



Commonwealth of Pennsylvania
Retired Employees Health Program
GASB Statement Nos. 74 and 75 Valuation Report

Measurement date of June 30, 2023

Prepared by Deloitte Consulting LLP

September 2023

Contents

Actuarial Valuation Opinion.....	1
Executive Summary.....	2
Background and Comments.....	3
Summary of Actuarial Valuation Results.....	5
GASB Nos. 74 and 75 Disclosures.....	6
Participating Employers Results.....	11
Basis for the Valuation.....	12
Plan Participation Summary.....	12
Program Provisions Summary.....	14
Benefit Provisions Summary.....	15
Actuarial Methods Summary.....	17
Actuarial Assumptions Summary.....	18
Rationale for Assumptions.....	27
Development of June 30, 2023 Discount Rate.....	28
Glossary.....	32

Actuarial Valuation Opinion

This report presents results of the actuarial valuation of the Commonwealth of Pennsylvania's Retired Employees Health Program ("the Plan" or "REHP") measured as of June 30, 2023. In this report, we present disclosure information measured as of June 30, 2023 as required by Government Accounting Standards Board Statement Nos. 74 and 75 (GASB Nos. 74 and 75). In our opinion, this report is complete and accurate and represents fairly the actuarial position of the Plan for the purposes stated herein.

Actuarial information under GASB Nos. 74 and 75 is for purposes of fulfilling trust and employer financial accounting requirements. The results have been prepared on a basis consistent with our understanding of GASB Nos. 74 and 75 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.

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.

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.

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 additional cost or contribution requirements based on the Plan's funded status); and changes in program provisions or applicable law. Our scope for this actuarial valuation 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.

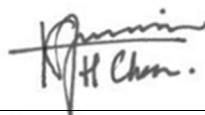
This report was prepared solely for the benefit and internal use of the plan sponsor. This report is not intended for the benefit of any other party and may not be relied upon by any third party for any purpose, and Deloitte Consulting accepts no responsibility or liability with respect to any party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

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
Managing Director



Jeannie Chen, FCA, EA, ASA, MAAA
Specialist Leader



John Schubert, FCA, ASA, MAAA, CEBS
Specialist Leader

Executive Summary

Governmental Accounting Requirements and Report Purpose

The Governmental Accounting Standards Board released the Statement of Governmental Accounting Standards Nos. 74 and 75 in June 2015. GASB No. 74 establishes financial reporting requirements for OPEB plans that have assets accumulated in a trust or equivalent arrangement for the purpose of funding OPEB. GASB No. 75 details the reporting and disclosure requirements for employers with payables (OPEB liabilities) to employees of state and local governmental employers through defined benefit OPEB plans that are administered through trusts or equivalent arrangements. The Commonwealth of Pennsylvania adopted GASB No. 74 in the fiscal year ended June 30, 2017 and GASB No. 75 in the fiscal year ended June 30, 2018.

The purpose of this actuarial valuation report is to provide information for the Commonwealth's trust and employer financial reporting. The information provided herein will be used for the fiscal year ended June 30, 2023 GASB No. 74 disclosures and fiscal year ending June 30, 2024 GASB No. 75 disclosures (the Commonwealth has elected to use a measurement date as of the end of the prior fiscal year end for GASB No. 75).

Summary of Results

The key results for the measurement period ended June 30, 2023 are:

- Net OPEB Liability (NOL) is \$7.8 billion, 178.2% of covered employee payroll.
- Plan Fiduciary Net Position (FNP) as a percentage of Total OPEB Liability (TOL) is 8.8%.
- OPEB Expense/(Income) is \$(1.5) billion.

Significant Changes from the Previous Actuarial Valuation

For the June 30, 2023 measurement, there was a decrease in TOL of \$2.0 billion compared to the previous valuation, with the decrease primarily due to the following

- There was an expected \$0.3 billion increase in TOL due to the passage of time (service cost, interest, benefit payments, retiree contributions);
- There was a \$0.9 billion decrease in TOL due to changes in actuarial assumptions, driven by the increase in the discount rate from 4.67% to 5.65% and the updated trend rate assumption;
- The actual experience over the past year was different than expected, resulting in a \$1.4 billion decrease in TOL. This experience gain was caused primarily by decreases in per capita claims costs due to favorable claims experience and the \$0 premium rate guarantee in 2025 and 2026 for the Aetna Medicare Advantage Plan.

Background and Comments

Overview of Plan

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

Funding Policy

The Commonwealth created the OPEB 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 annual evaluation.

During the fiscal year ended June 30, 2023, employing agencies and certain plan members contributed \$120 per biweekly pay period for each current REHP eligible active employee to the REHP Trust. Certain employing agencies contribute under a separate payment arrangement. Employer contributions made to the REHP Trust, a Trust Equivalent Arrangement, are irrevocable. Plan assets are restricted for use for the provision and administration of REHP retirees' health benefits. Employers maintain no rights of ownership to the assets and the trust.

The OPEB Investment Pool's target asset allocation as of June 30, 2023 is shown in the table below.

Asset Class	Target Allocation
US Equity	42%
Non-US Equity	22%
Core Real Estate	4%
Public REITS	4%
Infrastructure	4%
Private Equity	1%
US Fixed Income	22%
Cash Equivalent	1%
Total	100%

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. On December 18, 2015, the Consolidated Appropriations Act, 2016 became law. This legislation delayed the effective date of the high cost plan excise tax from 2018 to 2020 and made it tax deductible. On January 22, 2018, the Federal Register Printing Savings Act further delayed the effective date from 2020 to 2022. On December 20, 2019, the excise tax and the health insurance provider fee for calendar years beginning after December 31, 2020 were repealed.

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
- Out-of-pocket limit includes both medical and Rx expenses.

The impact of applicable provisions was incorporated in the per capita claims costs summarized in the Actuarial Assumptions section of this report.

Inflation Reduction Act

The Inflation Reduction Act of 2022 ("IRA") was signed into law on August 16, 2022 and includes provisions to reform Medicare prescription drugs.

The IRA impacts the duration of Medicare Part D Retiree Drug Subsidy ("RDS") payments. Since RDS payments should not be reflected in GASB actuarial valuations, there is no effect on the per capita claims costs assumption in this report.

The IRA's effect on EGWPs is not currently estimable due to the lack of guidance from the Centers for Medicare & Medicaid Services ("CMS") and the unknown effect of prescription drug negotiations.

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 2015 through 2019 and was presented to the State Employees' Retirement Board in July 2020. 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 postemployment medical plan outside of the experience study, such as medical trend rates and age-graded medical rates.

One significant assumption where the recommendation of the experience study is not applicable to this retiree health benefit valuation is the discount rate. As prescribed by GASB Nos. 74 and 75, the June 30, 2023 single discount rate of 5.65% was based on the long-term expected rate of return on assets held in the OPEB investment pool (6.75%) and a municipal bond rate of 3.65% (based on the 20-year Bond Buyer GO Index as of the end of June 2023). Based on the stated assumptions and the projection of cash flows, the Plan's Fiduciary Net Position and future contributions were not sufficient to finance all future benefit payments of the current plan members. Therefore, the long-term expected rate of return on the OPEB investment pool was applied to projected benefit payments through the year 2055 (the last year in which the Plan's Fiduciary Net Position is projected to be sufficient to meet projected benefit payments) and the municipal bond rate was applied to all remaining future years to determine the Total OPEB Liability. The projection of cash flows used to determine the single discount rate for each fiscal year end assumed that employer contributions were made based on the current funding policy for all future years. The analysis is provided in the Development of June 30, 2023 Discount Rate section of this report.

The actuarial methods and assumptions are described in the Basis of the Valuation section of this report.

Summary of Actuarial Valuation

This section provides a summary of the actuarial valuation results for REHP in total. All information is provided as of the measurement date except for the census data. The valuation results as of the June 30, 2022 measurement date were based on December 31, 2021 census data, and valuation results as of the June 30, 2023 measurement date were based on December 31, 2022 census data. All liabilities are net of expected retiree contributions.

