

**STATE OF SOUTH CAROLINA RETIREE HEALTH CARE PLAN**  
**ACTUARIAL VALUATION REPORT**  
**AS OF JUNE 30, 2013**

March 28, 2014

Public Employee Benefit Authority  
South Carolina Retirement System  
P.O. Box 11960  
Columbia, SC 29211-1960

Dear Members of the Board:

Submitted in this report are the results of an Actuarial Valuation of the liabilities associated with the employer financed retiree health benefits and long term disability benefits provided through the Employee Insurance Program (EIP) for the State of South Carolina. The date of the Valuation was June 30, 2013, with results applicable to the fiscal year July 1, 2014 to June 30, 2015. This report was prepared at the request of EIP.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements 43 and 45 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the Trust's financial reporting requirements may produce significantly different results. This report may be provided to parties other than the State of South Carolina only in its entirety and only with the permission of the State of South Carolina.

The valuation was based upon information, furnished by the State, concerning retiree health benefits, members' census and financial data. Data was checked for internal consistency but was not otherwise audited. Except as noted in Section H, the demographic and certain economic assumptions are identical to the set of demographic and economic assumptions used in the July 1, 2013 Retirement System pension valuations.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods.

One or more of the undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,  
**Gabriel, Roeder, Smith & Co.**



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## **SECTION A**

### **CURRENT OVERVIEW**

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## SUMMARY OF GASB ACCOUNTING STANDARDS

This report provides information for the State of South Carolina Employees Insurance Program (EIP) to comply with accounting standards issued by the Government Accounting Standards Board (GASB), Statements No. 43 and 45, relating to Other Post-Employment Benefits (OPEB). For the State of South Carolina, these benefits primarily include medical, prescription drug and dental insurance benefits provided to all eligible State and School District retirees, and also include the basic long term disability benefits provided to State employees, School District employees, and employees for Local Political Subdivisions. Any other OPEB benefits offered to the employees of the State of South Carolina are outside the scope of this report.

The information in this report should be applied to the State’s Comprehensive Annual Financial Report (CAFR) issued for the period July 1, 2014 through June 30, 2015. Subsequently, each annual valuation will be applicable for the Fiscal Year which begins one year after the valuation date. The one year lag between the valuation date and the applicable Fiscal Year will allow appropriate time for budgeting and management of the appropriations.

The purpose of this Report is to provide: (a) results of the actuarial calculations necessary for financial reporting pursuant to GASB Statements 45, and (b) various other actuarial, statistical and benefit information useful to management for the operation of the State’s OPEB program.

### Results of the Study

The following chart summarizes key results for the Retiree Medical Plan. It illustrates the GASB No. 45 results that will be used for the Trust for the fiscal year ending June 30, 2015. The actuarial liabilities are measured as of June 30, 2013.

The results are shown based on a 5.50% discount rate which assumes the liabilities are valued under a partially funded financing policy.

\$000s	As of June 30,	
	2013	2012
Actuarial Accrued Liability	\$ 10,072,927	\$ 10,328,465
Actuarial Value of Assets	668,972	592,337
Unfunded Actuarial Accrued Liability (EANC)	9,403,955	9,736,128
	Year Ending June 30,	
	2015	2014
<b>Annual Required Contribution for YE 6/30/2015</b>	<b>\$ 747,746</b>	<b>\$ 778,969</b>
Per Active Participant	\$ 4,292	\$ 4,554
As % of Expected Payroll	9.67%	10.51%
<b>Expected Net Employer Contr. for YE 6/30/2015 (for crediting against OPEB Cost)</b>	<b>\$ 409,878</b>	<b>\$ 400,773</b>

The illustrated fiscal year ending June 30, 2015 Net Employer Contribution for the partial funding scenario is shown as \$410 million, which is assumed to be \$10 million above the expected pay-as-you-go costs. At the end of the year, any additional contributions above the pay-as-you-go costs would be available for investment in the trust.

If a full advance-funding policy were implemented, by definition, the actual contributions made would equal 100% of the ARC; and therefore, the actual contributions used in the GASB exhibits would be based on the terms of the policy.

### **Cost Sharing Multiple-Employer Plans under GASB 43 & 45**

Under GASB 43, a **Cost-sharing multiple-employer plan** is defined as a single plan with pooling (cost-sharing) arrangements for the participating employers. All risks, rewards, and costs, including benefit costs, are shared and are not attributed individually to the employers. A single actuarial valuation covers all plan members, and the same contribution rate(s) applies for each employer.

Under paragraph 22 of GASB 45, a cost sharing multiple employer postretirement benefit program must meet the following requirements:

- 1) The plan is administered as a formal trust or equivalent arrangement;
- 2) Employer contributions are irrevocable;
- 3) Plan assets are dedicated for providing postretirement benefits; and
- 4) Plan assets are legally protected from creditors of employers and of the plan administrator.

Furthermore, the glossary of GASB 45 and paragraph 127 of the GASB 43 and 45 Implementation Guide provides additional information on the definition of cost sharing plans as follows:

- 1) The intent of the cost sharing plan is to pool risks, rewards and costs among all participating employers,
- 2) A single valuation is performed and the same contribution rate applies to each participating employer, and
- 3) The cost sharing plan is administered as a legal trust or equivalent trust that makes the risk pooling mechanism possible.

We believe Act 195 created a scenario in which the EIP benefits provided for employees of the State of South Carolina (including School District employees) meets the conditions of a cost sharing multiple-employer plan, and therefore, each employer is only required to recognize OPEB expense for their contractually required contributions to the plan, currently 4.92% of payroll for fiscal year 2014. Each employer is required to disclose an identification of the way that the contractually required contribution rate is determined (for example, by statute or contract or on an actuarially determined basis) and no balance sheet liability will be generated, provided that the contractually prescribed contributions are made by the employers.

The one condition that must be monitored is whether the arrangement can be classified as a multiple-employer plan if there is no level of advance funding. This directly applies to item 1) – *intent is to pool risks, rewards, and costs among all participating employers*. To meet the definition of pooling risks, some level of advance funding has to exist. The exact level has not been defined by GASB, but it is clear that a pure pay-as-you-go financed Trust will not meet the definition of a cost-sharing plan.

For Fiscal Year 2013, there were additional contributions of \$67 million above the employer surcharge contributed into the Trust. In addition, it is anticipated that there will be additional contributions made into the Trust during future fiscal years so that the asset levels of the Trust will increase over time. This additional accumulation of assets does provide a mechanism for the individual employers to pool risks.

However, if the multiple employer plan does not satisfy the preceding conditions, then it must be classified as an agent multiple employer plan for financial reporting purposes, and the participating employers should apply the requirements of an agent plan.

### **Funded and Unfunded Plans**

With the passage of Act 195, a separate Trust has been formed into which the employers can make contributions to advance-fund the obligation. This is a prudent step to systematically finance the OPEB liabilities on a sound actuarial basis. If the OPEB Plan's assets were invested with a longer term horizon and an actuarial funding policy were established, a higher interest discount rate would be appropriate for use in the valuation. This would result in reduced Annual OPEB Costs and lower liabilities. It is important to note that only forming a Trust does not singularly allow the use of a higher discount rate; adoption by the State of a sound actuarial funding policy is also required.

State officials have advised that the State Constitution currently would prohibit the investment policy of such a Trust from investing in equities. The State Treasurer's office has estimated that 6% per annum would be a reasonable long term rate of return expected by a reasonable fixed income portfolio as currently permitted.

If the Legislature were to adopt an actuarially sound funding policy then the GASB standards would permit the use of a 6.0% discount rate. However, even though a Trust has been formed, if there is no level of advanced funding, the costs and liabilities would need to be valued using the 5.00% discount rate.

As previously stated, for GASB 43 & 45 reporting purposes, we have assumed some level of advance funding above the pay-as-you-go costs will exist. This will allow the retiree medical program to be classified as a cost-sharing multiple-employer plan. If the funding policy includes some level of advance funding, but does not fund to the full ARC, then the actuarial valuation will be based on a partial funding scenario. For example, in fiscal years ending in 2011, 2012 and 2013 there were additional contributions made to the trust of \$19 million, \$106 million and \$67 million,

respectively, above the employer surcharge, which is a substantial contribution above the pay-as-you-go costs, but less than the full ARC. For fiscal year ending 2014, it is anticipated that \$96 million dollars will be contributed to the trust in addition to the employer surcharge. For this valuation, the partially funded discount rate will be 5.50%, which is a blend of the 5.00% unfunded and the 6.00% advance funded discount rates.

### **Actuarial Assumptions**

In any long-term Actuarial Valuation (such as for Pensions and OPEBs), certain demographic, economic and behavioral assumptions are made concerning the population, the investment discount rates and the benefits provided. These Actuarial Assumptions form the basis for the actuarial model which is used to project the future population, the future benefits provided, and the future contributions collected. Then the investment discount rate assumption is used to discount those projected net OPEB benefits to a present value. This and other related present values are used to calculate the Annual Required Contribution as required under GASB 43.

This Actuarial Valuation of the State's OPEBs is similar to the Actuarial Valuations performed for the State's pension plans, except that the OPEB Valuation is more complex. With the exception of the retirement assumptions, the demographic assumptions used in this OPEB Valuation were identical to those used in the various respective 2013 Retirement Systems' Valuations. The Actuarial Assumptions and Methods section of this report provides details on why separate retirement assumptions were used in the OPEB report. Because the assumptions were based upon the 2011 actuarial experience study adopted by the Budget & Control Board, they were deemed reasonable for this OPEB Valuation and were employed in this report.

