

# COMMONWEALTH OF PENNSYLVANIA

Actuarial Valuation of the Post–Retirement Medical Plan October 2009

# COMMONWEALTH OF PENNSYLVANIA ACTUARIAL VALUATION OF THE POST-RETIREMENT MEDICAL PLAN

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# **Section 1**

# **Executive Summary**

The Commonwealth of Pennsylvania (The Commonwealth) sponsors two health care plans for eligible retirees. Eligible Commonwealth retirees and their dependents may continue subsidized health care coverage through the Commonwealth for the life of the retiree in the Retired Employee Health Program (REHP). In addition, eligible State Police annuitants and their dependents may continue coverage through the Retired Pennsylvania State Police Program (RPSPP) for life of the retiree.

This valuation includes calculations made as of July 1, 2008 using census data collected as of December 2008 and health care claims costs for calendar 2008, for current retirees and future retirees eligible for coverage under these plans. The results as of July 1, 2008 were then projected using standard actuarial techniques to determine the liabilities and costs as of June 30, 2009 and June 30, 2010.

The Commonwealth adopted GASB 45 effective July 1, 2007, with the expectation of fully funding the ARC for the REHP. Since adoption changes in the economy have reduced the Commonwealth's revenues and the ability to fully fund the ARC. Accordingly, this valuation has been prepared assuming funding is limited to pay-as-you-go amounts.

#### **GASB 45**

Before July 1, 2007, the Commonwealth reported the cost of retiree medical benefits on a cash basis. Beginning July 1, 2007, the Commonwealth implemented the new Governmental Accounting Standards Board (GASB) standard (Statement Number 45) on *Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions*. This standard requires the Commonwealth to account for these benefits on a full accrual basis. A description of the GASB standard can be found in Section 2.

#### **Benefit Plans**

This valuation covers two separate health plans sponsored by the Commonwealth. The larger plan is the REHP which covers eligible retired Commonwealth employees and their dependents. The smaller plan is the RPSPP which covers eligible retired State Police enlisted members and their dependents. The eligibility conditions and benefit provisions for these two plans differ materially; therefore the valuation developed separate results for each plan and its covered population. A description of the plan provisions can be found in Section 6.

#### **Health Care Trend Rates**

The accounting standard requires employers to anticipate future health care costs by adjusting today's per capita health care costs with projected health care trend rates. As shown in



Appendix A, health care cost increases have outpaced general inflation and the annual rate of change has fluctuated significantly over time.

It is difficult to accurately predict health care cost increases even one or two years into the future. The assumed increase in health care costs varies by type of benefit and year. For the RPSPP the assumptions anticipate medical benefit costs increase by 10 percent in 2008, with the rate increase declining by 1 percent per year until the rate reaches 5 percent per year in 2013, the rate stays constant at 5 percent per year till 2023 in 2024 the rate of increase drops to 4.8 percent and in 2025 the ultimate trend rate of 4.75 percent per year is achieved.

For the REHP, the historical claims costs were adjusted to reflect the program changes either by direct adjustments to the per capita claims costs or by making adjustments to the healthcare cost trend rates. Effective April 1, 2008, all REHP Medicare-eligible retirees were enrolled in a Medicare Advantage Private Fee For Service plan (MAPFFS), Medicare Advantage HMO, or Medicare Advantage PPO. The cost for the Medicare Advantage plans is lower than the cost for the traditional Medicare supplement program. The cost to the MAPFFS is expected to increase significantly in the first few years as the cost represents the difference between the total cost for medical care and the amounts funded by the Centers for Medicare and Medicaid Services (CMS). Thus for the REHP the health care cost trend rates anticipate a variable trend rate reducing from an initial rate of 20.7 percent to an ultimate rate of 4.75 percent. The RPSPP Pharmacy benefit costs are assumed to increase by 7 percent in 2008, 6.5 percent in 2009 thereafter the rate of increase declines by 0.25 percent until it reaches 5 percent in 2015. The 5 percent increase continues till the year 2023. Thereafter, Pharmacy benefits costs are projected to increase by 4.75 percent annually. For the REHP pharmacy benefits the health care cost trend rate is assumed to increase by 7 percent in 2008, 6 percent in 2009, 7 percent in 2010, 6 percent in 2011 and 5 percent from 2012 to 2023. Thereafter, Pharmacy benefits costs are projected to increase by 4.75 percent annually. For RPSPP Dental benefit costs are assumed to increase by 6 percent for 2008 through 2013, then 5 percent from 2014 through 2023. Thereafter, dental benefit costs are projected to increase by 4.75 percent annually. This assumption set starts with the current consensus trend rate and changes smoothly to an assumed, ultimate trend rate. The projected increases in the Medicare Part B premium were taken from the 2008 Medicare Trustees report with an ultimate rate of increase of 4.75 percent.

The actuarial assumptions are described in Section 5, and shown in Appendix B.

#### **Funding**

The Commonwealth established a retiree health trust fund in FY 2007/2008 to begin advance funding the benefits. A description of the proposed funding policy and source of funds is provided in Section 4.

## **Key Valuation Results**

We have measured the post-retirement medical liabilities for the retirees currently covered by the post-retiree health plans and for employees covered under the Commonwealth health plan for



active employees as of July 1, 2008. The liabilities for the REHP and RPSPP were calculated using a discount rate of 5.0 percent.

In Table 1.1 we have shown three measures of the liability: the present value of future benefits, the actuarial accrued liability, and the normal cost. The present value of future benefits is the discounted present value of all future employer-paid health premiums for both current and future retirees. The actuarial accrued liability is the portion of the present value of future benefits attributable to employee service rendered prior to measurement date. The normal cost is the portion of the present value of benefits earned in the Fiscal year. The table also shows the market value of assets and the unfunded actuarial accrued liability.

The complete valuation results are shown Section 3.

Table 1.1 shows the valuation results.

Table 1.1 Postretirement Medical Benefit Valuation Results for REHP and RPSPP (Amounts in \$millions)				
		As of July 1, 2008	As of July 1, 2009	
Assump	tions			
	Discount rate	5.00%	5.00%	
F	Healthcare cost trend rates			
	<ul> <li>Medical benefit trend rate</li> </ul>	10.00%	9.00%	
	<ul> <li>Pharmacy benefit trend rate</li> </ul>	7.00%	6.00%	
	<ul> <li>Dental benefit trend rate</li> </ul>	6.00%	6.00%	
	Ultimate rate	4.75%	4.75%	
Valuatio	n Results			
1.	Present Value of Future Benefits	\$18,950.84	\$19,324.43	
2.	Actuarial Accrued Liability	14,862.77	15,361.81	
3.	Assets	110.80	88.49	
4.	Unfunded Actuarial Accrued Liability (actuarial accrued liability less assets)	14,751.97	15,273.32	
5.	Normal Cost	314.15	329.08	

#### **Annual Required Contribution**

The Annual Required Contribution (ARC) is the sum of four parts:

- (i) the Normal Cost,
- (ii) the Amortization payment on the Unfunded Actuarial Accrued Liability,
- (iii) interest on the unfunded ARC (or overfunded ARC) if any, and



(iv) an adjustment to the ARC to prevent double accrual of principal payments on the unfunded actuarial accrued liability (if any).

For an organization that fully funds the ARC each year, the ARC is simply the sum of (i) and (ii).

The Commonwealth has decided to amortize the unfunded actuarial accrued liability over 30 years as a level percent of pay and to use fresh start amortization each year.

Table 1.2 shows the derivation of the Annual Required Contribution.

Table 1.2 Postretirement Medical Benefit Valuation Results Annual Required Contribution for REHP and RPSPP (Amounts in \$millions)			
Annual F	Required Contribution (ARC)	FY 2008/2009	FY 2009/2010
1 2	Normal Cost Amortization Cost	\$314.15 647.71	\$329.08 670.60
<ul><li>3 Interest on unfunded (overfunded) ARC</li><li>4 ARC adjustment</li></ul>		0.28 (0.24)	20.37 (17.88)
5	Total Annual Required Contribution	961.90	1,002.17

Table 1.3 shows the development of the Net Other Post Employment Benefits (OPEB) Liability. The Net OPEB Liability is the excess of the Annual Required Contribution over the amount funded by the employer. As this is a projection for the amounts as of June 30, 2009 and June 30, 2010, the Net OPEB Liability is based on an expected employer contributions equal to expected benefit payments.

Table 1.3 Postretirement Medical Benefit Valuation Results Net OPEB Liability for REHP and RPSPP (Amounts in \$millions)			
		FY 2008/2009	FY 2009/2010
1	Net OPEB Liability as of July 1	\$5.50	\$407.27
2	Annual Required Contribution	961.90	1,002.17
3	Expected employer contribution	560.13	636.83
4	Net OPEB Liability as of June 30	407.27	772.61



The expected employer contribution is funded by

- amounts paid for claims and premiums incurred and paid during the year
- advance funding contributions to the retiree health trusts from the respective restricted receipts accounts

#### **Actuarial Certification**

The Commonwealth retained the Hay Group to perform an actuarial valuation of the Post-Retirement Medical Plan to provide an estimate of the actuarial accrued liability and the Annual Required Contribution in accordance with GASB standards numbered 43 and 45. Use of the valuation results for other purposes may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The results shown in this report are reasonable actuarial results. However, a different set of results could also be considered reasonable actuarial results. The reason for this is that actuarial standards of practice describe a "best-estimate range" for each assumption, rather than a single best-estimate value. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The actuaries certifying to this valuation are members of the Society of Actuaries and other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Statements of Actuarial Opinion.

