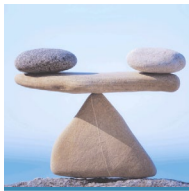


**2022**  
**Public Employees Benefits Board**  
**Other Postemployment Benefits**  
**Actuarial Valuation Report**



**Office of the State Actuary**  
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## 2022 PEBB OPEB Actuarial Valuation Report Acknowledgements

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### ACKNOWLEDGEMENTS

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*To obtain a copy of this report in alternative format call 360.786.6140 or for TDD 711.*



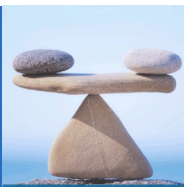
# 2022 PEBB OPEB Actuarial Valuation Report

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# Office of the State Actuary

*“Supporting financial security for generations.”*

## Actuarial Certification Letter PEBB OPEB Actuarial Valuation Report

June 2023

This report documents the results of an actuarial valuation of the employer-provided subsidies offered to retirees and their spouses in the Public Employee Benefits Board’s (PEBB) medical plans. The primary purpose of this valuation is to determine the state’s, as an employer, Other Postemployment Benefits (OPEB) liability under the Governmental Accounting Standards Board Statement No. 75 (GASB 75) financial reporting requirements, as of June 30, 2022. Please replace this report with a future valuation when available.

We prepared the GASB 75 information contained in this report for the Office of Financial Management’s (OFM) *2023 Annual Comprehensive Financial Report*. This valuation should not be used for other purposes. With the exception of the state, employers should not use this report to satisfy their individual employer reporting requirements under GASB 75. The Office of the State Actuary (OSA) created an online tool to help small employers calculate their individual reporting requirements. This online tool, available on our [website](#), utilizes the alternative measurement method allowed under GASB 75.

The Health Care Authority (HCA) provided the data, as of June 30, 2022, used in this report. We have checked the data for reasonableness as appropriate based on the purpose of the valuation. An audit of the participant data was not performed. Except as noted in the next paragraph, we relied on all the information provided as complete and accurate. In our opinion, the data is adequate and complete for the purpose of this valuation. For more information on the census data, please see the **Participant Data** section of the report.

The demographic assumptions used in this valuation were developed as part of the [2023 PEBB OPEB Demographic Experience Study](#). In addition to reviewing demographic assumptions, new assumptions were added to model limited participant data we receive from HCA. This limited participant data ensures we meet data security agreements between our agencies.

The non-healthcare economic assumptions used in this valuation are consistent with our [June 30, 2021, Actuarial Valuation Report](#) (AVR) for the pension plans administered by the Department of Retirement Systems and are studied during our biennial [Economic Experience Study](#). In addition, since there is no established trust fund dedicated to these benefits, we relied on the Bond Buyer General Obligation 20-Bond Municipal Index at the measurement date for the discount rate.

The healthcare assumptions used for this valuation were provided by Milliman through a contract with HCA. Robert Schmidt, a healthcare actuary in Milliman’s Boise, Idaho, office, provided these assumptions in a letter to HCA dated January 20, 2023. OSA does not



employ healthcare actuaries so we are not qualified to develop or assess the reasonableness of these assumptions. However, we did have discussions with HCA, OFM, and Milliman about the healthcare assumptions to understand how they were determined, ensure consistency with the other economic assumptions, and clarify what may have caused the assumptions to change from the prior valuation. We also reviewed the relationship between the claims and the premiums to ensure these assumptions are reasonable for purposes of this report.

The valuation results summarized in this report require assumptions about future economic and demographic events. 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; changes in plan provisions or applicable law, including cost-sharing between employers and retirees.

We believe that the data, assumptions, and methods used in this valuation are reasonable and appropriate for the primary purpose stated above. The use of another set of data, assumptions, and methods, however, could also be reasonable and could produce materially different results. In our opinion, all data, assumptions, and methods are appropriate and conform to generally accepted actuarial principles and standards of practice as of the date of this publication.

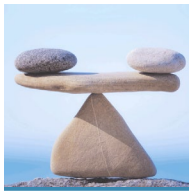
We relied on the ProVal® software developed by [Winklevoss Technologies](#) to perform this valuation. To assess the general operation of this model, we reviewed the output for reasonableness; this includes comparing the results to our simplified estimates performed in Microsoft Excel and examining sample lives to confirm the programming is working as intended. We are not aware of any known weaknesses or limitations of the model that have a material impact on the results. Additionally, we considered how the use of different inputs to the model (e.g., data/assumptions/provisions) produce different results and evaluated the relative impacts to our expectations; this allows us to gain a deeper knowledge of the model's important dependencies and major sensitivities. The use of the model for this analysis is appropriate given its intended purpose.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. While this report is intended to be complete, our office is available to answer questions as needed.

