



nyhart

GASB 74/75 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2017

Town of Johnston **(including Johnston School Department)**

Nyhart Actuary & Employee Benefits

8415 Allison Pointe Blvd., Ste. 300, Indianapolis, IN 46250
(317) 845-3500 – www.nyhart.com

Table of Contents

	Page
Certification	1
Executive Summary	3
GASB Disclosures	
Schedule of Changes in Net OPEB Liability and Related Ratios	5
Schedule of Employer Contributions	6
OPEB Expense	7
Deferred Outflows / (Inflows) of Resources	8
Sensitivity Results	9
Asset Information	10
Actuarially Determined Contribution	11
Projection of GASB Disclosures	12
Cash Flow Projection	13
Discussion of Discount Rates	14
Summary of Plan Participants	15
Substantive Plan Provisions	18
Actuarial Methods and Assumptions	22
Appendix	29
GASB Results by Group	30
Comparison of Participant Demographic Information	31
Detailed Actuary's Notes	32
Glossary	33



November 16, 2017

**Joseph L. Chiodo
Town of Johnston
1385 Hartford Avenue
Johnston, RI 02919**

This report summarizes the GASB actuarial valuation for Town of Johnston 2016/17 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans) and GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- 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 plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.



Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.

A handwritten signature in black ink that reads "Randy Gomez".

Randy Gomez, FSA, MAAA
Consulting Actuary

A handwritten signature in black ink that reads "Evi Laksana".

Evi Laksana, ASA, MAAA
Valuation Actuary

Summary of Results

Presented below is the summary of GASB 74 / 75 results for the fiscal year ending June 30, 2017.

		<i>As of June 30, 2017</i>
Total OPEB Liability	\$	215,380,378
Actuarial Value of Assets	\$	(2,447,319)
Net OPEB Liability	\$	212,933,059
Funded Ratio		1.1%

		<i>FY 2016/17</i>
OPEB Expense	\$	13,577,014
Annual Employer Contribution	\$	6,043,237

		<i>As of June 30, 2017</i>
Discount Rate		3.56%
Expected Return on Assets		3.50%

		<i>As of June 30, 2017</i>
Total Active Participants		638
Total Retiree Participants		588

The active participants' number above may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

Below is a breakdown of total GASB 75 liabilities allocated to past and current service compared to the prior year. The table below also provides a breakdown of the Total OPEB Liability allocated to pre and post Medicare eligibility. The liability shown below includes explicit (if any) and implicit subsidies. Refer to the Substantive Plan Provisions section for complete information on the Town’s GASB subsidies.

Present Value of Future Benefits		<i>As of June 30, 2017</i>
Active Employees	\$	170,986,981
Retired Employees		135,787,082
Total Present Value of Future Benefits	\$	306,774,063

Total OPEB Liability		<i>As of June 30, 2017</i>
Active Pre-Medicare	\$	22,903,483
Active Post-Medicare		56,689,813
Active Liability	\$	79,593,296
Retiree Pre-Medicare	\$	36,477,144
Retiree Post-Medicare		99,309,938
Retiree Liability	\$	135,787,082
Total OPEB Liability	\$	215,380,378

		<i>As of June 30, 2017</i>
Discount Rate		3.56%

Present Value of Future Benefits (PVFB) is the amount needed as of June 30, 2017, to fully fund the Town’s retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

Total OPEB Liability is the portion of PVFB considered to be accrued or earned as of June 30, 2017. This amount is a required disclosure in the Required Supplementary Information section.

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2016/17
Total OPEB Liability	
Total OPEB liability – beginning of year	\$ 228,846,782
Service cost	8,833,235
Interest	6,598,353
Changes of benefit terms	0
Changes in assumptions	(26,076,367)
Differences between expected and actual experience	2,971,612
Benefit payments	(5,793,237)
Net change in total OPEB liability	\$ (13,466,404)
Total OPEB liability – end of year	\$ 215,380,378
Plan Fiduciary Net Position	
Plan fiduciary net position – beginning of year	\$ 2,099,992
Contributions – employer	6,043,237
Contributions – active employees	0
Net investment income	102,793
Benefit payments	(5,793,237)
Trust administrative expenses	(5,466)
Net change in plan fiduciary net position	\$ 347,327
Plan fiduciary net position – end of year	\$ 2,447,319
Net OPEB Liability – end of year	\$ 212,933,059
Plan fiduciary net position as % of total OPEB liability	1.1%
Covered employee payroll	\$ N/A
Net OPEB liability as % of covered payroll	N/A

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below are based on the Annual Required Contribution (ARC) calculated in the prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	<i>FY 2016/17</i>		<i>FY 2015/16</i>		<i>FY 2014/15</i>		<i>FY 2013/14</i>		<i>FY 2012/13</i>	
Actuarially Determined Contribution (ADC)	\$	16,785,322 ¹	\$	16,032,814	\$	15,214,424	\$	15,214,424	\$	14,727,631
Contributions in relation to the ADC ²		6,043,237		6,167,417		4,764,265		4,764,265		5,189,692
Contribution deficiency / (excess)	\$	10,742,085	\$	9,865,397	\$	10,450,159	\$	10,450,159	\$	9,537,939
Covered employee payroll	\$	N/A	\$	N/A	\$	N/A	\$	N/A	\$	N/A
Contribution as a % of covered employee payroll		N/A		N/A		N/A		N/A		N/A

	<i>FY 2011/12</i>		<i>FY 2010/11</i>		<i>FY 2009/10</i>		<i>FY 2008/09</i>	
Actuarially Determined Contribution (ADC)	\$	17,249,186	\$	17,249,187	\$	19,218,165	\$	18,202,814
Contributions in relation to the ADC ¹		5,284,569		5,755,376		4,472,653		4,397,410
Contribution deficiency / (excess)	\$	11,964,617	\$	11,493,811	\$	14,745,512	\$	13,805,404
Covered employee payroll	\$	N/A	\$	N/A	\$	N/A	\$	N/A
Contribution as a % of covered employee payroll		N/A		N/A		N/A		N/A

¹ Refer to the Actuarially Determined Contributions section for the calculation details.

² Includes employer contribution for pay-go cost paid from General Fund and pre-funding contributions deposited into the OPEB Trust.

