



Town of West Warwick

GASB 45 Actuarial Valuation

Fiscal Year Ending June 30, 2014

Prepared by:

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October 23, 2014

John Cimino
Town of West Warwick
1170 Main Street
West Warwick, RI 02893

This report summarizes the GASB actuarial valuation for Town of West Warwick 2013/14 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.

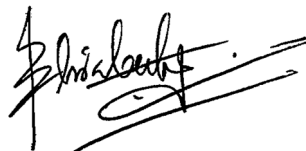
To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.

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. 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

There have been changes to the substantive plan provisions since the last full valuation, which was for the fiscal year ending June 30, 2012.

Firefighters (applicable for those retiring on/after July 1, 2014)

1. Retiree health benefits eligibility requirement has changed from 20 years of service (YOS) to:
 - a. Hired prior to 7/1/2014 – earlier of age 62 or age 50 with 25 YOS
 - b. Hired on/after 7/1/2014 – earlier of age 62 or age 55 with 25 YOS
2. Civilian employees of the Firefighters Department are eligible for retiree health benefits once they have 10 years of service but the benefit will commence at age 60. There was no separate retiree health benefits eligibility requirement applied to Civilian employees of the Firefighters Department in the prior valuation.
3. Retiree health contribution requirement has changed from 1% of pension to 4% of pension for those enrolled in HM \$500 plan. Future retirees enrolled in HDHP plan receive free medical coverage. Dental benefits remains free.
4. Pension benefit has been changed from 2.5% of Salary for all YOS up to 28 to 2.2% of Salary for all YOS up to 25 plus 3.0% of Salary for YOS between 25 and 30. Salary definition has been changed from average compensation over the last 12 months of employment to average of the three highest consecutive years of the member's Basic Annual Salary (including annual salary, longevity, holiday, and EMT pay). COLA at retirement starts at the earlier of age 62.5 or 7 years from retirement. COLA provision is 2.25% simple interest, payable for 15 years.
5. Firefighters contribute 1% of salary to the OPEB Trust while actively employed.

Police Officers (applicable for those retiring on/after July 1, 2014)

1. Retiree health benefits eligibility requirement has changed from 20 YOS commencing immediately to 20 YOS commencing at age 50 for those hired on/after 7/1/2014. There is no eligibility change for those hired prior to 7/1/2014.
2. Retiree contribution requirement has changed from 1% of pension (or 2% of pension for those hired on/after 7/1/2008) to 4% of pension for those enrolled in HM \$500 plan. Future retirees enrolled in HDHP plan receive free medical coverage. Dental benefits remains free.
3. Pension benefit has been changed from:
 - a. Prior valuation:
 - i. Hired prior to 7/1/2011 – 2.5% of Salary for all YOS up to 28
 - ii. Hired on/after 7/1/2011 – 2.5% of Salary for all YOS up to 28 plus 2.0% of Salary for the next 10 years of employment
 - b. Current valuation:
 - i. Employees with 20 YOS at 6/30/2014 – no changes
 - ii. Employees with less than 20 YOS at 6/30/2014 – 2.5% of Salary for all YOS up to 20 plus 0.0% of Salary for the next 5 years of employment plus 2.5% of Salary for the next 6 years of employment.COLA at retirement starts 7 years from retirement. COLA provision is 2.25% compound interest, payable for 15 years.
4. Police officers contribute 1% of salary to the OPEB Trust while actively employed.

Municipal Union and Sewer (applicable for those retiring on/after July 1, 2014)

1. Retiree health benefits eligibility requirement has changed from the earlier of 25 YOS or age 60 with 10 YOS to the earlier of 25 YOS or age 62 with 12 YOS. For those hired on/after 7/1/2014, benefit will commence at age 55.
2. Retiree contribution requirement has changed from a varying percentage of working rates to 4% of pension for those enrolled in HM \$500 plan. Future retirees enrolled in HDHP plan receive free medical coverage. Dental benefits remains free.
3. Pension benefit is 2.5% of Salary for all years of service. The multiplier is 2.4% for those hired on/after 7/1/2014. Salary is defined as the average salary for the last 10 years of employment. COLA at retirement starts 7 years from retirement. COLA provision is 2.00% compound interest, payable for 15 years.

Municipal Non-Union

Municipal Non-Union employees are not eligible for retiree health benefits so they have been excluded from this year's valuation. They were included in the prior valuation.

Library

Library employees are not eligible for retiree health benefits so they have been excluded from this year's valuation. They were included in the prior valuation.

School Non-Certified (applicable to those retiring on/after July 1, 2014)

Eligibility requirements have changed from:

- a. Prior valuation – earlier of 25 YOS or age 60 with 20 YOS
- b. Current valuation – earlier of 25 YOS or age 62 with 12 YOS (benefit will commence at age 55 for those hired on/after 7/1/2014)

Town Retirees (applicable to those who are retired as of June 30, 2014)

Medical contributions have been changed from either free coverage or a percentage of pension benefit to a percentage of working rates depending on the health plan option elected at retirement (0% if enrolled in HDHP, 5% if enrolled in HM \$500, or 15% if enrolled in HM no deductible). For disabled retirees, their contribution percentages are the same as healthy retirees except for those enrolled in HM \$500 will have to pay 7% of working rates.

School Certified Retirees

For those who retired prior to 9/1/2012 with at least 25 years of service, they are eligible for subsidized retiree health benefits until age 66. In prior valuation, subsidized retiree health benefits are available until age 65.

The net impact of all of the above plan provision changes is a reduction in the Town / School liabilities.

Several actuarial assumptions have been updated since the last valuation:

1. Town of West Warwick is in the process of setting up an OPEB Trust Fund which is expected to be in place by the end of 2014/15 fiscal year. The Town's funding policy is to fully fund the Annual Required Contribution (ARC) annually through a combination of employer contributions for pay-go cost and pre-funding. The first contribution is expected to be deposited by June 30, 2015 and the Trust is expected to earn an expected long-term rate of return of 7.5%. Due to this funding policy change, the discount rate used for this year's valuation has been increased from 4.0% to 7.5%. In the event that the Trust is not set up by the expected date, this actuarial report will need to be updated for the lower 4.0% discount rate.
2. Mortality table for Police and Fire employees and retirees has been updated from (a) RP-2000 Combined Mortality table fully generational using scale AA to (b) RP-2000 Combined Mortality Table with Blue Collar adjustment fully generational using scale AA. This caused a slight decrease in liabilities.
3. Salary scale has been changed from 3.5% for all years to 2.0% until 2016 increasing to 3.5% on 2017 and after. This change caused an increase in liabilities.
4. Termination and retirement rates have been updated for all groups except for School Certified employees to be consistent with the plan provision changes. Both changes caused a decrease in liabilities.
5. Amortization period has been changed from an open 30-year to a closed 30-year period to better reflect the financing of the plan.
6. Medical trend rates have been reset to the prior valuation's levels. This caused an increase in liabilities.