Adam J. Reese,

Fellow of the Society of Actuaries

Member of the American Academy of Actuaries

Enrolled Actuary No 08-4303

OSaan J Reese

Hay Group

October 2009

Barist Rusi

Sanjit Puri

Associate of the Society of Actuaries Member of the American Academy of Actuaries Hay Group

October 2009



# **Section 2**

# **Description of GASB 45**

#### **Governmental Accounting Standards Board (GASB)**

In June, 2004, the Governmental Accounting Standards Board (GASB) issued its long awaited standard on Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (OPEBs).

The standard covers both post-retirement and post-employment benefits. The types of benefits covered include:

- Medical
- Dental
- Vision
- Hearing
- Life insurance
- Long term disability
- Long term care

However, if any of these benefits are provided through a pension plan they would be accounted for under GASB 25 — otherwise they will be accounted for under GASB 45.

It has taken GASB over 15 years to issue the standard as they first added OPEBs to their technical agenda in 1988. The delay has helped governmental employers in several ways. Over the ensuing period, private sector firms learned to grapple with the issue after the Financial Accounting Standards Board (FASB) released its exposure draft and then after due deliberation issued the final standard (FAS 106) in 1990. The actuarial and accounting professions geared up to handle the change from cash to accrual accounting. Claims administrators are now experienced with meeting the special data requests, actuaries have refined their valuation models, and accountants understand the valuation results. The actuarial profession revised and updated its Actuarial Standard of Practice, reissuing ASOP #6 — Measuring Retiree Group Benefit Obligations in December 2001. The GASB standard directs users to this actuarial standard for guidance on selection of actuarial assumptions.

The effective date for the new standard depends on the size of the employer. For entities with revenues in FY 2000 over \$100 million, the effective date is the fiscal year beginning after December 15, 2006 — although earlier adoption was encouraged. Entities with smaller revenues have later effective dates. The Commonwealth adopted the standard beginning with the 2007-2008 financial reporting year.

The purpose of the standard is to treat post-retirement benefit costs in a manner similar to pension costs. Governmental employers should recognize that OPEBs constitute compensation for employee service and they should recognize the cost of benefits during the periods when



employee service is rendered. By accounting for OPEBs, GASB believes the accounting statement will improve the relevance and usefulness of financial reporting, provide information about the size of the liabilities and the extent to which they are funded, and ensure systematic accrual-basis measurement over employee service.

While the standard will require governmental employers to adopt accrual accounting, the standard sets out a broad range of valuation options for employers. These options include the ability to choose, within limits, the:

- Actuarial cost method,
- Period for amortizing the unfunded actuarial accrued liability
- Amortization method.
- Measurement date, and
- Frequency of valuations

The most common and most expensive of the OPEBs are retiree medical benefits, which provide a valuable component in employees' retirement benefits program. Most governmental employers currently fund their retiree medical plans on a pay-as-you-go basis. The GASB standard does not require employers to advance fund these benefits; however employers who do not advance fund these benefits must begin to report OPEB liabilities in their full accrual financial statements.

#### **Actuarial Cost Method**

A fundamental principle in financing the liabilities of any retirement program is that the cost of the benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several acceptable actuarial methods prescribed in the GASB standard that are acceptable under the GASB standard. The Commonwealth directed the Hay Group to identify the actuarial cost method that would produce the lowest Annual Required Contribution. We evaluated each of the methods and determined that the Projected Unit Credit (PUC) Cost Method produced the lowest ARC.

Under the projected unit credit cost method, the actuary develops the discounted present value of all future benefit payments. For a retiree, this amount is the Actuarial Accrued Liability. For an employee that has not yet retired, the Actuarial Accrued Liability is determined as the ratio of the employee's service as of the valuation date to the expected service at retirement. As the valuation uses rates of retirement, the PUC method determines the Actuarial Accrued Liability as the weighted sum of the pro-rata calculations for expected retirements at each expected retirement age.



# **Actuarial Accrued Liability**

The actuarial accrued liability is that portion of the present value of projected benefits which has been accrued during the employee's working life from the date of hire to the valuation date. Another way of viewing this liability is as the portion of the present value of projected benefits that will not be funded by future normal costs. Therefore, as long as participants enter the system with no past service credit (as is assumed in this case), there is no actuarial liability for a new entrant. Furthermore, the full present value of benefits is accrued by the end of each employee's working life.

The difference between the actuarial accrued liability and the funds accumulated as of the valuation date is referred to as the unfunded actuarial accrued liability. Unfunded actuarial accrued liabilities generally exist when (1) the liabilities are not funded, (2) benefits have been earned for periods in which no normal cost has been paid or (3) the amounts that have been funded were inadequate because of losses, changes in assumptions, changes in the funding method, or benefit improvements. The unfunded actuarial accrued liability equals the actuarial accrued liability less the value of the fund.

# **Development of the Normal Cost**

The normal cost represents the benefits earned during the current reporting period. As stated in the previous section, the projected unit credit actuarial cost method is used in determining the normal cost.

#### **Amortization Method**

GASB 45 allows for the use of either a level dollar amortization or a level percentage of pay amortization. Members in the REHP who retired after July 1, 2004 are required to pay contributions based on their final salary. The Commonwealth budgeting process allocates costs to component units as a percentage of payroll. Given the use of pay and payroll for cost-sharing and budgeting purposes, the Commonwealth chose to use the level percentage of payroll in determining the amortization cost.



# **Section 3**

# The Valuation Results

Table 3.1 shows the combined present value of future benefits, actuarial accrued liability, assets, unfunded actuarial accrued liability and the normal cost, as of June 30, 2008 and as of June 30, 2009.

Building on these values the table shows the Annual Required Contribution amounts for FY 2008/09 and FY 2009/10.

Table 3.2 shows the results for current and future members of the REHP as of June 30, 2008 and June 30, 2009.

Table 3.3 shows the results for current and future members of the RPSPP as of June 30, 2008 and June 30, 2009.

Table 3.1 Post-Retirement Medical Valuation Total for REHP and RPSPP (dollars in millions)				
	As of June 30, 2008	As of June 30, 2009		
Present Value of Future Benefits				
Current Retirees	\$ 10,323.35	\$ 10,287.72		
Future Retirees	8,627.49	9,036.71		
Total	18,950.84	19,324.43		
Actuarial Accrued Liability				
Current Retirees	10,323.35	\$ 10.287.72		
Future Retirees	4,539.42	5,074.09		
Total	14,862.77	15,361.81		
Assets	110.80	88.49		
Unfunded Actuarial Accrued Liability	14,751.97	15,273.32		
	FY 2008/09	FY 2009/10		
Amortization Cost	647.71	670.60		
Normal Cost	314.15	329.08		
Interest on unfunded (over funded) ARC	0.28	20.37		
ARC adjustment	(0.24)	(17.88)		
Total Annual Required Contribution	\$961.90	\$1,002.17		
Expected Employer Funding PAYG Advance Funding Total	560.13 0.00 <b>\$560.13</b>	636.83 0.00 <b>\$636.83</b>		
	FY 2008/09	FY 2009/10		



Table 3.1 Post-Retirement Medical Valuation Total for REHP and RPSPP (dollars in millions)			
Net OPEB Liability			
Amount at beginning of Year	5.50	407.27	
ARC	961.90	1,002.17	
Expected employer funding	560.13	636.83	
Amount at End of Year	\$407.27	\$772.61	

Table 3.2					
Post-Retirement Medical Valuation of the REHP					
(dollars in millions)					
As of June 30,					
Present Value of Future Benefits					
Current Retirees	9,048.72	9,004.62			
Future Retirees	7,084.44	7,417.16			
Total Actuarial Accrued Liability	\$16,133.16	\$16.421.78			
Current Retirees	9,048.72	9,004.62			
Future Retirees	3,814.55	4,252.95			
Total	12,863.27	13.257.57			
Assets	60.00	47.92			
Unfunded Actuarial Accrued Liability	12,803.27	13,209.65			
	FY 2008/09	FY 2009/10			
Amortization Cost Normal Cost	562.15 256.36	579.99 268.54			
Interest on unfunded (over funded) ARC	250.36	200.54 15.65			
ARC adjustment	0.00	(13.74)			
Total Annual Required Contribution	\$818.51	\$850.44			
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Expected Employer Funding					
PAYG	505.56	574.81			
Advance Funding	0.00	0.00			
Total	\$505.56	\$574.81			
	FY 2008/09	FY 2009/10			
Net OPEB Liability					
Amount at beginning of Year	0.00	312.95			
ARC	818.51	850.44			
Expected employer funding	505.56	574.81			
Amount at End of Year	\$312.95	\$588.58			



