

# City of Providence

**Actuarial Valuation and Review of Other  
Postemployment Benefits (OPEB) as of  
June 30, 2016 in accordance with  
GASB Statements No. 43 and No. 45**





116 Huntington Avenue 8th Floor Boston, MA 02116-5744  
T 617.424.7300 www.segalco.com

*September 29, 2017*

*Mr. Lawrence J. Mancini  
Director, Finance Department  
Providence City Hall  
25 Dorrance Street  
Providence, RI 02903*

*Dear Mr. Mancini:*

*We are pleased to submit this report on our actuarial valuation of postemployment welfare benefits as of June 30, 2016 under Governmental Accounting Standards Board (GASB) Statements Number 43 and 45. It establishes the liabilities of the postemployment welfare benefit plan in accordance with GASB Statements Number 43 and 45 for the fiscal year beginning July 1, 2016 and summarizes the actuarial data.*


*This report is based on information received from the City of Providence. The actuarial projections were based on the assumptions and methods described in Exhibit II and on the plan of benefits as summarized in Exhibit III.*

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

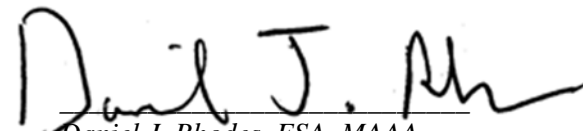
*Sincerely,*

*Segal Consulting, a Member of The Segal Group, Inc.*

*By:*

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

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*Daniel J. Rhodes, FSA, MAAA  
Vice President and Consulting Actuary*

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**IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS**

An actuarial valuation is an estimate of 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 Consulting (“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 coordinate 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.
- **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 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 the plan’s assets, or if there are no assets, a rate of return on the assets of the employer. 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: Executive Summary for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to 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. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- 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.
- Sections of this report may 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 and health care cost trend, 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 Consulting has no discretionary authority with respect to the management of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

**PURPOSE**

This report presents the results of our actuarial valuation of the City of Providence (the “Employer”) postemployment welfare benefit plan as of June 30, 2016. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants’ active working lifetimes. The accounting standard supplements cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

**HIGHLIGHTS OF THE VALUATION**

During the fiscal year ending June 30, 2017, we project the City of Providence will pay benefits (net of retiree contributions) on behalf of retired employees of about \$26,854,000. This amount is less than the annual “cost” (the “Annual Required Contribution,” or ARC) of approximately \$55,760,000.

The GASB statements provide the method for selecting the investment return assumption (discount rate). If the benefits are fully funded, the discount rate should be based on the estimated long-term investment yield on the investments expected to be used to finance the payment of benefits. If financing continues to be pay-as-you-go, the discount rate should be based on the expected yield on the assets of the employer. If the benefits are partially funded, a blended discount rate can be used that reflects the proportionate amounts of plan and employer assets expected to be used. Because benefits are not being funded, we have used a 4.0% discount rate (referred to as the pay-as-you-go rate).

To determine the amortization payment on the unfunded actuarial accrued liability (UAAL), an amortization period and amortization method must be selected. We have used a 30-year open amortization of the UAAL (the maximum permitted by the GASB statements), with payments increasing at 3.5% per year. The GASB statements allow for either an open or closed amortization period. In open amortization, the period is reset to the initial value every year and the UAAL is reamortized, while under a closed amortization, the remaining period decreases and the UAAL is eventually “paid off.”

Assets set aside to fund OPEB liabilities must be held in a trust or equivalent arrangement, through which assets are accumulated and benefits are paid as they come due. Employer contributions to the plan are irrevocable, plan assets are dedicated to providing benefits to retirees and their spouses in accordance with the terms of the plan, and plan assets are legally protected from creditors of the employer.

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.

Employer decisions regarding plan design, cost sharing between the Employer and its retirees, actuarial cost method, amortization techniques, and integration with Medicare are just some of the decisions that affect the magnitude of OPEB obligations. We are available to assist you with any investigation of such options you may wish to undertake.

**SECTION 1: Executive Summary for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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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 other than the excise tax on high cost health plans beginning in 2020 and those previously adopted as of the valuation date.

**DATA USED**

This valuation was performed using employee and retiree census data provided by the City that included the plan in which the employee or retiree is currently enrolled, the cost of the plan, and the employee's or retiree's contribution toward that plan. Note, the data reported for the current valuation included approximately 8% fewer active employees and 16% fewer retired employees. The City believes the current data is more accurate. Spouses were identified by status code, marriage code or a coverage code. Access only spouses were identified based on our understanding of the coverage rules. No liability is included for access only spouses or access only benefits. Assumptions we made regarding missing information are outlined in Exhibit II of Section 4.

Segal Consulting did not audit the data, although it was reviewed for reasonability. The results of the valuation are dependent on the accuracy of the data. While the data resulted in uncertainties and a decrease in covered lives, we felt that the data could be used for the purpose of this analysis.

A summary of the eligibility requirements and cost sharing provisions of the retiree health plan was approved by the City. Our understanding of the available benefits and cost sharing provisions is based on the documentation we received (primarily collective bargaining agreements) and our discussions with the City. A summary of our understanding of the plan of benefits is provided in Exhibit III of Section 4.

## SECTION 1: Executive Summary for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45

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### KEY VALUATION RESULTS

- The **unfunded actuarial accrued liability (UAAL)** as of June 30, 2016 is \$923,563,000. Going forward, net unfunded plan obligations will be expected to change due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total actuarial accrued liability, less expected benefit payments and contributions. Future valuations will analyze the difference between actual and expected unfunded actuarial accrued liabilities.
  - As of June 30, 2016 the ratio of assets to the AAL (the funded ratio) is 0.00%.
- The **Annual Required Contribution (ARC)** for fiscal year 2017 is \$55,760,000. The ARC is expected to remain relatively level as a percentage of payroll, as long as the ARC is fully funded each year. If the ARC is not fully funded, it may be expected to increase as a percentage of payroll over time.
- **Valuation assumption and plan changes** decreased obligations by \$24,125,000. This was the net result of *decreases* in obligations due to 1) valuation year per capita health costs not increasing as much as projected, 2) revising future trends on per capita health costs and contributions and 3) a plan change adding generic step therapy and mandatory maintenance choice for prescription drugs for Police, partially offset by *increases* in obligations due to 4) revising the Medicare enrollment assumption for Class B non-Medicare and future retirees, 5) changes in the mortality assumptions as described in Exhibit II, Section 4 and 6) updating the excise tax on high cost health plans starting in 2020. The complete set of assumptions is shown in Exhibit II and the summary of plan provisions is shown in Exhibit III.