Summary of Results

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

	<i>As of July 1, 2012¹</i>		<i>As of July 1, 2013</i>	
Actuarial Accrued Liability	\$	107,329,661	\$	57,953,063
Actuarial Value of Assets	\$	0	\$	0
Unfunded Actuarial Accrued Liability	\$	107,329,661	\$	57,953,063
Funded Ratio		0.0%		0.0%

	<i>FY 2012/13</i>		<i>FY 2013/14</i>	
Annual Required Contribution	\$	7,552,618	\$	4,803,612
Annual OPEB Cost	\$	7,523,306	\$	4,933,828
Annual Employer Contribution	\$	5,303,716	\$	3,467,681

	<i>As of June 30, 2013</i>		<i>As of June 30, 2014</i>	
Net OPEB Obligation	\$	14,082,987	\$	15,549,134

	<i>As of July 1, 2014</i>	
Total Active Participants		663
Total Retiree Participants		295

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.

¹ An interim valuation was not prepared for FY 2012/13 as the Town opted to repeat the GASB valuation results as shown in the actuarial valuation report for the fiscal year ending June 30, 2012 for the interim year financial disclosure as permitted by GASB.

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

	<i>As of July 1, 2012²</i>		<i>As of July 1, 2013</i>	
Present Value of Future Benefits	\$	145,466,739	\$	68,110,435
Active Employees		77,103,343		29,015,184
Retired Employees		68,363,396		39,095,251
Actuarial Accrued Liability	\$	107,329,661	\$	57,953,063
Active Employees		38,966,265		18,857,813
Retired Employees		68,363,396		39,095,250
Normal Cost	\$	2,880,281	\$	988,749
Future Normal Cost	\$	35,256,797	\$	9,168,623
Discount Rate		4.0%		7.5%

Present Value of Future Benefits (PVFB) is the amount needed as of July 1, 2012 and 2013 to fully fund the Town’s retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

Actuarial Accrued Liability is the portion of PVFB considered to be accrued or earned as of July 1, 2012 and 2013. This amount is a required disclosure in the Required Supplementary Information section.

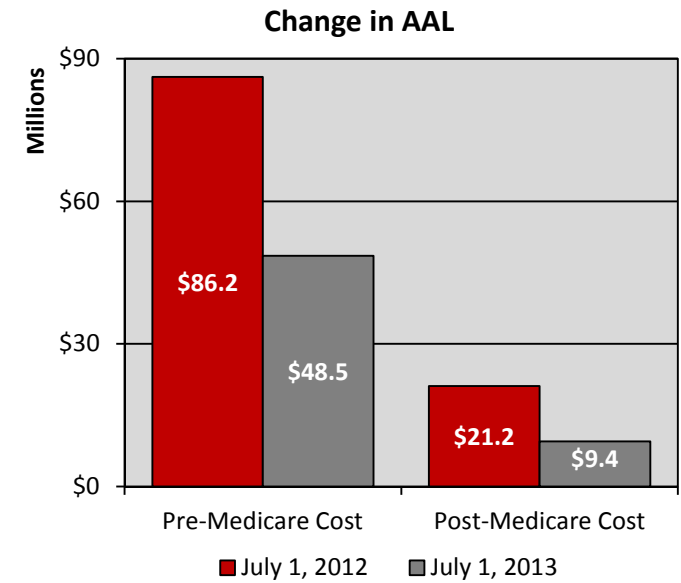
Normal Cost is the portion of the total liability amount that is attributed and accrued for current year’s active employee service by the actuarial cost method.

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

² An interim valuation was not prepared for FY 2012/13 as the Town opted to repeat the GASB valuation results as shown in the actuarial valuation report for the fiscal year ending June 30, 2012 for the interim year financial disclosure as permitted by GASB.

Below is a breakdown of total GASB 45 Actuarial Accrued Liability (AAL) allocated to pre and post Medicare eligibility. The liability shown below includes explicit (if any) and implicit subsidies. Refer to the Substantive Plan Provisions section for complete information on the Plan Sponsor’s GASB subsidies.

Actuarial Accrued Liability (AAL)	As of July 1, 2012 ³	As of July 1, 2013
Active Pre-Medicare	\$ 31,232,950	\$ 15,862,952
Active Post-Medicare	7,733,315	2,994,861
Total Active AAL	\$ 38,966,265	\$ 18,857,813
Retirees Pre-Medicare	\$ 54,944,477	\$ 32,650,965
Retirees Post-Medicare	13,418,919	6,444,285
Total Retirees AAL	\$ 68,363,396	\$ 39,095,250
Total AAL	\$ 107,329,661	\$ 57,953,063
Discount Rate	4.0%	7.5%



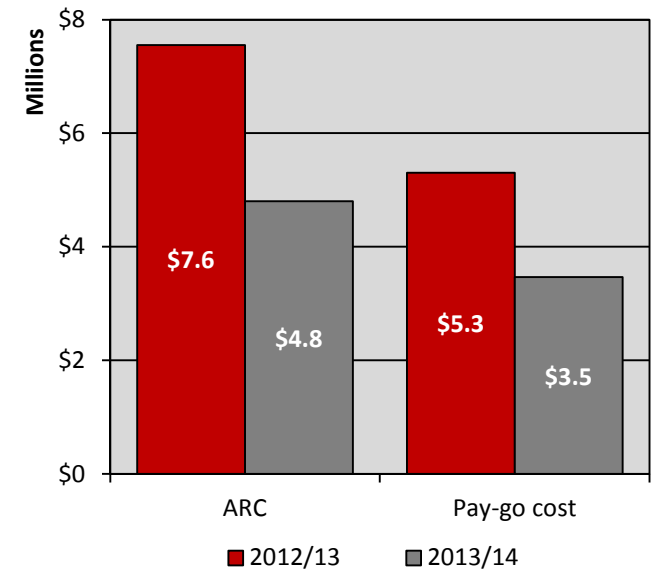
³ An interim valuation was not prepared for FY 2012/13 as the Town opted to repeat the GASB valuation results as shown in the actuarial valuation report for the fiscal year ending June 30, 2012 for the interim year financial disclosure as permitted by GASB.

