

City of Boston

Governmental Accounting Standards Board (GASB) Statement No. 75 Accounting Valuation Report

Measured at June 30, 2024



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September 27, 2024

Mr. Scott Finn
City Auditor
City of Boston
City Hall, Room M-4
Boston, MA 02201

Dear Mr. Finn:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement No. 75 Accounting Valuation as of June 30, 2024 for the City of Boston. It contains the actuarial information that will need to be disclosed in order to comply with GASB 75. Except as otherwise noted, please refer to the Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2023, dated April 19, 2024, for the data, assumptions and plan of benefits underlying these calculations.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the City of Boston, based upon information provided by the City of Boston and the City of Boston's other service providers.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; and changes in plan provisions or applicable law.

The actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. The assumptions used in this actuarial valuation were selected by the City of Boston based upon our analysis and recommendations. In my opinion, the assumptions are reasonable and take into account the experience of the City of Boston and reasonable expectations. In addition, in my opinion, the combined effect of these assumptions is expected to have no significant bias.

Mr. Scott Finn
September 27, 2024
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Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The City of Boston is encouraged to discuss any issues raised in this report with the City of Boston's legal, tax and other advisors before taking, or refraining from taking, any action.

Sincerely,

Segal

A handwritten signature in blue ink, appearing to read "Kathleen A. Riley".

Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Chief Actuary

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report presents certain disclosure information for the City of Boston and the Public Health Commission (PHC) (the “Employer”) Other Postemployment Benefits (OPEB) plan as of June 30, 2024, required by Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*. The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. This report is based on financial information as of June 30, 2024 provided by the City of Boston and the City of Boston Actuarial Valuation and Review of Other Postretirement Benefits (OPEB) as of June 30, 2023, dated April 19, 2024, which reflects:

- The benefit provisions of the OPEB plan;
- The characteristics of covered active participants and retired participants and beneficiaries as of June 30, 2023;
- Economic assumptions regarding future salary increases and investment earnings;
- Health care assumptions regarding per capita costs, trend rates and participation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Highlights of the valuation

Accounting and financial reporting

- The Net OPEB Liability (NOL) is equal to the difference between the Total OPEB Liability (TOL) and the Plan’s Fiduciary Net Position. The Plan’s Fiduciary Net Position is equal to the market value of assets.
 - The NOL for the City increased from \$2,343,584,057 as of June 30, 2023 to \$2,597,560,651 as of June 30, 2024 and the Plan’s Fiduciary Net Position as a percent of the TOL increased from 28.63% to 30.21%.
 - The NOL for the PHC increased from \$80,780,470 as of June 30, 2023 to \$81,340,392 as of June 30, 2024 and the Plan’s Fiduciary Net Position as a percent of the TOL increased from 33.80% to 38.02%.
- The NOL measured as of June 30, 2024 and June 30, 2023 was determined based upon the results of the actuarial valuations as of June 30, 2023 and June 30, 2021 respectively.

Section 1: Actuarial Valuation Summary

- The discount rate used for the City and the PHC to measure the TOL and NOL as of June 30, 2024 and June 30, 2023 was 6.25%.
- The Annual OPEB Expense for the City increased from \$261,038,010 for the year ending June 30, 2023 to \$289,542,470 for the year ending June 30, 2024.
- The Annual OPEB Expense for the PHC decreased from \$4,511,362 for the year ending June 30, 2023 to \$4,283,855 for year ending June 30, 2024.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to defining future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinates with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important for the City of Boston to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the City of Boston
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

Input Item	Description
Models	<p>Segal accounting results are based on proprietary actuarial modeling software. The accounting valuation models generate a comprehensive set of liability and cost calculations that are presented to meet accounting standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.</p> <p>Our claims costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the paid claims, enrollments, plan provisions and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.</p>

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared for use by the City of Boston and the Public Health Commission (PHC). It includes information for compliance with accounting standards and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- If the City of Boston or the PHC is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Sections of this report include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience, health care trend, and investment losses, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The City of Boston and the PHC should look to their other advisors for expertise in these areas.