Plan obligations of \$923,563,000 as of June 30, 2016 represent a decrease of \$57,111,000 from \$980,674,000 as shown in the June 30, 2014 valuation.

Plan obligations had been expected to increase \$64,297,000 due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total obligation, less expected benefit payments. The decrease was the net effect of the following:

- An **actuarial experience gain** decreased obligations by \$97,283,000. This was the net result of gains and losses due to demographic changes.



**SECTION 1: Executive Summary for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**ACCOUNTING REQUIREMENTS**

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under these statements, all state and local governmental entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements.

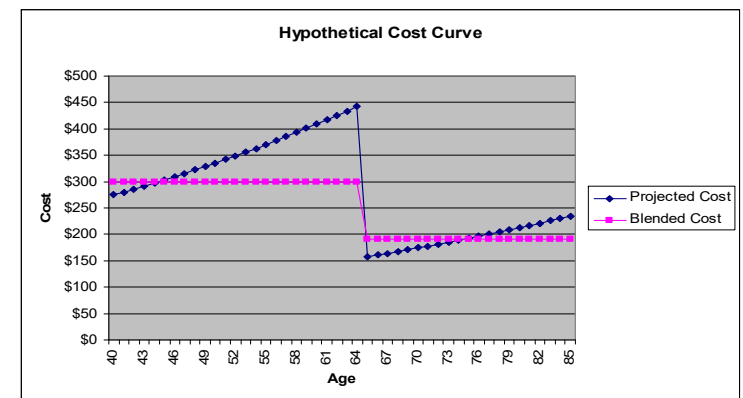
The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. These benefits, referred to as OPEB, are typically financed on a pay-as-you-go basis. The new standard introduces an accrual-basis accounting requirement; thereby recognizing the employer cost of postemployment benefits over an employee’s career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the net OPEB obligation (NOO). In addition, required supplementary information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan.

The benefits valued in this report are limited to those described in Exhibit III of Section 4.

The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.



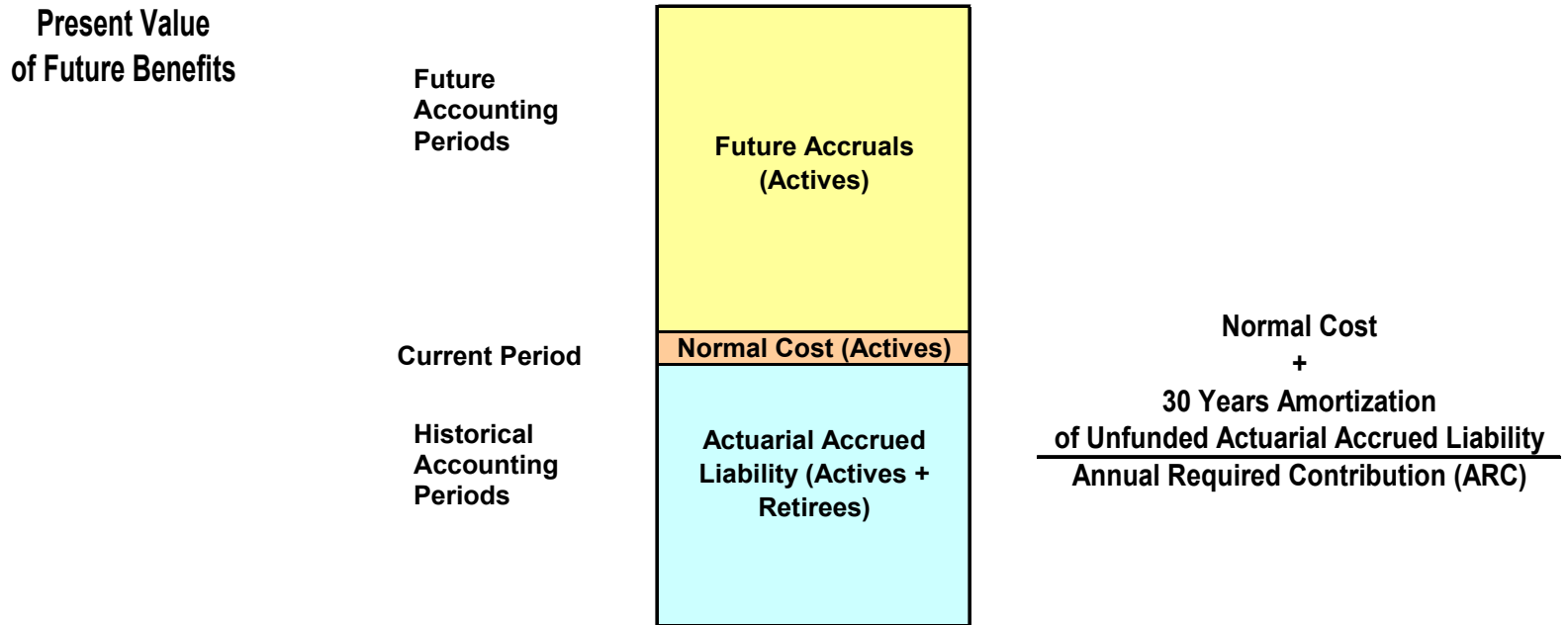
**SECTION 1: Executive Summary for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods.