Development of Annual Required Contribution (ARC)

Discount Rate	4.0%		7.5%	
Required Supplementary Information				
	<i>FY 2012/13⁴</i>		<i>FY 2013/14</i>	
Actuarial Accrued Liability as of beginning of year	\$	107,329,661	\$	57,953,063
Actuarial Value of Assets as of beginning of year		0		0
Unfunded Actuarial Accrued Liability (UAAL)	\$	107,329,661	\$	57,953,063
Covered payroll		N/A	\$	35,610,976
UAAL as a % of covered payroll		N/A		162.7%

Annual Required Contribution				
	<i>FY 2012/13³</i>		<i>FY 2013/14</i>	
Normal cost as of beginning of year	\$	2,880,281	\$	988,749
Reduction for active contributions to OPEB Trust		N/A		(65,043)
Net normal cost as of beginning of year	\$	2,880,281	\$	923,706
Amortization of the UAAL		4,381,852		3,544,770
Total normal cost and amortization payment	\$	7,262,133	\$	4,468,476
Interest to end of year		290,485		335,136
Total Annual Required Contribution (ARC)	\$	7,552,618	\$	4,803,612

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.

⁴ An interim valuation was not prepared for FY 2012/13 as the Town opted to repeat the GASB valuation results as shown in the actuarial valuation report for the fiscal year ending June 30, 2012 for the interim year financial disclosure as permitted by GASB.

Development of Annual OPEB Cost and Net OPEB Obligation

Annual employer contribution for pay-go costs are estimated for 2012/13 and 2013/14.

Net OPEB Obligation	FY 2012/13	FY 2013/14
ARC as of end of year	\$ 7,552,618	\$ 4,803,612
Interest on Net OPEB Obligation (NOO) to end of year	476,775	1,056,224
NOO amortization adjustment to the ARC	(506,087)	(926,008)
Annual OPEB cost	\$ 7,523,306	\$ 4,933,828
Annual employer contribution for pay-go cost	(5,303,716)	(3,467,681)
Annual employer contribution for pre-funding	0	0
Change in NOO	\$ 2,219,590	\$ 1,466,147
NOO as of beginning of year	11,919,373	14,082,987
NOO as of end of year	\$ 14,138,963	\$ 15,549,134
NOO reversal for Library employees ⁵	(55,976)	N/A
Final NOO as of end of year	\$ 14,082,987	\$ 15,549,134

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.

⁵ In this year's valuation, Library and Municipal Non-Union employees are no longer eligible for retiree health benefits. There is no Net OPEB Obligation (NOO) reversal for Municipal Non-Union employees since there was no union indicator provided in the census data used for June 30, 2012 GASB valuation.

Summary of GASB 45 Financial Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2014 and prior fiscal years as shown in the Town’s Notes to Financial Statements.

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, 2013	\$ 57,953,063	\$ -	\$ 57,953,063	0.0%	\$ 35,610,976	162.7%
July 1, 2012	\$ 107,329,661	\$ -	\$ 107,329,661	0.0%	N/A	N/A
July 1, 2011	\$ 107,329,661	\$ -	\$ 107,329,661	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, 2014	\$ 3,467,681	\$ 4,803,612	72.2%
June 30, 2013	\$ 5,303,716	\$ 7,552,618	70.2%
June 30, 2012	\$ 4,865,794	\$ 7,552,618	64.4%

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, 2014	\$ 4,933,828	70.3%	\$ 15,549,134
June 30, 2013	\$ 7,523,306	70.5%	\$ 14,082,987
June 30, 2012	\$ 7,529,858	64.6%	\$ 11,919,373

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.

	<i>FY 2013/14⁶</i>
Actuarial Accrued Liability as of beginning of year	\$ 57,953,063
Normal cost as of beginning of year	988,749
Expected benefit payments during the year	(3,467,681)
Interest adjustment to end of year	4,292,949
Expected Actuarial Accrued Liability as of end of year	\$ 59,767,080
Actuarial (gain) / loss due to experience	0
Actuarial (gain) / loss due to provisions / assumptions changes	0
Actual Actuarial Accrued Liability as of end of year	\$ 59,767,080

