Milliman

May 13, 2013

PERSONAL & CONFIDENTIAL

Mr. Anthony P. Esposito Jr.
Treasurer/Finance Director
Town Hall
909 Foxon Road
PO Box 287
North Branford, CT 06471-0287

Re: Town of North Branford Other Post-Employment Benefits Program
July 1, 2012 Valuation

Dear Anthony:

We are pleased to enclose the July 1, 2012 valuation of the Town of North Branford Other Post-Employment Benefits Program, which we have prepared in accordance with GASB #43 and GASB #45.

Please let us know if you have any questions or need any further information.

Sincerely,

Becky

Rebecca A. Sielman, FSA
Consulting Actuary

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TOWN OF NORTH BRANFORD
OTHER POST-EMPLOYMENT BENEFITS PROGRAM

July 1, 2012 Actuarial Valuation

Prepared by
Milliman, Inc.

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Consulting Actuary

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Certification

We have performed an actuarial valuation of the Town of North Branford Other Post-Employment Benefits Program as of July 1, 2012. The results of this valuation, along with supporting data, are set forth in the following report.

Milliman has prepared this report in compliance with Government Accounting Standard No. 45. No attempt is being made to offer any accounting opinion or advice. The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions. Additional determinations may be needed for purposes other than meeting accounting requirements.

In preparing this report, we relied on employee census data, claims and premium information as of the valuation date, furnished by the Town of North Branford. We performed a limited review of the information used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the financial information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate, all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices, and the methods and assumptions produced results which are reasonable. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

The actuarial method and assumptions used in this valuation are discussed on pages 21-26 of this report. A summary of the plan provisions starts on page 27 of this report.

Milliman's work is prepared solely for the internal business use of the Town of North Branford. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s): (a) The Town of North Branford may provide a copy of Milliman's work, in its entirety, to the Town of North Branford's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Town of North Branford; and (b) The Town of North Branford may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

Certification

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

May 13, 2013

Rebecca A. Sielman, FSA Consulting Actuary	Stephen Chykirda, ASA Actuary

Discussion of Experience

This valuation reflects a number of changes relative to the July 1, 2010 valuation:

Demographic Changes from 2010 to 2012

From July 1, 2010 to July 1, 2012, the overall membership increased from 366 to 367. The total number of active members decreased from 299 to 298 and the total number of retirees and spouses of retirees increased from 67 to 69.

The average age of active members went up slightly from 46.4 to 46.8 and the average age of retired members went up slightly from 66.6 to 70.9.

Assumption Changes

Teachers and Administrators: Certain actuarial demographic assumptions for Teachers and Administrators are based on the assumptions used in the June 30, 2012 valuation of the Connecticut State Teachers Retirement System by Cavanaugh Macdonald Consulting, LLC. Our valuation reflects the applicable assumption changes made in their June 30, 2012 valuation.

Turnover and Retirement rates for Town and BOE non-certified groups: We updated the turnover and retirement rate assumption to be consistent with the assumptions used in the most recent pension valuation for these groups.

Medical inflation: The medical cost inflation trend used in this valuation was derived from the “Getzen Model” established by the Society of Actuaries for developing long term medical cost trends. The Getzen Model was subsequently updated to reflect the latest economic growth factors and an adjustment was made to reflect the value of the expected excise tax payable in 2018 and later. This assumption was revised to an initial inflation rate of 7.00%, grading down to an ultimate inflation rate of 4.60% over a period of 88 years (Prior valuation: an initial inflation rate of 6.70% graded down to an ultimate inflation rate of 4.70% over a period of 71 years).

Medical and dental age curves: We updated the age curves with respect to expected claims costs, based on our analysis of claims experience and premium information provided to us for this valuation.

Valuation of dental benefits and BOE pre-65 medical benefits: We made certain technical changes in order to refine our approach with respect to the valuation of these benefits.

Amortization growth rate: We lowered the amortization growth rate to 3.50% (prior valuation: 5.00%) to be consistent with the assumption used in the most recent pension valuation.

Discount Rate: We lowered the discount rate to 7.00% (prior valuation: 7.50%), to be consistent with the assumption used in the most recent pension valuation.

The effect of the above changes increased the Accrued Liability by about $300,000 and increased the Annual Required Contribution by about $70,000 .

Overview of GASB 43 and GASB 45

GASB 43 requires OPEB plans to disclose information about asset and liability levels and show historical contribution information. GASB 43 only applies in situations where a separate trust is established to prefund these benefits. GASB 45 requires employers to perform periodic actuarial valuations to determine annual accounting costs, and to keep a running tally of the extent to which these amounts are over or under funded. GASB 43 was effective starting in FY 2006-07 for a Phase I government, FY 2007-08 for a Phase II government, and FY 2008-09 for a Phase III government. GASB 45 was effective for the fiscal year following implementation of GASB 43.