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2016/17</i>
Discount rate as of beginning of fiscal year	2.92%
Discount rate as of end of fiscal year	3.56%
Service cost	\$ 8,833,235
Interest	6,598,353
Changes of benefit terms	0
Projected earnings on OPEB plan investments	(77,742)
Reduction for contributions from active employees	0
OPEB plan administrative expenses	5,466
Current period recognition of deferred outflows / (inflows) of resources	
Differences between expected and actual experience	\$ 228,586
Changes in assumptions	(2,005,874)
Net difference between projected and actual earnings on OPEB plan investments	(5,010)
Total current period recognition	\$ (1,782,298)
Total OPEB expense	\$ 13,577,014

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2017</i>
June 30, 2017	\$ 2,971,612	13	\$ 228,586	\$ 2,743,026

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2017</i>
June 30, 2017	\$ (26,076,367)	13	\$ (2,005,874)	\$ (24,070,493)

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2017</i>
June 30, 2017	\$ (25,051)	5	\$ (5,010)	\$ (20,041)

<i>As of fiscal year ending June 30, 2017</i>	<i>Deferred Outflows</i>	<i>Deferred Inflows</i>
Differences between expected and actual experience	\$ 2,743,026	\$ 0
Changes in assumptions	0	(24,070,493)
Net difference between projected and actual earnings in OPEB plan investments	0	(20,041)
Total	\$ 2,743,026	\$ (24,090,534)

Deferred Outflows / (Inflows) of Resources – Continued

Annual Amortization of Deferred Outflows / (Inflows)

The balances of June 30, 2017 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2018	\$ (1,782,298)
2019	\$ (1,782,298)
2020	\$ (1,782,298)
2021	\$ (1,782,299)
2022	\$ (1,777,288)
Thereafter	\$ (12,441,027)

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2017, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.56%.
- The 1% decrease in discount rate would be 2.56%.
- The 1% increase in discount rate would be 4.56%.

<i>As of June 30, 2017</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 257,156,597
Current Discount Rate	\$ 212,933,059
1% Increase	\$ 179,079,266

The following presents the net OPEB liability as of June 30, 2017, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.0%.
- The 1% decrease in health care trend rates would assume an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.0%.
- The 1% increase in health care trend rates would assume an initial rate of 10.0% decreasing by 0.5% annually to an ultimate rate of 6.0%.

<i>As of June 30, 2017</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 177,190,110
Current Health Care Trend Rates	\$ 212,933,059
1% Increase	\$ 260,027,021

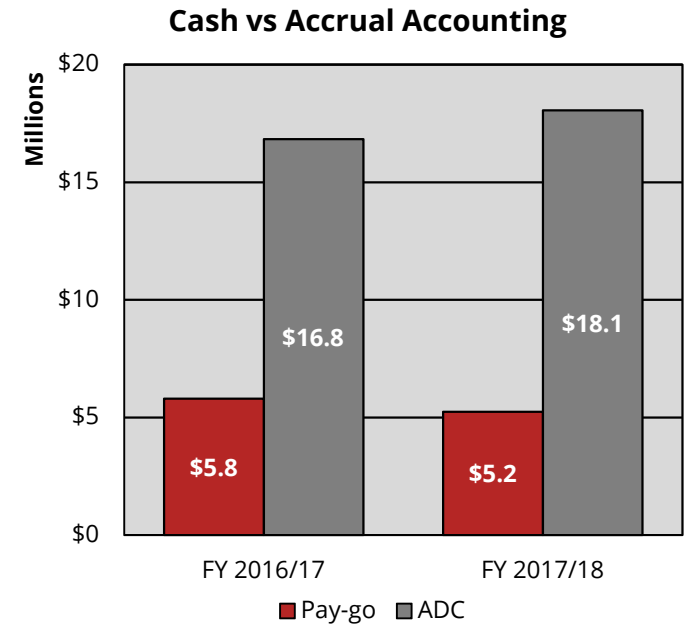
Asset Information

<i>Asset Breakdown</i>	<i>FY 2016/17</i>	
Assets		
Cash and cash equivalents	\$	0
Securities lending cash collateral		0
Total cash	\$	0
Receivables		
Contributions	\$	0
Accrued interest		0
Total receivables	\$	0
Investments		
Fixed income	\$	2,447,319
Equities		0
Mutual Funds		0
Other		0
Total investments	\$	2,447,319
Total assets	\$	2,447,319
Liabilities		
Payables		
Investment management fees	\$	0
Securities lending expense		0
Total liabilities	\$	0
Net position restricted to OPEB	\$	2,447,319

<i>Asset Reconciliation</i>	<i>FY 2016/17</i>	
Additions		
Contributions received		
Employer	\$	6,043,237
Employee		0
Total contributions	\$	6,043,237
Investment income		
Net increase in fair value of investments	\$	0
Interests and dividends		102,793
Investment expense, other than from securities lending		0
Securities lending income		0
Securities lending expense		0
Net investment income	\$	102,793
Total additions	\$	6,146,030
Deductions		
Benefit payments	\$	(5,793,237)
Administrative expenses		(5,466)
Other		0
Total deductions	\$	(5,798,703)
Net increase in net position	\$	347,327
Net position restricted to OPEB		
Beginning of year		2,099,992
End of year	\$	2,447,319

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2016/17	FY 2017/18
Discount rate	3.50%	3.50%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Linear proration	Linear proration
Amortization period	22 years	21 years
Actuarial accrued liability (AAL) - beginning of year	\$ 208,228,337	\$ 217,707,184
Actuarial value of assets - beginning of year	(2,099,992)	(2,447,319)
Unfunded AAL - beginning of year	\$ 206,128,345	\$ 215,259,865
Normal Cost	\$ 6,848,232	\$ 7,190,644
Amortization of UAAL	9,369,470	10,250,470
Total normal cost plus amortization	\$ 16,217,702	\$ 17,441,114
Interest to the end of year	567,620	610,439
Actuarially Determined Contribution - Preliminary	\$ 16,785,322	\$ 18,051,553
Expected benefit payments ³	5,793,237	5,246,772
Actuarially Determined Contribution - Final⁴	\$ 16,785,322	\$ 18,051,553



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

³ The benefit payments shown are actual for FY 2016/17 and expected for FY 2017/18.

⁴ Set to be the greater of the preliminary ADC and expected benefit payments.

