

# City of Gloucester

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

Measured at June 30, 2020



This report has been prepared at the request of the City of Gloucester 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 Gloucester 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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**Segal**



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December 14, 2020

Mr. Kenny Costa  
City Auditor  
9 Dale Avenue  
City Hall  
Gloucester, MA 01930

Dear Mr. Costa:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statements No. 74 and 75 Accounting Valuation as of June 30, 2020 for the City of Gloucester. 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 Gloucester Actuarial Valuation and Review of Other Postretirement Benefits (OPEB) as of June 30, 2019, dated December 14, 2020 for the data, assumptions and plan of benefits underlying these calculations.

This report is based on information received from the City of Gloucester and vendors employed by the City of Gloucester. 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.

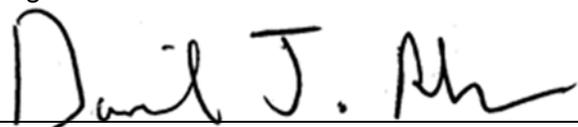
The measurements shown in this actuarial valuation may not be applicable for other purposes. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

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. Further, in my opinion, the assumptions as approved by the City of Gloucester are reasonably related to the experience of and the expectations for the Plan.

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

Sincerely,  
Segal

A handwritten signature in black ink, appearing to read "Daniel J. Rhodes", written over a horizontal line.

Daniel J. Rhodes, FSA, MAAA

Vice President and Consulting 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 Gloucester (the “Employer”) Other Postemployment Benefits (OPEB) plan and the City of Gloucester OPEB Trust (the “Plan”) as of June 30, 2020, 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, 2020 provided by the City of Gloucester and the City of Gloucester Actuarial Valuation and Review as of June 30, 2019, which reflects:

- The benefit provisions of the OPEB plan;
- The characteristics of covered active participants and retired participants and beneficiaries as of June 30, 2019;
- The assets as of June 30, 2019;
- 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 \$199.6 million as of June 30, 2019 to \$213.4 million as of June 30, 2020 and the Plan’s Fiduciary Net Position as a percent of the TOL increased from 0.19% to 0.29%.
2. The NOL measured as of June 30, 2020 and June 30, 2019 was determined based upon the results of the actuarial valuations as of June 30, 2019 and June 30, 2017, respectively.
3. The discount rates used to measure the TOL and NOL as of June 30, 2020 and June 30, 2019 were 2.21% and 3.50%, respectively.
4. The Annual OPEB Expense increased from \$15,617,675 for the year ending June 30, 2019 to \$15,932,087 for the year ending June 30, 2020.

## Section 1: Actuarial Valuation Summary

5. The Coronavirus (COVID-19) pandemic is rapidly evolving and is having a significant impact on the US economy in 2020, including most retiree health plans, and will likely continue to have an impact in the future. Our results do not include the impact of the following:
  - Short-term increases in health plan costs related to the testing or treatment of COVID-19;
  - Changes in the market value of plan assets since June 30, 2020;
  - Changes in interest rates since June 30, 2020;
  - Short-term or long-term impacts on mortality of the covered population; and
  - The potential for federal or state fiscal relief.

## 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:

<b>Plan of benefits</b>	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 Gloucester 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.
<b>Participant data</b>	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.
<b>Assets</b>	The valuation is based on the market value of assets as of the valuation date, as provided by the City of Gloucester.
<b>Actuarial assumptions</b>	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

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

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The actuarial valuation is prepared for use by the City of Gloucester. 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.

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If the City of Gloucester 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.

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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.

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Sections of this report include actuarial results that are not rounded, but that does not imply precision.

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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.

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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 Gloucester should look to their other advisors for expertise in these areas.

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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.

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Segal's report shall be deemed to be final and accepted by the City of Gloucester upon delivery and review. The City of Gloucester should notify Segal immediately of any questions or concerns about the final content.

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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, 2019, the City of Gloucester’s plan membership consisted of the following:

	June 30, 2019
<b>Retired members or beneficiaries currently receiving benefits</b>	1,002
<b>Active members</b>	<u>656</u>
<b>Total</b>	1,658

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

## Exhibit 2 – Net OPEB Liability

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

Components of the Net OPEB Liability	June 30, 2020	June 30, 2019
Total OPEB Liability	\$213,995,199	\$200,020,889
Plan Fiduciary Net Position	628,131	372,177
Net OPEB Liability	213,367,068	199,648,712
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability*	0.29%	0.19%

\* 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, 2020 was measured by an actuarial valuation as of June 30, 2019, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

<b>Wage inflation</b>	3.00%
<b>Salary increases</b>	Service related increases for Group 1 and 4 employees: 4.00% Service related increases for Teachers: 7.50% decreasing over 20 years to an ultimate level of 4.00%
<b>Discount rate</b>	2.21% as of June 30, 2020 and 3.50% as of June 30, 2019
<b>Health care cost trend rates<sup>1</sup></b>	Medical (Non-Medicare): 5.05%, then 7.0% decreasing by 0.5% for 3 years to 5.5% for 2 years, then decreasing by 0.5% for 2 years to an ultimate level of 4.5% Medical (Medicare): 3.25%, then 7.0% decreasing by 0.5% for 3 years to 5.5% for 2 years, then decreasing by 0.5% for 2 years to an ultimate level of 4.5% Contributions: Retiree contributions are expected to increase with medical trend.

