

City of Newton

Governmental Accounting Standards Board (GASB) Statements No. 74 and 75 Accounting Valuation Report

Measured at June 30, 2023



This report has been prepared at the request of the City of Newton to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the City of Newton and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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October 19, 2023

Mr. Stephen Curley
Comptroller
City of Newton
1000 Commonwealth Avenue, Room 110
Newton, MA 02459

Dear Mr. Curley:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statements No. 74 and 75 Accounting Valuation as of June 30, 2023 for the City of Newton. It contains the actuarial information that will need to be disclosed in order to comply with GASB 74 and 75. Except as otherwise noted, please refer to the City of Newton Actuarial Valuation and Review of Other Postretirement Benefits (OPEB) as of June 30, 2021, dated June 9, 2022, for the data, assumptions and plan of benefits underlying these calculations.

This report is based on information received from the City of Newton and vendors employed by the City of Newton. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience or rates of return on assets differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

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. To the best of my knowledge, the information supplied in the actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the City of Newton based upon our analysis and recommendations. In my opinion, the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations.

We look forward to discussing this with you at your convenience.

Sincerely,
Segal



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 has been prepared by Segal to present certain disclosure information for the City of Newton (the “Employer”) Other Postemployment Benefits (OPEB) plan and the City of Newton OPEB Trust (the “Plan”) as of June 30, 2023, required by Governmental Accounting Standards Board (GASB) Statements No. 74 and 75. 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, 2023 provided by the City of Newton and the City of Newton Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2021, which reflects:

- The benefit provisions of the OPEB plan;
- The characteristics of covered active participants, and retired participants and beneficiaries as of June 30, 2021;
- The assets as of June 30, 2021;
- 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.

Significant issues

Accounting and Financial Reporting

1. 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 increased from \$667.0 million as of June 30, 2022 to \$675.8 million as of June 30, 2023 and the Plan’s Fiduciary Net Position as a percent of the TOL increased from 3.66% to 4.38%.
2. The NOL measured as of June 30, 2023 and June 30, 2022 were determined based upon the results of the actuarial valuation as of June 30, 2021.
3. The discount rates used to measure the TOL and NOL was 3.65% as of June 30, 2023 and 3.54% as of June 30, 2022.
4. The Annual OPEB Expense decreased from \$18,963,926 for the year ending June 30, 2022 to \$11,484,087 for the year ending June 30, 2023.
5. The following assumption was updated with this valuation:
 - The discount rate was updated from 3.54% as of June 30, 2022 to 3.65% as of June 30, 2023.

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:

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 Newton 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 measurement date, as provided by the City of Newton.
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

Actuarial models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems Unit, comprised of 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 model and reviews the test lives and results, under the supervision of the responsible actuary.

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.

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 Newton. 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 Newton 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 cost trend, and investment losses, not just the current valuation results.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The City of Newton should look to their other advisors for expertise in these areas.

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 Newton upon delivery and review. The City of Newton should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: GASB Information

Exhibit 1 – General Information About the OPEB Plan

Plan Description

Plan membership. At June 30, 2021, the City of Newton’s plan membership consisted of the following:

	June 30, 2021
Retired members or beneficiaries currently receiving benefits	3,016
Active members	<u>2,503</u>
Total	5,519

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

Exhibit 2 – Net OPEB Liability

The components of the net OPEB liability of the City of Newton are as follows:

Components of the Net OPEB Liability	June 30, 2023	June 30, 2022
Total OPEB Liability	\$706,718,057	\$692,372,620
Plan Fiduciary Net Position	30,923,390	25,374,084
Net OPEB Liability	675,794,667	666,998,536
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability*	4.38%	3.66%

* 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.

Actuarial assumptions. The Total OPEB Liability as of June 30, 2023 was measured by an actuarial valuation as of June 30, 2021, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Wage inflation	2.75%
Salary increases	7.00% decreasing to an ultimate level of 3.50% based on service-related increases for Groups 1 and 2 (excluding Teachers) 8.00% decreasing to an ultimate level of 4.00% based on service-related increases for Group 4 7.50% decreasing to an ultimate level of 4.00% based on service-related increases for Teachers
Discount rate	3.65% as of June 30, 2023 and 3.54% as of June 30, 2022
Health care cost trend rates	Non-Medicare: 7.50% decreasing by 0.25% for 12 years to an ultimate level of 4.50% Medicare Advantage Plans: 4.50% Medicare Supplement Plans: 6.50% decreasing by 0.25% for 8 years to an ultimate level of 4.50% Administration: 3.00%
Retiree contribution increase rates	Non-Medicare: 7.50% decreasing by 0.25% for 12 years to an ultimate level of 4.50% Medicare Advantage Plans: 4.50% Medicare Supplement Plans: 6.50% decreasing by 0.25% for 8 years to an ultimate level of 4.50%

Mortality rates

Pre-Retirement (non-Teachers): RP-2014 Blue Collar Employee Mortality Table projected generationally using Scale MP-2021.