The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

### GASB 43/45 Measurement



$$\text{Net OPEB Obligation} = \text{ARC}_1 + \text{ARC}_2 + \text{ARC}_3 + \dots - \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \dots$$

**SECTION 1: Executive Summary for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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Actuarial computations under GASB statements are for purposes of fulfilling certain welfare plan accounting requirements. The calculations shown in this report have been made on a basis consistent with our understanding of GASB. Determinations for purposes other than meeting the financial accounting requirements of GASB may differ significantly from the results reported here.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits does not incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

**SECTION 2: Valuation Results for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**SUMMARY OF VALUATION RESULTS  
ALL DEPARTMENTS**

*The key results for the current and prior valuations are shown on a pay-as-you-go basis.*

	Pay-as-you-go (4.0% interest rate)	
	June 30, 2016	June 30, 2014
<b>Actuarial Accrued Liability by Participant Category</b>		
1. Current retirees, beneficiaries and dependents	\$573,650,601	\$585,940,515
2. Current active employees	<u>349,912,612</u>	<u>394,733,845</u>
3. Total: (1) + (2)	\$923,563,213	\$980,674,360
4. Actuarial value of assets	<u>0</u>	<u>0</u>
5. Unfunded actuarial accrued liability (UAAL): (3) - (4)	\$923,563,213	\$980,674,360
<b>Annual Required Contribution for Fiscal Year Ending June 30, 2017 and June 30, 2015</b>		
6. Normal Cost as of July 1, 2016 and July 1, 2014	\$21,692,609	\$25,957,078
7. Adjustment for timing	<u>429,598</u>	<u>514,053</u>
8. Normal Cost adjusted for timing: (6) + (7)	\$22,122,207	\$26,471,131
9. 30-year amortization (increasing 3.5% per year) of the UAAL	32,984,959	35,024,677
10. Adjustment for timing	<u>653,231</u>	<u>693,627</u>
11. Amortization payment adjusted for timing: (9) + (10)	\$33,638,190	\$35,718,304
12. Total Annual Required Contribution (ARC): (8) + (11)	55,760,397	62,189,435
13. Projected Benefit Payments	26,853,717	32,325,783

*Note: Assumes payment in the middle of the fiscal year.*

**SECTION 2: Valuation Results for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**10-YEAR PROJECTION OF ARC**

**30 Years Open (4.0% discount rate)**

Fiscal Year Ended June 30	(1) Projected Benefit Payments	(2) Normal Cost	(3) Amortization of UAAL	(4) ARC (2) + (3)	(5) Funding	At Fiscal Year End		
						(6) Assets	(7) AAL	(8) UAAL (7) – (6)
2017	\$26,853,717	\$22,122,207	\$33,638,190	\$55,760,397	\$0	\$0	\$955,680,529	\$955,680,529
2018	35,014,469	23,117,706	34,807,973	58,036,290	0	0	981,775,385	981,775,385
2019	37,999,558	24,158,003	35,762,513	60,152,246	0	0	1,006,930,729	1,006,930,729
2020	40,983,318	25,245,113	36,687,497	62,296,717	0	0	1,031,158,075	1,031,158,075
2021	43,737,383	26,381,143	37,583,950	64,473,631	0	0	1,054,704,437	1,054,704,437
2022	46,266,477	27,568,294	38,461,525	66,695,690	0	0	1,077,824,134	1,077,824,134
2023	48,173,682	28,808,867	39,330,203	68,976,076	0	0	1,101,188,785	1,101,188,785
2024	50,126,308	30,105,266	40,215,224	71,343,391	0	0	1,124,818,800	1,124,818,800
2025	52,058,847	31,460,003	41,118,176	73,802,751	0	0	1,148,804,770	1,148,804,770
2026	54,206,103	32,875,703	42,043,275	76,362,079	0	0	1,173,004,136	1,173,004,136

*Notes: Assumes payment in the middle of the fiscal year.  
Amortization payments calculated to increase 3.5% per year.*

**SECTION 2: Valuation Results for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**DEPARTMENT RESULTS**

**Actuarial Accrued Liability (AAL) and Annual Required Contribution – Pay-as-you-go (4.0% discount rate)**

	General			Subtotal	School	Water	Grand Total
	Class A	Police	Fire				
<b>Actuarial Accrued Liability by Participant Category</b>							
1. Current retirees, beneficiaries and dependents	\$45,626,821	\$216,859,950	\$217,115,472	\$479,602,243	\$85,930,623	\$8,117,735	\$573,650,601
2. Current active employees	<u>29,970,776</u>	<u>104,812,609</u>	<u>88,726,827</u>	<u>223,510,212</u>	<u>116,632,250</u>	<u>9,770,150</u>	<u>349,912,612</u>
3. Total: (1) + (2)	\$75,597,597	\$321,672,559	\$305,842,299	\$703,112,455	\$202,562,873	\$17,887,885	\$923,563,213
4. Actuarial value of assets	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
5. Unfunded actuarial accrued liability (UAAL): (3) - (4)	\$75,597,597	\$321,672,559	\$305,842,299	\$703,112,455	\$202,562,873	\$17,887,885	\$923,563,213
<b>Annual Required Contribution for Fiscal Year Ending June 30, 2017 and June 30, 2015</b>							
6. Normal Cost as of July 1, 2016 and July 1, 2014	\$2,279,916	\$6,091,544	\$5,325,980	\$13,697,440	\$7,334,194	\$660,975	\$21,692,609
7. Adjustment for timing	<u>45,151</u>	<u>120,636</u>	<u>105,475</u>	<u>271,262</u>	<u>145,246</u>	<u>13,090</u>	<u>429,598</u>
8. Normal Cost adjusted for timing: (6) + (7)	\$2,325,067	\$6,212,180	\$5,431,455	\$13,968,702	\$7,479,440	\$674,065	\$22,122,207
9. 30-year amortization (increasing 3.5% per year) of the UAAL	2,699,960	11,488,500	10,923,124	25,111,584	7,234,511	638,864	32,984,959
10. Adjustment for timing	<u>53,470</u>	<u>227,517</u>	<u>216,320</u>	<u>497,307</u>	<u>143,272</u>	<u>12,652</u>	<u>653,231</u>
11. Amortization payment adjusted for timing: (9) + (10)	\$2,753,430	\$11,716,017	\$11,139,444	\$25,608,891	\$7,377,783	\$651,516	\$33,638,190
12. Total Annual Required Contribution (ARC): (8) + (11)	5,078,497	17,928,197	16,570,899	39,577,593	14,857,223	1,325,581	55,760,397
13. Projected Benefit Payments	3,346,173	8,961,517	8,767,040	21,074,730	5,198,301	580,686	26,853,717

Note: Assumes payment in the middle of the fiscal year.

