

Commonwealth of Pennsylvania Retired Employee Health Program January 1, 2015 Actuarial Valuation Report

Contents

Actuarial Valuation Opinion	1
Executive Summary	2
Background and Comments	3
Summary of Actuarial Valuation Results	5
Development of Unfunded Actuarial Accrued Liability	6
Determination of Annual Required Contribution	7
Actuarial Experience	9
GASB Statement No. 45 Notes to the Financial Statements and Required Supplementary Information (RSI)	10
10-Year Projection of Employer Benefit Payments	13
Post Retirement Benefit - Allocation	14
Appendices	18
Appendix A – Plan Participation Summary	18
Appendix B – Program Provisions Summary	19
Appendix C – Actuarial Methods.....	23
Appendix D – Actuarial Assumptions	24
Appendix E – Glossary.....	33

Actuarial Valuation Opinion

This report presents results of the actuarial valuation of the Commonwealth of Pennsylvania's Retired Employee Health Program ("the Plan" or "REHP") as of January 1, 2015. In our opinion, this report is complete and accurate and represents fairly the actuarial position of the Plan for the purposes stated herein.

The Commonwealth of Pennsylvania provided the participant data, financial information and plan descriptions used in this valuation. The actuary has analyzed the data and other information provided for reasonableness, but has not independently audited the data or other information provided. The actuary has no reason to believe the data or other information provided is not complete and accurate and knows of no further information that is essential to the preparation of the actuarial valuation.

Actuarial information under Government Accounting Standards Board Statement No. 45 (GASB 45) is for purposes of fulfilling employer financial accounting requirements. The results have been made on a basis consistent with our understanding of GASB 45 and are based upon assumptions prescribed by the Commonwealth of Pennsylvania. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results reported herein.

In our opinion, all costs, liabilities, rates of interest, and other factors underlying these actuarial computations have been determined on the basis of actuarial assumptions and methods that are each reasonable (or consistent with authoritative guidance) for the purposes herein taking into account the experience of the Plan and future expectations and that, when combined, represent our best estimate of anticipated experience under the Plan.

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 operations of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in program provisions or applicable law.

Our scope did not include analyzing the potential range of such future measurements, and we did not perform that analysis.

The undersigned with actuarial credentials collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

This report was prepared solely for the benefit and internal use of the plan sponsor. This report is not intended for the benefit of any other party and may not be relied upon by any third party for any purpose, and Deloitte Consulting accepts no responsibility or liability with respect to any party other than the plan sponsor.

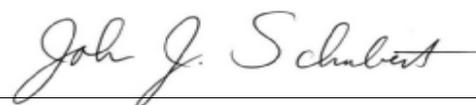
Any tax advice included in this written or electronic communication was not intended or written to be used, and it cannot be used by the taxpayer, for the purpose of avoiding any penalties that may be imposed by any governmental taxing authority or agency.

To the best of our knowledge, no employee of the Deloitte U.S. Firms is an officer or director of the employer. In addition, we are not aware of any relationship between the Deloitte U.S. Firms and the employer that may impair or appear to impair the objectivity of the work detailed in this report.

DELOITTE CONSULTING LLP



Michael de Leon, FCA, ASA, EA, MAAA
Specialist Leader



John Schubert, FCA, ASA, MAAA
Specialist Leader

Executive Summary

Governmental Accounting Requirement and Report Purposes

The Governmental Accounting Standards Board released the Statement of Governmental Accounting Standards No. 43 (“GASB 43”) and No. 45 (“GASB 45”) in 2004. These statements require trusts (GASB 43) and employers (GASB 45) to accrue the cost of post-employment benefits other than pensions while eligible employees are providing services to the employer. The Commonwealth of Pennsylvania (“the Commonwealth”) adopted GASB 45 for the fiscal year beginning July 1, 2007.

The purposes of this actuarial valuation report are to: 1) measure the Plan’s accrued liabilities and normal cost, 2) provide GASB 45 disclosure information for the Commonwealth’s financial reporting, and 3) project expected cash flows (pay-as-you-go costs).

Summary of Results

The key measures for the January 1, 2015 actuarial valuation are:

- The January 1, 2015 Unfunded Actuarial Accrued Liability (UAAL) is \$15.99 billion.
- The Annual Required Contribution (ARC) for fiscal year ending June 30, 2015 is \$1.13 billion, consisting of:
 - A Normal Cost of \$0.41 billion, approximately 9.5% of covered payroll, and
 - An amortization cost of \$0.72 billion, approximately 16.8% of covered payroll.

Under governmental accounting standards, the ARC is not required to be funded but will be a component of the retiree health benefit expense recorded in the Commonwealth’s financial statements.

- As of January 1, 2015, the funded ratio for the Plan was 0.9%, given the Commonwealth’s current funding policy (as described below).
- Projected cash contributions for 2015 are \$50 million. Since these contributions were made before the fiscal year end, we have included them in the plan’s actuarial value of assets as a receivable.

Funding Policy

The Commonwealth created the OPEB (Other Postretirement Employee Benefits) Investment Pool, a Trust Equivalent Arrangement, during the fiscal year ended June 30, 2008. The Commonwealth plans to contribute \$50 million annually until assets cover the present value of future benefits, subject to evaluation annually.

All employing agencies and certain plan members must contribute specified amounts to the REHP. During the fiscal year ending June 30, 2015, almost all employing agencies contributed \$334 (whole dollars) for each current, active REHP eligible employee per biweekly pay period to fund the REHP. Several employing agencies contribute under comparable payment arrangements.

Background and Comments

Overview of Plans

The Commonwealth sponsors the Retired Employee Health Program (REHP) for eligible retirees and their dependents to receive subsidized health coverage for the retiree's lifetime.

Changes from the Previous Actuarial Valuation

For the January 1, 2015 actuarial valuation, the results were higher than what was projected based on the previous actuarial valuation performed by the prior actuary. In total, there was an increase in Actuarial Accrued Liability of \$2.2 billion (16%) compared to expectation. The increase in liability was due to the following:

- Actuarial loss of \$0.3 billion (2%) due to the demographic changes, data corrections, and plan experience different than expected;
- Actuarial loss of \$1.6 billion (12%) due to assumption changes, including actuarial cost method, discount rate, coverage election, per capita claims cost, excise tax, and trend rates (additional details can be found in Appendix C and Appendix D);
- Actuarial loss of \$0.3 billion (2%) due to differences in methodologies and valuation software from those used by the prior actuary.

Health Care Reform

The Patient Protection and Affordable Care Act ("PPACA") was signed into law on March 23, 2010. The primary objective of the act is to increase the number of Americans with health insurance coverage. There are several provisions within PPACA with potentially significant short- and long-term cost implications for employers. The applicable provisions of PPACA were first accounted for in the July 1, 2010 valuation. There have been no changes to the provisions determined to be applicable to this valuation; however, some methods and assumptions have changed that were used to value these provisions. In future years, there may continue to be increased cost impact to the extent the health & welfare program experiences increased utilization due to these changes, all of which are assumed to be in place indefinitely.

