

The logo for Nyhart, featuring the word "nyhart" in a white, lowercase, sans-serif font. The text is centered within a black rectangular box. To the left of this box is a vertical red bar that extends from the top to the bottom of the page, and a larger black vertical bar to its left.

Town of Johnston

GASB 45 Actuarial Valuation

Fiscal Year Ending June 30, 2015

Prepared by:

Nyhart Actuary & Employee Benefits

8415 Allison Pointe Blvd., Suite 300

Indianapolis, IN 46250

Ph: (317) 845-3500

www.nyhart.com

Table of Contents

	Page
Certification	1
Executive Summary	3
GASB Disclosures	6
Annual Required Contribution (ARC)	6
Annual OPEB Cost and Net OPEB Obligation	7
Schedule of Funding Progress	8
Schedule of Employer Contributions	8
Historical Annual OPEB Cost	8
Reconciliation of Actuarial Accrued Liabilities (AAL)	9
Employer Contribution Cash Flow Projections	10
Substantive Plan Provisions	11
Actuarial Methods and Assumptions	15
Summary of Plan Participants	21
Appendix	24
Comparision of Participant Demographic Information	25
Required Supplementary Information by Group	26
Detailed Actuary's Notes	28
Glossary	29
Decrements Exhibit (Withdrawal and Mortality Rates)	30
Retirement Rates Exhibit	31
Illustration of GASB Calculations for Non-Actuaries	32
Definitions	34



January 29, 2016

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

This report summarizes the GASB 45 actuarial valuation for the Town of Johnston 2014/15 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. 45 (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 and other economic assumptions have been selected by the Plan Sponsor. 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.

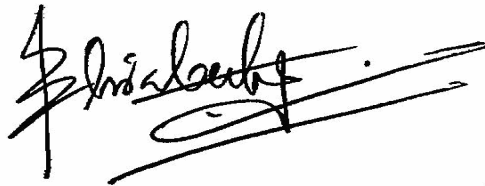
January 29, 2016

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.



Randy Gomez, FSA, MAAA
Consulting Actuary



Evi Laksana, ASA, MAAA
Valuation Actuary

Summary of Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2015 compared to the prior fiscal year.

	<i>As of July 1, 2013</i>		<i>As of July 1, 2014</i>	
Actuarial Accrued Liability	\$	199,586,608	\$	192,495,266
Actuarial Value of Assets	\$	0	\$	0
Unfunded Actuarial Accrued Liability	\$	199,586,608	\$	192,495,266
Funded Ratio		0.0%		0.0%

	<i>FY 2013/14</i>		<i>FY 2014/15</i>	
Annual Required Contribution	\$	15,214,424	\$	14,745,133
Annual OPEB Cost	\$	14,824,478	\$	14,172,819
Annual Employer Contribution	\$	4,764,265	\$	5,869,747

	<i>As of June 30, 2014</i>		<i>As of June 30, 2015</i>	
Net OPEB Obligation	\$	70,989,313	\$	78,741,780

	<i>As of June 30, 2015</i>	
Total Active Participants		632
Total Retiree Participants		572

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

Below is a breakdown of total GASB 45 liabilities allocated for past, current, and future service for the fiscal year beginning July 1, 2014 compared to the prior valuation as of July 1, 2013.

	<i>As of July 1, 2013</i>		<i>As of July 1, 2014</i>	
Present Value of Future Benefits	\$	286,983,914	\$	263,858,415
Active Employees		162,524,635		143,334,925
Retired Employees		124,459,279		120,523,490
Actuarial Accrued Liability	\$	199,586,608	\$	192,495,266
Active Employees		75,127,329		71,971,776
Retired Employees		124,459,279		120,523,490
Normal Cost	\$	6,716,463	\$	6,225,869
Future Normal Cost	\$	80,680,843	\$	65,137,280

Present Value of Future Benefits (PVFB) is the total liability amount as of July 1, 2013 and July 1, 2014 and represents the amount the Town needs to fully fund its retiree health care obligations assuming all actuarial assumptions are met.

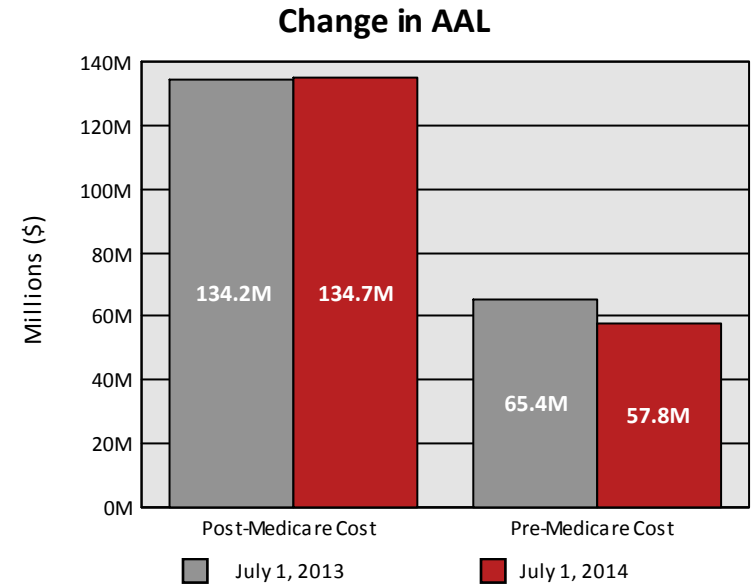
Actuarial Accrued Liability is the portion of PVFB considered to be accrued or earned as of July 1, 2013 and July 1, 2014. This amount is a required disclosure in the Required Supplementary Information section.

Normal Cost is the portion of the total liability amount that is attributed and accrued for current year active employee service by the actuarial cost method level percent of pay.