GASB 43 and 45 apply to just about any benefit that is provided after retirement except for pension benefits: medical insurance, dental, vision, and hearing benefits plus life insurance and long term care insurance. The benefits provided by the Town to retirees include medical and dental insurance. The philosophy driving the accounting standard is that these post-employment benefits are part of the compensation that is paid to employees in return for their services, and the cost of these benefits should be recognized while the employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 43 and 45 extend the same thinking to all other post-employment benefits.

The Valuation Process

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

Turnover and retirement rates: How likely is it that an employee will qualify for post-employment benefits and when will they start?

Medical inflation and claims costs assumptions: When an employee starts receiving post-employment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?

Mortality assumption: How long is a retiree likely to receive the benefits?

Discount rate assumption: What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the Town, the present value is divided into three pieces: the part that is attributed to past years (the "Accrued Liability" or "Past Service Liability"), the part that is being earned this year (the "Normal Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Normal Cost have been calculated, the next step is to determine an annual contribution. This consists of two pieces:

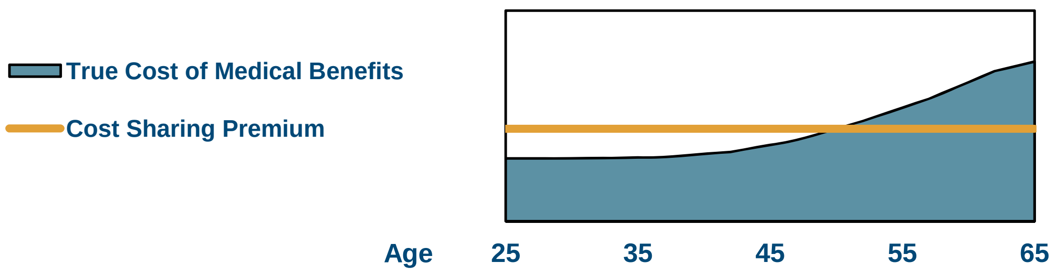
- Normal Cost – because the benefits earned each year should be paid for each year
- Past Service Cost – a catch-up payment to fund the Accrued Liability over time.

The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the Town's financial statements. In addition, the Discount Rate used to calculate the liabilities must reflect the expected investment income of whatever funds are set aside to prefund the benefits; if there is no prefunding then the Discount Rate will be much lower and the liabilities significantly higher than if the benefits are prefunded.

Implicit Rate Subsidies

As part of the Other Post-Employment Benefits Program, there are situations where the cost is borne partly or entirely by retirees. In most cases, the premium that is used to split the cost is lower than the true cost of providing the medical benefits, for two reasons:

- The cost sharing premium is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:



- The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an "implicit rate subsidy". GASB 43 and 45 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based on factors developed by Milliman's health actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed on the prior page. We term this amount the "gross liability".

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the retiree medical program – different retirees pay different percentages based on their union, date of retirement, age at retirement, and other factors. We term this amount the "offset liability".

Finally, the net liability for the Town is calculated as the difference between the gross liability and the offset liability.

Summary of Liabilities as of July 1, 2012

We have calculated the Accrued Liability separately for 4 groups of Town employees, who are eligible for different OPEB benefits. We have broken the accrued liability for each group into several pieces: benefits that are expected to be paid prior to age 65 (i.e. prior to Medicare) and after age 65 (i.e. after Medicare) to current active members and their covered dependents after retirement, and the same figures for members who have already retired and are currently receiving benefits. In all cases, the Accrued Liability only reflects benefits that are paid for by the Town, taking into account any implicit rate subsidies.

	Town	Police	Teachers	Other BOE	Total
Current active members					
Employees under age 65	$118,000	$1,455,000	$523,000	$124,000	$2,220,000
Employees over age 65	0	0	316,000	104,000	420,000
Dependents under age 65	135,000	977,000	186,000	30,000	1,328,000
Dependents over age 65	0	0	159,000	17,000	176,000
Total	253,000	2,432,000	1,184,000	275,000	4,144,000
Current retired members					
Employees under age 65	0	1,013,000	268,000	19,000	1,300,000
Employees over age 65	0	0	830,000	424,000	1,254,000
Dependents under age 65	0	612,000	0	0	612,000
Dependents over age 65	0	0	10,000	0	10,000
Total	0	1,625,000	1,108,000	443,000	3,176,000
Total Accrued Liability	253,000	4,057,000	2,292,000	718,000	7,320,000

Annual Required Contribution

The Annual Required Contribution (ARC) for the OPEB program consists of two pieces: a **Normal Cost** (the cost of benefits earned each year should be accrued in that year) plus a **Past Service Cost** (a catch-up accrual to amortize the Unfunded Accrued Liability).