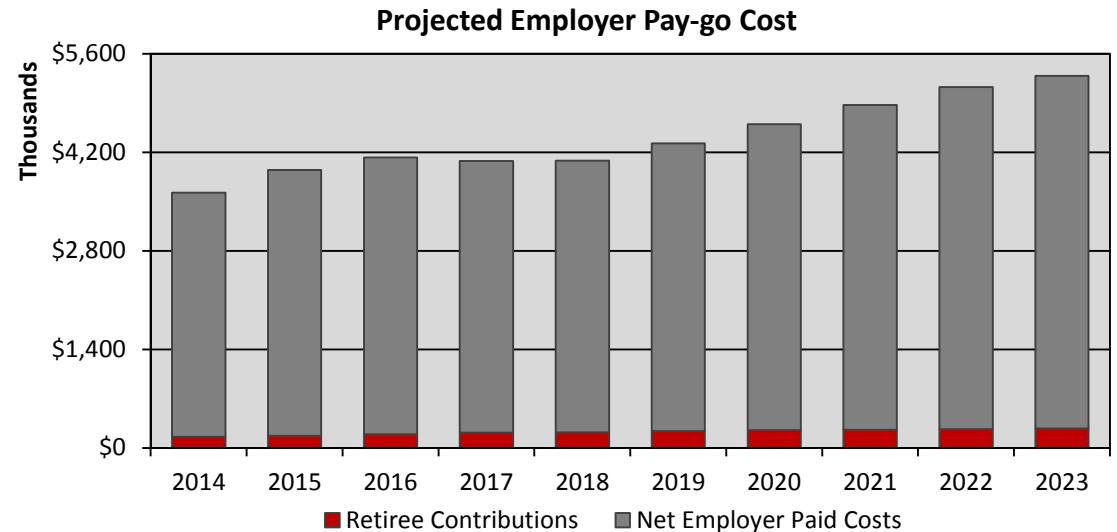
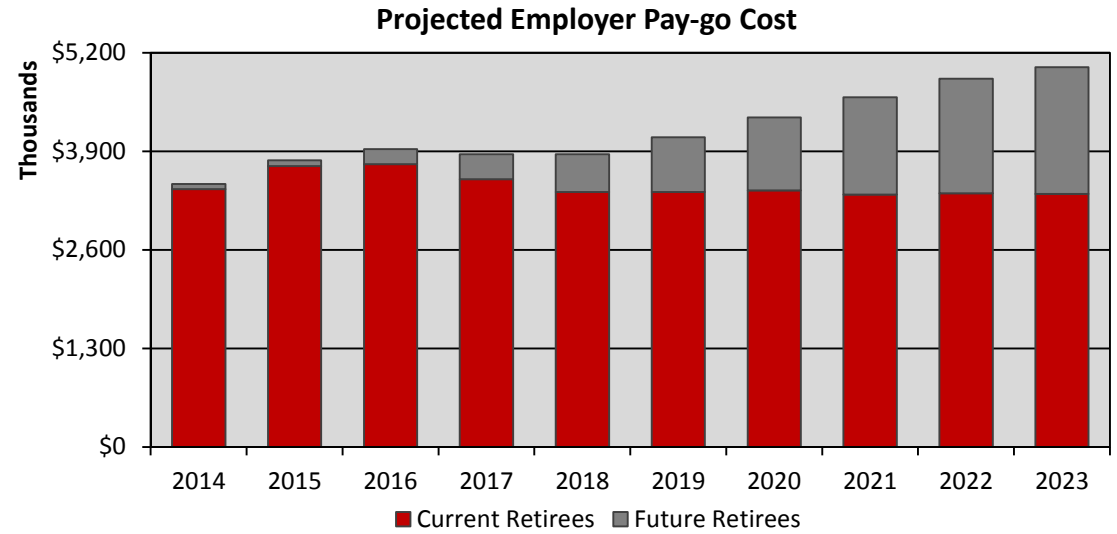
Reconciliation of AAL shows what the actuary expects the actuarial accrued liability to be at the beginning of the following fiscal year based on current assumptions and plan provisions. The expected end of year AAL will change as actual plan experience varies from assumptions. Generally, the AAL is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

⁶ 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-paid contributions for retiree health benefits for the next ten years. Results are shown separately for current /future retirees and gross claim costs/retiree contributions. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees ⁷	Total
2014	\$ 3,401,421	\$ 66,260	\$ 3,467,681
2015	\$ 3,707,549	\$ 72,223	\$ 3,779,772
2016	\$ 3,728,728	\$ 201,757	\$ 3,930,485
2017	\$ 3,533,297	\$ 326,409	\$ 3,859,706
2018	\$ 3,362,685	\$ 497,291	\$ 3,859,976
2019	\$ 3,364,973	\$ 721,506	\$ 4,086,479
2020	\$ 3,383,377	\$ 964,780	\$ 4,348,157
2021	\$ 3,330,771	\$ 1,284,276	\$ 4,615,047
2022	\$ 3,348,148	\$ 1,508,320	\$ 4,856,468
2023	\$ 3,336,274	\$ 1,672,379	\$ 5,008,653

FYE	Estimated Claims Costs	Retiree Contributions	Net Employer-Paid Costs
2014	\$ 3,625,047	\$ 157,366	\$ 3,467,681
2015	\$ 3,951,301	\$ 171,529	\$ 3,779,772
2016	\$ 4,126,627	\$ 196,142	\$ 3,930,485
2017	\$ 4,075,656	\$ 215,950	\$ 3,859,706
2018	\$ 4,083,718	\$ 223,742	\$ 3,859,976
2019	\$ 4,326,004	\$ 239,525	\$ 4,086,479
2020	\$ 4,601,179	\$ 253,022	\$ 4,348,157
2021	\$ 4,871,964	\$ 256,917	\$ 4,615,047
2022	\$ 5,125,347	\$ 268,879	\$ 4,856,468
2023	\$ 5,284,986	\$ 276,333	\$ 5,008,653



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

Eligibility

All employees are eligible for retiree health benefits once they meet the pension benefit retirement eligibility requirements which are described below.

Firefighters retirement eligibility requirements:

- Hired prior to July 1, 2014 – earlier of age 62 or age 50 with 25 years of service.
- Hired on/after July 1, 2014 – earlier of age 62 or age 55 with 25 years of service

Four grandfathered firefighters are eligible to retire upon attaining age 62.5 or 20 years of service.

Police officers are eligible to retire once they have 20 years of service. For those hired on/after July 1, 2014, retiree health benefits will commence at age 50.

Municipal Union employees (including Wastewater and School Non-Certified employees) are eligible to retire at the earlier of age 62 with 12 years of service or 25 years of service. For those hired on/after July 1, 2014, if they retire with 25 years of service, retiree health benefits will commence at age 55.

School Certified employees are eligible to retire once they have 15 years of service or 25 years of service or 28 years of service (with no age requirements). The cost sharing requirement differs at each eligibility requirement.

Municipal Non-Union and Library employees are not eligible for health benefits at retirement.

Duration of Retiree Health Benefits

Firefighters and police officers are eligible for lifetime subsidized retiree health benefits.

Municipal Union (including Wastewater employees) and Municipal Non-Union are eligible for subsidized medical benefits until Medicare eligibility and lifetime free dental benefits.

School Non-Certified employees are eligible for lifetime retiree health benefits but they are only eligible for five years of free retiree health benefits if they have 20 years of service at retirement.

School Certified employees are eligible to either four years of subsidized retiree health benefits or until Medicare eligibility depending on years of service at retirement.

Spouse Benefit

Upon death of retiree, coverage continues to surviving spouses, for the same duration as the retiree.

Retiree Cost Sharing for Future Retirees

Employees belonging in the following groups contribute 4% of pension for medical benefits if they elect HM \$500 plan at retirement.

- Firefighters
- Police Officers
- Municipal Union (including Wastewater employees)

For those electing HDHP plan at retirement, medical coverage is free. Dental benefits are free.

School Non-Certified employees receive free medical and dental coverage for 5 years after retirement if they have 20 years of service at retirement. If the 5-year period extends past Medicare eligibility, the Town will still pay for the medical and dental benefits. Retirees are allowed to continue coverage beyond the 5-year period by paying the full cost of coverage although for GASB valuation purposes, we have assumed that none of them do so. Employees retiring with less than 20 years of service at retirement are allowed to enroll in the School's group health plan by paying the full cost of coverage.

