
12/31/2015	\$972,713,711	\$29,134,763,811	\$1,232,981,839	\$28,162,050,100	\$1,040,310,817	\$2,273,292,656
12/31/2016	1,000,457,639	30,701,774,030	1,239,146,748	29,701,316,392	1,097,171,570	2,336,318,318
12/31/2017	1,028,075,749	32,268,074,218	1,251,538,216	31,239,998,469	1,154,010,742	2,405,548,958
12/31/2018	1,056,113,482	33,866,504,928	1,270,311,289	32,810,391,446	1,212,021,320	2,482,332,609
12/31/2019	1,084,089,328	35,480,463,753	1,295,717,515	34,396,374,425	1,270,607,795	2,566,325,310
12/31/2020	1,112,108,675	37,122,381,384	1,328,110,453	36,010,272,709	1,330,225,466	2,658,335,919
12/31/2021	1,139,910,001	38,787,539,421	1,367,953,766	37,647,629,420	1,390,709,696	2,758,663,462
12/31/2022	1,167,427,038	40,481,508,293	1,415,832,148	39,314,081,255	1,452,268,704	2,868,100,852
12/31/2023	1,194,633,530	42,212,769,451	1,472,465,434	41,018,135,921	1,515,216,767	2,987,682,201
12/31/2024	1,221,459,860	43,988,849,115	1,538,726,378	42,767,389,255	1,579,834,476	3,118,560,854
Fiscal Year End	Annual Required Contribution (a)	Interest on Existing NOO (b)	Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Projected Contribution Amount (e)	NOO as of Fiscal Year (f)
06/30/2016	\$2,273,292,656	\$673,058,099	\$(585,008,899)	\$2,361,341,856	\$909,486,753	\$17,288,516,264
06/30/2017	2,336,318,318	734,761,941	(638,640,668)	2,432,439,591	979,112,533	18,741,843,323
06/30/2018	2,405,548,958	796,528,341	(692,326,811)	2,509,750,488	1,038,624,365	20,212,969,447
06/30/2019	2,482,332,609	859,051,201	(746,670,455)	2,594,713,355	1,097,282,405	21,710,400,397
06/30/2020	2,566,325,310	922,692,017	(801,985,803)	2,687,031,524	1,165,627,194	23,231,804,727
06/30/2021	2,658,335,919	987,351,701	(858,186,733)	2,787,500,886	1,238,061,473	24,781,244,141
06/30/2022	2,758,663,462	1,053,202,876	(915,423,282)	2,896,443,056	1,318,522,721	26,359,164,476
06/30/2023	2,868,100,852	1,120,264,490	(973,711,922)	3,014,653,420	1,401,100,167	27,972,717,729
06/30/2024	2,987,682,201	1,188,840,503	(1,033,316,848)	3,143,205,856	1,485,794,791	29,630,128,794
06/30/2025	3,118,560,854	1,259,280,474	(1,094,541,888)	3,283,299,440	1,574,443,765	31,338,984,469

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
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EXHIBIT E

Financial Information

Employers may accumulate assets to pay for future OPEB. In order to be treated as plan assets, the funds must be set aside in a trust fund or equivalent arrangement that has the following characteristics:

a. Employer contributions are irrevocable

b. Plan assets are dedicated to OPEB only

c. Plan assets are legally protected from the creditors of the employer and the plan administrator.

North Carolina State Health Plan has an arrangement that meets those requirements.

Statement of Plan Net Assets

	Year Ended December 31, 2014	Year Ended December 31, 2013
Assets		
Cash equivalents	\$128,428,929	\$121,158,277
Investments	834,439,272	785,721,085
Investment income accrued	48,253	\$45,801
Contributions receivable	<u>55,139,480</u>	<u>49,722,073</u>
Total assets	\$1,018,055,934	\$956,647,236
Liabilities		
Less accounts payable:	<u>-73,100,933</u>	<u>-65,891,674</u>
Net assets held in trust for other postemployment benefits	\$944,955,001	\$890,755,562

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
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EXHIBIT F

