

City of Providence

Governmental Accounting Standards Board (GASB) Statement No. 75 Actuarial and Accounting Valuation Report of Other Postemployment Benefits (OPEB) as of June 30, 2020

For Reporting Date June 30, 2021



This report has been prepared at the request of the City of Providence 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 Providence 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 22, 2021

Ms. Sara Silveria
Director, Finance Department
Providence City Hall
25 Dorrance Street
Providence, RI 02903

Dear Ms. Silveria:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement No. 75 Actuarial and Accounting Valuation Report of Other Postemployment Benefits (OPEB) as of June 30, 2020, for Reporting Date June 30, 2021, for the City of Providence. It contains the actuarial information that will need to be disclosed in order to comply with GASB 75.

This report is based on information received from the City of Providence and vendors employed by the City of Providence. 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 our supervision. We are members of the American Academy of Actuaries and meet the Qualification

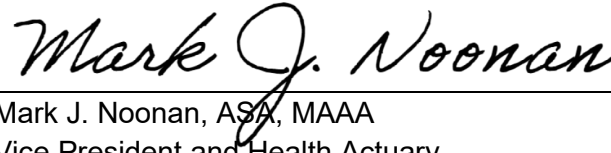
Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the City of Providence are reasonably related to the experience of and the expectations for the Plan.

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

Sincerely,



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



Mark J. Noonan, ASA, MAAA
Vice President and Health Actuary

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report presents certain disclosure information for the City of Providence (the “Employer”) Other Postemployment Benefits (OPEB) plan as of June 30, 2021, 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 valuation is based on:

- The benefit provisions of the OPEB plan;
- The characteristics of covered active participants and retired participants and beneficiaries as of June 30, 2020;
- Economic assumptions regarding future salary increases;
- 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. GASB 75 permits a measurement date as early as the end of the fiscal year prior to the reporting date. This June 30, 2022 report uses a measurement date of June 30, 2020.
2. 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. As the City of Providence’s OPEB plan is currently unfunded and no OPEB trust has been established, the OPEB assets are zero and the NOL is equal to the TOL. The NOL increased from \$1.122 billion as of June 30, 2019 to \$1.359 billion as of June 30, 2020.
3. The NOL measured as of June 30, 2020 and June 30, 2019 were determined based upon the results of the actuarial valuations as of June 30, 2020 and June 30, 2018, respectively.

Section 1: Actuarial Valuation Summary

4. The NOL measured as of June 30, 2019 had been expected to increase \$34.0 million due to normal plan operations. The difference between the actual increase and expected increase was the net effect of the following:
 - An actuarial experience gain decreased obligations by \$9.4 million due to demographic changes and benefit payments different than expected.
 - Changes to assumptions increased the NOL by approximately \$212.0 million. This was the net result of the following:
 - The discount rate was lowered from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020, which increased the NOL by \$292.3 million
 - The per capita health care costs, and the associated trends on costs and contributions, were updated to reflect current experience and future expectations, which decreased the NOL by \$80.3 million.
 - Plan 65-G replaces Plan 65-C for retirees turning 65 after January 1, 2020. This change was assumed to be cost neutral.
 - In addition, Group HealthMate Coast-to-Coast for Medicare was added effective January 1, 2020. Because 100% of Class A retirees are assumed to enroll in Plan 65 when eligible, this plan change had no cost impact.
5. The Annual OPEB Expense increased from \$48.4 million for the year ending June 30, 2020 to \$80.5 million for the year ending June 30, 2021.
6. The long-term impact of the Coronavirus (COVID-19) pandemic is still unknown. 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;
 - 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:

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 Providence 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	There are no plan assets.
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

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 Providence. 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 Providence 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 Providence 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 Providence upon delivery and review. The City of Providence 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

General information about the OPEB plan

Plan description

Plan membership. At June 30, 2020, the City of Providence's plan membership consisted of the following:

	June 30, 2020
Retired members or beneficiaries currently receiving benefits	5,393
Active members	<u>4,514</u>
Total	9,907

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

Section 2: GASB Information

Net OPEB liability

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

Reporting Date for Employer under GASB 75 Measurement Date	June 30, 2021	June 30, 2020
	June 30, 2020	June 30, 2019
Components of the Net OPEB Liability		
Total OPEB Liability	\$1,358,575,595	\$1,122,063,410
Plan Fiduciary Net Position	0	0
Net OPEB Liability	1,358,575,595	1,122,063,410
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability*	0.00%	0.00%

* 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, 2020, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Wage inflation	3.5%
Salary increases	<ul style="list-style-type: none"> • Non-Teachers: 3.5% per year before reflecting longevity. Longevity compensation varies from 3.0% to 11.0% based on years of service, date of hire and Class. • Teachers: Service-related increases – 13.0% decreasing over 10 years to an ultimate level of 3.0%.
Discount rate	2.21% as of June 30, 2020 and 3.50% as of June 30, 2019
Health care cost trend rates	<ul style="list-style-type: none"> • Non-Medicare medical: 7.0% decreasing by 0.25% for 10 years to an ultimate level of 4.5% per year • Medicare medical: 6.0% decreasing by 0.25% for 6 years to an ultimate level of 4.5% per year • Prescription drug: 8.5% decreasing by 0.25% for 16 years to an ultimate level of 4.5% per year • Part B: 4.5% • Administrative: 3.0%

Section 2: GASB Information

Mortality rates

- Pre-Retirement
 - Class A Healthy: Pub-2010 General Employee Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
 - Class B Healthy: Pub-2010 Safety Employee Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
 - Teachers: Pub-2010 Teacher Employee Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Post-Retirement
 - Class A Healthy: Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
 - Class B Healthy: Pub-2010 Safety Healthy Retiree Headcount-Weighted Mortality Tables projected generationally with Scale-MP-2019
 - Teachers Healthy: Pub-2010 Teacher Healthy Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
 - Class A Beneficiaries: Pub-2010 General Contingent Survivor Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
 - Class B Beneficiaries: Pub-2010 Safety Contingent Survivor Headcount-Weighted Mortality Tables projected generationally with Scale-MP-2019
 - Teachers Beneficiaries: Pub-2010 Teacher Contingent Survivor Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
 - Class A Disabled Retirees: Pub-2010 Non-Safety Disabled Retirees Headcount-Weighted Mortality Tables projected generationally with scale MP-2019
 - Class B Disabled Retirees: Pub-2010 Safety Disabled Retirees Headcount-Weighted Mortality Tables projected generationally with scale MP-2019
 - Teachers Disabled Retirees: Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019

Detailed information regarding all actuarial assumptions can be found in Section 4, Exhibit II.