School Certified employees cost sharing requirements are as follows:

- Retiring with 15 years of service – free medical coverage for 4 years after retirement until Medicare eligibility.
- Retiring with 25 years of service – free medical coverage until age 65.
- Retiring with 28 years of service – free medical and dental coverage until age 65.

Retiree Cost Sharing for Current RetireesTown

Town employees who retired prior to 7/1/2014 contribute a percentage of working rates based on the health plan option elected (for all employee groups):

- HDHP – 0%
- HM \$500 – 5% (7% if disabled)
- HM no deductible – 15%

School

Currently retired Non-Certified employees have the same contribution requirement as future retirees.

Currently retired School Certified employees have the same contribution requirements as future retirees, except for those who retired prior to September 1, 2012 with at least 25 years of service, retiree health benefits are available until age 66.

Pension Benefit

Firefighters

Benefit formula: 2.2% of Salary for all YOS up to 25 plus 3.0% of Salary for YOS between 25 and 30. Salary is defined as the average of 3 highest consecutive base annual salary (includes annual salary, longevity, holiday, and EMTC pay). COLA at retirement starts at the earlier of age 62.5 or 7 years from retirement. COLA provision is 2.25% simple interest, payable for 15 years.

Police Officers

Benefit formula:

- Employees with 20 YOS at June 30, 2014: 2.5% of Salary for all YOS up to 28
- Employees with less than 20 YOS at June 30, 2014: 2.5% of Salary for all YOS up to 20 plus 1.0% of Salary for the next 5 years of employment plus 2.5% of Salary for the next 6 years of employment

Salary is defined as basic rate of annual earnings, longevity for the 12 months prior to retirement date, including wellness stipend and 105 holiday hours.

COLA at retirement starts 7 years from retirement. COLA provision is 2.25% compound interest, payable for 15 years.

Municipal Union and Sewer

Benefit formula: 2.5% of Salary for all YOS (the benefit multiplier is 2.4% for those hired on/after July 1, 2014). Salary is defined as the average salary for the last 10 years of employment. COLA at retirement starts 7 years from retirement. COLA provision is 2.00% compound interest, payable for 15 years.

OPEB Trust Contribution

Firefighters and Police Officers contribute 1% of Salary to the OPEB Trust while actively working.

Dental Benefit

The Town provides free lifetime dental benefits for all retiree groups, except for School Certified employees who retire with less than 25 years of service. Monthly dental premiums effective on July 1, 2014 are as follows:

- School: \$43.51 single and \$135.23 family
- Town: \$38.28 single and \$116.28 family

Medical Benefit

Same benefit options are available to retirees as active employees. All pre-Medicare health plans are self-insured. Post Medicare health plan is fully-insured and community-rated. The 2014/15 monthly premiums by plan effective July 1, 2014 are as shown below.

Group Suffix	Plan Name	Single	Family
School			
Classified 0001 class 0002	HM \$0 Ded \$10 OV/\$25 ER, \$5/15/30/30 Rx	\$ 669.71	\$ 1,656.89
Certified 0003 class 0002	HM \$0 Ded \$10 OV/\$25 ER, \$5/15/30/30 Rx	\$ 669.71	\$ 1,656.89
Certified 0002 class 0004	HM \$0 Ded \$5 OV/\$25 ER, \$5/10/10 Rx	\$ 694.32	\$ 1,717.81
Classified 0004 class 0006	HM \$0 Ded \$15 OV/\$100 ER, \$7/25/40/40 Rx	\$ 648.03	\$ 1,603.29
Certified 0002 class 0005	HM \$0 Ded \$15 OV/\$100 ER, \$7/25/40/40 Rx	\$ 648.03	\$ 1,603.29
Classified 0004 class 0006	BlueChip Flex	\$ 642.90	\$ 1,590.63
Classified 0003 class 0001	\$2000 HSA	\$ 426.65	\$ 1,055.57
Certified 0001 class 0001	\$2000 HSA	\$ 426.65	\$ 1,055.57
Certified 0002 class 0001	\$2000 HSA	\$ 426.65	\$ 1,055.57
Certified 0001 class 0003	HM \$500 Ded \$15 OV/\$100 ER, \$7/25/40/40 Rx	\$ 602.31	\$ 1,490.70
Classified 0003 class 0002	HM \$500 Ded \$15/25 OV	\$ 596.29	\$ 1,475.79
Certified 0002 class 0002	HM \$500 Ded \$15/25 OV	\$ 596.29	\$ 1,475.79
Town			
All groups	HM No Deductible	\$ 669.71	\$ 1,685.93
All groups	HM \$500	\$ 595.35	\$ 1,502.35
All groups	HDHP \$2000	\$ 410.45	\$ 1,090.73

Upon Medicare eligibility, the Town provides Plan 65 and the monthly premium effective on July 1, 2014 is \$163.33.

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

There are changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending June 30, 2012. Refer to Actuary's Notes section for complete information on these changes. For the current year GASB valuation, we have also updated the per capita costs. We expect to update health care trend rates and per capita costs again in the next full GASB valuation, which will be for the fiscal year ending June 30, 2016.

Measurement Date	June 30, 2014 with results actuarially rolled-back to July 1, 2013 on a "no loss/no gain" basis.
Discount Rate	7.5% fully-funded
Payroll Growth	2.0% per year increasing to 3.5% beginning on 2017 for valuation purposes 2.5% per year for amortization purposes
Inflation Rate	3.0% per year
Cost Method	Entry Age Normal Level % of Salary
Amortization	Level % of pay over thirty years based on a closed group (30 years remaining as of June 30, 2014)
Employer Funding Policy	Pay-as-you-go cash basis for FY 2013/14. Effective with FY 2014/15 the Town is expected to fully fund the ARC annually through a combination of employer contributions for pay-go cost and pre-funding.
Census Data	Census information was provided by the Town and School and it was collected as of July 2014. We have reviewed it for reasonableness and no material modifications were made to the census data.
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 in the future. 0% of retirees without coverage are assumed to elect coverage in the future.
Spousal Coverage	All retirees who currently have family coverage are assumed to have spouses. Husbands are assumed to be three years older than wives. 85% of employees are assumed to be married at retirement. Husbands are assumed to be three years older than wives.

