

nyhart

Town of Cumberland
GASB 45 Actuarial Valuation
Fiscal Year Ending June 30, 2013

Revised January 20, 2014

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January 21, 2014

Brian Silvia
Town of Cumberland
45 Broad Street
Cumberland, RI 02864

This report summarizes the GASB actuarial valuation for the Town of Cumberland 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.

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 plan provisions since the last full valuation, which was for the fiscal year ending June 30, 2012.

1. Retiree health benefits changes
 - a. For Town's Police Officers¹:
 - Officers hired prior to July 1, 2013 are eligible for retiree health benefits once they attain 20 years of service. All officers hired on/after July 1, 2013 are not eligible for retiree health benefits.
 - All active officers will be enrolled in a HDHP Plan (\$2,000/\$4,000 deductible). The Town will pay 50% of HSA contribution for those hired prior to July 1, 2013. Officers hired on/after July 1, 2013 pay the full deductible.
 - All officers retiring on/after July 1, 2013 will be enrolled in a HDHP Plan (\$3,000/\$6,000 deductible) and retirees pay the full deductible.
 - At age 65, all participants eligible for retiree health benefits will enroll in Medicare with the Town paying for Medicare Part B premium, Medicare Part C and D health plans costs for the retiree and covered spouses.
 - b. For School employees:
 - Effective on July 1, 2013, retirees are no longer allowed to purchase health coverage through the School's group health plan at blended active/retiree rates, instead they are required to pay the full cost of coverage based on retiree appropriate working rates. This policy change eliminates the School's GASB liabilities. The remaining School's Net OPEB Obligation balance as of June 30, 2013 will be amortized in future fiscal years through Annual Required Contribution (ARC) reduction.
2. The Town has set up an OPEB Trust for the purpose of pre-funding retiree health benefits. Annually, the Town will contribute the difference between the calculated Annual Required Contribution and pay-go cost.²

Several actuarial assumptions have been updated since the last full valuation, which was for the fiscal year ending June 30, 2012:

1. Discount rate has been increased from 4.0% to 7.5% to reflect the pre-funding policy adopted by the Town.
2. Amortization method has been changed to level percentage of pay over 30 years based on a closed group.
3. A separate Medicare Part B trend rate that starts at an initial rate of 3.0% increasing by 0.5% annually to an ultimate rate of 5.0% has been adopted in this year's valuation.

¹ The Town of Cumberland Police contract includes a coordination of benefits provision which has not been valued in this FYE 6/30/2013 GASB valuation.

² It is the Town's intention to re-open the FY 2014 budget and fully fund the OPEB Annual Required Contribution for the current fiscal year and beyond.

Summary of Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2013 compared to the prior fiscal years as shown in the Town's Notes to Financial Statement.

	<i>As of July 1, 2011</i>		<i>As of July 1, 2012³</i>	
Actuarial Accrued Liability	\$	39,386,221	\$	21,154,653
Actuarial Value of Assets	\$	0	\$	0
Unfunded Actuarial Accrued Liability	\$	39,386,221	\$	21,154,653
Funded Ratio		0.0%		0.0%

	<i>FY 2011/12</i>		<i>FY 2012/13¹</i>	
Annual Required Contribution	\$	3,521,332	\$	1,657,531
Annual OPEB Cost	\$	3,467,580	\$	1,860,604
Annual Employer Contribution	\$	1,565,322	\$	1,311,166

	<i>As of June 30, 2012</i>		<i>As of June 30, 2013</i>	
Net OPEB Obligation	\$	10,571,268	\$	11,120,706

	<i>As of July 1, 2011⁴</i>		<i>As of July 1, 2013⁵</i>	
Active Participants		561		44
Total Retiree Participants		155		61

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

³ Includes Actuarial Accrued Liabilities for School employees and retirees that were projected from prior year's GASB valuation without any adjustments.