Section 2: GASB Information

Determination of discount rate and investment rate of return

Development of long-term rate

Does not apply because there are no invested assets.

Determination of discount rate

Because the plan is not funded, the discount rate is based on the yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rate of AA/Aa or higher as shown in the Bond Buyer 20-Bond General Obligation Index (3.50% as of June 30, 2019 and 2.21% as of June 30, 2020). This determination is in accordance with GASB Statement No. 75.

Section 2: GASB Information

Sensitivity

The following presents the NOL of the City of Providence 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.

Net OPEB liability as of June 30, 2020	1% Decrease (1.21%)	Current Discount Rate (2.21%)	1% Increase (3.21%)
Class A	\$156,115,504	\$128,755,184	\$107,840,322
Police	538,852,184	444,414,620	372,224,356
Fire	528,480,621	435,860,745	365,059,964
School	389,046,054	320,863,048	268,742,377
Water	<u>34,776,888</u>	<u>28,681,998</u>	<u>24,022,923</u>
Grand Total	\$1,647,271,251	\$1,358,575,595	\$1,137,889,942

Net OPEB liability as of June 30, 2020	1% Decrease in Health Care Cost Trend Rates	Current Health Care Cost Trend Rates	1% Increase in Health Care Cost Trend Rates
Class A	\$105,889,710	\$128,755,184	\$159,043,875
Police	365,491,575	444,414,620	548,959,824
Fire	358,456,772	435,860,745	538,393,714
School	263,881,375	320,863,048	396,343,673
Water	<u>23,588,397</u>	<u>28,681,998</u>	<u>35,429,223</u>
Grand Total	\$1,117,307,829	\$1,358,575,595	\$1,678,170,309

Section 2: GASB Information

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

Reporting Date for Employer under GASB 75 Measurement Date	June 30, 2021 June 30, 2020	June 30, 2020 June 30, 2019
Total OPEB Liability		
Service cost	\$26,280,551	\$26,084,152
Interest	39,637,836	41,499,557
Changes of benefit terms	0	0
Differences between expected and actual experience	-9,440,628	0
Changes of assumptions	211,977,853	24,983,732
Benefit payments, including refunds of member contributions	-31,943,427	-33,204,541
Net change in Total OPEB Liability	\$236,512,185	\$59,362,900
Total OPEB Liability – beginning	1,122,063,410	1,062,700,510
Total OPEB Liability – ending	\$1,358,575,595	\$1,122,063,410
Plan Fiduciary Net Position		
Contributions – employer	\$31,943,427	\$33,204,541
Contributions – employee	0	0
Net investment income	0	0
Benefit payments, including refunds of member contributions	-31,943,427	-33,204,541
Administrative expenses	0	0
Net change in Plan Fiduciary Net Position	0	0
Plan Fiduciary Net Position – beginning	0	0
Plan Fiduciary Net Position – ending	0	0
Net OPEB Liability – ending	\$1,358,575,595	\$1,122,063,410
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	0.00%	0.00%
Covered employee payroll	N/A	N/A
Plan Net OPEB Liability as percentage of covered employee payroll	N/A	N/A

Note:

Please enter covered payroll.

Section 2: GASB Information

Notes to schedule:

Changes in Actuarial Assumptions:

Changes as of June 30, 2019:

- The mortality, disability, withdrawal, and retirement assumptions for Class A and the mortality assumptions for Class B were updated to be consistent with The Employee Retirement System of the City of Providence Actuarial Experience Review for July 1, 2015 through June 30, 2018, dated December 14, 2020, completed by Segal.
- The disability, withdrawal, and retirement assumptions for teachers were updated to be consistent with the Employees' Retirement System of Rhode Island Actuarial Experience Investigation as of June 30, 2019, dated May 6, 2020 completed by Gabriel, Roeder Smith & Company.
- The mortality assumptions for teachers were updated to the Pub-2010 Teacher Headcount-Weighted mortality tables released by the Society of Actuaries in 2019.
- The discount rate was lowered from 3.87% as of June 30, 2018 to 3.50% as of June 30, 2019.
- 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.

Changes as of June 30, 2020:

- The per capita health costs were updated.
- Contributions were updated to reflect new CBA agreements.
- The medical and prescription drug trend assumptions were updated.
- The discount rate was lowered from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020.

Changes in Plan Provisions:

Changes as of June 30, 2019:

- None.

Changes as of June 30, 2020:

- Plan 65-G replaces Plan 65-C for retirees turning 65 after January 1, 2020.
- Group HealthMate Coast-to-Coast for Medicare was added effective January 1, 2020.

Section 2: GASB Information

OPEB expense

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Components of OPEB Expense		
Service cost	\$26,280,551	\$26,084,152
Interest on the Total OPEB Liability	39,637,836	41,499,557
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-1,573,438	0
Expensed portion of current-period changes of assumptions or other inputs	35,329,643	4,163,957
Member contributions	0	0
Projected earnings on OPEB plan investments	0	0
Expensed portion of current-period differences between actual and projected earnings on plan investments	0	0
Administrative expense	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	12,348,089	8,184,134
Recognition of beginning of year deferred inflows of resources as OPEB expense	-31,501,844	-31,501,844
OPEB Expense	\$80,520,837	\$48,429,956

Section 2: GASB Information

Deferred outflows of resources and deferred inflows of resources

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions	\$34,505,755	\$23,379,594
Changes of assumptions	193,304,030	20,819,775
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>24,552,399</u>	<u>32,736,533</u>
Total Deferred Outflows of Resources	\$252,362,184	\$76,935,902
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions	\$34,505,755	\$23,379,594
Changes of assumptions	70,579,743	102,081,587
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>7,867,190</u>	<u>0</u>
Total Deferred Inflows of Resources	\$112,952,688	\$125,461,181
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:		
2021	N/A	-\$19,153,755
2022	\$14,602,449	-19,153,755
2023	14,602,446	-19,153,758
2024	38,528,238	4,772,034
2025	37,920,159	4,163,955
2026	33,756,204	0
Thereafter	0	0

Note:

Average expected remaining service lives as of June 30, 2020 is 6 years.

