



TOWN OF NEW CANAAN

GASB 45 VALUATION REPORT

AS OF JULY 1, 2016





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Actuarial Certification

This report presents the results of the July 1, 2016 Actuarial Valuation for the Town of New Canaan's post-retirement benefit other than pension (OPEB) for Town and Board of Education Employees (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Employer Contribution (ADEC) for the fiscal years ending June 30, 2018 and June 30, 2019. This report is intended to satisfy the requirements of Connecticut General Statute 7-450a. This report may not be appropriate for any other purpose.

The valuation has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with all applicable Actuarial Standards of Practice.


I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this valuation, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Town. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this valuation report are based on the Plan as summarized in the Summary of Plan Provisions section of this report and the actuarial assumptions and methods detailed in the Description of Actuarial Methods and Assumptions section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: 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 this report, an analysis of the potential range of such future measurements has not been performed.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.



Timothy A. Ryor, FSPA, FCA, MAAA
Enrolled Actuary 17-05126

June 9, 2017



Executive Summary

The July 1, 2016 accrued liability of \$25,317,535 is approximately 18.7% lower than expected. Gains resulted from per capita medical costs that were lower than expected.

Schedule of Funding Status and Funding Progress						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
7/1/2010	\$3,452,023	\$15,369,964	\$11,917,941	22.5%	\$49,491,000	24.1%
7/1/2012	5,406,066	26,026,821	20,620,755	20.8%	51,918,000	39.7%
7/1/2014	8,215,274	27,626,684	19,411,410	29.7%	50,969,000	38.1%
7/1/2016	9,643,494	25,317,534	15,674,040	38.1%	52,427,000	29.9%

History of Actuarially Determined Employer Contribution (ADEC)	
Year Ended June 30	Actuarially Determined Employer Contribution (ADEC)
2014	\$2,666,479
2015	2,744,420
2016	2,505,269
2017	2,578,301
2018	2,035,960
2019	2,062,462



Unfunded Actuarial Accrued Liability and Actuarially Determined Employer Contribution

GASB 45/74/75 Unfunded Actuarial Accrued Liability (UAAL)

Actuarial Accrued Liability (AAL) 7/1/2016	Town	Board of Education	Grand Total
Actives	\$10,393,042	\$2,342,907	\$12,735,949
Retirees	<u>5,653,727</u>	<u>6,927,858</u>	<u>12,581,585</u>
Total	16,046,769	9,270,765	25,317,534
Assets 7/1/2016	<u>7,763,726</u>	<u>1,879,768</u>	<u>9,643,494</u>
Unfunded Actuarial Accrued Liability (UAAL) 7/1/2016	8,283,043	7,390,997	15,674,040
Funded Ratio	48.4%	20.3%	38.1%

GASB 45/74/75 Actuarially Determined Employer Contribution (ADEC)

Actuarially Determined Employer Contribution (ADEC) 2017 / 2018 Fiscal Year	Town	Board of Education	Grand Total
Normal Cost	\$677,994	\$145,449	\$823,443
Employee Contributions	-34,651	0	-34,651
28 Year Amortization of UAAL	623,947	556,751	1,180,698
Interest	<u>42,771</u>	<u>23,699</u>	<u>66,470</u>
Total ADEC 2017 / 2018	1,310,061	725,899	2,035,960
Expected Benefit Payments 2017 / 2018	609,288	712,762	1,322,050
ADEC minus EBP 2017 / 2018	700,773	13,137	713,910

Actuarially Determined Employer Contribution (ADEC) 2018 / 2019 Fiscal Year	Town	Board of Education	Grand Total
Normal Cost	\$700,029	\$150,176	\$850,205
Employee Contributions	-35,777	0	-35,777
27 Year Amortization of UAAL	623,947	556,751	1,180,698
Interest	<u>43,477</u>	<u>23,859</u>	<u>67,336</u>
Total ADEC 2018 / 2019	1,331,676	730,786	2,062,462
Expected Benefit Payments 2018 / 2019	794,443	745,475	1,539,918
ADEC minus EBP 2018 / 2019	537,233	-14,689	522,544



Participant Counts and Average Age As of July 1, 2016

Participant Counts			
Group	Active Participants	Retirees*	Total
Town	178	80	258
Board of Education	415	110	525
Total	593	190	783

*Does not include spouses of existing retirees.

