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December 16, 2015

***PERSONAL & CONFIDENTIAL***

Mr. James Bourke  
Assistant Finance Director  
Town of Windsor  
Town Hall  
Windsor, CT 06095

Re: Town of Windsor Other Post Employment Benefits Program

Dear Jim:

We are pleased to provide this actuarial report for the Town of Windsor Other Post-Employment Benefits Program. The report shows the financial status of the plan as of July 1, 2015 and presents the cost figures for the 2016-17 fiscal year.

We have included 5 bound copies of the report and one unbound copy in case you need to make additional copies.

Please let us know if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads 'Becky'.

Rebecca A. Sielman, FSA  
Consulting Actuary

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# **TOWN OF WINDSOR OTHER POST-EMPLOYMENT BENEFITS PROGRAM**

**July 1, 2015 Actuarial Valuation**

**Prepared by**  
Milliman, Inc.

**Rebecca A. Sielman, FSA**  
Consulting Actuary

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## **Certification**

We have performed an actuarial valuation of the Town of Windsor Other Post-Employment Benefits Program as of July 1, 2015. 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, asset information, claims and premium information as of the valuation date, furnished by the Town of Windsor. 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 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 18-23 of this report. A summary of the plan provisions starts on page 24 of this report.

Milliman's work is prepared solely for the internal business use of Town of Windsor. 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) Town of Windsor may provide a copy of Milliman's work, in its entirety, to Town of Windsor'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 Town of Windsor; and (b) Town of Windsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

## Certification

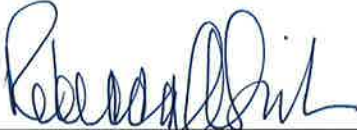
No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

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.

December 16, 2015



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Rebecca A. Sielman, FSA  
Consulting Actuary



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Samuel Boustani, ASA  
Actuary

## Discussion of Experience

This valuation reflects a number of changes relative to the July 1, 2013 valuation:

### Demographic Changes from 2013 to 2015

From July 1, 2013 to July 1, 2015, the overall membership decreased from 929 to 901. The total number of active members increased from 677 to 685 and the total number of retirees and spouses of retirees decreased from 252 to 216. The decrease in count is primarily due to the exclusion from this valuation of dental only retirees who are paying 100% of the premium. It is assumed that there is no implicit rate subsidy associated with these benefits.

The average age of active members decreased from 46.8 to 46.1 and the average age of retired members increased from 67.2 to 69.2.

### Assumption Changes

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

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 version used in the 2013 valuation didn't incorporate the Affordable Care Act fees starting in 2014. The current Getzen version was subsequently updated to reflect these fees in the development of the medical trend. This assumption was revised to an initial inflation rate of 5.60%, grading down to an ultimate inflation rate of 4.60% over a period of 62 years (Prior valuation: an initial inflation rate of 6.80% graded down to an ultimate inflation rate of 4.70% over a period of 69 years for pre-65 and an initial inflation rate of 6.80% graded down to an ultimate inflation rate of 4.70% over a period of 84 years for post-65).

Attribution Period: We have updated the accrued liability attribution period for all groups to be consistent with the approach required under the upcoming GASB 74/75 accounting standards.

Police: The retirement assumption has been updated for Police, and takes into account more recent assumptions for the Connecticut Municipal Employees' Retirement System.

The combined effect of the above changes reduced the Accrued Liability by about \$12 million and reduced the Annual Required Contribution by about \$950,000.

Please note that our July 1, 2013 report determined GASB 45 figures for FY2015 on the basis of a 4.00% discount rate, and our revised Annual Required Contribution for FY2015 (per our letter dated September 1, 2015) was determined using a 5.00% discount rate, reflecting the Town's new policy of partial prefunding into an OPEB trust. This report uses a 5.00% discount rate.

### Changes in Plan Provisions

Police hired prior to July 1, 2013: Retiree pays the percentage of premium for medical coverage that is in effect for current employees, up to a maximum retiree share of 25% of the premium (Prior: no maximum).