Mortality Police/Fire: RP-2000 Combined Mortality Table with Blue Collar adjustment fully generational using Scale AA
All others: RP-2000 Combined Mortality Table fully generational using Scale AA

Disability None

Turnover Rate Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. The rates represent the probability of termination in the next 12 months. Sample annual turnover rates are shown below:

Firefighters (excluding Civilians)				
Age	<10 YOS	10 YOS	15 YOS	20 YOS
<50	0.0%	0.0%	0.0%	0.0%
50	0.0%	5.0%	5.0%	5.0%
55	0.0%	30.0%	30.0%	30.0%
60	0.0%	30.0%	30.0%	30.0%
62	0.0%	0.0%	0.0%	0.0%

Age	Police DOH < 7/1/2011				Police DOH ≥ 7/1/2011			
	<10 YOS	10 YOS	15 YOS	19 YOS	<10 YOS	10 YOS	15 YOS	20 YOS
<50	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
50	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%	5.0%	25.0%
55	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%	5.0%	25.0%
60	0.0%	5.0%	5.0%	5.0%	0.0%	5.0%	5.0%	25.0%
62	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

YOS	School Certified		All Others	
	Male	Female	Age	Rate
0	17.5%	18.0%	25	5.3%
5	5.5%	5.8%	35	4.5%
10	2.6%	2.6%	45	3.2%
15	2.0%	1.6%	55	0.3%
20	1.8%	1.1%		

Retirement Rate

Annual retirement rates that are the same as those used in the Funding Improvement Plan pension valuation are as shown below.

Firefighters					Fire Civilians	
Age	<10 YOS	15 – 24 YOS	25 YOS	26+ YOS	Age	Rates
50	0.0%	5.0%	50.0%	50.0%	50 – 59	5.0%
51 – 54	0.0%	5.0%	50.0%	5.0%	60	50.0%
55	0.0%	30.0%	50.0%	50.0%	61	10.0%
56 – 59	0.0%	10.0%	50.0%	10.0%	62	50.0%
60	0.0%	30.0%	50.0%	50.0%	63 – 64	10.0%
61	0.0%	10.0%	50.0%	10.0%	65	100.0%
62	100.0%	100.0%	100.0%	100.0%		

Police DOH < 7/1/2011						
Age	<10 YOS	10 – 19 YOS	20 YOS	21 – 24 YOS	25 YOS	26+ YOS
35 – 49	0.0%	0.0%	25.0%	5.0%	50.0%	5.0%
50 – 61	0.0%	5.0%	25.0%	5.0%	50.0%	5.0%
62	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Police DOH ≥ 7/1/2011						
Age	<10 YOS	10 – 19 YOS	20 YOS	21 – 24 YOS	25 YOS	26+ YOS
50	0.0%	5.0%	25.0%	25.0%	50.0%	50.0%
51 – 61	0.0%	5.0%	25.0%	5.0%	50.0%	5.0%
62	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

All Others except for School Certified			
Age	<12 YOS	12 – 24 YOS	25+ YOS
40 – 55	0.0%	0.0%	2.0%
56 – 59	0.0%	0.0%	4.0%
60	0.0%	0.0%	25.0%
61	0.0%	0.0%	10.0%
62 – 64	0.0%	30.0%	30.0%
65 – 66	0.0%	25.0%	25.0%
67 – 69	0.0%	50.0%	50.0%
70+	0.0%	100.0%	100.0%

Retirement Rate

For School Certified employees, the following rates apply. 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. These rates are based on the Rhode Island Municipal Employees Retirement System actuarial valuation for the fiscal year ending June 30, 2013 without adjustment for delayed retirements.

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

Health Care Trend Rates

FYE	Medical	Dental
2015	9.00%	5.00%
2016	8.50%	4.75%
2017	8.00%	4.50%
2018	7.50%	4.25%
2019	7.00%	4.00%
2020	6.50%	4.00%
2021	6.00%	4.00%
2022	5.50%	4.00%
2023+	5.00%	4.00%

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.

Retiree Contributions

For retirees who contribute a percentage of premium rates, the retiree contributions are assumed to increase according to health care trend rates. For retirees who contribute a percentage of pension, the retiree contributions are assumed to remain constant in the future except with a COLA increase occurs and then the retiree health contribution will increase similarly.

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 Town’s monthly premium rates effective on July 1, 2014 actuarially increased using health index factors and current enrollment. The costs are assumed to increase with health care trend rates. Annual per capita costs by plan are as shown below:

Age	Town HM No Deductible		Town HM \$500		Town HDHP	
	Male	Female	Male	Female	Male	Female
50 – 54	\$ 8,900	\$ 10,500	\$ 7,900	\$ 9,300	\$ 5,500	\$ 6,400
55 – 59	\$ 12,000	\$ 11,700	\$ 10,700	\$ 10,400	\$ 7,400	\$ 7,200
60 – 64	\$ 15,400	\$ 13,800	\$ 13,700	\$ 12,300	\$ 9,400	\$ 8,500

Age	School HM		School HM Deductible		School HDHP	
	Male	Female	Male	Female	Male	Female
50 – 54	\$ 7,900	\$ 8,500	\$ 7,200	\$ 7,700	\$ 5,100	\$ 5,500
55 – 59	\$ 9,800	\$ 9,500	\$ 8,900	\$ 8,600	\$ 6,300	\$ 6,200
60 – 64	\$ 12,500	\$ 11,300	\$ 11,300	\$ 10,200	\$ 8,100	\$ 7,300

Annual per capita cost for Medicare retirees is \$1,960 and it is assumed to increase with health care trend rates.