Healthy Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally Scale MP-2021.

Disabled Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year projected generationally with Scale MP-2021.

Pre-Retirement (Teachers): Pub-2010 Teacher Employee Mortality Table, Headcount Weighted, projected generationally with Scale MP-2020.

Healthy Retiree (Teachers): Pub-2010 Teacher Healthy Retiree Mortality Table, Headcount Weighted, projected generationally with Scale MP-2020.

Disabled Retiree (Teachers): Pub-2010 Teacher Healthy Retiree Mortality Table, Headcount Weighted, projected generationally with Scale MP-2020.

Exhibit 3 – Determination of Discount Rate and Investment Rate of Return

Development of long-term rate

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, 2023 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	20.50%	6.59%
International developed markets equity	12.00%	6.87%
International emerging markets equity	4.50%	8.30%
Core fixed income	15.00%	1.53%
High-yield fixed income	8.00%	3.54%
Real estate	10.00%	3.44%
Timber	4.00%	4.01%
Hedge fund, GTAA, Risk parity	10.00%	3.06%
Private equity	<u>16.00%</u>	9.49%
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 and are invested in the State Retiree Benefits Trust Fund.

Development of blended discount rate

The discount rate is a blend of the long-term expected rate of return on OPEB Trust assets (6.90% as of June 30, 2023 and June 30, 2022) and a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (3.65% as of June 30, 2023 and 3.54% as of June 30, 2022). The blending is based on the sufficiency of projected assets to make benefit payments. Since assets are not sufficient to cover projected benefit payments, the discount rate used to measure the total OPEB liability was 3.65% as of June 30, 2023 and 3.54% as of June 30, 2022.

Exhibit 4 – Sensitivity

The following presents the NOL of the City of Newton as well as what the NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (2.65%) or 1-percentage-point higher (4.65%) 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 cost trend rates.

	1% Decrease (2.65%)	Current Discount Rate (3.65%)	1% Increase (4.65%)
Net OPEB Liability (Asset)	\$782,959,628	\$675,794,667	\$588,916,808
	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)	\$572,247,204	\$675,794,667	\$808,867,822

Exhibit 5 – Schedule of Changes in Net OPEB Liability – Last Two Fiscal Years

Reporting Date	June 30, 2023	June 30, 2022
Measurement Date	June 30, 2023	June 30, 2022
Total OPEB Liability		
Service cost	\$26,556,969	\$36,526,789
Interest	25,013,807	20,439,075
Changes of benefit terms	0	0
Differences between expected and actual experience	0	-57,982,759
Changes of assumptions	-12,359,342	-204,565,623
Benefit payments, including refunds of member contributions	-24,865,997	-23,417,962
Net change in Total OPEB Liability	\$14,345,437	-\$229,000,480
Total OPEB Liability – beginning	<u>692,372,620</u>	<u>921,373,100</u>
Total OPEB Liability – ending	\$706,718,057	\$692,372,620
Plan Fiduciary Net Position		
Contributions – employer	\$28,797,610	\$26,990,322
Contributions – employee	0	0
Net investment income	1,617,693	-1,087,129
Benefit payments, including refunds of member contributions	-24,865,997	-23,417,962
Administrative expenses	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	\$5,549,306	\$2,485,231
Plan Fiduciary Net Position – beginning	<u>25,374,084</u>	<u>22,888,853</u>
Plan Fiduciary Net Position – ending	\$30,923,390	\$25,374,084
Net OPEB Liability – ending	675,794,667	666,998,536
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	4.38%	3.66%
Covered employee payroll	N/A	\$333,630,353
Plan Net OPEB Liability as percentage of covered employee payroll	N/A	199.92%

Note: Please enter covered payroll when available.

Notes to schedule:

Changes in Actuarial Assumptions:

Changes as of June 30, 2022:

- The discount rate was increased from 2.16% as of June 30, 2021 to 3.54% as of June 30, 2022.
- The per capita health costs, contributions, and trends were updated to reflect current experience and future expectations.
- The mortality projection scale was updated for non-teachers.
- The mortality tables and projection scales were updated for teachers.
- The retirement rates were updated for Groups 1 and 2, and for Group 4 employees hired on or after April 2, 2012.

Changes as of June 30, 2023:

- The discount rate was increased from 3.54% as of June 30, 2022 to 3.65% as of June 30, 2023
-

Changes in Plan Provisions:

Changes as of June 30, 2022:

- There were plan changes to certain co-pays and deductibles for School and Firefighter retirees. The effect of these changes was deemed to be immaterial.

