

STATE OF SOUTH CAROLINA RETIREE HEALTH CARE PLAN
ACTUARIAL VALUATION REPORT
AS OF JUNE 30, 2015

February 9, 2016

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, 2015, with results applicable to the fiscal year July 1, 2015 to June 30, 2016. 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, 2015 Retirement System pension valuations. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

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



William J. Hickman
Senior Consultant



Joseph P. Newton, FSA, FCA, EA
Senior Consultant



Mehdi Riazi, FSA, EA
Consultant

TABLE OF CONTENTS

Section	Page Number	
		COVER LETTER
A	2	OVERVIEW Summary of GASB Accounting Standards
B	7	VALUATION RESULTS – RETIREE MEDICAL PLAN
C	11	VALUATION RESULTS – LONG TERM DISABILITY PLAN
D	14	DEVELOPMENT OF BASELINE COSTS Data Source and Baseline Costs Costing Variables Methodology Final Per Capita Assumptions
E	22	SUMMARY OF BENEFIT PROVISIONS
F	31	SUMMARY OF PARTICIPANT DATA
G	40	GASB ACCOUNTING SCHEDULES
H	44	ACTUARIAL ASSUMPTIONS AND METHODS Summary of Actuarial Assumptions and Methods Miscellaneous and Technical Assumptions
Appendix	50	GLOSSARY

SECTION A

OVERVIEW

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, 2015 through June 30, 2016. The ARC for fiscal year ending June 30, 2016 was developed in the prior valuation as of June 30, 2014. GASB Statement No. 74 will replace Statement No. 43 for plan accounting effective in fiscal year ending June 30, 2017. The FY17 information required to comply with Statement No. 74 will be provided in a separate valuation report.

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, 2016. The actuarial liabilities are measured as of June 30, 2015. 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,	
	2015	2014
Actuarial Accrued Liability	\$ 10,824,335	\$ 10,124,467
Actuarial Value of Assets	964,186	784,970
Unfunded Actuarial Accrued Liability (EANC)	9,860,149	9,339,497
Year ending June 30,		
Annual Required Contribution for YE June 30,	2017	2016
	N/A	\$ 749,713
		\$ 4,243
Per Active Participant		9.13%
As % of Expected Payroll		
Expected Net Employer Contr. for YE June 30, (for crediting against OPEB Cost)		\$ 440,267

GASB Statement No. 74 will be effective for fiscal year ending June 30, 2017. The disclosure requirements under GASB No. 74 do not require the determination of an ARC.

The illustrated fiscal year ending June 30, 2016 Net Employer Contribution for the partial funding scenario is shown as \$440 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 5.33% of payroll for fiscal year 2016. 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 2015, there were additional contributions of \$176 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 6.00% 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 6.00% 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 a 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 2013, 2014 and 2015,

there were additional contributions made to the trust of \$67 million, \$96 million and \$176 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 2016, it is anticipated that \$24 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 2015 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.

SECTION B

VALUATION RESULTS - RETIREE MEDICAL PLAN

VALUATION RESULTS

Retiree Medical Plan

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 2016. 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 FY2017. 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 5.00% unfunded discount rate and the 6.00% advance funded discount rate with no equity exposure. For Fiscal Year 2017, 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) increased by \$521 million dollars from June 30, 2014 to June 30, 2015. Had the full ARC been paid, the UAAL would have been expected to increase by \$86 million due to the 30-year, level percentage of payroll amortization methodology (i.e. the amortization payment is less than the interest accrual on the UAAL). In addition to the expected increase, the trust contributions in fiscal year ending June 30, 2015 were 76.4% of the ARC which resulted in a funding shortfall of \$182 million. Claims experience and assumption changes (see page 48) increased the UAAL by \$196 million. Most of this increase was attributable to higher than expected initial year claims estimates. The UAAL increased by \$34 million due to investment returns which were less than expected. The remaining increase of \$23 million was attributable to the plan's demographic experience.