Explicit Subsidy

The difference between (a) the premium rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a Firefighter retiring after July 1, 2014 who is enrolled in the HDHP plan.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A – B
Retiree	\$ 410.45	\$ 0.00	\$ 410.45
Spouse	\$ 680.28	\$ 0.00	\$ 680.28

Implicit Subsidy

The difference between (a) the per capita cost and (b) the premium rate. Below is an example of the monthly implicit subsidies for a 60 – 64 male retiree with a spouse of the same age enrolled in the Town’s HDHP plan.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A – B
Retiree	\$ 783.33	\$ 410.45	\$ 372.88
Spouse	\$ 708.33	\$ 680.28	\$ 28.05

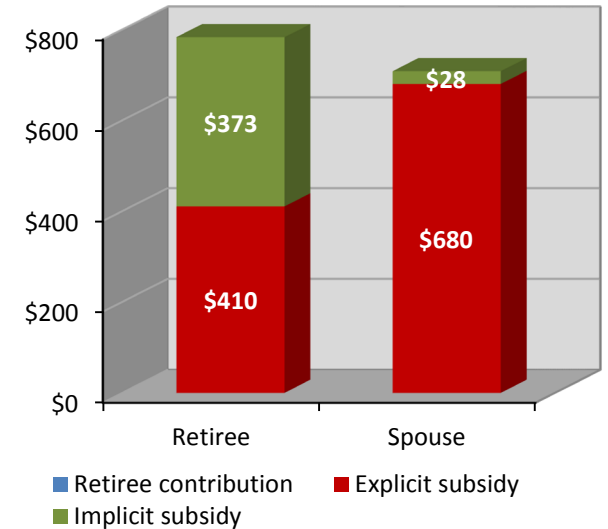
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for plans using a true community-rated premium rate.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male Firefighter age 60 retiring after July 1, 2014 and his spouse of the same age enrolled in the Town’s HDHP plan.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 410.45	\$ 680.28
Implicit subsidy	\$ 372.88	\$ 28.05
Total monthly cost	\$ 783.33	\$ 708.33

GASB Subsidy Breakdown



Active Employees⁸

By Health Plan

<i>Actives with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Town HM \$500	22	72	94	42.5	10.4	\$ 4,201,911
Town HDHP	19	68	87	41.5	13.6	\$ 4,845,945
School Blue Chip		1	1	58.9	25.8	\$ 29,878
School HM	17	72	89	52.4	14.4	\$ 4,088,515
School HM Deductible	10	33	43	47.3	13.2	\$ 2,886,274
School HDHP	52	145	197	43.5	13.8	\$ 13,573,540
Total actives with coverage	120	391	511	44.9	13.2	\$ 29,626,063

By Union

<i>Actives with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Town Firefighters	15	53	68	41.5	12.0	\$ 3,593,382
Town Municipal	7	43	50	43.4	10.7	\$ 2,013,507
Town Police	15	30	45	38.9	13.3	\$ 2,646,974
Town Sewer	4	14	18	48.0	11.4	\$ 793,994
School Certified	67	194	261	44.7	13.3	\$ 18,213,909
School Non-Certified	12	57	69	52.8	16.0	\$ 2,364,297
Total actives with coverage	120	391	511	44.9	13.2	\$ 29,626,063

<i>Actives without coverage⁹</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Town	13	40.0	9.7	\$ 556,465
School	139	45.1	9.0	\$ 5,428,448
Total actives without coverage	152	44.7	9.0	\$ 5,984,913

⁸ Active employees enrollment below exclude Municipal Non-Union and Library employees who are not eligible for retiree health benefits.

⁹ Employees who currently have no coverage are assumed not to elect coverage at retirement. They have been excluded from the GASB valuation.

Retirees**By Health Plan**

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Town HM No Deductible	6	24	30	56.2
Town HM \$500	12	71	83	53.3
Town HDHP	1	2	3	52.8
School HM	46	37	83	63.3
School HM Deductible	16	22	38	63.8
School HDHP	1	3	4	58.5
Plan 65	43	11	54	71.6
Total retirees with coverage	125	170	295	61.2

By Union

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Town Department Head	4	1	5	70.9
Town Firefighters	22	40	62	59.3
Town Municipal	12	28	40	57.7
Town Police	22	35	57	60.5
Town Sewer	2	4	6	58.3
School Certified	56	48	104	63.3
School Non-Certified	7	14	21	63.5
Total retirees with coverage	125	170	295	61.2

Active Age-Service Distribution

Includes active employees who are eligible for retiree health benefits only.

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	3	7									10
25 to 29	4	22	12								38
30 to 34	6	12	57	12	1						88
35 to 39	1	10	26	35	11	1					84
40 to 44	5	16	21	27	34	12	2				117
45 to 49	5	12	25	25	24	20	8				119
50 to 54	1	10	6	18	16	21	8	2			82
55 to 59	1	8	14	6	21	19	10		1		80
60 to 64		3	6	8	8	4	4				33
65 to 69		2	1	4	1		2				10
70 & up			2								2
Total	26	102	170	135	116	77	34	2	1	0	663

APPENDIX

GASB Results by Groups

Below is the summary of the GASB results for fiscal year ending June 30, 2014 based on the Entry Age Normal Level % of Salary cost method with a discount rate of 7.5%.

<i>Union Groups</i>	<i>Unfunded Actuarial Accrued Liability (UAAL) As of July 1, 2013</i>	<i>Annual Required Contribution (ARC) For 2013/14</i>	<i>Net OPEB Obligation (NOO) As of June 30, 2014</i>
Department Head	\$ 336,286	\$ 22,112	\$ (25,811)
Firefighters	\$ 17,903,170	\$ 1,427,088	\$ 6,107,235
Municipal	\$ 9,487,527	\$ 703,637	\$ 1,588,530
Police	\$ 16,745,096	\$ 1,394,063	\$ 5,660,634
Sewer	\$ 1,688,022	\$ 146,758	\$ 317,566
School Certified	\$ 9,341,146	\$ 869,869	\$ 156,909
School Non-Certified	\$ 2,451,816	\$ 240,085	\$ 1,744,071
Total	\$ 57,953,063	\$ 4,803,612	\$ 15,549,134

Ten-Year Projection

Reasonable actuarial techniques and assumptions were used to produce the cost projections. Actual results will vary from the projections, perhaps significantly, due to changes in assumptions, plan provisions, data, and actual experience for the plan. While a diligent effort was made to produce reasonable projections, projections by their nature are speculative and users of this information are cautioned against placing too much reliance on any particular set of projections. Dependent on the use of this information, additional cost projections may be necessary to quantify the sensitivity of the results. These projections reflect numerous assumptions and one should focus on the general trend of the results rather than the absolute dollar amounts.

Below is the ten-year projection of GASB results that assumes the following:

- 7.5% discount rate
- 2.5% payroll growth for amortization purposes
- Level percentage of pay amortization method over a closed 30-year period
- OPEB Trust will be set up by the end of FY 2014/15 and the first OPEB Trust contribution is expected to be made by June 30, 2015
- Employer pre-funding contributions are assumed to be deposited at the end of each fiscal year for asset projection purposes.