(All dollar amounts are in thousands)

Measurement Date	June 30, 2023	June 30, 2022
Total OPEB Liability	\$ 8,527,705	\$ 10,487,651
Plan Fiduciary Net Position	\$ 751,685	\$ 621,280
Net OPEB Liability	\$ 7,776,020	\$ 9,866,371
Plan Fiduciary Net Position As A Percentage Of Total OPEB Liability	8.8%	5.9%
Net OPEB Liability As A Percentage Of Covered Employee Payroll	178.2%	235.6%
Discount Rate	5.65%	4.67%
Participant Counts		
Active Participants	63,753	66,410
Retired Participants*	<u>64,461</u>	<u>64,361</u>
Total	128,214	130,771
Covered Employee Payroll	\$ 4,362,432	\$ 4,188,532

* Retired participants include retirees, disabled participants, and surviving family members.

GASB Nos. 74 and 75 Disclosures

GASB Nos. 74 and 75 requires disclosure of notes to the financial statements and required supplementary information that includes information shown in this section. The valuation results as of the June 30, 2022 measurement date were based on December 31, 2021 census data and employer contributions for the fiscal year ended June 30, 2022. The valuation results as of the June 30, 2023 measurement date were based on December 31, 2022 census data and employer contributions for the fiscal year ended June 30, 2023.

For reporting purposes, the associated liabilities, expenses and other disclosure items are reported for different covered populations:

- Most primary government agencies and component units contribute at the retiree health assessment rate.
- One primary government agency and three component units participate under separate contribution arrangements. The agency and the component units contribute the actual fiscal year benefit payments attributable to their respective retirees.
 1. Health Care Cost Containment (FT = 001; BA = 43)
 2. PHEAA (FT = 079; BA = AA)
 3. Philadelphia Regional Port Authority (FT = 140; BA = 88)
 4. Port of Pittsburgh Commission (FT = 141; BA = 88)
- The primary results are presented for REHP in total.

Schedule of Changes in Net OPEB Liability

(All dollar amounts are in thousands)

	Discount Rate	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Measurement Date of June 30, 2022	4.67%	\$ 10,487,651	\$ 621,280	\$ 9,866,371
Service Cost		254,312		254,312
Interest		492,319		492,319
Changes In Benefit Terms		-		-
Changes In Assumptions - Discount Rate		(937,614)		(937,614)
Changes In Assumptions - Others		67,120		67,120
Differences Between Expected And Actual Experience		(1,431,856)		(1,431,856)
Benefit Payments				
Insurance Premiums - Employer Paid	\$ (404,227)			
Insurance Premiums - Retiree Paid	(56,041)			
Total		(460,268)	(460,268)	-
GASB 75 Defined Employer Contributions	\$ 461,133		461,133	(461,133)
Contributions - Employee			-	-
Contributions - Retiree		56,041	56,041	-
Administrative Expenses			(5,451)	5,451
Net Investment Income				
Expected Investment Earnings	\$ 43,645			
Differences Between Projected And Actual Investment Earnings	35,305			
Total			78,950	(78,950)
Net Change		\$ (1,959,946)	\$ 130,405	\$ (2,090,351)
Measurement Date of June 30, 2023	5.65%	\$ 8,527,705	\$ 751,685	\$ 7,776,020
Measurement Date			June 30, 2023	June 30, 2022
Plan Fiduciary Net Position As A Percentage Of Total OPEB Liability			8.8%	5.9%
Covered Employee Payroll			\$4,362,432	\$ 4,188,532
Net OPEB Liability As A Percentage Of Covered Employee Payroll			178.2%	235.6%
Sensitivity of Liability to Changes in Discount Rate			\$ Change	% Change
A one percentage point change in discount rate would have the following effect on Total OPEB Liability as of June 30, 2023:				
One Percentage Increase (6.65%)			\$ (823,228)	-10%
One Percentage Decrease (4.65%)			\$ 965,024	11%
Net OPEB Liability at a one percentage point change in discount rate as of June 30, 2023 is as follows:				Net OPEB Liability
One Percentage Increase (6.65%)			\$ 6,952,792	
One Percentage Decrease (4.65%)			\$ 8,741,044	
Sensitivity of Liability to Changes in Trend Rate			\$ Change	% Change
A one percentage point change in trend rate would have the following effect on Total OPEB Liability as of June 30, 2023:				
One Percentage Increase (9.9% / 10.0% grading to 4.9%)			\$ 1,210,388	14%
One Percentage Decrease (7.9% / 8.0% grading to 2.9%)			\$ (1,002,391)	-12%
Net OPEB Liability at a one percentage point change in trend rate as of June 30, 2023 is as follows:				Net OPEB Liability
One Percentage Increase (9.9% / 10.0% grading to 4.9%)			\$ 8,986,408	
One Percentage Decrease (7.9% / 8.0% grading to 2.9%)			\$ 6,773,629	
Key Assumptions			June 30, 2023	June 30, 2022
Discount Rate			5.65%	4.67%
Investment Rate of Return			6.75%	6.75%
Inflation			2.50%	2.50%
Initial Medical Trend Rate			8.9% / 9.0%	7.3% / 6.3%
Ultimate Medical Trend Rate			3.9%	3.9%
Year Ultimate Trend Rate Reached			2075	2075

**Development of OPEB Expense for Fiscal Year Ending June 30, 2024
(Measurement Year June 30, 2023)**

(All dollar amounts are in thousands)

Components of OPEB Expense	Measurement Year Ended 06/30/2023	Measurement Year Ended 06/30/2022
Service Cost	\$ 254,312	\$ 318,669
Interest	492,319	399,778
Expected Investment Earnings	(43,645)	(46,670)
Contributions - Employee	-	-
Administrative Expenses	5,451	5,363
Changes In Benefit Terms	-	-
Recognition of Current Period Deferred Outflows and (Inflows)		
Changes in assumptions	(151,390)	(199,838)
Differences between expected and actual experience	(249,018)	76,652
Differences between expected and actual investment earnings	(7,061)	28,415
Recognition of Beginning Deferred Outflows	463,225	358,158
Recognition of Beginning Deferred Inflows	(2,284,283)	(2,630,116)
OPEB Expense	\$ (1,520,090)	\$ (1,689,589)
Assumptions Used to Determine OPEB Expense	Measurement Year Ended 06/30/2023	Measurement Year Ended 06/30/2022
Assumptions as of Measurement Date*	6/30/2022	6/30/2021
Discount Rate	4.67%	3.63%
Investment Rate of Return	6.75%	6.75%
Inflation	2.50%	2.50%
Initial Medical Trend Rate	7.3% / 6.3%	6.9% / 6.7%
Ultimate Medical Trend Rate	3.9%	4.0%
Year Ultimate Trend Rate Reached	2075	2075

* Per Q&A 4.114 and 4.115 of GASB Implementation Guide No. 2017-3, Service Cost and Interest are determined "based on the results of the actuarial valuation that determined the beginning net OPEB liability".

Schedule of Deferred Outflows and Deferred Inflows of Resources

(All dollar amounts are in thousands)