Police hired on or after July 1, 2013: Retiree pays the percentage of premium for medical coverage that is in effect for current employees for self and 100% for the premium for spouse (Prior: retiree pays the percentage of premium that is in effect at the time of the employee's retirement for self and spouse).

The above changes had no material impact on the Accrued Liability and reduced the Annual Required Contribution by about \$45,000.

## **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.

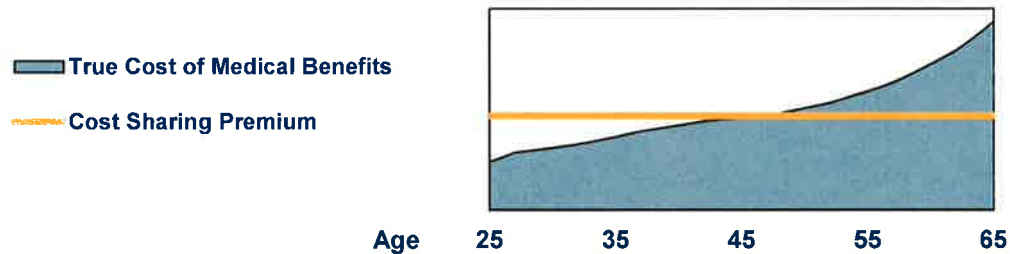
The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the Town's financial statements. In addition, the Discount Rate used to calculate the liabilities 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, 2015

We have calculated the Accrued Liability separately for eleven 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.

	BOE Admin	Teachers	BOE Clerical	BOE Custodians	BOE Food Service	BOE Non-Union	BOE Nurses	Town Dispatchers	Town Admin	Town Teamsters	Police	Total
<b>Current active members</b>												
Employees under age 65	\$77,905	\$2,132,735	\$263,513	\$526,321	\$114,952	\$334,428	\$74,016	\$158,410	\$1,531,206	\$1,104,249	\$1,953,084	\$8,270,819
Employees over age 65	0	1,160,627	506,440	925,480	370,026	1,000,694	0	295,310	3,728,557	2,092,985	2,006,240	12,086,359
Dependents under age 65	28,829	615,182	1,700	84,699	829	4,429	2,082	3,027	318,801	481,854	1,835,542	3,376,974
Dependents over age 65	0	476,440	0	0	0	35,491	0	29,519	754,400	724,089	1,700,635	3,720,574
<b>Total</b>	106,734	4,384,984	771,653	1,536,500	485,807	1,375,042	76,098	486,266	6,332,964	4,403,177	7,495,501	27,454,726
<b>Current retired members</b>												
Employees under age 65	15,462	545,647	0	0	0	57,192	0	0	395,437	218,165	1,096,880	2,328,783
Employees over age 65	858,981	5,136,327	874,317	84,779	0	1,688,248	0	0	2,459,935	2,043,375	2,358,031	15,503,993
Dependents under age 65	14,775	151,257	0	0	0	0	0	0	404,128	336,803	1,448,910	2,355,873
Dependents over age 65	0	116,655	149,912	0	0	377,683	0	0	1,025,459	1,101,862	2,260,741	5,032,312
<b>Total</b>	889,218	5,949,886	1,024,229	84,779	0	2,123,123	0	0	4,284,959	3,700,205	7,164,562	25,220,961
<b>Total Accrued Liability</b>	995,952	10,334,870	1,795,882	1,621,279	485,807	3,498,165	76,098	486,266	10,617,923	8,103,382	14,660,063	52,675,687

**Milliman Actuarial Valuation**

**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 was reset to 30 years (20 years for Police) starting with FYE 2015. The amortization method produces annual payments that will increase by 3.00% annually. On this basis, the ARC is determined as follows:

	BOE Admin	Teachers	BOE Clerical	BOE Custodians	BOE Food Service	BOE Non-Union	BOE Nurses	Town Dispatchers	Town Admin	Town Teamsters	Police	Total
Accrued Liability	\$995,952	\$10,334,870	\$1,795,882	\$1,621,279	\$485,807	\$3,498,165	\$76,098	\$486,266	\$10,617,923	\$8,103,382	\$14,660,063	\$52,675,687
Assets	3,080	54,106	10,069	11,957	4,727	17,190	1,015	6,463	93,937	59,836	144,830	407,210
Unfunded Accrued Liability	992,872	10,280,764	1,785,813	1,609,322	481,080	3,480,975	75,083	479,803	10,523,986	8,043,546	14,515,233	52,268,477
Amortization Period	28	28	28	28	28	28	28	28	28	28	18	18
Amortization Growth Rate	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Past Service Cost	45,421	470,319	81,696	73,622	22,008	159,246	3,435	21,950	481,446	367,972	944,897	2,672,012
Total Normal Cost	18,670	327,678	58,935	89,867	39,222	98,350	4,994	42,554	494,088	252,964	552,028	1,979,350
Employee Contributions	0	0	0	0	0	0	0	0	0	0	0	0
Net Normal Cost	18,670	327,678	58,935	89,867	39,222	98,350	4,994	42,554	494,088	252,964	552,028	1,979,350
Interest	3,205	39,900	7,032	8,174	3,062	12,880	421	3,225	48,777	31,047	74,846	232,569
ARC for FY 2017	67,296	837,897	147,663	171,663	64,292	270,476	8,850	67,729	1,024,311	651,983	1,571,771	4,883,931
Expected Benefit Payouts	51,491	488,062	92,443	47,810	5,776	160,312	4,227	3,520	362,154	305,456	439,688	1,960,939

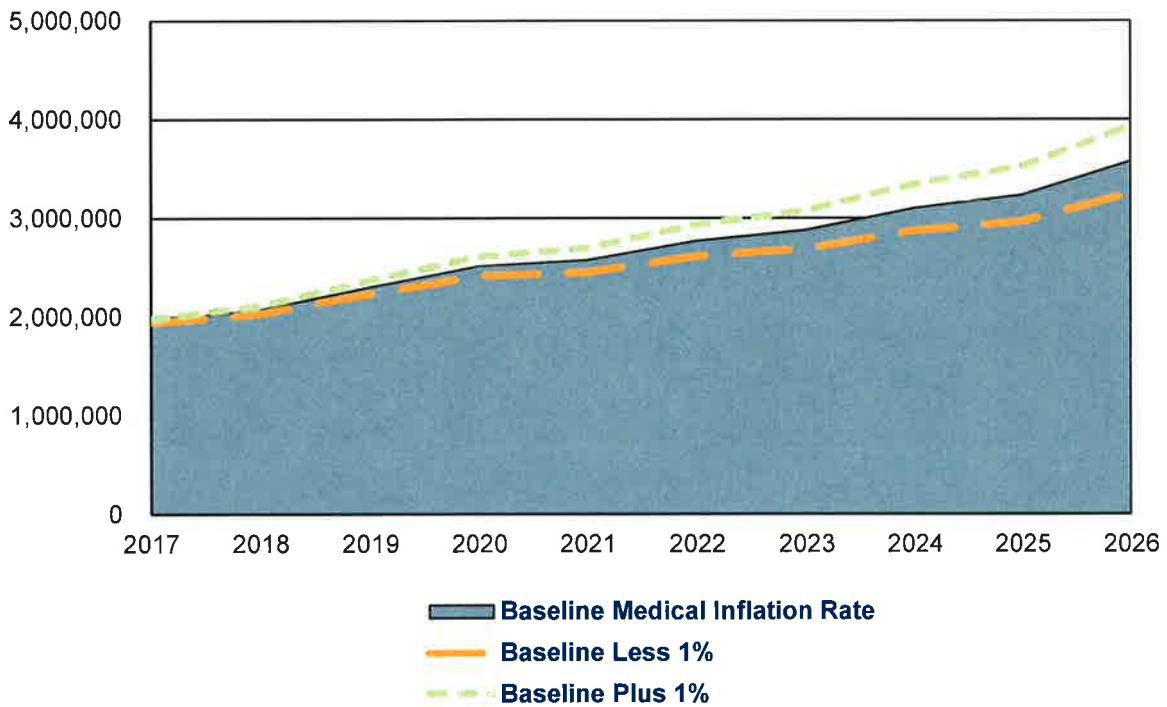
The ARC is assumed to be paid at the beginning of the Fiscal Year.