The economic and behavioral assumptions, of course, are unique to medical benefits. It would be instructive to review the Section of this Report titled, "Actuarial Assumptions and Methods" for a detailed discussion and disclosure of all the relevant Actuarial Assumptions used in this Valuation.

### **Actuarial Cost Methods**

GASB Statement No. 45 provides an acceptable range of flexibility to governmental employers (and their actuaries) in the use of various actuarial cost methods. Several of such acceptable actuarial cost methods were investigated. The Entry Age Normal Cost Method was used in this valuation. This is both an acceptable and reasonable cost method. Furthermore, the Normal Costs and the amortization of any Unfunded Actuarial Accrued Liabilities were calculated using a level percent of pay.

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**SECTION B**

VALUATION RESULTS RETIREE MEDICAL PLAN

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## VALUATION RESULTS

### Partially Funded Scenario

Following are two charts presenting the essential results of the valuation. The first chart presents the results as they relate to the State's obligation for its own employees and retirees, adds in the results from the second chart on School District employees and retirees, and presents a grand total.

This scenario shows the results for the Trust to use in complying with GASB No. 43 for Fiscal Year 2015. This assumes there will be a funding policy established in which assets will accumulate in the Trust formed by Act 195. We have been advised by the Comptroller General's office that it is the intent of the State to have the retiree medical benefits provided through the Trust to be classified as a cost-sharing multiple-employer plan so that the Trust can take on the financial responsibility of the Implicit Subsidy of the School District Employers with respect to GASB No. 45. For that to occur, some level of funding above the current pay-as-you-go will have to be established. For the following exhibits, we have shown a funding policy equal to \$10 million above the pay-as-you-go costs for FY2015. The actual GASB exhibits will need to be adjusted based on the actual funding policy established.

The partially funded discount rate is 5.50%, developed by utilizing a blend of the 5.0% unfunded discount rate and the 6.0% advance funded discount rate with no equity exposure. For Fiscal Year 2015, the scenario below will be used if the State does not adopt a full advanced funding policy or does not change the current law to allow for equity investments in the OPEB Trust.

The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level percent of active member payroll over a period of 30 years. A 30-year amortization period for Unfunded Actuarial Accrued Liabilities is the maximum period that complies with the GASB 43 requirements. The UAAL represents the portion of the total actuarial present value of all future employer-provided benefits attributable to prior years, minus any valuation assets. Basically, it is the measure of the unfunded liability allocable to past service. The cost and liabilities shown below are employer costs and liabilities, net of any co-pays, deductibles, retiree contributions, and formulary rebates.

The Unfunded Actuarial Accrued Liability (UAAL) decreased by \$332 million dollars from June 30, 2012 to June 30, 2013. The plan's favorable claims experience was the largest factor contributing to the change in the UAAL. The changes made to the health plan for 2013 and 2014 also reduced the UAAL. To better reflect the anticipated future experience of the plan, we have revised our trend assumptions to reflect slower medical trend than previously assumed. However, we have also assumed that the funded retiree premiums will remain level through calendar year 2016. The new claims estimates and trend assumptions decreased the UAAL by \$601 million. Other assumption changes discussed on page 48 reduced the UAAL by \$342 million. In fiscal year ending June 30, 2013, the contributions to the trust were 50.0% of the ARC. The funding shortfall coupled with the expected increase to the UAAL increased the UAAL by \$475 million dollars. The remaining increase of \$136 million is mostly attributable to the plan's demographic experience.

<b>State of South Carolina</b>						
<b>Based on a partially-funded Plan using a 5.50% investment return assumption</b>						
<b>OPEB ACTUARIAL VALUATION RESULTS as of June 30, 2013 (\$ in '000s)</b>						
	State Obligation for State Employees				State Obligation for School District Employees	Grand Total
	Medical/ Rx Claims	Dental Claims	Retiree Premiums	Total		
Number of Participants Covered						
Active Participants	77,164	77,164	77,164	77,164	97,036	174,200
Retired Participants	33,596	36,762	37,662	37,662	42,906	80,568
Vested Terminated Participants	689	689	689	689	558	1,247
<b>Total Participants</b>	<b>111,449</b>	<b>114,615</b>	<b>115,515</b>	<b>115,515</b>	<b>140,500</b>	<b>256,015</b>
Actuarial Present Value of Benefits						
Active Participants	\$4,552,534	\$106,839	(\$1,269,311)	\$3,390,062	\$4,619,001	\$8,009,063
Retired Participants	2,992,189	98,452	(891,567)	2,199,074	2,570,488	4,769,562
Vested Terminated Participants	25,318	635	(7,736)	18,217	15,219	33,436
<b>Total Participants</b>	<b>\$7,570,041</b>	<b>\$205,926</b>	<b>(\$2,168,614)</b>	<b>\$5,607,353</b>	<b>\$7,204,708</b>	<b>\$12,812,061</b>
Actuarial Accrued Liability (Enty Age Normal Cost Actuarial Method)						
Active Participants	\$3,175,715	\$77,240	(\$832,710)	\$2,420,245	\$2,849,684	\$5,269,929
Retired Participants	2,992,189	98,452	(891,567)	2,199,074	2,570,488	4,769,562
Vested Terminated Participants	25,318	635	(7,736)	18,217	15,219	33,436
<b>Total Participants</b>	<b>\$6,193,222</b>	<b>\$176,327</b>	<b>(\$1,732,013)</b>	<b>\$4,637,536</b>	<b>\$5,435,391</b>	<b>\$10,072,927</b>
Actuarial Value of Assets				307,992	360,980	668,972
Unfunded Actuarial Accrued Liability (EANC)				\$4,329,544	\$5,074,411	\$9,403,955
Annual Required Contribution of the Employer (Enty Age Normal Cost Actuarial Method)						
Normal Cost				3.17%	4.12%	3.66%
Amortization of UAAL				5.32%	5.88%	5.61%
Expenses				0.38%	0.41%	0.40%
<b>Total ARC for YE 6/30/2015 as % of Payroll</b>				<b>8.87%</b>	<b>10.41%</b>	<b>9.67%</b>
Expected Payroll of Active Participants for FY 2015				\$3,751,571	\$3,981,061	\$7,732,632
Estimated OPEB Cost for YE 6/30/2015 (Middle of Year)				\$332,764	\$414,428	\$747,746
Per Active Participant (not in '000s)				\$4,312	\$4,271	\$4,292

<b>State of South Carolina</b> Based on a partially-funded Plan using a 5.50% investment return assumption OPEB ACTUARIAL VALUATION RESULTS as of June 30, 2013 (\$ in '000s)				
	State Obligation for School District Employees			
	Medical/ Rx Claims	Dental Claims	Retiree Premiums	Total
Number of Participants Covered				
Active Participants	97,036	97,036	97,036	97,036
Retired Participants	39,661	42,186	42,906	42,906
Vested Terminated Participants	558	558	558	558
Total Participants	137,255	139,780	140,500	140,500
Actuarial Present Value of Benefits				
Active Participants	\$6,217,088	\$144,460	(\$1,742,547)	\$4,619,001
Retired Participants	3,452,706	116,027	(998,245)	2,570,488
Vested Terminated Participants	21,022	521	(6,324)	15,219
Total Participants	\$9,690,816	\$261,008	(\$2,747,116)	\$7,204,708
Actuarial Accrued Liability (Enty Age Normal Cost Actuarial Method)				
Active Participants	\$3,750,618	\$91,470	(\$992,404)	\$2,849,684
Retired Participants	3,452,706	116,027	(998,245)	2,570,488
Vested Terminated Participants	21,022	521	(6,324)	15,219
Total Participants	\$7,224,346	\$208,018	(\$1,996,973)	\$5,435,391
Actuarial Value of Assets				\$360,980
Unfunded Actuarial Accrued Liability (EANC)				\$5,074,411
Annual Required Contribution of the Employer (Enty Age Normal Cost Actuarial Method)				
Normal Cost				4.12%
Amortization of UAAL				5.88%
Expenses				0.41%
<b>Total ARC for YE 6/30/2015 as % of Payroll</b>				<b>10.41%</b>
Expected Payroll of Active Participants for FY 2015				\$3,981,061
Estimated OPEB Cost for YE 6/30/2015 (Middle of Year)				\$414,428
Per Active Participant (not in '000s)				\$4,271

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## **SECTION C**

### **VALUATION RESULTS LONG TERM DISABILITY PLAN**

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## VALUATION RESULTS

The following chart presents the essential results of the valuation for the Long Term Disability Plan. The 6.0% scenario shown below assumes the annual contributions will be relatively close to the actuarially determined rates and assets will accumulate in the trust, but no exposure to equities in the asset allocation. This scenario should be used for financial reporting for the fiscal year ending June 30, 2015.

The results for the LTD benefits are presented separately from the medical, prescription and dental benefits because a separate trust has been established. One trust provides the medical, prescription and dental benefits and the other trust provides the basic long term disability benefits. According to GASB 43 and 45, having separate trusts requires the two programs to be considered separate OPEBs with separate accounting recognition and reporting requirements.