## **SECTION 2: Valuation Results for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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September 29, 2017

### **ACTUARIAL CERTIFICATION**

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. has conducted an actuarial valuation of certain benefit obligations of the City of Providence other postemployment benefit programs as of June 30, 2016, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Number 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the City of Providence and on participant, premium data and claims experience provided by the City of Providence or from vendors employed by the City of Providence. Segal Consulting 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.

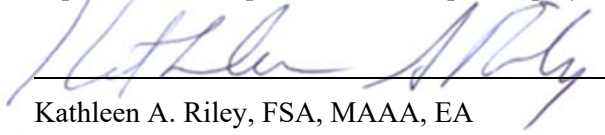
The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination or adequacy of funding an ongoing plan.

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 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 scope of the assignment did not include performing an analysis of the potential range of such future measurements.

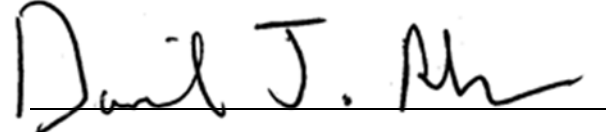
**SECTION 2: Valuation Results for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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The signing actuaries are members of the American Academy of Actuaries and collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements Number 43 and 45 with respect to the benefit obligations addressed. Further, in our opinion, the assumptions are reasonably related to the experience and expectations of the postemployment benefit programs.



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



Daniel J. Rhodes, FSA, MAAA  
Vice President and Consulting Actuary



**SECTION 3: Valuation Details for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**CHART 1**  
**Required Supplementary Information – Schedule of Employer Contributions**

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<b>Fiscal Year Ended June 30,</b>	<b>Annual OPEB Costs</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2008	\$40,447,000	\$35,660,000	88.2%
2009	43,282,000	35,022,000	80.9%
2010	79,947,000	39,011,000	36.3%
2011	64,437,000	30,009,000	46.6%
2012	70,635,000	33,843,000	47.9%
2013	74,246,000	36,175,000	48.7%
2014	65,830,000	29,620,000	45.0%
2015	62,938,000	29,134,000	46.3%
2016	65,594,000	30,042,000	45.8%
2017	56,757,000	26,854,000	47.3%

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*Notes: 2008 – 2016 information as shown in the City’s financial statements.*

*Contributions for fiscal 2017 represent estimated benefit payments paid by the Employer.*

**SECTION 3: Valuation Details for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

**CHART 2**  
**Required Supplementary Information – Schedule of Funding Progress**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded AAL (UAAL) (b) - (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)]</b>
07/01/2007	\$0	\$542,413,000	\$542,413,000	0.00%	\$256,157,000	211.75%
07/01/2008	1,035,000	593,903,000	592,868,000	0.17%	274,827,000	215.72%
07/01/2009	1,040,000	1,498,491,000	1,497,451,000	0.07%	268,871,000	556.94%
07/01/2010	1,040,000	1,212,615,000	1,211,575,000	0.09%	267,593,000	452.77%
07/01/2011	0	1,149,115,000	1,149,115,000	0.00%	266,731,000	430.81%
07/01/2012	0	1,190,552,000	1,190,552,000	0.00%	260,546,000	456.95%
07/01/2013	0	1,032,887,000	1,032,887,000	0.00%	267,341,000	386.36%
07/01/2014	0	980,674,000	980,674,000	0.00%	270,706,000	362.27%
07/01/2016	0	923,563,000	923,562,000	0.00%	N/A	N/A

*Notes: Enter covered payroll for fiscal 2017.  
 2007 – 2014 information as shown in the City’s financial statements.*

**SECTION 3: Valuation Details for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**CHART 3**  
**Required Supplementary Information – Net OPEB Obligation/(Asset) (NOO/NOA)**

<b>Fiscal Year Ended June 30,</b>	<b>Annual Required Contribution (a)</b>	<b>Interest on Existing NOO (b)</b>	<b>ARC Adjustment (c)</b>	<b>Annual OPEB Cost (a) + (b) + (c) (d)</b>	<b>Actual Contribution Amount (e)</b>	<b>Net Increase in NOO (d) - (e) (f)</b>	<b>NOO as of Following Date (g)</b>
2008	\$9,600,000	\$0	\$30,847,000	\$40,447,000	\$35,660,000	\$4,787,000	\$4,787,000
2009	43,147,000	407,000	-272,000	43,282,000	35,022,000	8,260,000	13,047,000
2010	79,580,000	1,109,000	-742,000	79,947,000	39,011,000	40,936,000	63,980,000
2011	63,906,000	2,559,000	-2,028,000	64,437,000	30,009,000	34,428,000	98,408,000
2012	70,354,000	3,936,000	-3,655,000	70,635,000	33,843,000	36,792,000	135,200,000
2013	73,860,000	5,408,000	-5,022,000	74,246,000	36,175,000	38,071,000	173,271,000
2014	65,210,000	6,931,000	-6,311,000	65,830,000	29,620,000	36,210,000	209,481,000
2015	62,189,000	8,379,000	-7,630,000	62,938,000	29,134,000	33,804,000	243,285,000
2016	64,724,000	9,731,000	-8,861,000	65,594,000	30,042,000	35,552,000	278,837,000
2017	55,760,000	11,153,000	-10,156,000	56,757,000	26,854,000	29,903,000	308,740,000

*Notes: 2008 – 2016 information as shown in the City’s financial statements.  
 Contributions for fiscal 2017 represent estimated benefit payments paid by the Employer.*