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs if the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

Projection of Total OPEB Liability (TOL)	FY 2016/17	FY 2017/18
TOL as of beginning of year	\$ 228,846,782	\$ 215,380,378
Normal cost as of beginning of year	8,582,622	7,067,566
Exp. benefit payments during the year	(5,793,237)	(5,246,772)
Interest adjustment to end of year	6,848,966	7,826,571
Exp. TOL as of end of year	\$ 238,485,133	\$ 225,027,743
Actuarial Loss/(Gain)	(23,104,755)	TBD
Actual TOL as of end of year	\$ 215,380,378	\$ TBD

Projection of Actuarial Value of Assets (AVA)	FY 2016/17	FY 2017/18
AVA as of beginning of year	\$ 2,099,992	\$ 2,447,319
Exp. employer contributions during the year ⁵	6,043,237	6,246,772
Exp. benefit payments during the year	(5,793,237)	(5,246,772)
Exp. investment income ⁶	77,742	103,006
Exp. Trust administrative expenses	(5,466)	0
Exp. AVA as of end of year	\$ 2,422,268	\$ 3,550,325
Differences between expected and actual experience	25,051	TBD
AVA as of end of year	\$ 2,447,319	\$ TBD

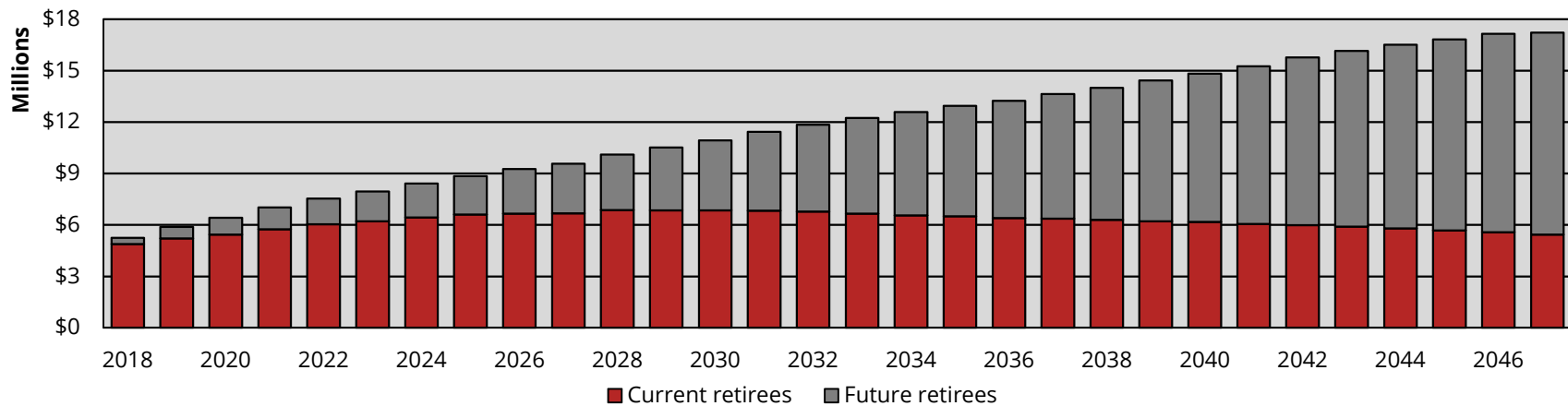
⁵ Expected employer contribution for 2016/17 is based on expected pay-go costs plus any deposits the Town made into the Trust. FY 2017/18 expected employer contribution is based on expected pay-go cost plus an additional \$1 million.

⁶ Fiscal years 2016/17 and 2017/18 expected investment income are calculated based on a 3.50% asset return.

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current / future retirees. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees ⁷	Total	FYE	Current Retirees	Future Retirees ⁶	Total	FYE	Current Retirees	Future Retirees ⁶	Total
2018	\$ 4,894,620	\$ 352,152	\$ 5,246,772	2028	\$ 6,866,767	\$ 3,243,397	\$ 10,110,164	2038	\$ 6,302,929	\$ 7,702,806	\$ 14,005,735
2019	\$ 5,212,369	\$ 681,150	\$ 5,893,519	2029	\$ 6,844,430	\$ 3,667,583	\$ 10,512,013	2039	\$ 6,212,090	\$ 8,218,445	\$ 14,430,535
2020	\$ 5,434,496	\$ 978,451	\$ 6,412,947	2030	\$ 6,849,280	\$ 4,087,473	\$ 10,936,753	2040	\$ 6,173,205	\$ 8,651,522	\$ 14,824,727
2021	\$ 5,758,096	\$ 1,257,495	\$ 7,015,591	2031	\$ 6,826,541	\$ 4,607,810	\$ 11,434,351	2041	\$ 6,066,299	\$ 9,187,282	\$ 15,253,581
2022	\$ 6,045,742	\$ 1,490,219	\$ 7,535,961	2032	\$ 6,775,202	\$ 5,074,743	\$ 11,849,945	2042	\$ 5,994,627	\$ 9,772,579	\$ 15,767,206
2023	\$ 6,208,424	\$ 1,749,142	\$ 7,957,566	2033	\$ 6,664,777	\$ 5,576,917	\$ 12,241,694	2043	\$ 5,911,257	\$ 10,234,842	\$ 16,146,099
2024	\$ 6,434,348	\$ 1,990,499	\$ 8,424,847	2034	\$ 6,552,487	\$ 6,025,343	\$ 12,577,830	2044	\$ 5,804,903	\$ 10,713,698	\$ 16,518,601
2025	\$ 6,605,711	\$ 2,250,961	\$ 8,856,672	2035	\$ 6,507,180	\$ 6,443,637	\$ 12,950,817	2045	\$ 5,680,627	\$ 11,150,157	\$ 16,830,784
2026	\$ 6,663,186	\$ 2,593,184	\$ 9,256,370	2036	\$ 6,405,130	\$ 6,832,847	\$ 13,237,977	2046	\$ 5,584,265	\$ 11,572,006	\$ 17,156,271
2027	\$ 6,685,984	\$ 2,892,271	\$ 9,578,255	2037	\$ 6,377,458	\$ 7,267,436	\$ 13,644,894	2047	\$ 5,435,699	\$ 11,777,016	\$ 17,212,715

Projected Employer Pay-go Cost



⁷ Projections for future retirees do not take into account future new hires.

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield 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) must be used.

For the current valuation:

1. The long-term expected rate of return on OPEB plan investment is assumed to be 3.50%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (1.90%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2017 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR
Domestic (US) fixed income investment grade	72%	3.60%
Inflation Protected Securities	4%	0.70%
International fixed income	24%	1.40%
Total	100%	2.96%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2016	June 30, 2017
Bond Buyer Go 20-Bond Municipal Bond Index	2.85%	3.53%
S&P Municipal Bond 20-Year High Grade Rate Index	2.71%	3.13%
Fidelity 20-Year Go Municipal Bond Index	2.92%	3.56%
Bond Index Range	2.71% - 2.92%	3.13% - 3.56%

3. The final equivalent single discount rate used for this year's valuation is 3.56% due to the long-term expected rate of return on OPEB plan investment that is lower than the 20-year tax-exempt general obligation municipal bonds yield.