The amortization period is 25 years starting in 2007. The amortization method produces annual payments that will increase by 3.50% annually. On this basis, the ARC is determined as follows:

	Town	Police	Teachers	Other BOE	Total
Accrued Liability	$253,000	$4,057,000	$2,292,000	$718,000	$7,320,000
Assets	35,000	560,000	316,000	99,000	1,010,000
Unfunded Accrued Liability	218,000	3,497,000	1,976,000	619,000	6,310,000
Amortization Period	20	20	20	20	20
Payroll Growth Rate	3.50%	3.50%	3.50%	3.50%	3.50%
Past Service Cost	15,000	235,000	133,000	42,000	425,000
Total Normal Cost	11,000	121,000	69,000	20,000	221,000
Employee Contributions	0	0	0	0	0
Expenses	0	0	0	0	0
Net Normal Cost	11,000	121,000	69,000	20,000	221,000
Interest	2,000	25,000	14,000	4,000	45,000
ARC for FY 2014	**28,000**	**381,000**	**216,000**	**66,000**	**691,000**
Implicit Rate Subsidy	1,000	52,000	147,000	31,000	231,000
Net Contribution to Trust	**27,000**	**329,000**	**69,000**	**35,000**	**460,000**

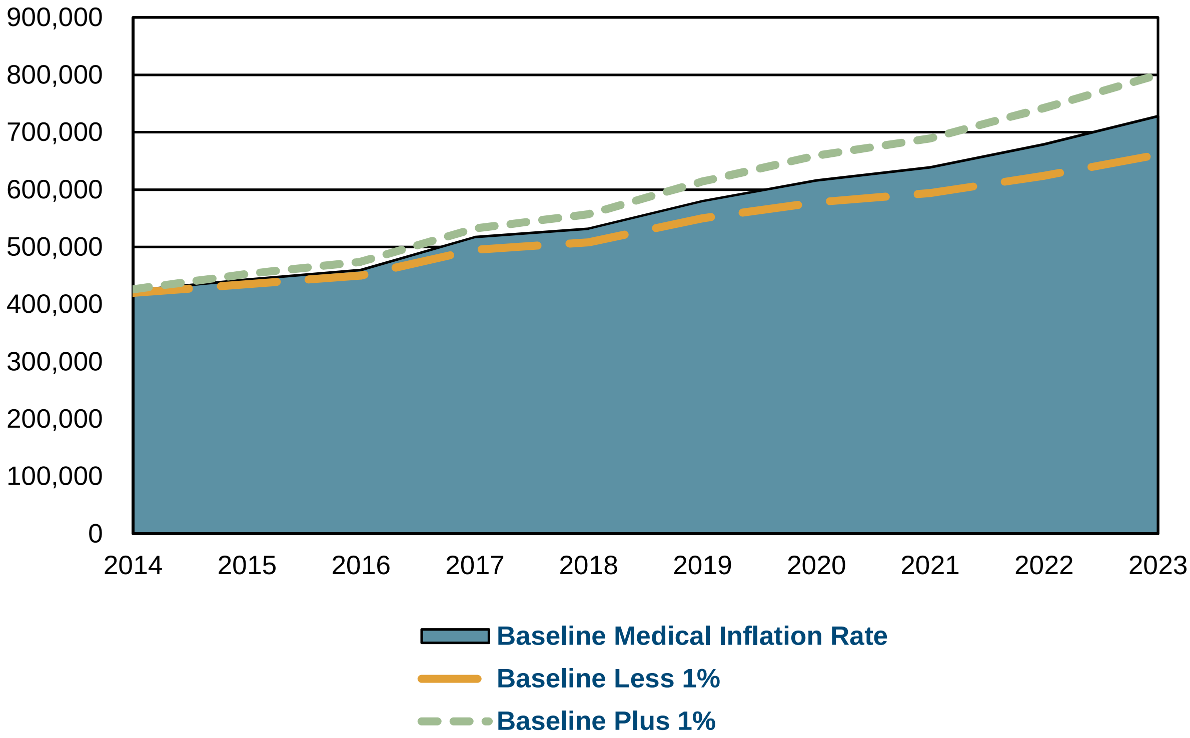
The ARC is assumed to be paid at the beginning of the Fiscal Year.

The July 1, 2012 assets were allocated to the groups in proportion to their respective Accrued Liability.