**SECTION 3: Valuation Details for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**CHART 3  
Required Supplementary Information – Net OPEB Obligation/(Asset) (NOO/NOA) – by Department**

<b>Fiscal Year Ended June 30,</b>	<b>Annual Required Contribution (a)</b>	<b>Interest on Existing NOO (b)</b>	<b>ARC Adjustment (c)</b>	<b>Annual OPEB Cost (a) + (b) + (c) (d)</b>	<b>Actual Contribution Amount (e)</b>	<b>Net Increase in NOO (d) - (e) (f)</b>	<b>NOO as of Following Date (g)</b>
<b>General</b>							
2013	\$0	\$0	\$0	\$0	\$0	\$0	\$124,144,000
2014	42,869,580	4,965,760	-4,521,596	43,313,744	21,464,814	21,848,930	145,992,930
2015	43,358,000	5,840,000	-5,318,000	43,880,000	22,413,000	21,467,000	167,460,000
2016	44,976,000	6,698,000	-6,099,000	45,575,000	22,683,000	22,892,000	190,352,000
2017	39,577,000	7,614,000	-6,933,000	40,258,000	21,075,000	19,183,000	209,535,000
<b>School</b>							
2013	\$0	\$0	\$0	\$0	\$0	\$0	\$45,074,000
2014	20,585,029	1,802,960	-1,641,694	20,746,295	7,717,388	13,028,907	58,102,907
2015	17,057,000	2,324,000	-2,116,000	17,265,000	6,214,000	11,051,000	69,154,000
2016	17,907,000	2,766,000	-2,519,000	18,154,000	6,681,000	11,473,000	80,627,000
2017	14,857,000	3,225,000	-2,937,000	15,145,000	5,198,000	9,947,000	90,574,000
<b>Water</b>							
2013	\$0	\$0	\$0	\$0	\$0	\$0	\$4,053,000
2014	1,755,357	162,120	-147,618	1,769,859	437,598	1,332,261	5,385,261
2015	1,774,000	215,000	-196,000	1,793,000	507,000	1,286,000	6,671,000
2016	1,841,000	267,000	-243,000	1,865,000	678,000	1,187,000	7,858,000
2017	1,326,000	314,000	-286,000	1,354,000	581,000	773,000	8,631,000

*Note: Contributions for fiscal 2017 represent estimated benefit payments paid by the Employer.*

**SECTION 3: Valuation Details for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**CHART 4  
Summary of Required Supplementary Information**

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<b>Valuation date</b>	June 30, 2016
<b>Actuarial cost method</b>	Projected Unit Credit
<b>Amortization method</b>	Payments increasing at 3.5% per year
<b>Remaining amortization period</b>	30 years open
<b>Asset valuation method</b>	Market value
<b>Actuarial assumptions:</b>	
Discount rate	4.0%
Inflation rate	3.5%
Non-Medicare medical cost trend rate	7.5% decreasing by 0.5% for 6 years to an ultimate level of 4.5% per year
Medicare medical/prescription drug cost trend rate	6.5% decreasing by 0.5% for 4 years to an ultimate level of 4.5% per year
Prescription drug cost trend rate	10.0% decreasing by 0.5% for 11 years to an ultimate level of 4.5% per year
Part B trend rate	4.5%
Administrative cost trend rate	3.0%
<b>Plan membership:</b>	
Current retirees	3,783
Current active participants	<u>4,382</u>
Total	8,165

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**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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*This exhibit summarizes the participant data used for the current and prior valuations.*

**EXHIBIT I  
Summary of Participant Data**

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	<b>July 1, 2016</b>	<b>July 1, 2014</b>
<b>Active employees covered for medical benefits</b>		
Number of employees		
Male	1,857	2,115
Female	<u>2,525</u>	<u>2,650</u>
Total	4,382	4,765
Average age	47.8	46.8
Average service	14.5	13.7
Average age at hire	33.2	33.1
<b>Retired employees covered for medical benefits</b>		
Number of individuals	3,783	4,499
Average age	70.7	69.9

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*Note: Retired employees reflects the number of individual and family policies. The number excludes access only spouses.*

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**EXHIBIT I (Continued)  
Summary of Participant Data**

	General					Total
	Class A	Police	Fire	School	Water	
<b>Active employees covered for medical benefits</b>						
Male	409	362	330	599	157	1,857
Female	<u>289</u>	<u>37</u>	<u>13</u>	<u>2,135</u>	<u>51</u>	<u>2,525</u>
Total	698	399	343	2,734	208	4,382
Average age	48.2	43.5	42.6	48.9	48.3	47.8
Average service	12.1	15.6	15.3	15.0	13.5	14.5
Average age at hire	36.1	27.9	27.3	33.9	34.8	33.2
<b>Retired employees covered for medical benefits</b>						
Number of individuals	802	644	641	1,571	125	3,783
Average age	73.2	67.4	67.1	72.3	69.1	70.7

*Note: Retired employees reflects the number of individual and family policies. The number excludes access only spouses.*

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**EXHIBIT II  
Actuarial Assumptions and Actuarial Cost Method**

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**Data:** Detailed census data, claims, premium rates, and administrative fees for postemployment welfare benefits were provided by the City of Providence.

**Actuarial Cost Method:** Projected Unit Credit – For active employees, benefits are allocated from date of hire to assumed retirement age.

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**Per Capita Cost Development:**

*Insured plans (Blue Cross Blue Shield Plan 65, Blue Chip for Medicare and Blue Medicare Rx)*

Per capita costs were based on the fully insured premium rates effective July 1, 2016 for Plan 65 and January 1, 2016 and January 1, 2017 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.

*Self-Funded plans (Blue Cross Blue Shield Classic and Healthmate Coast to Coast, Caremark Rx including Post 65 Plan for Police and Fire)*

Per capita claims costs were based on the monthly paid claims experience by participant group for the period July 1, 2014 through June 30, 2016. Claims were separated into two 12-month periods and adjusted as follows:

- 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, and
- the per capita claim cost was trended to the midpoint of the valuation year at assumed trend rates.