State of South Carolina Based on a partially-funded Plan using a 5.50% investment return assumption OPEB Actuarial Valuation Results as of June 30, 2015 (\$ in '000s)						
	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	79,795	79,795	79,795	79,795	99,989	179,784
Retired Participants	35,242	38,944	38,763	38,763	45,207	83,970
Vested Terminated Participants	850	850	850	850	666	1,516
Total Participants	115,887	119,589	119,408	119,408	145,862	265,270
Actuarial Present Value of Benefits						
Active Participants	\$4,756,588	\$101,396	(\$1,284,065)	\$3,573,919	\$4,977,186	\$8,551,105
Retired Participants	3,119,016	96,060	(897,563)	2,317,513	2,781,231	5,098,744
Vested Terminated Participants	33,828	765	(9,798)	24,795	20,015	44,810
Total Participants	\$7,909,432	\$198,221	(\$2,191,426)	\$5,916,227	\$7,778,432	\$13,694,659
Actuarial Accrued Liability (Enty Age Normal Cost Actuarial Method)						
Active Participants	\$3,353,632	\$74,252	(\$854,057)	\$2,573,827	\$3,106,954	\$5,680,781
Retired Participants	3,119,016	96,060	(897,563)	2,317,513	2,781,231	5,098,744
Vested Terminated Participants	33,828	765	(9,798)	24,795	20,015	44,810
Total Participants	\$6,506,476	\$171,077	(\$1,761,418)	\$4,916,135	\$5,908,200	\$10,824,335
Actuarial Value of Assets				437,909	526,277	964,186
Unfunded Actuarial Accrued Liability (EANC)				\$4,478,226	\$5,381,923	\$9,860,149

State of South Carolina Based on a partially-funded Plan using a 5.50% investment return assumption OPEB ACTUARIAL VALUATION RESULTS as of June 30, 2015 (\$ in '000s)				
	State Obligation for School District Employees			
	Medical/ Rx Claims	Dental Claims	Retiree Premiums	Total
Number of Participants Covered				
Active Participants	99,989	99,989	99,989	99,989
Retired Participants	40,576	43,388	45,207	45,207
Vested Terminated Participants	666	666	666	666
Total Participants	141,231	144,043	145,862	145,862
Actuarial Present Value of Benefits				
Active Participants	\$6,641,836	\$139,747	(\$1,804,397)	\$4,977,186
Retired Participants	3,722,991	117,326	(1,059,086)	2,781,231
Vested Terminated Participants	27,207	605	(7,797)	20,015
Total Participants	\$10,392,034	\$257,678	(\$2,871,280)	\$7,778,432
Actuarial Accrued Liability (Enty Age Normal Cost Actuarial Method)				
Active Participants	\$4,060,274	\$89,712	(\$1,043,032)	\$3,106,954
Retired Participants	3,722,991	117,326	(1,059,086)	2,781,231
Vested Terminated Participants	27,207	605	(7,797)	20,015
Total Participants	\$7,810,472	\$207,643	(\$2,109,915)	\$5,908,200
Actuarial Value of Assets				\$526,277
Unfunded Actuarial Accrued Liability (EANC)				\$5,381,923

SECTION C

VALUATION RESULTS - LONG TERM DISABILITY PLAN

VALUATION RESULTS

Long Term Disability Plan

The chart on the following page presents the essential results of the valuation for the Long Term Disability Plan. The 6.00% scenario shown below assumes the annual contributions will be relatively close to the actuarially determined rates and that assets will accumulate in the trust, with no exposure to equities in the asset allocation. This scenario should be used for financial reporting of the Unfunded Actuarial Accrued Liabilities (UAAL) for the fiscal year ending June 30, 2016. The ARC for fiscal year ending June 30, 2016 was developed in the prior valuation as of June 30, 2014. GASB Statement No. 74 will replace Statement No. 43 for plan accounting effective in fiscal year ending June 30, 2017. The FY17 information required to comply with Statement No. 74 will be provided in a separate valuation report.

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 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 on the following page are employer costs and liabilities.

State of South Carolina Long Term Disability Plan OPEB ACTUARIAL VALUATION RESULTS as of June 30, 2015 (\$ in '000s)	
	Funded 6.00% Discount Rate
Number of Participants Covered	
Active Participants	191,578
Retired Participants	1,018
Vested Terminated Participants	<u>0</u>
Total Participants	192,596
Actuarial Present Value of Benefits	
Active Participants	\$67,970
Retired Participants	\$20,992
Vested Terminated Participants	<u>\$0</u>
Total Participants	\$88,962
Actuarial Accrued Liability (Enty Age Normal Cost Actuarial Method)	
Active Participants	\$12,169
Retired Participants	\$20,992
Vested Terminated Participants	<u>\$0</u>
Total Participants	\$33,161
Actuarial Value of Assets	\$36,345
Unfunded Actuarial Accrued Liability (EANC)	(\$3,184)