Table 3.3 Post-Retirement Medical Valuation of the RPSPP (dollars in millions)				
	As of June 30, 2008	As of June 30, 2009		
Present Value of Future Benefits				
Current Retirees	1,274.63	1,283.10		
Future Retirees	1,543.05	1,619.55		
Total	\$2,817.68	\$2,902.65		
Actuarial Accrued Liability				
Current Retirees	1,274.63	1,283.10		
Future Retirees	724.87	821.14		
Total	1,999.50	2,104.24		
Assets	50.80	40.57		
Unfunded Actuarial Accrued Liability	1,948.70	2.063.67		
	FY 2008/09	FY 2009/10		
Amortization Cost	85.56	90.61		
Normal Cost	57.79	60.54		
Normal Cost Interest on unfunded (over funded) ARC	0.28	4.72		
Interest on unfunded (over funded) ARC ARC adjustment		4.72 (4.14)		
Interest on unfunded (over funded) ARC	0.28	4.72		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution	0.28 (0.24)	4.72 (4.14)		
Interest on unfunded (over funded) ARC ARC adjustment	0.28 (0.24)	4.72 (4.14)		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding	0.28 (0.24) <b>\$143.39</b>	4.72 (4.14) <b>\$151.73</b>		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding PAYG	0.28 (0.24) <b>\$143.39</b> 54.57	4.72 (4.14) <b>\$151.73</b> 62.02 0.00 <b>\$62.02</b>		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding PAYG Advance Funding	0.28 (0.24) <b>\$143.39</b> 54.57 0.00	4.72 (4.14) <b>\$151.73</b> 62.02 0.00		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding PAYG Advance Funding	0.28 (0.24) <b>\$143.39</b> 54.57 0.00 <b>\$54.57</b>	4.72 (4.14) <b>\$151.73</b> 62.02 0.00 <b>\$62.02</b>		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding PAYG Advance Funding Total	0.28 (0.24) <b>\$143.39</b> 54.57 0.00 <b>\$54.57</b>	4.72 (4.14) <b>\$151.73</b> 62.02 0.00 <b>\$62.02</b>		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding PAYG Advance Funding Total  Net OPEB Liability	0.28 (0.24) \$143.39 54.57 0.00 \$54.57 FY 2008/09	4.72 (4.14) \$151.73 62.02 0.00 \$62.02 FY 2009/10		
Interest on unfunded (over funded) ARC ARC adjustment Total Annual Required Contribution  Expected Employer Funding PAYG Advance Funding Total  Net OPEB Liability Amount at beginning of Year	0.28 (0.24) \$143.39 54.57 0.00 \$54.57 FY 2008/09	4.72 (4.14) \$151.73 62.02 0.00 \$62.02 FY 2009/10		



# **Allocation of the Annual Required Contribution**

For financial planning and reporting purposes, the Commonwealth required that the valuation report include an allocation of the Annual Required Contribution. A separate cost for the RPSPP was developed just for State Police members. The allocation of the REHP ARC was based on the ratio of the projected payroll by employees in each department supporting the government business activity or component unit or organization, to the total projected payroll for all employees.

Table 3.4 shows the ARC for FY 2008/09 and Table 3.5 shows the ARC of FY 2009/10.

Table 3.4 Commonwealth of Pennsylvania Post Retirement Benefit Liability and Allocation of Annual Required Contribution				
	Amounts in (\$ thou		711	
	REHP 2008 Payroll	RPSPP 2008 Payroll	REHP Annual Required Contribution	RPSPP Annual Required Contribution
ARC Allocated to:				
Government Activities				
Direction and Supportive Services	\$ 326,937		\$ 65,364.84	
Protection of persons and property	1,342,305	\$ 335,827	268,368.55	\$ 142,762.74
Public education	35,499		7,097.32	
Health and human services	1,147,698		229,460.72	
Economic development	69,313		13,857.74	
Transportation	494,725		98,910.97	
Recreation and cultural enrichment	155,415		31,072.28	
Governmental Activities Subtotal	3,571,891	335,827	\$ 714,132.42	\$ 142,762.74
Business-type Activities:				
State Lottery Fund	20,420		\$ 4,082.55	
Minority Business Development Fund	133		26.64	
Machinery and Equipment Loan Fund	309		61.82	
Small Business First Fund	282		56.30	
Rehabilitation Center Fund	9,686		1,936.58	
State Workmen's Insurance Fund	16,941		3,387.01	
Coal and Clay Mine Subsidence Insurance	1,054		210.75	
State Stores Fund	155,599	1,476	31,109.01	\$ 627.26
Purchasing Fund	3,884		776.51	
Manufacturing Fund	11,949		2,389.04	
Historical Preservation Fund	1,065		212.91	
<b>Business-type Activities Subtotal</b>	221,322	1,476	\$ 44,249.11	\$ 627.26
Fiduciary Activities:				
State Employees' Retirement Fund	10,867		\$ 2,172.59	



# Table 3.4 Commonwealth of Pennsylvania Post Retirement Benefit Liability and Allocation of Annual Required Contribution Amounts in (\$ thousands)

·	REHP 2008 Payroll	RPSPP 2008 Payroll	REHP Annual Required Contribution	RPSPP Annual Required Contribution
Underground Storage Tank Indemnific	537		107.41	
School Employees' Retirement Fund	17,837		3,566.27	
Med Care Avail & Reduct of Err Fund	3,358		671.41	
Fiduciary Activities Subtotal	32,600	-	\$ 6,517.68	\$ -
Component Units:				
Ben Franklin Technology Development	159		\$ 31.76	
Port of Pittsburgh Commission Fund	364		72.73	
Pennvest Fund	1,623		324.51	
Philadelphia Regional Port Authority	5,616		1,122.75	
Patient Safety Trust Fund	194		38.89	
State Public School Building Authority SPSBA	929		185.74	
State System of Higher Education	140,124		28,015.24	
Thaddeus Stevens	6,294		1,258.27	
PHEAA	111,552		22,302.77	
Component Units Subtotal	266,855	-	\$ 53,352.64	\$ -
External Organizations:				
Pennsylvania Municipal Retirement Fund	1,291		\$ 258.15	
External Organizations Subtotal	1,291	-	\$ 258.15	\$ -
Total REHP ARC Allocated	\$ 4,093,958		\$ 818,510.00	\$ -
Total RPSPP ARC Allocated		\$ 337,303		\$ 143,390.00



Table 3.5 shows the Annual Required Contribution for FY 2009/10.

#### Table 3.5 Commonwealth of Pennsylvania Post Retirement Benefit Liability and Allocation of Annual Required Contribution **Amounts in (\$ thousands)** REHP Annual RPSPP Annual RPSPP 2009 **REHP 2009** Required Required Payroll\* Payroll\* Contribution Contribution **ARC** Allocated to: **Government Activities Direction and Supportive Services** \$ 338,379 67,914.72 Protection of persons and property 1,389,285 \$ 347,581 278,837.58 \$ 151,066.26 Public education 36,741 7,374.19 Health and human services 1,187,868 238,411.96 Economic development 71.738 14,398.33 Transportation 512,040 102,769.48 Recreation and cultural enrichment 160,854 32,284.41 **Governmental Activities Subtotal** 3,696,907 347,581 \$ 741,990.66 \$ 151,066.26 **Business-type Activities:** \$ State Lottery Fund 21,134 4,241.80 Minority Business Development Fund 138 27.68 Machinery and Equipment Loan Fund 320 64.23 Small Business First Fund 291 58.50 Rehabilitation Center Fund 10,025 2,012.12 State Workmen's Insurance Fund 17,534 3,519.13 Coal and Clay Mine Subsidence Insurance 1,091 218.97 State Stores Fund 161,045 1,527 32,322.57 \$ 663.74 Purchasing Fund 4,020 806.80 Manufacturing Fund 12.368 2,482.23 Historical Preservation Fund 1,102 221.22 **Business-type Activities Subtotal** 229,068 1,527 45,975.27 663.74 Fiduciary Activities: State Employees' Retirement Fund 2,257.34 11,247 Underground Storage Tank Indemnific 556 111.61 School Employees' Retirement Fund 18,462 3,705.39 3,476 Med Care Avail & Reduct of Err Fund 697.60 **Fiduciary Activities Subtotal** 33,741 \$ 6,771.93 \$ **Component Units:** Ben Franklin Technology Development 164 \$ 33.00 Port of Pittsburgh Commission Fund 376 75.56



# Table 3.5 Commonwealth of Pennsylvania Post Retirement Benefit Liability and Allocation of Annual Required Contribution Amounts in (\$ thousands)

	REHP 2009 Payroll*	RPSPP 2009 Payroll*	REHP Annual Required Contribution	RPSPP Annual Required Contribution
Pennvest Fund	1,680		337.17	
Philadelphia Regional Port Authority	5,812		1,166.55	
Patient Safety Trust Fund	201		40.40	
State Public School Building Authority SPSBA	962		192.98	
State System of Higher Education	145,029		29,108.11	
Thaddeus Stevens	6,514		1,307.35	
PHEAA	115,457		23,172.80	
Component Units Subtotal	276,195	-	\$ 55,433.92	\$ -
External Organizations:				
Pennsylvania Municipal Retirement Fund	1,336		\$ 268.22	
External Organizations Subtotal	1,336	-	\$ 268.22	\$ -
Total REHP ARC Allocated	\$ 4,237,247		\$ 850,440.00	\$ -
Total RPSPP ARC Allocated		\$ 349,108		\$ 151,730.00

<sup>\*2009</sup> payroll is the payroll as of December 31, 2008 projected at the assumed salary growth rate of 3.5 percent.