Measurement Date Established	Initial Amount	Deferred		Initial Years	Remaining Years	Outflows/(Inflows) Recognized in Measurement Year Ended 06/30/2023
		Outflows of Resources as of 06/30/2023	Deferred (Inflows) of Resources as of 06/30/2023*			
Changes In Assumptions						
06/30/2017	\$ (2,228,187)	\$ -	\$ (9,453)	5.08 - 8.54	0.00 - 1.54	\$ (6,166)
06/30/2018	(576,855)	-	-	5.74	0.00	(74,370)
06/30/2019	403,428	52,008	-	5.74	0.74	70,284
06/30/2020	1,617,170	490,222	-	5.74	1.74	281,737
06/30/2021	(1,171,069)	-	(562,195)	5.77	2.77	(202,958)
06/30/2022	(1,163,056)	-	(763,380)	5.82	3.82	(199,838)
06/30/2023	(870,494)	-	(719,104)	5.75	4.75	(151,390)
Total		\$ 542,230	\$ (2,054,132)			\$ (282,701)
Differences Between Expected And Actual Plan Experience						
06/30/2018	\$ (5,445,495)	\$ -	\$ -	5.74	0.00	\$ (702,030)
06/30/2019	(5,082,545)	-	(655,240)	5.74	0.74	(885,461)
06/30/2020	12,936	3,920	-	5.74	1.74	2,254
06/30/2021	(1,073,951)	-	(515,570)	5.77	2.77	(186,127)
06/30/2022	446,115	292,811	-	5.82	3.82	76,652
06/30/2023	(1,431,856)	-	(1,182,838)	5.75	4.75	(249,018)
Total		\$ 296,731	\$ (2,353,648)			\$ (1,943,730)
Net Difference Between Projected And Actual Earnings On Investments						
06/30/2019	\$ (3,298)	\$ -	\$ -	5.00	0.00	\$ (662)
06/30/2020	19,414	3,882	-	5.00	1.00	3,883
06/30/2021	(133,357)	-	(53,344)	5.00	2.00	(26,671)
06/30/2022	142,074	85,244	-	5.00	3.00	28,415
06/30/2023	(35,305)	-	(28,244)	5.00	4.00	(7,061)
Total**		\$ 89,126	\$ (81,588)			\$ (2,096)
Contributions subsequent to measurement date***						
To be determined by each participating employer.						
Balance as of 06/30/2023 Measurement Date		\$ 928,087	\$ (4,489,368)			\$ (2,228,527)
Deferred Outflows And Deferred (Inflows) Of Resources Will Be Recognized In Expense As Follows:						
Measurement Year Ending:						Outflows/(Inflows)
06/30/2024						\$ (1,239,496)
06/30/2025						(711,159)
06/30/2026						(801,836)
06/30/2027						(508,480)
06/30/2028						(300,310)
Thereafter						-

* Deferred (Inflows) should be disclosed as positive numbers in the ACFR.

** Per GASB 75 Paragraph 43.b, Deferred outflows of resources and deferred inflows of resources arising from differences between projected and actual OPEB plan investment earnings in different measurement periods should be aggregated and reported as a net deferred outflow of resources related to OPEB or a net deferred inflow of resources related to OPEB. Therefore, a net deferred outflow of \$7,538 is recognized as of 06/30/2023.

*** Reflects employer contributions made subsequent to 06/30/2023. This will be recognized as a reduction in Net OPEB Liability next year.

10-Year Schedule of Net OPEB Liability

(All dollar amounts are in thousands)

Measurement Year Ended	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (c)	Plan Fiduciary Net	Covered Employee Payroll (e)	Net OPEB Liability As A Percentage Of Covered Employee Payroll (f)
				Position As A Percentage Of Total OPEB Liability (d)		
			(a)-(b)	(b)/(a)		(c)/(e)
June 30, 2016	\$21,910,888	\$200,596	\$21,710,292	0.9%	N/A	N/A
June 30, 2017	\$20,336,764	\$282,429	\$20,054,335	1.4%	\$3,902,336	513.9%
June 30, 2018	\$15,015,975	\$333,848	\$14,682,127	2.2%	\$3,911,464	375.4%
June 30, 2019	\$10,821,333	\$407,480	\$10,413,853	3.8%	\$3,992,729	260.8%
June 30, 2020	\$12,788,546	\$469,053	\$12,319,493	3.7%	\$4,083,699	301.7%
June 30, 2021	\$10,899,184	\$666,929	\$10,232,255	6.1%	\$4,161,481	245.9%
June 30, 2022	\$10,487,651	\$621,280	\$9,866,371	5.9%	\$4,188,532	235.6%
June 30, 2023	\$8,527,705	\$751,685	\$7,776,020	8.8%	\$4,362,432	178.2%

Participating Employers Results

The REHP is a single-employer defined-benefit OPEB Plan that is established and sponsored by the Commonwealth. In addition to the Commonwealth agencies, there are several component units that have elected to participate in the REHP. Both GASB 74 and GASB 75 consider a primary government and its component units to be one employer. Hence, if a defined-benefit OPEB plan is used to provide OPEB to the employees of only one employer, the OPEB plan should be classified for financial reporting as a single-employer defined benefit OPEB plan. GASB 75, paragraph 24 requires the Commonwealth as the financial reporting entity to follow the single-employer reporting and disclosure requirements identified in GASB 75, paragraphs 47-58. Further, GASB 75, paragraph 24 requires the component units to follow the cost-sharing employer reporting and disclosure requirements identified in GASB 75, paragraphs 59-98. To satisfy the component unit reporting requirements, a proportionate share was determined for each Commonwealth agency and component unit. For the entities that contribute at the same employer health assessment rate, the proportionate share is based on current year contractually required contributions. For the one Commonwealth agency and three component units that participated under contribution terms unique to their agencies, the proportionate share is based on their subset demographics' Total OPEB Liability.

Basis for the Valuation

Plan Participation Summary

The participant data used in the valuation was provided by the Commonwealth as of December 31, 2022. 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. This section presents 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	63,753	
Average Age	47.39	
Average Service	12.90	
b. Retired Participants		
	Employees*	Spouses
Counts		
Under Age 65 Non-Medicare	11,581	9,692
Under Age 65 Medicare	2,550	984
Over age 65 Non-Medicare	15	11
Over age 65 Medicare	<u>50,315</u>	<u>22,043</u>
Total Counts	64,461	32,730
Average Age	72.05	
c. Total Participants**		
	128,214	
d. Inactive Participants Entitled To But Not Yet Receiving Benefits***		
	21,193	

* Employees include retirees and 3,595 surviving spouses

** Total participant count excludes dependent spouses

*** These retirees who currently elect to waive coverage are assumed to remain uncovered in the future; therefore, they are excluded from the valuation.

Plan Participation Summary (cont.)

Distribution of Service Groups by Age Groups										
Age Group	Retired Participant	Active Participants - Years of Service								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Total	
<20	-	15	-	-	-	-	-	-	-	15
20-24	-	583	20	-	-	-	-	-	-	603
25-29	1	2,636	997	14	-	-	-	-	-	3,647
30-34	15	2,534	2,902	700	47	-	-	-	-	6,183
35-39	57	2,022	2,423	2,090	1,021	46	-	-	-	7,602
40-44	137	1,773	1,872	1,697	2,334	905	39	-	-	8,620
45-49	291	1,490	1,478	1,406	1,848	1,852	692	47	-	8,813
50-54	1,661	1,452	1,442	1,334	1,890	1,807	1,452	765	-	10,142
55-59	3,657	1,246	1,289	1,287	1,642	1,566	1,016	1,320	-	9,366
60-64	8,312	774	1,061	1,031	1,360	821	414	601	-	6,062
65-69	12,489	169	368	392	488	277	142	208	-	2,044
70-74	14,707	22	61	97	148	67	40	70	-	505
75-79	11,052	9	5	19	28	23	11	32	-	127
80-84	6,248	-	-	1	3	4	4	7	-	19
85-89	3,421	-	-	-	1	-	-	1	-	2
90+	2,413	-	-	1	-	-	-	2	-	3
Total	64,461	14,725	13,918	10,069	10,810	7,368	3,810	3,053		63,753

Participant Reconciliation				
	<u>Active</u>	<u>Retirees</u>	<u>Beneficiaries</u>	<u>Total</u>
Beginning of Year (12/31/2021)	66,410	61,022	3,339	130,771
New Hire	3,658	0	0	3,658
Opt-In	961	0	0	961
New Retiree/Beneficiary	(2,477)	2,477	526	526
Death/Termination/Opt-Out	<u>(4,799)</u>	<u>(2,633)</u>	<u>(270)</u>	<u>(7,702)</u>
End of Year (12/31/2022)	63,753	60,866	3,595	128,214

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 as follows:
 - Hired before 1/1/2011: Age 50 for Park Rangers, Capitol Police, and certain enforcement officers or 60 for general employees;
 - Hired between 1/1/2011 – 12/31/2018: Age 55 for Park Rangers, Capitol Police and certain enforcement officers or 65 for general employees;
 - Hired on or after 1/1/2019: Age 55 for Park Rangers, Capitol Police, and certain enforcement officers or 67 for general employees;
- Disability retirement – requires five years of service (no service requirement for enforcement officers).