Average Age		
Group	Active Average Age	Retiree Average Age
Town	50	68
Board of Education	44	79

As of July 1, 2014

Participant Counts			
Group	Active Participants	Retirees*	Total
Town	177	76	253
Board of Education	407	104	511
Total	584	180	764

*Does not include spouses of existing retirees.

Average Age		
Group	Active Average Age	Retiree Average Age
Town	50	71
Board of Education	44	77



Projected Benefit Payments - Town

Fiscal Year Beginning July 1st	Currently Active Employees	Currently Retired Employees	Total
2017	\$141,000	\$469,000	\$610,000
2018	252,000	542,000	794,000
2019	388,000	530,000	918,000
2020	502,000	514,000	1,016,000
2021	653,000	487,000	1,140,000
2022	736,000	468,000	1,204,000
2023	871,000	452,000	1,323,000
2024	981,000	399,000	1,380,000
2025	1,099,000	385,000	1,484,000
2026	1,246,000	401,000	1,647,000
2027	1,325,000	417,000	1,742,000
2028	1,390,000	416,000	1,806,000
2029	1,421,000	432,000	1,853,000
2030	1,443,000	415,000	1,858,000
2031	1,458,000	393,000	1,851,000
2032	1,532,000	404,000	1,936,000
2033	1,672,000	415,000	2,087,000
2034	1,789,000	366,000	2,155,000
2035	1,907,000	311,000	2,218,000
2036	2,049,000	233,000	2,282,000



Projected Benefit Payments – Board of Education

Fiscal Year Beginning July 1st	Currently Active Employees	Currently Retired Employees	Total
2017	\$51,000	\$661,000	\$712,000
2018	84,000	662,000	746,000
2019	109,000	657,000	766,000
2020	124,000	593,000	717,000
2021	123,000	572,000	695,000
2022	145,000	561,000	706,000
2023	145,000	529,000	674,000
2024	157,000	512,000	669,000
2025	189,000	504,000	693,000
2026	203,000	495,000	698,000
2027	239,000	488,000	727,000
2028	274,000	480,000	754,000
2029	294,000	471,000	765,000
2030	361,000	463,000	824,000
2031	435,000	454,000	889,000
2032	471,000	444,000	915,000
2033	529,000	433,000	962,000
2034	575,000	420,000	995,000
2035	614,000	407,000	1,021,000
2036	640,000	393,000	1,033,000



Projected Benefit Payments – Total

Fiscal Year Beginning July 1st	Currently Active Employees	Currently Retired Employees	Total
2017	\$192,000	\$1,130,000	\$1,322,000
2018	336,000	1,204,000	1,540,000
2019	497,000	1,187,000	1,684,000
2020	626,000	1,107,000	1,733,000
2021	776,000	1,059,000	1,835,000
2022	881,000	1,029,000	1,910,000
2023	1,016,000	981,000	1,997,000
2024	1,138,000	911,000	2,049,000
2025	1,288,000	889,000	2,177,000
2026	1,449,000	896,000	2,345,000
2027	1,564,000	905,000	2,469,000
2028	1,664,000	896,000	2,560,000
2029	1,715,000	903,000	2,618,000
2030	1,804,000	878,000	2,682,000
2031	1,893,000	847,000	2,740,000
2032	2,003,000	848,000	2,851,000
2033	2,201,000	848,000	3,049,000
2034	2,364,000	786,000	3,150,000
2035	2,521,000	718,000	3,239,000
2036	2,689,000	626,000	3,315,000



Description of Actuarial Methods

Actuarial Cost Method: Entry Age Normal

Normal Cost

The normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation. The normal cost accrual rate equals the present value of future benefits for the participant, determined as of the participant's entry age, divided by the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

Accrued Liability

A participant's accrued liability equals the present value, at the participant's attained age, of future benefits, less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits.

The entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Amortization Method

The Unfunded Accrued Liability is amortized each year over 28 years on a closed basis.

Asset Valuation Method

Market Value.



Actuarial Assumptions – All Group Except Certified Staff

Changes in Actuarial Assumption

The valuation reflects changes in the actuarial assumptions listed below. (The assumptions used before and after these changes are more fully described in the next section.)

- Interest
- Mortality
- Retirement
- Turnover
- Disability
- Medical trend rates
- Inflation

The assumptions indicated were changed to represent the Enrolled Actuary's current best estimate of anticipated experience of the plan.

Interest

6.75%. (Prior: 7.0%.)

Since the OPEB Plan is funded, the selection of the discount rate is based on the long-term return on plan assets.

Salary Scale

Merit tables shown below, plus an annual inflation assumption of 2.75% for all groups.

<i>Police & Fire</i>			<i>Public Works & Sewer</i>			<i>All Others</i>				
<i>Years of Service</i>			<i>Years of Service</i>			<i>Years of Service</i>				
Age	0-9	10+	Age	0-4	5-14	15+	Age	0-4	5-14	15+
25	7%	1%	25	0.5%	1.5%	1%	25	0.5%	1.5%	0%
30	3%	1%	30	0.5%	1.5%	1%	30	0.5%	1.5%	0%
35	2.5%	1%	35	0.5%	1.5%	1%	35	0.5%	1.5%	0%
40	1.5%	1.5%	40	3.25%	0.5%	0.5%	40	3.25%	0.5%	0%
45	1.25%	1.25%	45	3.25%	0.5%	0.5%	45	3.25%	0.5%	0%
50	1%	1%	50	3.25%	0.5%	0.25%	50	3.25%	0.5%	0%
55	1%	0.25%	55	3.25%	0.5%	0.25%	55	3.25%	0.5%	0%
60	0%	0%	60	0%	0.5%	0%	60	0%	0.5%	0%



Salary Scale (cont.)

Prior: Age based tables as follows:

<i>Police & Fire</i>		<i>All Others</i>	
Service	Rate	Age	Rate
0	12.00%	25	6.00%
1	11.00%	30	5.50%
2	9.00%	35	5.00%
3	7.00%	40	4.50%
4	6.00%	45	4.12%
5	5.00%	50	3.97%
8	4.50%	55	3.82%
10	4.50%	60	3.67%
15	4.00%	65	3.50%
20+	3.50%	70+	3.00%

The actuarial assumptions in regard to salary scale shown on the prior page are based on the results of an actuarial experience study for the period July 1, 2010 through July 1, 2015.

Inflation

2.75%. (Prior: 3.0%.)

This assumption is based on long term historical inflation numbers. While near term averages have been lower, we do not believe this trend will continue indefinitely and expect that there will be a reversion to the long term average.

Mortality

Town Retirements - RP-2014 Adjusted to 2006 Total Dataset Mortality Table, projected to the valuation date with Scale MP-2016.

Police, Fire, Public Works and Sewer Retirements - RP-2014 Adjusted to 2006 Blue Collar Mortality Table, projected to the valuation date with Scale MP-2016.

Disabilities - RP-2014 Adjusted to 2006 Disabled Mortality Table, projected to the valuation date with Scale MP-2016.

Survivor - RP-2014 Adjusted to 2006 Total Dataset Mortality Table, projected to the valuation date with Scale MP-2016.

Prior: Retirements and Survivors: RP-2000 Mortality Table with separate male & female rates, with no collar adjustment, separate rates for annuitants and non-annuitants, projected to the valuation date with Scale AA.

Disabilities: RP-2000 Disabled Mortality Table.



Mortality improvement

Projected to date of decrement using Scale MP-2016 (generational mortality).

Prior: Retirements and Survivors: Projected to date of decrement using Scale AA (generational mortality).

Disabilities: None.

We have selected this mortality assumption because it is based on the latest published pension mortality study released by the Society of Actuaries. The group composition of the Plan is consistent with the collar adjustment selected.