This work product was prepared solely for the Town for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

## Projected Payouts

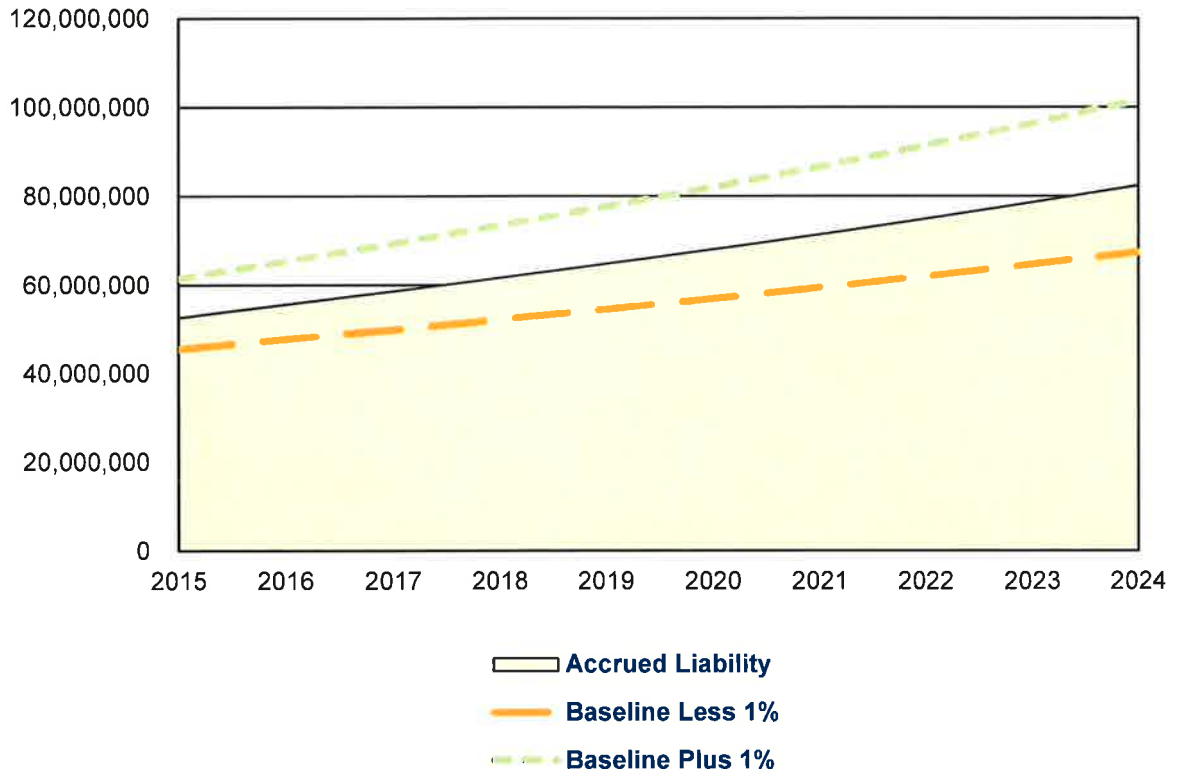
The table and graph below show the expected annual payments for OPEB benefits for the next 10 years.