Future Normal Cost is the portion of the total liability amount that is attributed to the future employee service by the actuarial cost method level percent of pay.

Below is a breakdown of total GASB 45 liabilities allocated for 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 Plan Sponsor's GASB subsidies.

Actuarial Accrued Liability (AAL)	As of July 1, 2013		As of July 1, 2014	
Total Active AAL	\$	75,127,329	\$	71,971,776
Active Pre-Medicare		28,472,446		24,020,091
Active Post-Medicare		46,654,883		47,951,685
Total Retirees AAL	\$	124,459,279	\$	120,523,490
Retirees Pre-Medicare		36,952,015		33,771,311
Retirees Post-Medicare		87,507,264		86,752,179
Total AAL	\$	199,586,608	\$	192,495,266

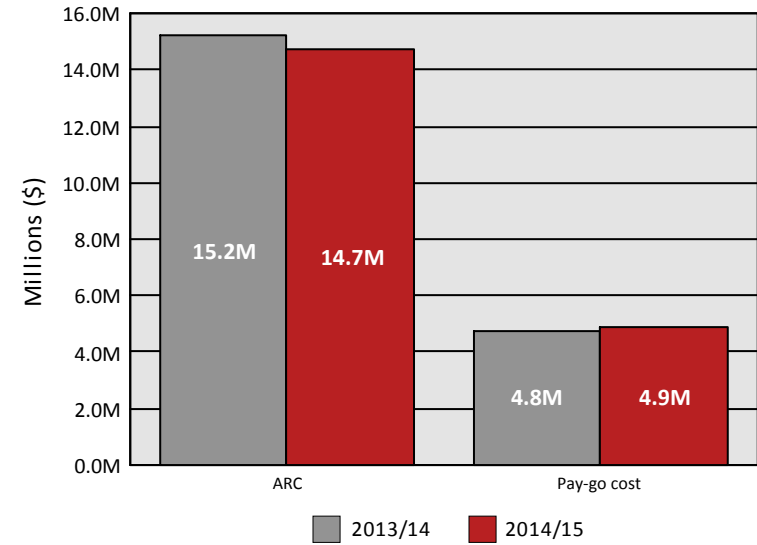


Development of Annual Required Contribution (ARC)

Required Supplementary Information	FY 2013/14	FY 2014/15
Actuarial Accrued Liability as of beginning of year	\$ 199,586,608	\$ 192,495,266
Actuarial Value of Assets as of beginning of year	0	0
Unfunded Actuarial Accrued Liability (UAAL)	\$ 199,586,608	\$ 192,495,266
Covered payroll	N/A	N/A
UAAL as a % of covered payroll	N/A	N/A

Annual Required Contribution	FY 2013/14	FY 2014/15
Normal cost as of beginning of year	\$ 6,716,463	\$ 6,225,869
Amortization of the UAAL	7,983,464	8,020,636
Total normal cost and amortization payment	\$ 14,699,927	\$ 14,246,505
Interest to end of year	514,497	498,628
Total Annual Required Contribution (ARC)	\$ 15,214,424	\$ 14,745,133

Cash vs. Accrual Accounting



Annual Required Contribution (ARC) is the annual expense recorded in the income statement under GASB 45 accrual accounting. It replaces the cash basis method of accounting recognition with an accrual method. The GASB 45 ARC is higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

Development of Annual OPEB Cost and Net OPEB Obligation

Net OPEB Obligation		FY 2013/14		FY 2014/15
ARC as of end of year	\$	15,214,424	\$	14,745,133
Interest on Net OPEB Obligation (NOO) to end of year		2,132,519		2,465,355
NOO amortization adjustment to the ARC		(2,522,465)		(3,037,669)
Annual OPEB cost	\$	14,824,478	\$	14,172,819
Annual employer contribution for pay-go cost		(4,764,265)		(4,869,747)
Annual employer contribution for pre-funding		0		(1,000,000)*
Change in NOO	\$	10,060,213	\$	8,303,072
NOO as of beginning of year		60,929,100		70,438,708**
NOO as of end of year	\$	70,989,313	\$	78,741,780

Pay-as-you-go Cost is the expected total employer cash cost for the coming period based on all explicit and implicit subsidies. It is also the amount recognized as expense on the Income Statement under pay-as-you-go accounting.

Net OPEB Obligation is the cumulative difference between the annual OPEB cost and employer contributions. This obligation will be created if cash contributions are less than the current year expense under GASB 45 accrual rules.

The net obligation is recorded as a liability on the employer's balance sheet which will reduce the net fund balance.

The value of implicit subsidies is considered as part of cash contributions for the current period. Other cash expenditures that meet certain conditions are also considered as contributions for GASB 45 purposes.

*The \$1,000,000 employer contribution for pre-funding is accrued for FY 2014/15 and will be deposited in the OPEB Trust in December 2015.

**Beginning of FY 2014/15 Net OPEB Obligation has been updated to remove Johnson Housing Authority balance of \$550,605 as of July 1, 2014.

Summary of GASB 45 Financial Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2015 compared to the prior fiscal years. Prior years fiscal information is as shown in the Town's Notes to Financial Statement for fiscal year ending June 30, 2014.