The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level percent of active member payroll over a period of 30 years. A 30-year amortization period for Unfunded Actuarial Accrued Liabilities is the maximum period that complies with the GASB 45 requirements.

The UAAL represents the portion of the total actuarial present value of all future employer-provided benefits which is attributable to prior years, minus any valuation assets. Basically, it is the measure of the unfunded liability allocable to past service.

The cost and liabilities shown below are employer costs and liabilities.

<b>State of South Carolina Long Term Disability Plan</b>	
<b>OPEB ACTUARIAL VALUATION RESULTS as of June 30, 2013 (\$ in '000s)</b>	
	<b>Funded 6.00% Discount Rate</b>
Number of Participants Covered	
Active Participants	195,506
Retired Participants	1,049
Vested Terminated Participants	<u>0</u>
Total Participants	196,555
Actuarial Present Value of Benefits	
Active Participants	\$58,632
Retired Participants	\$19,339
Vested Terminated Participants	<u>\$0</u>
Total Participants	\$77,971
Actuarial Accrued Liability (Enty Age Normal Cost Actuarial Method)	
Active Participants	\$8,909
Retired Participants	\$19,339
Vested Terminated Participants	<u>\$0</u>
Total Participants	\$28,248
Actuarial Value of Assets	\$35,426
Unfunded Actuarial Accrued Liability (EANC)	(\$7,178)
Annual Required Contribution of the Employer (ARC) for YE 6/30/2015 (Enty Age Normal Cost Actuarial Method)	
Normal Cost	0.127%
Amortization of UAAL	-0.004%
Expenses	0.000%
<b>Total ARC for YE 6/30/2015 as % of Payroll</b>	<b><u>0.123%</u></b>
Expected Payroll of Active Participants for FY 2015	\$8,448,983
Estimated OPEB Cost for YE 6/30/2015 (Middle of Year)	\$10,392
Per Active Participant (not in '000s)	\$53

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## **SECTION D**

### **DEVELOPMENT OF BASELINE COSTS**

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## DEVELOPMENT OF BASELINE COSTS

### Data Sources

The Employee Insurance Program (EIP) maintains a substantial amount of data for all its covered members for many years of coverage. Substantial data maintained by the Retirement Systems was also provided for the purpose of this OPEB Valuation. Claims and exposures for the three-year period ending December 31, 2012 were used for the development of the Baseline Costs. These were compared to industry data for reasonableness. The actual claims and exposures were available by age, sex, status, member type, plan coverage, years since retirement, etc. The actual claims and exposure data were reliable and credible for the development of reasonable Baseline Costs.

### Baseline Costs

An OPEB Valuation is a projection of long term benefit costs. So as a starting point, initial, current year costs must be developed. Projections of future costs, many years ahead, are based upon these initial current year costs. Care must be taken to ensure that reasonable Baseline Costs are developed for each relevant Costing Variable.

Baseline Costs for this OPEB Valuation take the form of tables of current costs of benefits for retirees (and their dependents and survivors), separately by:

- age (20 through 110),
- sex (M and F),
- benefit type (medical, prescription drug and dental),
- health status (disabled and non-disabled),

Following are charts that present the Baseline Costs used in this OPEB Valuation. These represent the expected monthly cost of providing the benefits promised for the calendar year ending December 31, 2013 for a sample of ages:

Baseline Costs for Non-Disabled Retirees and Spouses (Expected Monthly Per Capita Costs for Calendar Year 2013)						
Age	Medical Coverage		Prescription Drug Coverage		Dental Coverage	
	Male	Female	Male	Female	Male	Female
50	\$286.18	\$294.68	\$118.36	\$132.08	\$14.10	\$14.10
55	\$345.15	\$335.01	\$142.30	\$147.27	\$14.10	\$14.10
60	\$415.67	\$381.90	\$174.60	\$168.45	\$14.10	\$14.10
65	\$126.42	\$104.83	\$197.39	\$184.47	\$14.10	\$14.10
70	\$137.31	\$110.12	\$210.67	\$195.32	\$14.10	\$14.10
75	\$144.00	\$114.40	\$214.45	\$201.02	\$14.10	\$14.10
80	\$146.42	\$117.68	\$214.45	\$201.95	\$14.10	\$14.10

Baseline Costs for Disabled Retirees (Expected Monthly Per Capita Costs for Calendar Year 2013)						
Age	Medical Coverage		Prescription Drug Coverage		Dental Coverage	
	Male	Female	Male	Female	Male	Female
Under 65	\$592.78	\$592.78	\$388.11	\$388.11	\$14.10	\$14.10
65	\$126.42	\$104.83	\$197.39	\$184.47	\$14.10	\$14.10
70	\$137.31	\$110.12	\$210.67	\$195.32	\$14.10	\$14.10
75	\$144.00	\$114.40	\$214.45	\$201.02	\$14.10	\$14.10
80	\$146.42	\$117.68	\$214.45	\$201.95	\$14.10	\$14.10

**Costing Variables**

Baseline Costs vary depending on many different factors or characteristics of each member. For example, age is possibly the most obvious variable that affects the cost of medical coverage. Age has little or no effect on the cost of full dental coverage.

No significant difference was found in the Baseline Costs of retirees and spouses. Such membership status, therefore, was deemed not to be a necessary Costing Variable and the data for them were combined.

The following plans are available to retirees:

- The Savings Plan (Non Medicare Eligible Only)
- The Standard Plan
- The Supplemental Plan (Only if eligible for Medicare)
- BlueChoice
- Dental
- Dental Plus

No significant difference was found in the Baseline Costs of members age 65 and over electing the Standard Plan and the members electing the Supplemental Plan. Furthermore, there were very few members electing the other Plan Options compared to those electing the Standard Plan and the Supplemental Plan, at all ages. Therefore, all claims and exposures for all Plan Options were combined to develop a single set of Baseline Costs for each other relevant Costing Variable.

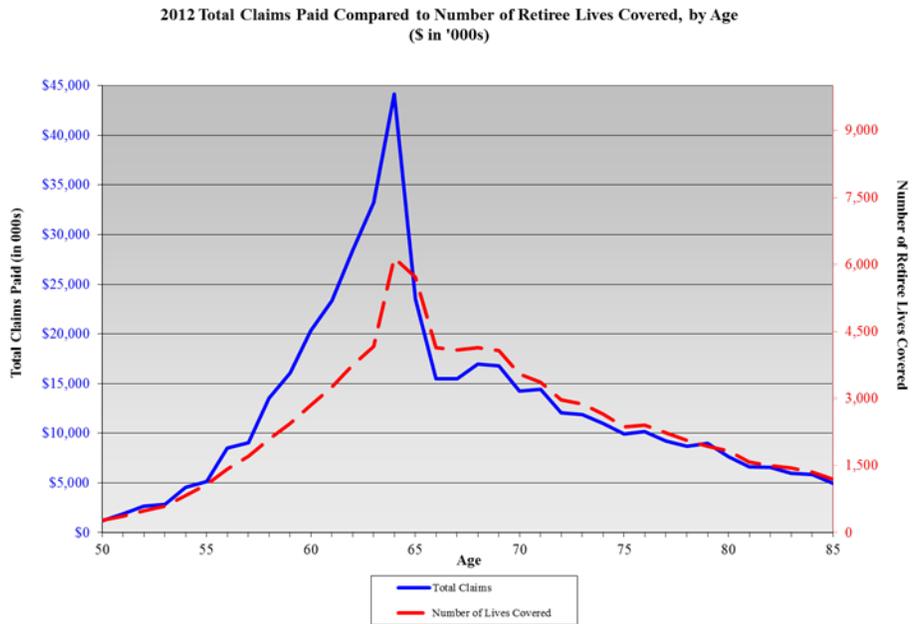
Likewise, a single set of current retiree premiums were developed by weighting the current retiree premium structure by the current enrollment.

As expected, disabled retirees demonstrated substantially different Baseline Costs, as compared to non-disabled retirees. Additionally, the pattern of costs by age differs significantly, as compared to non-disabled retirees.