Retirement rates

Police & Fire			
<i>Years of Service</i>			
Age	10-19	20-29	30+
50-54	0%	5%	5%
55-65	20%	15%	20%
66-69	20%	15%	20%
70	100%	100%	100%

Public Works & Sewer				
<i>Years of Service</i>				
Age	5-14	15-24	25-34	35+
60-64	0%	5%	15%	25%
65-69	10%	15%	25%	50%
70-74	10%	20%	20%	50%
75	100%	100%	100%	100%

All Others		
<i>Years of Service</i>		
Age	0-24	25+
50-54	3%	3%
55-59	3%	5%
60-64	12%	13%
65-69	15%	50%
70-74	7.5%	25%
75-79	20%	20%
80	100%	100%

Prior:

Police & Fire			
<i>Years of Service</i>			
Age	20-29	30	31+
50	14%	14%	14%
55	14%	50%	50%
56-64	14%	50%	18%
65	100%	100%	100%

Public Works				
<i>Years of Service</i>				
Age	< 15	15-30	30-35	35+
60	0%	5%	15%	25%
65	10%	15%	15%	50%
70	10%	20%	20%	50%
75	100%	100%	100%	100%

All Others				
<i>Years of Service</i>				
Age	< 15	15-30	30-35	35+
60	0%	5%	15%	15%
65	10%	15%	15%	20%
70	10%	20%	20%	25%
75	100%	100%	100%	100%

Termination prior to retirement

Public Works & Sewer				
<i>Years of Service</i>				
Age	<1	1	2	3+
20	11.92%	10.00%	8.40%	7.44%
25	11.12%	9.00%	7.40%	5.44%
30	10.32%	8.00%	6.40%	4.04%
35	9.52%	7.12%	5.52%	3.16%
40	8.72%	6.32%	4.72%	2.60%
45	7.92%	5.64%	4.04%	2.20%
50	7.12%	5.04%	3.44%	1.80%
55+	6.40%	4.48%	2.88%	1.44%

All Others				
<i>Years of Service</i>				
Age	<1	1	2	3+
20	36.36%	30.91%	27.27%	23.63%
25	31.82%	26.36%	22.73%	19.09%
30	27.27%	21.82%	18.18%	14.55%
35	22.73%	17.27%	13.64%	8.18%
40	18.18%	12.73%	9.09%	5.91%
45	18.64%	13.64%	9.55%	5.23%
50	16.36%	11.82%	7.95%	4.77%
55+	14.00%	10.00%	7.00%	3.50%



Termination prior to retirement (cont.)

Prior: Single 3% rate for all ages for years of service less than 10 for the Police and Fire groups.

Public Works				
<i>Years of Service</i>				
Age	<1	1	2	3+
20	11.92%	10.00%	8.40%	7.44%
25	11.12%	9.00%	7.40%	5.44%
30	10.32%	8.00%	6.40%	4.04%
35	9.52%	7.12%	5.52%	3.16%
40	8.72%	6.32%	4.72%	2.60%
45	7.92%	5.64%	4.04%	2.20%
50	7.12%	5.04%	3.44%	1.80%
55+	6.40%	4.48%	2.88%	1.44%

All Others				
<i>Years of Service</i>				
Age	<1	1	2	3+
20	40.00%	34.00%	30.00%	26.00%
25	35.00%	29.00%	25.00%	21.00%
30	30.00%	24.00%	20.00%	16.00%
35	25.00%	19.00%	15.00%	9.00%
40	20.00%	14.00%	10.00%	6.50%
45	20.50%	15.00%	10.50%	5.75%
50	18.00%	13.00%	8.75%	5.25%
55+	16.00%	12.00%	8.00%	4.00%

Disability rates

Police and Fire: 1985 Pension Disability Study Class 2 Unisex Table.

Public Works and Sewer: 1985 Pension Disability Study Class 2 Unisex Table.

All Others: 1985 Pension Disability Study Class 1 Unisex Table.

Prior: Police & Fire: 1985 Pension Disability Study Class 4 Unisex Table.

All Others: 1985 Pension Disability Study Class 2 Male Table.