Projected Payouts

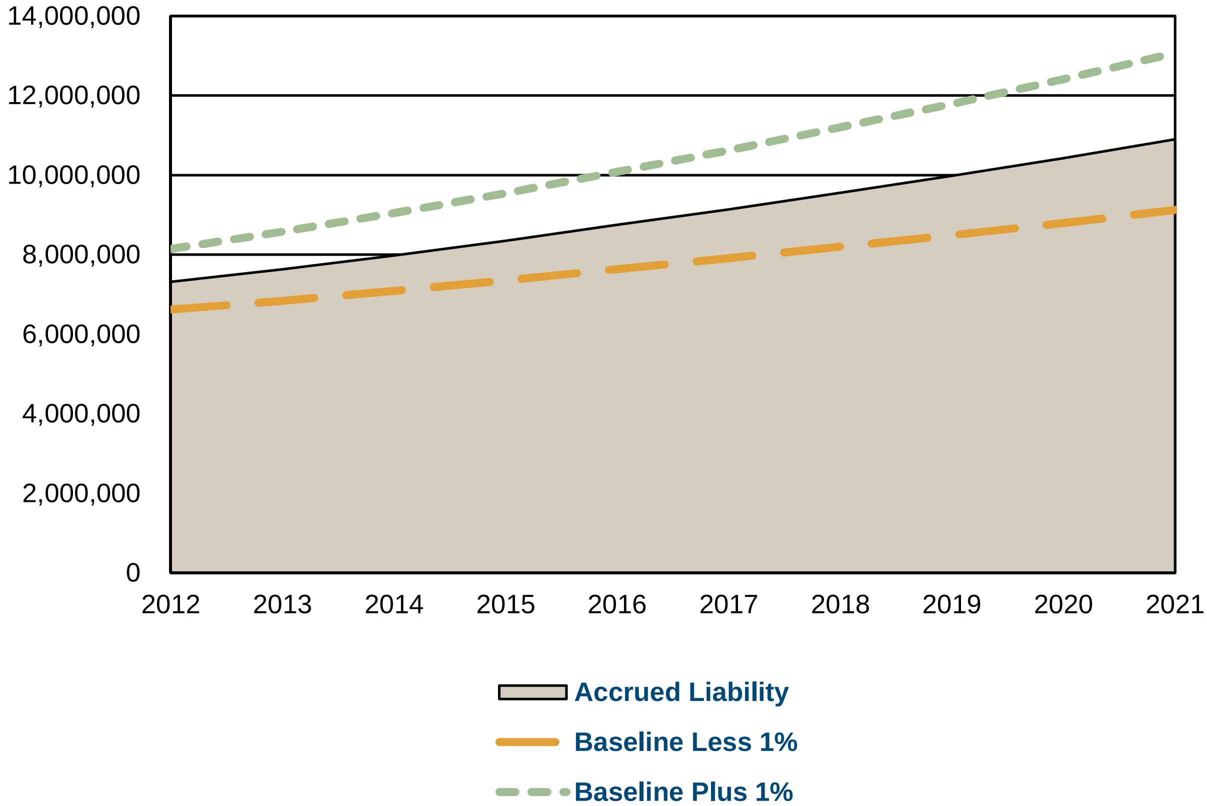
The table and graph below show the expected annual payments for OPEB benefits for the next 10 years.

Fiscal Year	Baseline Less 1%	Baseline Medical Inflation Rate	Baseline Plus 1%
2014	$420,000	$424,000	$426,000
2015	435,000	443,000	453,000
2016	450,000	460,000	474,000
2017	495,000	517,000	532,000
2018	508,000	532,000	557,000
2019	550,000	580,000	614,000
2020	578,000	616,000	659,000
2021	594,000	639,000	689,000
2022	624,000	679,000	742,000
2023	661,000	728,000	800,000



Projected Liabilities

The graph below shows how the Town's accrued liability for OPEB benefits is expected to grow over the next 10 years.



GASB 45 Schedule of Funding Progress

The following information is required to be disclosed in the Town's financial statement.

($ 000s)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Accrued Liability (b)	Unfunded Accrued Liability (UAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAL as a Percentage of Covered Payroll ((b - a) / c)
1/1/2007	$0	$5,749	$5,749	0.00%	N/A	N/A
1/1/2008	282	8,331	8,049	3.38%	N/A	N/A
7/1/2010	485	7,300	6,815	6.64%	N/A	N/A
7/1/2012	1,010	7,320	6,310	13.80%	19,983	31.6%

GASB 45 Schedule of Employer Contributions

The following information is required to be disclosed in the Town's financial statement.

($ 000s)

Year Ended June 30	Annual Required Contribution	Actual Contribution Made	Percentage Contributed
2009	$433	$506	116.9%
2010	472	458	97.0%
2011	657	780	118.7%
2012	631	594	94.1%
2013	667	N/A	N/A
2014	691	N/A	N/A

GASB 45 Projected Net OPEB Obligation

The following table shows the calculation of the projected Net OPEB Obligation at June 30, 2013 and June 30, 2014:

	For the Fiscal Year Ending	
	06/30/2013	06/30/2014
Annual Required Contribution	$667,000	$691,000
Interest on Net OPEB Obligation	(11,241)	(10,000)
Adjustment to Annual Required Contribution	(9,610)	(11,000)
Annual OPEB Cost	665,369	692,000
Contributions made *	(665,369)	(692,000)
Increase in Net OPEB Obligation	0	0
Net OPEB Obligation - beginning of year **	(149,879)	(149,879)
Net OPEB Obligation - end of year	(149,879)	(149,879)

* Projected amounts. If actual contributions for FY 2013 and FY 2014 are different than these projected amounts, the calculation of the Net Obligation amounts shown above will differ.