Active Employees

<i>Actives with coverage</i>	<i>Single⁸</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Town Fire HSA (0001)	15	58	73	41.0	11.3	\$ N/A
Town General Classic (0001)	1	0	1	58.9	5.0	\$ N/A
Town General HM (0001)	40	47	87	49.5	11.7	\$ N/A
Town Police HSA (0002)	14	51	65	40.3	10.6	\$ N/A
School Certified HSA (0011 / 12)	101	189	290	46.8	14.5	\$ N/A
School Non-Certified HM (0002)	33	81	114	54.3	13.3	\$ N/A
Total actives with coverage	204	426	630	47.2	13.1	\$ N/A

<i>Actives without coverage</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
School Certified	8	41.8	6.9	\$ N/A

School Certified employees without coverage shown above have dental coverage. They are assumed to elect dental coverage only at retirement. They have been included in the GASB valuation.

⁸ Single enrollments include participants electing employee / child(ren) coverage levels.

Age-Service Distribution

Age	Years of Service										Total
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	7	4									11
25 to 29	9	26	4								39
30 to 34	6	23	24	7							60
35 to 39	7	10	19	30	13						79
40 to 44	7	13	11	12	23	6					72
45 to 49	4	12	10	17	41	22	6				112
50 to 54	6	5	17	11	18	17	15	1			90
55 to 59	3	7	6	15	33	10	8	5	1		88
60 to 64		3	3	6	19	12	9	4		1	57
65 to 69		1	1	4	7	6	5				24
70 & up			2		4						6
Total	49	104	97	102	158	73	43	10	1	1	638

Retirees

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Town Fire HM (0004 / 6)	15	38	53	55.7
Town Fire Classic (0006)	1	0	1	62.5
Town Fire HRA (0003)	1	11	12	50.1
Town Fire Plan 65 (0012)	42	0	42	70.6
Town General HM (0005 / 9)	11	4	15	63.2
Town General Classic (0009)	5	0	5	66.8
Town General Plan 65 (0010)	89	0	89	75.8
Town Police HM (0008)	4	46	50	54.0
Town Police Classic (0008)	7	5	12	64.2
Town Police HRA (0004)	0	4	4	49.9
Town Police Plan 65 (0011)	42	0	42	74.8
School Certified HM (0001 / 8)	9	2	11	63.1
School Certified Classic (0001 / 8)	4	2	6	69.7
School Certified Plan 65 (0003 / 7)	235	0	235	73.9
School Non-Certified HM (0005)	10	1	11	61.8
Total retirees with coverage	475	113	588	69.0

Retiree Age Distribution

<i>Age</i>	<i>Retirees</i>
< 45	5
45 to 49	25
50 to 54	37
55 to 59	43
60 to 64	64
65 to 69	152
70 to 74	115
75 to 79	54
80 to 84	50
85 to 89	31
90 & up	12
Total	588

Eligibility

Firefighters are eligible for lifetime retiree health benefits upon attainment of 20 years of service.

Police officers are eligible for lifetime retiree health benefits upon attainment of 18 years of service.

Town general employees are eligible for lifetime retiree health benefits upon attainment of age 58 with 10 years of service or 26 years of service with no age requirement. For Laborers' Local 808, only employees hired prior to April 19, 2012 are eligible for retiree health benefits.

School Certified employees are eligible for retiree health benefits upon meeting Rhode Island Employees Retirement System eligibility requirements as described in the next section. Retirees electing spousal coverage are required to pay the full incremental spouse cost. No spousal coverage is available once the retiree reaches Medicare eligibility.

School Non-Certified employees are eligible for retiree health benefits according to the requirements below:

- Hired prior to September 1, 1999: age 58 with 15 years of service or 25 years of service
- Hired on/after September 1, 1999: Age 60 with 20 years of service or age 55 with 25 years of service

There is no spousal coverage available at retirement (pre or post Medicare).

Retiree Cost Sharing

Retiree medical benefits are non-contributory for all non-School retirees and their spouses. School retirees contribute \$350 annually towards the cost of their health care for both pre and post-Medicare coverage. The \$350 contribution is not expected to increase in the future. Only School Certified employees receive free dental benefits for employee-only coverage at retirement. This dental coverage will terminate at Medicare eligibility.

Explicit Subsidy

The Town and School pay the full cost of coverage for pre and post-Medicare retiree health benefits less any required retiree contributions for School retirees.

Disability Benefits

Firefighters and police officers are eligible for disability retiree health benefits with no age or service requirement.

All other employees are eligible for disability retiree health benefits upon attainment of 20 years of service (no age requirements).

RI ERS Eligibility Requirements

RI ERS eligibility requirements is the earlier of each employee’s (a) Article 7 or (b) RIRSA eligibility dates which vary by Schedules summarized below:

Schedules	Vested with 10 years of contributing service credit as of 7/1/2005	Eligible to retire as of 9/30/2009
A	Y	Y*
B	N	Y**
AB	Y	N
B1	N	N
B2	Employees that became a member of RI ERS after 9/30/2009	

* Schedule A members were eligible to retire as of 9/30/2009 if they had (i) 28 years of service as of 9/30/2009 or (ii) had 10 years of contributing service and were age 60 as of 9/30/2009.

** Schedule B members were eligible to retire as of 9/30/2009 if they had 10 years of contributing service and were age 65 as of 9/30/2009.

Article 7 Eligibility Date

There are no changes to Schedule A and Schedule B members retirement eligibility dates. These employees may retire at any time once they met the prior RI ERS eligibility rules. The prior RI ERS eligibility rules are:

- Schedule A – earlier of (i) 28 years of service or (ii) age 60 with 10 years of contributing service.
- Schedule B – earlier of (i) age 65 with 10 years of contributing service or (ii) age 59 with 29 years of contributing service.

Minimum retirement age under Article 7 for Schedule AB and B1 members is 62 with “proportional downward adjustment” toward an earlier retirement age based on years of service as of 9/30/2009 (referred to as “frozen service credit”).

Schedule B2 members minimum retirement age under Article 7 is age 62 without “proportional downward adjustment” toward an earlier retirement age.

RI ERS Eligibility Requirements

(Continued)

RIRSA Eligibility Date

Employees with less than five years of contributing service credit on 6/30/2012 may retire at the Social Security normal retirement age (not higher than 67).

For employees with at least five years of contributing service credit on 6/30/2012, minimum retirement age is 62 with “proportional downward adjustment” toward an earlier retirement date based on years of service prior to 7/1/2012, but not earlier than 59.

Employees with at least 10 years of contributing service credit on 6/30/2012 may retire at their Article 7 eligibility date if they continue to work and contribute until that date. If they are within five years of reaching RIRSA retirement eligibility date and have at least 20 years of service, they may retire at any time.

Effective on July 1, 2015, employees are also 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 at least 33 years of service. These are additional eligibility requirements, which means that if employees are eligible to retire under the current eligibility requirements, they may do so.

Spouse Benefit

Upon death of retiree, coverage continues to surviving spouses. Town’s subsidy will continue to spouses for those who are receiving subsidized health benefits.