# **Section 4**

# **Funding**

The Commonwealth contributed funds to the Other Postemployment Benefits Investment Pool ("the Pool"). The Pool was established as a irrevocable fund for purposes of advance funding retiree health benefits of current and future retirees.

During the fiscal year ending June 30, 2008, the following amounts were funded

For the REHP \$60.0 millionFor the RPSPP \$50.8 million

Table 4.1 shows the market value of assets as of June 30, 2008 and June 30, 2009.

	REHP	RPSPP
As of June 30, 2008	\$60.0	\$50.8
As of June 30, 2009	47.9	40.6

The differences between the June 30, 2008 and June 30, 2009 values are attributable to investment experience. During the year ended June 30, 2009 the Pool investment performance was below the expected investment return of 8.5 percent.



# **Section 5**

# **Actuarial Assumptions**

The selection of all actuarial assumptions, in valuations of post-retirement health care plans including the health care cost trend rate, should be guided by Actuarial Standard of Practice No. 6, *Measuring Retiree Group Benefit Obligations*, as revised from time to time by the Actuarial Standards Board. Accordingly, actuarial assumptions should be based on the actual experience of the covered group, to the extent that creditable experience data are available, but should emphasize expected long-term future trends rather than give undue weight to recent past experience. The reasonableness of each actuarial assumption should be considered independently based on its own merits, its consistency with each other assumption, and the combined impact of all assumptions.

The actuarial assumptions used to value the post-retirement medical liabilities can be categorized into three groups: economic assumptions, medical assumptions, and demographic assumptions

#### **Economic Assumptions**

The two economic assumptions used in the valuation are the discount rate and the health care cost trend rates. The economic assumptions are used to account for changes in the cost of benefits over time and to discount future benefit payments for the time value of money.

#### Discount Rate

The investment return assumption (discount rate) should be the estimated long-term investment yield on the investments that are expected to be used to finance the payments of benefits. The investments expected to be used to finance the payments of benefits would be plan assets for funded plans, assets of the employer for pay-as-you-go plans, or a proportionate combination of the two for plans that are being partially funded.

As the Commonwealth does not expect to advance fund the REHP and RPSPP post-retirement medical benefits, we recommend using the rate expected to be earned by short-term assets held in the General Fund. The expected return on these assets over the long-term is assumed to be 5.0 percent; therefore the valuation discount rate is 5.00 percent.

#### Health Care Cost Trend Rates

Table 5.1 shows the health care cost trend rates that were used for the actuarial valuation of the RPSPP Post-Retirement Medical Plan.

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Table 5.1 Health Care Cost Trend Rate Assumptions for RPSPP										
Year	Medical Benefits	Pharmacy Benefits	Dental Benefits	Part B Premiums						
2008	10.0 %	7.0 %	6.0 %	0.0%						
2009	9.00%	6.50%	6.00%	0.00%						
2010	8.00%	6.25%	6.00%	1.10%						
2011	7.00%	6.00%	6.00%	4.90%						
2012	6.00%	5.75%	6.00%	4.20%						
2013	5.00%	5.50%	6.00%	6.10%						
2014	5.00%	5.25%	5.00%	0.20%						
2015	5.00%	5.00%	5.00%	6.30%						
2016	5.00%	5.00%	5.00%	5.00%						
2017	5.00%	5.00%	5.00%	5.00%						
2018	5.00%	5.00%	5.00%	5.00%						
2019	5.00%	5.00%	5.00%	5.00%						
2020	5.00%	5.00%	5.00%	5.00%						
2021	5.00%	5.00%	5.00%	5.00%						
2022	5.00%	5.00%	5.00%	5.00%						
2023	5.00%	5.00%	5.00%	5.00%						
2024	4.80%	4.75%	4.75%	4.75%						
2025	4.75%	4.75%	4.75%	4.75%						

Note: Short-term Part B Premium trend rates are taken from the 2007 Medicare Trustees Report.



Table 5.2 shows the health care cost trend rates that were used for the actuarial valuation of the REHP Post-Retirement Medical Plan.

Table 5.2 Health Care Cost Trend Rate Assumptions for REHP										
Year	Medicare-Retiree Medical Benefits	Non-Medicare- Retiree Medical Benefits	Pharmacy Benefits							
2008	20.70 %	10.00 %	7.00%							
2009	22.90%	9.00%	6.00%							
2010	18.80%	8.00%	7.00%							
2011	16.00%	7.50%	6.00%							
2012	13.90%	7.00%	5.00%							
2013	12.30%	6.50%	5.00%							
2014	11.00%	6.00%	5.00%							
2015	10.00%	5.50%	5.00%							
2016	9.10%	5.00%	5.00%							
2017	8.40%	5.00%	5.00%							
2018	7.70%	5.00%	5.00%							
2019	7.10%	5.00%	5.00%							
2020	6.60%	5.00%	5.00%							
2021	6.10%	5.00%	5.00%							
2022	5.60%	5.00%	5.00%							
2023	5.20%	5.00%	5.00%							
2024	4.80%	4.75%	4.75%							
2025+	4.75%	4.75%	4.75%							

Appendix A contains a chart showing the historical increases in health care premiums from two sources: the Hay Benefits Report and the Federal Employees Health Benefit Plan for the period 1982 through 2009.



### **Medical Assumptions**

A fundamental building block of the actuarial valuation is the current per capita cost of benefits.

Detailed age-specific claims costs were gathered for the prior valuation and used to develop Commonwealth specific aging factors by benefit coverage. For this valuation we obtained 2008 claims data in summary format and used that data, together with the aging factors developed in the prior valuation to develop age-specific per capita claims costs.

In early 2008, the Commonwealth enrolled most of the REHP retirees who were Medicare eligible in a Private Fee for Service Medicare Advantage Plan. The sponsor of that PFFS Medicare Advantage Plan announced that the coverage would not be available in 2010. The cost of the Medicare Advantage PFFS Plan was projected to increase rapidly due to the funding constraints placed on payments to Medicare Advantage plans. While the specific insurance arrangements for Medicare-eligible retirees in the REHP were not confirmed prior to issuance of the valuation report, the per capita cost projected for 2010 based on the projected cost from 2009 appears reasonable for use as a base.

A small number of REHP members over age 65 are not eligible for Medicare, therefore the plan is primary and the expected cost for members over age 70 is in excess of \$10,000.

Table 5.3 shows the baseline per capita claims costs that were used in the valuation for REHP for current retirees.

Table 5.3 REHP Per Capita Claims Costs in 2008											
Age		Med	ical		Pha	armacy					
	Employer Medicare Primary Primary										
<50	\$	3,242	\$	2,727	\$	1,601					
50 - 54		4,227		2,727		1,601					
55 - 59		5,005		2,727		1,875					
60 - 64		6,194		2,727		1,999					
65 - 69		7,906		1,094		2,722					
70 - 74		9,852		1,094		2,925					
75 - 79		11,987		1,094		3,052					
80 - 84		14,236		1,094		3,012					
85 - 89		16,504	1,094		2,848						
90+		18,673		1,094		2,399					



The per capita claim costs shown in Table 5.3 are the appropriate rates for retirees covered by the benefit plan design in force as of June 30, 2008. The rates reflect the fully-insured Medicare Advantage plans for Medicare-eligible retirees.

Separate health care claims costs were developed for RPSPP members. These costs reflect several differences between the benefits and population of the State Police. One key difference is their eligibility for Medicare. State Police enlisted members hired before 1986 were not required to pay the Medicare Hospital Insurance contributions and therefore upon attainment of age 65 are not eligible for Medicare Part A and the RPSPP remains primary for their medical benefits. Accordingly, we developed both non-Medicare-eligible and Medicare-eligible rates for retirees over age 65. For State Police hired after 1986, and other members who enroll in Medicare having earned eligibility through a spouse or other employment, the Commonwealth pays the Part B premium for the Medicare-enrolled retiree. The RPSPP also includes coverage for dental benefits. Table 5.4 shows the baseline per capita claims costs that were used in the valuation of the State Police current retirees.