Lisa A. Won, ASA, FCA, MAAA  
Deputy State Actuary

Kyle Stineman, ASA, MAAA  
Actuary





# 2022 PEBB OPEB Actuarial Valuation Report

## I. Key Results

### I. KEY RESULTS

This section summarizes some key GASB 75 results since the prior valuation for the state. For GASB 75, the Actuarial Accrued Liability (AAL) under the Entry Age Normal (EAN) cost method is referred to as the Total OPEB Liability (TOL).

#### How Has the Liability Changed?

GASB 75 Key Results		
	Measurement Date	
(Dollars in Thousands)	6/30/2021	6/30/2022
TOL	\$6,471,675	\$4,248,263
OPEB Expense	\$291,053	\$443
Benefit Payments/Employer Contributions	\$106,507	\$106,833

#### Why the Liability Changed since the Last Measurement

A change in liability occurs between measurement dates due to: (1) passage of time; (2) unexpected changes in experience; and (3) other significant changes in plan provisions, actuarial assumptions, and methodology. In total, the liability decreased by approximately 34 percent since the prior valuation<sup>1</sup>.

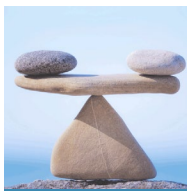
Liabilities generally increase from one measurement date to the next because of increases in both participants and the cost of benefits.

An unexpected change in experience occurs when actual demographic experience differs from what we expected in the valuation. Updated participant data is reflected every two years and a change in liability will emerge as a result of the actual data. In this case, the actual experience decreased liabilities by approximately 2 percent.

Other changes, such as assumption and methodology changes, can have significant impacts on the liabilities of the plan. The change to non-healthcare economic assumptions decreased liabilities for this valuation by approximately 16 percent and the change to healthcare assumptions decreased liabilities by approximately 17 percent. We also reflected new assumptions from the *2023 PEBB OPEB Demographic Experience Study* which decreased liabilities by approximately 5 percent.

The above summary is not intended to cover every change. Please see the **Gain/Loss Analysis** section for a more detailed analysis.

<sup>1</sup>[\*OPEB Actuarial Valuation Letter for the State's June 30, 2022, Fiscal Year-End.\*](#)



# 2022 PEBB OPEB Actuarial Valuation Report

## I. Key Results

### GASB 75 Tables for Measurement Date June 30, 2022

The primary purpose of this valuation is to determine the state's OPEB liability under the GASB 75 financial reporting requirements. The tables within this section meet the GASB 75 requirements and we intend for the tables to be used by OFM in their *2023 Annual Comprehensive Financial Report*. GASB 75 also requires disclosing information about assumptions and methods, which can be found in the **Assumptions** section.

The following table shows the TOL as of June 30, 2021, and June 30, 2022, and it reconciles the change in the TOL as required under GASB 75. Two notable sources of volatility between measurement dates are the Differences Between the Expected and Actual Experience and the Changes in Assumptions.

Schedule of Changes in Total PEBB OPEB Liability and Related Ratios	
Measurement Date of June 30, 2022	
(Dollars in Thousands)	
Change in Total OPEB Liability (TOL)	
Service Cost	\$313,392
Interest	145,410
Difference Between Expected and Actual Experience*	(144,003)
Changes in Benefit Terms	-
Changes of Assumptions*	(2,431,378)
Benefit Payments**	(106,833)
Other	-
<b>Net Change in TOL</b>	<b>(2,223,412)</b>
Beginning and Ending TOL	
Total OPEB Liability - Beginning	6,471,675
Total OPEB Liability - Ending	<b>\$4,248,263</b>
TOL as a Percentage of Covered Payroll	
Covered Employee Payroll**	\$9,462,305
TOL as a Percentage of Covered Payroll	44.9%

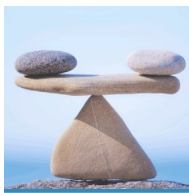
Note: Figures may not total due to rounding.

\*The recognition period for these changes is nine years. This is equal to the average expected remaining service lives of all active and inactive members.

\*\*Source: OFM.

The reconciliation of the TOL from one year to the next is also used to calculate the components of the OPEB Expense table.