Section 2: GASB Information

Schedule of reconciliation of net OPEB liability

Reporting Date for Employer under GASB 75 Measurement Date	June 30, 2021	June 30, 2020
	June 30, 2020	June 30, 2019
Beginning Net OPEB Liability	\$1,122,063,410	\$1,062,700,510
OPEB expense	80,520,837	48,429,956
Employer contributions	-31,943,427	-33,204,541
New net deferred inflows/outflows	168,781,020	20,819,775
Change in allocation of prior deferred inflows/outflows	0	0
New net deferred inflows/outflows due to change in proportion	0	0
Recognition of prior deferred inflows/outflows	19,153,755	23,317,710
Recognition of prior deferred inflows/outflows due to change in proportion	<u>0</u>	<u>0</u>
Ending Net OPEB Liability	\$1,358,575,595	\$1,122,063,410

Section 2: GASB Information

Schedule of contributions

This report does not include a calculation of the actuarially determined contribution as the City of Providence does not have assets invested in a qualified OPEB Trust at this time and funds the plan on a pay-as-you-go basis.

Section 3: GASB 75 Agency Calculations

Allocation Calculation

Groups	Prior Year		Share of NOL Measured at June 30, 2020	Current Year	
	Fiscal Year 2020 Net OPEB Liability	Proportionate Share		Fiscal Year 2021 Net OPEB Liability	Proportionate Share
Class A	\$100,636,995	8.968922%	\$106,340,407	\$128,755,184	9.477219%
Police	358,527,109	31.952482%	367,047,212	444,414,618	32.711806%
Fire	353,328,643	31.489187%	359,982,466	435,860,743	32.082186%
School	285,726,935	25.464420%	265,004,529	320,863,047	23.617607%
Water	<u>23,843,728</u>	<u>2.124989%</u>	<u>23,688,796</u>	<u>28,681,998</u>	<u>2.111182%</u>
Grand Total	\$1,122,063,410	100.000000%	\$1,122,063,410	\$1,358,575,590	100.000000%

Section 3: GASB 75 Agency Calculations

OPEB Expense

Groups	Cost Allocator	Proportionate Share of OPEB expense	Net amortization of past-period amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	OPEB Expense
Class A	9.477219%	\$8,986,482	\$1,835,731	\$10,822,213
Police	32.711806%	27,548,696	-4,375,677	23,173,019
Fire	32.082186%	26,851,541	-1,892,848	24,958,693
School	23.617607%	15,404,539	4,122,786	19,527,325
Water	<u>2.111182%</u>	<u>1,729,579</u>	<u>310,008</u>	<u>2,039,587</u>
Grand Total	100.000000%	\$80,520,837	\$0	\$80,520,837

Section 3: GASB 75 Agency Calculations

Deferred Outflows of Resources and Deferred Inflows of Resources

Groups	Deferred Outflows of Resources				Deferred Inflows of Resources			
	Changes in proportion and differences between employer's contributions and proportionate share of contributions	Changes of assumptions	Difference between expected and actual experience in the Total OPEB Liability	Total Deferred Outflows of Resources	Changes in proportion and differences between employer's contributions and proportionate share of contributions	Changes of assumptions	Difference between expected and actual experience in the Total OPEB Liability	Total Deferred Inflows of Resources
Class A	\$11,578,163	\$18,319,846	\$2,326,885	\$32,224,894	\$2,259,904	\$6,688,997	\$745,591	\$9,694,492
Police	6,044,384	63,233,240	8,031,533	77,309,157	9,527,406	23,087,909	2,573,500	35,188,815
Fire	5,093,484	62,016,158	7,876,946	74,986,588	4,243,213	22,643,524	2,523,967	29,410,704
School	10,815,318	45,653,787	5,798,689	62,267,794	18,062,776	16,669,246	1,858,042	36,590,064
Water	<u>974,406</u>	<u>4,080,999</u>	<u>518,346</u>	<u>5,573,751</u>	<u>412,456</u>	<u>1,490,067</u>	<u>166,091</u>	<u>2,068,614</u>
Grand Total	\$34,505,755	\$193,304,030	\$24,552,399	\$252,362,184	\$34,505,755	\$70,579,743	\$7,867,191	\$112,952,689

Section 3: GASB 75 Agency Calculations

Deferred Outflows of Resources and Deferred Inflows of Resources

Groups	Projected Recognition						Total
	2022	2023	2024	2025	2026	Thereafter	
Class A	\$4,574,986	\$4,574,991	\$4,441,778	\$4,384,150	\$4,554,497	\$0	\$22,530,402
Police	1,609,925	1,609,924	13,424,134	13,225,219	12,251,141	0	42,120,343
Fire	3,810,634	3,810,630	13,150,640	12,955,556	11,848,425	0	45,575,885
School	3,958,980	3,958,978	6,771,766	6,628,152	4,359,853	0	25,677,729
Water	<u>647,924</u>	<u>647,923</u>	<u>739,920</u>	<u>727,082</u>	<u>742,288</u>	<u>0</u>	<u>3,505,137</u>
Grand Total	\$14,602,449	\$14,602,446	\$38,528,238	\$37,920,159	\$33,756,204	\$0	\$139,409,496