Section 1: Actuarial Valuation Summary

- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the City of Boston and the PHC upon delivery and review. The City of Boston and the PHC should notify Segal immediately of any questions or concerns about the final content.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

General information about the OPEB plan

Plan membership. At June 30, 2023, the City of Boston’s plan membership consisted of the following:

Membership	Number
Retired members and beneficiaries currently receiving benefits	14,993
Active members	15,192
Total	30,185

We have assumed other general information about the Plan will be provided by the City of Boston’s auditors.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Net OPEB Liability

Components of the Net OPEB Liability	Current	Prior
Measurement and Reporting Dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Components of the Net OPEB Liability		
Total OPEB Liability	\$3,722,060,105	\$3,283,837,798
Plan Fiduciary Net Position	1,124,499,454	940,253,741
Net OPEB Liability	2,597,560,651	2,343,584,057
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability ¹	30.21%	28.63%

Actuarial assumptions. The Total OPEB Liability as of June 30, 2024 was measured by an actuarial valuation as of June 30, 2023, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Assumption	Description
Wage inflation	3.25%
Salary increases	4.0% per year for Group 1 employees (excluding Teachers), 4.25% per year for Group 2 employees and 4.5% per year for Group 4 employees Service related increases for Teachers: 7.5% decreasing over 20 years to an ultimate level of 4.0%
Investment rate of return	6.25% as of June 30, 2024 and June 30, 2023
Discount rate	6.25% as of June 30, 2024 and June 30, 2023

¹ These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Assumption	Description
Health care cost trend rates	<p>Non-Medicare trend rate: 8.0% decreasing by 0.25% for 14 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Self-Insured Medical with PDP trend rate: 10.62% for one year, 11.88% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Fully Insured trend rate: 8.67% for one year, 11.09% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate trend of 4.5% per year</p> <p>Medicare Part B: 4.5% per year</p> <p>Contributions: Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend. Contributions are adjusted for increases in contribution percentages negotiated in the 2020-2025 PEC Agreement</p>

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Assumption	Description
Mortality rates¹	<p>Groups 1 and 2 (Excluding Teachers)</p> <ul style="list-style-type: none"> • Pre-Retirement (Non-Teachers): Pub-2010 General Employee Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Healthy and Disabled (Non-Teachers): Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Surviving Spouse (Non-Teachers): Pub-2010 General Contingent Survivor Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 <p>Group 4</p> <ul style="list-style-type: none"> • Pre-Retirement: Pub-2010 Safety Employee Headcount-Weighted Mortality Table projected generationally using scale MP-2021 • Healthy: Pub-2010 Safety Healthy Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021 • Disabled: Pub-2010 Disabled Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021 • Surviving Spouse: Pub-2010 Safety Contingent Survivor Headcount-Weighted Mortality Table projected generationally with Scale MP-2021 <p>Teachers</p> <ul style="list-style-type: none"> • Pre-Retirement (Teachers): Pub-2010 Teacher Employee Headcount-Weighted Mortality Table projected generationally with Scale MP-2021 • Healthy (Teachers): Pub-2010 Teacher Healthy Retiree Headcount-Weighted Mortality Table projected generationally with Scale MP-2021 • Disabled (Teachers): Pub-2010 Teacher Healthy Retiree Headcount-Weighted Mortality Table projected generationally with Scale MP-2021 • Surviving Spouse (Teachers): Pub-2010 Teacher Contingent Survivor Headcount-Weighted Mortality Table projected generationally with Scale MP-2021

Detailed information regarding all actuarial assumptions can be found in the June 30, 2023 Actuarial Valuation and Review of Other Postemployment Benefits.

¹ Due to software limitations, the Contingent Survivor mortality table is only applied to current beneficiaries.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation as of June 30, 2024 and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	35.00%	6.29%
International developed markets equity	13.50%	6.39%
International emerging markets equity	9.50%	7.63%
Core fixed income	21.00%	1.72%
High-yield fixed income	8.00%	3.43%
Real estate	5.00%	3.24%
Hedge fund, GTAA, Risk parity	8.00%	2.87%
Total	100.00%	

Note:

Some asset classes included in the plan's target asset allocation have been combined.

Nature of Assets: The assets are in an irrevocable OPEB Trust.

Discount rate. The discount rate used to measure the total OPEB liability was 6.25% as of June 30, 2024 and June 30, 2023. The OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investment was applied to all periods of projected benefit payments to determine the total OPEB liability.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Sensitivity

The following presents the NOL of the City of Boston as well as what the City of Boston’s NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.25%) or 1-percentage-point higher (7.25%) than the current rate. Also, shown is the NOL as if it were calculated using health care cost trend rates that were 1-percentage-point lower or 1-percentage-point higher than the current health care trend rates.