SECTION D

DEVELOPMENT OF BASELINE COSTS

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, 2014 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, 2015 for a sample of ages:

Baseline Costs for Non-Disabled Retirees and Spouses (Expected Monthly Per Capita Costs for Calendar Year 2015)						
Age	Medical Coverage		Prescription Drug Coverage		Dental Coverage	
	Male	Female	Male	Female	Male	Female
50	\$326.68	\$336.39	\$153.92	\$171.76	\$14.10	\$14.10
55	\$394.00	\$382.43	\$153.92	\$171.76	\$14.10	\$14.10
60	\$474.51	\$435.95	\$185.05	\$191.51	\$14.10	\$14.10
65	\$128.54	\$106.59	\$227.05	\$219.05	\$14.10	\$14.10
70	\$139.61	\$111.97	\$256.69	\$239.89	\$14.10	\$14.10
75	\$146.41	\$116.32	\$273.95	\$254.00	\$14.10	\$14.10
80	\$148.88	\$119.66	\$278.87	\$261.40	\$14.10	\$14.10

Baseline Costs for Disabled Retirees (Expected Monthly Per Capita Costs for Calendar Year 2015)						
Age	Medical Coverage		Prescription Drug Coverage		Dental Coverage	
	Male	Female	Male	Female	Male	Female
Under 65	\$567.11	\$567.11	\$453.81	\$453.81	\$14.10	\$14.10
65	\$128.54	\$106.59	\$227.05	\$219.05	\$14.10	\$14.10
70	\$139.61	\$111.97	\$256.69	\$239.89	\$14.10	\$14.10
75	\$146.41	\$116.32	\$273.95	\$254.00	\$14.10	\$14.10
80	\$148.88	\$119.66	\$278.87	\$261.40	\$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)
- Dental

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.

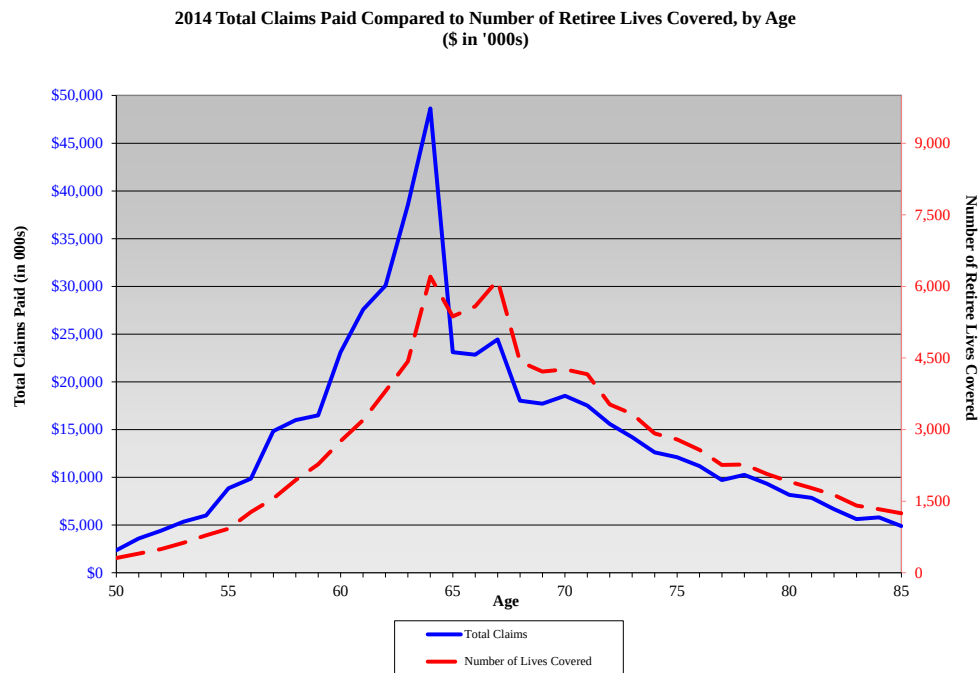
Likewise, a single set of current retiree premiums were developed by weighting the current retiree premium structure by the current enrollment.