### **Methodology**

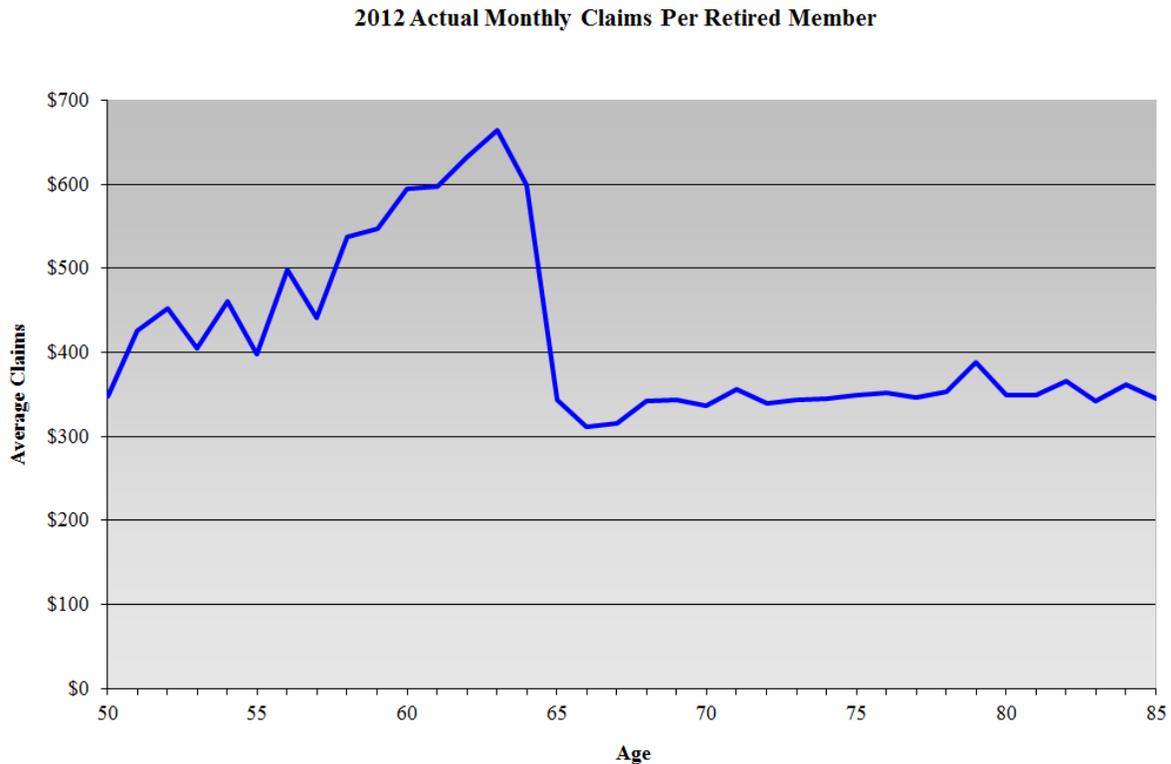
#### *Gather Data*

The first step in determining the expected claims for the population was to gather claims data. Paid claims data for medical and pharmacy were analyzed by age and sex. The following graph shows the total paid claims for the period January 1, 2012 through December 31, 2012 by age, along with the number of lives covered over the same period.



Clearly, the total claims before age 65 are considerably higher than the total claims after age 65. This decrease occurs because Medicare coverage begins at age 65. Also, the total claims before age 65 are increasing considerably faster than the number of lives is increasing. For example, the average claim per member is higher for a member age 63 than a member age 57.

The following graph shows the average monthly claim costs per member.

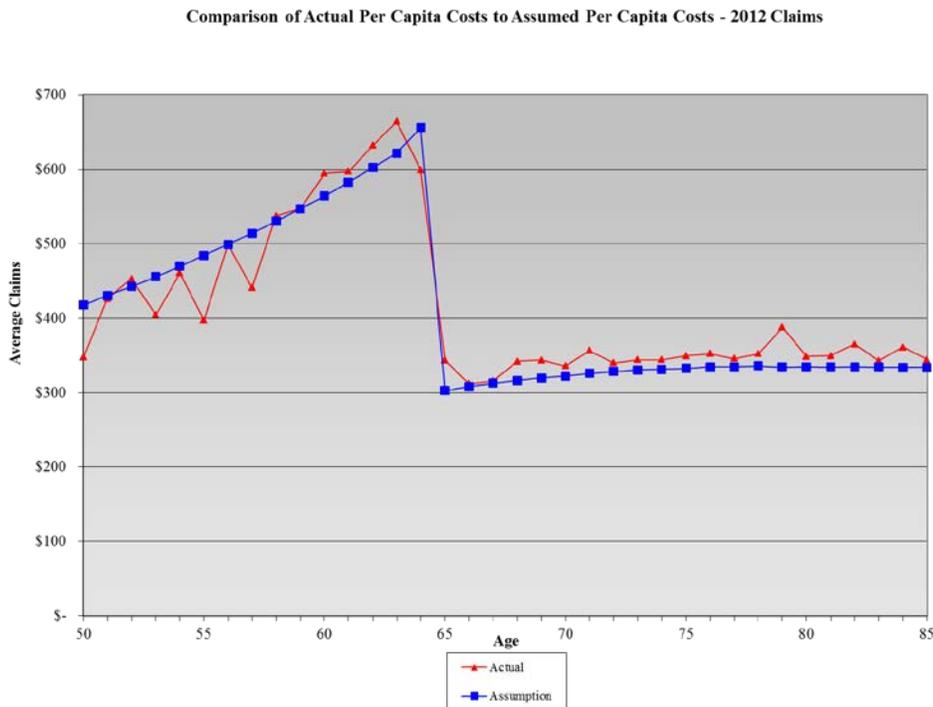


These two graphs show a need to model the increasing claim costs by age in the valuation, especially for ages below 65. This is consistent with other health care experience. This assumption is referred to as the aging factor table.

Develop Aging Table

The second step in determining the expected claims for the population was to develop the aging factor table. In preparing the 2009 valuation, we developed an aging table based on the claims history of EIP for calendar years 2005-2009. The average increases at each age were developed and smoothed based on the actual experience. Separate aging factor tables were developed for medical and pharmacy, as well as by sex and health status. The reasonableness of the aging table was revisited for this valuation, and as the graph below shows, the current aging factors continue to model the actual claims data well.

The following graph compares the total claims paid to the expected claims paid. It shows how the assumed claims will approximate the actual claims that were paid, but will take out the variation from age to age and produce smoothed results.



The claim costs developed by the preceding process is appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, the actuarial process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each combination. This process more accurately reflects health care costs in the retired population over the projection period.

Adjust from Paid to Incurred

The next step is to make a slight adjustment to convert from paid to incurred. The incurred but not paid as a percentage of claims was 13% for medical, 3% for pharmacy, and 10% for Dental. The expected per capita costs need to be adjusted to recognize the trend increase in the incurred but not paid at the end of the year in comparison to the claims paid in the first part of the year that were incurred in the last part of the year before.

Using the percentages above, the per capita costs were loaded by 1.2% for medical, .6% for pharmacy, and 0.6% for Dental.

EGWP-Wrap Rx Participation and Savings:

Effective January 1, 2014, Medicare eligible members will be have the option to participate in an Employer Group Waiver Plan (EGWP) with a “Wrap” feature. The EGWP design is based on a federally approved drug formulary and plan design. A sponsor may provide additional benefits through a supplementary “Wrap” plan that ensures members will receive benefits that are relatively equal to those of the traditional plan that the sponsor currently offers. In most instances, the current plan benefit design can be replicated through the combination of an EGWP-Wrap plan at reduced costs. The key components which are expected to reduce costs include:

1. Fifty percent discount on brand name drugs while member is in the “donut hole” coverage gap. (Under a standard or model Medicare Part D program, a member is responsible for 100 percent of the prescription costs from the initial coverage limit (\$2,930 for 2012) to the catastrophic coverage limit (\$6,658 for 2012). This coverage gap is also known as the “donut hole.”) The discount is also applied to the member’s true out of pocket costs which allows federal catastrophic coverage to be reached sooner.
2. The “donut hole” coverage gap is reduced ratably and completely eliminated by 2020.
3. As the coverage gap diminishes, the sponsor’s “Wrap” supplemental benefits within the “donut hole” decreases.
4. Federal prescription drug subsidies must be used to reduce the cost of providing benefits to Medicare eligible members, resulting in lower premium rates. This feature allows the sponsor to reflect certain EGWP-Wrap savings in the GASB 45 valuation.

100% of current and future Medicare retirees are assumed to participate in the EGWP – Wrap plan. The EGWP-Wrap design feature is expected to reduce the aggregate prescription costs for Medicare eligible members by approximately 28% in 2014. However, it is not clear how brand name discounts and federal subsidies will impact the effective trend rates and overall costs in the future. Consequently, for GASB 45 valuation purposes, we have assumed that the EGWP – Wrap savings will wear-away by the end of 2019.

Final Per Capita Assumptions

Baseline Costs for Non-Disabled Retirees and Spouses (Expected Monthly Per Capita Costs for Calendar Year 2013)						
Age	Medical Coverage		Prescription Drug Coverage		Dental Coverage	
	Male	Female	Male	Female	Male	Female
50	\$286.18	\$294.68	\$118.36	\$132.08	\$14.10	\$14.10
55	\$345.15	\$335.01	\$142.30	\$147.27	\$14.10	\$14.10
60	\$415.67	\$381.90	\$174.60	\$168.45	\$14.10	\$14.10
65	\$126.42	\$104.83	\$197.39	\$184.47	\$14.10	\$14.10
70	\$137.31	\$110.12	\$210.67	\$195.32	\$14.10	\$14.10
75	\$144.00	\$114.40	\$214.45	\$201.02	\$14.10	\$14.10
80	\$146.42	\$117.68	\$214.45	\$201.95	\$14.10	\$14.10

Disabled Members

The per capita assumptions for disabled members were developed in the same way as the healthy members, except that no age/sex-rating factors were used. The claims data showed insufficient differences by age/sex for the disabled members.

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**SECTION E**

**SUMMARY OF BENEFIT PROVISIONS**

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## SUMMARY OF THE CURRENT SUBSTANTIVE PLAN PROVISIONS

### **Obligations of the State of South Carolina**

The Governmental Accounting Standards Board (GASB) has issued Accounting Statement No. 43 which describes an accounting standard to be followed for all government financial statements prepared in accordance with generally accepted accounting principles (GAAP). GASB Statement No. 43 sets forth the accounting treatment for obligations related to Other Post-Employment Benefits (OPEBs). The Statement defines the Substantive Plan as the terms of an OPEB plan as understood by the employer(s) and the plan members.