<sup>1</sup> The first year trends have been adjusted to reflect estimated increases in plan rates from fiscal year 2020 to 2021. For future years, the trend assumption is the same as used in the Commonwealth of Massachusetts Postemployment Benefit Other than Pensions Actuarial Valuation as of January 1, 2019, dated October 17, 2019.

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**Mortality rates**

Pre-Retirement (non-Teachers): RP-2014 Blue Collar Employee Mortality Table set forward one year for females and projected generationally with Scale MP-2017

Healthy Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year for females and projected generationally with Scale MP-2017

Disabled Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2017

Pre-Retirement (Teachers): RP-2014 White Collar Employee Mortality Table projected generationally with Scale MP-2019

Healthy Retiree (Teachers): RP-2014 White Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2019

Disabled Retiree (Teachers): RP-2014 White Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2019

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## 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, 2020 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	29.00%	6.15%
International equity	19.00%	6.78% - 8.65%
Domestic bonds	26.00%	1.11% - 3.51%
International bonds	6.00%	0.82% - 4.47%
Alternatives	<u>20.00%</u>	3.19% - 9.99%
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 with Bartholomew & Co.

### Development of blended discount rate

The discount rate is a blend of the long-term expected rate of return on OPEB Trust assets and a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (2.21% as of June 30, 2020 and 3.50% as of June 30, 2019). 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 2.21% as of June 30, 2020 and 3.50% as of June 30, 2019.

## Exhibit 4 – Sensitivity

The following presents the NOL of the City of Gloucester as well as what the NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (1.21%) or 1-percentage-point higher (3.21%) 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.

	<b>1% Decrease (1.21%)</b>	<b>Current Discount Rate (2.21%)</b>	<b>1% Increase (3.21%)</b>
Net OPEB Liability (Asset)	\$252,542,385	\$213,367,068	\$182,512,395
	<b>1% Decrease in Health Care Cost Trend Rates</b>	<b>Current Health Care Cost Trend Rates</b>	<b>1% Increase in Health Care Cost Trend Rates</b>
Net OPEB Liability (Asset)	\$178,205,385	\$213,367,068	\$259,330,744

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

Reporting Date	June 30, 2020	June 30, 2019
Measurement Date	June 30, 2020	June 30, 2019
Total OPEB Liability		
Service cost	\$7,957,519	\$6,959,109
Interest	7,180,320	7,147,657
Changes of benefit terms	-2,022,754	0
Differences between expected and actual experience	786,981	0
Changes of assumptions	5,774,070	11,005,627
Benefit payments, including refunds of member contributions	-5,701,826	-5,599,594
Net change in Total OPEB Liability	\$13,974,310	\$19,512,799
Total OPEB Liability – beginning	<u>200,020,889</u>	<u>180,508,090</u>
Total OPEB Liability – ending	\$213,995,199	\$200,020,889
Plan Fiduciary Net Position		
Contributions – employer	\$5,951,826	\$5,649,594
Contributions – employee	0	0
Net investment income	5,954	19,800
Benefit payments, including refunds of member contributions	-5,701,826	-5,599,594
Administrative expenses	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	\$255,954	\$69,800
Plan Fiduciary Net Position – beginning	<u>372,177</u>	<u>302,377</u>
Plan Fiduciary Net Position – ending	\$628,131	\$372,177
Net OPEB Liability – ending	\$213,367,068	\$199,648,712
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	0.29%	0.19%
Covered employee payroll	\$56,851,880	\$54,948,287
Plan Net OPEB Liability as percentage of covered employee payroll	375.30%	363.34%

## Notes to schedule:

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### Changes in Actuarial Assumptions:

Changes as of June 30, 2019:

- The discount rate was decreased from 3.87% to 3.50%

Changes as of June 30, 2020:

- The per capita health costs, retiree contributions and trends were updated to reflect current experience.
  - The disabled life mortality assumptions for teachers was changed to match the Massachusetts Teachers' Retirement System Actuarial Valuation Report as of January 1, 2019, dated October 17, 2019, completed by PERAC and the mortality improvement scale was updated.
  - The salary increase assumption for non-teachers was updated from 4.5% to 4.0%.
  - The impact of the excise tax on high cost health plans (part of the Patient Protection and Affordable Care Act) was removed, as the tax was repealed effective December 20, 2019.
  - The discount rate was decreased from 3.50% to 2.21%.
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### Changes in Plan Provisions:

Changes as of June 30, 2019:

- None

Changes as of June 30, 2020:

- A grandfathered group of retired teachers previously participated in the Group Insurance Commission's Retirement Municipal Teacher (RMT) program, and paid lower premium contributions than non-teachers. The City no longer participates in the RMT plan, and all retirees are now subject to the same retiree contributions.
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## Exhibit 6 – OPEB Expense

Reporting Date for Employer under GASB 75	June 30 2020	June 30, 2019
Measurement Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Components of OPEB Expense		
Service cost	\$7,957,519	\$6,959,109
Interest on the Total OPEB Liability	7,180,320	7,147,657
Current-period benefit changes	-2,022,754	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	157,397	0
Expensed portion of current-period changes of assumptions	1,154,814	2,201,125
Member contributions	0	0
Projected earnings on OPEB plan investments	-34,802	-22,916
Expensed portion of current-period differences between actual and projected earnings on OPEB plan investments	5,768	623
Administrative expenses	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	4,878,749	2,677,001
Recognition of beginning of year deferred inflows of resources as OPEB expense	-3,344,924	-3,344,924
OPEB Expense	\$15,932,087	\$15,617,675

## Deferred Outflows of Resources and Deferred Inflows of Resources

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	June 30, 2020	June 30, 2019
<b>Deferred Outflows of Resources</b>		
Changes of assumptions	\$11,222,633	\$8,804,502
Net difference between projected and actual earnings on OPEB plan investments	26,661	5,060
Difference between expected and actual experience in the Total OPEB Liability	<u>5,981,872</u>	<u>8,028,433</u>
Total Deferred Outflows of Resources	\$17,231,166	\$16,837,995
<b>Deferred Inflows of Resources</b>		
Changes of assumptions	\$6,689,846	\$10,034,770
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>0</u>	<u>0</u>
Total Deferred Inflows of Resources	\$6,689,846	\$10,034,770
<b>Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:</b>		
Reporting Date for Employer under GASB 75 Year Ended June 30:		
2020	N/A	\$1,533,825
2021	\$2,851,805	1,533,825
2022	2,851,804	1,533,824
2023	3,519,731	2,201,751
2024	1,317,980	0
2025	0	0
Thereafter	0	0

Note: Average expected remaining service lives as of June 30, 2019 is 5 years.

## Exhibit 7 – Schedule of Reconciliation of Net OPEB Liability

Measurement Date	June 30, 2020	June 30, 2019
<b>Beginning Net OPEB Liability</b>	\$199,648,712	\$180,205,713
OPEB expense	15,932,087	15,617,675
Employer contributions	-5,951,826	-5,649,594
New net deferred inflows/outflows	5,271,920	8,806,995
Recognition of prior deferred inflows/outflows	<u>-1,533,825</u>	<u>667,923</u>
<b>Ending Net OPEB Liability</b>	\$213,367,068	\$199,648,712

## Exhibit 8 – Schedule of Contributions – Last Four 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	\$11,960,493	\$5,807,861	\$6,152,632	\$62,478,064	9.30%
2018	9,384,398	6,160,373	3,224,025	53,678,328	11.48%
2019	9,918,728	5,649,594	4,269,134	54,948,287	10.28%
2020	9,162,383	5,951,826	3,210,557	56,851,880	10.47%

### Notes to Schedule:

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

<b>Valuation date</b>	Actuarially determined contribution for fiscal year ending June 30, 2020 was determined with the June 30, 2019 actuarial valuation.
<b>Actuarial cost method</b>	Entry Age Normal - Level Percentage of Payroll
<b>Amortization method</b>	Level percentage of payroll - payments increasing at 3.00% per year
<b>Remaining amortization period</b>	28 years from July 1, 2019
<b>Asset valuation method</b>	Market value
<b>Investment rate of return</b>	6.75%
<b>Wage inflation</b>	3.00%
<b>Health care cost trend rates<sup>1</sup></b>	Non-Medicare: 5.05%, then 7.0% decreasing by 0.5% for 3 years to 5.5% for two years, then decreasing by 0.5% for 2 years to an ultimate level of 4.5% Medicare: 3.25%, then 7.0% decreasing by 0.5% for 3 years to 5.5% for two years, then decreasing by 0.5% for 2 years to an ultimate level of 4.5% Contributions: Retiree contributions are expected to increase with medical trend.
<b>Mortality rates</b>	Pre-Retirement (non-Teachers): RP-2014 Blue Collar Employee Mortality Table set forward one year for females and projected generationally with Scale MP-2017 Healthy Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year for females and projected generationally with Scale MP-2017 Disabled Retiree (non-Teachers): RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2017 Pre-Retirement (Teachers): RP-2014 White Collar Employee Mortality Table projected generationally with Scale MP-2019 Healthy Retiree (Teachers): RP-2014 White Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2019 Disabled Retiree (Teachers): RP-2014 White Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2019

<sup>1</sup> The first year trends have been adjusted to reflect estimated increases in plan rates from fiscal year 2020 to 2021. For future years, the trend assumption is the same as used in the Commonwealth of Massachusetts Postemployment Benefit Other than Pensions Actuarial Valuation as of January 1, 2019, dated October 17, 2019.