Changes as of June 30, 2023:

- None
-

Exhibit 6 – OPEB Expense

Reporting Date for Employer under GASB 75	June 30, 2023	June 30, 2022
Measurement Date for Employer under GASB 75	June 30, 2023	June 30, 2022
Components of OPEB Expense		
Service cost	\$26,556,969	\$36,526,789
Interest on the Total OPEB Liability	25,013,807	20,439,075
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	0	-11,596,551
Expensed portion of current-period changes of assumptions	-2,059,892	-40,913,123
Member contributions	0	0
Projected earnings on OPEB plan investments	-1,886,452	-1,788,940
Expensed portion of current-period differences between actual and projected earnings on OPEB plan investments	53,751	575,213
Administrative expenses	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	33,398,712	32,823,496
Recognition of beginning of year deferred inflows of resources as OPEB expense	<u>-69,592,808</u>	<u>-17,102,033</u>
OPEB Expense	\$11,484,087	\$18,963,926

Deferred Outflows of Resources and Deferred Inflows of Resources

Reporting Date for Employer under GASB 75	June 30, 2023	June 30, 2022
Measurement Date for Employer under GASB 75	June 30, 2023	June 30, 2022
Deferred Outflows of Resources		
Changes of assumptions	\$21,769,148	\$42,036,418
Net difference between projected and actual earnings on OPEB plan investments	668,971	490,043
Difference between expected and actual experience in the Total OPEB Liability	<u>12,386,935</u>	<u>24,773,870</u>
Total Deferred Outflows of Resources	\$34,825,054	\$67,300,331
Deferred Inflows of Resources		
Changes of assumptions	\$138,273,058	\$184,985,246
Net difference between projected and actual earnings on OPEB plan investments	0	0
Difference between expected and actual experience in the Total OPEB Liability	<u>35,065,850</u>	<u>46,938,593</u>
Total Deferred Inflows of Resources	\$173,338,908	\$231,923,839
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:		
2023	N/A	-\$36,194,096
2024	-\$27,360,075	-\$25,353,937
2025	-\$53,147,150	-\$51,141,012
2026	-\$53,940,601	-\$51,934,463
2027	-\$2,006,138	0
2028	-\$2,059,890	0
Thereafter	0	0

Note: Average expected remaining service lives is 6 years.

Exhibit 7 – Schedule of Reconciliation of Net OPEB Liability

Measurement Date	June 30, 2023	June 30, 2022
Beginning Net OPEB Liability	\$666,998,536	\$898,484,247
OPEB expense	11,484,087	18,963,926
Employer contributions	-28,797,610	-26,990,322
New net deferred inflows/outflows	-10,084,442	-207,737,852
Recognition of prior deferred inflows/outflows	<u>36,194,096</u>	<u>-15,721,463</u>
Ending Net OPEB Liability	\$675,794,667	\$666,998,536

Exhibit 8 – Schedule of Contributions – Last Ten Fiscal Years

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency / (Excess)	Covered- Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2017	\$55,094,130	\$20,872,070	\$34,222,060	\$227,381,047	9.18%
2018	33,900,292	24,328,980	9,571,312	245,502,840	9.91%
2019	35,614,447	26,148,831	9,465,616	265,068,902	9.86%
2020	35,930,738	26,979,660	8,951,078	286,194,338	9.43%
2021	37,545,986	28,884,619	8,661,367	309,003,427	9.35%
2022	37,797,960	26,990,322	10,807,638	333,630,353	8.09%
2023	39,607,046	28,797,610	10,809,436	N/A	N/A

Notes to Schedule:

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

Valuation date	Actuarially determined contribution for fiscal year ending June 30, 2023 was determined with the June 30, 2021 actuarial valuation.
Actuarial cost method	Entry Age Normal – Level percentage of payroll
Amortization method	Level percentage of payroll – increasing at 2.75% per year.
Remaining amortization period	25 years from July 1, 2022.
Asset valuation method	Market value
Investment rate of return	6.90%
Wage inflation	2.75%
Health care cost trend rates	<ul style="list-style-type: none"> • Non-Medicare: 7.50% decreasing by 0.25% for 12 years to an ultimate level of 4.50% • Medicare Advantage Plans: 4.50% • Medicare Supplement Plans: 6.50% decreasing by 0.25% for 8 years to an ultimate level of 4.50% • Administration: 3.00%
Retiree contribution increase rates	<ul style="list-style-type: none"> • Non-Medicare: 7.50% decreasing by 0.25% for 12 years to an ultimate level of 4.50% • Medicare Advantage Plans: 4.50% • Medicare Supplement Plans: 6.50% decreasing by 0.25% for 8 years to an ultimate level of 4.50%

Mortality rates

Pre-Retirement (non-Teachers): RP-2014 Blue Collar Employee Mortality Table projected generationally using Scale MP-2021.

Healthy Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally Scale MP-2021.

Disabled Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year projected generationally with Scale MP-2021.

Pre-Retirement (Teachers): Pub-2010 Teacher Employee Mortality Table, Headcount Weighted, projected generationally with Scale MP-2020.

Healthy Retiree (Teachers): Pub-2010 Teacher Healthy Retiree Mortality Table, Headcount Weighted, projected generationally with Scale MP-2020.

Disabled Retiree (Teachers): Pub-2010 Teacher Healthy Retiree Mortality Table, Headcount Weighted, projected generationally with Scale MP-2020.