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

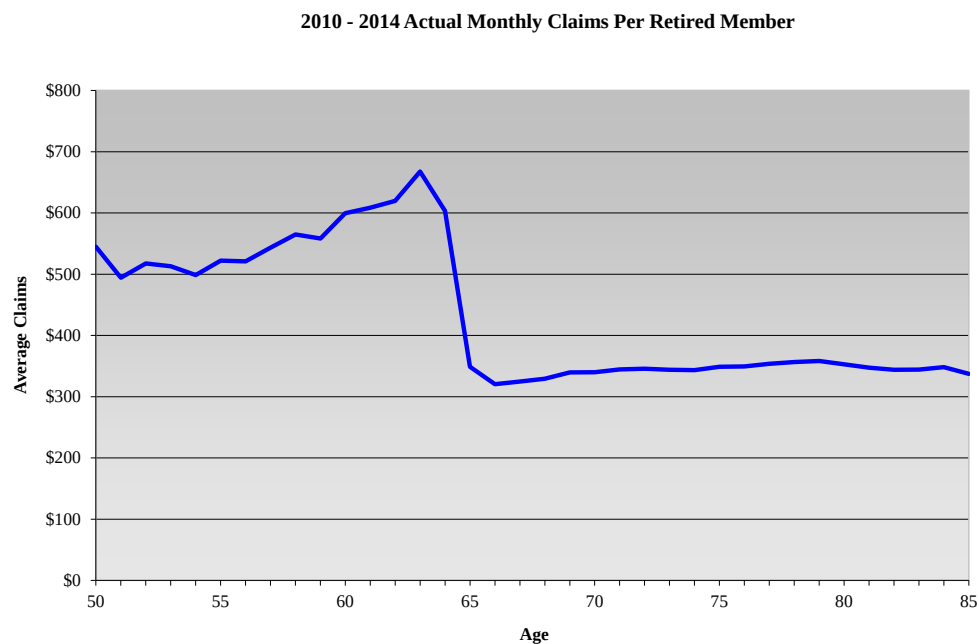
Gather Data

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, 2014 through December 31, 2014 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.

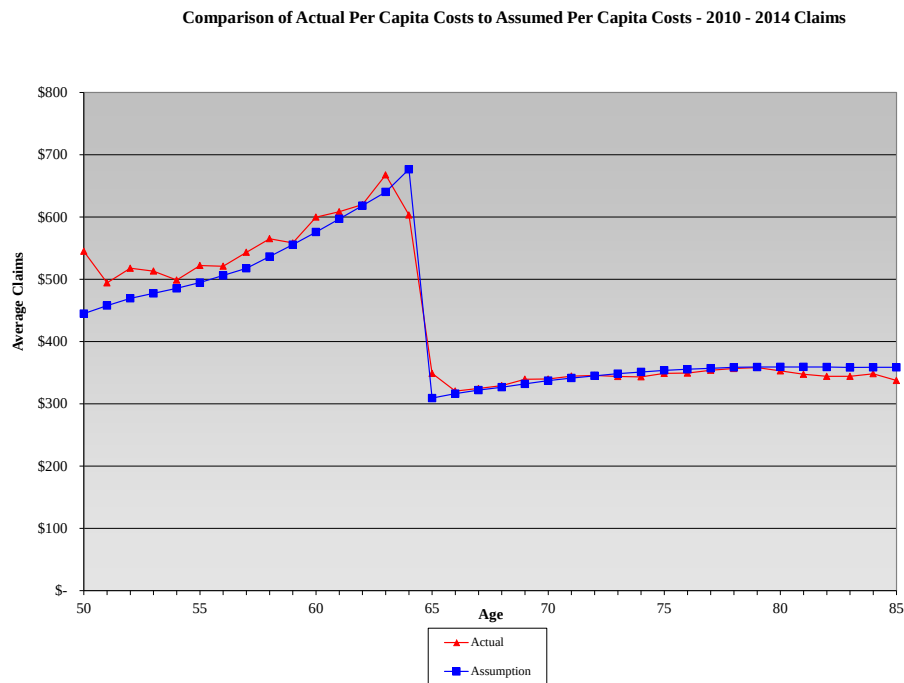


These two graphs show a need to model the increasing claim costs by age in the valuation, especially for ages below 65. This is consistent with other health care experience. This assumption is referred to as the aging factor table.

