



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

Measurement date of June 30, 2022

Prepared by Deloitte Consulting LLP

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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, 2022. In this report, we present disclosure information measured as of June 30, 2022 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, 2022 GASB No. 74 disclosures and fiscal year ending June 30, 2023 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, 2022 are:

- Net OPEB Liability (NOL) is \$9.9 billion, 235.6% of covered employee payroll.
- Plan Fiduciary Net Position (FNP) as a percentage of Total OPEB Liability (TOL) is 5.9%.
- OPEB Expense/(Income) is \$(1.7) billion.

Significant Changes from the Previous Actuarial Valuation

For the June 30, 2022 measurement, there was a decrease in TOL of \$0.4 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 \$1.2 billion decrease in TOL due to changes in actuarial assumptions, driven by the increase in the discount rate from 3.63% to 4.67% and the updates to the trend and mortality improvement assumptions;
- The actual experience over the past year was different than expected, resulting in a \$0.5 billion increase in TOL. This experience loss was caused primarily by increases in per capita claims costs due to unfavorable claims experience.

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, 2022, 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, 2022 is shown in the table below.

Asset Class	Target Allocation
US Equity	40.0%
Non-US Equity	27.0%
Real Estate	8.0%
Private Equity	0.5%
US Fixed Income	23.0%
Cash Equivalent	1.5%
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.

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, 2022 single discount rate of 4.67% 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 3.54% (based on the 20-year Bond Buyer GO Index as of the end of June 2022). 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 2045 (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, 2022 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, 2021 measurement date were based on December 31, 2020 census data, and valuation results as of the June 30, 2022 measurement date were based on December 31, 2021 census data. All liabilities are net of expected retiree contributions.

(All dollar amounts are in thousands)

Measurement Date	June 30, 2022	June 30, 2021
Total OPEB Liability	\$ 10,487,651	\$ 10,899,184
Plan Fiduciary Net Position	\$ 621,280	\$ 666,929
Net OPEB Liability	\$ 9,866,371	\$ 10,232,255
Plan Fiduciary Net Position As A Percentage Of Total OPEB Liability	5.9%	6.1%
Net OPEB Liability As A Percentage Of Covered Employee Payroll	235.6%	245.9%
Discount Rate	4.67%	3.63%
Participant Counts		
Active Participants	66,410	68,336
Retired Participants*	<u>64,361</u>	<u>64,251</u>
Total	130,771	132,587
Covered Employee Payroll	\$ 4,188,532	\$ 4,161,481

* 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, 2021 measurement date were based on December 31, 2020 census data and employer contributions for the fiscal year ended June 30, 2021. 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.

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, 2021	3.63%	\$ 10,899,184	\$ 666,929	\$ 10,232,255
Service Cost		318,669		318,669
Interest		399,778		399,778
Changes In Benefit Terms		-		-
Changes In Assumptions - Discount Rate		(1,365,604)		(1,365,604)
Changes In Assumptions - Others		202,548		202,548
Differences Between Expected And Actual Experience		446,115		446,115
Benefit Payments				
Insurance Premiums - Employer Paid	\$ (413,039)			
Insurance Premiums - Retiree Paid	(53,031)			
Total		(466,070)	(466,070)	-
GASB 75 Defined Employer Contributions	\$ 468,157		468,157	(468,157)
Contributions - Employee			-	-
Contributions - Retiree		53,031	53,031	-
Administrative Expenses			(5,363)	5,363
Net Investment Income				
Expected Investment Earnings	\$ 46,670			
Differences Between Projected And Actual Investment Earnings	(142,074)			
Total			(95,404)	95,404
Net Change		\$ (411,533)	\$ (45,649)	\$ (365,884)
Measurement Date of June 30, 2022	4.67%	\$ 10,487,651	\$ 621,280	\$ 9,866,371
Measurement Date			June 30, 2022	June 30, 2021
Plan Fiduciary Net Position As A Percentage Of Total OPEB Liability			5.9%	6.1%
Covered Employee Payroll			\$4,188,532	\$ 4,161,481
Net OPEB Liability As A Percentage Of Covered Employee Payroll			235.6%	245.9%
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, 2022:				
One Percentage Increase (5.67%)			\$ (1,108,182)	-11%
One Percentage Decrease (3.67%)			\$ 1,316,492	13%
Net OPEB Liability at a one percentage point change in discount rate as of June 30, 2022 is as follows:				Net OPEB Liability
One Percentage Increase (5.67%)			\$ 8,758,189	
One Percentage Decrease (3.67%)			\$ 11,182,863	
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, 2022:				
One Percentage Increase (8.3% / 7.3% grading to 4.9%)			\$ 1,648,200	16%
One Percentage Decrease (6.3% / 5.3% grading to 2.9%)			\$ (1,343,244)	-13%
Net OPEB Liability at a one percentage point change in trend rate as of June 30, 2022 is as follows:				Net OPEB Liability
One Percentage Increase (8.3% / 7.3% grading to 4.9%)			\$ 11,514,571	
One Percentage Decrease (6.3% / 5.3% grading to 2.9%)			\$ 8,523,127	
Key Assumptions			June 30, 2022	June 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