	Table 5.4 RPSPP Per Capita Claims Costs in 2008												
Age	Med	lical	Phar	macy	Dental	Part B							
	Employer Primary	Medicare Primary	Pre July 2007 Retirees	Post July 2007 Retirees									
<50	\$ 3,081	\$ 6,748	\$ 1,037	\$ 1,170	\$536	\$ -							
50 - 54	4,025	6,129	1,454	1,639	536	-							
55 - 59	4,772	5,509	1,702	1,919	536	-							
60 - 64	5,916	4,889	1,815	2,047	536	-							
65 - 69	6,491	4,270	2,178	2,457	536	1,157							
70 - 74	7,737	4,124	2,341	2,640	536	1,157							
75 - 79	9,305	4,649	2,442	2,754	536	1,157							
80 - 84	10,882	4,943	2,410	2,718	536	1,157							
85 - 89	12,403	5,007	2,279	2,570	536	1,157							
90+	13,924	5,295	1,920	2,165	536	1,157							

# Medicare Prescription Drug, Improvement, and Modernization Act of 2003

In December 2003, President Bush signed into law the Medicare Prescription Drug Modernization and Improvement Act of 2003. The Act effective January 1, 2006 added a voluntary prescription drug benefit to the Medicare program.

#### Overview of the prescription drug benefit



Beginning in 2006, Medicare beneficiaries had the option of obtaining prescription drug coverage through stand-alone private drug plans or through private preferred provider organizations or health maintenance organizations. Beneficiaries pay monthly premiums. Under the Standard Design, after an annual deductible, beneficiaries pay 25 percent of up to the Initial Coverage Level for all prescription drug costs, with Medicare paying 75 percent. Once annual drug costs reach the initial coverage level, beneficiaries pay 100 percent of their drug costs until their out-of-pocket expenses reach a maximum out of pocket threshold. Above that level the catastrophic coverage feature of Medicare pays 95 percent of the drug costs with beneficiaries paying just 5 percent.

To encourage employers to continue providing retiree health coverage, qualifying retiree plans would receive subsidies for 28 percent of the drug costs from a cost threshold to a cost limit for their retirees who are enrolled in Medicare.

Table 5.5 Medicare Part D Thresholds									
	2006	2007	2008	2009	2010				
Standard Part D Design									
1. Deductible	\$ 250	\$ 265	\$ 275	\$295	\$310				
2. Initial Coverage Limit	2,250	2,400	2,510	2,700	2,830				
3. Out of Pocket									
Threshold	3,600	3,850	4,050	4,350	4,550				
4. Catastrophic									
Coverage	5,100	5,451	5,726	6,154	6,440				
Copays above 4.									
a. Generic/ Preferred Multi	2.00	2.15	2.25	2.40	2.50				
b. Other	5.00	5.35	5.60	6.00	6.30				
Retiree Drug Subsidy									
Cost Threshold	250	265	275	295	310				
Cost Limit	5,000	5,350	5,600	6,000	6,300				
Medicare Trustee RDS Estimate	527	558	597	636	678				

#### **Demographic Assumptions**

The demographic assumptions used for valuing the liabilities of the post-retirement medical plan are those used for the actuarial valuation of the State Employees' Retirement System.

The demographic assumptions include the rate of mortality, the rate of withdrawal, the rate of retirement, and the rate of disability. Ancillary demographic assumptions include the age of female spouses, coverage rates, and participation rates. The complete set of demographic assumptions is included in Appendix B.



# **Section 6**

# **Financial Accounting Information**

In addition to establishing the Annual Required Contribution (ARC), this report shows the progress toward funding of the plan benefits. This section includes a schedule of the funding progress, which is a statement of disclosure to report the information required by Governmental Accounting Standards Board (GASB) Statement No. 43.

Also included is a schedule of employer contributions. This schedule compares the expected contribution to the plan with the Annual Required Contribution. Since there is a lag-period between the determination of the ARC and the determination of the amounts actually funded, the tables show estimated amounts based on the funding policy as of the measurement date.

#### **GASB 45 Disclosures**

Table 6.1 shows the schedule of funding progress for the Retired Employees Health Program (REHP) and Table 6.2 shows the schedule of funding progress for the Retired Pennsylvania State Police Program (RPSPP).

Table 6.3 (for the REHP) and Table 6.4 (for the RPSPP) show the projected Annual Required Contribution for FY 2007/08, FY 2008/09 and FY 2009/10, and the projected employer contributions. The ratio of the projected employer contributions to the ARC is the percentage of the ARC that is funded.



	Table 6.1 Retired Employees Health Program Schedule of Funding Progress (dollars in millions)									
Fiscal Year Actuarial Accrued Actual Ending June 30 Assets (AAL) (b) (b-a) (a/b) Actual Payroll (a/b) Payroll (c)										
2008 \$60.00 \$12,863.27 (\$12,803.27) 0.47% \$3,559 360										
2009	\$47.92	\$13,257.57	(\$13,209.65)	0.36%	\$4,093	323%				

	Table 6.2 Retired Pennsylvania State Police Program Schedule of Funding Progress (dollars in millions)										
Fiscal Year Ending June 30 Actuarial Actuarial Actual Ending June (a) Actual (b) Covered (b-a) (a) Covered (b-a) (a) (b) (b-a) (a) (b) (b-a) (a) (b) (b-a) (b) (b) (b) (b-a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b											
2008	\$50.80	\$1,999.50	(\$1,948.70)	2.61%	\$314	621%					
2009	\$40.57	\$2,104.24	(\$2,063.67)	1.97%	\$337	612%					



Table 6.3 Retired Employees Health Program Schedule of Employer Contributions (dollars in millions)								
Fiscal Year Ending June 30	Fiscal Year Ending Annual Required Expected Percentage							
2008 2009	\$590.40 \$818.51	\$590.40 \$505.56	100% 62%					
2010	\$850.44	\$574.81*	68%					

Table 6.4 Retired Pennsylvania State Police Program Schedule of Employer Contributions (dollars in millions)								
Fiscal Year Ending June 30	Fiscal Year Ending Annual Required Expected Percentage							
2008       \$120.29       \$114.79       95%         2009       \$143.39       \$54.57       38%         2010       \$151.73       \$62.02*       41%								



<sup>\*</sup>Tables 6.3 and 6.4 show expected employer contributions based on information available at the date the report was prepared. Future events including emerging health care cost experience for retirees and hiring of new employees will affect the expected amounts.

# GASB No. 43 Disclosure Development of Net OPEB Obligation

	Table 6.5 Postretirement Medical Benefits REHP											
Actuarial Valuation Date	Annual Required Contribution (a)	Interest on Unfunded ARC (b)	Adjustment of the ARC (c)	Annual OPEB Cost (d) = (a) + (b) + (c)	Actual Contribution (e)	Increase in OPEB obligation (f) = (d) - (e)	Net OPEB liability at end of year (g) = prior year (g) + (f)					
7/1/2007	\$590.4	\$0.00	\$0.00	\$590.4	\$590.4	\$0	\$0					
7/1/2008	\$818.51	\$0.00	\$0.00	\$818.51	\$505.56	\$312.95	\$312.95					

	Table 6.6 Postretirement Medical Benefits RPSPP											
	actuarial aluation Date	Annual Required Contribution (a)	Interest on Unfunded ARC (b)	Adjustment of the ARC (c)	Annual OPEB Cost (d) = (a) + (b) + (c)	Actual Contribution (e)	Increase in OPEB obligation (f) = (d) - (e)	Net OPEB liability at end of year (g) = prior year (g) + (f)				
7.	//1/2007	\$120.29	\$0.00	\$0.00	\$120.29	\$114.79	\$5.50	\$5.50				
7.	//1/2008	\$143.35	\$0.28	(\$0.24)	\$143.39	\$54.57	\$88.82	\$94.32				



# **Section 7**

# **Summary of Plan Provisions**

## **Retired Employees Health Program**

Employees who retire from the state at any age with 25 years of service and receive an immediate pension are eligible for coverage under the REHP. In addition, the employees who retire at or over age 60 with a minimum of 20 years of service, and receive an immediate pension are eligible for coverage under the REHP.

Eligible retirees have various options, depending on (a) their date of retirement and (b) their Medicare status.

Table 7.1					
	Non-Medicare Re	etirees	Medicare-Eligib	le Retirees	
Retirement date	Prior to 7/1/04	On or after	Prior to 7/1/04	On or after	
		7/1/04		7/1/04	
Medical Plan	Basic	Not available	Prior to April	Prior to April	
Options			1, 2008:	1, 2008:	
			Medicare	Medicare	
			Supplement &	Supplement	
			PEBTF Major		
			Medical		
	HMO	HMO	HMO	HMO	
	PPO	PPO	From April 1,	From April 1,	
			2008:	2008:	
			Medicare	Medicare	
			Advantage	Advantage	
			Private Fee for	Private Fee for	
			Service Plan	Service Plan	
Pharmacy Plan	Prior to April	Retail: \$10 for	Prior to April	Retail: \$10 for	
	<b>1, 2008:</b> \$7	Generic, \$18	<b>1, 2008:</b> \$7	Generic, \$18	
	retail, \$15 mail	for Preferred	retail, \$15 mail	for Preferred	
	order. <b>From</b>	Brand, \$36 for	order.	Brand, \$36 for	
	April 1, 2008:	Non Preferred	From April 1,	Non Preferred	
	Three tier co-	Brand	<b>2008:</b> Three	Brand	
	pay		tier co-pay		

Non-Medicare eligible retirees who retired prior to 7/1/04 have three options: Basic, HMO, and PPO. Non-Medicare eligible retirees who retired after or on 7/1/04 also have three options: PPO, HMO, and a Consumer Driven option.