The provisions of PPACA considered are as follows:

- Prohibiting lifetime and annual limits on the dollar value of coverage for "essential health benefits"
- Increasing the dependent child age limit to age 26
- Elimination of cost sharing for in-network preventive services
- Reflecting manufacturer discounts available to certain Medicare beneficiaries receiving applicable covered Part D drugs (mostly brand) while in the coverage gap
- Transitional reinsurance fee
- Out-of-pocket limit includes both medical and Rx expenses
- Excise tax on "Cadillac Plans" effective in 2018

Actuarial Methods and Assumptions

The Commonwealth of Pennsylvania State Employees' Retirement System (SERS) performs experience studies periodically to determine reasonable and appropriate economic and demographic assumptions for purposes of valuing the defined benefit pension plan. The most recent SERS experience study covered the years 2006 through 2010 and was presented to the State Employees' Retirement Board in January 2011. The approved recommendations from that study were used to determine the assumptions for this valuation, where applicable. Consistent with prior valuations, these demographic assumptions assume beginning of year decrements (retirement, withdrawal, death, disability, etc.). In addition, Deloitte periodically reviews actuarial assumptions only applicable to the postretirement medical plan outside of the experience study, such as medical trend rates and medical rates.

The actuarial methods and assumptions are described in the appendices of this report.

Final Disclosures

Most values reported here are final amounts for disclosures in the Commonwealth's financial statements; however, amounts related to the Commonwealth benefit payments for Fiscal Year 2014/2015 and 2015/2016 are currently based on estimated benefit payments and contributions. The Commonwealth's final disclosures will be updated to reflect the actual benefit payments during the fiscal year.

Summary of Actuarial Valuation Results

This section provides a summary of the actuarial valuation results. All information is provided as of the measurement date except for GASB 45 disclosure information. GASB 45 disclosure information is shown as of the end of the Fiscal Year to reflect when it will actually be disclosed. All liabilities are net of expected retiree contributions.

<i>(all dollar amounts are in thousands)*</i>		January 1, 2015	
a. Actuarial Accrued Liability			
(1) Active Participants	\$	5,942,150	
(2) Retired Participants**			10,192,269
(3) Total	\$	16,134,419	
b. Actuarial Value of Assets***	\$	144,744	
c. Unfunded Actuarial Accrued Liability (UAAL): (a) - (b)	\$	15,989,675	
d. Funded Ratio: (b) / (a)			0.9%
e. UAAL as a Percentage of Covered Payroll: (c) / (l)			372.8%
f. Participant Counts			
(1) Active Participants		72,395	
(2) Retired Participants**		63,326	
(3) Total		135,721	
<i>(all dollar amounts are in thousands)*</i>		June 30, 2015	June 30, 2016
g. Annual Required Contribution (ARC) at Year End	\$	1,127,594	\$ 1,158,742
h. Annual OPEB Cost at Year End	\$	1,136,817	\$ 1,169,885
i. Commonwealth Contributions	\$	795,809	\$ 831,226
j. Increase in Obligations for Retiree Health Benefits: (h) - (i)	\$	341,008	\$ 338,659
k. Obligations for Retiree Health Benefits			
(1) Beginning of Year	\$	1,638,110	\$ 1,979,118
(2) End of Year: (k.1) + (j)	\$	1,979,118	\$ 2,317,778
l. Covered Payroll	\$	4,289,099	\$ 4,385,603

* Totals may not add due to rounding

** Retired participants include retirees and surviving spouses

*** Market Value of Assets on January 1, 2015 plus \$50 million receivable

Development of Unfunded Actuarial Accrued Liability

This section develops the Unfunded Actuarial Accrued Liability (UAAL), which is the actuarial accrued liability net of the actuarial value of plan assets. The actuarial accrued liability is the portion of the present value of future benefits (PVFB) accrued to date. The present value of future normal costs represents the portion of the PVFB expected to accrue in the future, based on the current population.

<i>(all dollar amounts are in thousands)*</i>		January 1, 2015
a. Present Value of Future Benefits		
(1) Active Participants	\$	11,132,358
(2) Retired Participants**	\$	10,192,269
(3) Total	\$	21,324,627
<hr/>		
b. Total Present Value of Future Normal Costs	\$	5,190,208
<hr/>		
c. Actuarial Accrued Liability: (a) - (b)	\$	16,134,419
<hr/>		
d. Actuarial Value of Assets	\$	144,744
<hr/>		
e. Unfunded Actuarial Accrued Liability (UAAL): (c) - (d)	\$	15,989,675

* Totals may not add due to rounding

** Retired participants include retirees and surviving spouses

Determination of Annual Required Contribution

GASB 45 requires the disclosure of the annual post-employment benefits other than pensions (“OPEB”) cost. A component of the annual OPEB cost is the Annual Required Contribution. The following is a brief explanation of the components of the Annual Required Contribution:

- Normal Cost: The portion of the Total Present Value of Future Benefits attributed to employee service during the current fiscal year by the actuarial cost method.
- Amortization Payments: Open, 30-year amortization of the Unfunded Actuarial Accrued Liability as a level percent of payroll.
- Interest to End of Year: The Annual Required Contribution is determined as a year-end value. The Normal Cost and Amortization Payments are determined at the valuation date and have a full year of interest applied to determine the end of year value. The Annual Required Contribution is compared to the plan contributions (with interest) made during the year to determine the increase in the Net OPEB Obligation.

The tables on the next page present the Annual Required Contribution development for the fiscal years ending June 30, 2015 and June 30, 2016.

Annual Required Contribution for Fiscal Year Ending June 30, 2015

<i>(all dollar amounts are in thousands)*</i>	June 30, 2015
a. Normal Cost**	\$ 386,536
b. Amortization of UAAL**	\$ 703,413
c. Interest to End of Year*** [(a) + (b)] x 5.25% + (e) x [5.25% / 2]	\$ 37,645
d. Annual Required Contribution as of June 30, 2015	\$ 1,127,594
e. Expected Benefit Payment	\$ (745,809)

* Totals may not add due to rounding

** If Normal Cost and Amortization of Unfunded AAL are expressed on an end of year basis, their values are \$407 million and \$721 million.

*** Includes interest on expected benefit payments made throughout the year

Annual Required Contribution for Fiscal Year Ending June 30, 2016

<i>(all dollar amounts are in thousands)*</i>	June 30, 2016
a. Normal Cost**	\$ 398,325
b. Amortization of UAAL**	\$ 722,102
c. Interest to End of Year*** [(a) + (b)] x 5.25% + (e) x [5.25% / 2]	\$ 38,315
d. Annual Required Contribution as of June 30, 2016	\$ 1,158,742
e. Expected Benefit Payment	\$ (781,226)

* Totals may not add due to rounding

** If Normal Cost and Amortization of Unfunded AAL are expressed on an end of year basis, their values are \$419 million and \$740 million.