**Development of OPEB Expense for Fiscal Year Ending June 30, 2023
(Measurement Year June 30, 2022)**

(All dollar amounts are in thousands)

Components of OPEB Expense	Measurement Year Ended 06/30/2022	Measurement Year Ended 06/30/2021
Service Cost	\$ 318,669	\$ 473,034
Interest	399,778	288,619
Expected Investment Earnings	(46,670)	(24,442)
Contributions - Employee	-	-
Administrative Expenses	5,363	5,807
Changes In Benefit Terms	-	-
Recognition of Current Period Deferred Outflows and (Inflows)		
Changes in assumptions	(199,838)	(202,958)
Differences between expected and actual experience	76,652	(186,127)
Differences between expected and actual investment earnings	28,415	(26,671)
Recognition of Beginning Deferred Outflows	358,158	358,158
Recognition of Beginning Deferred Inflows	(2,630,116)	(2,329,148)
OPEB Expense	\$ (1,689,589)	\$ (1,643,728)
Assumptions Used to Determine OPEB Expense	Measurement Year Ended 06/30/2022	Measurement Year Ended 06/30/2021
Assumptions as of Measurement Date*	6/30/2021	6/30/2020
Discount Rate	3.63%	2.21%
Investment Rate of Return	6.75%	5.00%
Inflation	2.50%	2.60%
Initial Medical Trend Rate	6.9% / 6.7%	6.6% / 6.1%
Ultimate Medical Trend Rate	4.0%	4.1%
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 Outflows of Resources as of 06/30/2022	Deferred (Inflows) of Resources as of 06/30/2022*	Initial Years	Remaining Years	Outflows/(Inflows) Recognized in Measurement Year Ended 06/30/2022
Changes In Assumptions						
06/30/2017	\$ (2,228,187)	\$ -	\$ (15,619)	5.08 - 8.54	0.00 - 2.54	\$ (276,523)
06/30/2018	(576,855)	-	(74,370)	5.74	0.74	(100,497)
06/30/2019	403,428	122,292	-	5.74	1.74	70,284
06/30/2020	1,617,170	771,959	-	5.74	2.74	281,737
06/30/2021	(1,171,069)	-	(765,153)	5.77	3.77	(202,958)
06/30/2022	(1,163,056)	-	(963,218)	5.82	4.82	(199,838)
Total		\$ 894,251	\$ (1,818,360)			\$ (427,795)
Differences Between Expected And Actual Plan Experience						
06/30/2018	\$ (5,445,495)	-	\$ (702,030)	5.74	0.74	\$ (948,693)
06/30/2019	(5,082,545)	-	(1,540,701)	5.74	1.74	(885,461)
06/30/2020	12,936	6,174	-	5.74	2.74	2,254
06/30/2021	(1,073,951)	-	(701,697)	5.77	3.77	(186,127)
06/30/2022	446,115	369,463	-	5.82	4.82	76,652
Total		\$ 375,637	\$ (2,944,428)			\$ (1,941,375)
Net Difference Between Projected And Actual Earnings On Investments						
06/30/2018	\$ (12,635)	-	-	5.00	0.00	\$ (2,527)
06/30/2019	(3,298)	-	(662)	5.00	1.00	(659)
06/30/2020	19,414	7,765	-	5.00	2.00	3,883
06/30/2021	(133,357)	-	(80,015)	5.00	3.00	(26,671)
06/30/2022	142,074	113,659	-	5.00	4.00	28,415
Total**		\$ 121,424	\$ (80,677)			\$ 2,441
Contributions subsequent to measurement date***						
To be determined by each participating employer.						
Balance as of 06/30/2022 Measurement Date		\$ 1,391,312	\$ (4,843,465)			\$ (2,366,729)
Deferred Outflows And Deferred (Inflows) Of Resources Will Be Recognized In Expense As Follows:						
Measurement Year Ending:						Outflows/(Inflows)
06/30/2023						\$ (1,821,058)
06/30/2024						(832,027)
06/30/2025						(303,690)
06/30/2026						(394,367)
06/30/2027						(101,011)
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 \$40,747 is recognized as of 06/30/2022.