⁴ Includes School employees and retirees that no longer generate any GASB liabilities effective on June 30, 2013.

⁵ Excludes School employees and retirees.

Below is a breakdown of total GASB 45 liabilities allocated to past, current, and future service as of July 1, 2012 compared to the prior year.

	As of July 1, 2011		As of July 1, 2012		
	Total	Town	School	Total	
Present Value of Future Benefits	\$ 56,748,042	\$ 25,057,395	\$ 1,532,736	\$ 26,590,131	
Active Employees	30,696,977	8,872,118	963,267	9,835,385	
Retired Employees	26,051,065	16,185,277	569,469	16,754,746	
Actuarial Accrued Liability	\$ 39,386,221	\$ 20,209,901	\$ 944,752	\$ 21,154,653	
Active Employees	13,335,156	4,024,624	375,283	4,399,907	
Retired Employees	26,051,065	16,185,277	569,469	16,754,746	
Normal Cost	\$ 1,677,159	\$ 480,270	\$ 29,055	\$ 509,325	
Future Normal Cost	\$ 15,684,662	\$ 4,367,224	\$ 558,929	\$ 4,926,153	

Present Value of Future Benefits is the amount needed to fully fund the Town's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

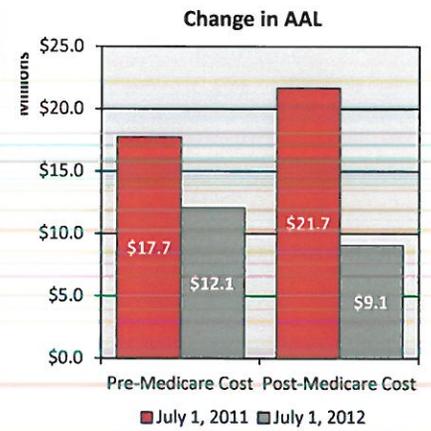
Actuarial Accrued Liability is the portion of PVFB considered to be accrued or earned. This amount is a required disclosure in the Required Supplementary Information section.

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 service by the current year's valuation by the actuarial cost method.

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, 2011		As of July 1, 2012		
	Total	Town	School	Total	
Active Pre-Medicare	\$ 6,981,693	\$ 2,552,068	\$ 375,283	\$ 2,927,351	
Active Post-Medicare	6,353,463	1,472,556	0	1,472,556	
Total Active AAL	\$ 13,335,156	\$ 4,024,624	\$ 375,283	\$ 4,399,907	
Retirees Pre-Medicare	\$ 10,749,794	\$ 8,588,232	\$ 569,469	\$ 9,157,701	
Retirees Post-Medicare	15,301,271	7,597,045	0	7,597,045	
Total Retirees AAL	\$ 26,051,065	\$ 16,185,277	\$ 569,469	\$ 16,754,746	
Total AAL	\$ 39,386,221	\$ 20,209,901	\$ 944,752	\$ 21,154,653	

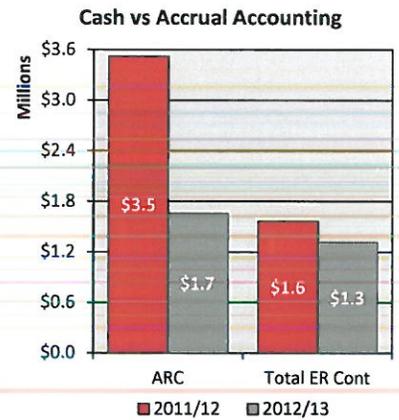


Development of Annual Required Contribution (ARC)

Required Supplementary Information	FY 2011/12		FY 2012/13	
	Total Town & School Combined	Town A	School B	Total C = A + B
Actuarial Accrued Liability as of beginning of year	\$ 39,386,221	\$ 20,209,901	\$ 944,752	\$ 21,154,653
Actuarial Value of Assets as of beginning of year	0	0	0	0
Unfunded Actuarial Accrued Liability (UAAL)	\$ 39,386,221	\$ 20,209,901	\$ 944,752	\$ 21,154,653
Covered payroll	\$ 32,459,010	\$ 2,282,134	N/A	N/A
UAAL as a % of covered payroll	121.3%	885.6%	N/A	N/A

