



# COMMONWEALTH of VIRGINIA

## *Department of Human Resource Management*

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October 14, 2016

The Honorable Terry McAuliffe, Governor, Commonwealth of Virginia  
The Honorable J. Chris Jones, Chairman, House Appropriations Committee  
The Honorable Thomas K. Norment, Jr., Co-Chairman, Senate Finance Committee  
The Honorable Emmett W. Hanger, Jr., Co-Chairman, Senate Finance Committee

Subject: Report on the Impact of Renewal Cost on Employee and Employer Premiums

The attached report is pursuant to Chapter 780, Item 84.G. of the 2016 Virginia Acts of the General Assembly.

Please contact me if there are any questions.

Sincerely,

A handwritten signature in cursive script that reads "Gene Raney".

Gene Raney  
Director, Office of Health Benefits

cc: The Honorable Paul J. Reagan, Chief of Staff, Office of the Governor  
The Honorable Nancy Rodrigues, Secretary of Administration  
Sara R. Wilson, Director, Department of Human Resource Management

**REPORT ON THE IMPACT OF RENEWAL COST ON  
EMPLOYEE AND EMPLOYER PREMIUMS**

This report is submitted as required by Chapter 780, Item 84.G. of the 2016 Virginia Acts of the General Assembly, which states:

*The Department of Human Resource Management shall report to the Governor and Chairmen of the House Appropriations and Senate Finance Committees, by October 15 of each year, on the renewal cost of the state employee health insurance program premiums that will go into effect on July 1 of the following year. This report shall include the impact of the renewal cost on employee and employer premiums and a valuation of liabilities as required by Other Post-Employment Benefits reporting standards.*

**Summaries of Rating Projections**

**Overview**

The following information summarizes the renewal cost of the state employee premiums for fiscal year 2018 that will go into effect on July 1, 2017, and the key drivers of FY 2018 projections compared to the FY 2017 rates. The information package complies with all of prior actuarial methods / procedures endorsed and approved by the APA audit report of October 2011.

The three charts shown in this report provide summaries of rate projections for FY 2017 through FY 2019 and these include:

- Recast FY 2017 Projection
- FY 2018 Projection
- FY 2019 Projection

Each chart includes three scenarios (A, B, and C). Scenario A represents the most aggressive projection, Scenario B the most likely projection, and Scenario C the most conservative projection. It is important to note that each scenario represents a reasonable actuarial outcome. Historically, this range has been utilized in final budget setting based on the Commonwealth's fiscal priorities and internal assessment of the risk to be assumed for the applicable budget cycle.

Each chart shows the baseline rates under the three scenarios. Separate tables at the end of the document provide the underlying claim trend assumptions based on the IBNR valuation completed mid-September and Aon's current outlook for future trends.

- Projected Cost per Contract Unit is synonymous with *actuarial rate* or *per contract unit per month (PCUPM* for these projections, represent a per-employee equivalent unit cost and serve as the actuarial baseline for cost projections in the requested three FY iterations). The assumptions inherent in the contract unit measure take into account the relative cost of each dependent class (spouse or child) relative to an employee. The per-employee or contract unit equivalent is the “base” level of exposure for rating purposes. This method was approved by the APA actuarial methods audit report of October 2011.
- The COVA Care Basic plan is shown because it is the basis for employer contributions. This chart shows rate projections and percentage increases or decreases from each fiscal year’s premium rates per contract unit.
- Claim trend analysis inherent in Aon’s future trend outlook includes detailed claim patterns to forecast future inflationary impact. The latter includes: price inflation; utilization rates of health care providers; government (Medicare/ACA) cost shifting; plan changes; and, other current factors influencing health provider cost. Historical claim experience for the Commonwealth is also considered when establishing the estimated trends.
  - The updated trend analysis is based on review of the most recent 36 months of claims and Aon forward looking trends.
  - The trend tables for Fiscal Years 2017-2018 and 2018-2019 are shown in the “Trend Tables” section of this document. Overall Scenario B health plan trend is +7.9% and +8.4% respectively for these years.

## Recast FY 2017 Projection

The recast is the first step in the three fiscal year projection process required by the Commonwealth. It provides an early estimate of how actual current FY costs compare to previously projected costs/rates. The recast is based on claim data through June 2016, consistent with the IBNR valuation completed in mid-September. This analysis also provides an updated important baseline for projecting rates for FY 2018.

- The chart compares the recast actuarial rate for FY 2017 with the previous year's FY 2017 rate projection (and the claim data used to establish the FY 2017 rates).
  - This recast projection utilized an additional year of claim experience and the updated trend outlook.
  - The chart shows the recast comparison for each plan component and rolls it up to the total. For Scenario B, Medical is +4.0%, Dental -11.5%, Rx +0.5%, and MISA/Behavioral Health +2.0%. The overall total, based on the weighted value of each component's relativity to premium is +2.7%, relatively close to the previous year's projection.
- The recast vs. FY 2017 rate comparison is shown for each component of the COVA Care Basic rate. However, the Total percentage increase is the critical cost impact factor in the table.

### Commonwealth of VA Summary of FY2017 Rating Projections Actives, COBRAs, and Retirees without Medicare

	Enrollees@June16)	Medical	Dental	Rx Drugs	Subtotal	MISA	Total
FY2017 COVA Rates	81,786	\$470.22	\$20.50	\$153.47	\$644.18	\$16.04	\$660.23
FY2017 Projected Cost per Contract Unit							
Scenario A							
COVA Care	81,786	\$484.65	\$17.98	\$151.95	\$654.58	\$16.23	\$670.81
<b>% Increase</b>		<b>3.1%</b>	<b>-12.3%</b>	<b>-1.0%</b>	<b>1.6%</b>	<b>1.2%</b>	<b>1.6%</b>
Scenario B							
COVA Care	81,786	\$489.04	\$18.14	\$154.30	\$661.48	\$16.36	\$677.84
<b>% Increase</b>		<b>4.0%</b>	<b>-11.5%</b>	<b>0.5%</b>	<b>2.7%</b>	<b>2.0%</b>	<b>2.7%</b>
Scenario C							
COVA Care	81,786	\$493.44	\$18.30	\$156.65	\$668.39	\$16.49	\$684.88
<b>% Increase</b>		<b>4.9%</b>	<b>-10.7%</b>	<b>2.1%</b>	<b>3.8%</b>	<b>2.8%</b>	<b>3.7%</b>

## FY 2018 Projection

Developing an estimated cost for the upcoming fiscal year (FY 2018) is the second step in the Commonwealth's requested three year projection cycle. The Exhibit shown below contains the rate projections and expected cost increase for FY 2018, which will be effective on July 1, 2017, for COVA Care under its current plan design. This chart builds on the outcome of the recast step above and blends current experience and trends compared to current rates.