Schedule of Funding Progress

<i>As of</i>	<i>Actuarial Accrued Liability (AAL)</i>	<i>Actuarial Value of Assets (AVA)</i>	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	<i>Funded Ratio</i>	<i>Covered Payroll</i>	<i>UAAL as % of Covered Payroll</i>
	<i>A</i>	<i>B</i>	<i>C = A - B</i>	<i>D = B / A</i>	<i>E</i>	<i>F = C / E</i>
July 1, 2014	\$ 192,495,266	\$ 0	\$ 192,495,266	0.0%	N/A	N/A
July 1, 2013	\$ 199,586,608	\$ 0	\$ 199,586,608	0.0%	N/A	N/A
July 1, 2012	\$ 186,959,602	\$ 0	\$ 186,959,602	0.0%	N/A	N/A

Schedule of Employer Contributions

<i>FYE</i>	<i>Employer Contributions</i>	<i>Annual Required Contribution (ARC)</i>	<i>% of ARC Contributed</i>
	<i>A</i>	<i>B</i>	<i>C = A / B</i>
June 30, 2015	\$ 5,869,747	\$ 14,745,133	39.8%
June 30, 2014	\$ 4,764,265	\$ 15,214,424	31.3%
June 30, 2013	\$ 5,189,692	\$ 14,727,631	35.2%

Historical Annual OPEB Cost

<i>As of</i>	<i>Annual OPEB Cost</i>	<i>% of Annual OPEB Cost Contributed</i>	<i>Net OPEB Obligation</i>
June 30, 2015	\$ 14,172,819	41.4%	\$ 78,741,780
June 30, 2014	\$ 14,824,478	32.1%	\$ 70,989,313
June 30, 2013	\$ 14,479,364	35.8%	\$ 60,929,100

The Actuarial Accrued Liability (AAL) 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 AAL and whether they increase or decrease the liability.

Expected Events

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

Unexpected Events

- Increases in AAL when actual premium rates increase more than expected. A liability decrease occurs when premium rates increase less than expected.
- Increases in AAL 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 AAL depending on whether benefit provisions are improved or reduced.

		FY 2013/14	FY 2014/15
Actuarial Accrued Liability as of beginning of year	\$	199,586,608	\$ 192,495,266
Normal cost as of beginning of year		6,716,463	6,225,869
Expected benefit payments during the year		(4,773,177)	(4,129,523)
Interest adjustment to end of year		7,137,795	6,883,593
Expected Actuarial Accrued Liability as of end of year ¹	\$	208,667,689	\$ 201,475,205
(Gain) / loss due to experience		(33,789,152)	0
(Gain) / loss due to provisions / assumption changes		17,616,729	0
Actuarial Accrued Liability as of end of year	\$	192,495,266	\$ 201,475,205

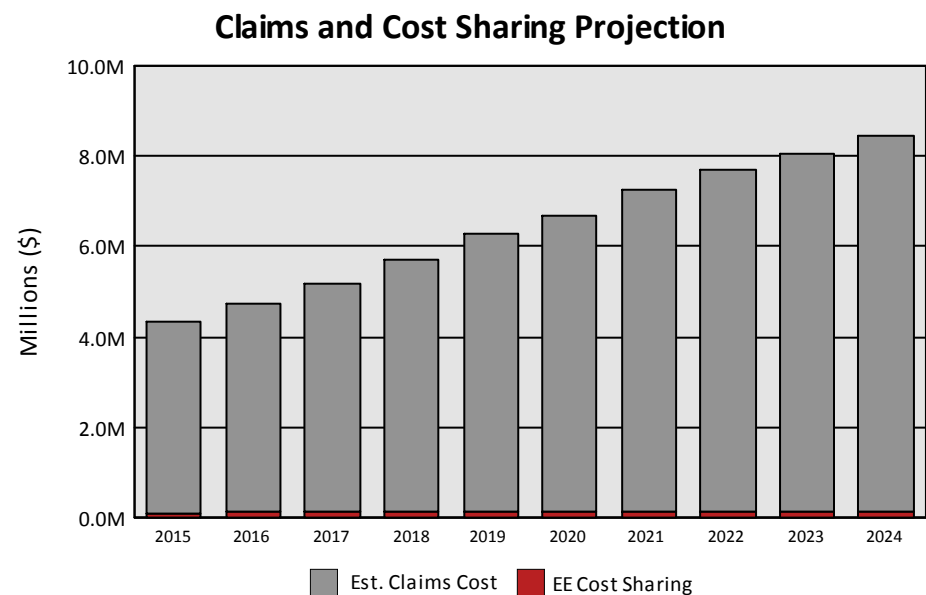
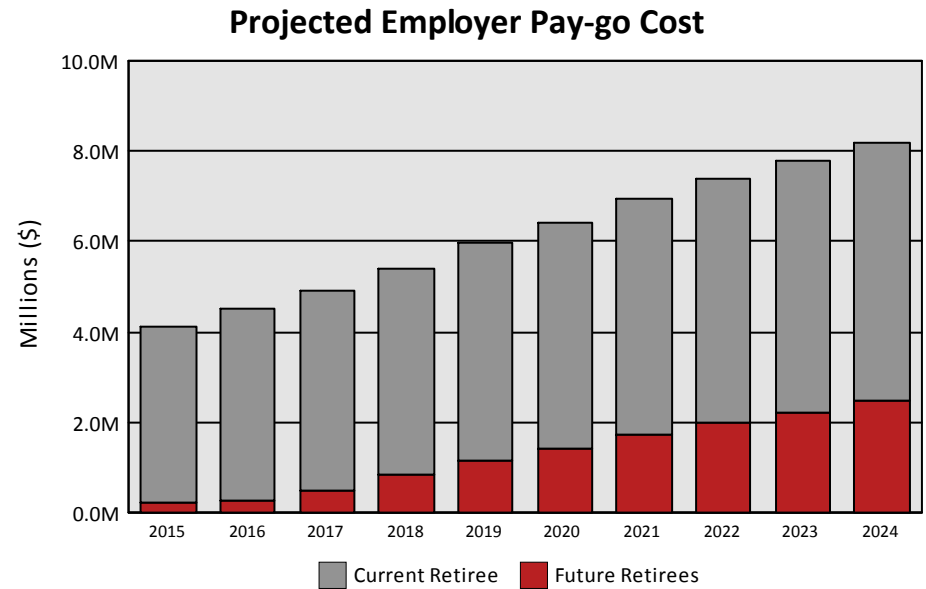
Reconciliation of AAL shows what the actuary expects the actuarial accrued liability to be at the beginning of the following fiscal year based on current assumptions and plan provisions. The expected end of year AAL will change as actual plan experience varies from assumptions. Generally, the AAL is expected to have a net increase each year.