Item	1% Decrease (5.25%)	Current Discount Rate (6.25%)	1% Increase (7.25%)
Net OPEB Liability (Asset)	\$3,132,641,268	\$2,597,560,651	\$2,158,621,972

Item	1% Decrease in Health Care Cost Trend Rates	Current Health Care Cost Trend Rates	1% Increase in Health Care Cost Trend Rates
Net OPEB Liability (Asset)	\$2,082,302,604	\$2,597,560,651	\$3,245,876,309

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Schedule of changes in Net OPEB Liability – Last two fiscal years

Components of the Net OPEB Liability	Current	Prior
Reporting and measurement dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Total OPEB Liability		
Service cost	\$88,924,936	\$85,996,850
Interest	206,370,030	197,334,169
Change of benefit terms	0	0
Differences between expected and actual experience	-127,937,185	-5,889,710
Changes of assumptions	414,729,289	0
Benefit payments, including refunds of member contributions	-143,864,763	-127,967,375
Net change in Total OPEB Liability	\$438,222,307	\$149,473,934
Total OPEB Liability – beginning	3,283,837,798	3,134,363,864
Total OPEB Liability – ending	\$3,722,060,105	\$3,283,837,798
Plan Fiduciary Net Position		
Contributions – employer	\$183,864,763	\$167,967,375
Contributions – employee	0	0
Net investment income	144,245,713	76,087,473
Benefit payments, including refunds of member contributions	-143,864,763	-127,967,375
Administrative expense	0	0
Net change in Plan Fiduciary Net Position	\$184,245,713	\$116,087,473
Plan Fiduciary Net Position – beginning	940,253,741	824,166,268
Plan Fiduciary Net Position – ending	\$1,124,499,454	\$940,253,741

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Components of the Net OPEB Liability	Current	Prior
Net OPEB Liability		
Net OPEB Liability – ending	\$2,597,560,651	\$2,343,584,057
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	30.21%	28.63%
Covered payroll	\$2,264,436,138	\$2,033,621,990
Plan Net OPEB Liability as percentage of covered payroll	114.71%	115.24%

Notes to Schedule:

- **Benefit changes:**

- Effective June 30, 2023:
None
- Effective June 30, 2024:
None

- **Change of Assumptions:**

- Effective June 30, 2023:
None
- Effective June 30, 2024:
The per capita health care costs, retiree contributions, and trend assumptions were updated,
The actuarial factors used to estimate individual retiree and spouse costs by age and by gender were updated,
The Medicare trend was adjusted to estimate the impact of the Inflation Reduction Act on Medicare Prescription Drug plans

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

OPEB expense

Components of OPEB expense	Current	Prior
Measurement and Reporting Dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Components of OPEB expense		
Service cost	\$88,924,936	\$85,996,850
Interest on the Total OPEB Liability	206,370,030	197,334,169
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-18,276,739	-841,388
Expensed portion of current-period changes of assumptions or other inputs	59,247,043	0
Member contributions	0	0
Projected earnings on OPEB plan investments	-60,015,859	-52,760,392
Expensed portion of current-period differences between actual and projected earnings on OPEB plan investments	-16,845,970	-4,665,417
Administrative expense	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	90,941,370	91,515,112
Recognition of beginning of year deferred inflows of resources as OPEB expense	-60,802,341	-55,540,924
OPEB expense	\$289,542,470	\$261,038,010

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Deferred outflows of resources and deferred inflows of resources

Deferred Outflows and Inflows	Current	Prior
Reporting and measurement dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Deferred outflows of resources		
Changes of assumptions	\$430,144,094	111,992,772
Net difference between projected and actual earnings on OPEB plan investments	0	15,343,265
Difference between expected and actual experience in the Total OPEB Liability	87,233,317	110,207,232
Total deferred outflows of resources	\$517,377,411	\$237,543,269
Deferred inflows of resources		
Changes of assumptions	\$121,412,504	\$151,765,630
Net difference between projected and actual earnings on OPEB plan investments	53,144,648	0
Difference between expected and actual experience in the Total OPEB Liability	114,093,359	5,349,626
Total deferred inflows of resources	\$288,650,511	\$157,115,256
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:		
Reporting date for employer under GASB 75 year ended June 30:		
2024	N/A	\$30,139,029
2025	\$50,078,042	25,953,713
2026	73,998,843	49,874,514
2027	9,405,030	-14,719,299
2028	14,145,772	-9,978,557
2029	40,128,913	-841,387
Thereafter	40,970,300	0