- The FY 2018 rate increase is shown for each component of the COVA Care Basic rate. For budget planning purposes, the total percentage increase is the critical cost impact factor in the table.
- The chart shows the rate change comparison for each plan component and rolls it up to the total. For Scenario B, Medical is +10.2%, Dental -8.0%, Rx +13.3%, and MISA/Behavioral Health 15.4%. The overall projected total increase, based on the weighted value of each component's relativity to premium, is +10.5%.

### Commonwealth of VA Summary of FY2018 Rating Projections Actives, COBRAs, and Retirees without Medicare

	Enrollees(@June16)	Medical	Dental	Rx Drugs	Subtotal	MISA	Total	
FY2017 COVA Rates	81,786	\$470.22	\$20.50	\$153.47	\$644.18	\$16.04	\$660.23	
	FY2018 Projected Cost per Contract Unit							
Scenario A	COVA Care	81,786	\$509.11	\$18.52	\$169.71	\$697.33	\$18.20	\$715.53
	<b>% Increase</b>		<b>8.3%</b>	<b>-9.7%</b>	<b>10.6%</b>	<b>8.3%</b>	<b>13.4%</b>	<b>8.4%</b>
Scenario B	COVA Care	81,786	\$518.35	\$18.86	\$173.90	\$711.10	\$18.51	\$729.61
	<b>% Increase</b>		<b>10.2%</b>	<b>-8.0%</b>	<b>13.3%</b>	<b>10.4%</b>	<b>15.4%</b>	<b>10.5%</b>
Scenario C	COVA Care	81,786	\$527.58	\$19.20	\$178.08	\$724.85	\$18.82	\$743.67
	<b>% Increase</b>		<b>12.2%</b>	<b>-6.3%</b>	<b>16.0%</b>	<b>12.5%</b>	<b>17.3%</b>	<b>12.6%</b>

## FY 2019 Projection

Development of the FY 2019 rate increase is the third and final step in the Commonwealth's requested three year projection cycle. Similar to the FY 2018 projection, the increase is shown for each component of the COVA Care Basic rate. The total percentage increase is the critical cost impact factor in the table.

The chart shows the rate change comparison for each plan component and rolls it up to the total. For Scenario B, Medical is +6.8%, Dental +3.9%, Rx +13.0%, and MISA/Behavioral Health +13.8%. The overall projected total increase, based on the weighted value of each component's relativity to premium, is +8.4%.

### Commonwealth of VA Summary of FY2019 Rating Projections Actives, COBRAs, and Retirees without Medicare

	Enrollees(@June16)	Medical	Dental	Rx Drugs	Subtotal	MISA	Total
Estimated FY2018 COVA Rates (A Scenario)	81,786	\$509.11	\$18.52	\$169.71	\$697.33	\$18.20	\$715.53
Estimated FY2018 COVA Rates (B Scenario)	81,786	\$518.35	\$18.86	\$173.90	\$711.10	\$18.51	\$729.61
Estimated FY2018 COVA Rates (C Scenario)	81,786	\$527.58	\$19.20	\$178.08	\$724.85	\$18.82	\$743.67
FY2019 Projected Cost per Contract Unit							
Scenario A							
COVA Care	81,786	\$538.79	\$19.08	\$190.08	\$747.95	\$20.54	\$768.49
		<b>5.8%</b>	<b>3.0%</b>	<b>12.0%</b>	<b>7.3%</b>	<b>12.8%</b>	<b>7.4%</b>
Scenario B							
COVA Care	81,786	\$553.74	\$19.60	\$196.55	\$769.89	\$21.06	\$790.95
		<b>6.8%</b>	<b>3.9%</b>	<b>13.0%</b>	<b>8.3%</b>	<b>13.8%</b>	<b>8.4%</b>
Scenario C							
COVA Care	81,786	\$568.69	\$20.13	\$203.18	\$792.00	\$21.58	\$813.58
		<b>7.8%</b>	<b>4.8%</b>	<b>14.1%</b>	<b>9.3%</b>	<b>14.7%</b>	<b>9.4%</b>

## Trend Tables

These tables show the trend for each plan component and roll it up to the total. For Scenario B, FY 2017-FY 2018 Medical is +6.5 %, Dental +4.0 %, Rx +11.5%, and MISA/Behavioral Health +14.0 %. The overall projected total trend (Scenario B), based on the weighted value of each component's relativity to premium is +7.9%.

		FY2017 - FY2018 Trend Assumptions					
		Medical	Dental	Rx Drugs	Subtotal	MISA	Total
Scenario A	COVA Care	5.5%	3.0%	10.5%	6.8%	13.0%	6.9%
Scenario B	COVA Care	6.5%	4.0%	11.5%	7.8%	14.0%	7.9%
Scenario C	COVA Care	7.5%	5.0%	12.5%	8.7%	15.0%	8.9%

		FY2018 - FY2019 Trend Assumptions					
		Medical	Dental	Rx Drugs	Subtotal	MISA	Total
Scenario A	COVA Care	6.0%	3.0%	11.0%	7.2%	13.5%	7.4%
Scenario B	COVA Care	7.0%	4.0%	12.0%	8.3%	14.5%	8.4%
Scenario C	COVA Care	8.0%	5.0%	13.0%	9.3%	15.5%	9.4%

Note: The numbers above do not include additional amounts for IBNR funding, DHRM budget or HIF

## **Other Post-Employment Benefits**

The following actuarial report provides a valuation of liabilities as required by Other Post Employment Benefits (OPEB) reporting standards.



**Consulting**  
Retirement and Investment

# Actuarial Report for GASB OPEB Valuation

*Commonwealth of Virginia State Health Benefits Program  
for Pre-Medicare Retirees, Survivors and LTD Participants*

*Valuation Date: July 1, 2015*

*Fiscal Year Ending: June 30, 2016*

*Date of Report: August 2, 2016*



August 2, 2016

Mr. Dan Hinderliter  
Director, Contracts and Finance  
Department of Human Resource Management  
The Commonwealth of Virginia  
101 North Fourteenth Street, 12th Floor  
Richmond, VA 23219

Dear Dan,

Subject: Commonwealth of Virginia State Health Benefits Program for Pre-Medicare Retirees, Survivors and LTD Participants—July 1, 2015 Actuarial Valuation Report

This report contains the results of the July 1, 2015 actuarial valuation of the Commonwealth of Virginia's State Health Benefits Program for Retirees, Survivors and LTD Participants (the Plan). It provides results regarding accounting requirements for the Plan.

