

*Town of Johnston GASB 45 Financial Report* 

*Fiscal Years Ending June 30, 2012 and 2013* 

Revised November 19, 2012

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# Certification

This report summarizes the GASB actuarial valuation for the Town of Johnston 2012/13 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 valuation is also based upon our understanding of the plan provisions as summarized within the report.

The information presented herein is based on the information furnished to us by the Plan Sponsor that has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census provided by the Plan Sponsor. We 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.

The actuarial assumptions were 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 computations have been made in accordance with generally accepted actuarial principles and practice.

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.

Nyhart

Andy Ogmer

Randy Gomez, FSA, MAAA

November 19, 2012

Evi Laksana, ASA, MAAA



#### Actuary's Notes

Effective July 1, 2012, the Town replaced the self-funded plan for Medicare retirees with a fully-insured Plan 65 (Part C) as well as the Blue Medicare Rx PDP drug coverage (Part D).

- Plan 65 supplements Medicare Parts A and B so that the gap items from A and B are picked up by the fully-insured program (typically between 10% and 20% of the remaining doctor's visit or hospital stay).
- Blue Medicare Rx provides a fully-insured 80/20 coverage.

All retirees are now required to enroll in Medicare Part A and Part B upon retirement. The Town will pay for the Medicare Part B premium for current and future retirees. For a closed group of existing retirees, the Town will also pay for the Medicare Part B premium penalty for those who did not enroll in Medicare Part B when first eligible. This change generated a significant reduction in the Town's liabilities.

Several actuarial methods and assumptions have been changed since the last valuation, which was for the fiscal year ending June 30, 2011:

- 1. Mortality table has been updated to RP-2000 Combined Healthy Mortality Table fully generational projected using scale AA for healthy participants and RP-2000 Disabled Retiree Mortality Table fully generational projected using scale AA for disabled participants. The prior assumptions did not include future mortality.
- 2. Percentage of active employees electing spousal coverage has been changed from 1972 Social Security Awards experience to 60% of male and 50% of female employees are assumed to be married at retirement.
- 3. Medical trend rates have been reset to the same initial rate as the last actuarial valuation.
- 4. Retirement rates for Town's General employees and School's Non-Certified employees have been updated to follow Rhode Island Municipal Employees Retirement System (MERS) retirement rates used in their June 30, 2010 valuation.



# **Sources of GASB Liabilities and Assets**

- 1. The Town and School explicitly subsidize the retiree health care coverage. Refer to Substantive Plan Provisions section for more information on the Town' explicit subsidy.
- 2. Retiree health coverage is implicitly more expensive than active health coverage. This higher cost of coverage creates a GASB 45 liability assigned to the Town and School.
- 3. The Town and School have historically funded its retiree health benefits on a pay-as-you-go basis.

Below is the breakdown of Present Value of Future Benefits (PVFB) allocated for past, current, and future service. Pages 3 and 4 show the GASB results for the fiscal year beginning July 1, 2012 based on the Projected Unit Credit cost method.

	Present Value of Future Benefits (PVFB)	Actuarial Accrued Liability (AAL) PVFB allocated to past service	ccrued Liability (AAL)Normal Cost (NC)cated to past servicePVFB allocated to current period service	
	Α	В	С	D = A - B - C
As of 7/1/2012	\$ 282,832,594	\$ 186,959,602	\$ 7,038,841	\$ 88,834,151



**PVFB** is the amount needed as of July 1, 2012 to fully fund the Town's and School's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

**AAL** is the portion of PVFB considered to be accrued or earned as of July 1, 2012. This amount is a required disclosure in the Required Supplementary Information section.

**NC** is the portion of actuarial present value of retiree health care benefits and expenses allocated to 2012/13 by the actuarial cost method (Projected Unit Credit).