The summaries of the plan provisions described below are those of the HMO Option.

Table 7.2 HMO Option				
	•	ost Sharing		
Benefit	Retired Prior to 7/1/2004	Retired on or after 7/1/2004		
Deductible (Applies to all benefits unless otherwise noted)	None	None		
OOP Max	None	None		
Physician Visits				
PCP	\$15 co-pay	\$15 co-pay		
Specialist	<b>Prior to February 1, 2008</b> : \$15 co-pay. <b>From February 1, 2008</b> : \$25 co-pay	\$25 co-pay		
Preventive Care				
Adult				
Routine Physical	\$15 co-pay	\$15 co-pay		
Annual Routine Gynecological exams	\$15 co-pay	\$25 co-pay		
Annual Routine Mammograms	0% coinsurance	0% coinsurance		
Pediatric				
Routine Physical	\$15 co-pay	\$15 co-pay		
Immunizations	\$15 co-pay (for office visit)	\$15 co-pay (for office visit)		
Emergency Room	Prior to February 1, 2008: \$25 co-pay. From February 1, 2008: \$50 (waived if admitted)	\$50 (waived if admitted)		
Hospital Expenses	0% coinsurance semi-private room (private if medically necessary	0% coinsurance semi-private room (private if medically necessary		
Medical/Surgical Expenses	0% coinsurance	0% coinsurance		
SNF	0% coinsurance (180 day max)	0% coinsurance (180 day max)		
Home Health	0% coinsurance (60 visits in 90 days)	0% coinsurance (60 visits in 90 days)		
Chiropractic Care	\$15 co-pay (combined 60 visits/year max)	\$15 co-pay (combined 60 visits/year max)		
MH and Substance Abuse	Provided by UBH	Provided by UBH		



The summaries of the plan provisions described below are those of the PPO Option.

<b>Table 7.3</b>					
		<b>PPO Option</b>			
			st Sharing		
	Retired Pr	ior to 7/1/2004	Retired on o	or after 7/1/2004	
Benefit	In Network	Out-of-Network	In Network	Out-of-Network	
Deductible (Applies to all benefits unless otherwise noted)	None	\$250 Individual; \$500 family	None	\$400 per person; 30% of the next \$5,000	
OOP Max	None	\$1,000 individual; \$2,000 family	None	\$1,500 individual; \$3,000 family	
Physician Visits					
PCP	\$15 co-pay	20% coinsurance	\$15 co-pay	30% coinsurance	
Specialist	Prior to February 1, 2008: \$15 co- pay. From February 1, 2008: \$25 co- pay	20% coinsurance	Prior to February 1, 2008: \$15 co- pay. From February 1, 2008: \$25 co- pay	30% coinsurance	
Preventive Care	pay	2070 comsurance	pay	3070 comsurance	
Adult					
Routine Physical	\$15 co-pay	20% coinsurance	\$15 co-pay	30% coinsurance	
Annual Routine Gynecological exams	\$15 co-pay	20% coinsurance (OON ded. waived)	\$15 co-pay	30% coinsurance (OON ded. waived)	
Annual Routine Mammograms	0% coinsurance	20% coinsurance (OON ded. waived)	0% coinsurance	30% coinsurance (OON ded. waived)	
Pediatric					
Routine Physical	\$15 co-pay	20% coinsurance	\$15 co-pay	30% coinsurance	
Immunizations	0% coinsurance	20% coinsurance (OON ded. waived)	0% coinsurance	30% coinsurance (OON ded. waived)	
Emergency Room	Prior to February 1, 2008: \$25 co- pay. From February 1, 2008: \$50 (waived if admitted)	Prior to February 1, 2008: \$25 co-pay. From February 1, 2008: \$50 (waived if admitted)	Prior to February 1, 2008: \$25 co- pay. From February 1, 2008: \$50 (waived if admitted)	\$50 (waived if admitted)	



Table 7.3 PPO Option					
		Retiree Co	ost Sharing		
	Retired Pr	ior to 7/1/2004	Retired on o	or after 7/1/2004	
Benefit	In Network	Out-of-Network	In Network	Out-of-Network	
Hospital Expenses	0% coinsurance	20% coinsurance (up to 70 days/year; 100% thereafter)	0% coinsurance	30% coinsurance (up to 70 days/year; 100% thereafter)	
Medical/Surgical Expenses	0% coinsurance	20% coinsurance	0% coinsurance	30% coinsurance	
SNF	0% coinsurance (240 days)	20% coinsurance (up to 240 days)	0% coinsurance (240 days)	30% coinsurance (up to 240 days)	
Home Health	0% coinsurance	20% coinsurance	0% coinsurance	30% coinsurance	
Chiropractic Care	\$15 co-pay for first visit only	20% coinsurance	\$15 co-pay for first visit only	30% coinsurance	
MH and Substance Abuse	Provided by UBH	Provided by UBH	Provided by UBH	Provided by UBH	

The summaries of the plan provisions described below are those of the Consumer Driven Option.

Table 7.4						
	Consu	mer Driven Option				
		Retiree Cost Shari	ing			
	Retired	Retired on or	after 7/1/2004			
Benefit	Prior to 7/1/2004	In Network	Out-of-Network			
Deductible (Applies to all benefits unless otherwise noted)		\$1,500 individual; \$3,000 family. The REHP contributes \$1,000 per individual & \$2,000 per family per year into a Health Reimbursement Account (HRA). Therefore, the OOP max (In network) is \$500 per individual or \$1,000 per family per year.				
OOP Max	\$500 Individual (after HRA); \$1,000 family (after HRA); \$7,000 family (HRA)					
Physician Visits	AVAILABLE					
PCP		0% coinsurance	30% coinsurance			
Specialist		0% coinsurance	30% coinsurance			
Preventive Care						
Adult		G 1				
Routine Physical		Covered up to \$500 a year (\$1,000 for family) Not Covered				
Annual Routine Gynecological exams		(\$1,000 for family)				



Table 7.4 Consumer Driven Option					
		Retiree Cost Shar	ing		
	Retired		r after 7/1/2004		
Benefit	Prior to 7/1/2004	In Network	Out-of-Network		
Annual Routine Mammograms					
Pediatric					
Routine Physical					
Immunizations					
Emergency Room		0% coinsurance	30% coinsurance		
Hospital Expenses		0% coinsurance	30% coinsurance (up to 70 days/year; 100% thereafter)		
Medical/Surgical Expenses		0% coinsurance	30% coinsurance		
SNF		0% coinsurance (240 day max)	30% coinsurance (up to 240 days; 100% thereafter)		
Home Health		0% coinsurance	30% coinsurance		
Chiropractic Care		0% coinsurance	30% coinsurance		
MH and Substance Abuse		Provided by UBH	Provided by UBH		



The summary of the plan provisions described below is that of the Basic Option.

	Table 7.5	
	Basic Option	
	Retiree Cos	
Benefit	Retired Prior to 7/1/2004	Retired on or after 7/1/2004
Deductible (Applies to all benefits unless otherwise noted)	PEBTF Major Medical \$100 per person, max 3 per family; 20% of next \$1,900 and 0% thereafter	
OOP Max	PEBTF Major Medical \$380 per person plus deductible and any charges in excess of the UCR	
Physician Visits		
Primary Care Physician	Responsible for charges; must submit to PEBTF Major Medical	
Specialist	Responsible for charges; must submit to PEBTF Major Medical	
Preventive Care		
Adult		
Routine Physical	Not covered; pay 100% of cost	
Annual Routine Gynecological exams	0% coinsurance	PLAN NOT AVAILABLE
Annual Routine Mammograms	0% coinsurance (over age 40)	
Pediatric		
Routine Physical	0% coinsurance	
Immunizations	0% coinsurance	
Emergency Room	0% coinsurance if medical emergency and treated within 72 hours	
Hospital Expenses	0% coinsurance semi-private room (private if medically necessary)	
Medical/Surgical Expenses	0% coinsurance	
SNF	0% coinsurance (120 day max)	
Home Health	0% coinsurance (120 visits in 90 days)	
Chiropractic Care	0% coinsurance	
MH and Substance Abuse	Provided by UBH	



#### **Retiree Contributions**

For employees who retired before July 1, 2005 the Commonwealth pays 100% of the cost. Commonwealth employees who retire on or after July 1, 2005 are required to pay retiree contributions as a condition of receiving retiree medical coverage. For employees who retired after June 30, 2005 and before July 1, 2007 the retiree contribution is set at 1 percent of the employee's final salary. Commonwealth employees who retire on or after July 1, 2007 are required to pay retiree contributions at the same rate as active employees. Thus, the retiree contributions are 1 percent of employee's final salary for FY 2007/2008, 1.5 percent of final salary for FY 2008/09, 2 percent of final salary for FY 2009/10 and 3 percent of final salary thereafter.