Annual Required Contribution	FY 2011/12		FY 2012/13	
	Total Town & School Combined	Town A	School B	Total C = A + B
Normal cost as of beginning of year	\$ 1,677,159	\$ 480,270	\$ 29,055	\$ 509,325
Amortization of the UAAL	1,708,737	985,654	49,467	1,035,121
Total normal cost and amortization payment	\$ 3,385,896	\$ 1,465,924	\$ 78,522	\$ 1,544,446
Interest to end of year	135,436	109,944	3,141	113,085
Total Annual Required Contribution (ARC)	\$ 3,521,332	\$ 1,575,868	\$ 81,663	\$ 1,657,531

Discount rate	4.0%	7.5%	4.0%
Salary scale for amortization purposes	4.5% Town 3.0% School	4.5%	3.0%
Amortization period	22 years	30 years	21 years



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

Development of Annual OPEB Cost and Net OPEB Obligation

Net OPEB Obligation (NOO)	FY 2011/12		FY 2012/13	
	Total Town & School Combined	Town A	School B	Total C = A + B
ARC as of end of year	\$ 3,521,332	\$ 1,575,868	\$ 81,663	\$ 1,657,531
Interest on NOO to end of year	346,760	720,864	38,390	759,254
NOO amortization adjustment to the ARC	(400,512)	(503,919)	(52,262)	(556,181)
Annual OPEB cost	\$ 3,467,580	\$ 1,792,813	\$ 67,791	\$ 1,860,604
Annual employer contribution for pay-go cost	(1,565,322)	(1,071,417)	(139,749)	(1,211,166)
Annual employer contribution for pre-funding	0	(100,000)	0	(100,000)
Change in NOO	\$ 1,902,258	\$ 621,396	\$ (71,958)	\$ 549,438
NOO as of beginning of year	8,669,010	9,611,522	959,746	10,571,268
NOO as of end of year	\$ 10,571,268	\$ 10,232,918	\$ 887,788	\$ 11,120,706

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

Summary of GASB 45 Financial Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2013 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, 2012	\$ 21,154,653	\$ -	\$ 21,154,653	0.0%	\$ N/A	N/A
July 1, 2011	\$ 39,386,221	\$ -	\$ 39,386,221	0.0%	\$ 32,459,010	121.3%
July 1, 2010	\$ 46,872,000	\$ -	\$ 46,872,000	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, 2013	\$ 1,311,166	\$ 1,657,531	79.1%
June 30, 2012	\$ 1,565,322	\$ 3,521,332	44.5%
June 30, 2011	\$ 857,393	\$ 4,393,000	19.5%

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, 2013	\$ 1,860,604	70.5%	\$ 11,120,706
June 30, 2012	\$ 3,467,580	45.1%	\$ 10,571,268
June 30, 2011	\$ 4,366,134	19.6%	\$ 8,669,010

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.

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.

	2011/12		2012/13	
	Total	Town	School	Total
Actuarial Accrued Liability as of beginning of year ⁶	\$ 39,386,221	\$ 20,209,901	\$ 944,752	\$ 21,154,653
Normal cost as of beginning of year	1,677,159	480,270	29,055	509,325
Expected benefit payments during the year	(881,737)	(835,540)	(158,863)	(994,403)
Interest adjustment to end of year	1,625,073	1,520,997	35,805	1,556,803
Expected Actuarial Accrued Liability as of end of year	\$ 41,806,716	\$ 21,375,628	\$ 850,750	\$ 22,226,378
Actuarial (gain) / loss due to experience	104,666	0	0	0
Actuarial (gain) / loss due to provisions / assumptions changes	(20,756,729)	0	0	0
Actuarial (gain) / loss due to elimination of School's liabilities	0	0	(850,750)	(850,750)
Actual Actuarial Accrued Liability as of end of year	\$ 21,154,653	\$ 21,375,628	\$ 0	\$ 21,375,628