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 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 to the catastrophic coverage limit. 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 will diminish and be 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 41% in 2016. 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 2021.

Final Per Capita Assumptions

Baseline Costs for Non-Disabled Retirees and Spouses (Expected Monthly Per Capita Costs for Calendar Year 2015)						
Age	Medical Coverage		Prescription Drug Coverage		Dental Coverage	
	Male	Female	Male	Female	Male	Female
50	\$326.68	\$336.39	\$153.92	\$171.76	\$14.10	\$14.10
55	\$394.00	\$382.43	\$153.92	\$171.76	\$14.10	\$14.10
60	\$474.51	\$435.95	\$185.05	\$191.51	\$14.10	\$14.10
65	\$128.54	\$106.59	\$227.05	\$219.05	\$14.10	\$14.10
70	\$139.61	\$111.97	\$256.69	\$239.89	\$14.10	\$14.10
75	\$146.41	\$116.32	\$273.95	\$254.00	\$14.10	\$14.10
80	\$148.88	\$119.66	\$278.87	\$261.40	\$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.

SECTION E

SUMMARY OF BENEFIT PROVISIONS

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	\$760.43	\$1,448.86
(2) Current Total Published Monthly Premium Collected	442.26	935.90
(2a) Portion Paid by Employer/State	344.58	682.54
(2b) Portion Paid by Employee/Retiree	97.68	253.36
(3) Current Monthly <i>Implicit Rate Subsidy</i> : (1)-(2)	318.17	512.96
(4) Current Monthly <i>State-Funded Subsidy</i> : (2)-(2b)=(2a)	344.58	682.54

Based on Calendar Year 2015 rates and expected claims

The example above is for 62-year old retirees. The implicit subsidy varies by age and Medicare status.

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 Public Employee Benefit Authority (PEBA) 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, vision, 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, 2015 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 participating 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, 2015 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, 2015**

	Savings ²	Standard	Supplemental ³	Dental
<u>Non-Funded Premiums (monthly)</u>				
For Non-Medicare Retiree	\$354.28	\$442.26	NA	\$11.72
For Non-Medicare Spouse	\$405.66	\$493.64	\$493.64	\$7.64
For Medicare Retiree	NA	\$424.26	\$442.26	\$11.72
For Medicare Spouse	\$405.66	\$475.64	\$493.64	\$7.64
For Non-Medicare Surviving Spouse	\$354.28	\$442.26	NA	\$11.72
For Medicare Surviving Spouse	NA	\$424.26	\$442.26	\$11.72
<u>Funded Premiums (monthly)</u>				
For Non-Medicare Retiree	\$9.70	\$97.68	NA	\$0.00
For Non-Medicare Spouse	\$67.70	\$155.68	\$155.68	\$7.64
For Medicare Retiree	NA	\$79.68	\$97.68	\$0.00
For Medicare Spouse	\$67.70	\$137.68	\$155.68	\$7.64
For Non-Medicare Surviving Spouse	\$9.70	\$97.68	NA	\$0.00
For Medicare Surviving Spouse	NA	\$79.68	\$97.68	\$0.00

¹ 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.

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

³ 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.

SECTION F

SUMMARY OF PARTICIPANT DATA

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 School District Employees
3. Counts and Payroll by Retirement Plan

**Members Currently in Retired Status –
Counts by Retirement Plan and Coverage Type**

	Medical/Rx		Dental		Combined		Eligible for State Funded Premium	
	Male	Female	Male	Female	Male	Female	Male	Female
General State Employees								
1 Person Cvg	6,868	14,817	7,724	16,446	7,893	16,917	7,415	14,653
2 Person Cvg	4,291	4,056	4,416	4,076	4,529	4,134	4,482	4,101
School Districts								
1 Person Cvg	5,180	24,275	5,777	26,673	5,956	27,049	5,238	25,996
2 Person Cvg	2,053	9,941	2,099	9,921	2,150	10,052	2,132	10,015
Police Officers								
1 Person Cvg	1,693	983	2,081	1,093	2,123	1,114	2,048	1,061
2 Person Cvg	1,043	167	1,081	168	1,101	171	1,090	170
National Guard								
1 Person Cvg	105	7	353	12	354	12	330	12
2 Person Cvg	80	0	138	0	139	0	137	0
Judges								
1 Person Cvg	31	5	37	5	37	5	37	5
2 Person Cvg	67	3	67	3	68	3	68	3
General Assembly								
1 Person Cvg	66	13	72	16	72	16	67	16
2 Person Cvg	68	6	68	6	69	6	67	5
Total								
1 Person Cvg	13,943	40,100	16,044	44,245	16,435	45,113	15,135	41,743
2 Person Cvg	7,602	14,173	7,869	14,174	8,056	14,366	7,976	14,294
	21,545	54,273	23,913	58,419	24,491	59,479	23,111	56,037
Male & Female		75,818		82,332		83,970		79,148