The accounting results are prepared in accordance with GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions* (GASB 45). The purposes of the accounting results are to:

- Develop the Annual Required Contribution (ARC) and the Annual OPEB Cost (AOC) for the fiscal year ending June 30, 2016.
- Provide information needed by the Commonwealth of Virginia's auditors for financial statement entries and footnote disclosures to conform to the disclosure requirements under GASB 45.

This report is prepared for the sole use of the Commonwealth of Virginia (the Commonwealth) and supplies information consistent with the stated purposes of the report. It may not be appropriate to use this report for other business applications. Accordingly, additional discussion may be helpful in understanding the assumptions, methodologies, and limitations applied in the report.

Aon Hewitt<sup>1</sup> is pleased to present this report, and we look forward to discussing it with you.

Respectfully submitted,

Aon Hewitt

Steve J. LaPlant, ASA, EA, MAAA  
Associate Partner

Brian S. Blalock, ASA, MAAA, FCA  
Associate Partner

SL/CF

cc: Mr. George Gibbs, Commonwealth of Virginia

<sup>1</sup> Aon Consulting, Inc. and Hewitt Associates LLC are operating as Aon Hewitt.



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## Section I—Executive Summary

GASB 45 requires government entities that sponsor Other Postemployment Benefits (OPEB) to account for these benefits on an accrual basis. The Commonwealth adopted GASB 45 for the fiscal year beginning July 1, 2007.

The Commonwealth provides health insurance benefits to participating retirees, spouses, and survivors. Also, participants on long-term disability and their spouses can qualify for retiree health insurance benefits. The benefits considered under this valuation were medical, prescription drug, and dental coverage.

Participants pay the total subsidized contribution for benefit coverage. This amount may be reduced by the Virginia Retirement System's (VRS) health insurance credit (HIC) for those participants who are eligible. The Commonwealth's OPEB liability is the difference between the estimated true cost of coverage and the subsidized contribution for coverage (the implicit subsidy).

There are two tiers of participants for the Plan's purpose – primary retirees and spouses. The results of the valuation are presented on a combined basis.

It is assumed that approximately 70% of all of the active employees who retire directly from employment and meet the State Health Benefits Program's eligibility criteria will participate in the health insurance component of the Plan.

The table on the next page summarizes the valuation results. The results have been calculated based upon the actuarial assumptions as to current claim cost, projected increases in health insurance costs, mortality, turnover, retirement, disability and discount rate.

These results also assume there is no liability associated with those retirees eligible for Medicare, as costs for these members are not subsidized by the active nor early retiree population (no implicit subsidy), participants pay 100% of the costs, and the liability associated with the health insurance credit is measured and held by the Virginia Retirement System.

Additionally, the results do not consider the creation of a qualified OPEB funding vehicle. It is Aon Hewitt's understanding that the Commonwealth does not plan to segregate and restrict assets such that the Commonwealth's contributions to the Plan are irrevocable, dedicated to providing benefits to retirees and their beneficiaries, and legally protected from creditors of the Commonwealth, solely for the payment of benefits in accordance with the terms of the Plan. Furthermore, the Commonwealth has no current plan to contribute funds to a qualified OPEB funding vehicle for the fiscal years beyond 2016.



This summary identifies the value of benefits on July 1, 2015 and costs for the 2016 fiscal year. The value of benefits on July 1, 2013 (the prior valuation date) and cost for the 2014 fiscal year are shown for comparison.

<b>(\$ millions)</b>		
<b>Fiscal Year</b>	<b>2016</b>	<b>2014</b>
Present Value of Benefits (PVB)	\$2,209.4	\$2,101.2
Actuarial Accrued Liability (AAL)	\$1,308.7	\$1,261.5
Annual Required Contribution (ARC) <sup>1</sup>	\$ 167.4	\$ 198.5
Annual OPEB Cost (AOC)	\$ 150.5	\$ 197.5

The balance of this report provides greater detail for the above results.

The fiscal year 2016 valuation was performed using a 4% discount rate. The 4% rate is appropriate for the current funding arrangement for the Plan, reflecting that the Commonwealth has not placed assets in an irrevocable trust specifically segregated for future retiree benefits. The fiscal year 2014 valuation was performed using a 4.0% discount rate, which was also appropriate at that time, reflecting the expected return on the general assets of the Commonwealth, from which future benefits are expected to be paid.

<sup>1</sup> The ARC reflects a 30-year open period, level dollar amortization of the Unfunded AAL. 30 years is the maximum period allowed under GASB 45.



## Section II—Actuarial Certification

Aon Hewitt has prepared the July 1, 2015 actuarial valuation results of the Commonwealth of Virginia's State Health Benefits Program for Retirees, Survivors and LTD Participants. The purposes of this report are to:

- Present Aon Hewitt's actuarial estimates of the Plan's GASB 45 liabilities and Annual Required Contribution (ARC) as of July 1, 2015 for the Commonwealth to incorporate, as the Commonwealth deems appropriate, in its financial statements; and;
- Provide the Annual Required Contribution for the period beginning July 1, 2015.

This report is intended for the sole use of the Commonwealth, and is intended only to supply information to comply with the stated purposes of the report and may not be appropriate for other purposes. Reliance on information contained in this report by anyone for other than the intended purposes, puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the report's conclusions. Accordingly, no person or entity should base any representations or warranties in any agreement on any statements or conclusions contained in this report, without the written consent of Aon Hewitt.

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 (such as the end of an amortization period).
- Changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuation, we have used personnel and plan design information provided by the Commonwealth as of the valuation date. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonability. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results. This information along with any adjustments or modifications is summarized in various sections of this report.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the requirements of GASB Statement No. 45. The information in this report is not intended to supersede or supplant the advice and interpretations of the Commonwealth's auditors.



The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions section of this report. The Retirement Plan Committee is responsible for selecting the Plan's funding policy, actuarial valuation methods, asset valuation methods and assumptions.

To the best of our knowledge, there is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise provided for in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

If the Commonwealth disagrees with anything contained in the report or is made aware of any relevant information that may affect the results of the report which has not been previously provided to Aon Hewitt, the Commonwealth should promptly notify Aon Hewitt. The report will be deemed final and acceptable to the Commonwealth unless the Commonwealth provides such notice to Aon Hewitt.

The undersigned are familiar with the near-term and long-term aspects of post-retirement benefits valuations and together meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Aon Hewitt providing services to the Commonwealth has any material direct or indirect financial interest in the Commonwealth. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for the Commonwealth.