** June 30, 2012 Net OPEB Obligation reported by the Employer.

Summary of Census Data

The following were included in our analysis based on information provided as of July 1, 2012 by the Town.

	Town	Police	Teachers	Other BOE	Total
Number of members					
Active	51	20	181	46	298
Retired members	0	9	31	22	62
Spouses of retirees	0	7	0	0	7
Deferred members	0	0	0	0	0
Total	51	36	212	68	367
Average age					
Active	54.6	41.2	43.3	54.0	46.8
Retired members	0.0	56.0	69.8	78.5	70.9
Spouses of retirees	0.0	56.0	0.0	0.0	56.0
Deferred members	0.0	0.0	0.0	0.0	0.0
Average retirement age					
Active	65.6	54.4	59.7	64.9	61.2
Retired	N/A	N/A	N/A	N/A	N/A
Expected lifetime					
Active [to retirement]	11.0	13.2	16.4	10.9	14.4
Retired [lifetime]	0.0	27.8	22.2	14.9	20.4
Spouses [lifetime]	N/A	N/A	N/A	N/A	N/A
Deferred [lifetime]	0.0	0.0	0.0	0.0	0.0

The retiree census data excludes post 65 Medicare eligible retired members who are paying 100% of the premium.

Where complete census data was not available, we have made assumptions which we believe to be reasonable.

Reconciliation of Census Data

The change in participation from July 1, 2010 to July 1, 2012 is shown below.

	Active Participants	Terminated Vested Participants	Retirees	Covered Spouses of Retirees	Total
Count as of July 1, 2010	299	0	59	8	366
Terminated non-vested	(24)	0	0	0	(24)
Terminated vested	0	0	0	0	0
Died without beneficiary or terminated coverage	0	0	(9)	(3)	(12)
Died with beneficiary	0	0	(1)	1	0
Retired	(10)	0	10	0	0
New participants	33	0	0	0	33
Net data adjustments	0	0	3	1	4
Count as of July 1, 2012	298	0	62	7	367

Current Premiums

Based on information provided by the Town regarding current plan elections, the following weighted average blended actual premiums were used:

2012 - 2013 Monthly Premiums		Employee	Spouse
Medical - BOE	Pre 65	$730.78	$773.78
	Post 65*	730.78	773.78
Medical - Town	Pre 65	736.73	794.96
	Post 65	N/A	N/A
Dental - BOE		32.52	53.63
Dental - Town		34.63	55.78

* Applicable for non-Medicare eligibles.

Health Cost Adjustment Factors

Milliman's Health Cost Guidelines were used to develop the expected relationship of the true cost of health benefits across age and gender. Representative factors are shown below.

	BOE Medical		Town Medical	
Age	Employee	Spouse	Employee	Spouse
40	1.52%	3.06%	2.75%	1.75%
45	3.06%	4.30%	4.06%	3.25%
50	4.15%	4.99%	4.83%	4.29%
55	3.90%	5.20%	4.97%	4.12%
60	4.00%	4.60%	4.50%	4.11%
65	1.95%	2.13%	2.10%	1.99%
70	2.10%	2.26%	2.23%	2.13%
75	1.32%	1.62%	1.57%	1.38%
80	1.33%	1.03%	1.08%	1.28%

	BOE Dental		Town Dental	
Age	Employee	Spouse	Employee	Spouse
40	1.37%	1.61%	1.56%	1.41%
45	1.06%	1.43%	1.35%	1.13%
50	0.57%	0.75%	0.72%	0.61%
55	0.06%	0.28%	0.24%	0.10%
60	0.12%	0.15%	0.15%	0.13%
65	-0.09%	-0.19%	-0.17%	-0.11%
70	0.00%	0.00%	0.00%	0.00%
75	0.00%	0.00%	0.00%	0.00%
80	0.00%	0.00%	0.00%	0.00%

Expected Healthcare Costs

Milliman's Health Cost Guidelines were used to develop the expected true cost of health care benefits by age. Representative health care costs (per person per month) are shown below.

	BOE Medical		Town Medical	
Age	Employee	Spouse	Employee	Spouse
40	$228	$149	$157	$207
45	298	224	229	276
50	442	367	369	416
55	664	625	614	638
60	997	1,018	986	973
65	0	0	0	0
70	0	0	0	0
75	0	0	0	0
80	0	0	0	0

	BOE Dental		Town Dental	
Age	Employee	Spouse	Employee	Spouse
40	$32	$29	$30	$32
45	36	34	35	37
50	39	37	38	39
55	40	39	40	40
60	40	39	40	41
65	0	0	0	0
70	0	0	0	0
75	0	0	0	0
80	0	0	0	0

	BOE Non-Medicare	
Age	Employee	Spouse
40	$228	$149
45	298	224
50	442	367
55	664	625
60	997	1,018
65	1,262	1,325
70	1,710	1,842
75	3,740	4,347
80	11,499	14,954

Glossary

The following is an explanation of many of the terms referenced by the Statement of the Governmental Accounting Standards Board, “Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions”.