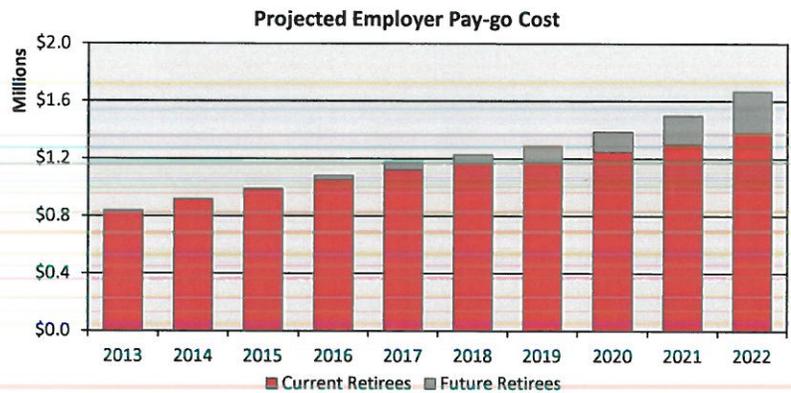
⁶ Actuarial Accrued Liability (AAL) as of beginning of year was actuarially rolled-back from end of year AAL on a "no gain/loss" basis.

Reconciliation of Market Value of Assets		Actual FY 2012/13
Market value of assets as of July 1		\$ 0
Revenues		
Employer contributions		\$ 100,000
Investment income		0
Total		\$ 100,000
Expenditures		
Benefit payments		\$ 0
Investment expenses and professional fees		0
Total		\$ 0
Market value of assets as of June 30		\$ 100,000

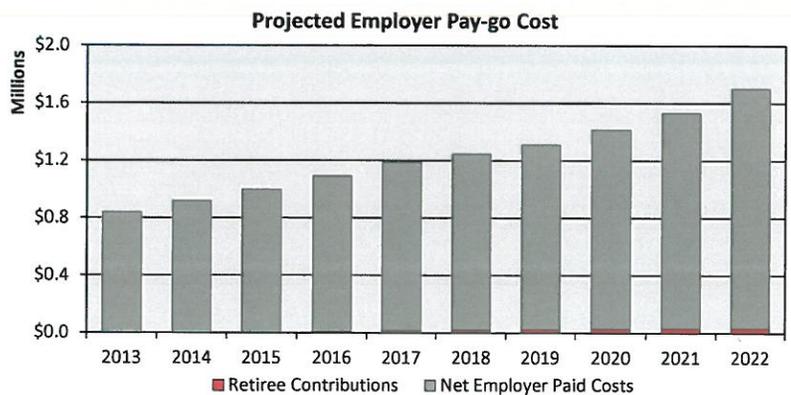
The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next ten years. Results are shown separately for current /future retirees and gross claim costs/retiree contributions. These projections include explicit and implicit subsidies.

Town of Cumberland Only

FYE	Current Retirees	Future Retirees ⁷	Total
2013	\$ 835,292	\$ 248	\$ 835,540
2014	\$ 914,645	\$ 272	\$ 914,917
2015	\$ 985,967	\$ 3,601	\$ 989,568
2016	\$ 1,053,717	\$ 28,172	\$ 1,081,889
2017	\$ 1,122,852	\$ 50,414	\$ 1,173,266
2018	\$ 1,162,120	\$ 64,469	\$ 1,226,589
2019	\$ 1,173,659	\$ 113,642	\$ 1,287,301
2020	\$ 1,246,215	\$ 140,683	\$ 1,386,898
2021	\$ 1,300,472	\$ 201,510	\$ 1,501,982
2022	\$ 1,381,551	\$ 286,922	\$ 1,668,473