Steve J. LaPlant, ASA, EA, MAAA  
Associate Partner  
Retirement

Brian S. Blalock, FSA, MAAA, FCA  
Associate Partner  
Retirement  
Qualified for: Health-Related Assumptions

August 2, 2016



### Section III—Principal Valuation Results

This section presents detailed valuation results as of July 1, 2015 for the Commonwealth's retiree health insurance benefits program.

- The Present Value of Benefits (PVB) is the total present value of all expected future benefits, based upon certain actuarial assumptions. Benefits are defined as estimated paid claims and expenses from the plan, net of total subsidized contributions for retirees. The PVB is a measure of total liability or obligation. Essentially, the PVB is the value (on the valuation date) of the benefits, as they exist today, for retirees, both currently retired and currently in active employment. The plan's PVB is \$2,209.4 million. A good portion of this liability (90%) is for the currently active employees (future retirees).
- The actuarial method selected by the Commonwealth is the Unit Credit method. The Actuarial Accrued Liability (AAL) is the liability or obligation for benefits earned through the valuation date, based on certain actuarial methods and assumptions. The plan's AAL is \$1,308.7 million.
- Normal Cost is the value of benefits expected to be earned during the year beginning on the valuation date, again based on certain actuarial methods and assumptions. The fiscal year 2016 Normal Cost at the beginning of the year is \$88.2 million.
- The Annual Required Contribution (ARC) is a combination of the Normal Cost and an amortization payment of the Unfunded AAL (UAAL). As there are no segregated assets as of July 1, 2015 to fund the retiree health insurance benefits, the Unfunded AAL (UAAL) is equal to the AAL. Using a 30-year open period level dollar amortization, the ARC for the Commonwealth is \$167.4 million, including interest to the end of the year. In addition, the amortization of the unfunded accrued liability can be determined as a level percentage of compensation rather than a level dollar amount. Aon Hewitt has not performed any computations to determine the effect of utilizing different amortization periods or methods, although they could have a material impact on the amount of Net OPEB Obligation and the ARC.

The table on the following page shows results by participant status (active and retired), including results projected to the 2017 fiscal year, which could be used for reporting costs in the Commonwealth's fiscal year 2017 financial statements.





This page also shows projected results to July 1, 2016 (FY 2017).

(\$ millions)	FY 2016	Projected FY 2017
<b>Present Value of Benefits</b>		
Current Retirees	\$ 223.5	\$ 187.1
Actives	<u>1,985.9</u>	<u>2,050.1</u>
Total	\$ 2,209.4	\$ 2,237.2
<b>Actuarial Accrued Liability</b>		
Retirees	\$ 223.5	\$ 187.1
Actives	<u>1,085.2</u>	<u>1,205.1</u>
Total	\$ 1,308.7	\$ 1,392.2
Assets	\$ 0	\$ 0
Unfunded AAL	\$ 1,308.7	\$ 1,392.2
<b>Annual Required Contribution</b>		
Normal Cost	\$ 88.2	\$ 92.6
Amortization of Unfunded AAL <sup>1</sup>	\$ 72.8	\$ 77.4
Interest to End of Year	\$ 6.4	\$ 6.8
Total ARC	\$ 167.4	\$ 176.8
Expected Benefit Payments (pay-as-you-go) <sup>2</sup>	\$ 59.4	\$ 68.7
Covered Payroll <sup>3</sup>	\$ 4,033.8	\$ 4,195.2
ARC as % of pay-as-you-go	281.9%	257.4%
ARC as % of Covered Payroll	4.1%	4.2%

<sup>1</sup> At the beginning of the year.

<sup>2</sup> Net of total subsidized contributions for retirees.

<sup>3</sup> Assumed payroll for the 2016 fiscal year; based on the 2015 fiscal year payroll (per the CAFR) increased at 4% per year for one year; payroll for FY 2017 increases this number by 4%.



The table below compares the results of the actual July 1, 2015 (2016 fiscal year) valuation with the expected results based on a "roll-forward" of the July 1, 2013 (2014 fiscal year) valuation:

(\$ millions)	AAL	ARC
Fiscal Year 2016 Based on a 'Roll Forward' from Fiscal Year 2014's Valuation <sup>1</sup>	\$ 1,416.0	\$ 178.1
Fiscal Year 2016 Based on Valuation as of July 1, 2015 <sup>2</sup>	<u>1,308.7</u>	<u>167.4</u>
<b>Difference</b>	<b>\$ (107.3)</b>	<b>\$ (10.7)</b>
Difference is due to:		
Actuarial (Gains)/Losses <sup>3</sup>	\$ (102.5)	\$ (11.6)
Updated Baseline Claims and Premiums <sup>4</sup>	(24.4)	(3.1)
Updated Trend Rates <sup>5</sup>	(14.9)	(2.0)
Effect of Excise Tax due to Health Care Reform <sup>6</sup>	<u>34.5</u>	<u>6.0</u>
	<b>\$ (107.3)</b>	<b>\$ (10.7)</b>

The balance of this report provides greater detail for the above results.

<sup>1</sup> These are the expected valuation results from FY2014 actuarially projected to FY2016. That is, these results (a) assume no change in the population or assumptions from the FY2014 valuation, (b) reflect the expected increase in GASB OPEB costs due to employees accruing two additional years of service and (c) also reflect the expected increase in costs because future benefits are now two years closer to being paid.

<sup>2</sup> That is, a valuation based on census, claims and total subsidized contributions for retirees as of July 1, 2015.

<sup>3</sup> Actuarial gains reflect the reduction in GASB OPEB costs from FY2014 to FY2016 due to (a) differences between the populations valued (including changes in the number of participants valued, and changes in accrued service, average ages, etc.), and (b) actual demographic experience from FY2014 to FY2016 being different from the demographic assumptions in the FY2014 valuation. Demographic assumptions include rates of mortality, termination, disability and retirement.

<sup>4</sup> Baseline claims used in the FY2016 valuation were lower than expected, based on the claims from the FY2014 valuation trended to FY2016, and compared to the baseline claims used in the actual FY2016 valuation. Retiree premiums used in the FY2016 valuation were also lower than expected, based on the premiums from the FY2014 valuation trended to FY2016, and compared to the premiums reflected in the actual FY2016 valuation. In combination, the lower claims and premiums cause a decrease in GASB OPEB costs.

<sup>5</sup> Trend assumptions were updated to reflect current market projections.

<sup>6</sup> The trend rates have been loaded to reflect the expected impact of the excise tax pursuant to health care reform.