Note: Average expected remaining service lives is 7 years.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Schedule of reconciliation of Net OPEB Liability

Item	Current	Prior
Reporting and measurement dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Net OPEB Liability		
Beginning Net OPEB Liability	\$2,343,584,057	\$2,310,197,596
• OPEB expense	289,542,470	261,038,010
• Employer contributions	-183,864,763	-167,967,375
• New net deferred inflows/outflows	178,437,916	-23,709,986
• Recognition of prior deferred inflows/outflows	-30,139,029	-35,974,188
Ending Net OPEB Liability	\$2,597,560,651	\$2,343,584,057

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Schedule of employer contributions – last eight fiscal years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2017	\$167,787,497	\$157,463,469	\$10,324,028	\$1,152,695,000	9.95%
2018	190,991,205	159,965,680	31,025,525	1,611,911,000	9.92%
2019	199,399,826	176,017,934	23,381,892	1,696,838,000	10.37%
2020	182,364,224	164,503,390	17,860,834	1,776,886,000	9.26%
2021	188,972,480	170,560,270	18,412,210	1,811,408,000	9.42%
2022	203,856,586	172,149,391	31,707,195	1,862,729,880	9.24%
2023	213,343,084	167,967,375	45,375,709	2,033,621,990	8.26%
2024	252,597,174	183,864,763	68,732,411	2,264,436,138	8.12%

See accompanying notes to this schedule on next page.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” rates:

Method or Assumptions	Description
Valuation date	Actuarially determined contribution for the fiscal year ending June 30, 2024 was determined with the June 30, 2023 actuarial valuation.
Actuarial cost method	Entry Age Normal – Level Percentage of Payroll
Amortization method	Level percent of payroll, payments increase 3.25% per year
Remaining amortization period	22 years as of July 1, 2023
Asset valuation method	Market value
Investment rate of return	6.25%
Wage inflation	3.25%
Health care cost trend rates	<p>Non-Medicare trend rate: 8.0% decreasing by 0.25% for 14 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Self-Insured Medical with PDP trend rate: 10.62% for one year, 11.88% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Fully Insured trend rate: 8.67% for one year, 11.09% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Part B: 4.5% per year</p> <p>Contributions: Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend. Contributions are adjusted for increases in contribution percentages negotiated in the 2020-2025 PEC Agreement.</p>
Mortality rates ¹ :	<p>Groups 1 and 2 (Excluding Teachers)</p> <ul style="list-style-type: none"> • Pre-Retirement (Non-Teachers): Pub-2010 General Employee Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Healthy (Non-Teachers): Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Disabled (Non-Teachers): Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021

¹ Due to software limitations, the Contingent Survivor mortality table is only applied to current beneficiaries.

Section 2: GASB Information – Total City (Boston Public Schools and All Other City Departments)

Method or Assumptions	Description
	<ul style="list-style-type: none"> Surviving Spouse (Non-Teachers): Pub-2010 General Contingent Survivor Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021
	<p>Group 4</p>
	<ul style="list-style-type: none"> Pre-Retirement: Pub-2010 Safety Employee Headcount-Weighted Mortality Table projected generationally using scale MP-2021
	<ul style="list-style-type: none"> Healthy: Pub-2010 Safety Healthy Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021
	<ul style="list-style-type: none"> Disabled: Pub-2010 Disabled Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021
	<ul style="list-style-type: none"> Surviving Spouse: Pub-2010 Safety Contingent Survivor Headcount-Weighted Mortality Table projected generationally with Scale MP-2021
	<p>Teachers</p>
	<ul style="list-style-type: none"> Pre-Retirement (Teachers): Pub-2010 Teacher Employee Headcount-Weighted Mortality Table projected generationally with Scale MP-2021
	<ul style="list-style-type: none"> Healthy (Teachers): Pub-2010 Teacher Healthy Retiree Headcount-Weighted Mortality Table projected generationally with Scale MP-2021
	<ul style="list-style-type: none"> Disabled (Teachers): Pub-2010 Teacher Healthy Retiree Headcount-Weighted Mortality Table projected generationally with Scale MP-2021
	<ul style="list-style-type: none"> Surviving Spouse (Teachers): Pub-2010 Teacher Contingent Survivor Headcount-Weighted Mortality Table projected generationally with Scale MP-2021