FYE	Estimated Claims Costs	Retiree Contributions	Net Employer-Paid Costs
2013	\$ 838,875	\$ 3,335	\$ 835,540
2014	\$ 918,569	\$ 3,652	\$ 914,917
2015	\$ 997,437	\$ 7,869	\$ 989,568
2016	\$ 1,093,673	\$ 11,784	\$ 1,081,889
2017	\$ 1,188,602	\$ 15,336	\$ 1,173,266
2018	\$ 1,245,678	\$ 19,089	\$ 1,226,589
2019	\$ 1,309,823	\$ 22,522	\$ 1,287,301
2020	\$ 1,414,841	\$ 27,943	\$ 1,386,898
2021	\$ 1,533,009	\$ 31,027	\$ 1,501,982
2022	\$ 1,700,543	\$ 32,070	\$ 1,668,473



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

Eligibility Police officers hired prior to July 1, 2013 are eligible for lifetime retiree health coverage (medical and dental) from the Town once they attain 20 years of service. Officers hired on/after July 1, 2013 are not eligible for retiree health benefits. All other Town employees are only eligible for COBRA coverage at retirement.

Disability Pension Police officers are eligible for duty disability pension without any age or years of service requirement. They will receive the same health benefits as regular retirees.

Spouse Benefit Surviving spouse can continue coverage after the death of the retiree or active employees eligible to retire. Town subsidy continues to surviving spouse upon death of the retiree or active employee eligible to retire.

Retiree Cost Sharing None; except for employees receiving disability pension that have to contribute the full cost of coverage until they would have had 20 years of service at retirement, at which time they will receive free coverage.

Medical Benefit All officers retiring on/after July 1, 2013 must enroll in a \$3,000 HDHP plan upon retirement. All existing retirees are allowed to remain in the health plan they currently elected. Monthly working rates effective on July 1, 2013 are as shown below:

	Single	Family
Police Plan A	\$ 641.51	\$ 1,655.50
Police Deductible Plan	\$ 625.30	\$ 1,613.66
Medicare Plan C	\$ 182.53	N/A
Medicare Rx Plan	\$ 179.00	N/A

Monthly working rates for the \$3,000 HDHP plan are not available at the time of the valuation. We have assumed that the HDHP plan's monthly working rate is 85% of the weighted average by enrollment of Police Plan A and Police Deductible plan rates.

Dental Benefit Monthly dental working rates effective on July 1, 2013 are \$31.09 for single coverage and \$100.34 for family coverage.

School Liabilities There is no longer GASB liability for School employees and retirees effective on July 1, 2012 as employees and existing retirees pay the full cost of retiree-appropriate working rates at retirement.

Medicare Part B Reimbursement The Town pays for the monthly Medicare Part B premium of \$104.90 effective on January 1, 2014 for retiree and spouses.

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. **All of the assumptions shown in this section are applicable to the Town only. School assumptions are as shown in the GASB valuation report for the fiscal year ending June 30, 2012.**

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, 2015.

Measurement Date	June 30, 2013 with results actuarially rolled-back to July 1, 2012 on a "no loss/no gain" basis.
Discount Rate	7.5%
Payroll Growth	4.5% per year (for amortization purposes only)
Inflation Rate	3.0% per year
Cost Method	Projected Unit Credit with linear proration to decrement
Amortization	Level % of pay over thirty years based on an open group
Census Data	Census data was provided by the Town and they were collected in November 2013. We have reviewed it for reasonableness and no material modifications were made to the census data.
Health Care Coverage Election Rate	100% of active police officers with current coverage are assumed to elect coverage at retirement. 0% of active police officers 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 current coverage are assumed to elect coverage in the future.
Spousal Coverage	Spousal coverage and ages for current retirees is based on actual data. 70% of employees is assumed to be married at retirement. Husbands are assumed to be three years older than wives.
Employer Funding Policy	Fully funding the difference between the Annual Required Contribution and pay-as-you-go cost

Mortality RP-2000 Combined Mortality Table fully generational using Scale AA

Disability Rates are based on MERS accidental disability rates used in June 30, 2011 actuarial valuation. Sample annual disability rates are as shown below.