## Section IV—Account Information

The GASB OPEB accounting standards were first adopted by the Commonwealth for the fiscal year ending June 30, 2008. The following shows the Annual OPEB Cost (AOC), estimated Net OPEB Obligation (NOO), funding status, and required supplementary information for the Commonwealth for the fiscal year ending June 30, 2016.

### Annual OPEB Cost (AOC)

The *Annual OPEB Cost (AOC)* is the accounting expense, and is made up of the ARC, plus an adjustment to the ARC, consisting of interest on the *Net OPEB Obligation (NOO)* at the beginning of the period, less an amortization of the *Net OPEB Obligation (NOO)*.

The amounts shown below are for the fiscal year ending June 30, 2016.

<i>(\$ millions)</i>	<b>Fiscal Year Ending</b>
<b>Annual OPEB Cost (AOC)</b>	<b>June 30, 2016</b>
ARC	\$ 167.4
Interest on Net OPEB Obligation (NOO)	43.3
Adjustment to ARC	<u>(60.2)</u>
Total	\$ 150.5

### Net OPEB Obligation (NOO)

The NOO is the cumulative difference between the AOC and the Commonwealth's total contributions. Because the Commonwealth is not pre-funding the cost of future benefit payments, the Commonwealth's contributions will consist of the difference between total retiree health benefits, administration and other fixed fees paid during a year and retiree premiums received (including any subsidies from VRS paid on behalf of retirees for the health coverage).

The contributions shown below are estimates for the fiscal year ending June 30, 2016, and should be replaced by actual Commonwealth contributions before determining the NOO to be disclosed in the Commonwealth's FY2016 financial statements.

<i>(\$ millions)</i>	<b>Fiscal Year Ending</b>
<b>Net OPEB Obligation (NOO)</b>	<b>June 30, 2016</b>
AOC	\$ 150.5
Contributions Made (Expected Benefit Payments)	(59.4)
Increase In NOO	91.1
NOO-Beginning of Year	<u>1,081.9</u>
NOO-End of Year	\$1,173.0



The following is a history of the calculation of the Net OPEB Obligation. Before reporting information for the 2016 fiscal year, the Percentage of AOC Contributed and the Net OPEB Obligation for Fiscal Year Ended June 30, 2016 must first be updated to reflect actual Commonwealth contributions for the year. We also show the calculation of the estimated NOO for the fiscal year ending June 30, 2017.

Amounts shown are in millions.

<b>Fiscal Year Ended</b>	<b>Annual OPEB Cost</b>	<b>Percentage of AOC Contributed</b>	<b>Net OPEB Obligation</b>
06/30/2010	\$136.9	17.4%	\$309.4
06/30/2011	\$166.6	17.8%	\$446.4
06/30/2012	\$172.4	21.2%	\$582.2
06/30/2013	\$181.7	8.5%	\$748.5
06/30/2014	\$197.4	17.3%	\$911.7
06/30/2015	\$205.2	17.1%	\$1,081.8
06/30/2016 estimated	\$150.5	39.4%	\$1,173.0
06/30/2017 projected	\$158.5	43.3%	\$1,262.8



**Required Supplementary Information**

Below is the Schedule of Funding Progress. The Covered Payroll for the July 1, 2015 Valuation Date should be updated to reflect actual payroll for the year beginning July 1, 2015.

Amounts shown are in millions.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a percentage of Covered Payroll (b-a)/(c)
7/1/2009	\$0	\$1,298.2	\$1,298.2	0.0%	\$3,297.1	39.4%
7/1/2011	\$0	\$1,268.8	\$1,268.6	0.0%	\$3,566.0	35.6%
7/1/2012 projection	\$0	\$1,350.8	\$1,350.8	0.0%	\$3,708.7	36.4%
7/1/2013	\$0	\$1,261.5	\$1,261.5	0.0%	\$3,857.0	32.7%
7/1/2014 projection	\$0	\$1,341.6	\$1,341.6	0.0%	\$4,011.3	33.4%
7/1/2015	\$0	\$1,308.7	\$1,308.7	0.0%	\$4,033.8	32.4%
7/1/2016 projection	\$0	\$1,392.2	\$1,392.2	0.0%	\$4,195.2	33.2%

*Covered payrolls are estimates.*

It is important to note that without any additional contributions towards the AOC besides current pay-as-you-go cost, the NOO will continue to increase, which will further increase the ARC and AOC for the following year (as the UAAL increases and interest on the NOO is accrued).





## Section V—Sensitivity Analysis

Below, we show the results using our assumed trend assumptions (as detailed in Section VIII) along with a 1% increase in trend rates for each projected year and a 1% decrease in trend rates, to illustrate the sensitivity of results to the trend rates.

July 1, 2015  
4.00%

<i>(\$ millions)</i>	Valuation Trend
PVB	\$ 2,209.4
AAL	\$ 1,308.7
ARC	
Normal Cost	\$ 88.2
Amortization of UAL	72.8
Interest to EOY	<u>6.4</u>
Total ARC	\$ 167.4
	<b>Trend +1%</b>
PVB	\$ 2,442.9
AAL	\$ 1,423.8
ARC	
Normal Cost	\$ 97.7
Amortization of UAL	79.2
Interest to EOY	<u>7.1</u>
Total ARC	\$ 184.0
	<b>Trend -1%</b>
PVB	\$ 1,874.3
AAL	\$ 1,172.3
ARC	
Normal Cost	\$ 75.0
Amortization of UAL	65.2
Interest to EOY	<u>5.6</u>
Total ARC	\$ 145.8



Section VI—Demographic Information

In the following pages we summarize the demographic information for the current and future retirees in the State Health Benefits Program.

The table below shows a distribution of age and service for all active employees who currently participate in the State Health Benefits Program. All groups in total are shown.

Age	Completed Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-24	2,467	6	0	0	0	0	0	0	0	2,473
25-29	6,158	743	13	0	0	0	0	0	0	6,914
30-34	5,676	2,567	656	11	0	0	0	0	0	8,910
35-39	4,674	2,751	1,547	529	13	12	0	0	0	9,526
40-44	3,979	2,810	2,022	1,437	381	52	0	0	0	10,681
45-49	3,459	2,758	2,274	1,774	1,059	778	0	0	0	12,102
50-54	3,101	2,654	2,257	2,005	1,350	2,262	4	0	0	13,633
55-59	2,427	2,307	2,057	1,775	1,521	3,421	2	0	0	13,510
60-64	1,422	1,631	1,566	1,446	1,336	3,123	0	0	1	10,525
65-69	332	538	600	538	517	1,261	1	0	0	3,787
70+	81	131	172	151	149	489	0	0	0	1,173
<b>Total</b>	<b>33,776</b>	<b>18,896</b>	<b>13,164</b>	<b>9,666</b>	<b>6,326</b>	<b>11,398</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>93,234</b>

Average Age: 47.3

Average Service: 10.6

The next table shows headcounts and average age by group. Note in this table, the counts do not include spouses.