Surviving spouses and dependents of deceased retirees may continue to participate in the plan if they pay contributions at a rate designed to fund the full cost of the coverage.

### Retired Pennsylvania State Police Program

Table 7.6 shows a summary of the plan provisions of the RPSPP.

Table 7.6 RPSPP Plan Option					
	Retiree C	ost Sharing			
	Basic Plan Option PPO Option				
Benefit		In Network	Out Network		
Deductible					
(Applies to all benefits					
unless otherwise	\$100 Individual;		\$250 Individual;		
noted)	\$300 Family	None	\$750 family		
OOP Max			\$1,500 Individual;		
	\$380	None	\$3,000 Family		
Physician Visits					
PCP	\$15 Reimbursement,				
	balance covered at 80%	\$15 co-pay	20% coinsurance		
Specialist	\$15 Reimbursement,				
	balance covered at 80%	\$25 co-pay	\$15 co-pay		
Preventive Care					
Adult					
Routine Physical	Covered at 80%	\$15 co-pay	\$15 co-pay		
Annual Routine					
Gynecological					
exams	Covered at 80%	\$15 co-pay	\$15 co-pay		
Annual Routine					
Mammograms	0% coinsurance	0% coinsurance	0% coinsurance		
Pediatric					
Routine Physical					
-	Covered at 80%	\$15 co-pay	\$15 co-pay		



Table 7.6 RPSPP Plan Option					
	Retiree C	ost Sharing			
	Basic Plan Option PPO Option				
Benefit		In Network	Out Network		
Immunizations					
	0% coinsurance	0% coinsurance	0% coinsurance		
Emergency Room	0% coinsurance	\$50(waived if admitted)	\$50 (waived if admitted)		
Hospital Expenses	O/O COMBOZUMCO				
	Covered at 100% with few limits.	0% coinsurance	20% coinsurance		
Medical/Surgical Expenses	Covered at 100% with few limits.	0% coinsurance	20% coinsurance		
SNF	Covered at 100% with few limits.	0% coinsurance (240 days)	20% coinsurance (240 days)		
Home Health	Covered at 100% with few limits.	0% coinsurance	20% coinsurance		
Chiropractic Care	0% coinsurance	\$15 co-pay for first visit only	20% coinsurance		
MH and Substance Abuse	Covers 12 medically necessary emergency mental health psychotherapy visits	\$25 co-pay; 60 visits max in a year	50% coinsurance after deductible		

Table 7.7 RPSPP Rx Drug Benefit Program				
	Retired Prior to 4/21/2005	Retired Between 4/22/2005 and 6/30/2007	Retired after 7/1/2007	
Generic	\$1	\$5 copay	\$5 copay	
Preferred brand	\$1	\$10 copay	\$10 copay	
Non-Preferred brand	\$1	\$10 copay	\$15 copay	

The commonwealth pays 100 percent of the cost for RPSPP retirees and the spouses and dependents of RPSPP retirees while the retiree is alive.



# **Section 8**

# **Participant Data**

The following tables show the current retired participants, and the potential participants who are currently active.

Table 8.1 Current Retired Participants						
Age Group	Medicare	- Fligible	Non Mo Elig		То	tal
Age Group	REHP	RPSPP	REHP	RPSPP	REHP	RPSPP
<50	355	3	575	248	930	251
50-54	514	1	1,558	332	2,072	333
55-59	1,124	1	5,738	269	6,862	270
60-64	1,765	17	11,031	1,103	12,796	1,120
65-69	9,195	593	902	361	10,097	954
70-74	7,426	287	6	119	7,432	406
75-79	6,457	130	12	57	6,469	187
79+	11,361	192	22	53	11,383	245
Total	38,197	1,224	19,844	2,542	58,041	3,766

Table 8.2 Active Participants						
Age Group	Fem	ales	Ma	les	To	tal
	REHP	RPSPP	REHP	RPSPP	REHP	RPSPP
<20	7	-	5		12	
20-24	711	5	692	92	1,403	97
25-29	2,490	29	2,952	436	5,442	465
30-34	3,143	34	3,839	464	6,982	498
35-39	3,936	53	5,258	1,149	9,194	1,202
40-44	4,631	40	6,509	1,404	11,140	1,444
45-49	6,427	40	7,507	542	13,934	582
50-54	7,744	11	8,131	136	15,875	147
55-59	6,933	2	7,909	20	14,842	22
60-64	2,827	-	4,176	1	7,003	1
65+	629	-	1,064	-	1,693	-
Total	39,478	214	48,042	4,244	87,520	4,458



Data on employees and retirees who are currently not participating were not included in this analysis.

Table 8.3 shows the count of the number of REHP active employees as of July 1, 2007 who are eligible for the grandfathered retirement eligibility permitting them to be covered upon attainment of age 60 and completion of 15 years of service.

Table 8.3 Grandfathered REHP Participants							
Age Group Males Females Total							
<55	-	-	-				
55-59	-	-	-				
60-64	912	555	1,467				
65-69	226	180	406				
70+	108	53	161				
Total	1,246	788	2,034				

Table 8.4 shows the comparison of the retired participants used to develop the results in the current valuation to the retired participants in the prior valuation. Table 8.5 shows the same comparison for active participants.

Table 8.4								
	Retired Participants Comparison							
Non Medicare								
Age Group	Medicare Eligible		Eligible		Total			
	REHP RPSPP		REHP	RPSPP	REHP	RPSPP		
<b>Current Valuation</b>	38,197	1,224	19,844	2,542	58,041	3,766		
Prior Valuation	35,947	632	19,764	2,932	55,711	3,418		

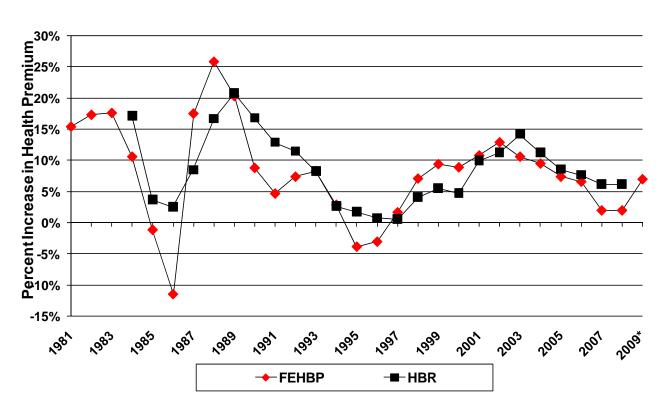
Table 8.5 Active Participants Comparison						
	Active	Participai	its Compa	irison		
Age Group	Age Group Females Males Total					
	REHP	RPSPP	REHP	RPSPP	REHP	RPSPP
<b>Current Valuation</b>	39,478	214	48,042	4,244	87,520	4,458
Prior Valuation	37,611	214	47,476	4,212	85,087	4,426



# Appendix A

# HAY BENEFITS REPORT SURVEY AND FEDERAL EMPLOYEES HEALTH BENEFIT PROGRAM MEDICAL PREMIUM INCREASES

CHART 1
HBR & FEHBP MEDICAL PREMIUM INCREASES
SELECTED CALENDAR YEARS FROM 1981 TO 2009



The above chart shows the annual percentage change in the premiums for the Federal Employees Health Benefit Program (FEHBP) as well as the annual change in the average premiums among the Hay Benefits Report (HBR) participants.

The chart shows the cyclical nature of annual premium rate increases (and decreases).

Since 2003 we have seen the gradual decline in premium rate increases. The FEHBP appears to be a leading indicator of price changes. In 2007 the FEHBP average was 1.8% and in 2008 it was 2.0%. The rate increase of 7 percent in 2009 is the first increase above CPI for 2 years.



# Appendix B

# **Actuarial Assumptions**

The complete set of actuarial assumptions for the post-retirement medical plan comprises three types of assumptions:

- Demographic assumptions
- Economic assumptions
- Healthcare assumptions

The demographic assumptions used are the same ones as are used in the State Employees Retirement System (SERS) actuarial valuation. As the timing of an employee's decision as to when to retire is driven primarily on their financial security, the use of consistent assumptions ensures any changes made in the retirement system assumptions are reflected in both the annuitant costs and cost of their retiree medical coverage.

The demographic assumptions used were based on a review of experience under SERS from 2001 through 2005. This section contains an extract of the full set of rates used in the valuation. The full set of rates is in the Sixteenth Investigation of Actuarial Experience of the State Employees' Retirement System of the Commonwealth of Pennsylvania; March 15, 2006; which can be obtained from SERS. The rates are the probabilities that an event will occur in the year after the valuation and are all assumed to occur at the beginning of the year. For instance, the male retirement rate of 25.0 percent at age 60 means that 250 of every 1,000 employees age 60 and who are eligible for full benefits are expected to retire at the date of the valuation.