Age	Rates
25	0.26%
30	0.33%
35	0.44%
40	0.66%
45	1.08%

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. No terminations are assumed for Police officers.

Retirement Rate Annual rates of retirement for Police officers are as shown below:

YOS	Rates
20	70%
21 – 24	10%
25	70%
26+	100%

Health Care Trend Rates	FYE	Medical	FYE	Medical
	2014	9.5%	2020	6.5%
2015	9.0%	2021	6.0%	
2016	8.5%	2022	5.5%	
2017	8.0%	2023	5.0%	
2018	7.5%	2024+	5.0%	
2019	7.0%			

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.

Medicare Part B premium rates are assumed to be constant in 2014, followed by an initial rate of 3% in 2015 increasing by 0.5% annually to an ultimate rate of 5.0%.

Retiree Contributions

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

Per Capita Costs

Annual per capita costs were calculated based on the Town’s monthly working rates effective on July 1, 2013 actuarially increased using health index factors and current enrollment. The costs are assumed to increase with medical trend rates. Annual per capita costs by plan are as shown below:

Age	Current Retirees Plan A		Current Retirees Deductible Plan	
	Male	Female	Male	Female
<55	\$ 7,700	\$ 8,800	\$ 7,500	\$ 8,500
55 – 59	\$ 10,100	\$ 9,800	\$ 9,800	\$ 9,500
60 – 64	\$ 12,900	\$ 11,600	\$ 12,500	\$ 11,300

Age	Future Retirees	
	Male	Female
<55	\$ 6,500	\$ 7,400
55 – 59	\$ 8,500	\$ 8,300
60 – 64	\$ 10,900	\$ 9,800

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.

Post-65 annual per capita cost is \$4,338 and it is assumed to increase with medical trend rates. Annual Medicare Part B reimbursement is \$1,259 and it is assumed to increase with Part B 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 currently retired Police officer enrolled in the Deductible plan.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A – B
Retiree	\$ 625.30	\$ 0.00	\$ 625.30
Spouse	\$ 988.36	\$ 0.00	\$ 988.36

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 retired Police officer with spouse of the same age enrolled in the Deductible plan.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A – B
Retiree	\$ 1,041.67	\$ 625.30	\$ 416.37
Spouse	\$ 941.67	\$ 988.36	\$ 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.

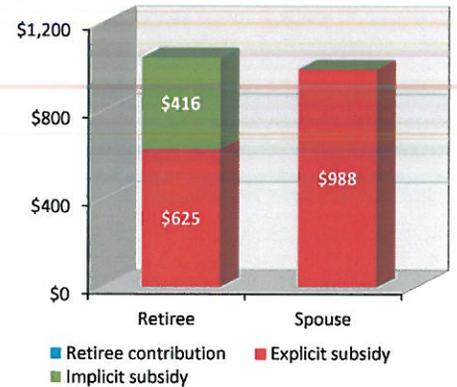
* Not less than \$0

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male 60 – 64 retired Police officer and his spouse of the same age enrolled in the Deductible plan.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 625.30	\$ 988.36
Implicit subsidy	\$ 416.37	\$ 0.00
Total monthly cost	\$ 1,041.67	\$ 988.36

GASB Subsidy Breakdown



Summary of Plan Participants shown below is for the Town of Cumberland only.