- ❖ **Expenses Immediately Recognized** – The Service Cost, Interest Cost, and Other cost line items are taken directly from the TOL reconciliation.
- ❖ **Expenses Recognized Over Fixed Period of Time** – The Difference Between Expected and Actual Experience cost, and the Changes of Assumptions cost, are amortized (or recognized) over a fixed period of time. Under GASB 75, that time period equals the average of the expected remaining service lives of all active and inactive members that are provided with OPEB through the OPEB plan.



# 2022 PEBB OPEB Actuarial Valuation Report

## I. Key Results

<b>OPEB Expense for Measurement Date of June 30, 2022</b>	
<i>(Dollars in Thousands)</i>	
Service Cost	\$313,392
Interest Cost	145,410
Amortization of Differences Between Expected and Actual Experience	2,561
Amortization of Assumptions Changes	(460,920)
Changes in Benefit Terms	-
Other Changes in Fiduciary Net Position	-
<b>Total OPEB Expense</b>	<b>\$443</b>

The remaining portion of the Difference Between Expected and Actual Experience, as well as Assumption Changes, that have not been recognized will be deferred to future OPEB Expense tables. The table below provides the total Deferred Outflows and Deferred Inflows.

<i>(Dollars in Thousands)</i>	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	\$88,561	\$149,476
Changes of Assumptions	348,193	3,079,845
Transactions Subsequent to the Measurement Date*	-	-
<b>Total</b>	<b>\$436,753</b>	<b>\$3,229,322</b>

*Note: Deferred outflows will increase future OPEB expense and deferred inflows will decrease future OPEB expense.*

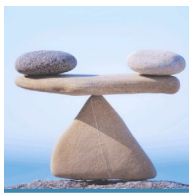
*\*OFM is the source of the Transactions Subsequent to the Measurement Date. Please see the 2023 Annual Comprehensive Financial Report.*

The amount of deferred outflows and deferred inflows of resources that will be recognized in future OPEB expense is summarized in the following table. It provides the net impact to OPEB expense annually over the next five years and combines the impact beyond five years.

<b>Subsequent Years</b>	
<i>(Dollars in Thousands)</i>	
2024	(\$458,359)
2025	(\$458,359)
2026	(\$458,359)
2027	(\$358,089)
2028	(\$225,776)
<b>Thereafter</b>	<b>(\$833,627)</b>

*Note: Negative deferral reflects greater future inflows than outflows.*





# 2022 PEBB OPEB Actuarial Valuation Report

## I. Key Results

A single point estimate is only the start of understanding the TOL. The accuracy of this estimate relies on future economic and demographic experience matching the underlying assumptions. Thus, it is important to understand what will happen if the economic and demographic experience is different than assumed. To help assess the sensitivity of the assumptions used in this report, GASB 75 requires analysis of the impact of changing the Healthcare Trend and Discount Rate assumptions by 100 basis points. As additional education, we also consider the impact of varying the participation percentage by 15 percent to show how results can change if less (or more) active participants elect to join PEBB at retirement.

Sensitivity Analysis — Healthcare Trend			
<i>(Dollars in Thousands)</i>	1% Decrease	Current Trend Rate	1% Increase
<b>TOL</b>	\$3,596,936	\$4,248,263	\$5,081,525

Sensitivity Analysis — Discount Rate			
<i>(Dollars in Thousands)</i>	1% Decrease	Current Discount Rate	1% Increase
<b>TOL</b>	\$4,977,926	\$4,248,263	\$3,661,122

Sensitivity Analysis — Participation Percentage			
<i>(Dollars in Thousands)</i>	Low (45%)	Expected (60%)	High (75%)
<b>TOL</b>	\$3,639,383	\$4,248,263	\$4,857,142

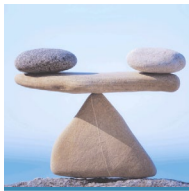
We relied on data as of the June 30, 2022, valuation date and summarized the participant data for state PEBB employers below. The state PEBB employers include all Washington State agency and higher education employers.

GASB 75 Summary of Plan Participants	
<b>Active Employees*</b>	
Number	128,393
Average Age	45.6
Average Assumed Service	12.1
<b>Retirees Receiving Benefits**</b>	
Number	37,135
Average Age	74.7
<b>Inactive Employees Entitled but Not Yet Receiving Benefits</b>	
Number	***

\*Reflects active employees eligible for PEBB program participation as of June 30, 2022.

\*\*Headcounts exclude spouses of retirees that are participating in a PEBB program as a dependent.

\*\*\*HCA doesn't have data on this group and OSA doesn't have methodology to reasonably estimate it. Please see the 2023 Annual Comprehensive Financial Report for the estimate.