*** Reflects employer contributions made subsequent to 06/30/2022. 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%

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, 2021. 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	66,410	
Average Age	47.24	
Average Service	12.80	
b. Retired Participants		
	Employees*	Spouses
Counts		
Under Age 65 Non-Medicare	11,928	10,131
Under Age 65 Medicare	2,677	1,028
Over age 65 Non-Medicare	12	8
Over age 65 Medicare	<u>49,744</u>	<u>21,768</u>
Total Counts	64,361	32,935
Average Age	71.80	
c. Total Participants**		
	130,771	
d. Inactive Participants Entitled To But Not Yet Receiving Benefits***		
	19,747	

* Employees include retirees and 3,339 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	-	14	-	-	-	-	-	-	-	14
20-24	-	644	11	-	-	-	-	-	-	655
25-29	-	2,952	1,040	15	-	-	-	-	-	4,007
30-34	18	2,773	3,041	796	35	-	-	-	-	6,645
35-39	61	2,091	2,405	2,365	1,026	51	-	-	-	7,938
40-44	123	1,779	1,913	1,902	2,207	856	36	-	-	8,693
45-49	328	1,529	1,535	1,613	1,788	1,845	756	35	-	9,101
50-54	1,663	1,411	1,525	1,591	1,873	1,749	1,643	759	-	10,551
55-59	3,783	1,255	1,408	1,493	1,659	1,512	1,090	1,341	-	9,758
60-64	8,629	744	1,086	1,150	1,423	771	492	623	-	6,289
65-69	13,140	143	398	428	540	281	150	202	-	2,142
70-74	15,104	23	70	104	120	74	29	73	-	493
75-79	9,855	4	3	15	29	21	7	28	-	107
80-84	5,780	-	-	-	2	1	5	4	-	12
85-89	3,415	-	1	-	1	-	-	2	-	4
90+	2,462	-	-	1	-	-	-	-	-	1
Total	64,361	15,362	14,436	11,473	10,703	7,161	4,208	3,067		66,410

Participant Reconciliation				
	<u>Active</u>	<u>Retirees</u>	<u>Beneficiaries</u>	<u>Total</u>
Beginning of Year (12/31/2020)	68,336	61,160	3,091	132,587
New Hire	4,028	0	0	4,028
Opt-In	954	0	0	954
New Retiree/Beneficiary	(2,629)	2,629	562	562
Death/Termination/Opt-Out	<u>(4,279)</u>	<u>(2,767)</u>	<u>(314)</u>	<u>(7,360)</u>
End of Year (12/31/2021)	66,410	61,022	3,339	130,771

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, 2022.