Statement of Changes in Plan Net Assets

	Year Ended December 31, 2014	Year Ended December 31, 2013
Additions		
Employer contributions*	\$833,841,961	\$808,140,588
Interest credited	<u>49,219,451</u>	<u>86,129,281</u>
Total additions:	\$883,061,412	\$894,269,869
Deductions		
Benefit Payments	-\$828,434,791	-\$768,864,551
Expenses	<u>427,182</u>	<u>477,702</u>
Total deductions	-\$828,861,973	-\$769,342,253
Net increase	\$54,199,439	\$124,927,616
Net assets held in trust for other postemployment benefits		
Beginning of year	\$890,755,562	\$765,827,946
End of year	\$944,955,001	\$890,755,562

* Employer contributions include both implicit and explicit subsidies for the retirees' cost of OPEB. These are the contributions in relation to the ARC.

**SECTION 3: Supplemental Valuation Details for the North Carolina State Health Plan December 31, 2014
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EXHIBIT G

Detailed Actuarial Gain and Loss Analysis

If all actuarial assumptions had been exactly realized the ARC would have been expected to be \$2,283,876,867 this year. The actual ARC for this year is \$2,223,032,389, a difference of \$-60,844,478. The following chart identified the sources of this difference.

The experience loss for fiscal year 2015 can be broken down further into a \$60 million loss on new active employees, a \$46 million loss on show-up retirees, and a \$20 million loss on retiree experience, offset by a \$20 million gain on experience of actives and inactive vesteds.

Actuarial Gain and Loss

	FY2015	FY2014
Expected ARC	\$2,283,876,867	\$2,072,150,167
Experience gain or loss	106,700,067	-55,795,356
Assumption changes	<u>-167,544,545</u>	<u>207,545,526</u>
Total changes	<u>-\$60,844,478</u>	<u>\$151,750,170</u>
Actual ARC	<u>\$2,223,032,389</u>	<u>\$2,223,900,337</u>

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	December 31, 2014	
Actuarial cost method	Projected Unit Credit. Service from hire date to full eligibility was used to allocate costs. Full eligibility in this context refers to the date when an employee retires, according to the valuation assumptions.	
Amortization method	30-Year Amortization Open	
Remaining amortization period	30 years as of December 31, 2014	
Asset valuation method	Market Value	
Actuarial assumptions:		
Investment rate of return	4.25%	
Inflation rate	3.50%	
Projected salary increases	Vary by group and years of service	
Medical cost trend rate	7.00% graded to 5.00% over 8 years	
Drug cost trend rate	9.50% graded to 5.00% over 9 years	
Plan membership:	December 31, 2014	December 31, 2013
Current retirees, beneficiaries, and dependents	201,212	197,195
Current active participants	346,964	343,049
Terminated participants entitled but not yet eligible	<u>34,150</u>	<u>31,610</u>
Total	582,326	571,854

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data, premium data and/or claim experience, and summary plan descriptions for OPEB were provided by the State.
Actuarial Cost Method:	Projected Unit Credit. Service from hire date to full eligibility was used to allocate costs. Full eligibility in this context refers to the date when an employee retires, according to the valuation assumptions.
Asset Valuation Method:	Market Value
Measurement Date:	December 31, 2014
Discount Rate:	4.25%- The discount rate is a long-term estimate of short-term rates of return that the State's treasury will earn on working capital. The State's financial staff provided input into the selection of this rate. This rate is consistent with the assumed 3.5% inflation assumption.
Mortality Rates:	<p>RP-2000 Non-Annuitant and Annuitant Mortality Tables, with the following adjustments:</p> <p>Male teachers (healthy): one-year set back Female teachers (healthy): no adjustment Male general employees (healthy): one-year set forward Female general employees (healthy): one-year set forward Male law-enforcement officer (healthy): no adjustment Female law-enforcement officer (healthy): no adjustment Male beneficiaries: one-year set forward Female beneficiaries: two-year set forward Male retirees (disabled): six-year set back Female retirees (disabled): one-year set forward</p> <p>All mortality rates for employees and healthy annuitants are projected from December 31, 2003 using Scale AA. No mortality improvements are projected for disabled retirees.</p>

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Termination before retirement:

General Employees:

Age	Rate					
	Mortality		Disability		Turnover*	
	Male	Female	Male	Female	Male	Female
25	0.0004	0.0002	0.0002	0.0002	0.0650	0.0900
30	0.0005	0.0003	0.0004	0.0004	0.0650	0.0800
35	0.0008	0.0005	0.0010	0.0010	0.0500	0.0600
40	0.0011	0.0008	0.0030	0.0018	0.0400	0.0400
45	0.0016	0.0012	0.0050	0.0032	0.0350	0.0400
50	0.0023	0.0018	0.0084	0.0050	0.0350	0.0400
55	0.0033	0.0028	0.0144	0.0088	0.0350	0.0400
60	0.0054	0.0043	0.0240	0.0138	0.0000	0.0000
65	0.0081	0.0062	0.0000	0.0000	0.0000	0.0000
69	0.0099	0.0076	0.0000	0.0000	0.0000	0.0000

Teachers:

Age	Rate					
	Mortality		Disability		Turnover*	
	Male	Female	Male	Female	Male	Female
25	0.0004	0.0002	0.0001	0.0002	0.0600	0.0700
30	0.0004	0.0003	0.0001	0.0003	0.0550	0.0600
35	0.0007	0.0005	0.0003	0.0006	0.0400	0.0450
40	0.0010	0.0007	0.0007	0.0010	0.0350	0.0300
45	0.0014	0.0011	0.0014	0.0018	0.0350	0.0300
50	0.0020	0.0017	0.0023	0.0032	0.0350	0.0300
55	0.0028	0.0025	0.0047	0.0055	0.0350	0.0300
60	0.0044	0.0039	0.0077	0.0102	0.0000	0.0000
65	0.0070	0.0058	0.0000	0.0000	0.0000	0.0000
69	0.0091	0.0073	0.0000	0.0000	0.0000	0.0000

* Higher rates are used during the first five years of service.

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Law Enforcement Officers:

	Rate			
	Mortality		Disability	Turnover*
	Male	Female		
25	0.0004	0.0002	0.0033	0.0400
30	0.0004	0.0003	0.0043	0.0350
35	0.0008	0.0005	0.0060	0.0300
40	0.0011	0.0007	0.0079	0.0300
45	0.0015	0.0011	0.0110	0.0300
50	0.0021	0.0017	0.0176	0.0300
55	0.0030	0.0025	0.0307	0.0300
60	0.0049	0.0039	0.0601	0.0000
65	0.0076	0.0058	0.0000	0.0000
69	0.0095	0.0073	0.0000	0.0000

** Higher rates are used during the first five years of service.*

Actives' Retirement Rates:

Age	General Employees		Teachers		Law Enforcement Officers
	Rate		Rate		Rate
	Male	Female	Male	Female	Male Female
50	0.3500	0.3500	0.3000	0.3000	0.5000
55	0.2000	0.2250	0.3000	0.2750	0.5000
60	0.2250	0.2500	0.3000	0.2750	0.5000
65	0.3500	0.3500	0.3500	0.5000	0.4000
70	0.2750	0.2500	0.2500	0.2750	0.3000
75	1.0000	1.0000	1.0000	1.0000	1.0000

**Special rates are used for early service retirement.*

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

- Inactive Vested Retirement Rates:** Age 55 with 20 or more years of service; age 63 with 5 or more years of service, but less than 20 years of service.
Actives and terminated vested who do not have plan code are assumed to be enrolled in plans based on enrollment assumptions.
Missing date of birth or invalid date of birth are assumed an average value of the group. Invalid gender codes are replaced with the default of male.
- Missing Participant Data:** Any other missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.
- Participation and Coverage Election:** 100% of employees eligible to retire and receive subsidized postretirement welfare coverage were assumed to elect medical and prescription drug coverage. All participants are assumed to be enrolled in plans based on enrollment assumptions.
- Dependents:** Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be four years older than their wives. 10% of future retirees who elect to continue their health coverage at retirement were assumed to have an eligible spouse who also opts for health coverage at that time.
-

Per Capita Cost Development:

*Medical and Prescription
Drug*

Per capita claims costs were based on actual paid claim experience for the periods January 1, 2014 through December 31, 2014. Claims were separated by Medicare and Non-Medicare participants, then adjusted as follows:

- paid claims were multiplied by a factor to yield an estimate of incurred claims,
- total claims were divided by the number of adult members to yield a per capita claim,
- the per capita claim was trended to the midpoint of the valuation year at assumed trend rates, and the per capita claim was adjusted for the effect of any plan changes

Actuarial factors were then applied to the per capita claims to estimate individual retiree and spouse costs by age and by gender.