## II. BACKGROUND AND EXHIBITS

### Background

Prior OPEB Valuation reports contained a detailed background section. Since this information is largely consistent from year to year, we have moved it to the OSA [website](#).

### Actuarial Accrued Liability

The EAN cost method is the only actuarial cost method allowed under GASB 75 reporting requirements. The prescribed method allocates plan benefits, so they are earned as a level percentage of pay throughout an employee’s working lifetime. The liabilities under the EAN cost method are the employer’s total accrued (or earned) liability from the subsidies offered through the PEBB plan. These liabilities are based on all service earned as of the valuation date.

The AAL under the EAN cost method is also referred to as the TOL in GASB 75. The table below shows the state’s TOL as of the valuation date, June 30, 2022, grouped by current and future retirees. The table is broken into gross costs (total cost), cost sharing (retiree contributions), and net subsidy (gross cost minus cost sharing).

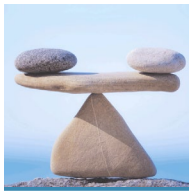
<b>Total OPEB Liability</b>	
<i>(Dollars in Thousands)</i>	
<b>Gross Costs</b>	
<b>Actives (Future Retirees)</b>	\$9,254,247
<b>Retirees</b>	6,178,605
<b>Gross Costs Total</b>	<b>\$15,432,851</b>
<b>Cost Sharing (Retiree Contributions)</b>	
<b>Actives (Future Retirees)</b>	\$6,818,728
<b>Retirees</b>	4,365,861
<b>Cost Sharing Total</b>	<b>\$11,184,589</b>
<b>Net Subsidy = Gross Costs - Cost Sharing</b>	
<b>Actives (Future Retirees)</b>	\$2,435,519
<b>Retirees</b>	1,812,744
<b>Net TOL as of 6/30/2022</b>	<b>\$4,248,263</b>

We estimate the explicit subsidy is approximately 90 percent of the TOL and the remaining 10 percent is the implicit subsidy.

### Assets

Currently, Washington State does not pre-fund these OPEB subsidies and uses pay-as-you-go funding. Pay-as-you-go funding occurs when an employer chooses to contribute (pay) for benefits only when they occur or become due (after retirement).

Since the PEBB plan subsidies are paid for on a pay-as-you-go basis and there is no dedicated trust, the plan has no assets that are recognized under GASB 75.



### Gain/Loss Analysis

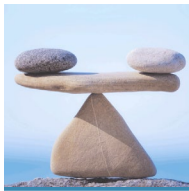
The results of this report are based on assumptions about future economic and demographic events. It is important to understand how actual events differed from those assumptions. An event that causes the plan to cost less than expected is described as a gain to the plan. An event that causes the plan to cost more than expected is described as a loss to the plan. An analysis of the gains and losses shows what events are attributable to the change in expected cost of the plan.

The first table shows the development of the expected change in the TOL since the [2020 PEBB OPEB Report](#) (June 30, 2020, measurement date). We began with the [2020 PEBB OPEB Report](#) as our starting point because data is updated every two years. Given this, we wanted to use a two-year period to capture how actual experience compared to what was expected the last time we updated our data. During this two-year period, we expected the TOL to increase by approximately 13 percent for two reasons:

1. **Passage of Time** – Two years of interest increases costs since there are fewer years to discount future benefit payments. In addition, active members earn more service and become more likely to attain retirement eligibility which increases likelihood of receiving OPEB benefits (Service Cost). The TOL is also expected to decrease by the benefit payments paid out during the two years; however, the cost increases exceed benefit payments at this time.
2. **Change in Discount Rate Assumption** – The discount rate assumption was also updated for the June 30, 2021, measurement date as displayed in our [letter to OFM](#). The June 30, 2021, valuation was a roll forward of the previous valuation.

Expected Change in TOL	
<i>(Dollars in Thousands)</i>	
6/30/2020 TOL	\$6,055,193
Service Cost	\$323,461
Interest	139,798
Benefit Payments	(\$106,507)
6/30/2021 Expected TOL (a)	\$6,411,946
Change to Discount Rate (b)	59,729
6/30/2021 TOL (a + b)	\$6,471,675
Service Cost	\$313,392
Interest	145,410
Benefit Payments	(\$106,833)
6/30/2022 Expected TOL	\$6,823,644
Expected Change in TOL	\$768,450

The June 30, 2022, TOL will change by more than just the expected change. The other two major sources of change are liability gain/loss and “other” changes. A liability gain/loss examines how new census data compares to what we expected. Other changes include changes in plan provisions, assumptions, and methodology since the prior TOL (June 30, 2021, measurement date). The next table reconciles the total change in TOL from these sources.