Fiscal Year	Baseline Less 1%	Baseline Medical Inflation Rate	Baseline Plus 1%
2017	\$1,942,288	\$1,960,939	\$1,979,590
2018	2,035,421	2,074,750	2,114,452
2019	2,238,154	2,303,358	2,369,810
2020	2,421,375	2,515,865	2,613,087
2021	2,454,607	2,574,868	2,699,788
2022	2,617,586	2,772,162	2,934,251
2023	2,693,647	2,880,067	3,077,412
2024	2,874,990	3,103,325	3,347,339
2025	2,968,862	3,235,243	3,522,617
2026	3,252,430	3,577,999	3,932,562



### 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)
7/1/2007	\$0	\$66,013	\$66,013	0.00%	N/A	N/A
7/1/2009	0	72,896	72,896	0.00%	N/A	N/A
7/1/2011	0	74,028	74,028	0.00%	N/A	N/A
7/1/2013	0	67,719	67,719	0.00%	44,516	152.1%
7/1/2015	407	52,676	52,269	0.77%	45,661	114.5%

## GASB 45 Schedule of Employer Contributions

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

(\$ 000s)

<b>Year Ended June 30</b>	<b>Annual Required Contribution</b>	<b>Actual Contribution Made</b>	<b>Percentage Contributed</b>
2009	\$6,389	\$1,898	29.7%
2010	7,185	2,085	29.0%
2011	7,118	2,067	29.0%
2012	7,681	2,283	29.7%
2013	7,258	2,047	28.2%
2014	7,831	2,240	28.6%
2015	6,300	2,596	41.2%
2016	6,762	N/A	N/A
2017	4,884	N/A	N/A

## Summary of Census Data

The following were included in our analysis based on information provided as of July 1, 2015 by the Town.

	BOE Admin	Teachers	BOE Clerical	BOE Custodians	BOE Food Service	BOE Non-Union	BOE Nurses	Town Dispatchers	Town Admin	Town Teamsters	Police	Total
<b>Number of members</b>												
Active	26	363	34	38	18	24	6	7	80	42	47	685
Retired members	4	41	8	3	0	14	0	0	28	26	26	150
Spouses of retirees	1	14	3	0	0	4	0	0	11	12	21	66
Total	31	418	45	41	18	42	6	7	119	80	94	901
<b>Average age</b>												
Active	47.8	43.6	52.0	53.4	52.6	50.5	50.3	47.1	48.9	48.5	42.2	46.1
Retired members	67.8	66.5	75.3	80.0	N/A	70.5	N/A	N/A	69.3	73.5	65.5	69.2
<b>Average retirement age</b>												
Active	63.4	60.2	59.6	60.1	59.6	58.4	56.8	56.8	56.7	56.9	58.8	59.4
Retired members	59.8	58.8	62.6	65.0	N/A	62.6	N/A	N/A	60.5	60.2	48.7	58.3
<b>Expected lifetime</b>												
Active [to retirement]	15.5	16.6	7.6	6.7	7.0	7.9	6.4	9.6	7.8	8.4	16.7	13.3
Retired [lifetime]	20.1	21.5	13.7	10.5	N/A	16.6	N/A	N/A	17.2	14.4	18.2	17.8

The retiree census data excludes post 65 Medicare eligible and dental only retired members who are paying 100% of the premium. It is assumed that there is no implicit rate subsidy associated with these benefits.

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



### Current Premiums

Based on information provided by the Town regarding current plan elections, the following weighted average blended actual premiums were used (current Town post-65 rates are listed by plan):

2015 - 2016 Monthly Premiums		Employee	Spouse
Medical - Town	Pre 65 - Police	\$701.36	\$827.06 *
	Pre 65 - Others	701.36	701.24
	Post 65		
	Plan F/BlueScript	550.57	550.57
	High Option/Plan 83	182.79	182.79
Medical - BOE	Pre 65	666.60	662.71
	Post 65	435.85	435.85
Dental - Town		38.81	62.05
Dental - BOE		58.34	58.52

\* Includes child dependent costs.