Covered Family Members

Spouses and dependents are eligible for subsidized postemployment 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.

Retiree Contribution*

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.

Hired on or after August 1, 2003: In addition to the retiree contributions above, non-Medicare retirees who elect the Choice PPO plan are required to pay the incremental cost between the Choice PPO plan and the least expensive plan (LEP) in county of residence through monthly pension deductions (PPO buy-up).

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

* Certain bargaining units may have different retiree contribution arrangements

Changes in Program Provisions

None.

Benefit Provisions Summary

Medical Plans

This section summarizes the various medical and prescription drug plans offered by the Commonwealth effective January 1, 2023.

Medical	Benefit Provisions	Eligibility
<p align="center">Basic PPO</p>	<p><u>In Network</u></p> <p>Deductible \$1,500 individual, \$3,000 family</p> <p>Out-of-Pocket Limit (including deductibles and co-pays) \$9,100 individual, \$18,200 family</p> <p>Doctor Office Visits PCP: \$20 co-pay Specialist: \$45 co-pay</p> <p>Inpatient Covered in full (after deductible)</p> <p>Lifetime Maximum None</p> <p><u>Out of Network</u></p> <p>Deductible \$3,000 individual, \$6,000 family</p> <p>Out-of-Pocket Limit (including deductibles) \$9,100 individual, \$18,200 family</p> <p>Doctor Office Visits PCP: 30% coinsurance (after deductible) Specialist: 30% coinsurance (after deductible)</p> <p>Inpatient 30% coinsurance (after deductible)</p> <p>Lifetime Maximum None</p>	<p>Non-Medicare eligible annuitants retired from the Commonwealth and their eligible dependents.</p>
<p align="center">Choice PPO</p>	<p><u>In Network</u></p> <p>Deductible \$400 individual, \$800 family</p> <p>Out-of-Pocket Limit (including deductibles and co-pays) \$9,100 individual, \$18,200 family</p> <p>Doctor Office Visits PCP: \$20 co-pay Specialist: \$45 co-pay</p> <p>Inpatient Covered in full (after deductible)</p> <p>Lifetime Maximum None</p> <p><u>Out of Network</u></p> <p>Deductible \$800 individual, \$1,600 family</p> <p>Out-of-Pocket Limit (including deductibles) \$9,100 individual, \$18,200 family</p> <p>Doctor Office Visits PCP: 30% coinsurance (after deductible) Specialist: 30% coinsurance (after deductible)</p> <p>Inpatient 30% coinsurance (after deductible)</p> <p>Lifetime Maximum None</p>	<p>Non-Medicare eligible annuitants retired from the Commonwealth and their eligible dependents.</p>

Benefit Provisions Summary (cont.)

Medical Plans (cont.)

Medical	Benefit Provisions	Eligibility
Custom HMO	<p><u>In Network</u></p> <p>Deductible: None</p> <p>Out-of-Pocket Limit (including deductible and co-pays): \$9,100 individual, \$18,200 family</p> <p>Doctor Office Visits: PCP: \$5 co-pay Specialist: \$10 co-pay (Referral Required)</p> <p>Inpatient: Covered in full</p> <p>Lifetime Maximum: None</p>	Non-Medicare eligible annuitants retired from the Commonwealth and their eligible dependents living within the HMO service area.
Medicare Open-Access PPO	<p><u>In and Out-of-Network</u></p> <p>Deductible: Annual Medicare Part B deductible</p> <p>Out-of-Pocket Limit (including deductible): \$2,500 per person</p> <p>Doctor Office Visits: PCP: \$20 co-pay (after deductible) Specialist: \$30 co-pay (after deductible)</p> <p>Inpatient: Covered in full (after deductible)</p> <p>Lifetime Maximum: None</p>	Medicare eligible annuitants retired from the Commonwealth and their eligible dependents.

Prescription Drug

Non-Medicare:

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

- Prescriptions at a Network Pharmacy (30-day supply): \$15 Generic / \$40 Preferred* / \$80 Non-Preferred*
- Mail Order or Retail Maintenance at a CVS Pharmacy (90-day supply): \$22.50 Generic / \$60 Preferred* / \$120 Non-Preferred*
- Retail Maintenance at a Rite Aid Pharmacy (90-day supply): \$30 Generic / \$80 Preferred* / \$160 Non-Preferred*

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

Medicare:

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

- Prescriptions at a Network Pharmacy (30-day supply): \$12 Generic / \$30 Preferred* / \$60 Non-Preferred*
- Mail Order or Retail Maintenance at a CVS Pharmacy (90-day supply): \$18 Generic / \$45 Preferred* / \$90 Non-Preferred*
- Non-Preferred Retail Network (up to a 90-day supply): \$24 Generic / \$60 Preferred* / \$120 Non-Preferred*

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

Actuarial Methods Summary

Actuarial Cost Method

The Actuarial Cost Method used to determine the Total OPEB Liability is the Entry Age Normal (EAN) method as prescribed by GASB Nos. 74 and 75. 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 (or Service Cost) 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 compensation as prescribed by GASB Nos. 74 and 75.

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 Total OPEB Liability at the participant's current age.

The Total OPEB 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.

Financial and Census Data

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

Plan Fiduciary Net Position

Market value of assets as of the measurement date.

Census Date

December 31, 2022 for June 30, 2023 measurements.

Measurement Date

June 30, 2023 for fiscal year ended June 30, 2023 trust financial statements (GASB No. 74) and for fiscal year ending June 30, 2024 participating employer financial statements (measurement date as of the end of the prior fiscal year end for GASB No. 75).

Changes in Actuarial Methods

None

Actuarial Assumptions Summary

Economic Assumptions

The economic assumptions were selected for consistency with SERS where applicable. The discount rate was selected based on the requirements prescribed in GASB Nos. 74 and 75.

Discount Rate	5.65% as of June 30, 2023 (4.67% as of June 30, 2022)																																																																
Long-Term Expected Rate of Return	6.75%																																																																
Inflation¹	2.50%																																																																
Payroll Growth¹	2.80%																																																																
Salary Scale¹	<p>The career salary scale shown below includes average increases in the employee salary due to promotions and longevity growth. In addition to the career salary scale below, it is assumed that the salary schedules will increase by 2.80 percent per year.</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>4.15%</td><td>16</td><td>1.25%</td></tr> <tr><td>2</td><td>3.25</td><td>17</td><td>1.20</td></tr> <tr><td>3</td><td>2.90</td><td>18</td><td>1.15</td></tr> <tr><td>4</td><td>2.70</td><td>19</td><td>1.15</td></tr> <tr><td>5</td><td>2.50</td><td>20</td><td>1.10</td></tr> <tr><td>6</td><td>2.35</td><td>21</td><td>1.00</td></tr> <tr><td>7</td><td>2.15</td><td>22</td><td>0.95</td></tr> <tr><td>8</td><td>2.10</td><td>23</td><td>0.90</td></tr> <tr><td>9</td><td>2.00</td><td>24</td><td>0.85</td></tr> <tr><td>10</td><td>1.60</td><td>25</td><td>0.80</td></tr> <tr><td>11</td><td>1.55</td><td>26</td><td>0.70</td></tr> <tr><td>12</td><td>1.45</td><td>27</td><td>0.60</td></tr> <tr><td>13</td><td>1.40</td><td>28</td><td>0.50</td></tr> <tr><td>14</td><td>1.35</td><td>29</td><td>0.50</td></tr> <tr><td>15</td><td>1.30</td><td>30+</td><td>0.50</td></tr> </tbody> </table>	Completed Years of Service	Annual Increase	Completed Years of Service	Annual Increase	1	4.15%	16	1.25%	2	3.25	17	1.20	3	2.90	18	1.15	4	2.70	19	1.15	5	2.50	20	1.10	6	2.35	21	1.00	7	2.15	22	0.95	8	2.10	23	0.90	9	2.00	24	0.85	10	1.60	25	0.80	11	1.55	26	0.70	12	1.45	27	0.60	13	1.40	28	0.50	14	1.35	29	0.50	15	1.30	30+	0.50
Completed Years of Service	Annual Increase	Completed Years of Service	Annual Increase																																																														
1	4.15%	16	1.25%																																																														
2	3.25	17	1.20																																																														
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9	2.00	24	0.85																																																														
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¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those disclosed in the Commonwealth of Pennsylvania SERS 2015-2019 experience study and adopted by the Board in July 2020.