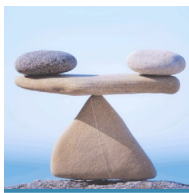
## 2022 PEBB OPEB Actuarial Valuation Report

### II. Background and Exhibits

New participant data is reflected every two years, so the Liability (Gain)/Loss contains two years of differences in experience. In total, the Liability (Gain)/Loss section reduced TOL by approximately 2 percent. We observed liability gains from more terminations than we expected as well as fewer PEBB retirees than expected. These gains were partially offset by new hires (or members hired since the last update to data).

The Other Changes include adjustments to assumptions and methodology since the prior measurement of June 30, 2021, and in total reduced TOL by approximately 38 percent. For consistency with the Schedule of Changes in TOL table, we summarize the percent changes in TOL since the prior measurement of June 30, 2021. They are summarized below.

- ❖ **Economic Assumption Changes** – We updated two economic assumptions for this report (discount rate and general salary growth assumptions).
  - The discount rate increased from 2.16 percent to 3.54 percent as of the new measurement date which decreased liabilities.
  - The general salary growth assumption decreased from 3.50 percent to 3.25 percent for consistency with the economic assumptions used in our most recent AVR which increased liabilities.
  - Overall, the impact of these two economic assumption changes decreased liabilities by 16 percent which was primarily due to the discount rate change.
- ❖ **Update Costs and Retiree Contributions** – We received new healthcare costs, retiree contributions, and aging factor assumptions from Milliman. Updating these assumptions increased liabilities by less than 1 percent.
  - The claims and retiree contribution assumptions are developed using the most recent one to two years of data. The age 65 Medicare claim costs and retiree contributions grew less than expected in the prior report.
  - Milliman relied on nationwide data to ensure the credibility of the data in setting the aging factors assumption. In comparison to the previous assumptions, the medical aging factors for Medicare members have flattened (or reduced).
- ❖ **Update Healthcare Trends** – We received new assumptions for healthcare trends from Milliman. The updated healthcare trends decreased liabilities by approximately 18 percent. Healthcare trends for medical costs are generally lower than the prior set of assumptions due to reliance on OSA's National Inflation assumption (instead of Regional Inflation assumption), lower prescription drug trends, and continuation of our short-term explicit subsidy growth assumption.
- ❖ **Experience Study Changes** – In 2023, our office completed a PEBB OPEB demographic experience study and incorporated those



## 2022 PEBB OPEB Actuarial Valuation Report

### II. Background and Exhibits

assumptions in this valuation. Overall, updating these assumptions decreased liabilities by approximately 5 percent.

- With exception of the Participation Percentage assumption, each assumption studied in the analysis changed the TOL by less than 1 percent (either increase or decrease).
- The Participation Percentage assumption decreased TOL by approximately 5 percent.

Change in TOL by Source	
<i>(Dollars in Thousands)</i>	
<b>6/30/2020 TOL</b>	<b>\$6,055,193</b>
<b>Expected Change in Liability</b>	<b>\$768,450</b>
Liability (Gain)/Loss	
Termination	(\$61,358)
Retirement*	(228,754)
Mortality	(46,194)
Disability	(5,095)
New Hires	410,906
Other Liabilities	(213,508)
<b>Total Liability (Gains)/Losses</b>	<b>(\$144,003)</b>
Other Changes	
Plan Changes	\$0
Economic Assumption Changes	(1,010,597)
Update Costs/Premiums	53,837
Update Healthcare Trends	(1,168,695)
Experience Study Changes**	(305,923)
<b>Total Other Changes</b>	<b>(\$2,431,378)</b>
Total Change	
<b>Total Change</b>	<b>(\$1,806,931)</b>
<b>6/30/2022 TOL</b>	<b>\$4,248,263</b>

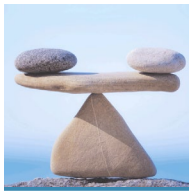
\*Includes gain/loss based on actual experience relative to our current assumptions. This includes retirement behavior, participation in PEBB upon retirement, and spouse coverage, etc.

\*\*Assumptions were updated as part of our 2023 PEBB OPEB Demographic Experience Study.

Please note that approximately 7 percent of the expected increase in TOL was recognized as part of the June 30, 2021, TOL measurement and does not impact the Schedule of Changes in TOL table found in this report. The prior TOL already recognized expected change in TOL for Fiscal Year 2021 as well as the change in discount rate at the June 30, 2021, measurement.

If additional information is needed about the healthcare assumptions or the gain/loss analysis, please contact our office.