Section 3: GASB 75 Agency Calculations

Projected Recognition Schedules of Deferred Outflows of Resources

Groups	Changes in Proportion							Total
	2021 Outstanding Balance of Deferred Outflows of Resources	2022 Recognition of Deferred Outflows	2023 Recognition of Deferred Outflows	2024 Recognition of Deferred Outflows	2025 Recognition of Deferred Outflows	2026 Recognition of Deferred Outflows	Recognition of Deferred Outflows Thereafter	
Class A	\$11,578,163	\$3,756,056	\$3,756,061	\$1,355,349	\$1,355,349	\$1,355,348	\$0	\$11,578,163
Police	6,044,384	1,208,877	1,208,877	1,208,877	1,208,876	1,208,877	0	6,044,384
Fire	5,093,484	1,018,697	1,018,697	1,018,696	1,018,697	1,018,697	0	5,093,484
School	10,815,318	4,122,786	4,122,786	1,284,873	1,284,873	0	0	10,815,318
Water	<u>974,406</u>	<u>442,754</u>	<u>442,753</u>	<u>29,633</u>	<u>29,633</u>	<u>29,633</u>	<u>0</u>	<u>974,406</u>
Grand Total	\$34,505,755	\$10,549,170	\$10,549,174	\$4,897,428	\$4,897,428	\$3,612,555	\$0	\$34,505,755

Section 3: GASB 75 Agency Calculations

Projected Recognition Schedules of Deferred Inflows of Resources

Changes in Proportion

Groups	2021 Outstanding Balance of Deferred Inflows of Resources	2022 Recognition of Deferred Inflows	2023 Recognition of Deferred Inflows	2024 Recognition of Deferred Inflows	2025 Recognition of Deferred Inflows	2026 Recognition of Deferred Inflows	Recognition of Deferred Inflows Thereafter	Total
Class A	-\$2,259,904	-\$564,976	-\$564,976	-\$564,976	-\$564,976	\$0	\$0	-\$2,259,904
Police	-9,527,406	-4,375,677	-4,375,677	-388,026	-388,026	0	0	-9,527,406
Fire	-4,243,213	-1,892,848	-1,892,851	-228,757	-228,757	0	0	-4,243,213
School	-18,062,776	-3,612,555	-3,612,556	-3,612,555	-3,612,555	-3,612,555	0	-18,062,776
Water	<u>-412,456</u>	<u>-103,114</u>	<u>-103,114</u>	<u>-103,114</u>	<u>-103,114</u>	<u>0</u>	<u>0</u>	<u>-412,456</u>
Grand Total	-\$34,505,755	-\$10,549,170	-\$10,549,174	-\$4,897,428	-\$4,897,428	-\$3,612,555	\$0	-\$34,505,755

Section 3: GASB 75 Agency Calculations

Schedule of Reconciliation of Net OPEB Liability - Current Year

Groups	1. Beginning Net OPEB Liability	2. OPEB expense	3. Employer contributions	4. New net deferred inflows/outflows	5. Change in allocation of prior deferred inflows/outflows	6. New net deferred inflows/outflows due to change in proportion	7. Recognition of prior deferred inflows/outflows	8. Recognition of prior deferred inflows/outflows due to change in proportions	9. Ending Net OPEB Liability
Class A	\$100,636,996	\$10,822,213	-\$5,209,374	\$15,995,747	-\$246,653	\$6,776,744	\$1,815,243	-\$1,835,731	\$128,755,185
Police	358,527,111	23,173,019	-8,813,965	55,211,321	-368,464	6,044,384	6,265,539	4,375,677	444,414,622
Fire	353,328,642	24,958,693	-9,418,752	54,148,640	-287,754	5,093,484	6,144,943	1,892,848	435,860,744
School	285,726,936	19,527,325	-7,487,519	39,862,038	896,171	-18,062,776	4,523,659	-4,122,786	320,863,048
Water	<u>23,843,725</u>	<u>2,039,587</u>	<u>-1,013,817</u>	<u>3,563,274</u>	<u>6,700</u>	<u>148,164</u>	<u>404,371</u>	<u>-310,008</u>	<u>28,681,996</u>
Grand Total	\$1,122,063,410	\$80,520,837	-\$31,943,427	\$168,781,020	\$0	\$0	\$19,153,755	\$0	\$1,358,575,595

Section 4: Supporting Information

Exhibit I: Summary of Participant Data

	June 30, 2020	June 30, 2018
Retired employees, spouses and beneficiaries covered for medical benefits		
• Number of individuals	5,393	3,783 ¹
• Average age	71.0	71.5
Active employees covered for medical benefits		
• Number of employees		
– Male	1,973	1,874
– Female	<u>2,541</u>	<u>2,425</u>
– Total	4,514	4,299
• Average age	47.8	47.8
• Average service	14.5	14.7

¹ Does not include spouses on a family or individual +1 plan.
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City of Providence

Section 4: Supporting Information

Exhibit II: Statements of Actuarial Assumptions, Methods and Models

Data:	<p>Detailed census data, claims, premium rates, and administrative fees for postemployment welfare benefits were provided by the City of Providence.</p> <p>Participant data was supplied on five electronic files - four files for retirees, spouses and beneficiaries receiving health benefits and one file for active employees receiving health benefits. In addition, supplemental files with additional records were provided after discussion with the City of Providence. Duplicate records were removed.</p>
Actuarial Cost Method:	Entry Age Normal – Level percentage of payroll
Per Capita Cost Development:	<p>Insured plans (Blue Cross Blue Shield Plan 65, Blue Chip for Medicare and Blue Medicare Rx):</p> <p>Per capita costs were based on the fully insured premium rates effective July 1, 2019 for Plan 65 and January 1, 2021 for Blue Chip for Medicare and Blue Medicare Rx. Actuarial factors were applied to the premiums to estimate individual retiree and spouse costs by age and by gender.</p> <p>Self-Funded plans (Blue Cross Blue Shield Classic and Healthmate Coast to Coast, Caremark Rx including Post 65 Plan for Police and Fire):</p> <p>Per capita claims costs were based on the monthly paid claims experience by participant group for the period July 1, 2017 through June 30, 2020 for the Medical and Rx plans. Medical claims for the July 1, 2019 through June 30, 2020 plan year were adjusted to account for reduced utilization due to COVID-19. Claims were separated by plan year, then adjusted as follows:</p> <ul style="list-style-type: none">• actual large claims were replaced by the expected amount of large claims to smooth out random fluctuations in experience,• paid claims were multiplied by a factor to yield an estimate of incurred claims,• total claims were divided by the number of adult members to yield a per capita claim cost,• the per capita claim cost was adjusted for the effect of any plan changes, and• the per capita claim cost was trended to the midpoint of the valuation year at assumed trend rates. <p>Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.</p> <p>Segal did not review the accuracy of the underlying claims experience, other than reviewing for reasonableness and consistency.</p>
Valuation Date:	June 30, 2020
Expected Return on Assets:	N/A

Section 4: Supporting Information

Discount Rate:

2.21% as of June 30, 2020 and 3.50% as of June 30, 2019

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. The blending is based on the sufficiency of projected assets to make projected benefit payments.