Medicare Advantage plans were valued by actuarially adjusting the insured premium rates by age and gender.

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Administrative Expenses

Administrative expenses were based on a projection furnished by Segal for the period January 1, 2015 through December 31, 2015.

Per Capita Health Costs:

2015 medical and prescription drug claims costs, excluding assumed expenses, are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Non-Medicare

Age	Medical Basic				Medical and Rx CDHP			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
40	\$3,301	\$4,246	\$2,053	\$3,411	\$4,417	\$5,680	\$2,746	\$4,563
45	3,926	4,925	2,435	3,676	5,252	6,589	3,258	4,918
50	4,659	5,307	3,255	4,261	6,234	7,101	4,354	5,701
55	5,533	5,713	4,355	4,933	7,403	7,644	5,827	6,599
60	6,572	6,158	5,830	5,721	8,792	8,239	7,800	7,654
65	7,805	6,634	7,805	6,634	10,442	8,876	10,442	8,876
70	9,046	7,149	9,046	7,149	12,102	9,565	12,102	9,565
75	9,748	7,695	9,748	7,695	13,042	10,296	13,042	10,296
80	10,497	8,296	10,497	8,296	14,044	11,100	14,044	11,100

Age	Medical Enhanced				Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
40	\$4,109	\$5,285	\$2,555	\$4,245	\$987	\$1,269	\$613	\$1,019
45	4,887	6,130	3,031	4,576	1,173	1,472	728	1,099
50	5,800	6,606	4,051	5,304	1,393	1,586	973	1,274
55	6,888	7,111	5,421	6,140	1,654	1,707	1,302	1,474
60	8,180	7,665	7,257	7,121	1,964	1,840	1,742	1,710
65	9,715	8,258	9,715	8,258	2,333	1,983	2,333	1,983
70	11,260	8,899	11,260	8,899	2,703	2,137	2,703	2,137
75	12,134	9,579	12,134	9,579	2,913	2,300	2,913	2,300
80	13,067	10,327	13,067	10,327	3,137	2,479	3,137	2,479

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Medicare – Non Medicare Advantage

Age	Medical Basic				Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
40	\$363	\$466	\$226	\$375	\$987	\$1,269	\$613	\$1,019
45	431	541	268	404	1,173	1,472	728	1,099
50	512	583	358	468	1,393	1,586	973	1,274
55	608	628	479	542	1,654	1,707	1,302	1,474
60	722	677	641	629	1,964	1,840	1,742	1,710
65	858	729	858	729	2,333	1,983	2,333	1,983
70	994	785	994	785	2,703	2,137	2,703	2,137
75	1,071	846	1,071	846	2,913	2,300	2,913	2,300
80	1,153	912	1,153	912	3,137	2,479	3,137	2,479

Medicare – Medicare Advantage

Age	Medicare Advantage (Base)			
	Retiree		Spouse	
	Male	Female	Male	Female
40	\$597	\$767	\$371	\$616
45	709	890	440	664
50	842	959	588	770
55	1,000	1,032	787	891
60	1,188	1,113	1,054	1,034
65	1,410	1,199	1,410	1,199
70	1,635	1,292	1,635	1,292
75	1,762	1,391	1,762	1,391
80	1,897	1,499	1,897	1,499

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year’s cost to yield the next year’s projected cost.

Year Ending December 31,	Rate (%)			
	Medical Non-Medicare	Medical Medicare	Prescription Drug	Admin.
2015	7.00%	6.50%	9.50%	5.19%
2016	6.75%	6.25%	9.00%	3.00%
2017	6.50%	6.00%	8.50%	3.00%
2018	6.25%	5.75%	8.00%	3.00%
2019	6.00%	5.50%	7.50%	3.00%
2020	5.75%	5.25%	7.00%	3.00%
2021	5.50%	5.00%	6.50%	3.00%
2022	5.25%	5.00%	6.00%	3.00%
2023	5.00%	5.00%	5.50%	3.00%
2024 & later	5.00%	5.00%	5.00%	3.00%

The trend rate assumptions were developed using Segal’s internal guidelines, which are established each year using data sources such as the 2015 Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

Medicare Part D Subsidy Assumption:

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the North Carolina State Health Plan may be eligible to receive for plan years beginning in 2006.