The actuarial assumptions in regards to rates of decrement shown above are based on the results of an actuarial experience study for the period July 1, 2010 through July 1, 2015.

The retirement, termination and disability rates were updated to better reflect actual experience.

Percentage of Actives Eligible at Retirement who continue with Medical Coverage

All except Library:

Employee 95%
Spouse 80%

Library:

Employee & Spouse 40%

Percentage of Actives electing Medical Coverage who elect to cover a spouse

Males: 80%
Females: 80%

Age differential for spouse

Husbands 3 years older than wives.

Medical Trend Rates

7.75% for 2016, reducing 0.5% per year to a final 4.75% for 2022 and later.

Prior: 8.0% for 2014, reducing 0.5% per year to a final 5.0% for 2020 and later.



Expected per capita claims (prior to Medicare integration)

BOE Non-Certified:

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$5,318	\$7,412
50	6,945	8,636
55	9,113	10,061
60	11,739	11,735
64	14,336	13,738

All Others-PPO:

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$9,733	\$13,566
50	12,710	15,807
55	16,679	18,414
60	21,486	21,478
64	26,239	25,144

All Others-HSA:

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$7,978	\$11,120
50	10,419	12,957
55	13,672	15,095
60	17,612	17,606
64	21,509	20,611

The sample per capita claim for plans not integrated with Medicare was developed as follows: Using the total count of active participants eligible for post-retirement medical benefits and retirees currently electing medical coverage in a non-medicare supplement plan, we calculate the total projected claims by multiplying the total count by the average annual premium. Using the cost increases derived from a study sponsored by the Society of Actuaries prepared by Dale H. Yamamoto from May 2013: "Health Care Costs from Birth to Death", we allocate the total projected claims by age and gender.

Prior: The sample per capita claim for plans not integrated with Medicare was developed as follows: Using the total count of active participants eligible for post-retirement medical benefits and retirees currently electing medical coverage in a non-medicare supplement plan, we calculate the total projected claims by multiplying the total count by the average annual premium. Using the cost increases derived from a study sponsored by the Society of Actuaries prepared by J. P. Petertil from August 1, 2003: "Aging Curves for Health Care Costs in Retirement", we allocate the total projected claims by age.

For Plans integrated with Medicare, the post Medicare eligible premium is assumed to be unaffected by age.



Retiree Contribution Basis

We assume the following annual Medical rates for retiree contribution basis:

BOE Non-Certified:

Pre-65:	\$8,329
Post 65:	\$8,147

All Others:

Pre-65 PPO:	\$15,526
Pre-65 HSA:	\$12,727
Post-65:	\$5,209

Patient Protection and Affordable Care Act (PPACA)

High Cost Plan Excise Tax ("Cadillac Tax"):

Effective in 2020 there will be a 40% excise tax on per capita medical benefit costs in excess of certain thresholds, which (in 2018) are \$10,200 for single coverage and \$27,500 for family coverage for Medicare eligible retirees. Thresholds (in 2018) for retirees who are between ages 55 and 65 are \$11,850 and \$30,950 for single and family coverage respectively. After 2018, the thresholds are indexed by CPI (CPI +1% in 2018 only). The impact of this future excise tax has been reflected in plan liabilities.

Other Requirements of PPACA:

For purposes of this valuation, extended coverage for adult children and 100% coverage of preventive care are assumed to be reflected in per capita costs.

For purposes of this valuation, elimination of lifetime maximum benefits and removal of the limits on essential healthcare are assumed to have no impact on plan liabilities.



Actuarial Assumptions – Board of Education Certified

Interest

6.75%. (Prior: 7.0%.)

Since the OPEB Plan is funded, the selection of the discount rate is based on the long-term return on plan assets.

Salary Scale (including inflation) (From Connecticut State TRS 2016 Pension Valuation)

According to the following service – based schedule:

Service	Rate of Increase
0-1	6.50%
2-9	6.25
10-11	5.50
12-14	5.00
15	4.75
16	4.50
17	4.25
18	4.00
19	3.75
20	3.50
21+	3.25

Prior: According to the following service-based schedule:

Service	Rate of Increase
0	7.50%
1	7.00
2	6.50
3	4.00
4	4.00
5+	3.50

The actuarial assumption in regards to rates of compensation increase is based on the rates used by the Connecticut State Teachers' Retirement System actuaries.