**Members Currently in Retired Status –
Average Age by Plan and Coverage Type**

	Medical		Dental		Combined		Eligible for State Funded Premium	
	Male	Female	Male	Female	Male	Female	Male	Female
General State Employees								
1 Person Cvg	70.0	71.0	70.5	71.2	70.4	71.3	70.4	70.6
2 Person Cvg	71.4	67.6	71.9	67.8	71.8	67.8	71.8	67.8
School Districts								
1 Person Cvg	70.5	72.0	70.3	71.4	70.3	71.4	70.0	71.4
2 Person Cvg	70.8	67.8	70.7	67.6	70.7	67.6	70.7	67.6
Police Officers								
1 Person Cvg	63.1	63.2	64.2	63.4	64.2	63.3	64.2	63.4
2 Person Cvg	64.5	64.4	65.2	64.5	65.2	64.6	65.2	64.5
National Guard								
1 Person Cvg	69.6	65.7	70.7	67.9	70.7	67.9	70.6	67.9
2 Person Cvg	69.6	0.0	72.4	0.0	72.4	0.0	72.5	0.0
Judges								
1 Person Cvg	73.1	62.1	72.7	62.1	72.7	62.1	72.7	62.1
2 Person Cvg	72.9	56.5	73.3	56.5	73.0	56.5	73.0	56.5
General Assembly								
1 Person Cvg	74.1	73.8	74.2	72.6	74.2	72.6	74.4	72.6
2 Person Cvg	73.2	70.7	73.3	70.7	73.3	70.7	73.4	69.3
Total								
1 Person Cvg	69.4	71.4	69.6	71.1	69.6	71.2	69.5	70.9
2 Person Cvg	70.3	67.7	70.7	67.6	70.6	67.6	70.6	67.6
	69.7	70.4	70.0	70.3	69.9	70.3	69.9	70.1
Male & Female		70.2		70.2		70.2		70.0

**Members Currently in Retired Status –
Expected Payments by Counts and Coverage Type (\$ in thousands)**

	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	20,118	38,452	15,440	32,009	1,306	2,779	9,403	23,812	28,930	58,816
2 Person Cvg	22,289	22,447	17,830	17,125	1,494	1,379	13,941	13,055	36,242	34,337
School Districts										
1 Person Cvg	14,846	61,222	11,486	51,601	976	4,510	8,007	31,468	20,866	103,935
2 Person Cvg	11,393	56,079	8,638	42,011	710	3,356	6,610	31,763	17,399	84,408
Police Officers										
1 Person Cvg	6,778	3,707	4,257	2,478	352	185	2,141	1,280	7,350	4,207
2 Person Cvg	7,344	1,139	4,669	746	366	57	3,384	540	8,825	1,413
National Guard										
1 Person Cvg	290	22	220	15	60	2	133	8	487	31
2 Person Cvg	468	-	333	-	47	-	268	-	681	-
Judges										
1 Person Cvg	69	23	63	11	6	1	37	6	136	22
2 Person Cvg	284	30	263	13	23	1	212	10	570	26
General Assembly										
1 Person Cvg	148	36	134	27	12	3	101	16	267	57
2 Person Cvg	354	32	277	24	23	2	233	28	562	43
Total										
1 Person Cvg	42,249	103,462	31,600	86,140	2,711	7,480	19,822	56,590	58,036	167,069
2 Person Cvg	42,132	79,726	32,010	59,920	2,663	4,795	24,647	45,395	64,279	120,226
	84,381	183,188	63,609	146,060	5,374	12,274	44,469	101,986	122,316	287,295
Male & Female		267,570		209,669		17,648		146,455		409,611