Group	Number of Lives	Average Age
Active	93,234	47.3
Inactive (under age 65) <sup>1</sup>	6,993	60.6

<sup>1</sup> Retirees, survivors, LTDs.



## Section VII—Summary of Plan Provisions

<b>Plan</b>	Plan provisions in effect as of July 1, 2015 are shown.
<b>Eligibility</b>	<p>For a retiree to participate in the Plan, the participant must be eligible for a monthly annuity from the Virginia Retirement System (VRS) or a periodic benefit from one of the qualified Optional Retirement Plan (ORP) vendors, and:</p> <ul style="list-style-type: none"><li>▪ be receiving (not deferring) the annuity or periodic benefit immediately upon retirement*, and</li><li>▪ have his or her last employer before retirement be the state, and</li><li>▪ be eligible for coverage as an active employee in the State Health Benefits Program until his or her retirement date (not including Extended Coverage), and</li><li>▪ Have submitted within 31 days of his or her retirement date an Enrollment Form to his or her Benefits Administrator to enroll.</li></ul>

\*For VRS retirees, this means that the employing agency reported a retirement contribution in the month immediately prior to an employee's retirement date.

Surviving spouses of a participating retiree may continue coverage after the death of the retiree.

For this valuation, employees were considered eligible to retire and receive medical, prescription drug and dental benefits if they are (a) age 50 with at least ten years of service for Plan 1 participants, (b) age 55 with 5 years of service for Plan 1 participants, (c) age 60 with 5 years of service for Plan 2 participants or (d) disabled and are eligible for a VRS or ORP benefit. Employees must retire directly from VRS or ORP sponsored employment and they must apply for coverage within 31 days of retirement. If a retiree fails to enroll initially or cancels their coverage subsequent to retirement, then they are not eligible to enroll at a later date.





**Plan  
Benefit  
Summary**

**Health Benefits Effective July 1, 2015  
Retiree Group Not Eligible for Medicare**

Benefits	Plan			
	COVA Care	COVA HealthAware	COVA HDHP	Kaiser Permanente
	Participant Pays			
<b>Deductible - per plan year</b>				
- One person	\$300	\$1,500	\$1,750	None
- Two or more persons	\$600	\$3,000	\$3,500	None
<b>Out-of-pocket expense limit - per plan year</b>				
- One person	\$1,500	\$3,000	\$5,000	\$1,500
- Two or more persons	\$3,000	\$6,000	\$10,000	\$3,000
<b>Doctor's visits</b>				
- Primary Care Physician	\$25	20% after deductible	20% after deductible	\$25
- Specialist	\$40	20% after deductible	20% after deductible	\$40
<b>Hospital Services</b>				
- Inpatient	\$300 per stay	20% after deductible	20% after deductible	\$300 per admission
- Outpatient	\$125 per visit	20% after deductible	20% after deductible	\$75 per visit
<b>Emergency Room Visits</b>	\$150 per visit (waived if admitted)	20% after deductible	20% after deductible	\$75 per visit (waived if admitted)
<b>Outpatient diagnostic laboratory, test, shots and x-rays</b>	20% after deductible	20% after deductible	20% after deductible	\$75 specialty imaging \$0 copayment lab, pathology, shots, radiology, diagnostic testing
<b>Wellness &amp; Preventive Services</b>				
Through age 18 <i>(Office visits at specified intervals, immunizations, lab and x-rays. Annual check-up visit (primary care or specialist), immunizations, lab and x-rays)</i>	\$0	\$0	\$0	\$0
19 years and older <i>(Routine gynecological exam, Pap test, mammography screening, prostate exam (digital rectal exam), prostate specific antigen (PSA) test, and colorectal cancer screening)</i>	\$0	\$0	\$0	\$0



Plan  
Benefit  
Summary  
(continued)

Health Benefits Effective July 1, 2015  
Retiree Group Not Eligible for Medicare

Benefits	Plan			
	COVA Care	COVA HealthAware	COVA HDHP	Kaiser Permanente
	Participant Pays			
Prescription drugs - mandatory generic				Up to 30-day supply
Retail Pharmacy	Up to 34-day supply: \$15/\$25/\$40/\$50	Up to 34-day supply: 20% after deductible	Up to 34-day supply: 20% after deductible	- Medical Center Pharmacy \$15/\$25/\$40 - Community Pharmacy \$20/\$40/\$60 (3x copayment for 90 days)
Home Delivery Pharmacy	Up to 90-day supply: \$30/\$50/\$80/\$100	Up to 90-day supply: 20% after deductible	Up to 90-day supply: 20% after deductible	- Up to 30-day supply  Mail Service \$13/\$23/\$38 (2x copayment for 90 days)
Out - of - Network	Buy-up available	Additional deductible out-of-pocket limits apply. 40% coinsurance after deductible. Provider may balance bill for amount above allowable charge.	Not available	Not available
Expanded Dental	Buy-up available	Buy-up available	Buy-up available	Not available
Vision &	Buy-up available	Buy-up	Not available	Routine



Hearing	available	vision only
Dental -per plan year	Expanded – Buy-Up	<b>Preventive – Included in Non-Kaiser Plans</b>
	- \$50/\$100 /\$150 Deductible - Plan pays up to \$2,000 per member	In-plan: \$25 deductible per member; plan pays up to \$1,000 per member



## Section VIII—Valuation Methods and Assumptions

<b>Actuarial Cost Method</b>	Unit Credit
<b>Valuation Date</b>	July 1, 2015
<b>Discount Rate</b>	4.0%