## 2022 PEBB OPEB Actuarial Valuation Report

### III. Participation Data

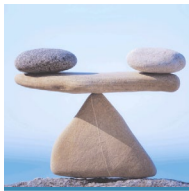
### III. PARTICIPANT DATA

The table below summarizes state<sup>2</sup> data used in the actuarial valuation for the June 30, 2022, measurement date and how the counts (and demographics) have changed since the 2020 PEBB OPEB Report.

Change in State PEBB Plan Participation		
	2020	2022
<b>Active Employees</b>		
<b>Total Number</b>	129,218	128,393
<b>Average Age</b>	45.4	45.6
<b>Average Assumed Service</b>	10.4	12.1
<b>Retirees and Spouses</b>		
<b>Total Number</b>	50,656	52,153
Retirees and Surviving Spouses	35,843	37,135
Covered (Dependent) Spouses	14,813	15,018
<b>Average Inactive Age</b>	73.6	74.1
Average Retiree Age	74.1	74.7
Average Assumed Dependent Age	72.1	72.6
<b>Average Monthly Subsidy</b>	\$195	\$198

*Please note that we perform a valuation between these two reports; however, we do not update the census data on odd numbered years.*

<sup>2</sup>For purposes of this report, state employers include all Washington State agencies and higher education employers.



## IV. ASSUMPTIONS

We use both economic and demographic assumptions to determine liabilities for this valuation. This section summarizes our assumptions.

### Economic Assumptions

Economic assumptions are used in the actuarial valuation to determine liabilities and benefit payments in the future. For presentation purposes, they are shown separately for non-healthcare and healthcare.

The **non-healthcare** economic assumptions are summarized in the table below.

Non-Healthcare Economic Assumptions		
<b>Discount Rate*</b>	Beginning of Year (June 30, 2021)	2.16%
	End of Year (June 30, 2022)	3.54%
<b>Inflation (National)**</b>		2.35%
<b>Salary Growth</b>		3.25% Plus Service-Based Salary Increases

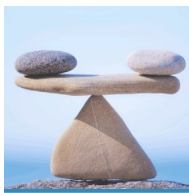
\*Per Bond Buyer General Obligation 20-Bond Municipal Index.

\*\*Based on the CPI: Urban Wage Earners & Clerical Workers, U.S. City Average, WA - All Items.

The inflation assumption is a building block component of the healthcare trend rates and reflects our office's current assumption for future national inflation. This assumption is studied by our office every two years as part of the economic experience study. Please see our website for the most recent study. The PEBB programs do not provide salary-based benefits, however we rely on a salary growth assumption to complete this analysis based on the GASB 75 prescribed EAN Percent of Salary cost method. Except for the discount rate, all non-healthcare economic assumptions are consistent with assumptions presented in the 2021 AVR.

The **healthcare** economic assumptions specify how we expect the subsidies will grow in the future. We relied on Robert Schmidt, a healthcare actuary in Milliman's Boise, Idaho, office, contracted through the HCA, to determine the healthcare economic assumptions.

Medical costs and retiree contributions are expected to grow in the future, so we project future growth using the healthcare trend rates. Based on discussions with HCA, OFM, and OSA, Milliman prepared trend assumptions that assume no change in the explicit subsidy (\$183 per month) through the end of Calendar Year 2025. After that, the explicit subsidy is expected to grow with the assumed healthcare trend. The healthcare trends vary by medical plan (UMP, Kaiser Permanente plans [Insured Medical], Medicare Supplement [Plan F], and Dental) and by Medicare coverage (non-Medicare, Medicare). The trends can also vary for costs and retiree contributions.



## 2022 PEBB OPEB Actuarial Valuation Report

### IV. Assumptions

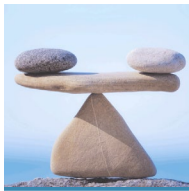
Medical and Dental Costs Healthcare Trend*						
Fiscal Year	UMP		Insured Medical		Medicare Supplement	Dental
	Non-Medicare	Medicare	Non-Medicare	Medicare		
2023	5.6%	10.4%	4.8%	2.4%	1.8%	1.1%
2024	5.8%	7.6%	5.2%	5.1%	4.7%	2.5%
2025	5.7%	7.8%	5.0%	4.9%	4.9%	3.5%
2026	5.0%	4.9%	4.9%	4.8%	4.8%	4.0%
2027	4.9%	4.8%	4.8%	4.7%	4.7%	4.0%
2028	4.8%	4.7%	4.7%	4.6%	4.6%	4.0%
2029	4.7%	4.6%	4.6%	4.5%	4.5%	4.0%
2030	4.6%	4.5%	4.5%	4.4%	4.4%	4.0%
2040	4.4%	4.4%	4.4%	4.3%	4.3%	4.0%
2050	4.4%	4.3%	4.3%	4.3%	4.3%	4.0%
2060	4.4%	4.3%	4.3%	4.3%	4.3%	4.0%
2070	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
2080	3.8%	3.8%	3.8%	3.7%	3.7%	3.8%
2090	3.8%	3.8%	3.8%	3.7%	3.7%	3.8%
2100+	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%