Taking a weighted average, per capita claims for the two periods were combined. 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.

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**Measurement Date:** June 30, 2016

**Discount Rate:** 4.0% pay-as-you-go  
Pay-as-you-go discount rate provided by the City of Providence.

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**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**Mortality Rates:**

**Pre-Retirement**

- Class A Healthy:* RP-2014 Employee Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D (previously, RP-2000 Combined Healthy Mortality Table projected 21 years with Scale AA)
- Class B Healthy:* RP 2014 Blue Collar Employee Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D (previously, RP-2000 Combined Healthy Blue Collar Mortality Table projected 21 years with Scale AA)
- Teachers* 50% of the RP-2000 Combined Tables with White Collar Adjustment

**Post-Retirement Mortality Rates:**

- Class A Healthy:* RP-2014 Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D, set forward one year (previously, RP-2000 Combined Healthy Mortality Table projected 21 years with Scale AA)
- Class B Healthy:* RP-2014 Blue Collar Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D, set forward one year (previously, RP-2000 Combined Healthy Blue Collar Mortality Table projected 21 years with Scale AA)
- Class A and B Disabled Retirees:* RP 2014 Blue Collar Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D, set forward three years (previously, RP-2000 Combined Healthy Mortality Table set forward 3 years)
- Teachers*
- Healthy Male\** RP-2000 Healthy Annuitant with Large Benefit Amount Adjustment Mortality Table for males set back one year and projected generationally with Scale AA
- Healthy Female\** RP-2000 Healthy Annuitant with Large Benefit Amount Adjustment Mortality Table for females set back three years and projected generationally with Scale AA

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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*Disabled Retiree*

60% of the PBGC Mortality Table Va for males and VIa for females for Disabled Lives Receiving Social Security Benefits

The above mortality assumptions were determined to contain provisions appropriate to reasonably reflect future mortality improvements.

\* *These tables are intended to approximate the Gabriel, Roeder Smith & Company (GRS) tables used in the Employees' Retirement System of Rhode Island Actuarial Valuation Report as of June 30, 2016, dated December 19, 2016 completed by Gabriel, Roeder Smith & Company.*

**Annuitant Mortality Rates\***

Age	Rate per year (%)							
	Class A							
	Mortality				Disabled			
	Current		Previous		Current		Previous	
	Male	Female	Male	Female	Male	Female	Male	Female
55	0.64	0.41	0.24	0.23	0.77	0.54	0.53	0.39
60	0.89	0.66	0.48	0.46	1.18	0.88	1.00	0.76
65	1.39	1.07	0.84	0.87	1.96	1.40	1.61	1.34
70	2.23	1.72	1.62	1.51	3.19	2.26	3.04	2.30
75	3.66	2.76	2.47	2.37	5.23	3.70	4.69	3.76
80	6.11	4.62	5.21	3.96	8.60	6.26	8.97	6.25
85	10.45	8.15	8.61	6.83	14.19	10.82	13.60	10.73
90	17.77	14.26	16.86	12.36	22.40	17.84	23.37	17.04

\* *Mortality rates shown do not reflect generational projection.*

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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<b>Class B</b>								
<b>Age</b>	<b>Mortality</b>				<b>Disabled</b>			
	<b>Current</b>		<b>Previous</b>		<b>Current</b>		<b>Previous</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
55	0.68	0.45	0.28	0.24	0.77	0.54	0.53	0.39
60	0.98	0.72	0.59	0.45	1.18	0.88	1.00	0.76
65	1.60	1.16	1.16	0.82	1.96	1.40	1.61	1.34
70	2.63	1.87	1.95	1.68	3.19	2.26	3.04	2.30
75	4.29	3.03	3.21	2.61	5.23	3.70	4.69	3.76
80	7.05	5.05	5.71	4.22	8.60	6.26	8.97	6.25
85	11.61	8.71	9.93	7.32	14.19	10.82	13.60	10.73
90	19.01	14.81	16.71	12.83	22.40	17.84	23.37	17.04

<b>Teachers</b>				
<b>Age</b>	<b>Mortality</b>		<b>Disabled</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
55	0.41	0.21	2.89	1.77
60	0.60	0.37	3.62	1.99
65	0.99	0.64	4.07	2.22
70	1.57	1.03	4.43	2.57
75	2.48	1.76	5.65	2.98
80	4.52	3.10	6.77	4.48
85	8.23	5.28	10.09	6.77
90	13.88	8.64	15.15	10.09

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**Termination Rates before Retirement:**

Age	Class A – Rate (%)				
	Mortality				Disability
	Current		Previous		
	Male	Female	Male	Female	
20	0.05	0.02	0.02	0.01	0.02
25	0.05	0.02	0.03	0.02	0.03
30	0.05	0.02	0.04	0.02	0.05
35	0.06	0.03	0.07	0.04	0.08
40	0.08	0.05	0.09	0.05	0.10
45	0.12	0.08	0.11	0.08	0.18
50	0.20	0.12	0.15	0.12	0.22
55	0.30	0.17	0.24	0.23	0.28
60	0.50	0.28	0.48	0.46	0.36

*Notes: Mortality rates do not reflect generational projection.  
33.33% of the disability rates shown represent accidental disability.*

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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<b>Class B – Rate (%)</b>					
<b>Mortality</b>					
<b>Age</b>	<b>Current</b>		<b>Previous</b>		<b>Disability</b>
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	
20	0.07	0.02	0.02	0.01	0.08
25	0.07	0.02	0.03	0.02	0.13
30	0.06	0.02	0.07	0.02	0.19
35	0.07	0.03	0.10	0.04	0.25
40	0.10	0.05	0.12	0.06	0.37
45	0.16	0.09	0.14	0.10	0.66
50	0.26	0.13	0.16	0.14	1.14
55	0.38	0.19	0.28	0.24	1.64
60	0.64	0.31	0.59	0.45	2.28

*Notes: Mortality rates do not reflect generational projection.  
90% of the disability rates shown represent accidental disability.*