*** Includes interest on expected benefit payments made throughout the year

Actuarial Experience

Actuarial gains and losses arise from experience different from that previously assumed, changes in actuarial assumptions and methods, and changes in program provisions.

*(all dollar amounts are in thousands)**

a. Unfunded liability as of July 1, 2013		\$ 13,151,980
b. Normal Cost for FY 2013/2014	\$ 316,680	
c. Expected Benefit Payments for FY 2013/2014	\$ (550,490)	
d. Interest to July 1, 2014**	<u>\$ 626,687</u>	
e. Expected unfunded liability as of July 1, 2014		\$ 13,544,857
f. Normal Cost for July 1, 2014 to January 1, 2015	\$ 158,340	
g. Expected Benefit Payments for six-month period	\$ (285,600)	
h. Interest to January 1, 2015**	\$ 322,059	
i. Contribution Receivable as of January 1, 2015	<u>\$ (50,000)</u>	
j. Expected unfunded liability as of January 1, 2015		\$ 13,689,656
k. Increase (decrease) in plan liability due to plan change	\$ -	
l. Increase (decrease) in plan liability due to assumption change	\$ 1,629,896	
m. Increase (decrease) in plan liability due to differences in methodologies and valuation software from those used by prior actuary	\$ 331,959	
n. (Gain)/loss due to experience	<u>\$ 338,164</u>	
o. Actual unfunded liability as of January 1, 2015		\$ 15,989,675

* Totals may not add due to rounding

** Includes interest on unfunded liability, normal cost, and expected benefit payments

GASB Statement No. 45 Notes to the Financial Statements and Required Supplementary Information (RSI)

GASB Statement No. 45 requires disclosure of notes to the financial statements and required supplementary information that includes information shown in three schedules: the Schedule of Funding Progress (Table A), the Schedule of Employer Contributions (Table B), and the Development of Net OPEB Obligation (NOO) and Annual OPEB Cost (Table C).

The values shown in Table A are the final amounts for disclosure. Selected values in Tables B and C related to the Commonwealth's contribution (specifically, the employer benefit costs) are estimated and will change in the financial disclosures to reflect actual Commonwealth costs.

Table A – GASB No. 45 Schedule of Funding Progress

(all dollar amounts are in thousands)

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets</u>	<u>Actuarial Accrued Liability (AAL)</u>	<u>Unfunded Actuarial Accrued Liability (UAAL)</u>	<u>Funded Ratio</u>	<u>Covered Payroll</u>	<u>UAAL as a Percentage of Covered Payroll</u>
	(a)	(b)	(c) (b) - (a)	(d) (a) / (b)	(e)	(f) [(b) - (a)] / (e)
7/1/2009*	\$ 47,920	\$ 13,257,570	\$ 13,209,650	0.36%	\$ 4,093,000	323%
7/1/2011*	70,740	12,907,790	12,837,050	0.55%	3,839,000	334%
7/1/2013*	82,060	13,234,040	13,151,980	0.62%	4,264,000	308%
1/1/2015	144,744	16,134,419	15,989,675	0.90%	4,289,099	373%

*Results prepared by prior actuary.

Table B – GASB No. 45 Schedule of Employer Contributions

(all dollar amounts are in thousands)

<u>Year Ended</u>	<u>Annual OPEB Cost</u>	<u>Employer Contribution</u>	<u>Percentage Contributed</u>	<u>Net OPEB Obligation</u>
June 30, 2008*	\$ 590,400	\$ 590,400	100%	\$ -
June 30, 2009*	818,510	505,560	62%	312,950
June 30, 2010*	850,440	515,430	61%	647,960
June 30, 2011*	883,160	598,340	68%	932,780
June 30, 2012*	870,200	628,190	72%	1,174,790
June 30, 2013*	869,140	613,660	71%	1,430,270
June 30, 2014*	898,330	690,490	77%	1,638,110
June 30, 2015**	1,136,817	795,809	70%	1,979,118
June 30, 2016**	1,169,885	831,226	71%	2,317,778

* Results prepared by prior actuary.

** Based on estimated employer contribution including assumed advance funding of \$50 million in FYE2015 and FYE2016.

Table C – Development of NOO and Annual OPEB Cost Pursuant to GASB No. 45

(all dollar amounts are in thousands)*

<u>Year Ended</u>	<u>Annual Required Contribution (ARC)</u> (a)	<u>Interest on NOO</u> (b)	<u>Amortization Factor</u> (c)	<u>ARC Adjustment with Interest</u> (d)	<u>Annual OPEB Cost</u> (e) (a) + (b) - (d)	<u>Employer Contribution</u> (f)	<u>Change in NOO</u> (g) (e) - (f)	<u>NOO Balance</u> (h) Prior Year + (g)
June 30, 2008**	\$ 590,400	\$ -	N/A	\$ -	\$ 590,400	\$ 590,400	\$ -	\$ -
June 30, 2009**	818,510	-	N/A	-	818,510	505,560	312,950	312,950
June 30, 2010**	848,530	15,650	N/A	13,740	850,440	515,430	335,010	647,960
June 30, 2011**	879,210	32,400	N/A	28,450	883,160	598,340	284,820	932,780
June 30, 2012**	866,770	44,310	N/A	40,880	870,200	628,190	242,010	1,174,790
June 30, 2013**	864,830	55,800	N/A	51,490	869,140	613,660	255,480	1,430,270
June 30, 2014**	893,070	67,940	N/A	62,680	898,330	690,490	207,840	1,638,110
June 30, 2015***	1,127,594	86,001	22.46	76,777	1,136,817	795,809	341,008	1,979,118
June 30, 2016***	1,158,742	103,904	22.46	92,760	1,169,885	831,226	338,659	2,317,778

* Totals may not add due to rounding

** Results prepared by prior actuary.

*** Based on estimated employer contribution including assumed advance funding of \$50 million in FYE2015 and FYE2016.

10-Year Projection of Employer Benefit Payments

Presented in this section are the projected employer benefit payments for the next ten years based on the program design effective in calendar year 2015. These projected benefit payments are based on the actuarial assumptions shown Appendix D. If actual experience differs from that expected by the actuarial assumptions, the actual employer benefit payments will vary from those presented below.

(all dollar amounts are in thousands)

Year		
2015	\$	769,703
2016		792,750
2017		815,821
2018		842,402
2019		871,316
2020		903,171
2021		938,427
2022		975,962
2023		1,012,797
2024		1,051,790

Post Retirement Benefit - Allocation

For internal reporting purposes, the Commonwealth requested an allocation of the Annual OPEB Cost by group. The Annual OPEB Cost for Fiscal Year Ending June 30, 2015 was allocated based on calendar year 2014 salary provided by the Commonwealth. The Annual OPEB Cost for Fiscal Year Ending June 30, 2016 was allocated based on estimated calendar year 2015 salary provided by the Commonwealth.