Section 3: GASB Information – Public Health Commission

General information about the OPEB plan

Plan membership. At June 30, 2023, the Public Health Commission’s plan membership consisted of the following:

Membership	Number
Retired members and beneficiaries currently receiving benefits	396
Active members	836
Total	1,232

We have assumed other general information about the Plan will be provided by the Public Health Commission’s auditors.

Section 3: GASB Information – Public Health Commission

Net OPEB Liability

Components of the Net OPEB Liability	Current	Prior
Measurement and Reporting Dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Components of the Net OPEB Liability		
Total OPEB Liability	\$131,228,285	\$122,030,455
Plan Fiduciary Net Position	49,887,893	41,249,985
Net OPEB Liability	81,340,392	80,780,470
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability ¹	38.02%	33.80%

Actuarial assumptions. The Total OPEB Liability as of June 30, 2024 was measured by an actuarial valuation as of June 30, 2023, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Assumption	Description
Wage inflation	3.25%
Salary increases	4.0% per year for Group 1 employees and 4.5% per year for Group 4 employees
Discount rate	6.25% as of June 30, 2024 and June 30, 2023
Investment rate of return	6.25% as of June 30, 2024 and June 30, 2023
Health care cost trend rates	<p>Non-Medicare trend rate: 8.0% decreasing by 0.25% for 14 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Self-Insured Medical with PDP trend rate: 10.62% for one year, 11.88% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Fully Insured trend rate: 8.67% for one year, 11.09% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Part B: 4.5% per year</p> <p>Contributions: Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend. Contributions are adjusted for increases in contribution percentages negotiated in the 2020-2025 PEC Agreement</p>

¹ These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Section 3: GASB Information – Public Health Commission

Assumption	Description
Mortality rates ¹ :	<p>Group 1</p> <ul style="list-style-type: none"> • Pre-Retirement: Pub-2010 General Employee Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Healthy and Disabled: Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Surviving Spouse: Pub-2010 General Contingent Survivor Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 <p>Group 4</p> <ul style="list-style-type: none"> • Pre-Retirement: Pub-2010 Safety Employee Headcount-Weighted Mortality Table projected generationally using scale MP-2021 • Healthy: Pub-2010 Safety Healthy Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021 • Disabled: Pub-2010 Disabled Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021 • Surviving Spouse: Pub-2010 Safety Contingent Survivor Headcount-Weighted Mortality Table projected generationally with Scale MP-2021

Detailed information regarding all actuarial assumptions can be found in the June 30, 2023 Actuarial Valuation and Review of Other Postemployment Benefits.

¹ Due to software limitations, the Contingent Survivor mortality table is only applied to current beneficiaries.

Section 3: GASB Information – Public Health Commission

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which expected future rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation as of June 30, 2024 and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	35.00%	6.29%
International developed markets equity	13.50%	6.39%
International emerging markets equity	9.50%	7.63%
Core fixed income	21.00%	1.72%
High-yield fixed income	8.00%	3.43%
Real estate	5.00%	3.24%
Hedge fund, GTAA, Risk parity	8.00%	2.87%
Total	100.00%	

Note:

Some asset classes included in the plan's target asset allocation have been combined.

Nature of Assets: The assets are in an irrevocable OPEB Trust.

Discount rate. The discount rate used to measure the total OPEB liability was 6.25% as of June 30, 2024 and June 30, 2023. The OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investment was applied to all periods of projected benefit payments to determine the total OPEB liability.

Section 3: GASB Information – Public Health Commission

Sensitivity

The following presents the NOL of the Public Health Commission as well as what the NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.25%) or 1-percentage-point higher (7.25%) than the current rate. Also, shown is the NOL as if it were calculated using health care cost trend rates that were 1-percentage-point lower or 1-percentage-point higher than the current health care trend rates.