#### **DEMOGRAPHIC ASSUMPTIONS**

#### **Pre Retirement Mortality and Disability:**

Represei	Representative Rates of Separation Due to Death and Disability					
	De	ath	Disa	bility		
Age	Male	Female	Male	Female		
20	0.02%	0.02%	N/A	N/A		
25	0.02	0.02	0.03%	0.07%		
30	0.03	0.02	0.09	0.17		
35	0.05	0.03	0.16	0.29		
40	0.06	0.05	0.25	0.38		
45	0.12	0.07	0.44	0.60		
50	0.21	0.12	0.61	0.91		
55	0.33	0.18	0.80	1.15		
60	0.48	0.30	N/A	N/A		



#### **Withdrawal Rate**:

For General Employees

Representative Rates of Separation Due to Withdrawal								
		Male			Female			
	,	Years of	Service	9		Years	of Service	e
Age	0	5	9	14	0	5	9	14
20	11.9%	N/A	N/A	N/A	11.2%	N/A	N/A	N/A
25	11.6	2.0%	2.0%	N/A	10.2	2.7%	2.1%	N/A
30	11.1	2.0	1.5	1.5%	10.2	2.7	1.9	2.0%
35	10.9	1.8	1.0	1.1	10.2	2.2	1.4	1.6
40	10.9	1.3	1.0	1.1	10.0	2.2	0.9	0.6
45	10.5	1.3	0.5	0.6	9.8	2.0	0.9	0.6
50	10.2	1.1	0.5	0.6	9.8	2.0	0.5	0.6
55	10.2	1.5	1.5	1.5	9.8	1.7	1.4	1.6

For Special Employees

Rates of Separation Due to Withdrawal For Special Benefit Classes if Different from General Employee Rates				
Years of Service	State Police/ Hazardous Duty			
1	5.6%			
3 - 4	3.7			
5 6	1.9			
7 - 9 10+	.9			



# **Retirement Rate**:

Assumptions for General Employees while Active Members

#### Normal Retirement Rate

(25 years of service under age 60; 3 years of service over age 60)

On June 30, 2008, the minimum service for eligibility for subsidized health benefits will increase from 15 to 20 years.

Representative Rates of Separation for Eligibility for Full Unreduced Benefits					
Age	Male	Female			
45 - 59	30.0%	30.0%			
60 - 61	25.0	25.0			
62	33.0	33.0			
63 - 64	22.0	22.0			
65	33.0	33.0			
66 - 79	22.0	22.0			
80	100.0%	100.0%			



# Early Retirement Rates

	Representative Rates of Early Retirement						
	Benefits but	or Pension Not Retiree Benefits	Eligible fo Benefits ar Medical Ben Grandfathero Rules	nd Retiree efits only if ed Eligibility	Benefits a	or Pension and Retiree Benefits	
Age	5 – 14 Year	s of Service	15 or More Years of Service		20 or More Years of Service		
	Male	Female	Male	Female	Male	Female	
25	3.0%	3.9%	N/A	N/A	N/A	N/A	
30	2.5	3.5	N/A	N/A	N/A	N/A	
35	1.9	2.8	2.6%	2.7%	2.6%	2.7%	
40	1.7	1.7	2.6	2.7	2.6	2.7	
45	1.1	1.6	2.6	2.7	2.6	2.7	
50	1.0	1.3	2.6	2.7	2.6	2.7	
55	2.3	2.3	3.9	3.9	3.9	3.9	

Special benefit Class other than General Employees

Normal Retirement Rates

Representative Rates of Separation Due to Retirement other than State Police with 19 or More Years of Service				
Age	State Police/ Hazardous Duty			
50	7.2%			
55	7.2			
60	7.2			
65	71.8			
70	34.5			
75	34.5			
80	100.0			



Normal Retirement Rate for police with more than 19 years of service

Rates of Separation due to Retirement for State Police with 19* or More Years of Service					
Years of Service	Rate	Years of Service	Rate		
19*	4.0%	26-32	15.8%		
20 – 23	1.0	33	29.7		
24*	29.7	34-38	40.6		
25	16.8	39+	100.0		

<sup>\*</sup> State Police with 19 and 24 years of service at the beginning of the year are assumed to retire at the point they reach 20 and 25 years respectively during the year and to receive the Fraternal Order of Police (FOP) award.

# **Post Retirement Mortality:**

Non-disabled Retirees, Beneficiaries and Survivors: The RP-2000 Healthy Annuitant Mortality Table projected to 2008.

<u>Disability Retirees</u>: The RP-2000 Disabled Retiree Mortality Table projected to 2008.

**Spouse Age Difference**: Females are assumed to be 2 years younger than males.

#### Years of Service Purchased by Eligible Members

Service	Number of Years Purchased
0	0.4
1	0.3
2	0.2
3	0.1
4+	0.0

#### **ECONOMIC ASSUMPTIONS**



**Interest Rate**: 5.0 percent compounded annually. The assumed interest rate of 5.0 percent is the investment return less investment and administrative expenses.

#### **Career Salary Increases**

The career salary scale shown on the following table includes average increases in the employee salary due to promotions and longevity growth. The average career salary growth is 3.8 percent per year. In addition, it is assumed that the salary schedules will increase by 3.3 percent a year. The scale on the following table does not include the assumed 3.3 percent general salary increase.

Assumed future salary increases were modified with respect to Class AA and Class A employees (other than members of the judiciary, legislators and select others) who are subject to the age 60/35 years of service superannuation requirements, to reflect negotiated increases applicable to such employees through June 30, 2007, as summarized below:

Valuation Assumptions for Negotiated Salary Increases							
Fiscal Year Assumed Average							
Beginning July 1	General	Longevity	Promotion	Total			
2005	3.0%	0.0%	1.7%	4.7%			
2006	3.5%	3.6%	1.7%	8.8%			

Career Salary Scale for Members				
Completed Years of Service	Annual Increase	Completed Years of Service	Annual Increase	
1	16.90%	14	2.80%	
2	8.30%	15	2.70%	
3	5.90%	16	2.60%	
4	4.60%	17	2.50%	
5	4.20%	18	2.40%	
6	3.80%	19	2.30%	
7	3.50%	20	2.20%	
8	3.20%	21	2.10%	
9	3.20%	22	2.00%	
10	3.10%	23	1.90%	
11	3.00%	24	1.80%	
12	2.90%	25	1.70%	
13	2.80%	26+	1.60%	



#### **State Police**

The pay increase assumption used for State Police is 4 percent as of July 1, 2008.

#### **HEALTHCARE ASSUMPTIONS**

**Health Care Cost Trend Rates Medical Claims Cost Increases** 

For RPSPP

Initial rate 10% for CY 2008, 9 % for CY 2009, 8% for CY 2010.

Ultimate rate 4.75 % for CY 2025 and later years.

For REHP – Non-Medicare Retirees

Initial Rate 10% for CY 2008, 9% for CY 2009, 8% for CY 2010 for

additional details see table 5.2

Ultimate Rate 4.75 %

For REHP – Medicare-Eligible Retirees

The rates are shown in table below. These rates are the explicit rates resulting from a projection of CMS payment

rates and total medical cost rates.

**Pharmacy Claims Cost Increases** 

For RPSPP

Initial rate 7 % for CY 2008, 6.5 % for CY 2009, 6.25 % for CY

2010, 6% for CY 2011, 5.75% for CY 2012.

Ultimate rate 4.75 % for CY 2024 and later years.

For REHP

Initial rate 7 % for CY 2008, 6 % for CY 2009, 7 % for CY 2010

Ultimate rate 4.75 %

Dental Claims For RPSPP

Initial rate 6% for CY2008, 6% for CY 2009-2013

Ultimate rate 4.75%

For REHP

No Dental benefit for REHP



Hea	alth Care Cost Trend	Rate Assumptions fo	or REHP
Year	Medicare-Retiree Medical Benefits	Non-Medicare- Retiree Medical Benefits	Pharmacy Benefits
2008	20.70 %	10.00 %	7.00%
2009	22.90%	9.00%	6.00%
2010	18.80%	8.00%	7.00%
2011	16.00%	7.50%	6.00%
2012	13.90%	7.00%	5.00%
2013	12.30%	6.50%	5.00%
2014	11.00%	6.00%	5.00%
2015	10.00%	5.50%	5.00%
2016	9.10%	5.00%	5.00%
2017	8.40%	5.00%	5.00%
2018	7.70%	5.00%	5.00%
2019	7.10%	5.00%	5.00%
2020	6.60%	5.00%	5.00%
2021	6.10%	5.00%	5.00%
2022	5.60%	5.00%	5.00%
2023	5.20%	5.00%	5.00%
2024	4.80%	4.75%	4.75%
2025+	4.75%	4.75%	4.75%

# **Ancillary Demographic Assumptions**

# Participation Rates

Based on an analysis of the data provided, we have assumed the post-retirement participation rate is 100 percent.

# **Coverage Level Election Rates**

The table below shows the percentage of retirees by coverage level.

# **Plan Coverage Levels**

Plan	Percent Electing Single	Percent Electing Retiree & Spouse	
	Coverage	or Other Dependent Coverage	
REHP	45%	55%	
RPSPP	15%	85%	