Retiree Contribution Increase Rate:

Retiree contributions for medical and prescription drugs was assumed to increase at the same trend rate as medical and prescription drug cost.

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Administrative Expenses: An administrative expense load of \$323 per participant increasing at 5.19% for 2015 and 3.0% per year thereafter was added to projected incurred claims cost in developing the benefit obligations.

Plan Design: Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.

Annual Maximum Benefits: There are no annual maximum benefits assumed.

Lifetime Maximum Benefits: There are no lifetime maximum benefits assumed.

Plan Enrollment Assumptions:

Non-Medicare

Plan	2015	2016	2017	2018	2019	2020	2021
Basic	38.9%	35.9%	33.4%	30.4%	27.9%	24.9%	22.4%
Enhanced	59.6%	61.6%	63.6%	65.6%	67.6%	69.6%	71.6%
CDHP	1.5%	2.5%	3.0%	4.0%	4.5%	5.5%	6.0%

Medicare

Plan	2015	2016	2017	2018	2019	2020	2021
Basic	27.9%	25.4%	24.9%	22.4%	21.9%	19.4%	18.9%
MA Base	44.4%	45.9%	46.1%	47.6%	47.9%	49.4%	49.6%
MA Enhanced	27.7%	28.7%	29.0%	30.0%	30.2%	31.2%	31.5%

Assumption Changes since Prior Valuation:

Medical and prescription drug claims cost were changed based on most recent experience.

Medical and prescription drug trend rates were changed to current schedule.

Enrollment assumptions were updated to model expected migrations among plan options over the next few years.

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EXHIBIT III

Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility: Participants in the North Carolina State Health Plan for Teachers and State Employees who retire from the State, the University of North Carolina System, community colleges, local school systems, and certain other component units are eligible to continue to participate in the State Health Plan in retirement if they meet certain criteria. Former employees who are eligible to receive medical benefits are long-term disability beneficiaries of the Disability Income Plan of North Carolina (DIPNC) and retirees of the Teachers' and State Employees' Retirement System (TSERS), the Consolidated Judicial Retirement system (CJRS), the Legislative Retirement System (LRS), the University Employees' Optional Retirement Program (UEORP), and a small number of local governments. General retirement requirements are as follows:

Law Enforcement Officer:

- > age 50 and 15 years of service;
- > age 55 and 5 years of service; or
- > any age with 30 or more years of service.

All Others:

- > age 50 and 20 years of service;
 - > age 60 and 5 years of service; or
 - > any age with 30 or more years of service.
-

Benefit Types: Basic, Enhanced and CDHP are offered to non-Medicare participants, and Basic, MA and MA+ are offered to Medicare eligible participants.

Duration of Coverage: Lifetime for retirees and dependents

Dependent Benefits: Same as retirees

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Retiree Contributions:

Monthly contributions, effective January 1, 2015, are shown below.

For Retirees hired prior to October 1, 2006 (February 1, 2007 for legislators):

	Non-Medicare			Medicare		
	Basic	Enhanced	CDHP	Basic	MA	MA+
Retiree	\$0.00	\$63.56*	\$40.00*	\$0.00	\$0.00	\$33.00
Spouse	528.52	628.54	475.68	383.72	114.50	147.50

* Reduced by Wellness incentive credits for those who participate.

For Retirees hired after October 1, 2006 (February 1, 2007 for legislators), contributions are defined as a percentage of the total premium costs based on the following service based schedule:

Years of Service at Retirement	Retiree Contribution Percentage
5 – 9.99	100%
10 – 19.99	50%
20 or more	0%

100% of the total premium costs are show below:

	Non-Medicare			Medicare		
	Basic	Enhanced	CDHP	Basic	MA	MA+
Retiree	\$448.11	\$511.67*	\$488.11*	\$348.25	\$114.50	\$147.50
Spouse	528.52	628.54	475.68	383.72	114.50	147.50

* Reduced by Wellness incentive credits for those who participate.