Actuarial Assumptions Summary (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.

Mortality	<p>Pre-Retirement Mortality: Pub-2010 General Employees Headcount Weighted Mortality Tables, and adjusted for mortality improvements using projection scale MP-2021.</p> <p>Post Retirement Mortality: Healthy Participants: Pub-2010 General Healthy Retiree Headcount Weighted Mortality Tables, with rates set forward one year for females, and adjusted for mortality improvements using projection scale MP-2021. Disabled Participants: Pub-2010 Non-Safety Disabled Retiree Headcount Weighted Mortality Tables, with rates set forward two years for males and females, and adjusted for mortality improvements using projection scale MP-2021.</p>																								
Disability Incidence¹	<p>Pre-Retirement Disability:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Age</th> <th>Male</th> <th>Female</th> </tr> </thead> <tbody> <tr> <td>25</td> <td>0.01%</td> <td>0.02%</td> </tr> <tr> <td>30</td> <td>0.03</td> <td>0.05</td> </tr> <tr> <td>35</td> <td>0.06</td> <td>0.08</td> </tr> <tr> <td>40</td> <td>0.09</td> <td>0.16</td> </tr> <tr> <td>45</td> <td>0.20</td> <td>0.26</td> </tr> <tr> <td>50</td> <td>0.33</td> <td>0.40</td> </tr> <tr> <td>55</td> <td>0.44</td> <td>0.50</td> </tr> </tbody> </table>	Age	Male	Female	25	0.01%	0.02%	30	0.03	0.05	35	0.06	0.08	40	0.09	0.16	45	0.20	0.26	50	0.33	0.40	55	0.44	0.50
Age	Male	Female																							
25	0.01%	0.02%																							
30	0.03	0.05																							
35	0.06	0.08																							
40	0.09	0.16																							
45	0.20	0.26																							
50	0.33	0.40																							
55	0.44	0.50																							

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those disclosed in the Commonwealth of Pennsylvania SERS 2015-2019 experience study and adopted by the Board in July 2020.

Actuarial Assumptions Summary (cont.)

Withdrawal¹

General employees*:

Age	Male				Female			
	Years of Service				Years of Service			
	0	5	9	14	0	5	9	14
20	30.0%	N/A	N/A	N/A	40.0%	N/A	N/A	N/A
25	21.0	6.1%	3.0%	N/A	24.8	8.5%	2.4%	N/A
30	18.5	6.1	3.0	1.9%	21.3	7.7	2.3	2.9%
35	18.5	4.9	1.6	1.9	16.6	4.5	2.4	2.1
40	18.2	3.4	2.8	1.9	14.8	4.5	2.3	1.6
45	17.4	3.4	1.6	0.6	17.8	4.3	1.1	1.6
50	19.1	3.1	1.6	0.6	15.8	4.3	1.8	1.6
55	19.1	2.6	0.8	0.4	15.8	4.0	1.3	1.0

* For the one primary government agency and three component units with separate contribution arrangements, the assumption is increased by a factor of 1.67 for one year of service or less and increased by 8.35 percentage points for years of service 2 through 9. This assumption was determined based on an analysis of data covering the period from January 1, 2015 to January 1, 2018. Based on conversations with the Commonwealth, the excluded withdrawal experience from 2018 – 2020 is higher than prior years and not indicative of future withdrawal expectations due to contracting a portion of the workforce.

Hazardous Duty employees:

Years of Service	Rate
0	9.0%
1	5.0
2	3.0
3	3.0
4	2.0
5	2.0
6	1.0
7	0.6
8	0.6
9	0.6
10+	0.3

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those disclosed in the Commonwealth of Pennsylvania SERS 2015-2019 experience study and adopted by the Board in July 2020.

Actuarial Assumptions Summary (cont.)

Early Retirement¹

(based on early retirement as defined by SERS; retirement prior to OPEB eligibility, as described above in the Program Provisions Summary section, will not receive other postemployment 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	2.2%	4.0%	N/A	N/A
30	2.2	2.0	N/A	N/A
35	1.3	2.0	0.8%	1.4%
40	1.0	1.4	0.6	1.3
45	1.0	1.4	0.6	1.3
50	1.0	1.4	1.1	1.6
55	2.0	2.3	5.0	4.5

Hired on or after January 1, 2011*:

Age	Hired prior to January 1, 2019	Hired on or after January 1, 2019
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	8.0
63	10.0	10.0
64	15.0	10.0
65	0.0	15.0
66	0.0	20.0

*Early retirement rates for participants hired on or after January 1, 2011 apply only to those with 10 or more years of credited service.

Hazardous Duty employees:

1.5% at each age

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those disclosed in the Commonwealth of Pennsylvania SERS 2015-2019 experience study and adopted by the Board in July 2020.

Actuarial Assumptions Summary (cont.)

Normal Retirement¹
(based on normal retirement as defined by SERS; retirement prior to OPEB eligibility, as described above in the Program Provisions Summary section, will not receive other postemployment benefit)

General employees:

Hired prior to January 1, 2011:

Age	Male	Female
51 - 52	15.0%	15.0%
53 - 54	15.0	23.0
55 - 57	20.0	23.0
58	25.0	23.0
59	25.0	28.0
60	20.0	23.0
61 - 64	20.0	20.0
65 - 67	26.0	26.0
68 - 70	23.0	23.0
71 - 79	20.0	20.0
80	100.0	100.0

Hired on or after January 1, 2011:

Age	Hired prior to January 1, 2019	Hired on or after January 1, 2019
55	15.0%	15.0%
56	16.0	16.0
57	17.0	17.0
58	18.0	18.0
59	19.0	19.0
60	20.0	20.0
61	20.0	20.0
62	25.0	25.0
63	20.0	20.0
64	20.0	20.0
65	25.0	25.0
66 - 79	20.0	20.0
80	100.0	100.0

Hazardous Duty employees:

Age	Rate	Age	Rate
49	10.0%	62 - 64	20.0%
50	15.0	65	23.0
51 - 54	10.0	66	30.0
55	12.0	67 - 68	25.0
56 - 58	10.0	69 - 79	20.0
59	12.0	80	100.0
60 - 61	16.0		

¹ For consistency with the pension plan of which these participants are members, these assumptions are based on those disclosed in the Commonwealth of Pennsylvania SERS 2015-2019 experience study and adopted by the Board in July 2020.

Actuarial Assumptions Summary (cont.)

Spouse Age Difference¹	Females are assumed to be 2 years younger than males for those missing spouse age information.
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, this assumption is based on the assumption disclosed in the Commonwealth of Pennsylvania SERS Actuarial Valuation Report as of December 31, 2022.

Actuarial Assumptions Summary (cont.)