Post Retirement Benefit - Allocation of Annual OPEB Cost FY 2014-15 (all dollar amounts are in thousands)*

<u>AOC Allocated to:</u>	<u>Active Employee Salary Total</u>	<u>Annual OPEB Cost</u>
Government Activities		
Direction and supportive services	\$ 290,709	\$ 77,052
Protection of persons and property	1,512,913	400,995
Public education	26,196	6,943
Health and human services	1,105,458	292,999
Economic development	66,141	17,531
Transportation	550,546	145,921
Recreation and cultural enrichment	161,233	42,734
Government Activities Subtotal	\$ 3,713,196	\$ 984,175
Business-type Activities		
State Lottery Fund	\$ 21,618	\$ 5,730
Minority Business Development Fund	148	39
Machinery and Equipment Loan Fund	322	85
Tuition Account Guaranteed Savings Program Fund	309	82
Small Business First Fund	421	112
Rehabilitation Center Fund	9,321	2,471
State Workmen's Insurance Fund	15,046	3,988
Coal and Clay Mine Subsidence Insurance	1,121	297
State Stores Fund	174,795	46,329
Purchasing Fund	5,388	1,428
Manufacturing Fund	15,678	4,155
Historical Preservation Fund	752	199
Unemployment Comp Contribution Fund	52	14
Business-type Activities Subtotal	\$ 244,971	\$ 64,929
Fiduciary Activities		
State Employees' Retirement Fund	\$ 11,395	\$ 3,020
Underground Storage Tank Indemnific	553	147
School Employees' Retirement Fund	19,458	5,157
Med Care Avail & Reduct of Err Fund	2,569	681
Fiduciary Activities Subtotal	\$ 33,975	\$ 9,005

* Totals may not add due to rounding

Post Retirement Benefit - Allocation of Annual OPEB Cost FY 2014-15
*(all dollar amounts are in thousands)**

<u>AOC Allocated to:</u>	<u>Active Employee Salary Total</u>	<u>Annual OPEB Cost</u>
Component Units		
Ben Franklin Technology Development	\$ 227	\$ 60
Port of Pittsburgh Commission Fund	388	103
Pennvest	2,236	593
PA eHealth Partnership Fund	687	182
PA Energy Development Fund	35	9
Philadelphia Regional Port Authority	5,236	1,388
State Public School Building Authority	717	190
State System of Higher Education	133,496	35,383
Thaddeus Stevens	6,405	1,698
PHEAA	144,589	38,323
Component Units Subtotal	\$ 294,016	\$ 77,929
External Organizations		
Patient Safety Trust Fund	\$ 1,339	\$ 355
Pennsylvania Municipal Retirement Fund	1,602	424
External Organizations Subtotal	\$ 2,941	\$ 779
Total AOC Allocated	\$ 4,289,099	\$ 1,136,817

* Totals may not add due to rounding

Post Retirement Benefit - Allocation of Annual OPEB Cost FY 2015-16
(all dollar amounts are in thousands)*

<u>AOC Allocated to:</u>	<u>Active Employee Salary Total</u>	<u>Annual OPEB Cost</u>
Government Activities		
Direction and supportive services	\$ 297,250	\$ 79,293
Protection of persons and property	1,546,953	412,659
Public education	26,785	7,145
Health and human services	1,130,331	301,522
Economic development	67,629	18,040
Transportation	562,933	150,166
Recreation and cultural enrichment	164,861	43,978
Government Activities Subtotal	\$ 3,796,742	\$ 1,012,803
Business-type Activities		
State Lottery Fund	\$ 22,104	\$ 5,896
Minority Business Development Fund	151	40
Machinery and Equipment Loan Fund	329	88
Tuition Account Guaranteed Savings Program Fund	316	84
Small Business First Fund	431	115
Rehabilitation Center Fund	9,530	2,542
State Workmen's Insurance Fund	15,385	4,104
Coal and Clay Mine Subsidence Insurance	1,147	306
State Stores Fund	178,728	47,677
Purchasing Fund	5,509	1,470
Manufacturing Fund	16,031	4,276
Historical Preservation Fund	769	205
Unemployment Comp Contribution Fund	53	14
Business-type Activities Subtotal	\$ 250,483	\$ 66,817
Fiduciary Activities		
State Employees' Retirement Fund	\$ 11,652	\$ 3,108
Underground Storage Tank Indemnific	565	151
School Employees' Retirement Fund	19,896	5,307
Med Care Avail & Reduct of Err Fund	2,627	701
Fiduciary Activities Subtotal	\$ 34,740	\$ 9,267

* Totals may not add due to rounding

Post Retirement Benefit - Allocation of Annual OPEB Cost FY 2015-16
*(all dollar amounts are in thousands)**

<u>AOC Allocated to:</u>	<u>Active Employee Salary Total</u>	<u>Annual OPEB Cost</u>
Component Units		
Ben Franklin Technology Development	\$ 232	\$ 62
Port of Pittsburgh Commission Fund	397	106
Pennvest	2,286	610
PAeHealth Partnership Fund	702	187
PA Energy Development Fund	36	10
Philadelphia Regional Port Authority	5,354	1,428
State Public School Building Authority	733	196
State System of Higher Education	136,500	36,412
Thaddeus Stevens	6,549	1,747
PHEAA	147,842	39,438
Component Units Subtotal	\$ 300,631	\$ 80,196
External Organizations		
Patient Safety Trust Fund	\$ 1,369	\$ 365
Pennsylvania Municipal Retirement Fund	1,638	437
External Organizations Subtotal	\$ 3,007	\$ 802
Total AOC Allocated	\$ 4,385,603	\$ 1,169,885

* Totals may not add due to rounding

Appendices

Appendix A – Plan Participation Summary

The participant data used in the valuation was provided by the Commonwealth as of December 31, 2014. While the participant data was checked for reasonableness, the data was not audited, and the valuation results presented in this report are dependent upon the accuracy of the participant data provided. The table below and on the subsequent page present a summary of the basic participant information for the active and retired participants covered under the terms of the Plan.

a. Active Participants				
Total Counts		72,395		
Average Age		47.22		
Average Service		13.12		
b. Retired Participants*			Retired Participants by Medicare Status	
Counts			Non-Medicare	Medicare
Under Age 65 Non-Medicare	16,438			
Under Age 65 Medicare	3,953		Single Contracts	24,292
Age 65 and over	42,935		Family Contracts	16,445
Total Counts	63,326		Split Contracts	6,151
Average Age	70.31			
Total Participants	135,721			

* Retired participants include retirees and 2,583 surviving spouses with minimal liability

Distribution of Service Groups by Age Groups									
Age Group	Retired Participants	Active Participants - Years of Service							Total
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	
<20	-	8	-	-	-	-	-	-	8
20-24	-	933	32	-	-	-	-	-	965
25-29	2	3,389	1,215	42	-	-	-	-	4,646
30-34	26	2,483	3,123	1,059	43	-	-	-	6,708
35-39	56	1,882	2,481	2,274	767	54	-	-	7,458
40-44	193	1,631	2,227	2,270	2,037	1,080	77	-	9,322
45-49	494	1,488	2,058	2,066	1,868	2,201	1,214	44	10,939
50-54	1,874	1,458	2,007	2,129	1,694	1,756	1,933	1,184	12,161
55-59	5,053	1,194	1,831	2,031	1,650	1,641	1,608	1,723	11,678
60-64	12,693	672	1,233	1,379	1,156	707	539	683	6,369
65-69	14,879	151	380	429	333	165	106	193	1,757
70-74	9,630	12	43	87	62	28	22	25	279
75-79	6,661	6	13	15	19	12	4	13	82
80-84	5,307	-	2	2	3	3	1	8	19
85-89	3,914	-	1	-	-	1	-	2	4
90+	2,544	-	-	-	-	-	-	-	-
Total	63,326	15,307	16,646	13,783	9,632	7,648	5,504	3,875	72,395

Appendix B – Program Provisions Summary

This section summarizes overall eligibility provisions for retiree health coverage, the various plans offered by the Commonwealth.