<i>Actives with coverage</i>	<i>Single</i>	<i>Family</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc⁸</i>	<i>Salary⁹</i>
Plan A	2	30	32	40.6	11.5	\$ 1,788,555
Deductible Plan	9	2	11	28.9	1.8	\$ 440,435
Total actives with coverage	11	32	43	37.6	9.0	\$ 2,228,990

<i>Actives without coverage</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc⁶</i>	<i>Salary⁷</i>
Total actives without coverage	1	31.7	8.9	\$ 53,144

Active employee without coverage is assumed not to elect coverage at retirement. She has been excluded from the GASB valuation.

<i>Retirees with coverage</i>	<i>Single</i>	<i>Family</i>	<i>Total</i>	<i>Avg. Age</i>
Plan A	6	31	37	54.0
Deductible Plan	1	4	5	59.0
Plan 65	19		19	73.9
Total retirees with coverage	26	35	61	60.6

⁸ Calculated from sworn-in date.

⁹ Includes base salary only.

Active Age-Service Distribution

Town of Cumberland 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	1										1
25 to 29	1	6	1								8
30 to 34		6	6								12
35 to 39				6							6
40 to 44		1	1	2	3						7
45 to 49			1	1	4						6
50 to 54			1		3						4
55 to 59											0
60 to 64											0
65 to 69											0
70 & up											0
Total	2	13	10	9	10	0	0	0	0	0	44

APPENDIX

GASB Results by Group

Below is the summary of the GASB results for fiscal year ending June 30, 2013 based on the Projected Unit Credit cost method with a discount rate of 7.5% for the Town and 4.0% for the School.

<i>Union Groups</i>	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>		<i>Annual Required Contribution (ARC)</i>		<i>Net OPEB Obligation (NOO)</i>	
	<i>\$</i>	<i>As of July 1, 2012</i>	<i>\$</i>	<i>For 2012/13</i>	<i>\$</i>	<i>As of June 30, 2013</i>
Town	\$	20,209,901	\$	1,575,868	\$	10,232,918
School ¹⁰	\$	944,752	\$	81,663	\$	887,788
Total	\$	21,154,653	\$	1,657,531	\$	11,120,706

¹⁰ Net OPEB Obligation for School employees and retirees have been reversed as of June 30, 2013 as employees and existing retirees pay the full cost of retiree-appropriate working rates at retirement effective on July 1, 2013.

Comparison of Participant Demographic Information

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

	<i>As of July 1, 2011¹¹</i>	<i>As of July 1, 2012</i>
Active Participants	561	44
Retired Participants	155	61
Averages for Active		
Age	45.8	37.5
Service	11.4	9.0
Averages for Inactive		
Age	64.0	60.6

¹¹ Includes School employees and retirees that no longer generate any GASB liabilities effective on July 1, 2013.

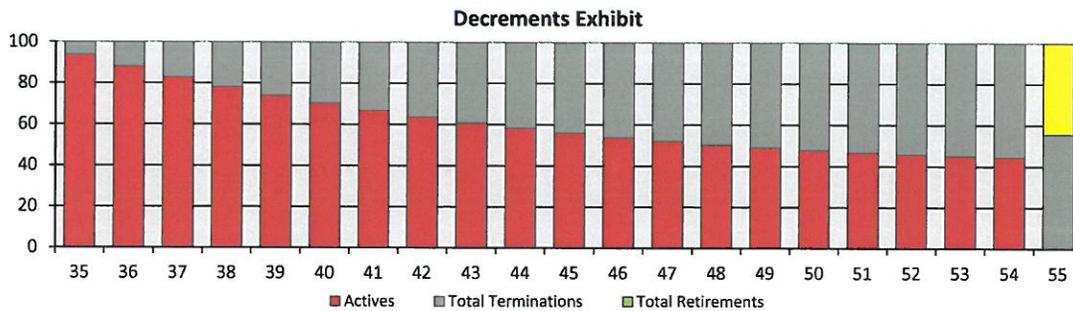
Glossary

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 = $A \times B \times C \times D$

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.