<b>Teachers - Rate (%)</b>					
<b>Age</b>	<b>Mortality</b>		<b>Ordinary Disability</b>		<b>Accidental Disability</b>
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	
25	0.02	0.01	0.27	0.23	0.04
30	0.02	0.01	0.33	0.28	0.04
35	0.03	0.02	0.45	0.38	0.06
40	0.04	0.03	0.66	0.55	0.09
45	0.07	0.05	1.08	0.90	0.14
50	0.10	0.08	1.83	1.53	0.24
55	0.17	0.13	3.03	2.53	0.40
60	0.28	0.23	4.23	3.53	0.56

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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<b>Withdrawal Rates:</b>	<b>Rate (%)</b>			
	<b>Age</b>	<b>Class A</b>	<b>Age</b>	<b>Class B</b>
	20	14.00	20	2.50
	25	11.50	25	1.90
	30	9.00	30	1.40
	35	6.50	35	0.90
	40	5.00	40	0.55
	45	3.75	45	0.35
	50	2.50	50	0.15
	55	1.25	55	0.00
	60	0.00	60	0.00

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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	<b>Teachers - Rate (%)</b>	
<b>Service</b>		<b>All</b>
0		18.00
1		12.00
2		8.00
3		6.48
4		4.82
5		3.83
6		3.17
7		2.70
8		2.36
9		2.09
10		1.87
11		1.70
12		1.55
13		1.43
14		1.32
15		1.23
16		1.15
17		1.08
18		1.02
19		0.96
20		0.91
21		0.87
22		0.83
23		0.79
24		0.76

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**Retirement Rates:**

Age	Rate (%)		
	Class A		Class B
	Fewer than 10 Years of Service	10 Years of Service or More	
40	2.00	4.50	5.50
41	2.25	5.00	5.50
42	2.50	5.50	5.50
43	2.75	6.00	5.50
44	3.00	6.50	5.50
45	3.25	7.00	5.75
46	3.50	7.50	6.00
47	3.75	8.00	6.25
48	4.00	8.50	6.50
49	4.25	9.00	6.75
50	4.50	9.50	7.00
51	5.00	10.00	7.25
52	5.50	10.50	7.50
53	6.00	11.00	7.75
54	6.50	11.50	8.00
55	7.00	12.00	10.00
56	7.00	12.00	12.50
57	7.00	12.00	15.00
58	7.00	12.00	17.50
59	7.00	12.00	25.00
60	10.00	12.50	100.00
61	11.00	13.50	0
62	12.00	14.50	0



**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**Retirement Rates:**

		<b>Rate (%)</b>		
		<b>Class A</b>		
<b>Age</b>	<b>Fewer than 10 Years of Service</b>	<b>10 Years of Service or More</b>	<b>Class B</b>	
63	13.00	16.00	0	
64	14.00	17.50	0	
65	15.00	20.00	0	
66 – 74	15.00	20.00	0	
75	100.00	100.00	0	

**Teachers**

A flat 25% per year retirement probability for members eligible for unreduced retirement until age 74, then 100% at age 75. A 60% retirement probability at first eligibility will only be applied if the member has reached age 65 or has at least 25 years of service.

Rates based on the years from Normal Retirement Age for Teachers eligible for a reduced retirement benefit.

<b>Years from Normal Retirement Age</b>	<b>Rate (%)</b>
5	2%
4	2%
3	2%
2	3%
1	4%

**Dependents:**

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.

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

**Per Capita Health Costs:**

Fiscal year 2016 - 2017 medical and prescription drug claims costs 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.

<b>Self-Insured Non-Medicare Plans</b>								
<b>Age</b>	<b>Medical</b>				<b>Prescription Drug</b>			
	<b>Retiree</b>		<b>Spouse</b>		<b>Retiree</b>		<b>Spouse</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
45	\$5,338	\$6,696	\$3,311	\$4,998	\$1,942	\$2,436	\$1,204	\$1,818
50	6,335	7,216	4,425	5,794	2,304	2,625	1,610	2,108
55	7,524	7,768	5,921	6,707	2,737	2,826	2,154	2,440
60	8,935	8,373	7,927	7,779	3,250	3,046	2,883	2,829
65	10,612	9,020	10,612	9,020	3,860	3,281	3,860	3,281
70	12,299	9,721	12,299	9,721	4,474	3,536	4,474	3,536
75	13,254	10,463	13,254	10,463	4,821	3,806	4,821	3,806
80	14,273	11,281	14,273	11,281	5,192	4,103	5,192	4,103
<b>Plan 65</b>								
<b>Age</b>	<b>Retiree</b>		<b>Spouse</b>		<b>Retiree</b>		<b>Spouse</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	\$1,866	\$1,586	\$1,866	\$1,586	\$2,775	\$2,359	\$2,775	\$2,359
70	2,163	1,709	2,163	1,709	3,216	2,542	3,216	2,542
75	2,331	1,840	2,331	1,840	3,466	2,736	3,466	2,736
80	2,510	1,984	2,510	1,984	3,732	2,950	3,732	2,950

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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Age	Blue Chip				Blue Medicare Rx (PDP)			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	\$1,707	\$1,451	\$1,707	\$1,451	\$2,253	\$1,915	\$2,253	\$1,915
70	1,978	1,564	1,978	1,564	2,611	2,064	2,611	2,064
75	2,132	1,683	2,132	1,683	2,814	2,221	2,814	2,221
80	2,296	1,815	2,296	1,815	3,030	2,395	3,030	2,395

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**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	Administration	Part B Penalty
	Under Age 65	Over Age 65			
2017	7.5%	6.5%	10.0%	3.0%	4.5%
2018	7.0%	6.0%	9.5%	3.0%	4.5%
2019	6.5%	5.5%	9.0%	3.0%	4.5%
2020	6.0%	5.0%	8.5%	3.0%	4.5%
2021	5.5%	4.5%	8.0%	3.0%	4.5%
2022	5.0%	4.5%	7.5%	3.0%	4.5%
2023	4.5%	4.5%	7.0%	3.0%	4.5%
2024	4.5%	4.5%	6.5%	3.0%	4.5%
2025	4.5%	4.5%	6.0%	3.0%	4.5%
2026	4.5%	4.5%	5.5%	3.0%	4.5%
2027	4.5%	4.5%	5.0%	3.0%	4.5%
2028 and later	4.5%	4.5%	4.5%	3.0%	4.5%

The trend rate assumptions were developed using Segal’s internal guidelines, which are established each year using data sources such as the 2017 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 Contribution Increase Rate:**

With the exception of Teachers, Local 1033 and Non-Union employees, contributions are not assumed to increase from their current amounts. For Teachers, Local 1033 and Non-Union employees, contributions are assumed to increase with trend until the member retires and then remain frozen.