Eligibility

Eligible employees who retire from the state and meet one of the following eligibility criteria are eligible to receive REHP benefits

- 25 or more years of service;
- 20 or more years of service and superannuation age – Age 50 for Park Rangers, Capitol Police and certain enforcement officers or 60 for general employees (age 55 or 65 for employees subject to Act 120 of 2010);
- 15 or more years of service and superannuation age if employee had at least 15 years of service as of June 30, 2008 or 13 years of service and within one year of superannuation age as of June 30, 2008;
- Disability retirement – requires five years of service (no service requirement for enforcement officers).

Covered Family Members

Spouses and dependents are eligible for subsidized postretirement medical coverage while the retiree is alive. The PPACA, signed into law on March 23, 2010, increased the dependent child age limit to age 26 and applied to the Commonwealth effective January 1, 2011.

Cost Sharing

Retirement before July 1, 2005: Commonwealth pays full cost.

Retirement after June 30, 2005 and before July 1, 2007: retiree contributions are 1% of final annual salary.

Retirement on or after July 1, 2007 and before July 1, 2011: retiree contributions are 3% for non-Medicare and 1.5% for Medicare of either final gross annual base salary or final average salary, whichever is less.

Retirement on or after July 1, 2011: retiree contributions are 3% of final average salary for non-Medicare and 1.5% of final average salary for Medicare.

Surviving spouses of deceased retirees may continue to participate in the plan if they pay the full cost of the coverage.

Appendix B – Program Provisions Summary (cont.)

Medical Plans

The following tables list the medical plans offered to retirees and provide the basic benefit provisions.

Medical	Benefit Provisions	Eligibility
Basic	<p><u>Retired prior to 7/1/2004</u> Medical/Surgical</p> <p>No out-of-pocket costs for hospital and medical surgical services provided by participating facilities and providers</p> <p>Major Medical Office visits and other services not covered under Medical/Surgical</p> <p>Deductible \$100 Individual; \$300 Family Coinsurance 20% of next \$1,900; 0% in excess of \$1,900</p> <p>Out-of-Pocket Limit \$380 per person plus deductible Inpatient Covered in full Lifetime Maximum None</p>	Non-Medicare eligible annuitants retired from the Commonwealth prior to 7/1/04 and their non-Medicare eligible dependents
HMO	<p><u>Non-Medicare</u></p> <p><u>Retired prior to 7/1/2004</u> Deductible None Out-of-Pocket Limit None Doctor Office Visits PCP:\$15 co-pay Specialist: \$25 co-pay Inpatient Covered in full Lifetime Maximum None</p> <p><u>Retired on or after 7/1/2004</u> Deductible None Out-of-Pocket Limit None Doctor Office Visits PCP:\$15 co-pay Specialist: \$25 co-pay Inpatient Covered in full Lifetime Maximum None</p> <p><u>Medicare</u> Deductible None Out-of-Pocket Limit \$2,500 Doctor Office Visits PCP:\$10 co-pay Specialist: \$15 co-pay Inpatient Covered in full Lifetime Maximum None</p>	Annuitants retired from the Commonwealth and their eligible dependents living within the HMO service area.

Appendix B – Program Provisions Summary (cont.)

Medical	Benefit Provisions	Eligibility	
PPO	<u>Non-Medicare</u>	Annuitants retired from the Commonwealth and their eligible dependents.	
	<u>Retired prior to 7/1/2004</u>		
	<u>In Network</u>		
	Deductible		None
	Out-of-Pocket Limit		None
	Doctor Office Visits		PCP: \$15 co-pay Specialist: \$25 co-pay
	Inpatient		Covered in full
	Lifetime Maximum		None
	<u>Out of Network</u>		
	Deductible		\$250 Individual; \$500 Family; 20% of next \$5,000; 0% in excess of \$5,000
	Out-of-Pocket Limit (excluding deductible)		\$1,000 Individual; \$2,000 Family
	Doctor Office Visits		20% coinsurance
	Inpatient		20% coinsurance
	Lifetime Maximum		None
	<u>Retired on or after 7/1/2004</u>		
	<u>In Network</u>		
	Deductible		None
	Out-of-Pocket Limit		None
	Doctor Office Visits		PCP:\$15 co-pay Specialist: \$25 co-pay
	Inpatient		Covered in full
	Lifetime Maximum		None
	<u>Out of Network</u>		
	Deductible		\$400 per person; 30% of next \$5,000; 0% in excess of \$5,000.
	Out-of-Pocket Limit (excluding deductible)		\$1,500 Individual; \$3,000 Family
Doctor Office Visits	30% coinsurance		
Inpatient	30% coinsurance		
Lifetime Maximum	None		
<u>Medicare</u>			
<u>In Network</u>			
Deductible	Annual Medicare Part B deductible		
Out-of-Pocket Limit (including deductible)	\$2,500		
Doctor Office Visits	PCP:\$10 co-pay (after deductible) Specialist: \$15 co-pay (after deductible)		
Inpatient	Covered in full (after deductible)		
Lifetime Maximum	None		
<u>Out of Network</u>			
Deductible	2 times Annual Medicare Part B deductible		
Out-of-Pocket Limit (including deductible)	\$2,500		
Doctor Office Visits	20% coinsurance		
Inpatient	20% coinsurance		
Lifetime Maximum	None		

Appendix B – Program Provisions Summary (cont.)