### Assumed Trends on Retiree Costs (Unadjusted and Adjusted For Excise Tax)

Year Beginning	Medical/Rx Unadjusted*	Medical/Rx Adjusted*	Dental*
7/1/2015	7.00%	7.00%	4.00%
7/1/2016	7.31%	7.31%	4.00%
7/1/2017	7.76%	7.76%	4.00%
7/1/2018	7.48%	7.48%	4.00%
7/1/2019	7.17%	7.17%	4.00%
7/1/2020	6.86%	6.86%	4.00%
7/1/2021	6.53%	6.67%	4.00%
7/1/2022	6.19%	6.63%	4.00%
7/1/2023	5.85%	6.23%	4.00%
7/1/2024	5.50%	5.83%	4.00%
7/1/2025	5.00%	5.32%	4.00%
7/1/2026	5.00%	5.31%	4.00%
7/1/2027	5.00%	5.30%	4.00%
7/1/2028	5.00%	5.29%	4.00%
7/1/2029	5.00%	5.55%	4.00%
7/1/2030	5.00%	6.19%	4.00%
7/1/2031	5.00%	6.14%	4.00%
7/1/2032	5.00%	6.09%	4.00%
7/1/2033	5.00%	6.05%	4.00%
7/1/2034	5.00%	6.00%	4.00%
7/1/2035	5.00%	5.96%	4.00%
7/1/2036	5.00%	5.93%	4.00%
7/1/2037	5.00%	5.89%	4.00%
7/1/2038	5.00%	5.85%	4.00%
7/1/2039	5.00%	5.82%	4.00%
7/1/2040	5.00%	5.79%	4.00%
7/1/2041	5.00%	5.76%	4.00%
7/1/2042	5.00%	5.73%	4.00%
7/1/2043	5.00%	5.70%	4.00%
7/1/2044	5.00%	5.67%	4.00%
7/1/2045	5.00%	5.65%	4.00%
7/1/2046	5.00%	5.63%	4.00%
7/1/2047	5.00%	5.60%	4.00%
7/1/2048	5.00%	5.58%	4.00%
7/1/2049	5.00%	5.56%	4.00%
7/1/2050	5.00%	5.54%	4.00%
7/1/2051	5.00%	5.52%	4.00%



Commonwealth of Virginia State Health Benefits Program  
for Pre-Medicare Retirees, Survivors and LTD Participants

Year Beginning	Medical/Rx Unadjusted*	Medical/Rx Adjusted*	Dental*
7/1/2052	5.00%	5.50%	4.00%
7/1/2053	5.00%	5.48%	4.00%
7/1/2054	5.00%	5.47%	4.00%
7/1/2055	5.00%	5.45%	4.00%
7/1/2056	5.00%	5.43%	4.00%
7/1/2057	5.00%	5.42%	4.00%
7/1/2058	5.00%	5.40%	4.00%
7/1/2059	5.00%	5.39%	4.00%
7/1/2060	5.00%	5.38%	4.00%
7/1/2061	5.00%	5.36%	4.00%
7/1/2062	5.00%	5.35%	4.00%
7/1/2063	5.00%	5.34%	4.00%
7/1/2064	5.00%	5.33%	4.00%
7/1/2065	5.00%	5.31%	4.00%
7/1/2066	5.00%	5.30%	4.00%
7/1/2067	5.00%	5.29%	4.00%
7/1/2068	5.00%	5.28%	4.00%
7/1/2069	5.00%	5.27%	4.00%
7/1/2070	5.00%	5.26%	4.00%
7/1/2071	5.00%	5.26%	4.00%
7/1/2072	5.00%	5.25%	4.00%
7/1/2073	5.00%	5.24%	4.00%
7/1/2074	5.00%	5.23%	4.00%
7/1/2075	5.00%	5.22%	4.00%
7/1/2076	5.00%	5.22%	4.00%
7/1/2077	5.00%	5.21%	4.00%
7/1/2078	5.00%	5.20%	4.00%
7/1/2079	5.00%	5.20%	4.00%
7/1/2080	5.00%	5.19%	4.00%
7/1/2081	5.00%	5.18%	4.00%
7/1/2082	5.00%	5.18%	4.00%
7/1/2083	5.00%	5.17%	4.00%
7/1/2084	5.00%	5.17%	4.00%
7/1/2085	5.00%	5.16%	4.00%
7/1/2086	5.00%	5.15%	4.00%
7/1/2087	5.00%	5.15%	4.00%
7/1/2088	5.00%	5.14%	4.00%
7/1/2089	5.00%	5.14%	4.00%
7/1/2090	5.00%	5.14%	4.00%
7/1/2091	5.00%	5.13%	4.00%
7/1/2092	5.00%	5.13%	4.00%
7/1/2093	5.00%	5.12%	4.00%
7/1/2094	5.00%	5.12%	4.00%
7/1/2095	5.00%	5.11%	4.00%
7/1/2096	5.00%	5.11%	4.00%
7/1/2097	5.00%	5.11%	4.00%
7/1/2098	5.00%	5.10%	4.00%



\* For purposes of this valuation we have assumed that the current level of retiree cost sharing will continue in the future. This may be accomplished by increasing retiree contributions, co-payments, or out-of-pocket limits so that the level of retiree cost sharing increases at least at the rate of assumed medical trend.

**Excise tax**

The anticipated future impact of the excise tax due to Health Care Reform has been reflected by applying loads to the medical and prescription drugs trend rates. In December 2015, the effective date of this tax was moved from 2018 to 2020.

**Mortality**

Mortality rates vary by participant status.

**Pre-Retirement**

RP-2000 Combined Healthy Table with a fully generational projection.

**Post-Retirement**

RP-2000 Combined Healthy Table with a fully generational projection.

**Post-Disablement**

70% of PBGC Disabled Mortality Table 5a for males. 90% of PBGC Disabled Mortality Table 6a for females.



**Retirement Rates**  
Plan 1 Members  
Hired Before  
July 1, 2010

Retirement rates vary by retirement benefit and gender and are shown below.  
The rates are for State Employees used in the July 1, 2011 valuation of the  
Virginia Retirement System.

Age	Retirements Per 100 Members			
	Less than 30		30 or more	
	Years of Service		Years of Service	
	Male	Female	Male	Female
50	3.0	3.22	10.0	10.0
51	3.0	3.07	10.0	10.0
52	3.0	3.0	10.0	10.0
53	3.0	3.0	10.0	10.0
54	3.0	3.5	10.0	10.0
55	5.0	5.0	10.0	10.0
56	5.0	5.0	10.0	10.0
57	4.5	4.5	10.0	10.0
58	4.0	5.5	10.0	10.0
59	5.0	5.5	10.0	10.0
60	5.0	5.5	10.0	15.0
61	10.0	10.0	15.0	20.0
62	15.0	15.0	25.0	30.0
63	15.0	15.0	20.0	20.0
64	15.0	15.0	20.0	20.0
65	40.0	40.0	30.0	40.0
66	40.0	40.0	25.0	30.0
67	40.0	40.0	25.0	25.0
68	40.0	40.0	20.0	25.0
69	40.0	40.0	20.0	20.0
70	100.0	100.0	100.0	100.0



**Retirement Rates**  
Plan 2 Members  
Hired After  
July 1, 2010

Retirement rates vary by retirement benefit and gender and are shown below. The rates are for State Employees used in the July 1, 2011 valuation of the Virginia Retirement System.