Inflation

2.75%. (Prior: 3.0%.)

This assumption is based on long term historical inflation numbers. While near term averages have been lower, we do not believe this trend will continue indefinitely and expect that there will be a reversion to the long term average.



Mortality

RP-2014 Adjusted to 2006 Total Dataset Mortality Table, projected to the valuation date with Scale MP-2016.

Prior: As used in the Connecticut State Teachers' Retirement System 2010 OPEB Valuation; age 61 and under use the Pre-retirement rates, 62 and over the Post-retirement rates.

Age	Male Rate	Female Rate
25	.0210%	.0109%
35	.0431	.0249
45	.0790	.0527
55	.1489	.1316
61	.3282	.3029
62	.4966	.4596
65	.7659	.6953
75	2.2802	2.0100
85	7.7020	5.4696
95	22.0697	16.4072
105	38.3040	26.6044
110	100.0000	100.0000

Mortality improvement

Projected to date of decrement using Scale MP-2016 (generational mortality).

Prior: None.

We have selected this mortality assumption because it is based on the latest published pension mortality study released by the Society of Actuaries.

Service-Based Withdrawal Rates (until eligible to retire) (from CT State TRS 2016 Valuation)

Age	Male Rate	Female Rate
0-1	.1400	.1200
1-2	.1100	.1050
2-3	.0800	.0875
3-4	.0650	.0750
4-5	.0450	.0675
5-6	.0350	.0600
6-7	.300	.0525
7-8	.0275	.0475
8-9	.0250	.0425
9-10	.0250	.0400
10 +	use age-related rates until eligible to retire	



Service-Based Withdrawal Rates (until eligible to retire) (from CT State TRS 2016 Valuation) (cont.)

Prior: Service-Based Withdrawal Rates (until eligible to retire) (from CT State TRS 2010 OPEB Valuation)

Service	Male Rate	Female Rate
0-1	.1400	.1200
1-2	.0850	.0900
2-3	.0550	.0700
3-4	.0450	.0600
4-5	.0350	.0550
5-6	.0250	.0500
6-7	.0240	.0450
7-8	.0230	.0350
8-9	.0220	.0300
9-10	.0210	.0250
10 +	use age-related rates until eligible to retire	

The actuarial assumption in regards to rates of termination is based on the rates used by the State of Connecticut Teachers' Retirement Plan actuaries.

Sample Age-Based Withdrawal Rates (until eligible to retire) (from CT State TRS 2016 Valuation)

Age	Male Rate	Female Rate
25	.0150	.0400
30	.0150	.0400
35	.0150	.0350
40	.0150	.0230
45	.0159	.0150
50	.0204	.0200
55	.0344	.0250
59+	.0400	.0290

Sample Age-Based Withdrawal Rates (until eligible to retire) (cont.)

Prior: Sample Age-Based Withdrawal Rates (until eligible to retire) (from CT State TRS 2010 OPEB Valuation)

Age	Male Rate	Female Rate
25-37	.0120	.0350
40	.0120	.0230
45	.0126	.0140
50	.0196	.0125
55	.0336	.0160
59+	.0400	.0190

The actuarial assumption in regards to rates of termination is based on the rates used by the State of Connecticut Teachers' Retirement Plan actuaries.

Age at Retirement

Age 50 and 25 years or Age 55 and 20 years or Age 60 and 10 years of service.