Medical	Benefit Provisions	Eligibility	
Consumer Driven	<u>In Network</u>	Non-Medicare eligible annuitants retired from the Commonwealth on or after 7/1/2004 and their non-Medicare eligible dependents.	
	HRA Credit		\$1,000 Individual; \$2,000 Family
	Deductible		\$1,500 Individual; \$3,000 Family
	Out-of-Pocket Limit		\$500 Individual (after HRA); \$1,000 Family (after HRA)
	Doctor Office Visits		Covered in full (after deductible)
	Inpatient		Covered in full (after deductible)
	Lifetime Maximum		None
	<u>Out of Network</u>		
	HRA Credit		\$1,000 Individual; \$2,000 Family
	Deductible		\$1,500 Individual; \$3,000 Family
	Out-of-Pocket Limit		\$3,500 Individual (after HRA); \$7,000 Family (after HRA)
	Doctor Office Visits		30% coinsurance (after deductible)
	Inpatient		30% coinsurance (after deductible)
	Lifetime Maximum		None

Prescription Drug

The co-payments for all prescriptions covered by the plan are:

Retail (30 day supply): \$10 Generic / \$18 Preferred* / \$36 Non-Preferred*

Mail Order or Preferred Pharmacy (90 day supply): \$15 Generic / \$27 Preferred* / \$54 Non-Preferred*

Non-Preferred Pharmacy (90 day supply): \$20 Generic / \$36 Preferred* / \$72 Non-Preferred*

*Plus an additional out-of-pocket cost for the difference between brand and generic, if one exists.

Changes in Plan Provisions

None.

Appendix C – Actuarial Methods

Actuarial Cost Method

The Actuarial Cost Method used to determine the Actuarial Accrued Liability and the Annual Required Contribution is the Entry Age Normal (EAN) Level Percent of Pay method. This actuarial cost method is one of the GASB 45 approved methods. This method is in the family of future benefit cost methods, which requires an estimate of the projected benefit payable at retirement to determine costs and liabilities.

The Normal Cost (NC) is the annual allocation required for each participant from entry date to the assumed retirement date so that the accumulated allocation at retirement is equal to the liability for the projected benefit. The projected benefits are based on estimates of future years of service and projected health benefit costs. The normal cost is developed as a level percent of pay.

The Present Value of Future Benefits is equal to the value of the projected benefit payable at retirement discounted back to the participant's current age. Discounts include such items as interest and mortality. The present value of future normal cost allocations is equal to the discounted value of the normal costs allocated from the participant's current age to retirement age.

The difference between the Present Value of Future Benefits and the present value of future normal cost allocations represents the Actuarial Liability at the participant's current age.

The Actuarial Accrued Liability for participants currently receiving payments is calculated as the actuarial present value of future benefits expected to be paid. No normal cost is allocated for these participants.

Actuarial Value of Assets

The actuarial value of assets on the valuation date is the market value of assets plus contributions receivable.

Method Changes Since Prior Valuation

The Actuarial Cost Method was changed from Projected Unit Credit to Entry Age Normal (EAN) – Level Percent of Pay since the prior valuation.

Appendix D – Actuarial Assumptions

Economic Assumptions

The economic assumptions were selected for consistency with SERS where applicable. The discount rate was selected based on the estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits. Since the benefits are assumed to be pay-as-you-go until the Trust Equivalent Arrangement is sufficient to fully fund the liability, a blend of the estimated long-term yield on the Trust Equivalent Arrangement and the Commonwealth’s general assets were used.

Discount Rate	5.25%																																																																
Inflation¹	2.75%																																																																
Payroll Growth¹	3.05%																																																																
Salary Scale¹	<p>The career salary scale shown below includes average increases in the employee salary due to promotions and longevity growth. The average career salary growth is 3.05 percent per year. In addition, it is assumed that the salary schedules will increase by 3.05 percent per year. The scale below does not include the assumed 3.05 percent general salary increase.</p> <p><u>Career Salary Scale for Members</u></p> <table border="1"> <thead> <tr> <th>Completed Years of Service</th> <th>Annual Increase</th> <th>Completed Years of Service</th> <th>Annual Increase</th> </tr> </thead> <tbody> <tr><td>1</td><td>8.00%</td><td>16</td><td>2.50%</td></tr> <tr><td>2</td><td>6.00</td><td>17</td><td>2.40</td></tr> <tr><td>3</td><td>4.50</td><td>18</td><td>2.30</td></tr> <tr><td>4</td><td>4.00</td><td>19</td><td>2.20</td></tr> <tr><td>5</td><td>3.75</td><td>20</td><td>2.10</td></tr> <tr><td>6</td><td>3.50</td><td>21</td><td>2.00</td></tr> <tr><td>7</td><td>3.25</td><td>22</td><td>1.90</td></tr> <tr><td>8</td><td>3.20</td><td>23</td><td>1.80</td></tr> <tr><td>9</td><td>3.15</td><td>24</td><td>1.70</td></tr> <tr><td>10</td><td>3.10</td><td>25</td><td>1.60</td></tr> <tr><td>11</td><td>3.00</td><td>26</td><td>1.50</td></tr> <tr><td>12</td><td>2.90</td><td>27</td><td>1.40</td></tr> <tr><td>13</td><td>2.80</td><td>28</td><td>1.30</td></tr> <tr><td>14</td><td>2.70</td><td>29</td><td>1.25</td></tr> <tr><td>15</td><td>2.60</td><td>30+</td><td>1.25</td></tr> </tbody> </table>	Completed Years of Service	Annual Increase	Completed Years of Service	Annual Increase	1	8.00%	16	2.50%	2	6.00	17	2.40	3	4.50	18	2.30	4	4.00	19	2.20	5	3.75	20	2.10	6	3.50	21	2.00	7	3.25	22	1.90	8	3.20	23	1.80	9	3.15	24	1.70	10	3.10	25	1.60	11	3.00	26	1.50	12	2.90	27	1.40	13	2.80	28	1.30	14	2.70	29	1.25	15	2.60	30+	1.25
Completed Years of Service	Annual Increase	Completed Years of Service	Annual Increase																																																														
1	8.00%	16	2.50%																																																														
2	6.00	17	2.40																																																														
3	4.50	18	2.30																																																														
4	4.00	19	2.20																																																														
5	3.75	20	2.10																																																														
6	3.50	21	2.00																																																														
7	3.25	22	1.90																																																														
8	3.20	23	1.80																																																														
9	3.15	24	1.70																																																														
10	3.10	25	1.60																																																														
11	3.00	26	1.50																																																														
12	2.90	27	1.40																																																														
13	2.80	28	1.30																																																														
14	2.70	29	1.25																																																														
15	2.60	30+	1.25																																																														

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2013 and experience study presented to the Board in January 2011.

Appendix D – Actuarial Assumptions (cont.)

Demographic Assumptions

The demographic assumptions were selected for consistency with SERS where applicable. The retiree health specific assumptions were selected based on recent experience.

Mortality¹	Pre-Retirement Mortality :		
	Age	Male	Female
	20	0.04%	0.02%
	25	0.04	0.02
	30	0.05	0.02
	35	0.06	0.03
	40	0.08	0.04
	45	0.12	0.06
	50	0.22	0.09
	55	0.27	0.14
60	0.32	0.24	
Post Retirement Mortality:			
Healthy Participants: RP-2000 Healthy Annuitant Mortality Table projected to 2008 and updated to reflect actual SERS experience through 2010. The table includes a margin for future improvement in life expectancy.			
Disabled Participants: RP-2000 Disabled Retiree Mortality Table projected to 2008 and updated to reflect actual SERS experience through 2010. The table includes a margin for future improvement in life expectancy.			
Disability Incidence¹	Age	Male	Female
	25	0.02%	0.04%
	30	0.07	0.09
	35	0.12	0.16
	40	0.19	0.21
	45	0.33	0.33
	50	0.46	0.50
	55	0.60	0.63

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2013 and experience study presented to the Board in January 2011.