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

HEALTH PLAN	Under 65	At Least 65	Total
Standard Plan	17,044	4,601	21,645
Medicare Supplement	4,797	49,118	53,915
Savings Plan	202	6	208
Dental Only	1,166	7,036	8,202
Total	23,209	60,761	83,970

COVERAGE TYPE	Under 65	At Least 65	Total
Single	14,691	44,486	59,177
Sub/Spouse	5,358	15,290	20,648
Sub/Child(ren)	1,702	558	2,260
Full Family	1,351	423	1,774
Child(ren) Only	107	4	111
Total	23,209	60,761	83,970

SUBSCRIBER TYPE	Under 65	At Least 65	Total
< 10 Years Service	445	895	1,340
At Least 25 and 55	56	-	56
Full Funded Retiree	22,182	56,903	79,085
Survivors of Active Death	7	-	7
Survivors of Funded Retirees	507	2,956	3,463
Other	12	7	19
Total	23,209	60,761	83,970

**DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE
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	1,260	506	168	69	16	8	0	0	0	0	0	0	2,027
25-29	2,270	1,646	1,238	758	467	674	15	0	0	0	0	0	7,068
30-34	1,451	1,264	1,077	879	623	2,800	518	19	0	0	0	0	8,631
35-39	1,049	920	770	686	521	2,653	1,619	494	9	1	0	0	8,722
40-44	835	687	615	520	411	2,386	1,646	1,678	462	73	3	0	9,316
45-49	785	595	529	417	377	2,055	1,550	1,640	1,552	1,033	72	1	10,606
50-54	651	531	461	395	303	1,918	1,580	1,529	1,329	2,297	496	29	11,519
55-59	500	476	370	357	278	1,718	1,410	1,512	1,277	2,178	664	159	10,899
60-64	235	253	255	205	188	1,313	1,151	1,161	904	1,272	416	212	7,565
65 & Over	114	82	75	88	102	620	683	504	342	421	256	155	3,442
Total	9,150	6,960	5,558	4,374	3,286	16,145	10,172	8,537	5,875	7,275	1,907	556	79,795

**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	924	964	328	30	11	6	0	0	0	0	0	0	2,263
25-29	1,161	1,720	1,784	1,615	1,152	1,390	7	0	0	0	0	0	8,829
30-34	800	980	900	835	672	5,053	1,328	8	0	0	0	0	10,576
35-39	809	901	738	637	465	2,931	3,695	1,213	3	0	0	0	11,392
40-44	821	867	750	680	554	2,602	2,421	3,679	974	21	3	0	13,372
45-49	692	782	698	608	511	2,721	2,215	2,326	2,477	1,293	58	0	14,381
50-54	555	647	538	455	402	2,440	2,218	2,148	1,514	3,154	475	13	14,559
55-59	528	492	434	426	359	1,892	1,912	2,153	1,604	2,385	658	86	12,929
60-64	276	274	290	297	249	1,389	1,214	1,378	1,082	1,378	306	97	8,230
65 & Over	158	149	124	150	156	850	636	415	276	347	154	43	3,458
Total	6,724	7,776	6,584	5,733	4,531	21,274	15,646	13,320	7,930	8,578	1,654	239	99,989

**Distribution of Active Members by Retirement Plan
(Covered Payroll is Payroll for Fiscal Year 2015)**

	State Employees	School District Employees	Grand Total
\$ amounts in '000s			
1. SCRS Active Members - Count	50,264	83,827	134,091
Covered Payroll	\$ 2,295,039	\$ 3,290,055	\$ 5,585,094
2. SCRS TERI Members - Count	4,142	4,542	8,684
Covered Payroll	\$ 257,003	\$ 267,587	\$ 524,589
3. ORP Members - Count	14,108	9,758	23,866
Covered Payroll	\$ 866,320	\$ 378,916	\$ 1,245,235
4. Return to Work Members	1,783	1,862	3,645
Covered Payroll	\$ 99,409	\$ 100,470	\$ 199,879
5. PORS Members - Count	9,262		9,262
Covered Payroll	\$ 362,765		\$ 362,765
6. GARS Members - Count	102		102
Covered Payroll	\$ 2,400		\$ 2,400
7. JSRS Members - Count	134		134
Covered Payroll	\$ 18,139		\$ 18,139
8. Total - Count	79,795	99,989	179,784
Covered Payroll	\$ 3,901,075	\$ 4,037,027	\$ 7,938,102