Actuarial Accrued Liability (AAL) as of beginning of year was actuarially rolled-back from end of year AAL on a “no gain/loss” basis.

The below projections show the actuarially estimated employer subsidized contribution for retiree benefits for the next 10 years. Results below are shown separately for current/future retirees and gross claims costs/contributions. The projections include explicit and implicit subsidies, and do not take into account future new hires.

FYE	Current Retirees	Future Retirees	Total
2015	\$ 3,897,444	\$ 232,079	\$ 4,129,523
2016	\$ 4,248,214	\$ 252,966	\$ 4,501,180
2017	\$ 4,412,137	\$ 491,961	\$ 4,904,098
2018	\$ 4,586,034	\$ 820,552	\$ 5,406,586
2019	\$ 4,826,773	\$ 1,142,178	\$ 5,968,951
2020	\$ 4,980,047	\$ 1,433,953	\$ 6,414,000
2021	\$ 5,224,496	\$ 1,743,403	\$ 6,967,899
2022	\$ 5,419,991	\$ 1,986,582	\$ 7,406,573
2023	\$ 5,541,967	\$ 2,224,323	\$ 7,766,290
2024	\$ 5,690,127	\$ 2,474,220	\$ 8,164,347

FYE	Estimated Claims Cost	Retiree Contributions	Net Employer-Paid Costs
2015	\$ 4,236,239	\$ 106,717	\$ 4,129,523
2016	\$ 4,617,501	\$ 116,321	\$ 4,501,180
2017	\$ 5,034,538	\$ 130,440	\$ 4,904,098
2018	\$ 5,549,599	\$ 143,013	\$ 5,406,586
2019	\$ 6,119,915	\$ 150,964	\$ 5,968,951
2020	\$ 6,557,018	\$ 143,018	\$ 6,414,000
2021	\$ 7,120,119	\$ 152,220	\$ 6,967,899
2022	\$ 7,547,348	\$ 140,775	\$ 7,406,573
2023	\$ 7,907,662	\$ 141,372	\$ 7,766,290
2024	\$ 8,311,070	\$ 146,723	\$ 8,164,347



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.

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.

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).

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, 2015 is \$104.90. 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.

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 premiums effective on July 1, 2015 for pre-Medicare current and future retirees:

Subgroup	Subgroup Name	Plan	Single	Family
Active Employees				
0001	Town of Johnston Employees	HM 322814	\$ 586.37	\$ 1,523.26
0003	Town of Johnston Fire HSA	HM 323134	\$ 480.53	\$ 1,248.17
0007	Town of Johnston Police	HM 322931	\$ 688.09	\$ 1,624.98
0002	Town of Johnston Police HSA	HM 323071	\$ 480.53	\$ 1,248.17
0002	Johnston School Non Certified	HM 322923	\$ 655.35	\$ 1,689.30
0006	Johnston School Department	HM 322801	\$ 619.52	\$ 1,598.30
Retirees				
0005	Town of Johnston Retirees	HM 322876	\$ 586.37	\$ 1,523.26
0009	Town of Johnston Retirees (2)	HM 322816	\$ 586.37	\$ 1,523.26
0004	Town of Johnston Firefighters Retirees (2)	HM 322875	\$ 600.26	\$ 1,559.34
0006	Town of Johnston Firefighters Retirees	HM 323030	\$ 593.01	\$ 1,540.51
0008	Town of Johnston Police Retirees	HM 322815	\$ 586.37	\$ 1,523.26
0001	Johnston School Retirees	HM 322921	\$ 631.06	\$ 1,624.72
0008	Johnston School Retirees II	HM 322802	\$ 619.52	\$ 1,598.30
0004	Johnston School Non Cert – Retirees	HM 322925	\$ 664.46	\$ 1,712.83
0005	Johnston School Non Cert – Retirees 2010	HM 322927	\$ 655.35	\$ 1,689.30

Upon Medicare eligibility, the Town and School provide Blue Medicare Rx plan with monthly premium of \$179. Plan 65 monthly premiums are \$169.31 for the Town (with SNF) and assumed to be \$142.01 for the School (without SNF).

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, 2015.

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 have been changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending June 30, 2014. Refer to Actuary's Notes in the appendix for complete information on these changes. For the current year GASB valuation, we have updated the per capita costs. We expect to update health care trend rates and per capita costs again for the next full GASB valuation, which will be for the fiscal year ending June 30, 2016.

Measurement Date	June 30, 2015; with results actuarially rolled back to July 1, 2014 on a "no gain/loss basis"
Discount Rate	3.5% partially-funded
Payroll Growth	N/A
Cost Method	Projected Unit Credit
Amortization	Payments increasing at 3.5% and amortization period is a closed 24 years.
Employer Funding Policy	The Town set up an OPEB Trust Fund in FY 2014/15. The first accrued contribution to the OPEB Trust for FY 2014/15 will be deposited in December 2015. Ongoing pre-funding contributions above pay-go costs to the OPEB Trust will be made at the Town's discretion.
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. 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. Spousal coverage for current retirees is based on actual data.
Census Data	Census data was provided by the Town and it was provided in September 2015. We have reviewed it for reasonableness and no material modifications were made to the census data.