# Summary of Results

1. Present Value of Future Benefits (PVFB)

	As of July 1, 2012	
Current retirees		Breakdown of PVFB
Explicit (Pre-Medicare)	\$ 28,529,241	
Implicit (Pre-Medicare)	4,036,196	11.5%
Post-Medicare	83,839,360	
Total	\$ 116,404,797	38.4%
Future retirees		29.6%
Explicit (Pre-Medicare)	\$ 49,410,069	
Implicit (Pre-Medicare)	8,506,845	
Post-Medicare	108,510,883	20.5%
Total	\$ 166,427,797	
Total PVFB	\$ 282,832,594	Retiree (pre-65)
		Active (pre-65) Active (post-65)
Discount Rate	3.50%	

# Summary of Results – Continued

2.	Actuarial	Accrued	Liabilities	(AAL)	
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	As of July 1, 201.			
Current retirees				
Explicit (Pre-Medicare)	\$ 28,529,241			
Implicit (Pre-Medicare)	4,036,196			
Post-Medicare	83,839,360			
Total	\$ 116,404,797			
Future retirees				
Explicit subsidy (Pre-Medicare)	\$ 21,908,983			
Implicit subsidy (Pre-Medicare)	3,624,791			
Post-Medicare	45,021,031			
Total	\$ 70,554,805			
Total liabilities	\$ 186,959,602			

### **Discount Rate**

#### 3. Income Statement and Balance Sheet Impact

	2011/12	2012/13
Annual OPEB Cost	\$ 17,194,189	\$ 14,479,364
Total Employer Contributions <sup>1</sup> (Affects Income Statement)	\$ 5,284,569	\$ 4,451,602
Net OPEB Obligation at year-end (Affects Balance Sheet Liability)	\$ 51,639,428	\$ 61,667,190



Explicit Subsidies are created when retirees are not charged the full cost of health care as measured by the premium or premium equivalent rates determined annually by the employer.

Implicit Subsidies are additional employer liabilities when the inherently higher health care costs for retired employees are not directly reflected in the determination of the premium or premium equivalent rates.

3.50%

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<sup>&</sup>lt;sup>1</sup> Total employer contribution for FY 2011/12 is based on unaudited retiree healthcare expenses. 2012/13 employer contribution is an estimated amount and it will be updated once the actual FY 2012/13 retiree healthcare expenses are available.

Required Supplementary Information	2011/12 <sup>2</sup>	2012/13
Actuarial Accrued Liability as of beginning of year	\$ 229,015,277	\$ 186,959,602
Actuarial Value of Assets as of beginning of year	0	0
Unfunded Actuarial Accrued Liability (UAAL)	\$ 229,015,277	\$ 186,959,602
Covered payroll	N/A	N/A
UAAL as a % of covered payroll	N/A	N/A
Annual Required Contribution	2011/12	2012/13
Normal cost as of beginning of year	\$ 8,752,450	\$ 7,038,841
Amortization of the UAAL for 30 years	8,179,117	7,190,754
Total normal cost and amortization payment	\$ 16,931,567	\$ 14,229,595
Interest to end of year	 317,619	498,036
Total Annual Required Contribution (ARC)	\$ 17,249,186	\$ 14,727,631



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.

 $<sup>^{\</sup>rm 2}$  2011/12 figures are based on Town of Johnston June 30, 2010 actuarial valuation.

Net OPEB Obligation	2011/12	2012/13
ARC as of end of year	\$ 17,249,186	\$ 14,727,631
Interest on Net OPEB Obligation (NOO) to end of year	1,390,543	1,807,380
NOO amortization adjustment to the ARC	(1,445,540)	(2,055,647)
Annual OPEB cost	\$ 17,194,189	\$ 14,479,364
Annual employer contribution for pay-go cost (estimated) <sup>3</sup>	(5,284,569)	(4,451,602)
Annual employer contribution for pre-funding	0	0
Change in NOO	\$ 11,909,620	\$ 10,027,762
NOO as of beginning of year	39,729,808	51,639,428
NOO as of end of year	\$ 51,639,428	\$ 61,667,190

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-asyou-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.

<sup>&</sup>lt;sup>3</sup> FY 2011/12 annual employer contribution for pay-go cost is based on unaudited retiree healthcare expenses. FY 2012/13 annual employer contribution for pay-go cost is an estimated amount and it will be updated once the actual FY 2012/13 retiree healthcare expenses are available.