Age	Retirements Per 100 Members			
	Reduced Retirement		Unreduced Retirement	
	Male	Female	Male	Female
50	0.0	0.0	10.0	10.0
51	0.0	0.0	10.0	10.0
52	0.0	0.0	10.0	10.0
53	0.0	0.0	10.0	10.0
54	0.0	0.0	10.0	10.0
55	0.0	0.0	10.0	10.0
56	0.0	0.0	10.0	10.0
57	0.0	0.0	10.0	10.0
58	0.0	0.0	10.0	10.0
59	0.0	0.0	10.0	10.0
60	5.0	5.5	10.0	15.0
61	10.0	10.0	15.0	20.0
62	15.0	15.0	25.0	30.0
63	15.0	15.0	20.0	20.0
64	15.0	15.0	20.0	20.0
65	40.0	40.0	30.0	40.0
66	40.0	40.0	25.0	30.0
67	40.0	40.0	25.0	25.0
68	40.0	40.0	20.0	25.0
69	40.0	40.0	20.0	20.0
70	100.0	100.0	100.0	100.0

**Disability Rates**

As shown below for selected ages, 14% of disability cases are assumed to be service related. The rates are for State Employees used in the July 1, 2011 valuation of the Virginia Retirement System.

Age	Disabilities Per 100 Members	
	Male	Female
20	0.1	0.01
25	0.1	0.1
30	0.2	0.15
35	0.2	0.25
40	0.2	0.29
45	0.4	0.34
50	0.5	0.55
55	0.6	0.81
60	0.8	1.0
65	0.7	0.9





**Withdrawal Rates  
Plan 1 Members  
Hired Before  
July 1, 2010**

The following withdrawal rates are used based on age and years of service (for causes other than death, disability, or retirement). The rates are for State Employees used in the July 1, 2011 valuation of the Virginia Retirement System.

<b>Male Members – Years of Service (%)</b>											
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10+</b>
20	26.0	26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	0.0
25	22.0	22.0	22.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	0.0
30	20.0	20.0	20.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5	5.0
35	17.0	17.0	17.0	9.5	9.5	9.5	9.5	9.5	9.5	9.5	4.5
40	15.0	15.0	15.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	3.4
45	14.0	14.0	14.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	2.3
50	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	2.0
55	10.0	10.0	10.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	0.0
60	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0
65	12.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	0.0

<b>Female Members – Years of Service (%)</b>											
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10+</b>
20	30.0	30.0	30.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	0.0
25	25.5	25.5	25.5	16.0	16.0	16.0	16.0	16.0	16.0	16.0	0.0
30	22.5	22.5	22.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	6.0
35	19.0	19.0	19.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5	5.0
40	16.5	16.5	16.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0	3.6
45	14.0	14.0	14.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	2.5
50	13.5	13.5	13.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	2.0
55	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0
60	12.5	12.5	12.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0
65	13.0	13.0	13.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	0.0



**Withdrawal Rates  
Plan 2 Members  
Hired After  
July 1, 2010**

The following withdrawal rates are used based on age and years of service (for causes other than death, disability, or retirement). The rates are for State Employees used in the July 1, 2011 valuation of the Virginia Retirement System.

<b>Male Members – Years of Service (%)</b>											
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10+</b>
20	26.0	26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	0.0
25	22.0	22.0	22.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	0.0
30	20.0	20.0	20.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5	5.0
35	17.0	17.0	17.0	9.5	9.5	9.5	9.5	9.5	9.5	9.5	4.5
40	15.0	15.0	15.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	3.4
45	14.0	14.0	14.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	2.3
50	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	2.0
55	10.0	10.0	10.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	0.4
60	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0
65	12.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	0.0

<b>Female Members – Years of Service (%)</b>											
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10+</b>
20	30.0	30.0	30.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	0.0
25	25.5	25.5	25.5	16.0	16.0	16.0	16.0	16.0	16.0	16.0	0.0
30	22.5	22.5	22.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	6.0
35	19.0	19.0	19.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5	5.0
40	16.5	16.5	16.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0	3.6
45	14.0	14.0	14.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	2.5
50	13.5	13.5	13.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	2.0
55	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.4
60	12.5	12.5	12.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0
65	13.0	13.0	13.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	0.0

**Participation Rate** It was assumed that 70% of future eligible retirees will elect the plan coverage.

**Spouse Coverage** Seventy percent (70%) of actives are assumed to be married at retirement. It was assumed that males are three years older than females. Actual spousal data was used for current retirees. It was assumed that all surviving spouses retained coverage until their death.

**New Entrants** The valuation is performed on a closed group of current participants. Future entrants to the plan were not included.

**Administrative Expenses** No liability for administrative expenses is included in the valuation as both the baseline claims and the retiree contributions valued include expenses, and these expenses are assumed to cancel each other out.



**Health Care Claims Cost**

The actual claims experience for the retiree group and the premium-equivalent rates of the program were collected. This data was used to calculate age-specific claim costs using factors developed by Aon Hewitt. Representative 2015-2016 annual per capita medical, prescription drug, and dental plan costs at specific ages are shown below. The costs represent claims based on the plan design in effect on July 1, 2015. They are blended for healthy and disabled lives.

Age	Cost	
	Medical/Rx	Dental
30	\$4,376	\$378
31	\$4,520	\$378
32	\$4,669	\$378
33	\$4,823	\$378
34	\$4,983	\$378
35	\$5,147	\$378
36	\$5,317	\$378
37	\$5,492	\$378
38	\$5,674	\$378
39	\$5,861	\$378
40	\$6,054	\$378
41	\$6,254	\$378
42	\$6,460	\$378
43	\$6,674	\$378
44	\$6,894	\$378
45	\$7,121	\$378
46	\$7,392	\$378
47	\$7,673	\$378
48	\$7,964	\$378
49	\$8,267	\$378
50	\$8,581	\$378
51	\$8,950	\$378
52	\$9,335	\$378
53	\$9,736	\$378
54	\$10,155	\$378
55	\$10,592	\$378
56	\$11,058	\$378
57	\$11,544	\$378
58	\$12,052	\$378
59	\$12,582	\$378
60	\$13,136	\$378
61	\$13,635	\$378
62	\$14,153	\$378
63	\$14,691	\$378
64	\$15,250	\$378
65 and over	Not applicable	



**Baseline Retiree  
Contributions (2016  
Fiscal Year)**

<b>Group</b>	<b>Medical/Rx</b>	<b>Dental</b>
<b>Retiree Contributions</b>	\$7,504	\$241
<b>Spouse Contributions</b>	\$6,262	\$321