Actuarial Cost Method - This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Actuarial Accrued Liability and the Normal Cost. The Statement assumes a closed group of employees and other participants unless otherwise stated; that is, no new entrants are assumed. Six methods are permitted – Unit Credit, Entry Age Normal, Attained Age, Aggregate, Frozen Entry Age, and Frozen Attained Age.

Actuarial Accrued Liability - This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).

Actuarial Assumptions - With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the discount rate, medical cost inflation, and rates of mortality, turnover and retirement.

Actuarial Present Value of Benefits - This is the value, as of the applicable date, of future payments for benefits and expenses under the Plan, where each payment is: a) Multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) Discounted at the assumed discount rate.

Actuarial Value of Assets - This is the value of cash, investments and other property belonging to the Plan, as used by the actuary for the purpose of an Actuarial Valuation.

Amortization Payment - This is the amount of the contribution required to pay interest on and to amortize over a given period the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability. A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each actuarial valuation date.

Annual Required Contribution (“ARC”) - This is the employer’s periodic required contribution to a defined benefit OPEB plan, calculated in accordance with the set of requirements for calculating actuarially determined OPEB information included in financial reports.

Attribution Period - The period of an employee’s service to which the expected postretirement benefit obligation for that employee is assigned. The beginning of the attribution period is the employee’s date of hire and costs are spread across all employment.

Benefit Payments - The monetary or in-kind benefits or benefit coverage to which participants may be entitled under a post employment benefit plan, including health care benefits and life insurance not provided through a pension plan.

Glossary

Discount Rate - GASB 45 requires that the interest rate used to discount future benefit payments back to the present day be based on the expected rate of return on any investments set aside to pay for these benefits. If no funds are set aside for this purpose, the discount rate would be based on the expected return of the employer's general funds.

Funding Excess - This is the excess of the Actuarial Value of Assets over the Actuarial Accrued Liability.

Health Cost Trend - This is the rate at which health costs are assumed to increase over time.

Implicit Rate Subsidy - This is the excess of the expected health care cost per retired member over the gross premium charged for that coverage. In most cases, the gross premium charged to a retiree is less than the expected health care cost, since the premium is a blended average rate that does not fully reflect the above-average, increasing costs by age that apply during retirement.

Normal Cost - This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.

Net OPEB Obligation - This is the cumulative difference since the effective date of this statement between the 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.

Other Post-employment Benefits ("OPEB") - This refers to post-employment benefits other than pension benefits, including healthcare benefits regardless of the type of plan that provides them, and all other post-employment benefits provided separately from a pension plan, excluding benefits defined as termination benefits or offers.

Past Service Cost - This is a catch-up payment to fund the Unfunded Actuarial Accrued Liability over time (generally 10 to 30 years). Also known as the **Amortization Payment**.

Return on Plan Assets - This is the actual investment return on plan assets during the fiscal year.

Substantive Plan - The terms of the postretirement benefit plan as understood by an employer that provides postretirement benefits and the employees who render services in exchange for those benefits. The substantive plan is the basis for the accounting for the plan.

Unfunded Actuarial Accrued Liability - This is the excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

Actuarial Method

The actuarial funding method used is the **Projected Unit Credit Cost Method**. Recommended annual contributions consist of two pieces: Normal Cost plus a payment towards the Unfunded Accrued Liability.

The **Accrued Liability** is determined directly as the present value of benefits accrued to date, where the accrued benefit for each Member is the pro-rata portion (based on service to date) of the **projected** benefit payable at death, disability, retirement or termination.

The **Normal Cost** is similarly determined as the present value of the portion of the **projected** benefit attributable to the current year.

The **Unfunded Accrued Liability** is the Accrued Liability less the value of any plan assets.

Actuarial Assumptions

Discount Rate	7.00%
Medical Inflation Rate	7.00% - 4.60% over 88 years
Dental Inflation Rate	3.00%
Amortization Growth Rate	3.50%
Healthy Mortality	**Teachers** and **Administrators**[#]: RP-2000 projected forward 19 years using Scale AA, with a two-year age setback. **Police:** Applicable Mortality Table per Revenue Ruling 2007-67. **All Others:** RP-2000 Mortality Tables for Employees and Healthy Annuitants with generational improvements per Scale AA. These tables take into account future mortality improvements.
Disabled Mortality	**Teachers** and **BOE Administrators**[#]: RP-2000 projected forward 19 years using Scale AA, with an eight-year age set forward for males and females. **All Others**: RP-2000 Disabled Mortality Table with generational projection per Scale AA. **Police:** Applicable Mortality Table per Revenue Ruling 2007-67. These tables take into account future mortality improvements.