### **Schedule of Funding Progress**

 As of	Actuarial Assets	Value of (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	AVA as a % of AAL	Covered Payroll	UAAL as a % of Covered Payroll
	A	4	В	C = B - A	D = A / B	E	F = C / E
July 1, 2012	\$	-	\$ 186,959,602	\$ 186,959,602	0.0%	N/A	N/A
July 1, 2011	\$	-	\$ 229,015,277	\$ 229,015,277	0.0%	N/A	N/A
July 1, 2010	\$	-	\$ 229,015,277	\$ 229,015,277	0.0%	N/A	N/A

### **Schedule of Employer Contributions**

FYE	Employer Contributions	Annual Required Contribution (ARC)	% of ARC Contributed
	Α	В	C = A / B
June 30, 2013	\$ 4,451,602 <sup>4</sup>	\$ 14,727,631	30.2%
June 30, 2012	\$ 5,284,569	\$ 17,249,186	30.6%
June 30, 2011	\$ 5,755,376	\$ 17,249,186	33.4%

## **Historical Annual OPEB Cost**

	As of	Annual OPEB Cost	% of Annual OPEB Cost Contributed	Net OPEB Obligation	
	June 30, 2013	\$ 14,479,364	30.7%	\$ 61,667,190	
	June 30, 2012	\$ 17,194,189	30.7%	\$ 51,639,428	
	June 30, 2011	\$ 17,210,046	33.4%	\$ 39,729,808	



<sup>&</sup>lt;sup>4</sup> Estimated employer contribution for FY 2012/13 that will be updated once the actual 2012/13 retiree healthcare expense is available.

#### **Reconciliation of Actuarial Accrued Liabilities**

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.

(Results are shown in thousands)	2011/12	2012/13
Actuarial Accrued Liability as of beginning of year	\$ 229,015,277	\$ 186,959,602
Normal cost as of beginning of year	8,752,450	7,038,841
Expected benefit payments during the year	(5,755,376)	(4,451,602)
Interest adjustment to end of year	8,222,018	6,712,712
Expected Actuarial Accrued Liability as of end of year 5	\$ 240,234,369	\$ 196,259,553
Actuarial (gain) / loss	(53,274,767)	TBD
Actual Actuarial Accrued Liability as of end of year	\$ 186,959,602	TBD

<sup>&</sup>lt;sup>5</sup> The above reconciliation was calculated using a "no loss/gain" basis for illustration purposes only. The actual 2013 year-end liability may be higher or lower depending on plan experience.

The projection below shows the anticipated pay-as-you-go cost for employer subsidized benefits for the next 10 years. Results are shown separately for current and future retirees. The projections include explicit and implicit subsidies.

FYE	Future Retirees	Current Retirees	Total
2013	\$ 92,317	\$ 4,359,285	\$ 4,451,602
2014	\$ 160,254	\$ 4,428,414	\$ 4,588,668
2015	\$ 239,458	\$ 4,554,545	\$ 4,794,003
2016	\$ 379,202	\$ 4,713,829	\$ 5,093,031
2017	\$ 564,741	\$ 4,864,051	\$ 5,428,792
2018	\$ 862,989	\$ 5,045,355	\$ 5,908,344
2019	\$ 1,191,094	\$ 5,254,730	\$ 6,445,824
2020	\$ 1,531,179	\$ 5,393,638	\$ 6,924,817
2021	\$ 1,882,131	\$ 5,585,592	\$ 7,467,723
2022	\$ 2,276,616	\$ 5,735,775	\$ 8,012,391



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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. Officers who retire after 18 years of service (early retirement) will receive health coverage benefits that were in existence on July 1, 2012. Those who retire after 20 years of service will receive health coverage benefits in existence on July 1, 2010.			
	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 and 20 years of service with Johnston School Corporation. Retirees electing spousal coverage are required to pay the full incremental spouse cost. No spousal coverage is available once the retiree reaches Medicare eligibility.			
	<ul> <li>School Non-Certified employees are eligible for retiree health benefits according to the requirements below:</li> <li>Hired prior to September 1, 1999: age 58 with 15 years of service or 25 years of service</li> <li>Hired on/after September 1, 1999: Age 60 with 20 years of service or age 55 with 25 years of service</li> </ul>			
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.			
Retiree Cost Sharing	Retiree medical benefits are non-contributory for all retirees and their spouses. 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.			



### Part B Subsidy

**Medical Benefit** 

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, 2012 is \$99.90. 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.