Benefit Assumptions

<p>Per Capita Claims Costs</p>	<p>The per capita claims costs used in the valuation were developed from 2023 fully insured premiums, self-insured claims experience, and projected administrative expenses that represent the expected claims costs and administrative expenses for 2023.</p> <p>The first-year per capita claims costs below are on a “net basis” – they reflect plan costs after reduction from the total benefit costs of the member cost-sharing (deductibles, coinsurance, co-pays, provider savings, Medicare, etc.). These claims were blended based on the current year enrollment mix by plan (see Coverage section below), separately for the non-Medicare eligible and Medicare eligible population, resulting in an average claims cost per member.</p> <p>Average claims costs were age-graded using the retiree age and gender distribution, separately for the non-Medicare eligible and Medicare eligible population. Per the Actuarial Standard of Practice (ASOP) No. 6 Practice Note released in March 2021, Medicare Advantage claims costs are not age-graded as the risk-adjusted federal subsidy is intended to eliminate any cost differences due to age, gender, or health status. These age-graded claims costs are the basis for projecting the gross cost for each individual, before member contributions for coverage. The aging factors are based on the Society of Actuaries age-curve study “Health Care Costs—From Birth to Death.” Future year per capita costs were projected by applying trend assumptions to the first-year costs.</p> <p>Since the claims costs table below is specific to the experience of the Commonwealth’s retirees (i.e., not blended with active employees) separately for non-Medicare and Medicare, there is no implicit subsidy. However, age-graded claims were developed to project the increases in costs related to aging for retirees, spouses, and surviving spouses.</p> <p>For Non-Medicare Eligible retirees hired on or after August 1, 2003, the curve below is multiplied by a factor of 1.007 to reflect a difference in participation rates. For Medicare Eligible retirees, an additional \$300 annual premium starting in 2027 is added to the curve below to reflect expiration of the negotiated \$0 premium through 2026 for the REHP Aetna Medicare Advantage Plan.</p> <table border="1"> <caption>2023 Annual Per Capita Claims Costs</caption> <thead> <tr> <th>Age</th> <th>Non-Medicare Eligible</th> <th>Medicare Eligible</th> </tr> </thead> <tbody> <tr><td>45</td><td>\$ 8,430</td><td>\$ 1,521</td></tr> <tr><td>50</td><td>10,282</td><td>1,521</td></tr> <tr><td>55</td><td>12,666</td><td>1,521</td></tr> <tr><td>60</td><td>15,505</td><td>1,521</td></tr> <tr><td>64</td><td>18,458</td><td>1,521</td></tr> <tr><td>65</td><td>19,301</td><td>1,521</td></tr> <tr><td>70</td><td>23,201</td><td>1,947</td></tr> <tr><td>75</td><td>27,490</td><td>2,139</td></tr> <tr><td>80</td><td>31,960</td><td>2,196</td></tr> <tr><td>85</td><td>36,331</td><td>2,061</td></tr> <tr><td>90</td><td>40,216</td><td>1,832</td></tr> <tr><td>95</td><td>42,489</td><td>1,653</td></tr> </tbody> </table>	Age	Non-Medicare Eligible	Medicare Eligible	45	\$ 8,430	\$ 1,521	50	10,282	1,521	55	12,666	1,521	60	15,505	1,521	64	18,458	1,521	65	19,301	1,521	70	23,201	1,947	75	27,490	2,139	80	31,960	2,196	85	36,331	2,061	90	40,216	1,832	95	42,489	1,653
Age	Non-Medicare Eligible	Medicare Eligible																																						
45	\$ 8,430	\$ 1,521																																						
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80	31,960	2,196																																						
85	36,331	2,061																																						
90	40,216	1,832																																						
95	42,489	1,653																																						
<p>Expenses</p>	<p>Per Capita Claims Costs were developed to include administrative expenses.</p>																																							

Actuarial Assumptions Summary (cont.)

Trend Rates

The trend rates illustrated below are used to project age-graded claims and flat rates into future years.

- The 2023 to 2026 trend assumptions are based on a review of industry surveys and the Commonwealth's emerging experience. This review was done separately for non-Medicare plans by plan type and Medicare plans by plan type.
- The short-term trend rates also reflect an estimated impact of recent general inflation. Recent CPI-U peaked in June 2022 at 9.1%. Based on historical information available regarding how general inflation impacts medical inflation, 60% of the increase in general inflation (over the long-term assumption of 2.50%) is assumed to be reflected in higher medical costs. Based on historical observations of CPI-U for medical care lagging general CPI-U, this increase is spread out over a two-year period in the 2023 and 2024 trend assumptions.
- The SOA-Getzen model version 2023_1f was used to determine the trend assumptions beginning in 2027 and thereafter, based on the Commonwealth's long-term inflation assumption and reasonable Getzen model default macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy.

Year	January 1, 2023 Assumption	
	Non-Medicare Benefits	Medicare Benefits
2023	8.9%	9.0%
2024	8.6%	8.8%
2025	6.9%	6.7%
2026	6.6%	6.4%
2027	6.3%	6.0%
2030	5.4%	5.3%
2040	4.5%	
2050	4.4%	
2060	4.4%	
2070	4.1%	
2075+	3.9%	

Medicare Eligibility

Current non-Medicare eligible retirees and spouses (if covered) over age 65 are assumed to remain non-Medicare eligible.

Current Medicare eligible retirees and spouses (if covered) under age 65 are assumed to remain Medicare eligible.

All other retirees and spouses (if covered) are assumed to be non-Medicare eligible prior to age 65 and Medicare eligible at age 65, unless their spouse is over age 65 and non-Medicare eligible.

Actuarial Assumptions Summary (cont.)

<p>Coverage</p>	<p>Current retirees are assumed to remain in their currently elected plan, as summarized below.</p> <p>Current employees are assumed to enroll at retirement in the same proportion as the current year retiree mix. These proportions are established separately by non-Medicare/Medicare coverage and Non-Medicare further by participants hired before/on or after August 1, 2003 to reflect enrollment when PPO buy up applies. The table below shows the current year enrollment percentage by plan.</p> <table border="1"> <thead> <tr> <th>Non-Medicare</th> <th>Adult Member Enrollment (Pre-03)</th> <th>Adult Member Enrollment (Post-03)</th> </tr> </thead> <tbody> <tr> <td>Highmark Basic PPO</td> <td>16.3%</td> <td>22.2%</td> </tr> <tr> <td>Aetna Choice PPO</td> <td>70.2%</td> <td>53.8%</td> </tr> <tr> <td>Aetna HMO SE Region</td> <td>0.0%</td> <td>0.0%</td> </tr> <tr> <td>Aetna HMO Central Region</td> <td>2.6%</td> <td>4.7%</td> </tr> <tr> <td>Aetna HMO Western Region</td> <td>2.1%</td> <td>4.8%</td> </tr> <tr> <td>Geisinger HMO NE Region</td> <td>8.8%</td> <td>14.4%</td> </tr> <tr> <td colspan="3">Medicare</td> </tr> <tr> <td>Aetna Medicare Advantage</td> <td colspan="2">100.0%</td> </tr> </tbody> </table>	Non-Medicare	Adult Member Enrollment (Pre-03)	Adult Member Enrollment (Post-03)	Highmark Basic PPO	16.3%	22.2%	Aetna Choice PPO	70.2%	53.8%	Aetna HMO SE Region	0.0%	0.0%	Aetna HMO Central Region	2.6%	4.7%	Aetna HMO Western Region	2.1%	4.8%	Geisinger HMO NE Region	8.8%	14.4%	Medicare			Aetna Medicare Advantage	100.0%	
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<p>Changes in Assumptions</p>	<ul style="list-style-type: none"> • The discount rate was increased from 4.67% to 5.65%. • Per capita claims costs were updated based on changes in the underlying claims and benefit provisions. • The trend rates were updated based on the SOA-Getzen trend rate model version 2023_1f. The short-term trend assumptions were based on industry surveys and the Commonwealth's emerging experience, separately for non-Medicare and Medicare benefits. In addition, a short-term adjustment in 2023 and 2024 was made to account for a recent sharp increase in general inflation. The trend rates were also updated to reflect the negotiated \$0 premium rate guarantee in 2025 and 2026 for the REHP Aetna Medicare Advantage Plan. 																											
<p>Model Use</p>	<p>Actuarial Standard of Practice No. 56 – Modeling requires disclosure of certain information regarding the actuary's use of models when issuing actuarial reports for work performed on or after October 1, 2020. For this valuation, the liability calculations and open group projections to develop service cost of future employees used in the development of the single discount rate were determined using industry-leading defined benefit valuation software developed and maintained by a third-party vendor. The model was designed specifically for the measurement of defined benefit pension and postretirement medical plan liabilities and the actuary has updated the applicable parameters for the specific plan provisions and assumptions selected for this valuation.</p> <p>An Excel-based model that calculates a long-term rate of return on assets using a target asset allocation and publicly available capital market assumptions by asset class were used to assess the reasonableness of the long-term rate of return assumption.</p> <p>The medical inflation trend rate assumptions were set using the Getzen Model of Long-Run Medical Cost Trends ("Getzen Model"), which adds transparency to the economic assumptions behind medical and prescription drug trends. The Getzen Model is an excel based projection of expected growth rates in medical premiums and expenditures from 2027 to 2102. Development of the model was sponsored by the Society of Actuaries ("SOA"), and it is used primarily in the estimation of reportable liabilities for retiree health benefits in accordance with FASB and GASB standards. It projects medical care cost increases and the health share of GDP for the next 75 years using linked formulas and assumptions developed by the author, Professor Thomas Getzen, with the assistance of a SOA project oversight group.</p>																											