Note: For display purposes, tables were summarized. Please see our website for the full table.  
 \*The trends displayed here include the medical plans used in the valuation. For information on other Medical and Dental plan trends, please see the **Demographic Assumptions** section.

The healthcare retiree contribution trends for dental benefits and non-Medicare aged members match the healthcare cost trend assumptions. The Medicare aged retiree contribution trends are higher than the cost trends for two reasons: (1) in the near-term to reflect that the maximum explicit subsidy is assumed to remain at \$183 per month through 2025, and (2) in the long-term to reflect the projected aging of the retiree population.

Medical and Dental Retiree Contributions Healthcare Trend*						
Fiscal Year	UMP		Insured Medical		Medicare Supplement	Dental
	Non-Medicare	Medicare	Non-Medicare	Medicare		
2023	5.6%	15.6%	4.8%	2.7%	2.1%	1.1%
2024	5.8%	11.1%	5.2%	6.1%	5.0%	2.5%
2025	5.7%	10.1%	5.0%	7.8%	5.2%	3.5%
2026	5.0%	5.2%	4.9%	5.1%	5.1%	4.0%
2027	4.9%	5.1%	4.8%	5.0%	5.0%	4.0%
2028	4.8%	5.0%	4.7%	4.9%	4.9%	4.0%
2029	4.7%	4.9%	4.6%	4.8%	4.8%	4.0%
2030	4.6%	4.8%	4.5%	4.7%	4.7%	4.0%
2040	4.4%	4.5%	4.4%	4.4%	4.4%	4.0%
2050	4.4%	4.4%	4.3%	4.4%	4.4%	4.0%
2060	4.4%	4.3%	4.3%	4.3%	4.3%	4.0%
2070	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
2080	3.8%	3.8%	3.8%	3.7%	3.7%	3.8%
2090	3.8%	3.8%	3.8%	3.7%	3.7%	3.8%
2100+	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%

Note: For display purposes, tables were summarized. Please see our website for the full table.  
 \*The trends displayed here include the medical plans used in the valuation. For information on other Medical and Dental plan trends, please see the **Demographic Assumptions** section.



## 2022 PEBB OPEB Actuarial Valuation Report

### IV. Assumptions

The retiree claim costs and retiree contributions are displayed in the next two tables. The tables are broken into non-Medicare and Medicare aged populations. For display purposes, we show the retiree claim costs at age 65 which represent the expected average claim costs for a 65-year-old retiree. On average, younger retirees cost less and older retirees cost more, prior to any Medicare offsets. The retiree contributions reflect the contributions used in this valuation and will not match actual plan premiums<sup>3</sup> because the contributions in this report exclude direct pass-through expenses, like administration fees, that are paid 100 percent by the retirees.

Annual Costs and Retiree Contributions at Age 65 (Non-Medicare)*			
Medical Plan	Costs		Retiree Contributions
	Males	Females	Males and Females
<b>Kaiser Permanente WA Classic</b>	\$22,427	\$20,153	\$9,842
<b>Kaiser Permanente WA Value</b>	\$15,103	\$13,681	\$8,859
<b>Uniform Medical Plan Classic</b>	\$15,861	\$14,369	\$9,088
<b>Uniform Medical Plan CDHP</b>	\$10,737	\$9,726	\$7,279
Dental Plan	Costs		Retiree Contributions
	Males	Females	Males and Females
<b>Uniform</b>	\$656	\$645	\$583

*\*The claim costs and retiree contributions displayed here include the medical and dental plans used in the valuation. For information on costs and contributions for other medical and dental plans, please see the **Demographic Assumptions** section*

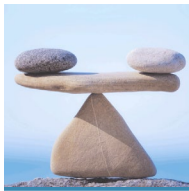
Annual Costs and Retiree Contributions at Age 65 (Medicare)			
Medical Plan	Costs		Retiree Contributions
	Males	Females	Males and Females
<b>Kaiser Permanente WA Medicare</b>	\$3,397	\$3,280	\$2,042
<b>Uniform Medical Plan Classic</b>	\$5,801	\$5,480	\$4,760
<b>Plan F Supplemental Plan</b>	\$2,216	\$2,139	\$1,328
Dental Plan	Costs		Retiree Contributions
	Males	Females	Males and Females
<b>Uniform</b>	\$656	\$645	\$583