Item	1% Decrease (5.25%)	Current Discount Rate (6.25%)	1% Increase (7.25%)
Net OPEB Liability (Asset)	\$101,316,238	\$81,340,392	\$65,049,497

Item	1% Decrease in Health Care Cost Trend Rates	Current Health Care Cost Trend Rates	1% Increase in Health Care Cost Trend Rates
Net OPEB Liability (Asset)	\$62,284,472	\$81,340,392	\$105,454,975

Section 3: GASB Information – Public Health Commission

Schedule of changes in Net OPEB Liability – Last two fiscal years

Components of the Net OPEB Liability	Current	Prior
Reporting and measurement dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Total OPEB Liability		
Service cost	\$4,804,206	\$4,646,015
Interest	7,730,618	7,267,788
Change of benefit terms	0	0
Differences between expected and actual experience	-11,888,980	825,496
Changes of assumptions	14,938,321	0
Benefit payments, including refunds of member contributions	-6,386,335	-4,624,794
Net change in Total OPEB Liability	\$9,197,830	\$8,114,505
Total OPEB Liability – beginning	122,030,455	113,915,950
Total OPEB Liability – ending	\$131,228,285	\$122,030,455
Plan Fiduciary Net Position		
Contributions – employer	\$8,636,335	\$6,874,794
Contributions – employee	0	0
Net investment income	6,387,908	3,450,242
Benefit payments, including refunds of member contributions	-6,386,335	-4,624,794
Administrative expense	0	0
Net change in Plan Fiduciary Net Position	\$8,637,908	\$5,700,242
Plan Fiduciary Net Position – beginning	41,249,985	35,549,743
Plan Fiduciary Net Position – ending	\$49,887,893	\$41,249,985

Section 3: GASB Information – Public Health Commission

Components of the Net OPEB Liability	Current	Prior
Net OPEB Liability		
Net OPEB Liability – ending	\$81,340,392	\$80,780,470
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	38.02%	33.80%
Covered payroll	N/A	\$92,190,000
Plan Net OPEB Liability as percentage of covered payroll	N/A	87.62%

Note:

Please enter covered payroll for missing year.

Notes to Schedule:

- **Benefit changes:**

- Effective June 30, 2023:

None

- Effective June 30, 2024:

None

- **Change of Assumptions:**

- Effective June 30, 2023:

None

- Effective June 30, 2024:

The per capita health care costs, retiree contributions, and trend assumptions were updated,

The actuarial factors used to estimate individual retiree and spouse costs by age and by gender were updated,

The Medicare trend was adjusted to estimate the impact of the Inflation Reduction Act on Medicare Prescription Drug plans

Section 3: GASB Information – Public Health Commission

OPEB expense

Components of OPEB expense	Current	Prior
Measurement and Reporting Dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Components of OPEB Expense		
Service cost	\$4,804,206	\$4,646,015
Interest on the Total OPEB Liability	7,730,618	7,267,788
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-1,080,820	75,046
Expensed portion of current-period changes of assumptions or other inputs	1,358,031	0
Member contributions	0	0
Projected earnings on OPEB plan investments	-2,648,437	-2,292,171
Expensed portion of current-period differences between actual and projected earnings on OPEB plan investments	-747,895	-231,615
Administrative expense	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	1,995,222	1,941,755
Recognition of beginning of year deferred inflows of resources as OPEB expense	-7,127,070	-6,895,456
OPEB expense	\$4,283,855	\$4,511,362

Section 3: GASB Information – Public Health Commission

Deferred outflows of resources and deferred inflows of resources

Deferred Outflows and Inflows	Current	Prior
Reporting and measurement dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Deferred outflows of resources		
Changes of assumptions	\$17,395,335	\$4,450,885
Net difference between projected and actual earnings on OPEB plan investments	0	531,303
Difference between expected and actual experience in the Total OPEB Liability	675,405	750,450
Total deferred outflows of resources	\$18,070,740	\$5,732,638
Deferred inflows of resources		
Changes of assumptions	\$32,569,314	\$37,847,712
Net difference between projected and actual earnings on OPEB plan investments	2,456,533	0
Difference between expected and actual experience in the Total OPEB Liability	15,042,563	4,794,998
Total deferred inflows of resources	\$50,068,410	\$42,642,710
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:		
Reporting date for employer under GASB 75 year ended June 30:		
2024	N/A	-\$5,131,848
2025	-\$5,743,692	-5,273,011
2026	-4,687,229	-4,216,548
2027	-5,830,403	-5,359,722
2028	-5,598,780	-5,128,099
2029	-3,557,292	-3,834,505
Thereafter	-6,580,274	-7,966,339

Note: Average expected remaining service lives is 11 years.