SECTION G

GASB ACCOUNTING SCHEDULES

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

Retiree Medical Plan (5.50% discount rate)

Fiscal Year Ended	GASB ARC	Actual Contribution	Percentage Contributed
2013	\$ 818,861	\$ 409,592	50.02 %
2014	\$ 778,969	\$ 473,042	60.73 %
2015	\$ 747,746	\$ 571,025	76.37 %

\$ in 000s

Long Term Disability Plan (6.00% discount rate)

Fiscal Year Ended	GASB ARC	Actual Contribution	Percentage Contributed
2013	\$ 9,410	\$ 6,796	72.23 %
2014	\$ 7,251	\$ 6,944	95.77 %
2015	\$ 10,392	\$ 7,001	67.37 %

\$ in 000s

GASB Statement Numbers 43 and 45
Required Supplementary Information

Retiree Medical Plan (5.50% discount rate)

Valuation Date	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL/ Payroll
6/30/2013	\$ 10,072,927	\$ 668,972	\$ 9,403,955	7%	\$ 7,471,142	126%
6/30/2014	\$ 10,124,467	\$ 784,970	\$ 9,339,497	8%	\$ 7,665,553	122%
6/30/2015	\$ 10,824,335	\$ 964,186	\$ 9,860,149	9%	\$ 7,908,625	125%

\$ amounts in '000s

Long Term Disability Plan (6.00% discount rate)

Valuation Date	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL/ Payroll
6/30/2013	\$ 28,248	\$ 35,426	\$ (7,178)	125%	\$ 8,163,269	0%
6/30/2014	\$ 31,048	\$ 36,447	\$ (5,399)	117%	\$ 8,047,421	0%
6/30/2015	\$ 33,161	\$ 36,345	\$ (3,184)	110%	\$ 8,309,688	0%

\$ amounts in '000s

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

Retiree Medical Plan

Valuation Date	June 30, 2015
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, 2015
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%

SECTION H

ACTUARIAL ASSUMPTIONS AND METHODS

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, 2015 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, 2015 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

Year	Medical Trend Rates			Premium Trend Rates	
	Medical	Rx	Dental	Non-Funded	State-Funded
2016	3.36%	3.36%	3.00%	3.36%	0.00%
2017	6.00%	6.00%	3.00%	6.00%	0.00%
2018	6.00%	6.00%	3.00%	6.00%	6.00%
2019	5.75%	6.00%	3.00%	5.88%	5.88%
2020	5.50%	5.75%	3.00%	5.63%	5.63%
2021	5.25%	5.50%	3.00%	5.38%	5.38%
2022	5.00%	5.25%	3.00%	5.13%	5.13%
2023	4.75%	5.00%	3.00%	4.88%	4.88%
2024	4.75%	4.75%	3.00%	4.75%	4.75%
2025 & Beyond	4.50%	4.50%	3.00%	4.50%	4.50%

Medical Trend is assumed to occur 1/1 of each year beginning 1/1/2016. Premium increases are assumed to occur 1/1 of each year beginning 1/1/2016.

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 2017.

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 participants who are responsible for the entire Non-Funded Premium would lapse coverage when they become eligible for Medicare.

Long Term Disability: For BLTD, it was assumed that 60% of members who become disabled would recover after the first year and that 92% would recover after the first two years. 36% of the employees who qualify for benefits through the BLTD are assumed to be eligible for Social Security benefits. For the BLTD valuation, the rates of disability incidence are 130% of the rates used in the pension valuations.

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

The ultimate trend rate assumption includes a 0.03% adjustment to reflect the 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 plan’s premiums are not expected to reach the Excise Tax threshold until 2050.

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

Assumption/Method
Changes

1. The initial trend rate was updated to match the increase to the unfunded premiums effective January 1, 2016. This change lowered the OPEB liabilities.
2. The premium for funded retirees is assumed to remain level for calendar year 2017. This change increased the OPEB liabilities.
3. The assumptions regarding the anticipated EGWP rebates were revised to better reflect the plan’s anticipated experience. The EGWP rebates for 2016 are larger than previously assumed. The EGWP savings are now phased on by 2021 instead of 2019. These changes decreased the OPEB liabilities.

APPENDIX

GLOSSARY

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.