Mortality

Healthy retiree: RPH-2014 Total Dataset Mortality Table Headcount-Weighted fully generational projected using Scale MP-2014

Disabled retiree: RPH-2014 Disabled Mortality Table Headcount-Weighted fully generational projected using Scale MP-2014

Disability

Sample annual disability rates are as shown below.

Age	Town			School Teachers		School
	Police	Fire	General	Male	Female	General
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%

Withdrawal Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. Annual rates are as shown below. For Teachers and all others, the termination rates are based on the assumption used in the RI ERS and MERS actuarial valuation report as of June 30, 2014.

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	5.28%	12.00%	11.88%
2	4.81%	8.00%	10.14%
3	4.36%	6.48%	8.61%
4	3.94%	4.82%	7.29%
5	3.54%	3.83%	6.15%
6	3.16%	3.17%	5.18%
7	2.81%	2.70%	4.36%
8	2.49%	2.36%	3.69%
9	2.19%	2.09%	3.14%
10	1.91%	1.87%	2.71%
11	1.66%	1.70%	2.37%
12	1.43%	1.55%	2.13%
13	1.23%	1.43%	1.95%
14	1.05%	1.32%	1.83%
15	0.90%	1.23%	1.75%
16	0.77%	1.15%	1.70%
17	0.67%	1.08%	1.66%
18	0.59%	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, 2014, 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, 2014, 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.

Health Care Trend Rates

FYE	Medical	Part B	Dental
2015	9.00%	3.00%	5.00%
2016	8.50%	3.25%	5.00%
2017	8.00%	3.50%	5.00%
2018	7.50%	3.75%	5.00%
2019	7.00%	4.00%	5.00%
2020	6.50%	4.25%	5.00%
2021	6.00%	4.50%	5.00%
2022	5.50%	4.50%	5.00%
2023+	5.00%	4.50%	5.00%

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.

Per Capita Costs

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.

Annual per capita costs were calculated based on the weighted average premium rates as of July 1, 2015 actuarially increased using aging factors and current enrollment. Sample annual per capita costs at select ages are as shown below:

Age	Town		Town HSA		School	
	Male	Female	Male	Female	Male	Female
<55	\$ 7,100	\$ 8,000	\$ 5,800	\$ 6,500	\$ 7,600	\$ 8,600
55 – 59	\$ 9,200	\$ 9,000	\$ 7,500	\$ 7,300	\$ 9,900	\$ 9,600
60 – 64	\$ 11,800	\$ 10,600	\$ 9,600	\$ 8,600	\$ 12,600	\$ 11,300
65+	\$ 4,180	\$ 4,180	\$ 4,180	\$ 4,180	\$ 3,856	\$ 3,856

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 \$1,259 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 \$1,250 and expected to increase by 1% annually.

Annual dental per capita cost for School Certified retiree is \$353 and it is assumed to increase with dental trend rates.

Explicit Subsidy

The difference between (a) the premium rates and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a Town retiree enrolled in Subgroup 0005.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 586.37	\$ 0.00	\$ 586.37
Spouse	\$ 936.89	\$ 0.00	\$ 936.89

Implicit Subsidy

The difference between (a) the per capita cost and (b) the premium rates. Below is an example of the monthly implicit subsidies for a male Town retiree age 60 enrolled in Subgroup 0005.

	Per Capita Cost	Premium Rate*	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 983.33	\$ 586.37	\$ 396.96
Spouse	\$ 883.33	\$ 883.33	\$ 0.00

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

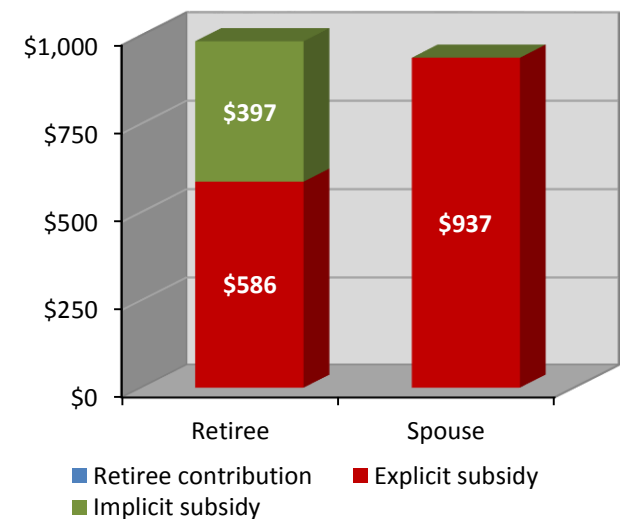
* The spouse incremental premium rate is limited to the per capita cost.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male Town retiree age 60 and his spouse enrolled in Subgroup 0005.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 586.37	\$ 936.89
Implicit subsidy	\$ 396.96	\$ 0.00
Total monthly cost	\$ 983.33	\$ 936.89

GASB Subsidy Breakdown



Summary of Plan Participants

<i>Actives with coverage</i>	<i>Single</i>	<i>Family</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
School Certified (0006)	79	191	270	46.9	14.7	N/A
School Non-Certified (0002)	33	78	111	54.9	14.0	N/A
Town Firefighters (0003)	1		1	63.7	0.7	N/A
Town Firefighters HSA (0001)	14	63	77	41.4	12.0	N/A
Town General (0001)	40	46	86	48.9	12.0	N/A
Town Police (0007)		1	1	49.1	20.0	N/A
Town Police HSA (0002)	16	50	66	38.9	9.6	N/A
Total actives with coverage	183	429	612	47.1	13.3	N/A

<i>Actives without coverage</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Total actives without coverage	20	41.3	5.0	N/A

Active employees without coverage are assumed not to elect coverage at retirement, except for seven Certified active employees who are eligible for subsidized dental benefits at retirement. These seven employees have been included in the GASB valuation but the rest of them are excluded from the GASB valuation.