The State of South Carolina has basically two levels of OPEB provided through the Employee Insurance Program (EIP). In the following pages and common usage, these are called the *Implicit Rate Subsidy* and the *State-Funded Subsidy*.

#### *Implicit Rate Subsidy*

The *Implicit Rate Subsidy* inures to the benefit of the retirees and their dependents by reason of not having to pay the true age-adjusted cost of coverage. The blended group premiums paid are developed each year by the EIP for the various plans and tiers of coverage and, generally, called the “Non-Funded Premiums”. These are derived by blending the expected cost of coverage among both active and retired employees. Generally speaking, the blended group premium is lower than the true cost for retirees and higher than the true cost for active employees. By applying those blended group premiums or Non-Funded Premiums to active employees and their dependents, the State is thereby financing a part of the total retiree cost. So, the *Implicit Rate Subsidy* is financed on a pay-as-you-go basis by loading the monthly rates charged by EIP for coverage (employer plus employee rates), sufficient to make up the difference between the true cost of retirees’ coverage and these published monthly rates. All eligible retirees of the State enjoy this *Implicit Rate Subsidy*.

#### *State-Funded Subsidy*

The *State-Funded Subsidy* is an additional benefit to certain retirees because it allows them to pay the same portion of the total blended group premium that active employees are required to pay. So the retirees pay only the “employee portion” rather than the total blended group premium. This is, generally, called the “Funded Premium”. This benefit to retirees is also financed on a pay-as-you-go basis. But rather than building this subsidy into the blended group premiums, it is financed each year by charging the employers a given percent of the current year’s active employee payroll (a “surcharge”) sufficient to cover the current years expected *State-Funded Subsidy*. Almost all eligible employees and retirees enjoy this *State-Funded Subsidy*.

To illustrate these two levels of OPEBs (*Implicit Rate Subsidy* and *State-Funded Subsidy*), consider a 62-year-old male State retiree and his 62-year-old spouse in the Standard Plan offered by the EIP. Such a retiree may elect either single coverage or retiree plus spouse coverage.

	Single Retiree	Retiree & Spouse
(1) Current Estimated True Monthly Cost of Coverage	\$640.42	\$1,219.07
(2) Current Total Published Monthly Premium Collected	408.20	868.44
(2a) Portion Paid by Employer/State	310.52	615.08
(2b) Portion Paid by Employee/Retiree	97.68	253.36
(3) Current Monthly <i>Implicit Rate Subsidy</i> : (1)-(2)	232.22	350.63
(4) Current Monthly <i>State-Funded Subsidy</i> : (2)-(2b)=(2a)	310.52	615.08

Based on Calendar Year 2013 rates and expected claims

### Substantive Plan

The pages that follow summarize the Substantive Plan provisions for OPEB benefits provided to members whose employers participate in EIP. This is just a summary. Other documents adopted or approved by EIP and/or the Budget and Control Board constitute the authoritative sources. In any conflict that might arise between such documents and this summary, such other documents govern.

For the purpose of this summary, “Earned Service” means creditable service as defined and used by the respective State-administered retirement systems for pension benefit eligibility, with respect to which the employee worked for a covered entity (which participates in the State-administered Employee Insurance Program) and with respect to which the last five (5) years are consecutive and in a full-time permanent position.

### State OPEBs Subject to GASB No. 45

Certain OPEBs available to eligible State and School District employees and retirees must be reflected in the Trust’s financial statements pursuant to GASB Statement No. 45. These benefits include subsidized medical/prescription benefits, dental benefits, and long term disability benefits. Other post-employment benefits provided through EIP that do not require any actuarial valuation under GASB Statement No. 43 and 45 include dental plus, long term care, optional life insurance and supplemental long term disability benefits. These require no special calculations or recognition because they are fully paid by the employees and retirees, without any funding by the State (implicitly or otherwise).

Employees and retirees of other Local Jurisdictions may benefit from OPEBs as well. However, the obligation associated with those OPEBs are not the Trust's obligations. They are the obligations of the Local Jurisdictions, which would expense and disclose their own respective obligations in their own respective financial statements.

#### *Medical/Prescription Coverage*

Certain State and School District retirees and their dependents and survivors are eligible to continue coverage under the various State-sponsored medical/prescription plans by paying a subsidized rate. Retirees may elect coverage for medical/prescription benefits without coverage for dental benefits.

#### *Dental Coverage*

Certain State and School District retirees and their dependents and survivors are eligible to continue coverage under the State-sponsored basic dental plan by paying a subsidized rate. Retirees may elect coverage for dental benefits without medical/prescription benefits.

#### *Basic Long Term Disability*

Certain State employees who become disabled may apply for Basic Long term Disability (BLTD) benefits. This benefit is provided without cost to the employee. The BLTD coverage is an employer-financed self-insured program and, thus, subject to reporting under GASB Statement No.45.

### **Eligibility for Medical/Prescription and Dental Benefits**

A two-tier eligibility standard is required for the State of South Carolina to be obligated to provide medical/prescription and dental OPEBs.

First, State and School District employees must be eligible for monthly retirement benefits under the *Vesting, Disability, and Early or Normal Retirement* provisions of any one of the four respective State-administered defined benefit retirement systems. Furthermore, if participating in the Optional Retirement Plan (ORP), employees must satisfy the same eligibility requirements for Vesting, Disability, Early or Normal Retirement under SCRS. The various benefit eligibility requirements for the State-administered Retirement Systems are described in detail in the July 1, 2013 annual actuarial valuations performed by Gabriel, Roeder, Smith and Company.

EIP enforces other eligibility requirements before retired State and School District employees may be considered eligible to benefit from State-obligated OPEBs. Almost all employees receiving pension benefits from one of the State-administered retirement systems are eligible to benefit from the *Implicit Rate Subsidy*, and most are eligible to benefit from the *State-Funded Subsidy*.

Those retirees that pay the Non-Funded Premium enjoy the benefit of the *Implicit Rate Subsidy*, as explained previously, and those that qualify for paying the Funded Premium enjoy the benefit of both the *Implicit Rate Subsidy* and the *State-Funded Subsidy*, as explained previously.

#### *Vesting Retirement*

Certain employees who terminate employment with the right to a vested deferred pension benefit are permitted to elect medical/prescription and dental coverage under the plan, commencing at age 60.

If such a former employee does not have at least 20 years of Earned Service at the time of termination, no retiree insurance coverage is available. However, if such a former employee does have at least 20 years of Earned Service at the time of termination, the premium required to be paid is only the Funded Premium for the plan and dependent option elected.

#### *Disability Retirement*

Certain employees who qualify for disability pensions or who qualify for the Basic LTD benefits are permitted to elect continued medical/prescription and dental coverage under the plan, commencing when either type of monthly disability benefits is approved.

If such a disabled employee does not have at least five (5) years of Earned Service, no retiree coverage is available. If such disabled employee does have at least five (5) years but does not have at least 10 years of Earned Service at the time of disability approval, the premium required to be paid is the Non-Funded Premium for the plan and dependent option elected. However, if such disabled employee has at least 10 years of Earned Service at the time of disability approval, the premium required to be paid is only the Funded Premium for the plan and dependent option elected.

#### *Death*

Surviving dependents of deceased active employees are permitted to continue coverage by paying a required monthly premium, provided both the employee and the surviving dependents were covered under medical/prescription and dental at the time of death. Eligibility for survivor coverage for dependents of active employees does not require eligibility for survivor death benefits under the retirement systems (unlike vesting, disability and early or normal retirement) and no service requirement is necessary for dependents to continue coverage. The required health premium for the first year of coverage following the death of such employee is waived. Surviving spouses may continue coverage for life or until remarriage. Surviving children may continue coverage until limiting ages the same as children of active employees.

In the event that the death of the active employee occurred in the line of duty, the required premium after the first year is only the Funded Premium for the plan and dependent option elected. In the

event that the death of the active employee did not occur in the line of duty, the required premium after the first year is the Non-Funded Premium for the plan and dependent option elected.

Surviving dependents of deceased retirees are permitted to continue coverage by paying a required monthly premium, provided both the retiree and the surviving dependents were covered under medical/prescription and dental at the time of death. Surviving spouses may continue coverage for life or until remarriage. Surviving children may continue coverage until limiting ages the same as children of active employees.

If the deceased retiree had at least 10 years of Earned Service at the time of retirement (and, thus, had been paying only the Funded Premium), the required health premium for the first year of coverage following death is waived. Thereafter, the surviving dependents pay the Non-Funded Premium for the plan and dependent option elected. If the deceased retiree had at least five (5) but not 10 years of Earned Service, there is no waiver of premium for the surviving dependents for the first year and the required premium is the Non-Funded Premium for the plan and dependent option elected.

#### *Early Retirement*

Any employee retiring with at least five (5) years of Earned Service who qualifies for a retirement pension under any Early Retirement provision of SCRS (“Early Retiree”), but not the Normal Retirement provision, is permitted to elect continued medical/prescription and dental coverage under the plan commencing when the Early Retirement pension commences. PORS, GARS and JSRS do not have any specific Early Retirement provision.

To continue coverage, such an Early Retiree is required to pay the Non-Funded Premium for the plan and dependent option elected until the State-Funded Date which is the earlier of age 60 or the date the person would have had 30 years’ of Earned Service assuming continued employment (28 for employees retiring Early on or after January 1, 2001). If such Early Retiree had less than 10 years of Earned Service at the time of retirement, then the Non-Funded Premium will continue to be charged for life, with no State-Funded Date applicable.