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, 2012 for pre-Medicare current and future retirees:

Group	Group Name	Plan	Single	Family
Active Employe	ees			
250	Johnston School Dept	HM 8810	\$ 593.62	\$ 1,537.47
613	Johnston School Non-Cert	HM 8814	\$ 628.71	\$ 1,626.63
5C16	Town of Johnston Police	HM 9558	\$ 561.14	\$ 1,463.96
5C17	Town of Johnston Fire	HM 9555	\$ 574.75	\$ 1,499.30
978	Town of Johnston Employees	HM 9558	\$ 561.14	\$ 1,463.96
Retirees				
250 R	Johnston School Dept – retirees	HM 8783	\$ 604.92	\$ 1,563.36
1E495	Johnston School Dept – retirees II	HM 8810	\$ 593.62	\$ 1,537.47
613R	Johnston School Non-Cert retirees	HM 8869	\$ 637.65	\$ 1,649.67
61314R	Johnston School Non-Cert retirees 2010	HM 8814	\$ 628.71	\$ 1,626.63
8U758	Town of Johnston Police retirees	HM 9558	\$ 561.14	\$ 1,463.96
101788	Johnston Firefighters retirees	HM 9676	\$ 567.65	\$ 1,480.85
8U883	Town of Johnston Fire retirees (2)	HM 9555	\$ 574.75	\$ 1,499.30
100596 / 8846	Town of Johnston retirees	HM 9558	\$ 561.14	\$ 1,463.96

Upon Medicare eligibility, the Town and School provide Blue Medicare Rx plan with monthly premium of \$167. Plan 65 monthly premiums are \$185.88 for the Town and \$162.15 for the School.

Dental Benefit

Monthly dental working rate for School Certified employee is \$29.50 effective on July 1, 2012.

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, 2011. Refer to Actuary's Notes on page 1 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, 2015.

Measurement Date	July 1, 2012
Discount Rate	3.5% unfunded
Payroll Growth	N/A
Cost Method	Projected Unit Credit
Amortization	Payments increasing at 3.5% and amortization period is a closed 26 years.
Census Data	Census data was provided by the Town and it was collected as of July 2012. We have reviewed it for reasonableness and no material modifications were made to the census data.
Mortality	Healthy retiree: RP-2000 Healthy Mortality Table fully generational projected using Scale AA Disabled retiree: RP-2000 Disabled Mortality Table fully generational projected using Scale AA
Disability	Sample annual disability rates are as shown below.

	Town			School <sup>-</sup>	School	
Age	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.

No terminations are assumed for Police and Firefighters hired before 1/1/1999.

	Fire hired	Teachers		Fire hired Teachers		All o	thers
YOS	after 1998	Male	Female	Male	Female		
0	10.00%	17.00%	13.00%	17.50%	18.00%		
1	5.28%	9.00%	7.59%	9.59%	10.69%		
2	4.81%	5.62%	6.56%	8.25%	9.06%		
3	4.36%	4.55%	5.66%	7.13%	7.69%		
4	3.94%	3.64%	4.86%	6.18%	6.53%		
5	3.54%	2.89%	4.18%	5.41%	5.58%		
6	3.16%	2.29%	3.59%	4.80%	4.81%		
7	2.81%	1.81%	3.09%	4.31%	4.20%		
8	2.49%	1.45%	2.67%	3.95%	3.74%		
9	2.19%	1.20%	2.33%	3.68%	3.41%		
10	1.91%	1.04%	2.05%	3.50%	3.18%		
11	1.66%	0.95%	1.83%	3.38%	3.04%		
12	1.43%	0.94%	1.65%	3.30%	2.97%		
13	1.23%	0.94%	1.52%	3.26%	2.95%		
14	1.05%	0.94%	1.42%	3.23%	2.95%		
15	0.90%	0.94%	1.34%	3.19%	2.97%		
16	0.77%	0.94%	1.28%	3.12%	2.97%		
17	0.67%	0.94%	1.22%	3.02%	2.95%		
18	0.59%	0.94%	1.16%	2.85%	2.87%		
19	0.00%	0.94%	1.09%	2.61%	2.73%		
20	0.00%	0.94%	1.01%	2.27%	2.50%		
21	0.00%	0.94%	0.90%	1.82%	2.17%		
22	0.00%	0.94%	0.75%	1.24%	1.70%		
23	0.00%	0.94%	0.56%	0.52%	1.10%		
24	0.00%	0.94%	0.33%	0.52%	0.32%		

#### **Retirement Rate**

Annual retirement rates are as shown below.