Salary Increases:

- Class A and B: 3.5% per year, before reflecting longevity.

Base wages are increased by the following percentages to reflect longevity compensation:

Class A		Rate of base wage increase (%)
Years of Service	Hired on or before October 23, 1999	
5 – 10	4%	
10 – 15	5%	
15 – 20	6%	
20+	7%	
Years of Service	Hired after October 23, 1999	
7 – 12	3%	
12 – 17	4%	
17 – 20	5%	
20+	6%	
Class B – Fire		Rate of base wage increase (%)
Years of Service	Hired on or before June 30, 1996	
5 – 10	8%	
10 – 15	9%	
15 – 20	10%	
20+	11%	
Years of Service	Hired after June 30, 1996	
5 – 10	7%	
10 – 15	8%	
15 – 20	9%	
20+	10%	

Section 4: Supporting Information

Class B – Police Years of Service	Rate of base wage increase (%) Hired on or before June 30, 1998
6 – 11	8%
11 – 16	9%
16 – 21	10%
21+	11%
Years of Service	Hired after June 30, 1998
6 – 11	7%
11 – 16	8%
16 – 21	9%
21+	10%

- Teachers:

Years of Service	Increase
1	13%
2	12%
3	9.25%
4	8.5%
5 - 6	8%
7	7.5%
8	7.25%
9 - 10	7%
11 or more	3%

Section 4: Supporting Information

Mortality Rates:

Pre-Retirement

- Class A Healthy: Pub-2010 General Employee Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Class B Healthy: Pub-2010 Safety Employee Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Teachers: Pub-2010 Teacher Employee Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019

Post-Retirement

- Class A Healthy: Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Class B Healthy: Pub-2010 Safety Healthy Retiree Headcount-Weighted Mortality Tables projected generationally with Scale-MP-2019
- Teachers Healthy: Pub-2010 Teacher Healthy Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Class A Beneficiaries: Pub-2010 General Contingent Survivor Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Class B Beneficiaries: Pub-2010 Safety Contingent Survivor Headcount-Weighted Mortality Tables projected generationally with Scale-MP-2019
- Teachers Beneficiaries: Pub-2010 Teacher Contingent Survivor Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019
- Class A Disabled Retirees: Pub-2010 Non-Safety Disabled Retirees Headcount-Weighted Mortality Tables projected generationally with scale MP-2019
- Class B Disabled Retirees: Pub-2010 Safety Disabled Retirees Headcount-Weighted Mortality Tables projected generationally with scale MP-2019
- Teachers Disabled Retirees: Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables projected generationally with Scale MP-2019

The underlying tables with generational projection to the ages of participants as of the measurement date reasonably reflect the mortality experience of the plan as of the measurement date. The mortality tables were then adjusted to future years using generational projection to reflect future mortality improvement between the measurement date and those years

Section 4: Supporting Information

Termination Rates Before Retirement:	Disability – Rate per year (%)					
	Age	Class A ²	Class B ³	Teachers		
				Ordinary Disability ⁴		Accidental Disability
				Male	Female	
20	0.02	0.08	0.03	0.02	0.00	
25	0.02	0.13	0.03	0.02	0.00	
30	0.04	0.19	0.05	0.03	0.00	
35	0.06	0.25	0.07	0.04	0.00	
40	0.08	0.37	0.11	0.07	0.01	
45	0.13	0.66	0.18	0.12	0.01	
50	0.17	1.14	0.30	0.20	0.02	
55	0.21	1.64	0.42	0.28	0.03	
60	0.27	2.28	0.69	0.46	0.05	

² 33.33% of the disability rates shown represent accidental disability.

³ 90% of the disability rates shown represent accidental disability.

⁴ Teachers that are age 55 with 20 years of service and not eligible to retire, another 1% is added to the rates above. In addition, if the member is above age 60, another 1% is added to the rates above.

Section 4: Supporting Information

Withdrawal Rates:	Rate (%)			
	Age	Class A	Age	Class B
	20	20.00	20	2.50
	25	15.00	25	1.90
	30	12.50	30	1.40
	35	10.00	35	0.90
	40	8.70	40	0.55
	45	7.50	45	0.35
	50	6.20	50	0.15
	55	5.00	55	0.00
	60	5.00	60	0.00

Teachers - Rate (%)			
Service	All	Service	All
0	15.75	13	1.50
1	10.50	14	1.39
2	7.88	15	1.29
3	6.81	16	1.21
4	5.06	17	1.14
5	4.02	18	1.07
6	3.33	19	1.01
7	2.84	20	0.96
8	2.47	21	0.91
9	2.19	22	0.87
10	1.96	23	0.83
11	1.78	24	0.80
12	1.63		

Section 4: Supporting Information

Retirement Rates:	Rate (%)		
	Class A		Class B
	Fewer than 10 Years of Service	10 Years of Service or More	
Age			
40	2.00	2.50	5.50
41	2.25	2.50	5.50
42	2.50	2.50	5.50
43	2.75	2.50	5.50
44	3.00	2.50	5.50
45	3.25	7.50	5.75
46	3.50	7.50	6.00
47	3.75	7.50	6.25
48	4.00	7.50	6.50
49	4.25	7.50	6.75
50	4.50	7.50	7.00
51	5.00	10.00	7.25
52	5.50	10.00	7.50
53	6.00	10.00	7.75
57	7.00	10.00	15.00
58	7.00	10.00	17.50
59	7.00	10.00	25.00
60	10.00	7.50	100.00
61	11.00	7.50	0
62	12.00	15.00	0
63	13.00	15.00	0
64	14.00	15.00	0
65	15.00	20.00	0
66 – 74	15.00	20.00	0
75	100.00	100.00	0