## Expected Healthcare Costs

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

Age	Police with High Option/Plan 83		Police with Plan F	
	Employee	Spouse*	Employee	Spouse*
40	\$631	\$582	\$631	\$582
45	686	662	686	662
50	759	785	759	785
55	886	934	886	934
60	1,087	1,131	1,087	1,131
65	151	151	453	453
70	173	173	522	522
75	195	195	588	587
80	212	211	638	637

Age	Town with High Option/Plan 83		Town with Plan F	
	Employee	Spouse	Employee	Spouse
40	\$631	\$531	\$631	\$531
45	686	604	686	604
50	759	715	759	715
55	886	852	886	852
60	1,087	1,031	1,087	1,031
65	151	151	453	453
70	173	173	522	522
75	195	195	588	587
80	212	211	638	637

Age	BOE Medicare		BOE Non-Medicare	
	Employee	Spouse	Employee	Spouse
40	\$714	\$424	\$714	\$424
45	753	498	753	498
50	803	611	803	611
55	902	753	902	753
60	1,073	936	1,073	936
65	359	359	1,413	1,398
70	413	413	1,701	1,694
75	465	465	2,034	2,040
80	505	504	2,365	2,380

It is assumed that there is no implicit rate subsidy associated with dental benefits. Unadjusted age premium rates were used to value these benefits.

\* Child dependent claim costs are included with pre-65 spouse claim costs.

## 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.

**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

Each of the assumptions used in this valuation was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgement regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

<b>Discount Rate</b>	5.00% (Prior Valuation: 4.00%)
<b>Inflation Rate</b>	2.70%
<b>Medical Inflation Rate</b>	5.60% - 4.60% over 62 years (Prior: 6.80% - 4.70% over 69 years for pre-65 and 6.80% - 4.70% over 84 years for post-65)
<b>Dental Inflation Rate</b>	3.00%
<b>Amortization Growth Rate</b>	3.00%
<b>Healthy Mortality</b>	<p><b>Teachers and Central Office Administrators<sup>#</sup>:</b> RP-2000 projected forward 19 years using Scale AA, with a two-year age setback. This assumption includes a margin for mortality improvement beyond the valuation date.</p> <p><b>Police<sup>†</sup>:</b> RP-2000 Mortality Table, set forward one year for males and set back one year for females. This assumption does not include a margin for mortality improvement beyond the valuation date.</p> <p><b>All Others:</b> RP-2000 Combined Healthy Mortality Table with generational projection per Scale AA, with separate tables for males and females. This assumption includes a margin for mortality improvement beyond the valuation date.</p>
<b>Disabled Mortality</b>	<p><b>Teachers and Central Office Administrators<sup>#</sup>:</b> RP-2000 projected forward 19 years using scale AA, with an eight-year age set forward for males and females. This assumption includes a margin for mortality improvement beyond the valuation date.</p> <p><b>Police<sup>†</sup>:</b> RP-2000 Mortality Table, set forward five years for males and set forward one year for females. This assumption does not include a margin for mortality improvement beyond the valuation date.</p> <p><b>All Others:</b> N/A</p>

## Actuarial Assumptions

### Turnover

**Teachers** and **Central Office Administrators**<sup>#</sup>: rates based on gender and length of service for the first ten years and gender and age thereafter:

<b>Service</b>	<b>Male</b>	<b>Female</b>
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%

<b>Age</b>	<b>Male</b>	<b>Female</b>
25	1.20%	3.50%
35	1.20%	3.50%
45	1.26%	1.30%
55	2.76%	1.60%

**Police:** None.

**All Others:** according to the Crocker-Sarason T9 Table:

<b>Age</b>	<b>Rate</b>
20	17.95%
30	15.85%
40	11.27%
50	5.10%

## Actuarial Assumptions

**Retirement**

**Teachers and Central Office Administrators<sup>#</sup>:** rates based on age, eligibility for pension benefits, and gender:

Age	Unreduced		Proratable		Reduced	
	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%		