After the applicable State-Funded date, any such Early Retiree is required to pay only the Funded Premium for the plan and dependent option elected, provided the Early Retiree had at least 10 years of Earned Service.

*Normal Retirement*

Any employee retiring with at least five (5) years of Earned Service who qualifies for a retirement pension under any Normal Retirement provision (“Normal Retiree”), but not the Early Retirement provision, is permitted to elect continued medical/prescription and dental coverage. Any Normal retiree with less than five (5) years of Earned Service may not continue medical/prescription or dental coverage.

To continue coverage, a Normal Retiree with at least five (5) but less than 10 years of Earned Service is required to pay the Non-Funded Premium for the plan and dependent option elected.

A Normal Retiree with at least 10 years of Earned Service is required to pay only the Funded Premium for the plan and dependent option elected.

*Other Circumstances*

In addition to the previous rules regarding eligibility based on Earned Service, a member of the General Assembly who leaves office (whether by Vested Termination, Disability, Death or Retirement) with at least eight (8) years of creditable service for retirement system purposes is required to pay the Non-Funded Premium for the plan and dependent option elected.

*New Members hired as of May 2, 2008*

Members hired as of May 2, 2008 have a tiered eligibility formula to determine the retiree paid Premium during retirement:

Service at Retirement	Premium for Coverage
< 15 years	Non-Funded Premium
15-24 Years	Partial Funded Premium
>= 25 Years	Funded Premium

The Partial Funded Premium is the average between the Funded and the Non-Funded Premium. The Trust will continue to have additional liability for all retirees for any Implicit Subsidy provided through the premium structure.

**Basic Long Term Disability Benefits (BLTD)**

Any State employee (including members of the General Assembly and judges in the state courts) who becomes disabled and who is eligible and approved will receive disability payments under the Basic Long Term Disability program. With the passage of Act 195, the BLTD can be classified as a

cost-sharing multiple employer plan. Therefore, this valuation report encompasses all of the liabilities for all employers who participate in the program.

State employees are eligible for BLTD benefits if they are covered under the state health plan, are active full-time employees working 30 hours or more per week for 12 months (20 hours per week at the agency's option; or a full-time academic employee) and receive compensation from the State.

The program has a 90-day waiting period, an actively at work clause, a pre-existing condition exclusion and other exclusions and limitations. The benefit payable upon approval is 62.5% of pre-disability earnings, reduced by certain deductible income, with a maximum net benefit of \$800 per month. Disability is defined in terms of "own occupation" during the waiting period and the first 24 months of disability and "any occupation" thereafter. Other specific contract terms apply.

The monthly benefit is payable to age 65 if disability occurred prior to age 62. If disability occurs at or after age 62, the length of time benefits are paid varies, but no longer than one (1) year if disability occurs at or after age 69.

### **Retiree Contributions for Health-related Benefits**

In order to begin and maintain medical/prescription and dental coverage for retirees, dependent and survivors, premiums may be required. The amount of premium required depends on the plan and dependent option elected and depends on several other factors described above. The level of premium required was described in terms of Funded Premiums and Non-Funded Premiums. Generally speaking, Non-Funded Premiums are equivalent to the total blended group premiums determined by the State each year for the plan and dependent options offered. Whereas, Funded Premium generally refers to the employee-paid Funded Premiums for the plan and dependent options offered (as paid by active employees from payroll deductions).

The Funded and Non-Funded Premiums for the year beginning January 1, 2013 are found in the chart at the end of this Section entitled, "Required Premiums for Continued Coverage".

### **Termination and Amendment**

The post-employment benefits are extended to retirees and survivors. These benefits are continued at the discretion of the State, which reserves the right (subject to State Statute) to change or terminate benefits, the funding, the obligation and the contributions required from retirees and survivors in the future as circumstances change.

Required Premiums for Continued Coverage  
Effective January 1, 2013

	Savings <sup>2</sup>	Standard	Supplemental <sup>3</sup>	BlueChoice	Dental
<b><u>Non-Funded Premiums (monthly)</u></b>					
For Non-Medicare Retiree	\$320.22	\$408.20	NA	\$555.16	\$11.72
For Non-Medicare Spouse	\$372.26	\$460.24	\$460.24	\$749.46	\$7.64
For Medicare Retiree	NA	\$390.20	\$408.20	NA	\$11.72
For Medicare Spouse	\$372.26	\$442.24	\$460.24	NA	\$7.64
For Non-Medicare Surviving Spouse	\$320.22	\$408.20	NA	\$555.16	\$11.72
For Medicare Surviving Spouse	NA	\$390.20	\$408.20	NA	\$11.72
<b><u>Funded Premiums (monthly)</u></b>					
For Non-Medicare Retiree	\$9.70	\$97.68	NA	\$244.64	\$0.00
For Non-Medicare Spouse	\$67.70	\$155.68	\$155.68	\$444.90	\$7.64
For Medicare Retiree	NA	\$79.68	\$97.68	NA	\$0.00
For Medicare Spouse	\$67.70	\$137.68	\$155.68	NA	\$7.64
For Non-Medicare Surviving Spouse	\$9.70	\$97.68	NA	\$244.64	\$0.00
For Medicare Surviving Spouse	NA	\$79.68	\$97.68	NA	\$0.00

<sup>1</sup> Other Dependents (besides Spouses) are eligible under the terms of the post-employment benefit plan. However, for actuarial purposes, only premiums for retirees, spouses and surviving spouses are presented in this table.

<sup>2</sup> Savings plan is not available to retirees eligible for Medicare. The Spouse may be eligible for Medicare.

<sup>3</sup> Supplemental Plan is generally only for Medicare members. However, a split contract in which one is Medicare-eligible and the other is not, is available. The coverage and premium for the Non-Medicare party is based on the Standard Plan.

Premiums shown above do not include the Tobacco Surcharge. The Tobacco Surcharge is \$40/month for subscriber only coverage and an additional \$20/month for dependent coverage.

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## **SECTION F**

### SUMMARY OF PARTICIPANT DATA

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## SUMMARY OF PARTICIPANT DATA

### A. Members Currently in Retired Status

1. Counts by Retirement Plan and Coverage Type
2. Average Age by Plan and Coverage Type
3. Expected Payments by Counts and Coverage Type
4. Distribution of Current Retirees by Health Plan, Coverage Type, and Subscriber Type

The members in the schedules referenced above include only those retirees who have elected to receive health care coverage through the State of Carolina health care plan.

### B. Members Currently in Active Status

1. Age and Service Distribution for State Employees
2. Age and Service Distribution for State Employees
3. Counts and Payroll by Retirement Plan

Counts of Current Retirees Covered

	Medical/Rx		Dental		Combined		Eligible for State Funded Premium	
	Male	Female	Male	Female	Male	Female	Male	Female
General State Employees								
1 Person Cvg	6,746	14,582	7,529	16,018	7,711	16,485	7,260	14,207
2 Person Cvg	4,289	3,870	4,435	3,885	4,542	3,945	4,490	3,888
School Districts								
1 Person Cvg	5,050	23,527	5,553	25,502	5,732	25,875	5,067	24,892
2 Person Cvg	1,958	9,126	2,018	9,113	2,064	9,235	2,047	9,192
Police Officers								
1 Person Cvg	1,614	863	1,988	949	2,023	965	1,936	914
2 Person Cvg	1,011	161	1,049	159	1,070	165	1,053	163
National Guard								
1 Person Cvg	120	5	332	10	334	10	313	10
2 Person Cvg	84	0	143	0	144	0	143	0
Judges								
1 Person Cvg	30	4	36	4	36	4	36	4
2 Person Cvg	64	3	64	3	65	3	65	3
General Assembly								
1 Person Cvg	59	13	64	16	65	16	60	16
2 Person Cvg	74	4	74	4	75	4	74	3
Total								
1 Person Cvg	13,619	38,994	15,502	42,499	15,901	43,355	14,672	40,043
2 Person Cvg	7,480	13,164	7,783	13,164	7,960	13,352	7,872	13,249
	21,099	52,158	23,285	55,663	23,861	56,707	22,544	53,292
Male & Female		73,257		78,948		80,568		75,836

**Average Age of Current Retirees Covered**

	Medical		Dental		Combined		Eligible for State Funded Premium	
	Male	Female	Male	Female	Male	Female	Male	Female
General State Employees								
1 Person Cvg	69.1	70.3	69.5	70.4	69.4	70.6	69.5	69.8
2 Person Cvg	70.5	66.6	71.1	66.8	71.1	66.8	71.1	66.9
School Districts								
1 Person Cvg	69.8	71.6	69.5	70.9	69.6	70.9	69.3	70.9
2 Person Cvg	70.1	67.0	70.1	66.8	70.1	66.8	70.1	66.8
Police Officers								
1 Person Cvg	61.9	62.1	63.2	62.3	63.2	62.2	63.2	62.3
2 Person Cvg	64.1	63.3	64.8	63.5	64.8	63.5	64.9	63.5
National Guard								
1 Person Cvg	68.0	65.3	69.3	67.2	69.3	67.2	69.1	67.2
2 Person Cvg	68.8	0.0	71.5	0.0	71.5	0.0	71.5	0.0
Judges								
1 Person Cvg	74.1	59.9	74.3	59.9	74.3	59.9	74.3	59.9
2 Person Cvg	71.4	56.6	71.8	56.6	71.5	56.6	71.5	56.6
General Assembly								
1 Person Cvg	73.0	71.8	72.8	70.6	73.1	70.6	73.3	70.6
2 Person Cvg	72.8	73.1	72.9	73.1	72.8	73.1	72.8	72.3
Total								
1 Person Cvg	68.5	70.9	68.7	70.5	68.7	70.6	68.6	70.3
2 Person Cvg	69.6	66.8	70.0	66.8	70.0	66.8	70.0	66.8
	68.9	69.9	69.2	69.6	69.1	69.7	69.1	69.4
Male & Female		69.6		69.5		69.5		69.3