		Firefighters			
YOS	Police	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.

The following rates apply to Town's General employees and School's Non-Certified employees. For members who reach 30 years of service prior to age 58, service-based rates are used. For all other members, age-based rates are used.

Service-based rates (00/30)			Age-based rates (58/10)		
YOS	Male	Female	Age	Male	Female
30	30%	30%	58	12%	12%
31	30%	25%	59 – 61	10%	10%
32 – 34	25%	10%	62	30%	20%
36	25%	20%	63 – 64	20%	15%
37	25%	25%	65	20%	20%
38	35%	25%	66 - 68	25%	25%
39	50%	25%	69	30%	25%
40+	100%	100%	70 – 74	30%	20%
			75+	100%	100%

#### Retirement Rates (continued)

The following rates apply to Teachers Schedule A members who are eligible to retire as of September 30, 2009. For members who reach 28 years of service prior to age 60, service-based rates are used. For members who reach age 60 before 28 years of service, age-based rates are used.

	Service-based rates (00/28)			Age-bas (60	sed rates //10)
YOS	Male	Female	Age	Male	Female
28	25%	20%	60	20%	20%
29	15%	15%	61	15%	15%
30 – 31	20%	20%	62	30%	25%
32 – 33	30%	30%	63	25%	20%
34	40%	35%	64	10%	20%
35	55%	50%	65	25%	35%
36 – 39	40%	40%	66 – 74	25%	25%
40+	100%	100%	75+	100%	100%

For Schedule A members who are not eligible to retire as of September 30, 2009, members who would have been assumed to retire prior to age 62 under the above schedule are assumed to retire when first eligible for an unreduced benefit at age 62.

For Schedule B members, 75% of members who reach age 59 with 29 years of service before age 65 are assumed to retire when first eligible, at age 59 with 29 years of service. 75% of other members are expected to retire when first eligible, at age 65 with 10 years of service. The rates in the table above are applied after first eligibility. Schedule B members who retire under provisions other than age 59 with 29 years of service are assumed to retire at the rates shown below.

Age	Unisex
55 – 58	0%
59	1%
60 - 62	2%
63	3%
64	4%



#### **Health Care Trend Rates**

FYE	Medical	Part B	
2013	9.50%	3.00%	
2014	9.00%	3.25%	
2015	8.50%	3.50%	
2016	8.00%	3.75%	
2017	7.50%	4.00%	
2018	7.00%	4.25%	
2019	6.50%	4.50%	
2020	6.00%	4.50%	
2021	5.50%	4.50%	
2022+	5.00%	4.50%	

Dental trend rate is a constant 5.0%.

The 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, 2012 actuarially increased using aging factors and current enrollment. Sample annual per capita costs at select ages are as shown below:

	Town General		Town Po	Town Police/Fire		lool
Age	Male	Female	Male	Female	Male	Female
<55	\$ 6,700	\$ 7,000	\$ 6,800	\$ 7,100	\$ 7,300	\$ 7,600
55 – 59	\$ 8,000	\$ 7,800	\$ 8,100	\$ 7,900	\$ 8,700	\$ 8,500
60 - 64	\$ 10,300	\$ 9,300	\$ 10,400	\$ 9,300	\$ 11,200	\$ 10,100
65+	\$ 4,235	\$ 4,235	\$ 4,235	\$ 4,235	\$ 3,950	\$ 3,950

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 \$1,199 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.

Annual dental per capita cost for School Certified retiree is \$354 and it is assumed to increase with dental trend rates.