Part B Subsidy

Town retirees receive Medicare Part B premium subsidy upon Medicare eligibility for themselves and their spouses. The monthly Part B premium effective on January 1, 2017 is \$134.00. The Town also pays for the Medicare Part B premium penalty for a closed group of existing retirees and spouses who were not enrolled in Medicare Part B when first eligible. The Town will not pay for the Part B premium penalty for future retirees.

HRA Benefit

Retired police officers and firefighters in the HSA plan receive an annual HRA contribution of \$1,500 for single coverage and \$3,000 for family coverage to a Town controlled account. Claims processed through the HRA are paid out of that account.

Dental Benefit

Monthly dental working rate for School Certified employee is \$29.43 effective on July 1, 2016.

Medical Benefit

Same benefit options are available to retirees as active employees. All pre Medicare health plans are self-insured. Post-Medicare Blue Medicare Rx plan is fully-insured and community-rated. Below are the monthly HealthMate and Classic premiums including the stop-loss administration fees effective on July 1, 2017 for pre-Medicare current and future retirees:

Subgroup	Status	Subgroup Name	Plan	Single	Family
0001	Active	Town General Employees	HealthMate	\$ 629.23	\$ 1,643.59
0001	Active	Town General Employees	Classic	\$ 726.12	\$ 1,871.90
0001	Active	Town Fire HSA	HSA	\$ 526.40	\$ 1,350.34
0002	Active	Town Police HSA	HSA	\$ 526.40	\$ 1,350.34
0005	Active	Town General HSA	HSA	\$ 526.40	\$ 1,350.34
0004	Retired	Town Fire Retirees (2)	HealthMate	\$ 644.12	\$ 1,673.27
0005	Retired	Town Retirees	HealthMate	\$ 629.23	\$ 1,634.59
0006	Retired	Town Fire Retirees	Classic	\$ 726.12	\$ 1,871.90
0006	Retired	Town Fire Retirees	HealthMate	\$ 636.35	\$ 1,653.09
0008	Retired	Town Police Retirees	Classic	\$ 726.12	\$ 1,871.90
0008	Retired	Town Police Retirees	HealthMate	\$ 629.23	\$ 1,634.59
0009	Retired	Town Retirees (2)	Classic	\$ 726.12	\$ 1,871.90
0009	Retired	Town Retirees (2)	HealthMate	\$ 629.23	\$ 1,634.59
0003	Retired	Town Retired Fire HRA	HRA	\$ 515.78	\$ 1,339.72
0004	Retired	Town Retired Police HRA	HRA	\$ 515.78	\$ 1,339.72
0002	Active	School Non-Certified	HealthMate	\$ 703.17	\$ 1,812.59
0011 / 12	Active	School Teachers HSA / HRA	HSA / HRA	\$ 549.87	\$ 1,418.57
0001	Retired	School Certified Retirees	Classic	\$ 728.13	\$ 1,875.29
0001	Retired	School Certified Retirees	HealthMate	\$ 677.14	\$ 1,743.36
0005	Retired	School Non-Certified Retirees 2010	HealthMate	\$ 703.17	\$ 1,812.59
0008	Retired	School Certified Retirees (2)	Classic	\$ 798.91	\$ 2,059.57
0008	Retired	School Certified Retirees (2)	HealthMate	\$ 664.77	\$ 1,715.04

Upon Medicare eligibility, the Town and School provide Blue Medicare Rx plan with monthly premium of \$199.00 effective on January 1, 2018. Plan 65 monthly premiums are \$203.82 for the Town (with SNF) and \$184.08 for the School (without SNF) effective on January 1, 2018.

The actuarial assumptions used in this report represent a reasonable long-term expectation of future OPEB outcomes. As national economic and Town experience change over time, the assumptions will be tested for ongoing reasonableness and, if necessary, updated.

There are changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending June 30, 2016. Refer to Actuary's Notes section for complete information on these changes. For the current year GASB valuation, we have also updated the per capita costs. We expect to update discount rate, health care trend rates, and per capita costs again in the next full GASB valuation, which will be for the fiscal year ending June 30, 2018.

Measurement Date	June 30, 2017
Actuarial Valuation Date	June 30, 2017 with no adjustments to get to the June 30, 2017 measurement date. Liabilities as of July 1, 2016 are based on an actuarial valuation date of June 30, 2016.
Discount Rate	2.92% as of July 1, 2016 and 3.56% as of June 30, 2017 for accounting disclosure purposes. 3.50% for funding disclosure purposes (for calculating the Actuarially Determined Contribution). Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.
Inflation Rate	3.50% per year
Cost Method	Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where: <ul style="list-style-type: none">• service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant's benefit at retirement; and• annual Service Cost is a constant percentage of the participant's salary that is assumed to increase according to the Payroll Growth.
Employer Funding Policy	The Town / School currently pays for the pay-go costs from General Fund. Ongoing pre-funding contributions above pay-go costs to the OPEB Trust will be made at the Town's discretion.
Census Data	Census information was provided by the Town and it was provided in September 2017. We have reviewed it for reasonableness and no material modifications were made to the census data.
Experience Study	Best actuarial practices call for a periodic assumption review and Nyhart recommends the Town to complete an actuarial assumption review (also referred to as an experience study). The actuarial assumptions have not been updated since at least the 2012 valuation, except for those that are based on RI ERS and MERS actuarial valuations.

Payroll Growth

Payroll growth is based on the assumptions used in the RI ERS and MERS actuarial valuations as of June 30, 2016. Sample payroll growths that include wage inflation and merit / productivity increases are as shown below:

YOS	Town Police / Fire	Town General / School Non-Certified	School Certified
0	14.00%	7.50%	13.50%
5	7.00%	5.50%	8.50%
10	4.00%	3.75%	3.50%
15	4.00%	3.50%	3.50%
20	4.00%	3.50%	3.50%

Mortality

Healthy retiree: RPH-2016 Total Dataset Mortality Table Headcount-Weighted fully generational projected using Scale MP-2016
 Disabled retiree: RPH-2016 Disabled Mortality Table Headcount-Weighted fully generational projected using Scale MP-2016

Disability

Sample annual disability rates are as shown below.

Age	Town			School Teachers		School General
	Police	Fire	General	Male	Female	
20	0.17%	0.34%	0.04%	0.02%	0.01%	0.04%
25	0.17%	0.34%	0.05%	0.02%	0.02%	0.05%
30	0.22%	0.44%	0.06%	0.03%	0.02%	0.06%
35	0.29%	0.58%	0.09%	0.04%	0.03%	0.09%
40	0.44%	0.88%	0.13%	0.06%	0.05%	0.13%
45	0.72%	1.44%	0.22%	0.09%	0.08%	0.22%
50	1.21%	2.42%	0.37%	0.15%	0.14%	0.37%
55	1.21%	2.42%	0.61%	0.25%	0.23%	0.61%
60	1.21%	2.42%	0.85%	0.35%	0.31%	0.85%

Turnover Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. The rates represent the probability of termination in the next 12 months. For Teachers and all others, the termination rates are based on the assumptions used in the RI ERS and MERS actuarial valuation report as of June 30, 2016. No terminations are assumed for Police and Firefighters hired before 1/1/1999.