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Benefit Descriptions:

PPO Basic	In-Network	Out-Of-Network
Medical		
<i>Annual Deductible</i>	\$933/\$2,799	\$1,866/\$5,598
<i>Coinsurance</i>	70%	50%
<i>Coinsurance Maximum</i>	\$3,793/\$11,379	\$7,586/\$22,758
<i>Lifetime Maximum</i>	Unlimited	Unlimited
<i>Office Visit copay</i>		
<i>Primary Care</i>	\$35	Ded. & coins.
<i>Specialist</i>	\$81	Ded. & coins.
<i>Urgent Care</i>	\$87	\$87
<i>Inpatient Hospitalization</i>	\$291 + ded. & coins.	Same as in-network
<i>Outpatient Hospitalization</i>	ded. & coins.	ded. & coins.
<i>Emergency Room</i>	\$291 + ded. & coins.	Same as in-network
<i>Chiropractic</i>	\$64	Ded. & coins.
<i>Physical, Occupational or Speech Therapy</i>	\$64	Ded. & coins.
<i>Mental Health, Chemical Dependency</i>	\$35	coins.

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Prescription Drugs (<i>up to 30 day supply</i>)	
<i>Tier 1</i>	\$12
<i>Tier 2</i>	\$40
<i>Tier 3</i>	\$64
<i>Tier 4 (Preferred Specialty)</i>	25% coins., \$100 max.
<i>Tier 5 (Non-Preferred Specialty)</i>	25% coins., \$125 max.
<i>Brand drug with a generic equivalent</i>	Tier 1 copay plus the difference in the cost to the Plan between the generic and brand name drug, not to exceed \$100 per 30-day supply of the brand name medication.
<i>Preferred diabetic testing supplies</i>	\$10
<i>Non-Preferred diabetic testing supplies</i>	\$25
<i>Out-of-Pocket Maximum</i>	\$2500

Coverage becomes secondary when former employees become eligible for Medicare.

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PPO Enhanced	In-Network	Out-Of-Network
Medical		
<i>Annual Deductible</i>	\$700/\$2,100	\$1,400/\$4,200
<i>Coinsurance</i>	80%	60%
<i>Coinsurance Maximum</i>	\$3,210/\$9,630	\$6,420/\$19,260
<i>Lifetime Maximum</i>	Unlimited	Unlimited
<i>Office Visit copay</i>		
<i>Primary Care</i>	\$30	Ded. & coins.
<i>Specialist</i>	\$70	Ded. & coins.
<i>Urgent Care</i>	\$87	\$87
<i>Inpatient Hospitalization</i>	\$233 + ded. & coins.	Same as in-network
<i>Outpatient Hospitalization</i>	ded. & coins.	ded. & coins.
<i>Emergency Room</i>	\$233 + ded. & coins.	Same as in-network
<i>Chiropractic</i>	\$52	Ded. & coins.
<i>Physical, Occupational or Speech Therapy</i>	\$52	Ded. & coins.
<i>Mental Health, Chemical Dependency</i>	\$30	coins.

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Prescription Drugs (<i>up to 30 day supply</i>)	
<i>Tier 1</i>	\$12
<i>Tier 2</i>	\$40
<i>Tier 3</i>	\$64
<i>Tier 4 (Preferred Specialty)</i>	25% coins., \$100 max.
<i>Tier 5 (Non-Specialty)</i>	25% coins., \$125 max
<i>Brand drug with a generic equivalent</i>	Tier 1 copay plus the difference in the cost to the Plan between the generic and brand name drug, not to exceed \$100 per 30-day supply of the brand name medication.
<i>Preferred diabetic testing supplies</i>	\$10
<i>Non-Preferred testing supplies</i>	\$25
<i>Out-of-Pocket Maximum</i>	\$2500

Coverage becomes secondary when former employees become eligible for Medicare.