Section 3: GASB Information – Public Health Commission

Schedule of reconciliation of Net OPEB Liability

Item	Current	Prior
Reporting and measurement dates		
Reporting date for employer under GASB 75	June 30, 2024	June 30, 2023
Measurement date	June 30, 2024	June 30, 2023
Net OPEB Liability		
Beginning Net OPEB Liability	\$80,780,470	\$78,366,207
• OPEB expense	4,283,855	4,511,362
• Employer contributions	-8,636,335	-6,874,794
• New net deferred inflows/outflows	-219,446	-176,006
• Recognition of prior deferred inflows/outflows	5,131,848	4,953,701
Ending Net OPEB Liability	\$81,340,392	\$80,780,470

Section 3: GASB Information – Public Health Commission

Schedule of employer contributions – last eight fiscal years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2017	\$10,624,187	\$4,575,990	\$6,048,197	\$75,785,000	6.04%
2018	8,609,776	4,625,538	3,984,238	76,124,000	6.08%
2019	9,032,761	4,652,398	4,380,363	81,350,000	5.72%
2020	8,040,598	5,436,525	2,604,073	86,278,000	6.30%
2021	8,369,592	5,548,998	2,820,594	88,021,000	6.30%
2022	7,888,497	7,073,105	815,392	92,653,000	7.63%
2023	8,200,644	6,874,794	1,325,850	92,190,000	7.46%
2024	8,755,356	8,636,335	119,021	N/A	N/A

Note:

Please enter covered payroll for missing year.

See accompanying notes to this schedule on next page.

Section 3: GASB Information – Public Health Commission

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” rates:

Method or Assumptions	Descriptions
Valuation date	Actuarially determined contribution for the fiscal year ending June 30, 2024 was determined with the June 30, 2023 actuarial valuation.
Actuarial cost method	Entry Age Normal - Level Percentage of Payroll
Amortization method	Level percent of payroll, payments increase 3.25% per year
Remaining amortization period	30 years open
Asset valuation method	Market value
Investment rate of return	6.25%
Wage inflation	3.25%
Health care cost trend rates	<p>Non-Medicare trend rate: 8.0% decreasing by 0.25% for 14 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Self-Insured Medical with PDP trend rate: 10.62% for one year, 11.88% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Plans – Fully Insured trend rate: 8.67% for one year, 11.09% for one year, then 7.5% graded by 0.25% for 12 years to an ultimate level of 4.5% per year</p> <p>Medicare Part B: 4.5% per year</p> <p>Contributions: Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend. Contributions are adjusted for increases in contribution percentages negotiated in the 2020-2025 PEC Agreement</p>
Mortality rates ¹ :	<p>Group 1</p> <ul style="list-style-type: none"> • Pre-Retirement: Pub-2010 General Employee Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Healthy: Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Disabled: Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021 • Surviving Spouse: Pub-2010 General Contingent Survivor Headcount-Weighted Mortality Table set forward one year projected generationally using scale MP-2021

¹ Due to software limitations, the Contingent Survivor mortality table is only applied to current beneficiaries.

Section 3: GASB Information – Public Health Commission

Method or Assumptions	Descriptions
	<p data-bbox="680 233 785 261">Group 4</p> <ul data-bbox="680 277 1808 548" style="list-style-type: none"><li data-bbox="680 277 1808 337">• Pre-Retirement: Pub-2010 Safety Employee Headcount-Weighted Mortality Table projected generationally using scale MP-2021<li data-bbox="680 345 1808 406">• Healthy: Pub-2010 Safety Healthy Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021<li data-bbox="680 414 1808 474">• Disabled: Pub-2010 Disabled Retiree Headcount-Weighted Mortality Table projected generationally using scale MP-2021<li data-bbox="680 482 1808 542">• Surviving Spouse: Pub-2010 Safety Contingent Survivor Headcount-Weighted Mortality Table projected generationally with Scale MP-2021