#### **SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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<b>Administrative Expenses:</b>	Based on current vendor contracted rates and fees, an administrative expense load of \$324 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.
<b>Participation and Coverage Election:</b>	100% of active employees with coverage are assumed to elect retiree coverage.  100% of retirees over age 65 are assumed to remain with their current medical plan for life.  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 (previously, 100% were assumed to be eligible for Medicare).
<b>Plan Design:</b>	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.
<b>Missing Participant Data:</b>	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.
<b>Health Care Reform Assumption:</b>	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 other than the excise tax on high cost health plans beginning in 2020 (reflected with this valuation) and those previously adopted as of the valuation date. The addition of the excise tax in this valuation increased the actuarial accrued liability by 6.1% and normal cost by 6.5%.
<b>Medicare Part D Subsidy Assumption:</b>	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.

**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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**Demographic Assumptions:**

The demographic assumptions used in this valuation are the same as used in The Employee Retirement System of the City of Providence Actuarial Valuation and Review as of July 1, 2016, dated September 5, 2017, completed by Segal Consulting for non-teachers and the Employees' Retirement System of Rhode Island Actuarial Valuation Report as of June 30, 2016, dated December 19, 2016, completed by Gabriel, Roeder Smith & Company for teachers. As noted earlier, the mortality assumption for healthy retired teachers used in this valuation is an approximation of the assumption used in the ERSRI 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.

The remaining demographic assumptions, such as enrollment elections, were based on the experience of the Plan and the experience of similar plans.

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**Justification for  
Assumption Changes  
Since Prior Valuation:**

Based on past experience and future expectations, the following actuarial assumptions were changed:

- The per capita health costs were updated.
- The medical and prescription drug trend assumptions were updated.
- The Medicare enrollment assumption for Class B future retirees hired prior to 1986 and current retirees under age 65 was lowered from 100% to 70%, based on a review of recent experience.
- The excise tax on high cost health plans beginning in 2020 was revised.
- The mortality assumption for non-teachers was updated.

## SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45

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### EXHIBIT III Summary of Plan

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This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

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- 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.
- 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):
  - 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



**SECTION 4: Supporting Information for the City of Providence June 30, 2016 Measurement Under GASB 43 and 45**

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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 beginning on page 36 describes which spouses are eligible for subsidized benefits.

**Post-Retirement Death:** Surviving spouse is eligible. The benefit summary beginning on page 40 describes which spouses are eligible for subsidized benefits.

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**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. Any benefit that is 100% paid by the retiree has no impact on this valuation and has been excluded.

**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 on page 40.

**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.

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**Retiree Contributions for Future Retirees:**

<b>Local 1033 City and Non-Union</b>	➤ Pre-65 (20%, effective July 1, 2014)	20% of projected medical costs frozen at the last day worked
	➤ Plan 65	
	○ Local 1033 hired before June 30, 2008	\$0
	○ Local 1033 hired after June 30, 2008	\$1,884
<b>Local 1033 School and Teachers:</b>	➤ Pre-65	\$1,506
	➤ Plan 65	\$0
<b>Other Class A:</b>	➤ Pre-65	\$0
	➤ Plan 65	\$0
<b>Class B:</b>	➤ Pre-65	
	○ Fire	\$0
	○ Police	
	▪ If retired July 2, 2016 through June 30, 2017	\$650
	▪ If retired July 1, 2017 through June 30, 2018	\$750
	▪ If retired July 1, 2018 and after	\$850
	➤ Post 65 Plan for Police and Fire (assuming all opted into settlement and will not pay for coverage)	
	○ Fire	\$0
	○ Police	\$0

*Notes: Contributions for current retirees are reported in the data.  
The portion of the contribution attributable to access only benefits is excluded.  
With the exception of Teachers, Local 1033 and Non-Union employees, contributions are not assumed to increase from their current amounts. For Teachers, Local 1033 and Non-Union employees, contributions are assumed to increase with trend until the member retires and then remain frozen.  
The Teacher pre-65 retiree contribution amount of \$1,506 is based on the September 1, 2014 – August 31, 2017 agreement between the Providence Teachers Union AFL Local 958, AFL-CIO and the City of Providence.*

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

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<sup>1</sup> For Police and Fire, also includes prescription drug coverage.

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		<b>Medical<sup>1</sup></b>	
		<b>Under 65</b>	<b>Over 65</b>
		Key: A = Employer Paid B = Retiree Paid/Access Only C = Co-share	
<b><u>Police</u></b>			
Current Retirees (using contribution from data)			
Future Retirees			
	<i>Retiree</i>	C	A
	<i>Spouse</i>	A, if hired before July 1, 1998, otherwise B	A, if hired before July 1, 1998, otherwise B
	<i>Surviving Spouse</i>	C	A
<b><u>Fire</u></b>			
Current Retirees (using contribution from data)			
Future Retirees			
	<i>Retiree</i>	A	A
	<i>Spouse</i>	A, if hired before July 1, 1996, otherwise B	A, if hired before July 1, 1996, otherwise B
	<i>Surviving Spouse</i>	A	A

**Plan Changes**

**Since the Prior Valuation:**

Generic step therapy and mandatory maintenance choice added to prescription drug benefit for Police.

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