YOS	Fire hired after 1998	Teachers	All others
0	10.00%	18.00%	17.50%
1	4.73%	12.00%	11.88%
2	3.69%	8.00%	10.14%
3	3.08%	6.48%	8.61%
4	2.65%	4.82%	7.29%
5	2.32%	3.83%	6.15%
6	2.04%	3.17%	5.18%
7	1.81%	2.70%	4.36%
8	1.61%	2.36%	3.69%
9	1.43%	2.09%	3.14%
10	1.28%	1.87%	2.71%
11	1.13%	1.70%	2.37%
12	1.00%	1.55%	2.13%
13	0.88%	1.43%	1.95%
14	0.77%	1.32%	1.83%
15	0.67%	1.23%	1.75%
16	0.57%	1.15%	1.70%
17	0.48%	1.08%	1.66%
18	0.39%	1.02%	1.62%
19	0.00%	0.96%	1.57%
20	0.00%	0.91%	1.49%
21	0.00%	0.87%	1.36%
22	0.00%	0.83%	1.18%
23	0.00%	0.79%	0.92%
24	0.00%	0.76%	0.58%

Retirement Rate

For Police and Firefighters

YOS	Police	Firefighters	
		Hired before 1999	Hired after 1998*
20	5%	20%	15%
21	10%	20%	10%
22 - 23	20%	50%	5%
24	20%	50%	10%
25	20%	50%	12%
26	50%	100%	12%
27	100%	100%	14%
28	100%	100%	16%
29	100%	100%	18%
30+	100%	100%	35%

* All employees are assumed to retire no later than age 65.

For Town’s General and School Non-Certified Employees

Retirement rates are based on the assumptions used in the RI MERS actuarial valuation report as of June 30, 2016, which is a flat 25% per year retirement probability for members eligible for unreduced retirement. A 50% retirement probability at first eligibility will be applied if they have reached age 65 or with at least 25 years of service.

For School Certified Employees

Retirement rates are based on the assumptions used in the RI ERS actuarial valuation report as of June 30, 2016, which is a flat 25% per year retirement probability for members eligible for unreduced retirement. A 60% retirement probability at first eligibility will be applied if they have reached age 65 or with at least 25 years of service. The early retirement rates assumptions for this group follows the table below.

Age	Rates
59 - 61	2%
62	3%
63	4%

Health Care Trend Rates

FYE	Medical/Rx	Part B	Dental	HRA
2018	9.00%	3.00%	5.00%	1.70%
2019	8.50%	3.25%	5.00%	1.50%
2020	8.00%	3.50%	5.00%	1.35%
2021	7.50%	3.75%	5.00%	1.20%
2022	7.00%	4.00%	5.00%	1.00%
2023	6.50%	4.25%	5.00%	0.80%
2024	6.00%	4.50%	5.00%	0.70%
2025	5.50%	4.50%	5.00%	0.60%
2026	5.00%	4.50%	5.00%	0.50%
2027+	5.00%	4.50%	5.00%	0.40%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Retiree Contributions

Retiree contributions are assumed to increase according to health care trend rates.

Health Care Coverage Election Rate

100% of active employees with current coverage are assumed to continue coverage at retirement.
0% of active employees without current coverage are assumed to elect coverage at retirement, unless they are eligible for subsidized dental benefit; in which case, we have assumed that employees who currently have dental coverage will elect dental coverage only at retirement.

100% of retirees with current coverage are assumed to continue coverage.
0% of retirees without current coverage are assumed to elect coverage in the future.

Spousal Coverage

60% of male and 50% of female employees are assumed to be married at retirement. Husbands are assumed to be three years older than wives.

Actual spousal coverage and age is used for retirees.

Per Capita Costs

Annual per capita costs were calculated based on the weighted average premium rates as of July 1, 2017 actuarially increased using health index factors and current enrollment separately for actives and retirees. Annual per capita costs are as shown below:

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Age	Town Actives (non-HSA)		Town Retirees (non-HRA)		Town Active (HSA)		Town Retirees (HRA)	
	Male	Female	Male	Female	Male	Female	Male	Female
<55	\$ 7,600	\$ 8,300	\$ 7,800	\$ 8,600	\$ 6,300	\$ 7,000	\$ 6,200	\$ 6,800
55 - 59	\$ 10,000	\$ 9,600	\$ 10,200	\$ 9,900	\$ 8,300	\$ 8,000	\$ 8,100	\$ 7,900
60 - 64	\$ 13,500	\$ 11,900	\$ 13,800	\$ 12,200	\$ 11,300	\$ 9,900	\$ 11,000	\$ 9,700
65+	\$ 4,834	\$ 4,834	\$ 4,834	\$ 4,834	\$ 4,834	\$ 4,834	\$ 4,834	\$ 4,834

Age	School Actives (non-HSA)		School Retirees		School (HSA)	
	Male	Female	Male	Female	Male	Female
<55	\$ 8,400	\$ 9,300	\$ 8,400	\$ 9,200	\$ 6,600	\$ 7,300
55 - 59	\$ 11,100	\$ 10,700	\$ 11,000	\$ 10,700	\$ 8,700	\$ 8,400
60 - 64	\$ 15,000	\$ 13,300	\$ 14,900	\$ 13,100	\$ 11,800	\$ 10,400
65+	\$ 4,597	\$ 4,597	\$ 4,597	\$ 4,597	\$ 4,597	\$ 4,597

Annual administrative fees are included in the above per capita costs. The costs are assumed to increase with health care trend rates.

In addition to the above per capita costs, for the Town’s Medicare retirees there is the additional cost for Medicare Part B premium subsidy in the amount of \$1,608 annually for future retirees. For current retirees, there are additional Part B premium subsidy penalties that vary by retiree. The Part B costs and penalties are assumed to increase with Part B trend rates.

The actuarial value of the HRA benefit is assumed to be \$1,204 and expected to increase with HRA trend rates.

The annual dental per capita cost for School Certified retirees is \$371 and it is assumed to increase with dental trend rates.

Explicit Subsidy

The difference between (a) the premium rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a Town retiree who is enrolled in a non-HRA plan.