**Employer Funding Policy** 

Pay-as-you-go cash basis

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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.					
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 HM 9558.					
	Premium Retiree Explicit Bate Contribution Subsidy					

	Rate	Contribution	Subsidy			
	Α	В	C = A – B			
Retiree	\$ 561.14	\$ 0.00	\$ 561.14			
Spouse	\$ 902.82	\$ 0.00	\$ 902.82			

#### 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 HM 9558.

	Per Capita Cost	Premium Rate*	Implicit Subsidy				
	Α	В	C = A – B				
Retiree	\$ 858.33	\$ 561.14	\$ 297.19				
Spouse	\$ 775.00	\$ 775.00	\$ 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 HM 9558.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 561.14	\$ 902.82
Implicit subsidy	\$ 297.19	\$ 0.00
Total monthly cost	\$ 858.33	\$ 902.82



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Active Employees	Single	Family	Total	Avg. Age	Avg. Svc	Salary
General 978	37	78	115	48.5	9.4	N/A
Fire 5C17	11	67	78	40.7	10.8	N/A
Police 5C16	18	60	78	38.6	8.9	N/A
School Certified 250	69	221	290	47.5	11.1	N/A
School Non-Certified 613	20	83	103	54.9	9.6	N/A
Total actives with coverage	155	509	664	47.0	10.3	N/A

No information is provided on active employees who currently have no coverage.

<i>Retirees</i> <sup>6</sup>	Single	Family	Total	Avg. Age
General 8846	14	11	25	65.7
General 100596	78	6	84	75.0
Fire 101788	10	23	33	58.1
Fire 8U883	22	30	52	58.5
Police 8U758	45	47	92	61.8
School Certified 250R	64	6	70	62.7
School Certified 1E495	13	1	14	60.8
School Non-Certified 613R	158	14	172	72.1
School Non-Certified 61314R	3		3	60.6
Total retirees with coverage	407	138	545	66.8

<sup>&</sup>lt;sup>6</sup> Retirees' enrollment above does not include spouses of retirees covered under the Town's and School's group health plan. Out of 138 retirees with family coverage there are 135 of them that have spouses.

# Active Age-Service Distribution

Years of Service											
Age	< 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	Total
Under 25	5	2									7
25 to 29	8	21	9								38
30 to 34	3	26	34	14							77
35 to 39	4	14	14	22	8						62
40 to 44	3	19	24	40	28	6					120
45 to 49	3	18	20	25	32	5	1				104
50 to 54	4	17	21	36	9	5	6				98
55 to 59		5	20	26	12	8	2				73
60 to 64	1	9	8	19	8	6					51
65 to 69	1	6	3	4	1	2		1			18
70 & up		4			5	1	6				16
Total	32	141	153	186	103	33	15	1	0	0	664

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.
- 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.
- 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.

# APPENDIX

# Appendix A – Required Supplementary Information by Group

Groups	Actuarial Assets As of July	<b>Value of</b> (AVA) (1, 2011	Actu Lia As c	<b>iarial Accrued</b> <b>bility (AAL)</b> <sup>7</sup> of July 1, 2011	Unfunded Actuarial Accrued Liability (UAAL) As of July 1, 2011		AVA as a % of AAL	<b>Covered Payroll</b> For 2012/13	UAAL as a % of Covered Payroll
	Α		В		C = B - A		D = A / B	E	F = C / E
Fire	\$	-	\$	79,702,824	\$	79,702,824	0.0%	N/A	N/A
Police	\$	-	\$	76,280,183	\$	76,280,183	0.0%	N/A	N/A
Water	\$	-	\$	122,886	\$	122,886	0.0%	N/A	N/A
Town	\$	-	\$	20,193,563	\$	20,193,563	0.0%	N/A	N/A
School	\$	-	\$	52,715,821	\$	52,715,821	0.0%	N/A	N/A
Total	\$	-	\$	229,015,277	\$	229,015,277	0.0%	N/A	N/A

# Schedule of Funding Progress for Fiscal Year Ending June 30, 2012

### Schedule of Employer Contributions for Fiscal Year 2011/12

	Annual OPEB Costs (AOC) For 2011/12	Actual Contributions For 2011/12	% of AOC Contributed For 2011/12
	Α	В	<i>C</i> = <i>A</i> / <i>B</i>
Fire	\$ 5,152,353	\$ 1,162,689	22.6%
Police	\$ 5,680,290	\$ 1,388,384	24.4%
Water	\$ 10,523	\$0	0.0%
Town	\$ 1,624,844	\$ 590,481	36.3%
School	\$ 4,726,179	\$ 2,143,015	45.3%
Total	\$ 17,194,189	\$ 5,284,569	30.7%



<sup>&</sup>lt;sup>7</sup> Based on Town of Johnston June 30, 2010 actuarial valuation.