Actuarial Assumptions

Turnover

Teachers and **BOE Administrators**[#]**:** rates based on gender and length of service for the first ten years and gender and age thereafter:

Service	Male	Female
0-1	14.00%	12.00%
1-2	8.50%	9.00%
2-3	5.50%	7.00%
3-4	4.50%	6.00%
4-5	3.50%	5.50%
5-6	2.50%	5.00%
6-7	2.40%	4.50%
7-8	2.30%	3.50%
8-9	2.20%	3.00%
10+	2.10%	2.50%

Current:	Age	Male	Female
	25	1.20%	3.50%
	35	1.20%	3.50%
	45	1.26%	1.30%
	55	2.76%	1.60%

Prior:	Age	Male	Female
	25	1.20%	3.50%
	35	1.20%	3.50%
	45	1.26%	1.30%
	55	3.36%	1.60%

All Others (General Employees): rates based on age:

Age	Current Rate	Prior Rate
20	11.80%	11.80%
25	9.40%	9.40%
30	7.00%	7.00%
35	5.40%	5.40%
40	3.80%	3.80%
45	2.20%	2.20%
50	1.50%	0.60%
55	1.00%	0.00%
60	0.50%	0.00%

Police: None.

Actuarial Assumptions

Retirement

Police: rates based on age and eligibility for pension benefits:

Current Valuation: 10% after 20 years of service or age 55 and 10 years of service; 75% after 25 years of service; 2% at all other ages; 100% at age 65.

Prior Valuation: 50% will retire after 20 years of service. The remainder at age 55 with 10 years of service; or if earlier, the completion of 27 years of service.

Teachers and **Administrators**[#]**:** rates based on age, eligibility for pension benefits, and gender:

Current Valuation:

	Unreduced		Proratable		Reduced	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50 – 51	27.50%	15.00%			2.00%	2.00%
52	27.50%	15.00%			2.50%	3.00%
53	27.50%	15.00%			3.00%	3.50%
54	27.50%	15.00%			4.00%	4.00%
55	38.50%	30.00%			4.50%	6.00%
56	38.50%	30.00%			6.00%	7.00%
57	38.50%	30.00%			9.00%	7.50%
58	38.50%	30.00%			10.00%	8.00%
59	38.50%	30.00%			11.00%	8.50%
60	22.00%	20.00%	6.00%	5.40%		
61	25.30%	22.50%	6.00%	7.20%		
62	25.30%	22.50%	15.00%	9.90%		
63-64	27.50%	22.50%	10.00%	7.20%		
65	36.30%	30.00%	20.00%	13.50%		
66	27.50%	30.00%	20.00%	10.80%		
67	27.50%	30.00%	20.00%	13.50%		
68	27.50%	30.00%	20.00%	10.80%		
69	27.50%	30.00%	35.00%	10.80%		
70-73	100.00%	40.00%	35.00%	10.80%		
74	100.00%	40.00%	35.00%	18.00%		
75 – 79	100.00%	40.00%	40.00%	18.00%		
80	100.00%	100.00%	40.00%	18.00%		

Actuarial Assumptions

Retirement

Prior Valuation:

	Unreduced		Proratable		Reduced	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50 – 51	27.50%	15.00%			2.00%	2.00%
52	27.50%	15.00%			3.00%	4.00%
53	27.50%	15.00%			3.00%	4.50%
54	27.50%	15.00%			5.00%	5.50%
55	38.50%	30.00%			5.00%	7.50%
56	38.50%	30.00%			7.00%	8.50%
57	38.50%	30.00%			10.00%	9.50%
58	38.50%	30.00%			11.00%	10.00%
59	38.50%	30.00%			12.00%	10.00%
60	22.00%	20.00%	6.00%	5.40%		
61	25.30%	22.50%	6.00%	7.20%		
62	25.30%	22.50%	15.00%	9.90%		
63-64	27.50%	22.50%	10.00%	7.20%		
65	36.30%	30.00%	20.00%	13.50%		
66	27.50%	30.00%	20.00%	10.80%		
67	27.50%	30.00%	20.00%	13.50%		
68	27.50%	30.00%	20.00%	10.80%		
69	27.50%	30.00%	35.00%	10.80%		
70-73	100.00%	40.00%	35.00%	10.80%		
74	100.00%	40.00%	35.00%	18.00%		
75 – 79	100.00%	40.00%	40.00%	18.00%		
80	100.00%	100.00%	40.00%	18.00%		

All Others: rates are based on age (minimum 15 years of service):

Age	Current Valuation	Prior Valuation
55-58	1%	1%
59-61	5%	5%
62	10%	20%
63-64	10%	10%
65	50%	40%
66-69	30%	30%
70	100%	100%

Actuarial Assumptions

Disability

Teachers and **Administrators**#**:** rates based on age, gender and group:

Age	Male	Female
20	0.0455%	0.0500%
30	0.0455%	0.0410%
40	0.0715%	0.0720%
50	0.3250%	0.2630%
60	1.2805%	0.5000%

All Others:

20	0.0500%	0.0500%
30	0.0500%	0.0500%
40	0.0900%	0.0900%
50	0.4000%	0.4000%
60	1.7400%	1.7400%

Future Retiree Coverage

50% of **Teachers** and **Town employees**, 100% of **Police**, **Town** and **BOE Administrators**, and 10% of **BOE Secretary** active members are assumed to elect coverage at retirement.