Single enrollment above includes participants who elected Employee/Child(ren) coverage level.

Summary of Plan Participants

<i>Retirees with coverage</i>	<i>Single</i>	<i>Family</i>	<i>Total</i>	<i>Avg. Age</i>
School Certified (0001)	26	4	30	65.3
School Certified (0008)	15		15	62.6
School Certified Plan 65 (0003)	192		192	73.2
School Non-Certified (0004)	3	2	5	65.0
School Non-Certified 2010 (0005)	10		10	62.2
School Non-Certified Plan 65 (0007)	19		19	77.7
Town Firefighters (0004)	5	30	35	52.4
Town Firefighters (0006)	9	15	24	58.7
Town Firefighters w/ SNF (0012)	31		31	71.0
Town General (0001)	1		1	63.8
Town General (0005)	3	3	6	59.5
Town General (0009)	14	5	19	64.3
Town General w/ SNF (0002)	2		2	86.1
Town General w/ SNF (0010)	79		79	75.7
Town Police (0008)	13	49	62	54.3
Town Police w/ SNF (0011)	42		42	72.8
Total retirees with coverage	464	108	572	68.2

Single enrollment above includes participants who elected Employee/Child(ren) coverage level.

Active 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	5	4									9
25 to 29	12	13	12								37
30 to 34	3	12	25	16							56
35 to 39	3	10	18	32	9	1					73
40 to 44	7	13	16	17	37	6					96
45 to 49		9	10	18	43	19	3				102
50 to 54	2	7	17	13	31	15	5	1			91
55 to 59	2	5	11	18	33	10	8	4			91
60 to 64	1	1	3	7	18	16	7	1	1		55
65 to 69	1	1	3	5	3	4	2				19
70 & up					3						3
Total	36	75	115	126	177	71	25	6	1	0	632

Appendix

Appendix A - Comparison of Participant Demographic Information

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

	<i>As of June 30, 2013</i>	<i>As of June 30, 2015</i>
Active Participants	621	632
Inactive Participants	583	572
Averages for Actives		
Age	46.1	46.9
Service	12.2	13.0
Averages for Inactives		
Age	67.1	68.2

Appendix B – Required Supplementary Information by Group

Schedule of Funding Progress for Fiscal Year Ending June 30, 2015

<i>Groups</i>	<i>Actuarial Accrued Liability (AAL) As of July 1, 2014</i>	<i>Actuarial Value of Assets (AVA) As of July 1, 2014</i>	<i>Unfunded Actuarial Accrued Liability (UAAL) As of July 1, 2014</i>	<i>AVA as a % of AAL</i>	<i>Covered Payroll For 2014/15</i>	<i>UAAL as a % of Covered Payroll</i>
	<i>A</i>	<i>B</i>	<i>C = B - A</i>	<i>D = A / B</i>	<i>E</i>	<i>F = C / E</i>
Fire	\$ 57,732,245	\$ -	\$ 57,732,245	0.0%	N/A	N/A
Police	\$ 56,988,188	\$ -	\$ 56,988,188	0.0%	N/A	N/A
Sewer	\$ 1,362,574	\$ -	\$ 1,362,574	0.0%	N/A	N/A
Town General	\$ 29,678,019	\$ -	\$ 29,678,019	0.0%	N/A	N/A
School	\$ 46,734,240	\$ -	\$ 46,734,240	0.0%	N/A	N/A
Total	\$ 192,495,266	\$ -	\$ 192,495,266	0.0%	N/A	N/A

Schedule of Employer Contributions for Fiscal Year 2014/15

	<i>Annual OPEB Costs (AOC) For 2014/15</i>	<i>Actual Contributions For 2014/15¹</i>	<i>% of AOC Contributed For 2014/15</i>
	<i>A</i>	<i>B</i>	<i>C = A / B</i>
Fire	\$ 4,135,064	\$ 1,327,192	32.1%
Police	\$ 4,144,134	\$ 1,493,534	36.0%
Sewer	\$ 148,063	\$ 0	0.0%
Town General	\$ 2,492,537	\$ 1,085,753	43.6%
School	\$ 3,253,021	\$ 1,963,268	60.4%
Total	\$ 14,172,819	\$ 5,869,747	41.4%

¹ Includes \$1,000,000 accrued pre-funding contributions for FY 2014/15 that has been allocated to each group in the same proportion of actual pay-go costs by group.

Appendix B – Continued

Net OPEB Obligation (NOO) as of June 30, 2015

<i>Groups</i>	<i>Annual Required Contribution (ARC) For 2014/15</i>	<i>Interest on Existing NOO For 2014/15</i>	<i>ARC Adjustment For 2014/15</i>	<i>AOC For 2014/15</i>	<i>Actual Contributions For 2014/15²</i>	<i>Net Increase in NOO For 2014/15</i>	<i>NOO As of June 30, 2015</i>
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D = A + B + C</i>	<i>E</i>	<i>F = D - E</i>	<i>G</i>
Fire	\$ 4,313,792	\$ 769,906	\$ (948,634)	\$ 4,135,064	\$ 1,327,192	\$ 2,807,872	\$ 24,805,177
Police	\$ 4,318,208	\$ 749,858	\$ (923,932)	\$ 4,144,134	\$ 1,493,534	\$ 2,650,600	\$ 24,075,108
Sewer	\$ 149,689	\$ 7,007	\$ (8,633)	\$ 148,063	\$ 0	\$ 148,063	\$ 348,259
Town General	\$ 2,563,273	\$ 304,707	\$ (375,443)	\$ 2,492,537	\$ 1,085,753	\$ 1,406,784	\$ 10,112,701
School	\$ 3,400,171	\$ 633,877	\$ (781,027)	\$ 3,253,021	\$ 1,963,268	\$ 1,289,753	\$ 19,400,535
Total	\$ 14,745,133	\$ 2,465,355	\$ (3,037,669)	\$ 14,172,819	\$ 5,869,747	\$ 8,303,072	\$ 78,741,780

² Includes \$1,000,000 accrued pre-funding contributions for FY 2014/15 that has been allocated to each group in the same proportion of actual pay-go costs by group.