FYE	AAL as of beginning of year	AVA as of beginning of year	Unfunded AAL (UAAL) as of beginning of year	Funded Status	ARC	Expected pay-go costs	Expected pre-funding contributions
2014	\$ 57,953,063	\$ 0	\$ 57,953,063	0.0%	\$ 4,803,612	\$ 3,467,681	\$ 0
2015	\$ 59,767,080	\$ 0	\$ 59,767,080	0.0%	\$ 5,038,951	\$ 3,779,772	\$ 1,259,179
2016	\$ 61,446,712	\$ 1,259,179	\$ 60,187,533	2.0%	\$ 5,163,436	\$ 3,930,484	\$ 1,232,952
2017	\$ 63,126,638	\$ 2,586,569	\$ 60,540,069	4.1%	\$ 5,293,366	\$ 3,859,706	\$ 1,433,660
2018	\$ 65,039,565	\$ 4,214,222	\$ 60,825,343	6.5%	\$ 5,423,069	\$ 3,859,978	\$ 1,563,091
2019	\$ 67,126,963	\$ 6,093,380	\$ 61,033,583	9.1%	\$ 5,571,179	\$ 4,086,480	\$ 1,484,699
2020	\$ 69,184,388	\$ 8,035,083	\$ 61,149,305	11.6%	\$ 5,724,436	\$ 4,348,156	\$ 1,376,280
2021	\$ 71,175,829	\$ 10,013,994	\$ 61,161,835	14.1%	\$ 5,887,315	\$ 4,615,047	\$ 1,272,268
2022	\$ 73,099,133	\$ 12,037,312	\$ 61,061,821	16.5%	\$ 6,060,425	\$ 4,856,467	\$ 1,203,958
2023	\$ 74,983,409	\$ 14,144,068	\$ 60,839,341	18.9%	\$ 6,230,491	\$ 5,008,654	\$ 1,221,837
2024	\$ 76,913,949	\$ 16,426,710	\$ 60,487,239	21.4%	\$ 6,398,531	\$ 5,182,928	\$ 1,215,603

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 July 1, 2012</i>	<i>As of July 1, 2014</i>
Active Participants	535	663
Retired Participants	547	295
Averages for Active		
Age	43.5	44.9
Service	11.8	12.2
Averages for Inactive		
Age	63.0	61.2

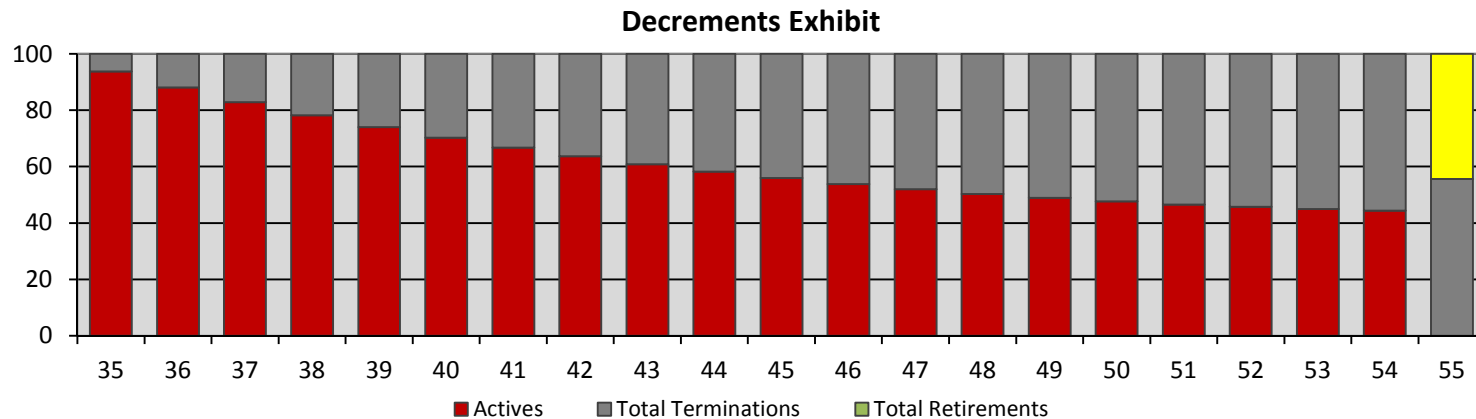
Glossary

Decrements Exhibit

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

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

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

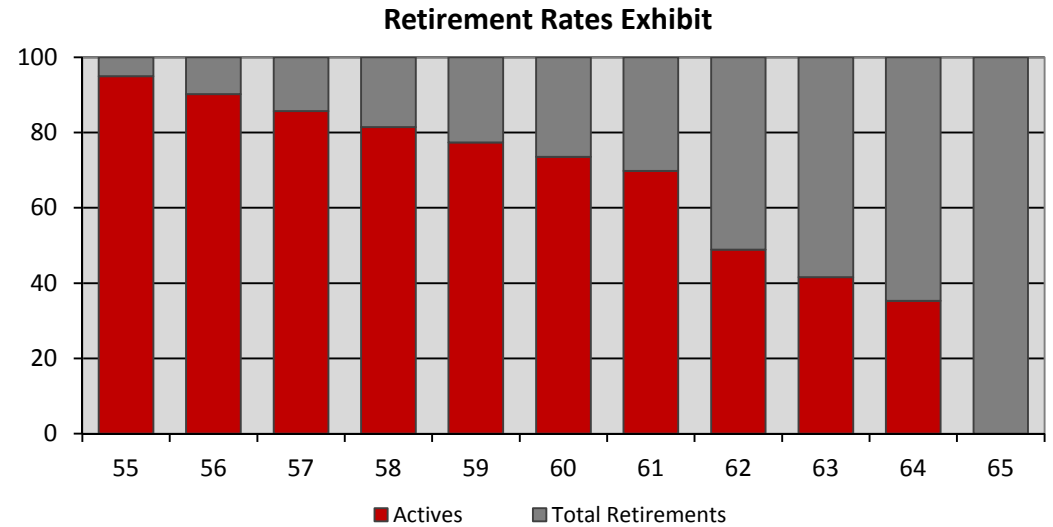


* The above rates are illustrative rates and are not used in our GASB calculations.

Retirement Rates Exhibit

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

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



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

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
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 x B x C x D

Illustration of GASB Calculations (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 = $A \times B / C$

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.
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.

Definitions (continued)

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.