Rationale for Assumptions

Discount Rate	<p>As prescribed by GASB Nos. 74 and 75, the June 30, 2023 single discount rate of 5.65% was based on the long-term expected rate of return on assets held in the OPEB investment pool (6.75%) and a municipal bond rate of 3.65% (based on the 20-year Bond Buyer GO Index as of the end of June 2023). Based on the stated assumptions and the projection of cash flows, the Plan's Fiduciary Net Position and future contributions were not sufficient to finance all future benefit payments of the current plan members. Therefore, the long-term expected rate of return on the OPEB Investment Pool was applied to projected benefit payments through the year 2055 (the last year in which the Plan's Fiduciary Net Position is projected to be sufficient to meet projected benefit payments) and the municipal bond rate was applied to all remaining future years to determine the Total OPEB Liability. The projection of cash flows used to determine the single discount rate for each fiscal year end assumed that employer contributions were made based on the current funding policy for all future years.</p>
Long-Term Expected Rate of Return	<p>The expected return in the OPEB Investment Pool is based on a building block method incorporating the underlying inflation assumption and expected real returns and investment expenses. The selected rate was supported by analyzing the target asset allocation and benchmark return expectations from publicly available sources as of June 30, 2023.</p>
Inflation, Payroll Growth, Salary Scale, Disability Incidence, Withdrawal, Early and Normal Retirement	<p>Assumptions updated to be consistent with assumptions recommended by the Commonwealth of Pennsylvania SERS 2015-2019 experience study and adopted by the Board in July 2020.</p>
Mortality	<p>The annuitant, survivor, and disabled participant base mortality table is consistent with the Commonwealth of Pennsylvania SERS 2015-2019 experience study, with the exception of using a headcount-weighted instead of an amount-weighted mortality table.</p> <p>The PUB-2010 tables were released by the Retirement Plans Experience Committee ("RPEC") of the Society of Actuaries ("SOA") in January 2019. The PUB-2010 tables represent a complete benchmark of U.S. public pension plan mortality experience. The plan does not have fully credible pre-retirement mortality experience, so the Pub-2010 General Employees Headcount Weighted Mortality Tables were used for the pre-retirement mortality assumption.</p> <p>Beginning in 2015, the SOA RPEC has released an annual update to the mortality improvement scale, with each of these scales reflecting an additional year of Social Security Administration ("SSA") data. RPEC did not release an update to Mortality Improvement Scale MP-2021 due to the impact of the COVID-19 pandemic on 2020 Social Security data. Therefore, Scale MP-2021 incorporates the most current information available from the Social Security Administration ("SSA"), extended further by RPEC using a methodology similar to that used by SSA.</p>

Development of June 30, 2023 Discount Rate

This section provides the development of the June 30, 2023 single discount rate consistent with the requirements of GASB 74/75.

Projection of Contributions

(All dollar amounts are in thousands)

Year Ending June 30	Total Employer Contributions (a)	Contributions Related to Service Cost of Future Employees*	Employer Contributions for Current Participants
		(b)	(c) = (a)-(b)
2024	505,210	5,311	499,899
2025	528,998	10,658	518,340
2026	550,593	16,546	534,047
2027	579,841	22,835	557,006
2028	610,157	29,716	580,441
2029	631,407	36,926	594,481
2030	652,460	44,293	608,167
2031	673,859	52,191	621,668
2032	694,257	60,266	633,991
2033	712,006	68,886	643,120
2034	726,100	78,058	648,042
2035	736,368	87,516	648,852
2036	741,486	97,102	644,384
2037	743,533	107,502	636,031
2038	749,039	118,315	630,724
2039	758,366	129,547	628,819
2040	769,981	141,411	628,570
2041	782,824	154,219	628,605
2042	796,099	167,034	629,065
2043	807,651	180,207	627,444
2044	816,537	194,103	622,434
2045	822,444	208,468	613,976
2046	824,084	223,173	600,911
2047	823,480	238,254	585,226
2048	819,789	253,788	566,001
2049	813,312	270,149	543,163
2050	806,424	286,828	519,596
2051	795,622	304,104	491,518
2052	780,714	322,136	458,578
2053	763,566	340,455	423,111
2054	743,318	359,323	383,995
2055	719,249	378,700	340,549
2056	690,631	398,400	292,231
2057	657,658	418,479	239,179
2058	623,125	439,167	183,958
2059	588,496	460,521	127,975
2060**	552,777	482,191	70,586

* Determined using an open group valuation assuming a level population.

** The exhibit only displays projections through 2060. For all years beyond 2060, the projected benefit payments are unfunded and discounted at 3.65% to develop the Single Discount Rate.

Development of June 30, 2023 Discount Rate (cont.)

Projection of Fiduciary Net Position

(All dollar amounts are in thousands)

Year Ending June 30	Beginning Fiduciary Net Position	Employer Contributions for Current Participants	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Ending Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2024	751,685	499,899	455,210	5,126	50,392	841,640
2025	841,640	518,340	478,998	5,024	56,290	932,248
2026	932,248	534,047	500,593	4,898	62,215	1,023,019
2027	1,023,019	557,006	529,841	4,756	68,138	1,113,566
2028	1,113,566	580,441	560,157	4,581	74,027	1,203,296
2029	1,203,296	594,481	581,407	4,397	79,851	1,291,824
2030	1,291,824	608,167	602,460	4,226	85,587	1,378,892
2031	1,378,892	621,668	623,859	4,044	91,208	1,463,865
2032	1,463,865	633,991	644,257	3,875	96,681	1,546,405
2033	1,546,405	643,120	662,006	3,706	101,972	1,625,785
2034	1,625,785	648,042	676,100	3,526	107,032	1,701,233
2035	1,701,233	648,852	686,368	3,355	111,816	1,772,178
2036	1,772,178	644,384	691,486	3,202	116,292	1,838,166
2037	1,838,166	636,031	693,533	3,026	120,407	1,898,045
2038	1,898,045	630,724	699,039	2,856	124,095	1,950,969
2039	1,950,969	628,819	708,366	2,690	127,300	1,996,032
2040	1,996,032	628,570	719,981	2,526	129,954	2,032,049
2041	2,032,049	628,605	732,824	2,346	131,966	2,057,450
2042	2,057,450	629,065	746,099	2,191	133,260	2,071,485
2043	2,071,485	627,444	757,651	2,044	133,775	2,073,009
2044	2,073,009	622,434	766,537	1,885	133,422	2,060,443
2045	2,060,443	613,976	772,444	1,731	132,102	2,032,346
2046	2,032,346	600,911	774,084	1,589	129,721	1,987,305
2047	1,987,305	585,226	773,480	1,464	126,185	1,923,772
2048	1,923,772	566,001	769,789	1,343	121,385	1,840,026
2049	1,840,026	543,163	763,312	1,215	115,193	1,733,855
2050	1,733,855	519,596	756,424	1,103	107,476	1,603,400
2051	1,603,400	491,518	745,622	987	98,101	1,446,410
2052	1,446,410	458,578	730,714	859	86,910	1,260,325
2053	1,260,325	423,111	713,566	748	73,744	1,042,866
2054	1,042,866	383,995	693,318	642	58,443	791,344
2055	791,344	340,549	669,249	542	40,825	502,927
2056	502,927	292,231	640,631	459	20,706	174,774
2057	174,774	239,179	607,658	388	-	-
2058	-	183,958	573,125	317	-	-
2059	-	127,975	538,496	247	-	-
2060*	-	70,586	502,777	195	-	-

* The exhibit only displays projections through 2060. For all years beyond 2060, the projected benefit payments are unfunded and discounted at 3.65% to develop the Single Discount Rate.

Development of June 30, 2023 Discount Rate (cont.)