Appendix C – Detailed Actuary’s Notes

Several substantive plan provisions have been updated in this year’s valuation:

1. Housing Authority employees and retirees have been excluded from this valuation as they are covered under a separate GASB 45 valuation.
2. 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. An additional liability has been valued for this HRA benefit, which increased the Town’s liabilities slightly.
3. School retirees contribute \$350 annually towards retiree health benefits which is not expected to increase in the future. In prior valuation, they receive free retiree health coverage. This change decreased the School’s liabilities slightly.

Several actuarial assumptions have been updated since the last full valuation:

1. Mortality assumption has been updated as follows, which caused an increase in liabilities.
 - a. Health retirees – from RP-2000 Combined Mortality Table fully generational using scale AA to RPH-2014 Total Dataset Headcount-Weighted Mortality Table fully generational using scale MP-2014.
 - b. Disabled retirees – from RP-2000 Disabled Mortality Table fully generational using scale AA to RPH-2014 Disabled Retiree Headcount-Weighted Mortality Table fully generational using scale MP-2014.
2. Termination and retirement rates for Town’s general employees and School’s employees (Certified and Non-Certified) have been updated to be consistent with those used in the RI ERS and MERS actuarial valuation as of June 30, 2014. The net impact of this update is a slight increase in liabilities.
3. Health Care Trend Rates have been reset as shown in the table below. This change caused an increase in liabilities.

FYE	Current Valuation		Prior Valuation		FYE	Current Valuation		Prior Valuation	
	Medical / Rx	Part B	Medical / Rx	Part B		Medical / Rx	Part B	Medical / Rx	Part B
2015	9.00%	3.00%	8.50%	3.50%	2020	6.50%	4.25%	6.00%	4.50%
2016	8.50%	3.25%	8.00%	3.75%	2021	6.00%	4.50%	5.50%	4.50%
2017	8.00%	3.50%	7.50%	4.00%	2022	5.50%	4.50%	5.00%	4.50%
2018	7.50%	3.75%	7.00%	4.25%	2023+	5.00%	4.50%	5.00%	4.50%
2019	7.00%	4.00%	6.50%	4.50%					

Glossary

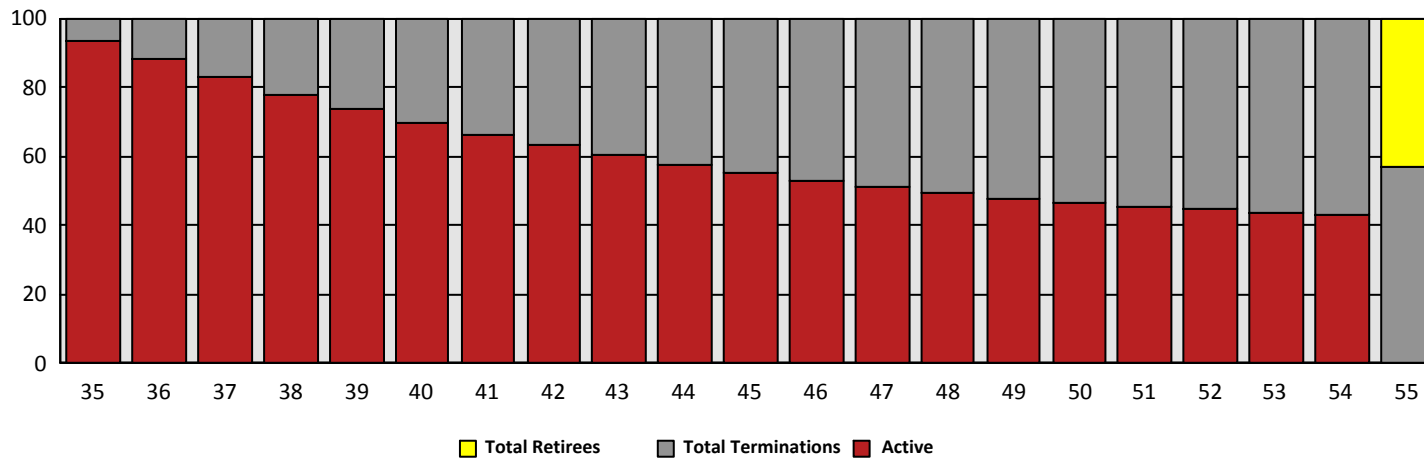
Decrements Exhibit

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 42.949 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	6.353	0.000	6.353
36	93.647	5.751	0.000	5.751
37	87.896	5.206	0.000	5.206
38	82.690	4.716	0.000	4.716
39	77.974	4.274	0.000	4.274
40	73.700	3.876	0.000	3.876
41	69.824	3.516	0.000	3.516
42	66.308	3.190	0.000	3.190
43	63.118	2.893	0.000	2.893
44	60.225	2.623	0.000	2.623
45	57.602	2.377	0.000	2.377

Age	# Remaining Employees	# of Terminations per Year *	# of Retirements per Year *	Total Decrements
46	55.225	2.147	0.000	2.147
47	53.078	1.931	0.000	1.931
48	51.147	1.724	0.000	1.724
49	49.423	1.524	0.000	1.524
50	47.899	1.329	0.000	1.329
51	46.570	1.151	0.000	1.151
52	45.419	0.977	0.000	0.977
53	44.442	0.818	0.000	0.818
54	43.624	0.675	0.000	0.675
55	42.949	0.000	42.949	42.949