Section 4: Supporting Information

Teachers: A flat 20% per year retirement probability for members under the age of 67 for unreduced retirement, a flat 35% per year retirement probability for members at age 67 or older eligible for unreduced retirement. A 30% retirement probability at first eligibility will only be applied if they have reached age 65 or with at least 25 years of service. For reduced retirement, the following rates based on the years from Normal Retirement Age:

Years from Normal Retirement Age	Rate (%)
5	2.0
4	2.0
3	2.0
2	3.0
1	4.0

Dependents and Spousal Coverage:

For future Class A and teacher retirees and current Class A and Teacher retirees missing spousal information, husbands were assumed to be three years older than their wives. For future Class B retirees and Class B retirees missing spousal information, husbands were assumed to be the same age as their wives. For future retirees who elect to continue their health coverage at retirement, 80% of retirees with employer-paid spouse coverage were assumed to have an eligible spouse who also opts for health coverage at that time. Retirees with coverage shown as “individual+1” or “family” or with a medical plan listed in the spouse medical election field were assumed to have a covered spouse.

Section 4: Supporting Information

Per Capita Health Costs:

Medical and prescription drug claims costs for fiscal year 2020 - 2021 are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Self-Insured Non-Medicare Plans								
Age	Medical				Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
40	\$5,506	\$7,081	\$3,423	\$5,688	\$1,550	\$1,993	\$964	\$1,601
45	6,547	8,213	4,061	6,131	1,843	2,312	1,143	1,726
50	7,771	8,851	5,428	7,107	2,187	2,492	1,528	2,001
55	9,228	9,528	7,263	8,226	2,598	2,682	2,045	2,316
60	10,959	10,270	9,723	9,541	3,085	2,891	2,737	2,686
64	12,573	10,894	12,274	10,738	3,539	3,067	3,455	3,023
65	13,016	11,064	13,016	11,064	3,664	3,114	3,664	3,114
70	15,086	11,923	15,086	11,923	4,247	3,356	4,247	3,356
75	16,257	12,834	16,257	12,834	4,576	3,613	4,576	3,613
80	17,507	13,836	17,507	13,836	4,928	3,895	4,928	3,895

Plan 65					Post 65 Plan for Police and Fire			
Age	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
65	\$1,943	\$1,652	\$1,943	\$1,652	\$3,322	\$2,824	\$3,322	\$2,824
70	2,252	1,780	2,252	1,780	3,850	3,043	3,850	3,043
75	2,427	1,916	2,427	1,916	4,149	3,275	4,149	3,275
80	2,613	2,065	2,613	2,065	4,468	3,531	4,468	3,531

Blue Chip				Blue Medicare Rx (PDP)				
Age	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
65	\$1,872	\$1,591	\$1,872	\$1,591	\$2,470	\$2,100	\$2,470	\$2,100
70	2,170	1,715	2,170	1,715	2,863	2,263	2,863	2,263
75	2,338	1,846	2,338	1,846	3,085	2,435	3,085	2,435
80	2,518	1,990	2,518	1,990	3,322	2,626	3,322	2,626

Section 4: Supporting Information

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year’s cost to yield the next year’s projected cost.

Year Ending June 30	Medical		Prescription Drug	Part B Penalty
	Under Age 65	Over Age 65		
2021	7.00%	6.00%	8.50%	4.50%
2022	6.75%	5.75%	8.25%	4.50%
2023	6.50%	5.50%	8.00%	4.50%
2024	6.25%	5.25%	7.75%	4.50%
2025	6.00%	5.00%	7.50%	4.50%
2026	5.75%	4.75%	7.25%	4.50%
2027	5.50%	4.50%	7.00%	4.50%
2028	5.25%	4.50%	6.75%	4.50%
2029	5.00%	4.50%	6.50%	4.50%
2030	4.75%	4.50%	6.25%	4.50%
2031	4.50%	4.50%	6.00%	4.50%
2032	4.50%	4.50%	5.75%	4.50%
2033	4.50%	4.50%	5.50%	4.50%
2034	4.50%	4.50%	5.25%	4.50%
2035	4.50%	4.50%	5.00%	4.50%
2036	4.50%	4.50%	4.75%	4.50%
2037 and later	4.50%	4.50%	4.50%	4.50%

The trend rate assumptions were developed using Segal’s internal guidelines, which are established each year using data sources such as the 2021 Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

Retiree Contributions and Increase Rates:

Members who contributions are related to salary, are assumed to be in the highest salary band at retirement. Bargained contributions are assumed to increase with trend until the member retires and then remain frozen.