Medical	Benefit Provisions	Eligibility
Basic PPO	<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) \$8,700 individual, \$17,400 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) \$8,700 individual, \$17,400 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>
Choice PPO	<p><u>In Network</u></p> <p>Deductible \$400 individual, \$800 family</p> <p>Out-of-Pocket Limit (including deductibles and co-pays) \$8,700 individual, \$17,400 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) \$8,700 individual, \$17,400 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	<u>In Network</u>	Non-Medicare eligible annuitants retired from the Commonwealth and their eligible dependents living within the HMO service area.	
	Deductible		None
	Out-of-Pocket Limit (including deductible and co-pays)		\$8,700 individual, \$17,400 family
	Doctor Office Visits		PCP: \$5 co-pay Specialist: \$10 co-pay (Referral Required)
	Inpatient Lifetime Maximum		Covered in full None
Medicare Open-Access PPO	<u>In and Out-of-Network</u>	Medicare eligible annuitants retired from the Commonwealth and their eligible dependents.	
	Deductible		Annual Medicare Part B deductible
	Out-of-Pocket Limit (including deductible)		\$2,500 per person
	Doctor Office Visits		PCP: \$20 co-pay (after deductible) Specialist: \$30 co-pay (after deductible)
	Inpatient Lifetime Maximum		Covered in full (after deductible) None

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, 2021 for June 30, 2022 measurements.

Measurement Date

June 30, 2022 for fiscal year ended June 30, 2022 trust financial statements (GASB No. 74) and for fiscal year ending June 30, 2023 participating employer financial statements (measurement date as of the end of the prior fiscal year end for GASB No. 75).

Method Changes Since Prior Valuation

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	4.67% as of June 30, 2022 (3.63% as of June 30, 2021)																																																																
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%																																																														
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10	1.60	25	0.80																																																														
11	1.55	26	0.70																																																														
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13	1.40	28	0.50																																																														
14	1.35	29	0.50																																																														
15	1.30	30+	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.)

Demographic Assumptions

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

<p>Mortality</p>	<p>Pre-Retirement Mortality:</p> <p>Pub-2010 General Employees Headcount Weighted Mortality Tables, and adjusted for mortality improvements using projection scale MP-2021.</p> <p>Post Retirement Mortality:</p> <p>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.</p> <p>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>																								
<p>Disability Incidence¹</p>	<p>Pre-Retirement Disability:</p> <table border="1"> <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																							
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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, these assumptions are based on those used for the SERS Actuarial Valuation Report as of December 31, 2021.

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 2022 fully insured premiums, self-insured claims experience, and projected administrative expenses that represent the expected claims costs and administrative expenses for 2022.</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 1.001 to reflect a difference in participation rates. For Medicare Eligible retirees, an additional \$300 annual premium starting in 2025 is added to the curve below to reflect expiration of the negotiated \$0 premium through 2024 for the REHP Aetna Medicare Advantage Plan.</p> <table border="1"> <caption style="text-align: center;">2022 Annual Per Capita Claims Costs</caption> <thead> <tr> <th style="text-align: center;">Age</th> <th style="text-align: center;">Non-Medicare Eligible</th> <th style="text-align: center;">Medicare Eligible</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">45</td><td style="text-align: right;">\$ 8,239</td><td style="text-align: right;">\$ 1,753</td></tr> <tr><td style="text-align: center;">50</td><td style="text-align: right;">10,049</td><td style="text-align: right;">1,753</td></tr> <tr><td style="text-align: center;">55</td><td style="text-align: right;">12,379</td><td style="text-align: right;">1,753</td></tr> <tr><td style="text-align: center;">60</td><td style="text-align: right;">15,154</td><td style="text-align: right;">1,753</td></tr> <tr><td style="text-align: center;">64</td><td style="text-align: right;">18,040</td><td style="text-align: right;">1,753</td></tr> <tr><td style="text-align: center;">65</td><td style="text-align: right;">18,864</td><td style="text-align: right;">1,753</td></tr> <tr><td style="text-align: center;">70</td><td style="text-align: right;">22,675</td><td style="text-align: right;">2,243</td></tr> <tr><td style="text-align: center;">75</td><td style="text-align: right;">26,866</td><td style="text-align: right;">2,464</td></tr> <tr><td style="text-align: center;">80</td><td style="text-align: right;">31,235</td><td style="text-align: right;">2,530</td></tr> <tr><td style="text-align: center;">85</td><td style="text-align: right;">35,508</td><td style="text-align: right;">2,374</td></tr> <tr><td style="text-align: center;">90</td><td style="text-align: right;">39,305</td><td style="text-align: right;">2,111</td></tr> <tr><td style="text-align: center;">95</td><td style="text-align: right;">41,526</td><td style="text-align: right;">1,905</td></tr> </tbody> </table>	Age	Non-Medicare Eligible	Medicare Eligible	45	\$ 8,239	\$ 1,753	50	10,049	1,753	55	12,379	1,753	60	15,154	1,753	64	18,040	1,753	65	18,864	1,753	70	22,675	2,243	75	26,866	2,464	80	31,235	2,530	85	35,508	2,374	90	39,305	2,111	95	41,526	1,905
Age	Non-Medicare Eligible	Medicare Eligible																																						
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95	41,526	1,905																																						
<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. Trend rates were developed based on the most recently published SOA-Getzen trend rate model, version 2022_f4 (previously version 2021_b). The short-term trend assumptions were based on a review of the Commonwealth's historical trend rates during the years 2017 through 2019 and emerging experience, along with industry surveys, separately for non-Medicare and Medicare benefits. The Commonwealth's experience along with industry surveys were used to predict short-term future per capita cost increases. The most recently published SOA-Getzen model was then used to determine the trend rates beginning in 2026 and thereafter, based on the plan's long-term inflation assumption and reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy.