# Appendix A – Continued

## Net OPEB Obligation (NOO) as of June 30, 2012

Groups	Anni Contri Fa	u <b>al Required</b> i <b>bution (ARC)<sup>8</sup></b> or 2011/12	In Exis Fo	<b>terest on</b> sting NOO or 2011/12	<b>ARC</b> Fo	<b>Adjustment</b> or 2011/12	F	<b>AOC</b> or 2011/12	<b>Con</b> For	Actual tributions · 2011/12	Ne Fe	et Increase in NOO or 2011/12	As of	<b>NOO</b> June 30, 2012
		Α		В		С	D	= A + B + C		E		F = D – E		G
Fire	\$	5,168,284	\$	402,794	\$	(418,725)	\$	5,152,353	\$ 1	,162,689	\$	3,989,664	\$	15,498,063
Police	\$	5,695,274	\$	378,866	\$	(393,850)	\$	5,680,290	\$ 1	,388,384	\$	4,291,906	\$	15,116,655
Water	\$	10,589	\$	1,677	\$	(1,743)	\$	10,523	\$	0	\$	10,523	\$	58,440
Town	\$	1,631,985	\$	180,546	\$	(187,687)	\$	1,624,844	\$	590,481	\$	1,034,363	\$	6,192,816
School	\$	4,743,054	\$	426,660	\$	(443,535)	\$	4,726,179	\$ 2	,143,015	\$	2,583,164	\$	14,773,454
Total	\$	17,249,186	\$ 1	1,390,543	\$ (	(1,445,540)	\$	17,194,189	\$ 5	,284,569	\$	11,909,620	\$	51,639,428

<sup>&</sup>lt;sup>8</sup> Based on Town of Johnston June 30, 2010 actuarial valuation.

# Appendix A – Continued

### Schedule of Funding Progress for Fiscal Year Ending June 30, 2013

Groups	Actuaria Assets As of Jul	<b>I Value of</b> <b>5 (AVA)</b> y 1, 2012	Actu Lia As c	arial Accrued ability (AAL) of July 1, 2012	Unfunded Actuarial Accrued Liability (UAAL) As of July 1, 2012		AVA as a % of AAL	<b>Covered Payroll</b> For 2012/13	UAAL as a % of Covered Payroll
		4		В		C = B - A	D = A / B	E	F = C / E
Fire	\$	-	\$	58,763,753	\$	58,763,753	0.0%	N/A	N/A
Police	\$	-	\$	53,081,741	\$	53,081,741	0.0%	N/A	N/A
Water	\$	-	\$	187,136	\$	187,136	0.0%	N/A	N/A
Town	\$	-	\$	29,576,007	\$	29,576,007	0.0%	N/A	N/A
School	\$	-	\$	45,350,965	\$	45,350,965	0.0%	N/A	N/A
Total	\$	-	\$	186,959,602	\$	186,959,602	0.0%	N/A	N/A

### Schedule of Employer Contributions for Fiscal Year 2012/13

	Annual OPEB Costs (AOC) For 2012/13	<b>Expected</b> <b>Contributions</b> For 2012/13	% of AOC Contributed For 2012/13
	Α	В	<i>C</i> = <i>A</i> / <i>B</i>
Fire	\$ 4,273,457	\$ 1,004,806	23.5%
Police	\$ 4,327,732	\$ 964,004	22.3%
Water	\$ 13,569	\$ 1,905	14.0%
Town	\$ 2,602,846	\$ 851,676	32.7%
School	\$ 3,261,760	\$ 1,629,211	49.9%
Total	\$ 14,479,364	\$ 4,451,602	30.7%