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CDHP	In-Network	Out-Of-Network
Medical & Prescription Drug		
<i>Annual Deductible</i>	\$1,500/4,500	\$3,000/9,000
<i>Coinsurance</i>	85%	65%
<i>Lifetime Maximum</i>	Unlimited	Unlimited
<i>HRA</i>	\$500/\$1,500	\$500/\$1,500

MA	MA-PDP Basic	Humana MA-PDP Enhanced	UHC MA-PDP Enhanced
Medical			
<i>Annual Deductible</i>	\$0	\$0	\$0
<i>Coinsurance</i>	80%	80%	80%
<i>Coinsurance Maximum</i>	\$4,000	\$2,600	\$2,600
<i>Lifetime Maximum</i>	Unlimited	Unlimited	Unlimited
<i>Office Visit copay</i>			
<i>Primary Care</i>	\$20	\$10	\$10
<i>Specialist</i>	\$40	\$30	\$35
<i>Preventive Care</i>	\$0	\$0	\$0
<i>Emergency Room</i>	\$65	\$50	\$50

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Prescription Drugs			
<i>Retail (up to 31 day supply)</i>			
<i>Tier 1</i>	\$10	\$7	\$5
<i>Tier 2</i>	\$40	\$35	\$30
<i>Tier 3</i>	\$64	\$50	\$40
<i>Tier 4</i>	25% coins., \$100 max.	25% coins., \$95 max.	25% coins., \$95 max.
<i>Out-of-Pocket Maximum</i>	\$2,500	\$2,500	\$2,500
<i>Mail Order (up to 90 day supply)</i>			
<i>Tier 1</i>	\$24	\$14	\$10
<i>Tier 2</i>	\$80	\$70	\$60
<i>Tier 3</i>	\$128	\$100	\$80
<i>Tier 4</i>	25% coins., \$300 max.	25% coins., \$190 max.	25% coins., \$200 max.
<i>Out-of-Pocket Maximum</i>	\$2,500	\$2,500	\$2,500

Plan Changes: None.

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

EXHIBIT IV

Definitions of Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Actuarial Present Value of Total Projected Benefits (APB):

Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.

Normal Cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Retirees:

The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

SECTION 4: Supporting Information for the North Carolina State Health Plan December 31, 2014 Measurement Under GASB 43 and 45

Actuarial Value of Assets (AVA):	The value of assets used by the actuary in the valuation. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.
Funded Ratio:	The ratio AVA/AAL.
Unfunded Actuarial Accrued Liability (UAAL):	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment Return (discount rate):	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.
Covered Payroll:	Annual reported salaries for all active participants on the valuation date.
ARC as a Percentage of Covered Payroll:	The ratio of the annual required contribution to covered payroll.
Health Care Cost Trend Rates:	The annual rate of increase in net claims costs per individual benefiting from the Plan.
Annual Required Contribution (ARC):	The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

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Net OPEB Obligation (NOO):

The NOO is the cumulative difference between the ARC and actual contributions made. If the plan is not pre-funded, the actual contribution would be equal to the annual benefit payments less retiree contributions. There are additional adjustments in the NOO calculations to adjust for timing differences between cash and accrual accounting, and to prevent double counting of OPEB plan costs.

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EXHIBIT V

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 – *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under these statements, all state and local government entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The new standards introduce an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee’s career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the Net OPEB Obligation (NOO). In addition, Required Supplementary Information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan. Exhibits IV and VI of Section

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4 contain a definition of terms as well as more information about GASB 43/45 concepts.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

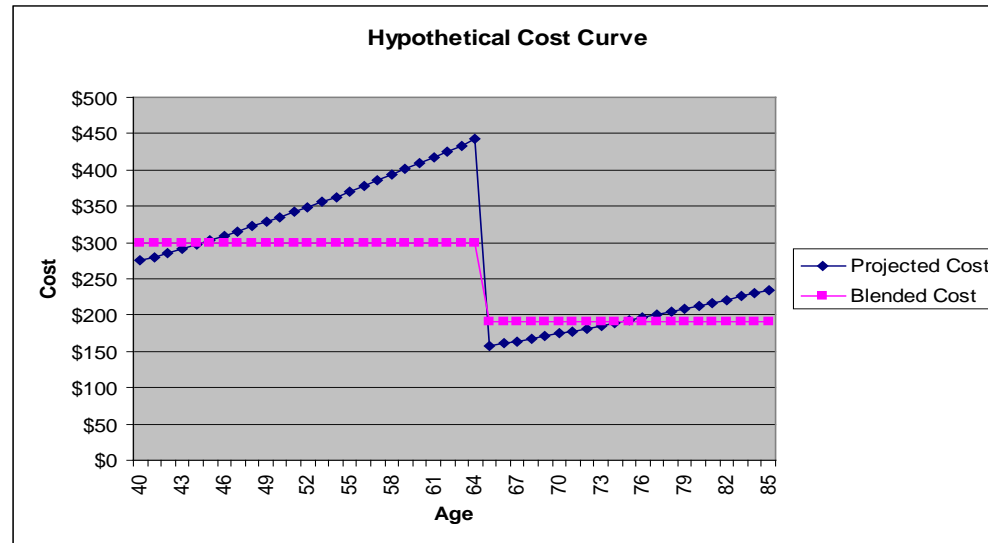
Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