The year over year increase in the Consumer Price Index for all Urban Consumers (CPI-U) as of May 2022 was approximately 8.5%. Historically, a sudden increase in CPI-U has caused a lagged inflationary impact on healthcare trend, which may also be supported in today's economic environment by delayed or staggered timing of contracting for premiums, labor, provider discounts, and Pharmacy Benefit Manager rebates.

During the last comparable period of high inflation, the magnitude in which CPI-U Medical Care increased following the sharp increase in CPI-U indicates that only a portion of the inflationary spike directly increased healthcare trend. Since healthcare trend is a function of a number of factors such as utilization, unit cost, population and benefits, the recent inflation increase may only impact the unit cost component and therefore indicates that there may be a dampening of the overall general inflation increase for healthcare trend. In addition, if reimbursement rates from payers or government entities do not keep pace with the recent increase in inflation, quality or access to care may be the area that absorbs the impact of inflation.

Due to the recent inflationary environment and in consideration of the potential lagged and dampened impact this spike in inflation may have on healthcare trend, an adjustment of 1.8% was applied to the short-term trend assumptions in 2023 and 2024. This adjustment reflects 60% of the measured inflation spike above expectations, for the 12-month period ending May 2022.

Year	January 1, 2022 Assumption	
	Non-Medicare Benefits	Medicare Benefits
2022	7.3%	6.3%
2023	8.8%	8.0%
2024	8.6%	7.8%
2025	6.5%	5.8%
2026	6.3%	5.7%
2030	5.2%	5.1%
2040	4.8%	
2050	4.6%	
2060	4.5%	
2070	4.2%	
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 style="border-top: 1px solid black; border-bottom: 1px solid black;">Non-Medicare</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Adult Member Enrollment (Pre-03)</th> <th style="border-top: 1px solid black; border-bottom: 1px solid black;">Adult Member Enrollment (Post-03)</th> </tr> </thead> <tbody> <tr> <td>Highmark Basic PPO</td> <td>16.1%</td> <td>22.3%</td> </tr> <tr> <td>Aetna Choice PPO</td> <td>70.3%</td> <td>56.9%</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>2.5%</td> <td>4.3%</td> </tr> <tr> <td>Aetna HMO Western Region</td> <td>2.3%</td> <td>3.7%</td> </tr> <tr> <td>Geisinger HMO NE Region</td> <td>8.8%</td> <td>12.7%</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black; border-bottom: 1px solid black;">Medicare</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Aetna Medicare Advantage</td> <td colspan="2" style="border-bottom: 1px solid black;">100.0%</td> </tr> </tbody> </table>	Non-Medicare	Adult Member Enrollment (Pre-03)	Adult Member Enrollment (Post-03)	Highmark Basic PPO	16.1%	22.3%	Aetna Choice PPO	70.3%	56.9%	Aetna HMO SE Region	0.0%	0.0%	Aetna HMO Central Region	2.5%	4.3%	Aetna HMO Western Region	2.3%	3.7%	Geisinger HMO NE Region	8.8%	12.7%	Medicare			Aetna Medicare Advantage	100.0%	
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Aetna Medicare Advantage	100.0%																											