# Appendix A – Continued

## Net OPEB Obligation (NOO) as of June 30, 2013

Groups	Annu Contri Fa	<b>Jal Required</b> ibution (ARC) or 2012/13	In Exis Fo	<b>terest on</b> sting NOO ar 2012/13	<b>ARC</b> Fo	<b>Adjustment</b> or 2012/13	F	<b>AOC</b> for 2012/13	E Cor Fa	Expected ntributions or 2012/13	Ne Fr	et Increase in NOO or 2012/13	As of	<b>NOO</b> June 30, 2013
		Α		В		С	<b>D</b> :	= A + B + C		E	I	F = D – E		G
Fire	\$	4,347,967	\$	542,432	\$	(616,942)	\$	4,273,457	\$	1,004,806	\$	3,268,651	\$	18,766,714
Police	\$	4,400,408	\$	529,083	\$	(601,759)	\$	4,327,732	\$	964,004	\$	3,363,728	\$	18,480,383
Water	\$	13,851	\$	2,045	\$	(2,327)	\$	13,569	\$	1,905	\$	11,664	\$	70,104
Town	\$	2,632,618	\$	216,749	\$	(246,521)	\$	2,602,846	\$	851,676	\$	1,751,170	\$	7,943,986
School	\$	3,332,787	\$	517,071	\$	(588,098)	\$	3,261,760	\$	1,629,211	\$	1,632,549	\$	16,406,003
Total	\$	14,727,631	<b>\$</b> 1	,807,380	\$ (	2,055,647)	\$	14,479,364	\$	4,451,602	\$ -	10,027,762	\$	61,667,190



# Appendix B – Comparison of Participant Demographic Information

	As of July 1, 2010	As of July 1, 2012
Active Participants	694	664
Retired Participants <sup>9</sup>	668	680
Averages for Active		
Age	46.2	47.0
Service	6.9	10.3
Averages for Inactive	63.4	64.6



<sup>&</sup>lt;sup>9</sup> Figures shown above include spouses of retirees covered under the Town's and School's group health plans.

# of

Retirements

per year\* 0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

42.949

Total

Decrements

2.147

1.931

1.724

1.524

1.329

1.151

0.977

0.818

0.675

42.949

# Appendix C – Decrements Exhibit (Turnover and Mortality Rates)

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	# Deaths per year*	# of Terminations per year*	# of Retirements per year*	Total Decrements	Age	# Remaining Employees	# Deaths per year*	# of Terminations per year*
35	100.000	0.077	6.276	0.000	6.353	46	55.225	0.089	2.058
36	93.647	0.079	5.672	0.000	5.751	47	53.078	0.092	1.839
37	87.896	0.079	5.127	0.000	5.206	48	51.147	0.095	1.629
38	82.690	0.080	4.636	0.000	4.716	49	49.423	0.099	1.425
39	77.974	0.080	4.194	0.000	4.274	50	47.899	0.102	1.227
40	73.700	0.080	3.796	0.000	3.876	51	46.570	0.114	1.037
41	69.824	0.080	3.436	0.000	3.516	52	45.419	0.121	0.856
42	66.308	0.081	3.109	0.000	3.190	53	44.442	0.130	0.688
43	63.118	0.082	2.811	0.000	2.893	54	43.624	0.139	0.536
44	60.225	0.084	2.539	0.000	2.623	55	42.949	0.000	0.000
45	57.602	0.087	2.290	0.000	2.377				



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

# Appendix D – 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%	5.000	95.000
56	95.000	5%	4.750	90.250
57	90.250	5%	4.513	85.738
58	85.738	5%	4.287	81.451
59	81.451	5%	4.073	77.378
60	77.378	5%	3.869	73.509
61	73.509	5%	3.675	69.834
62	69.834	30%	20.950	48.884
63	48.884	15%	7.333	41.551
64	41.551	15%	6.233	35.318
65	35.318	100%	35.318	0.000



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

# Appendix E – Illustration of GASB Calculations

The purpose of the illustration is to familiarize non-actuaries with the GASB 45 actuarial calculation process.

### I. Facts

- 1. The employer provides subsidized retiree health coverage worth \$100,000 to employees retiring at age 55 with 25 years of service. The employer funds for retiree health coverage on a pay-as-you-go basis.
- 2. Employee X is age 50 and has worked 20 years with the employer.
- 3. Retiree health subsidies are paid from the general fund assets which are expected to earn 4.5% per year on a long-term basis.
- 4. 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
Α.	\$100,000	Projected benefit at retirement
В.	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 x B x C x D



# Appendix

## Appendix E – Continued

### III. Calculation of Actuarial Accrued Liability

Actuarial Accrued Liability represents the portion of the Present Value of Future Benefits which has been accrued recognizing the employee's past service with the employer. The Actuarial Accrued Liability 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 x 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
В.	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
В.	\$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% x (A + B)
D.	\$6,788	Annual Required Contribution = $A + B + C$