Section 4: Supporting Information

Participation and Coverage Election:	<p>100% of active employees with coverage are assumed to elect retiree coverage.</p> <p>100% of retirees over age 65 are assumed to remain with their current medical plan for life.</p> <p>For Class A current retirees under age 65 and future retirees, and Class B retirees hired after 1986, 100% are assumed to be eligible for Medicare and are assumed to enroll in Plan 65 upon reaching age 65, or, if Class B, to enroll in the Post 65 Plan for Police and Fire that coordinates with Medicare upon reaching age 65. For Class B current retirees under age 65 and future retirees hired before 1986, 70% are assumed to be eligible for Medicare and are assumed to enroll in the Post 65 Plan for Police and Fire that coordinates with Medicare upon reaching age 65, and 30% are assumed to be ineligible for Medicare and remain enrolled in a non-Medicare plan.</p>
Prescription Drug Coverage:	<p>Prescription drug benefits were valued for current retirees with a prescription drug coverage code set to “Y”. For Class A retirees under age 65 with a prescription drug coverage code set to “Y”, coverage was assumed to end at age 65. For Class A future retirees no prescription drug coverage was assumed.</p>
Benefits Valued:	<p>All benefits summarized in Section 4, Exhibit III, except dental and vision benefits paid for by the retiree or spouse.</p>
Plan Design:	<p>Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit II.</p>
Administrative Expenses:	<p>Based on current vendor contracted rates and fees, an administrative expense load of \$340 per participant for the self-insured plans increasing at 3.0% per year was added for projected incurred self-insured claim costs in developing the benefit obligations.</p>
Missing Participant Data:	<p>A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.</p>
Health Care Reform Assumption:	<p>This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010, and other changes previously adopted as of the valuation date.</p>
Demographic and Salary Increase Assumptions:	<p>The demographic assumptions used in this valuation, with the exception of the mortality assumptions, are the same as used in The Employee Retirement System of the City of Providence Actuarial Valuation and Review as of July 1, 2020, dated December 1, 2021, completed by Segal for non-teachers and the Employees’ Retirement System of Rhode Island Actuarial Experience Investigation as of June 30, 2019, dated May 6, 2020, completed by Gabriel, Roeder Smith & Company for teachers. The mortality assumptions for teachers used in this valuation are the Pub-2010 Teacher Mortality Tables released by the Society of Actuaries in 2019. The mortality assumption for participants in The Employee Retirement System of the City of Providence are the headcount weighted versions of the tables used in the Retirement System’s valuation. A review of the demographic assumptions is beyond the scope of this assignment, however, we have no reason to doubt the reasonableness of the assumptions.</p> <p>The remaining demographic assumptions, such as enrollment elections, were based on the experience of the Plan and the experience of similar plans.</p>

Section 4: Supporting Information

Medicare Part D Subsidy Assumption:	<p>GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the Employer may be eligible to receive for plan years beginning in 2006.</p>
Actuarial Models:	<p>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.</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>
Justification for Assumption Changes Since Prior Valuation:	<p>Based on past experience and future expectations, the following actuarial assumptions were changed:</p> <ul style="list-style-type: none">• Per capita health care costs were updated using recent experience for self-insured plans and premiums for fully-insured plans.• Contributions were updated to reflect new CBA agreements.• The medical and prescription drug trend rates were updated:• The discount rate was lowered from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020.

Section 4: Supporting Information

Exhibit III: Summary of Plan

Eligibility:

The following groups of retirees receiving a pension from The Employee Retirement System of the City of Providence or The Employees' Retirement System of Rhode Island are first eligible for postretirement medical benefits:

Class A:

- Members hired prior to July 1, 1995: Age 55 and 10 years of service or the age at which 25 years of service are completed, if earlier.
- Members hired between July 1, 1995 and June 30, 2004: Age 55 and 10 years of service or the age at which 30 years of service are completed, if earlier.
- Members hired on or after July 1, 2004: Age 55 with 10 years of service or the age at which 30 years of service are completed, if earlier.

Class B:

- Members hired prior to July 1, 2004: Age 55 and 10 years of service or the age at which 20 years of service are completed, if earlier.
- Members of the Police Department hired between July 1, 2004 and June 30, 2011 and members of the Fire Department hired between July 1, 2004 and June 30, 2012: Age 55 and 10 years of service or the age at which 23 years of service are completed, if earlier.
- Members of the Police Department hired on or after July 1, 2011 and members of the Fire Department hired on or after July 1, 2012: Age 55 and 10 years of service or the age at which 25 years of service are completed, if earlier.

Teachers:

- Members with less than five years of contributory service as of June 30, 2012 and members hired on or after that date are eligible for retirement on or after their Social Security normal retirement age, with 10 years of service.
- Members who had at least five years of contributory service as of June 30, 2012 will be eligible for retirement at an individually determined age. This age is the result of interpolating between the member's Article 7 Retirement Date and the member's Social Security normal retirement age. The interpolation is based on service as of June 30, 2012 divided by projected service at the member's Article 7 Retirement Date. The minimum retirement age is 59.
- Members with 10 or more years of contributory service on June 30, 2012 may choose to retire at their Article 7 Retirement Date if they continue to work and contribute until that date.
- Members will be eligible to retire upon attainment of age 65 with 30 years of service, age 64 with 31 years of service, age 63 with 32 years of service, or age 62 with 33 years of service.

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	<ul style="list-style-type: none"> • A member who is within five years of reaching their retirement eligibility date, as described in this section, and has 20 or more years of service, may elect to retire at any time. • Article 7 Retirement Date (member's retirement date as of September 30, 2009): <ul style="list-style-type: none"> – Article 7 Retirement Date – Grandfathered Schedule A members – members with at least 10 years of contributory service as June 30, 2005 and eligible for retirement at September 30, 2009 – are eligible to retire on or after age 60 if they have credit for 10 years of service or at any age if they have credit for 28 years of service. – Article 7 Retirement Date – Schedule B members – members with less than 10 years of contributory service as June 30, 2005 and members hired on or after that date – are eligible to retire on or after age 65 if they have credit for 10 years of service, or on or after age 62 if they have credit for 20 years of service. – Article 7 Retirement Date – Schedule A members who are not grandfathered, i.e., members who had at least 10 years of creditable service at June 30, 2005 but who were not eligible to retire on September 30, 2009, will be eligible for retirement at an individually determined age. This age is a result of interpolating between the retirement age under the rules applicable to Grandfathered Schedule A members and the retirement age applicable to Schedule B members. The interpolation is based on service as of September 30, 2009 divided by projected service at the retirement age for Grandfathered Schedule A members.
Disability:	Accidental (job-related) Disability has no age or service requirement. Ordinary (non-job related) Disability has no age requirement but requires 10 years of creditable service.
Pre-Retirement Death:	Surviving spouses of members who die in active service are eligible for subsidized benefits. The benefit summary below describes which spouses are eligible for subsidized benefits.
Post-Retirement Death:	Surviving spouse is eligible. The benefit summary below describes which spouses are eligible for subsidized benefits.
Benefit Types:	Medical and prescription drug benefits are provided to all eligible retirees through plans offered by Blue Cross Blue Shield of Rhode Island and CVS Caremark. Prescription drug benefits are paid by the retiree, except for Class B retirees. The Medicare Part B Penalty is paid for by the City for retirees and spouses if applicable. Vision and dental benefits are offered but are 100% retiree paid and have been excluded from this valuation.
Duration of Coverage:	Lifetime.
Dependent Coverage:	Certain married and surviving spouses are eligible to receive subsidized medical coverage. A description of these rules can be found in the benefit summary below.
Medicare Integration Rule (Police and Fire only):	Carve-out method in which the plan benefit is first determined without regard to Medicare payments, and is then reduced by the amount of such payments.
Retiree Contributions for Current Retirees:	Contributions for current retirees are reported in the data.