*\*The claim costs and retiree contributions displayed here include the medical and dental plans used in the valuation. For information on costs and contributions for other medical and dental plans, please see the **Demographic Assumptions** section*

The retiree contributions used in this report do not vary by age. Non-Medicare medical retiree contributions are based on pooled claim costs for active employees and non-Medicare retirees. Medicare medical retiree contributions reflect the reduction from the explicit subsidy. Dental retiree contributions are based on pooled claims for all members and the contribution does not change based on eligibility for Medicare.

Unlike retiree contributions, the medical and dental costs vary by age. We use aging factors to determine the expected average claims cost at different ages by multiplying an applicable aging factor by the prior age's expected cost.

<sup>3</sup>Please see the Washington State HCA [website](#) for actual premiums.



# 2022 PEBB OPEB Actuarial Valuation Report

## IV. Assumptions

Aging Factors for Costs				
Age	Medical		Dental	
	Males	Females	Males	Females
0-26	4.22%	6.22%	2.74%	1.39%
27-31	4.36%	2.80%	1.84%	0.73%
32-36	4.54%	0.75%	0.74%	0.81%
37-41	3.80%	6.91%	0.62%	0.71%
42-46	2.22%	1.51%	1.14%	0.75%
47-51	3.57%	(1.06%)	1.88%	1.47%
52-56	2.52%	0.86%	2.77%	1.69%
57-61	3.56%	2.26%	2.51%	1.57%
62-64	5.93%	2.89%	2.40%	0.95%
65-68	3.40%	2.73%	2.40%	0.95%
69-71	3.40%	2.73%	0.00%	0.00%
72-76	1.96%	1.06%	0.00%	0.00%
77-81	0.74%	0.33%	0.00%	0.00%
82-88	(1.04%)	(1.44%)	0.00%	0.00%
89+	0.00%	0.00%	0.00%	0.00%

### Demographic Assumptions

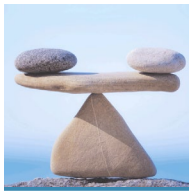
The section below lists the assumptions that were used in the valuation but not included in our most recent PEBB OPEB demographic experience study. Please see our 2023 PEBB OPEB Demographic Experience Study for descriptions of all remaining demographic assumptions.

As discussed in the 2023 PEBB OPEB Demographic Experience Study, due to limited data we make a simplifying assumption that all participants are members of PERS 2. This assumption allows us to apply PERS 2 [rates of decrement](#) (retirement, termination, disability, and mortality) and [retirement eligibility](#) (or future retiree’s access to PEBB) based on the most recent AVR.

We rely on HCA data to determine the participant’s status (active employee, retiree, etc.) but the data does not distinguish between a “healthy” and “disabled” retiree. While we have different mortality assumptions based on the type of retiree (healthy or disabled), given the lack of data we assumed all current retirees in PEBB are “healthy” retirees.

Survivors of PEBB members that decess prior to retirement are eligible for PEBB. We considered valuing this benefit but ultimately did not include this liability. In a prior valuation, we tested the impact of this liability and determined it was not material to the valuation results.





## V. RESOURCES

### [The Office of the State Actuary's Website](#)

Our website contains additional information and educational material not included in this report. The site also contains an archive of prior actuarial valuation reports and other recent studies that OSA has produced. The following is a list of materials found on our website that could be useful to the reader.

### [Glossary](#)

Definitions for frequently used actuarial and pension terms.

### [Prior OPEB Valuations](#)

Archive of prior OPEB valuations.

### [OPEB Tools](#)

Employers other than the state should not use this report to satisfy their individual employer reporting requirements under GASB 75. OSA created an online tool to help small employers calculate their individual reporting requirements. This online tool utilizes the alternative measurement method allowed under GASB 75 and can be used by employers with fewer than one hundred total plan members.

### [PEBB OPEB Healthcare Trend Assumptions](#)

Tables display annual healthcare trends.

### [2023 PEBB OPEB Demographic Experience Study](#)

Most recent experience study on the assumptions used for the PEBB OPEB valuation

### [2021 Actuarial Valuation Report](#)

Actuarial Valuation for Washington State pension systems.

### [2021 Report on Financial Condition and Economic Experience Study](#)

Report examining the financial health of the retirement systems and long-term economic assumptions.

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