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**EXHIBIT VI
GASB 43/45 Concepts**

The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit

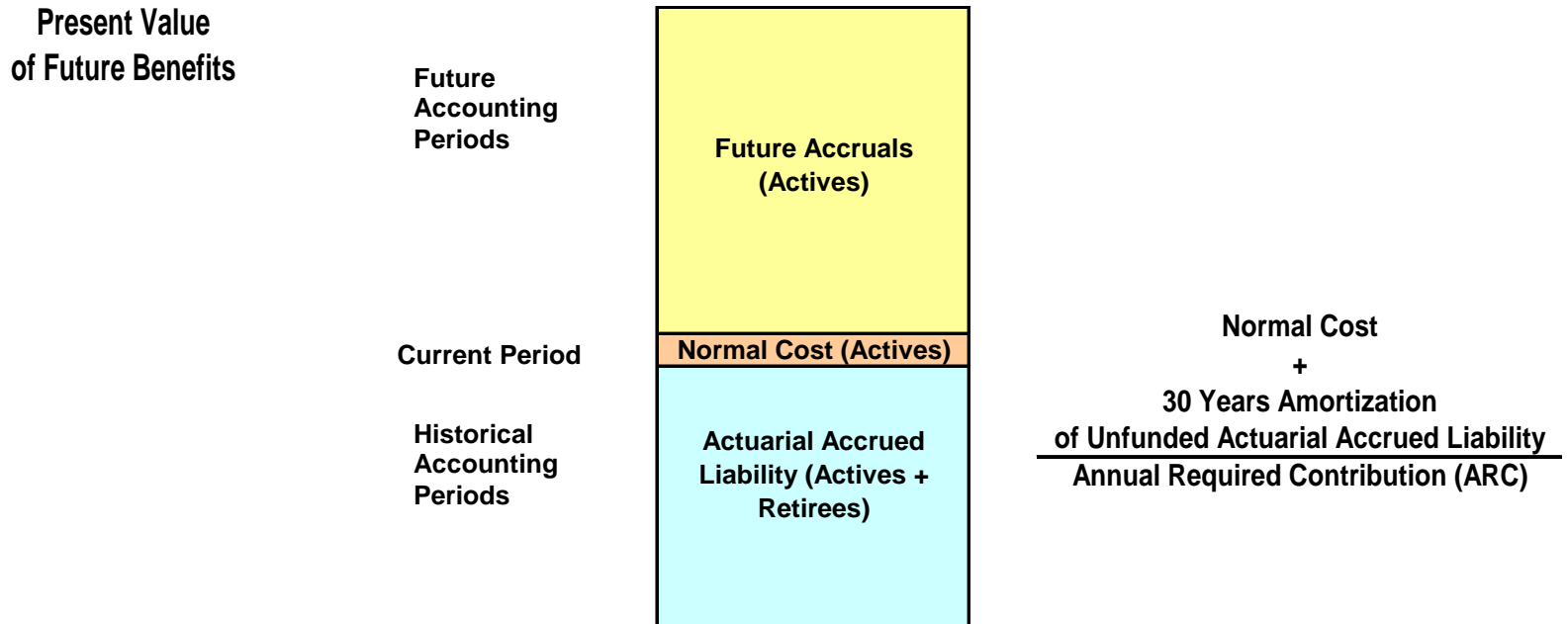
subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.



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This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods. The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

GASB 43/45 Measurement Elements Using Actuarial Cost Methods



$$\text{Net OPEB Obligation} = \text{ARC}_1 + \text{ARC}_2 + \text{ARC}_3 + \dots - \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \dots$$