<p>Changes in Assumptions</p>	<ul style="list-style-type: none"> The discount rate was increased from 3.63% to 4.67%. Per capita claims costs were updated based on changes in the underlying claims and benefit provisions. Per the Actuarial Standard of Practice (ASOP) No. 6 Practice Note released in March 2021, age-grading of the Medicare Advantage claims costs was removed as the risk-adjusted federal subsidy is intended to eliminate any cost differences due to age. The trend rates were updated based on the SOA-Getzen trend rate model version 2022_f4. The short-term trend assumptions were based on a review of the Commonwealth's historical trend rates during the years 2017 through 2019 and emerging experience, along with industry surveys, separately for non-Medicare and Medicare benefits. The trend rates reflect the negotiated \$0 premium through 2024 for the REHP Aetna Medicare Advantage Plan. In addition a short-term adjustment in 2023 and 2024 was made to account for a recent sharp increase in general inflation. The mortality improvement assumption was updated from Scale MP-2020 to Scale MP-2021 																											
<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 2026 to 2101. 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 80 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, 2022 single discount rate of 4.67% 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 3.54% (based on the 20-year Bond Buyer GO Index as of the end of June 2022). 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 2045 (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 PA Treasury and publicly available sources.</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. Scale MP-2021 was used for this valuation as the most recently available mortality improvement scale from the SOA.</p>

Development of June 30, 2022 Discount Rate

This section provides the development of the June 30, 2022 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	Contributions Related to Service Cost of Future Employees*	Employer Contributions for Current Participants
	(a)	(b)	(c) = (a)-(b)
2023	529,037	6,195	522,842
2024	549,701	12,450	537,251
2025	587,867	19,143	568,724
2026	623,370	26,375	596,995
2027	643,696	34,274	609,422
2028	665,026	42,525	622,501
2029	688,050	50,966	637,084
2030	710,456	60,035	650,421
2031	733,139	69,264	663,875
2032	754,931	79,032	675,899
2033	775,301	89,590	685,711
2034	793,227	100,504	692,723
2035	807,704	111,660	696,044
2036	817,465	123,508	693,957
2037	823,980	135,918	688,062
2038	833,593	148,936	684,657
2039	846,778	162,525	684,253
2040	861,971	177,185	684,786
2041	878,269	191,986	686,283
2042	894,753	207,151	687,602
2043	909,134	223,141	685,993
2044	920,604	239,663	680,941
2045	928,782	256,796	671,986
2046	932,442	274,335	658,107
2047	933,549	292,156	641,393
2048	931,054	310,825	620,229
2049	924,849	330,130	594,719
2050	917,495	350,136	567,359
2051	905,854	371,107	534,747
2052**	889,766	392,390	497,376

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

** The exhibit only displays the first 30 years of projections. For all years beyond 2052, the projected benefit payments are unfunded and discounted at 3.54% to develop the Single Discount Rate.