Appendix D – Actuarial Assumptions (cont.)

Withdrawal¹	General employees:								
		Male				Female			
		Years of Service				Years of Service			
	Age	0	5	9	14	0	5	9	14
	20	20.7%	N/A	N/A	N/A	22.4%	N/A	N/A	N/A
	25	16.2	0.8%	0.8%	N/A	20.5	2.7%	1.9%	N/A
	30	13.9	0.8	0.6	0.6%	17.9	2.4	1.7	1.8%
	35	13.6	0.7	0.4	0.4	12.8	1.9	1.2	1.3
	40	13.0	0.5	0.4	0.4	10.0	1.9	0.7	0.5
	45	12.1	0.5	0.2	0.2	9.8	1.8	0.7	0.5
50	11.3	0.5	0.2	0.2	9.8	1.8	0.4	0.5	
55	11.3	0.6	0.6	0.6	9.8	1.5	1.2	1.2	
	Hazardous Duty employees:								
Years of Service	Rate								
0	15.0%								
1	5.0								
2	3.0								
3	2.5								
4	1.5								
5	0.9								
6	0.7								
7	0.6								
8	0.4								
9	0.3								
10+	0.2								

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2013 and experience study presented to the Board in January 2011.

Appendix D – Actuarial Assumptions (cont.)

Early Retirement¹
 (based on early retirement as defined by SERS; retirement prior to OPEB eligibility, as described above in Appendix B, will receive no post-retirement health benefit)

General employees:

Hired prior to January 1, 2011:

Age	5 – 14 Years of Credited Service		15 or More Years of Credited Service	
	Male	Female	Male	Female
25	1.0%	1.0%	N/A	N/A
30	1.5	1.5	N/A	N/A
35	1.5	1.5	1.5%	1.5%
40	1.0	1.0	1.5	1.5
45	1.0	1.0	1.5	1.5
50	1.0	1.0	2.0	2.0
55	1.0	1.0	5.5	5.5

Hired on or after January 1, 2011:

Age	10 or More Years of Credited Service	
	Male	Female
35	1.5%	1.5%
40	1.5	1.5
45	1.5	1.5
50	2.0	2.0
55	5.5	5.5
60	5.5	5.5
61	6.0	6.0
62	20.0	20.0
63	10.0	10.0
64	15.0	15.0

Hazardous Duty employees:

0.8% at each age

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2013 and experience study presented to the Board in January 2011.

Appendix D – Actuarial Assumptions (cont.)

Normal Retirement¹
 (based on normal retirement as defined by SERS; retirement prior to OPEB eligibility, as described above in Appendix B, will receive no post-retirement health benefit)

General employees:

Hired prior to January 1, 2011:

Age	Male	Female
53	25.0%	23.0%
54	26.0	23.0
55	27.0	23.0
56	28.0	23.0
57 - 59	30.0	23.0
60	25.0	25.0
61	20.0	20.0
62	25.0	25.0
63 – 64	20.0	20.0
65	25.0	25.0
66 – 79	20.0	20.0
80	100.0	100.0

Hired on or after January 1, 2011:

Age	Rate
55	15.0%
56	16.0
57	17.0
58	18.0
59	19.0
60	20.0
61	20.0
62	25.0
63	20.0
64	20.0
65	25.0
66 – 79	20.0
80	100.0

Hazardous Duty employees:

Age	Rate
50	7.0%
55	7.0
60	12.0
65	25.0
70	25.0
75	25.0
80	100.0

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2013 and experience study presented to the Board in January 2011.

Appendix D – Actuarial Assumptions (cont.)

Spouse Age Difference¹	Females are assumed to be 2 years younger than males.
Participation Rate	100% of employees who currently participate in the active health plan are assumed to elect coverage at retirement. Employees who are eligible for but currently opt out of active health coverage are excluded from the valuation. Retirees who currently elect to waive their coverage are assumed to remain uncovered in the future.
Coverage Level Election Rates	Employees are assumed to maintain their current coverage election when they retire. Current retirees are assumed to continue their current coverage election.
Surviving Spouse Continuing Coverage	45% of spouses are assumed to elect to continue coverage after the retiree's death.

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2013 and experience study presented to the Board in January 2011.

Appendix D – Actuarial Assumptions (cont.)

Benefit Assumptions

Per Capita Claims Costs

The per capita claims costs used in the valuation were developed from the self-insured rates that represent the expected claims costs and administrative expenses for 2015 for each plan. These first-year rates are on a “net basis” – they reflect plan costs after reduction of total benefit costs for member cost-sharing (deductibles, coinsurance, co-pays, provider savings, Medicare, etc.). Future year per capita costs were projected by applying trend assumptions to the first year costs.

Since the “flat” rates are specific to the experience of the Commonwealth’s retirees (i.e., not blended with employees) separately for non-Medicare and Medicare, age-graded claims are not necessary. While age-graded claims could be used to measure the projected impact on the rates of demographic changes, we do not have sufficiently reliable data at the time of this valuation to develop an age-graded curve to model this potential impact. We believe the use of “flat” rates is reasonable for the development of the plan’s liability.

The table below illustrates calendar year 2015 monthly “flat” net rates for each plan, which were also used as per capita claims costs in 2015.

	<u>Single</u>	<u>Multi</u>
<u>Non-Medicare</u>		
Geisinger Health Plan	\$719.45	\$1,618.77
Keystone Health Plan Central	\$777.43	\$1,749.23
Keystone Health Plan West	\$705.16	\$1,586.62
Aetna HMO PA	\$904.86	\$2,035.94
Capital Blue Cross Out of State	\$925.33	\$2,081.99
Capital Blue Cross	\$1,086.44	\$2,444.48
Highmark (PPO)	\$829.12	\$1,865.52
UnitedHealth Care	\$766.36	\$1,724.30
<u>Medicare</u>		
Aetna Medicare PPO	\$156.87	\$313.74
Aetna Medicare PPO ESA	\$156.87	\$313.74
Aetna Medicare HMO In State	\$229.84	\$459.68
Aetna Medicare HMO Out of State	\$135.93	\$271.86
Geisinger MHMO Central PA	\$246.00	\$492.00
Geisinger MHMO Northeastern PA	\$230.00	\$460.00
UPMC MHMO	\$215.00	\$430.00
UPMC MHMO FLEX	\$215.00	\$430.00
CBC Out of State Parts A & B	\$163.81	\$327.62

Appendix D – Actuarial Assumptions (cont.)