**Police:** 15% at age 55 with 10 years of service; 40% at age 55 with 25 years of service; at all other ages:

Current:		Prior:	
Age	Rate	Age	Rate
45-49	25%	45-49	16%
50	20%	50	14%
51	16%	51-58	12%
52	14%	59	16%
53-58	12%	60-62	20%
59	16%	63-64	25%
60-62	20%	65+	100%
63-64	25%		
65+	100%		



## Actuarial Assumptions

**Retirement**                    **All Others:** 15% at age 55 with 10 years of service; 40% at the earlier of age 55 with 30 years of service or age 65 with 10 years of service; at all other ages:

Age	Rate
56-59	10%
60-61	20%
62-69	30%
70	100%

**Disability**                    **Teachers and Central Office Administrators<sup>#</sup>:** rates based on age and gender:

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:** None.

**Cost Blending**                    In order to dampen the volatility of the premium changes, this valuation is based on 50% of expected medical costs/premiums plus 50% of actual medical costs/premiums.

**Future Retiree Coverage**   **Teachers, Central Office Administrators, and BOE Non-Certified:** 90% of future retirees are assumed to elect coverage under the retiree medical program.

**All Others:** 100% of future retirees are assumed to elect coverage under the retiree medical program.

**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.

	Male	Female
<b>Teachers and Central Office Administrators</b>	50%	30%
<b>Police</b>	80%	80%
<b>Town</b>	70%	25%
<b>BOE Non-Certified</b>	50%	40%

**Future Post-65 Coverage**   **Teachers and Central Office Administrators:** 75% of current Non-Medicare eligible 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.

**All Others:** All current actives and pre-65 retirees are assumed to continue coverage past age 65 (if available).

## Actuarial Assumptions

**Valuation of Dental and Post-65 Medicare Eligible Medical Benefits** It is assumed that there is no implicit rate subsidy associated with these benefits.

**Valuation of Benefits for Children** Benefits attributed to children have been excluded from this valuation for all groups except Police, as they were determined to be de minimis.

# Certain actuarial demographic assumptions for Teachers and Central Office Administrators are based on the assumptions used in the June 30, 2012 valuation of the Connecticut State Teachers Retirement System.

◆ Certain actuarial demographic assumptions for Police are based on the assumptions used in the 2014 valuation of the Connecticut Municipal Employees' Retirement System.

## 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.

### Eligibility

#### Teachers and Central Office Administrators:

A Teacher or Administrator retiring shall be eligible to receive medical and dental benefits for self and spouse.

Normal Retirement for Teachers and 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.

#### Police:

Employees retiring under the Connecticut Municipal Employees' Retirement Fund B (MERF B), shall be eligible to receive health benefits for self and spouse only if similar insurance is not available through another employer or spouse's employer.

#### Town and BOE Non-Certified:

Employees retiring under the Town of Windsor Retirement Plan, shall be eligible to receive health benefits for self and spouse.

With no spouse coverage - age 55 with 10 years of service. To get spouse coverage - earlier of age 55 with 30 years of service or age 65 with 10 years of service.

Town employees shall be eligible to receive health benefits for self and spouse only if similar insurance is not available through another employer or spouse's employer.

## Summary of Plan Provisions

### Cost Sharing

#### Police:

Hired prior to July 1, 2013:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and spouse, up to a maximum retiree share of 25% of the premium.

Dental Retiree pays same percentage of premium that is in effect for current employees for self, with a maximum retiree share of 25%. Spouse coverage is available at 100% retiree-paid.

Hired on or after July 1, 2013:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and 100% for spouse.

Dental Retiree pays same percentage of premium that is in effect for current employees for self and 100% for spouse.

*\* The Town's contribution towards post-65 Medicare Supplement coverage is based on the premium of the High Option/Plan 83. If a different option is elected the retiree is also responsible for the difference in premiums.*

#### Town Administrative:

Hired prior to July 1, 2009:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and spouse, up to a maximum retiree share of 25% of the premium.

Dental Retiree contributes 0% of the cost for self and 100% for spouse.

Hired after July 1, 2009 and prior to March 1, 2013:

Medical\* Retiree contributes 25% of the cost for self and 50% for spouse.