	Premium Rate ⁹	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 646.94	\$ 0.00	\$ 646.94
Spouse	\$ 1,002.29	\$ 0.00	\$ 1,002.29

Implicit Subsidy

The difference between (a) the per capita cost and (b) the premium rate. Below is an example of the monthly implicit subsidies for a Town retiree age 64 with spouse of the same age enrolled in a non-HRA plan.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 1,150.00	\$ 646.94	\$ 503.06
Spouse	\$ 1,016.67	\$ 1,002.29	\$ 14.38

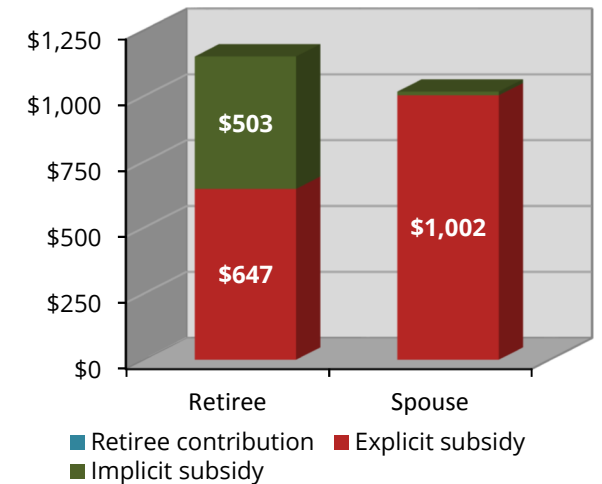
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

GASB Subsidy Breakdown

Below is a breakdown of the GASB monthly total cost for a Town retiree age 64 with spouse of the same age enrolled in a non-HRA plan.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 646.94	\$ 1,002.29
Implicit subsidy	\$ 503.06	\$ 14.38
Total monthly cost	\$ 1,150.00	\$ 1,016.67

GASB Subsidy Breakdown



⁹ Based on weighted average premiums for current active employees enrolled in non-HSA plans.

APPENDIX

Appendix A – GASB Results by Group

Below is the summary of the GASB results for fiscal year ending June 30, 2017 based on the Entry Age Normal Level % of Salary cost method with a discount rate of 3.56%. The Actuarially Determined Contributions shown below for FY 2016/17 are calculated using an Entry Age Normal Level % of Salary cost method with a discount rate of 3.50% and a linear amortization of unfunded liabilities over a 22-year closed period.

Groups	Total OPEB Liability		Actuarial Value of Assets		Net OPEB Liability	
	<i>As of June 30, 2017</i>		<i>As of June 30, 2017</i>		<i>As of June 30, 2017</i>	
Sewer	\$	1,707,373	\$	(22,775)	\$	1,684,598
Fire	\$	65,924,090	\$	(879,362)	\$	65,044,728
Town	\$	33,051,661	\$	(440,877)	\$	32,610,784
Police	\$	63,964,279	\$	(853,220)	\$	63,111,059
School	\$	50,732,975	\$	(251,085)	\$	50,481,890
Total	\$	215,380,378	\$	(2,447,319)	\$	212,933,059

Groups	Unamortized Balance of Deferred Outflows		Unamortized Balance of Deferred Inflows		OPEB Expense		Actuarially Determined Contribution	
	<i>As of June 30, 2017</i>		<i>As of June 30, 2017</i>		<i>FY 2016/17</i>		<i>FY 2016/17</i>	
Sewer	\$	1,461	\$	(380,556)	\$	144,101	\$	169,574
Fire	\$	5,474,656	\$	(6,847,011)	\$	4,295,084	\$	4,932,428
Town	\$	6,468	\$	(3,851,435)	\$	2,277,235	\$	2,919,366
Police	\$	18,439	\$	(7,488,063)	\$	3,808,168	\$	4,794,809
School	\$	2,517	\$	(8,283,984)	\$	3,052,426	\$	3,969,145
Total	\$	5,503,541	\$	(26,851,049)	\$	13,577,014	\$	16,785,322

Appendix B – Comparison of Participant Demographic Information

The active participants' number below may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

	<i>As of June 30, 2016</i>	<i>As of June 30, 2017</i>
Active Participants	642	638
Retired Participants	555	588
Averages for Active		
Age	47.1	47.1
Service	13.1	13.0
Averages for Inactive		
Age	69.1	69.0

Appendix C – Detailed Actuary’s Notes

There have been no substantive plan provision changes since the last full valuation, which was for the fiscal year ending June 30, 2016.

Town of Johnston is required to disclose OPEB liabilities under GASB 74 / 75 for the current valuation. The prior valuation was disclosed under GASB 45. The following assumptions have been updated in accordance with GASB 74 / 75.

1. The actuarial cost method has been updated from Projected Unit Credit with linear proration to decrement to Entry Age Normal Level % of Salary. This change has caused an increase in the Town’s liabilities.
2. Discount rate as of the Measurement Date has been updated to be based on a yield 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) tax-exempt, high quality 20-year municipal bonds. The prior full valuation used a discount rate of 3.50%. The current full valuation uses a discount rate of 2.92% as of July 1, 2016 and 3.56% as of June 30, 2017. This change has caused an increase in the Town’s liabilities. The discount rate will be updated annually to reflect market conditions as of the Measurement Date.

Additionally, the following assumptions have also been updated:

1. Mortality table has been updated from RPH-2015 Total Dataset Mortality Table fully generational using Scale MP-2015 to RPH-2016 Total Dataset Mortality Table fully generational using Scale MP-2016 for healthy retirees and from RPH-2015 Disabled Mortality Table fully generational using Scale MP-2015 to RPH-2016 Disabled Mortality Table fully generational using Scale MP-2016 for disabled retirees. The impact of this change is a decrease in the Town’s liabilities.
2. Health care trend rates have been updated as follows. This change caused an increase in the Town’s liabilities.
 - a. For medical and rx benefits, the trend rates have been reset to an initial rate of 9.00% decreasing by 0.50% annually to an ultimate rate of 5.00%.
 - b. For HRA benefit, the trend rates have been updated to an initial rate of 1.70% decreasing annually to an ultimate rate of 0.40% in 9 years.
 - c. For Medicare Part B benefit, the trend rates have been updated to an initial rate of 3.00% increasing by 0.25% annually to an ultimate rate of 5.00%.