Expenses	Rates were developed to include administrative expenses as a component in the total rate.																										
Trend Rates	<p>The trend rates illustrated below are used to project age-graded claims and flat rates into future years. Trend rates were developed based on the SOA-Getzen trend rate model version 2014_b. For the years 2015 through 2019, the rates are based on projections by the Congressional Budget Office. The SOA-Getzen model was then used to determine the trend rates beginning in 2020 and thereafter, based on the long-term inflation assumption and reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">All benefits</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">2015</td><td style="text-align: center;">4.9%</td></tr> <tr><td style="text-align: center;">2016</td><td style="text-align: center;">5.2%</td></tr> <tr><td style="text-align: center;">2017</td><td style="text-align: center;">5.5%</td></tr> <tr><td style="text-align: center;">2018</td><td style="text-align: center;">5.6%</td></tr> <tr><td style="text-align: center;">2019</td><td style="text-align: center;">5.7%</td></tr> <tr><td style="text-align: center;">2020</td><td style="text-align: center;">5.7%</td></tr> <tr><td style="text-align: center;">2030</td><td style="text-align: center;">5.7%</td></tr> <tr><td style="text-align: center;">2040</td><td style="text-align: center;">5.7%</td></tr> <tr><td style="text-align: center;">2050</td><td style="text-align: center;">5.1%</td></tr> <tr><td style="text-align: center;">2060</td><td style="text-align: center;">4.9%</td></tr> <tr><td style="text-align: center;">2070</td><td style="text-align: center;">4.4%</td></tr> <tr><td style="text-align: center;">2075+</td><td style="text-align: center;">4.0%</td></tr> </tbody> </table>	Year	All benefits	2015	4.9%	2016	5.2%	2017	5.5%	2018	5.6%	2019	5.7%	2020	5.7%	2030	5.7%	2040	5.7%	2050	5.1%	2060	4.9%	2070	4.4%	2075+	4.0%
Year	All benefits																										
2015	4.9%																										
2016	5.2%																										
2017	5.5%																										
2018	5.6%																										
2019	5.7%																										
2020	5.7%																										
2030	5.7%																										
2040	5.7%																										
2050	5.1%																										
2060	4.9%																										
2070	4.4%																										
2075+	4.0%																										
Excise Tax	Effective in the 2018 calendar year, an excise tax on “Cadillac Plans” will apply as a result of PPACA. HMOs and other healthcare insurers, who offer plans with a higher cost than the excise tax threshold, will be charged a 40% tax on the costs exceeding the threshold. Due to the expectation that the medical trend rate will significantly exceed inflation over the long-term, most retiree health plans will be affected by the excise tax at some point in the future. After adjusting the thresholds for the age and gender characteristics of the Commonwealth’s policy holders, however, the excise tax is projected to only have a minor impact on the liabilities.																										
Medicare Eligibility	<p>Current Medicare eligible retired participants who are under age 65 are assumed to remain Medicare eligible.</p> <p>All other retirees and spouses (if covered) are assumed to be non-Medicare eligible prior to age 65 and Medicare eligible at age 65.</p>																										

Appendix D – Actuarial Assumptions (cont.)

Coverage	Current retirees are assumed to remain in their currently elected plan.			
	Current employees are assumed to enroll at retirement in the same proportion as the current retiree mix. These proportions are established separately for non-Medicare and Medicare coverage.			
	The table below shows the enrollment percentage by plan and location.			
	<u>Retired before 7/1/2004</u>		<u>Retired on or after 7/1/2004</u>	
	<u>Retiree</u>	<u>Spouse</u>	<u>Retiree</u>	<u>Spouse</u>
<u>Non-Medicare</u>				
Geisinger Health Plan	2.7%	4.1%	3.0%	4.7%
Keystone Health Plan Central	5.3%	5.5%	5.3%	5.1%
Keystone Health Plan West	6.4%	8.7%	5.2%	5.6%
Aetna HMO PA	2.9%	1.4%	2.2%	1.4%
Capital Blue Cross Out of State	3.6%	3.6%	0.0%	0.0%
Capital Blue Cross	31.0%	27.1%	0.0%	0.0%
Highmark (PPO)	48.1%	49.6%	84.0%	83.0%
UnitedHealth Care	0.0%	0.0%	0.3%	0.2%
<u>Medicare</u>				
Aetna Medicare PPO	66.9%	60.4%		
Aetna Medicare PPO ESA	8.6%	10.0%		
Aetna Medicare HMO In State	0.8%	0.6%		
Aetna Medicare HMO Out of State	0.2%	0.2%		
Geisinger MHMO Central PA	6.3%	8.1%		
Geisinger MHMO Northeastern PA	2.0%	3.2%		
UPMC MHMO	11.5%	14.2%		
UPMC MHMO FLEX	0.1%	0.1%		
CBC Out of State Parts A & B	3.6%	3.1%		

Assumption Changes Since Prior Valuation

The discount rate was changed from 4.75% to 5.25%

The coverage election assumption was changed from 45% of current and future retirees electing single coverage to be based on actual elections provided in the data.

Per capita claims cost were updated based on changes in the underlying claims over the past two years.

The excise tax is being explicitly valued; it was not previously valued.

The trend rate was changed to use updated assumptions for short-term trend based on CBO projections; for long-term trend using Getzen Model version 2014_b instead of version 11.1.

The retiree health eligibility for certain bargaining units (at ages 50 and 55) is being explicitly valued; it was previously assumed that these individuals would not impact the liability.

For current retirees with split contracts (one Medicare member and one non-Medicare member), spouses are valued based on their age (pre/post 65); previously based on retiree's Medicare eligibility flag.

Appendix E – Glossary

Below is a brief explanation of various terms used in this report.

- **Actuarial Accrued Liability (AAL).** The portion of the Present Value of Future Benefits that is attributed to accrued service as of the valuation date, based on the actuarial cost method.
- **Annual OPEB Expense.** The amount recognized by an employer in each accounting period for contributions to a defined benefit OPEB plan on the modified accrual basis of accounting.
- **Annual Required Contribution (ARC).** The employer's annual required contributions to an OPEB plan calculated in accordance with GASB 45.
- **Covered Payroll.** Annual compensation paid (or expected to be paid) to active employees covered by an OPEB plan, in aggregate.
- **Net OPEB Obligation (NOO).** The cumulative difference between the annual OPEB cost and employer contributions since the adoption date of GASB 45.
- **Normal Cost (NC).** The portion of the Total Present Value of Future Benefits attributed to employee service during the current fiscal year by the actuarial cost method.
- **Other Postemployment Benefits (OPEB).** Retiree health care benefits and post-employment benefits provided separately from a pension plan (excluding termination offers and benefits).
- **Present Value of Future Benefits (PVFB).** The value, as of the valuation date, of the projected benefits payable to all members for their accrued service and their expected future service, discounted to reflect the time value (present value) of money and adjusted for the probabilities of retirement, withdrawal, death and disability.
- **Unfunded Actuarial Accrued Liability (UAAL).** The portion of the Actuarial Accrued Liability that exceeds the current plan assets.