Development of the Single Discount Rate

(All dollar amounts are in thousands)

Year Ending June 30	Beginning Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments at 6.75%	Present Value of Unfunded Benefit Payments at 3.65%	Present Value of Benefit Payments Using the Single Discount Rate of 5.65%
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
2024	751,685	455,210	455,210	-	440,583	-	442,862
2025	841,640	478,998	478,998	-	434,292	-	441,067
2026	932,248	500,593	500,593	-	425,172	-	436,283
2027	1,023,020	529,841	529,841	-	421,559	-	437,063
2028	1,113,566	560,157	560,157	-	417,498	-	437,342
2029	1,203,295	581,407	581,407	-	405,936	-	429,641
2030	1,291,824	602,460	602,460	-	394,037	-	421,373
2031	1,378,891	623,859	623,859	-	382,233	-	412,990
2032	1,463,864	644,257	644,257	-	369,770	-	403,669
2033	1,546,405	662,006	662,006	-	355,932	-	392,592
2034	1,625,785	676,100	676,100	-	340,524	-	379,494
2035	1,701,233	686,368	686,368	-	323,837	-	364,640
2036	1,772,178	691,486	691,486	-	305,622	-	347,700
2037	1,838,166	693,533	693,533	-	287,145	-	330,067
2038	1,898,045	699,039	699,039	-	271,123	-	314,883
2039	1,950,969	708,366	708,366	-	257,369	-	302,009
2040	1,996,032	719,981	719,981	-	245,048	-	290,534
2041	2,032,049	732,824	732,824	-	233,648	-	279,891
2042	2,057,450	746,099	746,099	-	222,839	-	269,711
2043	2,071,485	757,651	757,651	-	211,980	-	259,230
2044	2,073,009	766,537	766,537	-	200,905	-	248,235
2045	2,060,443	772,444	772,444	-	189,652	-	236,762
2046	2,032,346	774,084	774,084	-	178,037	-	224,567
2047	1,987,305	773,480	773,480	-	166,649	-	212,383
2048	1,923,772	769,789	769,789	-	155,367	-	200,058
2049	1,840,026	763,312	763,312	-	144,318	-	187,759
2050	1,733,854	756,424	756,424	-	133,973	-	176,107
2051	1,603,399	745,622	745,622	-	123,709	-	164,303
2052	1,446,409	730,714	730,714	-	113,570	-	152,401
2053	1,260,324	713,566	713,566	-	103,892	-	140,860
2054	1,042,865	693,318	693,318	-	94,561	-	129,539
2055	791,344	669,249	669,249	-	85,507	-	118,350
2056	502,927	640,631	-	640,631	-	199,804	107,227
2057	174,773	607,658	-	607,658	-	182,847	96,265
2058	-	573,125	-	573,125	-	166,383	85,935
2059	-	538,496	-	538,496	-	150,825	76,422
2060	-	502,777	-	502,777	-	135,861	67,534
2061	-	466,446	-	466,446	-	121,605	59,301
2062	-	432,713	-	432,713	-	108,838	52,069
2063	-	406,527	-	406,527	-	98,651	46,300
2064	-	386,211	-	386,211	-	90,421	41,632
2065	-	369,464	-	369,464	-	83,454	37,696
2066	-	355,022	-	355,022	-	77,368	34,284
2067	-	341,343	-	341,343	-	71,767	31,199
2068	-	328,685	-	328,685	-	66,672	28,434
2069	-	315,979	-	315,979	-	61,838	25,872
2070	-	302,705	-	302,705	-	57,154	23,459

Development of June 30, 2023 Discount Rate (cont.)

Development of the Single Discount Rate

(All dollar amounts are in thousands)

Year Ending June 30	Beginning Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments at 6.75%	Present Value of Unfunded Benefit Payments at 3.65%	Present Value of Benefit Payments Using the Single Discount Rate of 5.65%
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
2071	-	288,813	-	288,813	-	52,611	21,184
2072	-	274,326	-	274,326	-	48,212	19,045
2073	-	259,236	-	259,236	-	43,956	17,034
2074	-	243,676	-	243,676	-	39,862	15,155
2075	-	227,778	-	227,778	-	35,950	13,408
2076	-	211,677	-	211,677	-	32,232	11,793
2077	-	195,551	-	195,551	-	28,728	10,312
2078	-	179,575	-	179,575	-	25,452	8,963
2079	-	163,882	-	163,882	-	22,410	7,742
2080	-	148,595	-	148,595	-	19,604	6,644
2081	-	133,831	-	133,831	-	17,034	5,664
2082	-	119,696	-	119,696	-	14,699	4,794
2083	-	106,277	-	106,277	-	12,591	4,029
2084	-	93,652	-	93,652	-	10,705	3,360
2085	-	81,878	-	81,878	-	9,029	2,781
2086	-	70,995	-	70,995	-	7,554	2,282
2087	-	61,027	-	61,027	-	6,264	1,857
2088	-	51,981	-	51,981	-	5,148	1,497
2089	-	43,854	-	43,854	-	4,190	1,195
2090	-	36,628	-	36,628	-	3,376	945
2091	-	30,270	-	30,270	-	2,692	739
2092	-	24,738	-	24,738	-	2,123	572
2093	-	19,981	-	19,981	-	1,654	437
2094	-	15,944	-	15,944	-	1,273	330
2095	-	12,561	-	12,561	-	968	246
2096	-	9,762	-	9,762	-	726	181
2097	-	7,476	-	7,476	-	536	131
2098	-	5,636	-	5,636	-	390	94
2099	-	4,178	-	4,178	-	279	66
2100	-	3,043	-	3,043	-	196	45
2101	-	2,175	-	2,175	-	135	31
2102	-	1,525	-	1,525	-	91	20
2103	-	1,047	-	1,047	-	61	13
2104	-	705	-	705	-	39	8
2105	-	464	-	464	-	25	5
2106	-	299	-	299	-	16	3
2107	-	188	-	188	-	9	2
2108	-	116	-	116	-	6	1
2109	-	70	-	70	-	3	1
2110	-	41	-	41	-	2	-
2111	-	24	-	24	-	1	-
2112	-	14	-	14	-	1	-
2113	-	8	-	8	-	-	-
2114	-	4	-	4	-	-	-
2115	-	2	-	2	-	-	-
2116	-	1	-	1	-	-	-
2117	-	1	-	1	-	-	-
2118	-	-	-	-	-	-	-

Glossary

Brief explanations of terms used in this report:

Annual OPEB Expense

The change in Net OPEB Liability less the change in the Deferred Outflows of Resources plus the change in the Deferred Inflows of Resources.

Collective deferred outflows of resources and deferred inflows of resources related to OPEB

Deferred outflows of resources and deferred inflows of resources related to OPEB arising from certain changes in the collective net OPEB liability or collective total OPEB liability.

Covered Employee Payroll

Annual compensation paid (or expected to be paid) to active employees covered by an OPEB plan, in aggregate.

Final Average Salary

Final Average Salary as determined by the State Employees' Retirement System for pension purposes.

Implicit Rate Subsidy

Many post-employment health plans charge the same premium rates for all participants in a non-Medicare plan regardless of their age. This single premium rate is called a blended premium rate because it blends the expected claims of both active and retired participants. Retirees are generally older than the average participant in a non-Medicare plan, which means they are expected to generate higher claims than the average participant of the plan; therefore, they are receiving a subsidy even if they pay 100% of the blended premium rate because they would be paying less in premiums than their expected claims costs. This subsidy is referred to as the "Implicit Rate Subsidy".

Net OPEB liability (NOL)

The liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan that is administered through a trust that meets the criteria of the GASB Statements.

Normal Cost or Service 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. These terms are used interchangeably.

Other Postemployment Benefits (OPEB)

Retiree health care benefits and post-employment benefits provided separately from a pension plan (excluding termination offers and benefits).

Fiduciary Net Position (FNP)

Set equal to the market value of assets as of the measurement date

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.

Total OPEB liability (TOL)

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service in conformity with the GASB Statements. The total OPEB liability is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan that is not administered through a trust that meets the criteria of the GASB Statements.