Dental Retiree contributes 0% of the cost for self and 100% for spouse.

Hired on or after March 1, 2013:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and 100% for spouse.

Dental Retiree contributes 0% of the cost for self and 100% for spouse.

*\* The Town's contribution towards post-65 Medicare Supplement coverage is based on the premium of the High Option/Plan 83. If a different option is elected the retiree is also responsible for the difference in premiums.*

## Summary of Plan Provisions

### Cost Sharing

#### Dispatchers:

Hired prior to January 1, 2007:

**Medical\*** Retiree pays the same percentage of premium that is in effect for current employees for self and spouse, up to a maximum retiree share of 25% of the premium.

**Dental** Retiree pays the same percentage of premium that is in effect for current employees for self, with a maximum retiree share of 25%. Spouse coverage is available at 100% retiree-paid.

Hired after January 1, 2007 and prior to July 1, 2011:

**Medical\*** Retiree pays the same percentage of premium that is in effect for current employees for self and spouse, to a maximum retiree share of 25% for the retiree and 40% for the spouse.

**Dental** Retiree pays the same percentage of premium that is in effect for current employees for self, with a maximum retiree share of 25%. Spouse coverage is available at 100% retiree-paid.

Hired on or after July 1, 2011:

**Medical\*** Retiree pays the same percentage of premium that is in effect for current employees for self and 100% for spouse.

**Dental** Retiree pays the same percentage of premium that is in effect for current employees for self and 100% for spouse.

*\* The Town's contribution towards post-65 Medicare Supplement coverage is based on the premium of the High Option/Plan 83. If a different option is elected the retiree is also responsible for the difference in premiums.*

## Summary of Plan Provisions

### Cost Sharing

#### Town Teamsters:

Hired prior to July 1, 2008:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and spouse, up to a maximum retiree share of 25% of the premium.

Dental Retiree contributes 100% of the cost for self and spouse.

Hired after July 1, 2008 and prior to November 1, 2011:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and spouse, to a maximum retiree share of 25% for the retiree and 50% for the spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

Hired on or after November 1, 2011:

Medical\* Retiree pays the same percentage of premium that is in effect for current employees for self and 100% for spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

*\* The Town's contribution towards post-65 Medicare Supplement coverage is based on the premium of the High Option/Plan 83. If a different option is elected the retiree is also responsible for the difference in premiums.*

#### Board NAGE (Custodians/Maintenance/Food):

Hired prior to July 1, 2010:

Medical Retiree contributes 75% of the cost for self and 100% for spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

Hired on or after July 1, 2010:

Medical Retiree contributes 100% of the cost for self and spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

#### Board Nurses:

Medical Retiree contributes 100% of the cost for self and spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

## Summary of Plan Provisions

### Cost Sharing

#### Board Non-Affiliated:

*(negotiated cost sharing for 2015-2016)*

Hired prior to January 1, 2007:

Retiree pays the same percentage of premium that is in effect at the time of the employee's retirement.

Medical Retiree contributes 15% of the cost for self and 50% for spouse.

Dental Retiree contributes 15% of the cost for self and 25% for spouse, up to an annual cap of \$2,500.

Hired on or after January 1, 2007:

Medical Retiree contributes 100% of the cost for self and spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

#### Board Administrative Support Staff:

Hired prior to July 1, 2008:

Medical Retiree contributes 85% of the cost for self and 100% for spouse.

Dental Retiree contributes 85% of the cost for self and 100% for spouse.

Hired on or after July 1, 2008:

Medical Retiree contributes 100% of the cost for self and spouse.

Dental Retiree contributes 100% of the cost for self and spouse.

#### Teachers and Central Office Administrators:

Medical\* Retiree contributes 100% of the cost for self and spouse.

Dental\* Retiree contributes 100% of the cost for self and spouse.

\* less \$1,320 annual CT Teachers Retirement Board subsidy

#### Other Bargaining Units:

No retiree medical or dental benefits are provided.