Section 4: Supporting Information

Retiree Contributions for Future Retirees:

Local 1033 (City and School) and City Non-Union

<ul style="list-style-type: none"> • Pre-65 	15%, 16.5% or 20%, based on salary, for Local 1033, or 20% for City Non-Union of projected medical costs frozen at the last day worked
<ul style="list-style-type: none"> • Plan 65C (turned 65 before 1/1/20) - No Rx or Dental <ul style="list-style-type: none"> – Hired before June 30, 2008 – Hired after June 30, 2008 	<p style="text-align: right;">\$0.00</p> <p style="text-align: right;">\$2,191.56</p>
<ul style="list-style-type: none"> • Plan 65G (turned 65 after 1/1/20) with City funded HRA for Medicare Part B deductible – No Rx or Dental <ul style="list-style-type: none"> – Hired before June 30, 2008 – Hired after June 30, 2008 	<p style="text-align: right;">\$0.00</p> <p style="text-align: right;">\$1,955.64</p>
<ul style="list-style-type: none"> • Blue Chip <ul style="list-style-type: none"> – Hired before June 30, 2008 – Hired after June 30, 2008 	<p style="text-align: right;">\$0.00</p> <p style="text-align: right;">\$2,160.00</p>
<ul style="list-style-type: none"> • Healthmate PPO (includes Rx, Dental and Vision) <ul style="list-style-type: none"> – Hired before June 30, 2008 – Hired after June 30, 2008 	<p style="text-align: right;">\$1,426.44</p> <p style="text-align: right;">\$3,540.00</p>

Section 4: Supporting Information

Police	Pre/Post Plan	Individual	Ind. + Spouse	Family Annual
		Annual Co-Share	Annual Co-Share	Co-Share
	<ul style="list-style-type: none"> • Pre-65 <ul style="list-style-type: none"> – Hired Before June 30, 1996, Retired July 1, 2020 through June 30, 2021 – Hired Before June 30, 1996, Retired July 1, 2021 through June 30, 2022 – Hired Before June 30, 1996, Retired July 1, 2022 through June 30, 2023 – Hired After June 30, 1996, Retired July 1, 2020 through June 30, 2021 – Hired After June 30, 1996, Retired July 1, 2021 through June 30, 2022 – Hired After June 30, 1996, Retired July 1, 2022 through June 30, 2023 • Post-65 	\$1,050.00 \$1,225.00 \$1,225.00 \$1,050.00 \$1,225.00 \$1,225.00 \$0.00	\$1,900.00 \$2,125.00 \$2,125.00 \$1,900.00 \$9,996.24 TBD \$0.00	\$1,900.00 \$2,125.00 \$2,125.00 \$1,900.00 \$15,779.64 TBD \$0.00

Section 4: Supporting Information

Fire	Individual	Ind. + Spouse	Family Annual	
	Annual Co-Share			Annual Co-Share
	Pre/Post Plan			
	<ul style="list-style-type: none"> • Pre-65 <ul style="list-style-type: none"> – Hired Before July 1, 1998, Retired July 1, 2020 through June 30, 2021 – Hired Before July 1, 1998, Retired July 1, 2021 through June 30, 2022 – Hired Before July 1, 1998, Retired July 1, 2022 through June 30, 2023 – Hired After July 1, 1998, Retired July 1, 2020 through June 30, 2021 – Hired After July 1, 1998, Retired July 1, 2021 through June 30, 2022 – Hired After July 1, 1998, Retired July 1, 2022 through June 30, 2023 • Post-65 	<ul style="list-style-type: none"> \$765.00 \$795.48 \$819.37 \$765.00 \$795.48 \$819.37 \$0.00 	<ul style="list-style-type: none"> \$1,949.50 \$2,027.52 \$2,108.60 \$1,949.50 \$9,866.28 TBD \$0.00 	<ul style="list-style-type: none"> \$1,949.50 \$2,027.52 \$2,108.60 \$1,949.50 \$15,847.20 TBD \$0.00

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		Medical	
		Under 65	Over 65
Key: A = Employer Paid B = Retiree Paid/Access Only C = Co-share			
Local 1033 City and Non-Union	Current Retirees (using contribution from data)		
	• Retiree	C	A, if hired before July 1, 2008, otherwise B
	• Spouse	B	B
	• Surviving Spouse	B, if retired after September 2, 1992	A, if hired before July 1, 2008, otherwise B
Local 1033 School and Teachers	• Current Retirees (using contribution from data)		
	• Retiree	C	A
	• Spouse	B	B
	• Surviving Spouse	B, if retired after September 2, 1992	A
Other Class A	Current Retirees (using contribution from data)		
	• Retiree	C	A
	• Spouse	B	B
	• Surviving Spouse	C	A
Police	Current Retirees (using contribution from data)		
	• Retiree	C	A
	• Spouse	A, if hired before July 1, 1998, otherwise B	A, if hired before July 1, 1998, otherwise B
	• Surviving Spouse	C	A

Section 4: Supporting Information

	Fire	Current Retirees (using contribution from data)		
Plan Changes Since the Prior Valuation:		<ul style="list-style-type: none"> • Retiree • Spouse • Surviving Spouse 	<p style="text-align: center;">C</p> <p>A, if hired before July 1, 1996, otherwise B</p> <p style="text-align: center;">C</p>	<p style="text-align: center;">A</p> <p>A, if hired before July 1, 1996, otherwise B</p> <p style="text-align: center;">A</p>