Cost Blending

In order to dampen the volatility of the premium changes, this valuation is based on 75% of expected costs/premiums plus 25% of actual costs/premiums.

Future Dependent Coverage

Current active members are assumed to elect dependent coverage at retirement as follows. All female spouses are assumed to be 3 years younger than males.

Group	Male	Female
Teachers and Administrators	50%	50%
Police and Town Administrators	100%	100%
All Others	50%	50%

Future Post-65 Coverage

Teachers and **Administrators**: 60% of current actives and pre-65 retirees are assumed either to enroll in retiree health coverage through the Connecticut State Teachers Retirement System at age 65, or transfer to a Medicare Supplement Plan. 87% (84% prior valuation) of current actives and pre-65 retirees are assumed to be Medicare-eligible.

Certain actuarial demographic assumptions for Teachers and Administrators are based on the assumptions used in the June 30, 2012 valuation of the Connecticut State Teachers Retirement System by Cavanaugh Macdonald Consulting, LLC.

Summary of Plan Provisions

This summary is intended only to describe our understanding of the essential features of the benefits that will be provided to future retirees based on copies of bargaining agreements, applicable personnel rules and the benefits being currently provided to retired members. All eligibility requirements and benefit amounts shall be determined in strict accordance with the relevant plan documents. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Police

Eligibility - Retire with 25 years of service.

Benefit -

Hired prior to July 1, 1994: Town pays 100% of the premium for medical and dental coverage for the employee and 75% of the premium for the employee's spouse. Coverage stops at the employee's death. Spouse can continue coverage if pay 100% of the cost. Coverage is pre-65 only.

Hired on or after July 1, 1994: Town pays 100% of the premium for medical and dental coverage for the employee. Coverage is pre-65 only.

Town Administrators

Eligibility - Retire with 25 years of service.

Benefit - Town pays 100% of the premium for medical and dental coverage for the employee and 50% of the premium for the employee's spouse. Coverage stops at the employee's death. Spouse can continue coverage if pay 100% of the cost. Coverage is pre-65 only.

Library

Eligibility - Retire with 20 years of service.

Benefit - Can purchase medical coverage for the employee and spouse at the employee's expense. Coverage is pre-65 only.

Public Works

Eligibility - Retire with 20 years of service.

Benefit - Can purchase medical coverage for the employee and spouse at the employee's expense. Coverage is pre-65 only.

Clerical, Technical and Custodial Employees

Eligibility - Retire with 20 years of service.

Benefit - Can purchase medical coverage for the employee and spouse at the employee's expense. Coverage is pre-65 only.

Summary of Plan Provisions

BOE Administrators

Eligibility - An Administrator retiring under the Connecticut State Teachers Retirement System shall be eligible to receive health benefits for self and spouse.

Normal Retirement for Administrators is the earliest of age 60 with 20 years of service, or completion of 35 years of service regardless of age. Early Retirement is the earliest of age 60 with 10 years of service, any age with 25 years of service, or age 55 with 20 years of service.

Benefit -

Hired prior to July 1, 2003: Board will continue to pay same rate as current actives (90% as of July 1, 2010) of the premium for medical and dental coverage for the employee up to age 65. Spouse can continue coverage if pay 100% of the cost. Coverage is pre-65 only.

Hired on or after July 1, 2003: Not eligible for retiree medical or dental coverage.

Life Insurance - $100,000 until age 70.

BOE Custodians

Eligibility - Retire at age 55 with 15 years of service.

Benefit - Not eligible for retiree medical benefits.

Life Insurance - $10,000.

BOE Nurses

Eligibility - Retire at age 55 with 15 years of service.

Benefit - Not eligible for retiree medical benefits.

Life Insurance - $7,500.

BOE Secretaries

Eligibility - Retire at age 55 with 15 years of service.

Benefit - Can purchase medical coverage for the employee and spouse at the employee's expense. Coverage is pre-65 only.

Life Insurance - $7,500.

Summary of Plan Provisions

Teachers

Eligibility - A Teacher retiring under the Connecticut State Teachers Retirement System shall be eligible to receive health benefits for self and spouse.

Normal Retirement for Teachers is the earliest of age 60 with 20 years of service, or completion of 35 years of service regardless of age. Early Retirement is the earliest of age 60 with 10 years of service, any age with 25 years of service, or age 55 with 20 years of service.

Benefit - Can purchase medical coverage for the employee and spouse at the employee's expense; benefits are available until the employee reaches age 65. Teachers who are not covered under Medicare may opt to continue to be covered beyond age 65 but must pay 100% of the premium for medical coverage.

This exhibit summarizes our understanding of the major provisions of the Retiree Medical Program. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the applicable collective bargaining agreements and other written materials. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.