Development of June 30, 2022 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)
2023	621,280	522,842	479,037	5,326	41,554	701,313
2024	701,313	537,251	499,701	5,209	46,752	780,406
2025	780,406	568,724	537,867	5,078	51,873	858,058
2026	858,058	596,995	573,370	4,928	56,880	933,635
2027	933,635	609,422	593,696	4,743	61,725	1,006,343
2028	1,006,343	622,501	615,026	4,548	66,366	1,075,636
2029	1,075,636	637,084	638,050	4,366	70,769	1,141,073
2030	1,141,073	650,421	660,456	4,175	74,891	1,201,754
2031	1,201,754	663,875	683,139	3,997	78,686	1,257,179
2032	1,257,179	675,899	704,931	3,823	82,109	1,306,433
2033	1,306,433	685,711	725,301	3,633	85,089	1,348,299
2034	1,348,299	692,723	743,227	3,453	87,559	1,381,901
2035	1,381,901	696,044	757,704	3,286	89,462	1,406,417
2036	1,406,417	693,957	767,465	3,112	90,730	1,420,527
2037	1,420,527	688,062	773,980	2,939	91,276	1,422,946
2038	1,422,946	684,657	783,593	2,764	91,013	1,412,259
2039	1,412,259	684,253	796,778	2,595	89,846	1,386,985
2040	1,386,985	684,786	811,971	2,414	87,659	1,345,045
2041	1,345,045	686,283	828,269	2,254	84,342	1,285,147
2042	1,285,147	687,602	844,753	2,105	79,800	1,205,691
2043	1,205,691	685,993	859,134	1,945	73,912	1,104,517
2044	1,104,517	680,941	870,604	1,793	66,539	979,600
2045	979,600	671,986	878,782	1,640	57,543	828,707
2046	828,707	658,107	882,442	1,507	46,780	649,645
2047	649,645	641,393	883,549	1,390	34,106	440,205
2048	440,205	620,229	881,054	1,266	19,353	197,467
2049	197,467	594,719	874,849	1,154	2,331	-
2050	-	567,359	867,495	1,038	-	-
2051	-	534,747	855,854	905	-	-
2052*	-	497,376	839,766	789	-	-

* The exhibit only displays the first 30 years of projections. For all years beyond 2052, the projected benefit payments are unfunded and discounted at 3.54% to develop the Single Discount Rate.

Development of June 30, 2022 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		Benefit Payments Using the Single Discount Rate of 4.67%
						Unfunded Benefit Payments at 3.54%	Benefit Payments at 3.54%	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
2023	621,280	479,037	479,037	-	463,645	-	-	468,227
2024	701,313	499,701	499,701	-	453,063	-	-	466,628
2025	780,407	537,867	537,867	-	456,831	-	-	479,854
2026	858,060	573,370	573,370	-	456,191	-	-	488,700
2027	933,637	593,696	593,696	-	442,495	-	-	483,443
2028	1,006,345	615,026	615,026	-	429,408	-	-	478,463
2029	1,075,637	638,050	638,050	-	417,315	-	-	474,224
2030	1,141,074	660,456	660,456	-	404,655	-	-	468,971
2031	1,201,755	683,139	683,139	-	392,087	-	-	463,430
2032	1,257,180	704,931	704,931	-	379,011	-	-	456,873
2033	1,306,434	725,301	725,301	-	365,305	-	-	449,098
2034	1,348,301	743,227	743,227	-	350,664	-	-	439,661
2035	1,381,903	757,704	757,704	-	334,889	-	-	428,222
2036	1,406,419	767,465	767,465	-	317,755	-	-	414,383
2037	1,420,529	773,980	773,980	-	300,190	-	-	399,252
2038	1,422,947	783,593	783,593	-	284,701	-	-	386,172
2039	1,412,260	796,778	796,778	-	271,186	-	-	375,147
2040	1,386,986	811,971	811,971	-	258,882	-	-	365,240
2041	1,345,047	828,269	828,269	-	247,381	-	-	355,945
2042	1,285,149	844,753	844,753	-	236,350	-	-	346,828
2043	1,205,694	859,134	859,134	-	225,175	-	-	336,992
2044	1,104,519	870,604	870,604	-	213,752	-	-	326,252
2045	979,602	878,782	878,782	-	202,118	-	-	314,621
2046	828,711	882,442	-	882,442	-	389,623	-	301,832
2047	649,649	883,549	-	883,549	-	376,774	-	288,725
2048	440,209	881,054	-	881,054	-	362,865	-	275,061
2049	197,471	874,849	-	874,849	-	347,990	-	260,935
2050	-	867,495	-	867,495	-	333,267	-	247,196
2051	-	855,854	-	855,854	-	317,554	-	232,995
2052*	-	839,766	-	839,766	-	300,932	-	218,413

* The exhibit only displays the first 30 years of projections. For all years beyond 2052, the projected benefit payments are unfunded and discounted at 3.54% to develop the Single Discount Rate.

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.