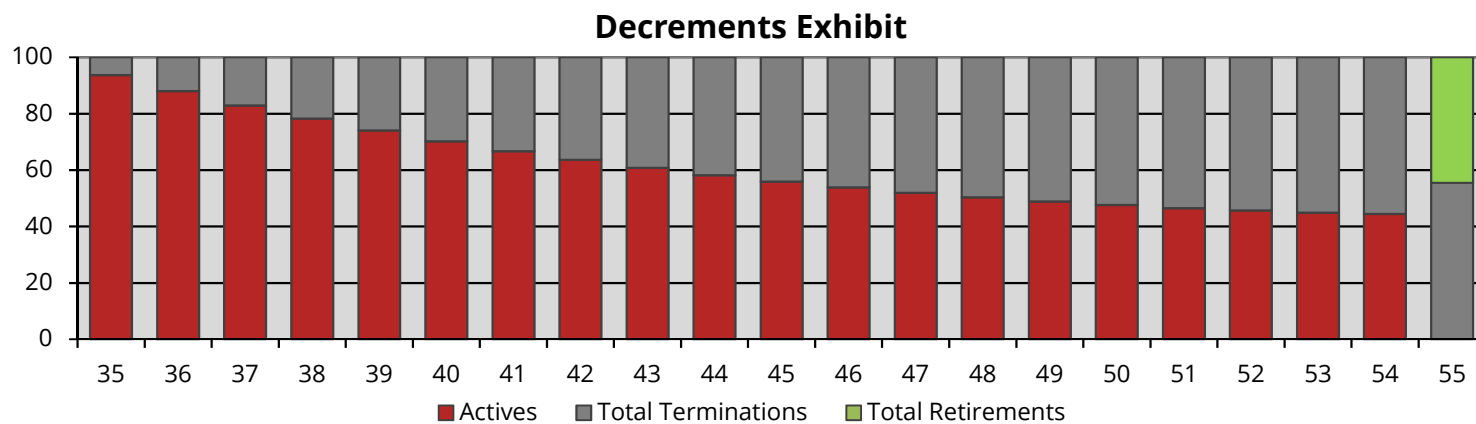
GLOSSARY

Decrements Exhibit

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 44.430 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# of Terminations per Year*	# of Retirements per Year*	Total Decrements
35	100.000	6.276	0.000	6.276
36	93.724	5.677	0.000	5.677
37	88.047	5.136	0.000	5.136
38	82.911	4.648	0.000	4.648
39	78.262	4.209	0.000	4.209
40	74.053	3.814	0.000	3.814
41	70.239	3.456	0.000	3.456
42	66.783	3.131	0.000	3.131
43	63.652	2.835	0.000	2.835
44	60.817	2.564	0.000	2.564
45	58.253	2.316	0.000	2.316

Age	# Remaining Employees	# of Terminations per Year*	# of Retirements per Year*	Total Decrements
46	55.938	2.085	0.000	2.085
47	53.853	1.866	0.000	1.866
48	51.987	1.656	0.000	1.656
49	50.331	1.452	0.000	1.452
50	48.880	1.253	0.000	1.253
51	47.627	1.060	0.000	1.060
52	46.567	0.877	0.000	0.877
53	45.690	0.707	0.000	0.707
54	44.983	0.553	0.000	0.553
55	44.430	0.000	44.430	44.430

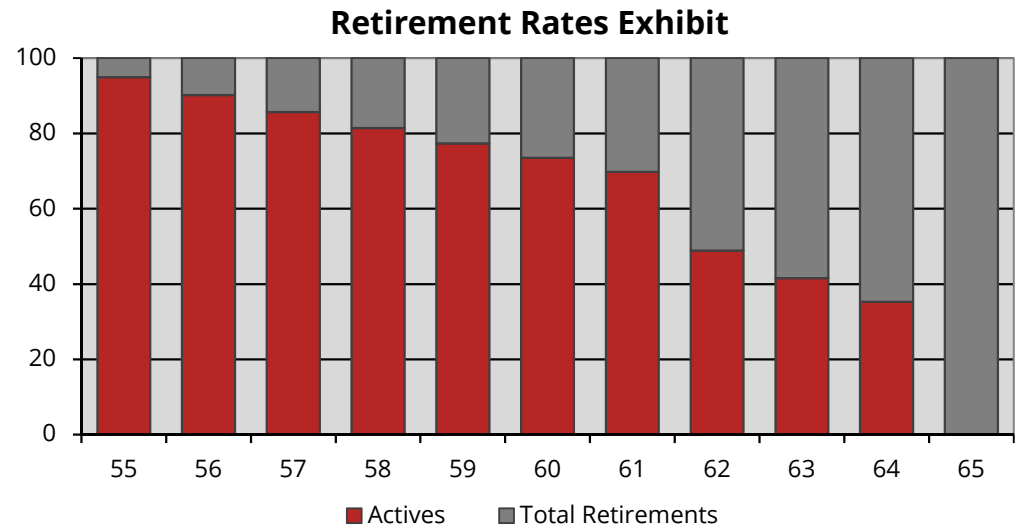


* The above rates are illustrative rates and are not used in our GASB calculations.

Retirement Rates Exhibit

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

Age	Active Employees BOY	Annual Retirement Rates*	# Retirements per Year	Active Employees EOY
55	100.000	5.0%	5.000	95.000
56	95.000	5.0%	4.750	90.250
57	90.250	5.0%	4.513	85.738
58	85.738	5.0%	4.287	81.451
59	81.451	5.0%	4.073	77.378
60	77.378	5.0%	3.869	73.509
61	73.509	5.0%	3.675	69.834
62	69.834	30.0%	20.950	48.884
63	48.884	15.0%	7.333	41.551
64	41.551	15.0%	6.233	35.318
65	35.318	100.0%	35.318	0.000



* The above rates are illustrative rates and are not used in our GASB calculations.

Definitions

GASB 75 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
2. **Actuarial Cost Method** – A procedure for determining the Actuarial Present Value of Future Benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Service Cost and a Total OPEB Liability.
3. **Actuarially Determined Contribution** - A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in accordance with the parameters and in conformity with Actuarial Standards of Practice.
4. **Actuarial Present Value** – The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
 - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.);
 - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and
 - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.
5. **Deferred Outflow / (Inflow) of Resources** – represents the following items that have not been recognized in the OPEB Expense:
 - a. Differences between expected and actual experience of the OPEB plan
 - b. Changes in assumptions
 - c. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)
6. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
7. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the Total OPEB Liability.

Definitions – Continued

8. **Healthcare Cost Trend Rate** – The rate of change in the per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
9. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
10. **OPEB** – Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.
11. **OPEB Expense** – Changes in the Net OPEB Liability in the current reporting period, which includes Service Cost, interest cost, changes of benefit terms, expected earnings on OPEB Plan investments, reduction of active employees' contributions, OPEB plan administrative expenses, and current period recognition of Deferred Outflows / (Inflows) of Resources.
12. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
13. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
14. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
15. **Real Rate of Return** – the rate of return on an investment after adjustment to eliminate inflation.

Definitions – Continued

16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Service Cost** – The portion of the Actuarial Present Value of projected benefit payments that are attributed to a valuation year by the Actuarial Cost Method.
18. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.
19. **Total OPEB Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Benefits which is attributed to past periods of employee service (or not provided for by the future Service Costs).