Decrements Exhibit

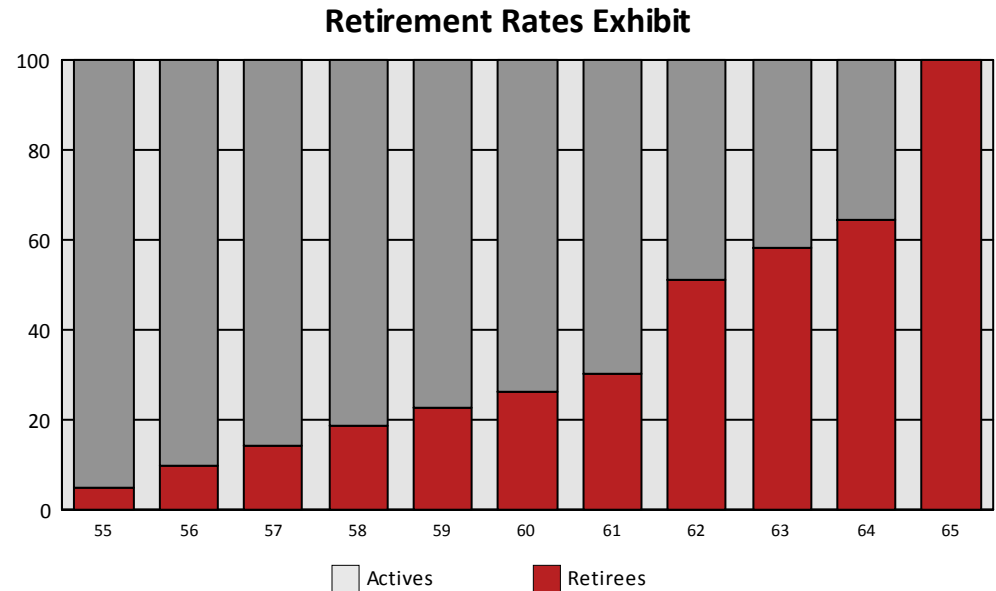


* The above rates are illustrative and are not used in our GASB calculations.

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	5.00%	5.000	95.000
56	95.000	5.00%	4.750	90.250
57	90.250	5.00%	4.513	85.738
58	85.738	5.00%	4.287	81.451
59	81.451	5.00%	4.073	77.378
60	77.378	5.00%	3.869	73.509
61	73.509	5.00%	3.675	69.834
62	69.834	30.00%	20.950	48.884
63	48.884	15.00%	7.333	41.551
64	41.551	15.00%	6.233	35.318
65	35.318	100.00%	35.318	0.000



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

Illustration of GASB Calculations

I. Facts

- A. The employer provides subsidized retiree health coverage worth \$100,000 to employees retiring at age 55 with 25 years of service. The employer funds the retiree health coverage on a pay-as-you-go basis.
- B. Employee X is age 50 and has worked 20 years with the employer.
- C. Retiree health subsidies are paid from the general fund assets which are expected to earn 4.5% per year on a long-term basis.
- D. Based on Employee X's age and sex he has a 98.0% probability of living to age 55 and a 95.0% probability of continuing to work to age 55.

II. Calculation of Present Value of Future Benefits

Present Value of Future Benefits represents the cost to finance benefits payable in the future to current and future retirees and beneficiaries, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

	Value	Description
A.	\$100,000	Projected benefit at retirement
B.	80.2%	Interest discount for five years = $(1 / 1.045)^5$
C.	98.0%	Probability of living to retirement age
D.	95.0%	Probability of continuing to work to retirement age
E.	\$74,666	Present value of projected retirement benefit measured at employee's current age = $A \times B \times C \times D$

Illustration of GASB Calculations (continued)**III. Calculation of Actuarial Accrued Liability**

Actuarial Accrued Liability (AAL) represents the portion of the Present Value of Future Benefits which has been accrued recognizing the employee's past service with the employer. The AAL is a required disclosure in the Required Supplementary Information section of the employer's financial statement.

	Value	Description
A.	\$74,666	Present value of projected retirement benefit measured at employee's current age
B.	20	Current years of service with employer
C.	25	Projected years of service with employer at retirement
D.	\$59,733	Actuarial accrued liability measured at employee's current age = $A \times B / C$

IV. Calculation of Normal Cost

Normal Cost represents the portion of the Present Value of Future Benefits allocated to the current year.

	Value	Description
A.	\$74,666	Present value of projected retirement benefit measured at employee's current age
B.	25	Projected years of service with employer at retirement
C.	\$2,987	Normal cost measured at employee's current age = A / B

V. Calculation of Annual Required Contribution

Annual Required Contribution is the total expense for the current year to be shown in the employer's income statement.

	Value	Description
A.	\$2,987	Normal Cost for the current year
B.	\$3,509	30-year amortization (level dollar method) of Unfunded Actuarial Accrued Liability using a 4.5% interest rate discount factor
C.	\$292	Interest adjustment = $4.5\% \times (A + B)$
D.	\$6,788	Annual Required Contribution = $A + B + C$

Definitions

GASB 45 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 Accrued Liability** - That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of plan benefits and expenses which is not provided for by the future Normal Costs.
2. **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.
3. **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 Normal Cost and an Actuarial Accrued Liability.
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. **Annual OPEB Cost** - An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.
6. **Annual Required Contribution (ARC)** - The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.
7. **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.
8. **Funded Ratio** - The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Definitions (continued)

9. **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.
10. **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.
11. **Net OPEB Obligation** - The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.
12. **Normal Cost** - The portion of the Actuarial Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.
13. **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.
14. **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.
15. **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.
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. **Substantive Plan** - The terms of an OPEB plan as understood by the employer(s) and plan members.