Expected Payments to Current Retirees Covered (000's)

	Claims						Retiree Premiums Collected		State Funded Premium	
	Medical		Rx		Dental		Male	Female	Male	Female
	Male	Female	Male	Female	Male	Female				
General State Employees										
1 Person Cvg	19,802	37,683	15,065	31,278	1,291	2,748	9,101	23,486	26,002	52,359
2 Person Cvg	22,128	21,181	17,854	16,177	1,523	1,334	13,952	12,646	33,037	29,700
School Districts										
1 Person Cvg	14,667	59,507	11,207	49,972	952	4,377	7,633	30,438	18,606	91,913
2 Person Cvg	10,596	50,828	8,171	38,199	693	3,129	6,305	29,258	15,145	70,647
Police Officers										
1 Person Cvg	6,202	3,192	3,761	2,052	341	163	2,042	1,140	6,398	3,357
2 Person Cvg	6,619	1,042	4,233	667	360	55	3,329	528	7,760	1,235
National Guard										
1 Person Cvg	380	18	256	10	57	2	150	6	503	21
2 Person Cvg	480	-	345	-	49	-	273	-	661	-
Judges										
1 Person Cvg	62	14	63	8	6	1	36	5	121	16
2 Person Cvg	286	26	257	11	22	1	203	10	497	23
General Assembly										
1 Person Cvg	147	35	124	26	11	3	90	16	216	52
2 Person Cvg	338	17	298	16	25	1	243	20	567	23
Total										
1 Person Cvg	41,261	100,450	30,477	83,347	2,658	7,293	19,052	55,091	51,846	147,719
2 Person Cvg	40,446	73,093	31,159	55,071	2,673	4,520	24,304	42,463	57,668	101,630
	81,707	173,543	61,636	138,418	5,331	11,813	43,356	97,553	109,515	249,348
Male & Female		255,250		200,053		17,144		140,910		358,863

**Distribution of Current Retirees by Health Plan, Coverage Type,  
 and Subscriber Type**

HEALTH PLAN	Under 65	At Least 65	Total
Standard Plan	18,330	4,743	23,073
Medicare Supplement	5,062	43,796	48,858
Savings Plan	196	-	196
BlueChoice	1,129	1	1,130
Cigna	-	-	-
Dental Only	1,264	6,047	7,311
Total	25,981	54,587	80,568

COVERAGE TYPE	Under 65	At Least 65	Total
Single	16,576	40,219	56,795
Sub/Spouse	5,964	13,550	19,514
Sub/Child(ren)	1,884	465	2,349
Full Family	1,450	348	1,798
Child(ren) Only	108	4	112
Total	25,982	54,586	80,568

SUBSCRIBER TYPE	Under 65	At Least 65	Total
< 10 Years Service	477	773	1,250
At Least 25 and 55	43	-	43
Full Funded Retiree	24,764	51,023	75,787
Survivors of Active Death	6	-	6
Survivors of Funded Retiree	563	2,769	3,332
Other	128	22	150
Total	25,981	54,587	80,568

**DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE  
 TOTAL STATE EMPLOYEES**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	1,084	475	149	63	34	15	0	0	0	0	0	0	1,820
25-29	1,846	1,380	933	614	473	956	6	0	0	0	0	0	6,208
30-34	1,328	1,109	831	662	675	3,167	438	11	0	0	0	0	8,221
35-39	911	775	594	482	557	2,746	1,685	431	7	2	0	0	8,190
40-44	762	650	507	434	505	2,613	1,882	1,679	499	124	10	0	9,665
45-49	664	517	441	359	385	2,172	1,727	1,428	1,650	1,045	130	5	10,523
50-54	531	480	352	353	395	2,062	1,790	1,434	1,568	2,266	512	31	11,774
55-59	427	405	313	307	277	1,881	1,668	1,438	1,375	1,906	651	148	10,796
60-64	218	195	200	190	205	1,292	1,229	1,050	878	1,028	376	184	7,045
65 & Over	63	69	80	71	85	693	586	392	291	304	175	113	2,922
Total	7,834	6,055	4,400	3,535	3,591	17,597	11,011	7,863	6,268	6,675	1,854	481	77,164

**DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE  
 SCHOOL DISTRICT EMPLOYEES**

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	897	882	329	29	18	9	0	0	0	0	0	0	2,164
25-29	1,059	1,702	1,496	1,164	971	1,963	5	0	0	0	0	0	8,360
30-34	717	896	643	557	622	5,433	1,152	5	0	0	0	0	10,025
35-39	674	799	562	425	472	3,283	3,632	1,123	6	2	0	0	10,978
40-44	766	869	672	508	535	3,216	2,633	3,541	809	71	3	0	13,623
45-49	652	675	549	418	453	3,004	2,238	1,938	2,304	1,341	114	1	13,687
50-54	551	558	476	400	368	2,594	2,390	1,941	1,556	3,239	572	24	14,669
55-59	409	479	388	323	309	2,088	1,958	2,018	1,604	2,353	634	73	12,636
60-64	247	270	227	212	244	1,560	1,206	1,193	1,127	1,205	272	82	7,845
65 & Over	123	146	125	104	132	856	567	325	211	298	121	41	3,049
Total	6,095	7,276	5,467	4,140	4,124	24,006	15,781	12,084	7,617	8,509	1,716	221	97,036

**Distribution of Active Members by Retirement Plan  
 (Covered Payroll is Expected Payroll for Fiscal Year 2013)**

	State Employees	School District Employees	Grand Total
\$ amounts in '000s			
1. SCRS Active Members - Count	49,487	82,293	131,780
Covered Payroll	\$ 2,190,017	\$ 3,153,654	\$ 5,343,670
2. SCRS TERI Members - Count	3,840	4,648	8,488
Covered Payroll	\$ 232,720	\$ 276,795	\$ 509,515
3. ORP Members - Count	12,564	8,269	20,833
Covered Payroll	\$ 748,039	\$ 319,922	\$ 1,067,961
4. Return to Work Members	1,556	1,826	3,382
Covered Payroll	\$ 78,611	\$ 96,065	\$ 174,675
4. PORs Members - Count	9,475		9,475
Covered Payroll	\$ 355,860		\$ 355,860
5. GARS Members - Count	115		115
Covered Payroll	\$ 2,684		\$ 2,684
6. JSRS Members - Count	127		127
Covered Payroll	\$ 16,777		\$ 16,777
7. Total - Count	77,164	97,036	174,200
Covered Payroll	\$ 3,624,706	\$ 3,846,436	\$ 7,471,142

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**SECTION G**

**GASB ACCOUNTING SCHEDULES**

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GASB Statement Number 45  
 History of Contributions  
 (\$000s)

**Retiree Medical Plan (Using 5.50% Discount Rate)**

<b>Fiscal Year Ended</b>	<b>GASB ARC</b>	<b>Actual Contribution</b>	<b>Percentage Contributed</b>
2011	\$ 815,825	\$ 302,755	37.11 %
2012	\$ 787,293	\$ 419,009	53.22 %
2013	\$ 818,861	\$ 409,592	50.02 %

\$ in 000s

**Long Term Disability Plan (USING 6.00% DISCOUNT RATE)**

<b>Fiscal Year Ended</b>	<b>GASB ARC</b>	<b>Actual Contribution</b>	<b>Percentage Contributed</b>
2011	\$ 9,456	\$ 6,737	71.25 %
2012	\$ 9,231	\$ 6,749	73.11 %
2013	\$ 9,410	\$ 6,796	72.23 %

\$ in 000s

GASB Statement Numbers 43 and 45  
 Required Supplementary Information

Retiree Medical Plan (5.5% discount rate)

Valuation Date	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL/ Payroll
6/30/2011	\$ 10,625,914	\$ 477,124	\$ 10,148,790	4%	\$ 7,127,657	142%
6/30/2012	\$ 10,328,465	\$ 592,337	\$ 9,736,128	6%	\$ 7,161,059	136%
6/30/2013	\$ 10,072,927	\$ 668,972	\$ 9,403,955	7%	\$ 7,471,142	126%

\$ amounts in '000s

Long Term Disability Plan (6% discount rate)

Valuation Date	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL/ Payroll
6/30/2011	\$ 25,957	\$ 33,283	\$ (7,326)	133%	\$ 7,837,796	0%
6/30/2012	\$ 23,586	\$ 35,576	\$ (11,990)	151%	\$ 7,871,635	0%
6/30/2013	\$ 28,248	\$ 35,426	\$ (7,178)	125%	\$ 8,163,269	0%

\$ amounts in '000s

GASB Statement Numbers 43 and 45  
 Information for Notes to Financial Statement

**Retiree Medical Plan**

Valuation Date	June 30, 2013
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent Open
Remaining Amortization Periods	30 Years
Asset Valuation Method	Market
Actuarial Assumptions:	
Investment Rate of Return	5.50%
Payroll Growth Rate	3.50%
Healthcare cost trend rate	
Medical	6.00% - 4.50% Ultimate
Rx	6.00% - 4.50% Ultimate

**Long Term Disability Plan**

Valuation Date	June 30, 2013
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent Open
Remaining Amortization Periods	30 Years
Asset Valuation Method	Market
Actuarial Assumptions:	
Investment Rate of Return	6.00%
Payroll Growth Rate	3.50%

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## **SECTION H**

### ACTUARIAL ASSUMPTIONS AND METHODS

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## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

*The actuarial assumptions used* in the valuation are shown in this Section. Assumptions that are specific to certain groups (i.e. State Employees, School District Employees, PORS, GARS, and JSRS) are discussed under the first subsection that follows. Assumptions that are common to all types of members and unique to this valuation are then shown on the following pages.

### **Demographic and Certain Economic Assumptions**

This Actuarial Valuation of the State's OPEBs is similar to the Actuarial Valuations performed for the State's Retirement Systems, except that the OPEB Valuation is more complex. With the exception of the retirement rates, all of the demographic assumptions and most of the economic assumptions used in this OPEB Valuation were identical to those used in the July 1, 2013 retirement system valuations. The retirement rates used in the OPEB Valuation do not include the 50% rate used in the pension valuations at first eligibility for concurrent benefit commencement and continued employment. Because members who return to work often remain on the active health plan, the 50% retirement rate was not used in the OPEB valuation.

The assumptions are described in detail in the July 1, 2013 retirement system valuations performed by Gabriel, Roeder, Smith and Company.

**Healthcare and Other Economic Assumptions**

*The Interest Discount Rate* assumed in the valuation of an unfunded plan structure was 5.00% per year, compounded annually. For the valuation results under the partial-funded scenario in which a qualifying OPEB trust is established and the State adopts an actuarially sound funding policy, the interest discount rate is 6.00% per year compounded annually for the portion of the benefits financed with advanced funding. The blended rate for the partially funded scenario is therefore 5.50%.

*Health Cost and Premium Increases – See table below*

<i>Year</i>	<i>Medical Trend Rates</i>			<i>Premium Trend Rates</i>	
	<i>Medical</i>	<i>Rx</i>	<i>Dental</i>	<i>Non-Funded</i>	<i>State-Funded</i>
<b>2014</b>	4.88%	4.88%	3.00%	4.88%	0.00%
<b>2015</b>	6.00%	6.00%	3.00%	6.00%	0.00%
<b>2016</b>	6.00%	6.00%	3.00%	6.00%	0.00%
<b>2017</b>	6.00%	6.00%	3.00%	6.00%	6.00%
<b>2018</b>	6.00%	6.00%	3.00%	6.00%	6.00%
<b>2019</b>	5.75%	6.00%	3.00%	5.88%	5.88%
<b>2020</b>	5.50%	5.75%	3.00%	5.63%	5.63%
<b>2021</b>	5.25%	5.50%	3.00%	5.38%	5.38%
<b>2022</b>	5.00%	5.25%	3.00%	5.13%	5.13%
<b>2023</b>	4.75%	5.00%	3.00%	4.88%	4.88%
<b>2024</b>	4.75%	4.75%	3.00%	4.75%	4.75%
<b>2025 &amp; Beyond</b>	4.50%	4.50%	3.00%	4.50%	4.50%

*Medical Trend is assumed to occur 1/1 of each year beginning 1/1/2013. Premium increases are assumed to occur 1/1 of each year beginning 1/1/2013.*

*The non-funded premiums are assumed to increase at the weighted average increase of claims over the long term. The funded retiree premiums are assumed to remain level through calendar year 2016.*

**Election percentage:** For retirees who are eligible for the Funded Premium, it was assumed that 53% would elect one-person coverage, if eligible, while 26% were assumed to elect two-person coverage. The election rates described above are reduced by 25% for members who are eligible for the Partial Funded Premium and reduced by 75% for members who are eligible for the Non-Funded Premium. For those that elect two-person coverage, it was assumed that 5% of spouses would continue coverage upon death of the retiree, if eligible. 30% of inactive deferred participants were assumed to elect health coverage at their earliest eligible age. It was further assumed that retirees who are responsible for the entire Non-Funded Premium would lapse coverage when they become eligible for Medicare.

**Election percentage (continued):** For BLTD, it was assumed that 65% of members who become disabled would qualify for benefits through the BLTD. 45% of the employees who qualify for benefits through the BLTD are assumed to be eligible for Social Security benefits.

**Aging Factors:** In any given year, the cost of medical and pharmacy benefits vary by age. As the ages of employees and retirees in the covered population increase so does the cost of benefits. Morbidity tables are employed to develop Per Capita Costs at every relevant age. The following table represents the percent by which the cost of benefits for non-disabled lives at one age is higher than the cost for the previous age. For example, according to the following table, the cost of benefits for a male age 55 is 3.12% higher than for one age 54. As discussed previously, disabled lives exhibited minimal variation by age and sex. These percentages below are separate from the annual Medical Trend, which operates to increase costs independent of and in addition to the Aging Factors shown below. These factors were developed based on actual experience data gathered from EIP.

Sample Ages	Cost Increase by Age			
	Medical		Rx	
	Male	Female	Male	Female
45	5.83%	2.20%	0.00%	0.00%
50	6.22%	3.16%	0.00%	0.00%
55	3.12%	2.58%	5.07%	3.16%
60	4.60%	2.74%	3.05%	2.15%
65	1.97%	1.09%	1.73%	1.40%
70	1.22%	0.85%	0.72%	0.79%
75	0.57%	0.64%	0.00%	0.26%
80	0.00%	0.45%	0.00%	0.00%
85	0.00%	0.28%	0.00%	0.00%
90	0.00%	0.11%	0.00%	0.00%

**Actuarial Methods**

**The individual entry age actuarial cost method of valuation** was used in determining liabilities and normal cost. Differences between assumed experience and actual experience (“actuarial gains and/or losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce payments (principal & interest) which are a level percent of payroll.

**Miscellaneous and Technical Assumptions**

Marriage Assumption:	79% of males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses. For PORS, male are assumed to be 4 years older than female spouses.
Pay Increase Timing:	Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Operation:	Disability and mortality decrements are added to the termination decrements during the first 5 years. Disability is added to the retirement decrement during retirement eligibility.
Rx Rebates/Subsidies	The age-rated claims shown in Section D are net of pharmaceutical manufacturer rebates. It was assumed that the manufacturer's rebates would equal 10% of the Rx claims. The claims shown in Section D do not reflect the discounts and subsidies related to the EGWP-Wrap plan.
Incidence of ARC Contributions:	The ARC is assumed to be received at the middle of the year.
Administrative Expenses:	The normal cost for general employees is loaded for administrative expenses. Expenses were assumed to be 6.5% of expected claims. The administrative expenses for school district employees are not included in the liabilities for this valuation, as the State obligation is for the State-Funded premium only. The expenses associated with processing claims are included in the implicit subsidy and therefore the expenses will be included in the OPEB valuations for the individual school districts.
Reliance on Other Actuaries	The liability attributable to retirees who are currently receiving a long-term disability benefit was provided by the Standard Insurance Company.

**Miscellaneous and Technical Assumptions (continued)**

Excise Tax and  
Health Care Reform

This report has not incorporated any additional liabilities associated with the excise tax on high-cost employer health plans effective January 1, 2018. The “Cadillac” tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of legislated thresholds. The thresholds in 2018 are \$10,200 for single coverage and \$27,500 for family coverage.

The administrative expense assumption of 6.50% includes an allowance for additional fees associated with the Affordable Care Act (ACA).

Assumption/Method  
Changes

1. Based on a review of the plan’s experience, the participation assumption for deferred inactive participants was decreased from 79% to 30%.
2. The percentage of covered retirees who also cover a spouse was decreased from 35% to 33%.
3. The trend rates were reset to better reflect the plan’s anticipated experience. The trend rates for the underlying medical and Rx claims are lower. However, the funded premiums retirees are required to pay are assumed to remain level through 2016.
4. The Rx claims for Medicare retirees have been adjusted to reflect the anticipated savings due to the new EGWP-Wrap design.
5. The mortality assumptions and rates of disability incidence have been updated to match those used in the June 30, 2013 pension valuations.
6. The probability of a surviving spouse of a retiree continuing coverage after the member’s death was decreased from 75% to 5%.
7. The retirement eligibilities have been added for Class III employees.

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**APPENDIX**

GLOSSARY

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## Glossary

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions.** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent.** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Annual Required Contribution (ARC).** The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

**Governmental Accounting Standards Board (GASB).** GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Medical Trend Rate (Health Inflation).** The increase in the plan's cost over time. Trend includes all elements that may influence a plan's cost, assuming that enrollments and the plan benefits do not change. Trend includes such elements as, pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Post-Employment Employee Benefits (OPEB).** OPEB are post-employment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other healthcare benefits.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

**Unfunded Actuarial Accrued Liability.** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

**Valuation Assets.** The value of current plan assets recognized for valuation purposes.