Assumed Rates of Retirement (from CT State TRS 2016 OPEB Valuation)

Age	Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. or 35 yrs. Serv.)		Eligible for Early (Reduced) Retirement (Age 55 and 20 Yrs. Serv. or 25 yrs. Serv.)	
	Male	Female	Male	Female
50	27.5%	27.5%	1.00%	1.00
51	27.5	27.5	1.00	1.25
52	27.5	27.5	1.00	1.75
53	27.5	27.5	2.00	2.25
54	27.5	27.5	3.00	2.75
55	38.5	27.5	4.00	4.75
56	38.5	27.5	6.00	6.25
57	38.5	27.5	7.00	6.75
58	38.5	27.5	8.00	7.25
59	38.5	27.5	11.00	8.50
60	22.0	27.5		
61-62	25.3	27.5		
63-64	27.5	27.5		
65	36.3	32.5		
66-69	27.5	32.5		
70-79	100.0	32.5		
80	100.0	100.0		



Assumed Rates of Retirement (cont.)

Prior:

Age	Eligible for Normal (Unreduced) Retirement Age 60 and 20 yrs. Serv. or 35 yrs. Serv.		Eligible for Early (Reduced) Retirement Age 55 and 20 yrs. Serv. or 25 yrs. Serv.	
	Male	Female	Male	Female
50-51	27.5%	15.0%	2.0%	2.0%
52	27.5	15.0	3.0	4.0
53	27.5	15.0	3.0	4.5
54	27.5	15.0	5.0	5.5
55	38.5	30.0	5.0	7.5
56	38.5	30.0	7.0	8.5
57	38.5	30.0	10.0	9.5
58	38.5	30.0	11.0	10.0
59	38.5	30.0	12.0	10.0
60	22.0	20.0		
61-62	25.3	22.5		
63-64	27.5	22.5		
65	36.3	30.0		
66-69	27.5	30.0		
70-79	100.0	40.0		
80	100.0	100.0		

The actuarial assumption in regards to rates of retirement shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries.

Percentage of Actives Eligible at Retirement who continue with Medical Coverage

95%

Percentage of non-Medicare eligible retirees over age 65 (hired prior to 1986)

5%

Percentage of Actives electing Medical Coverage who elect to cover a Spouse

Males 40%

Females 40%

Age differential for Spouse of New Retiree

Husbands 3 years older than wives.

Medical Trend Rates

7.75% for 2016, reducing 0.5% per year to a final 4.75% for 2022 and later.

Prior: 8.0% for 2014, reducing 0.5% per year to a final 5.0% for 2020 and later.



Expected per Capita claims (without Medicare integration)

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$5,318	\$7,412
50	6,945	8,636
55	9,113	10,061
60	11,739	11,735
65	14,947	14,224
70	17,981	16,636
75	20,634	18,675

The sample per capita claim for plans not integrated with Medicare was developed as follows: Using the total count of active participants eligible for post-retirement medical benefits and retirees currently electing medical coverage in a non-medicare supplement plan, we calculate the total projected claims by multiplying the total count by the average annual premium. Using the cost increases derived from a study sponsored by the Society of Actuaries prepared by Dale H. Yamamoto from May 2013: "Health Care Costs from Birth to Death", we allocate the total projected claims by age and gender.

Prior: The sample per capita claim for plans not integrated with Medicare was developed as follows: Using the total count of active participants eligible for post-retirement medical benefits and retirees currently electing medical coverage in a non-medicare supplement plan, we calculate the total projected claims by multiplying the total count by the average annual premium. Using the cost increases derived from a study sponsored by the Society of Actuaries prepared by J. P. Petertil from August 1, 2003: "Aging Curves for Health Care Costs in Retirement", we allocate the total projected claims by age.

For Plans integrated with Medicare, the post Medicare eligible premium is assumed to be unaffected by age.

Retiree Contribution Basis

We assume the following annual Medical rates for retiree contribution:

Pre 65: \$8,329
Post 65: 8,147

Patient Protection and Affordable Care Act (PPACA)

High Cost Plan Excise Tax ("Cadillac Tax"):

Effective in 2020 there will be a 40% excise tax on per capita medical benefit costs in excess of certain thresholds, which (in 2018) are \$10,200 for single coverage and \$27,500 for family coverage for Medicare eligible retirees. Thresholds (in 2018) for retirees who are between ages 55 and 65 are \$11,850 and \$30,950 for single and family coverage respectively. After 2018, the thresholds are indexed by CPI (CPI +1% in 2018 only). The impact of this future excise tax has been reflected in plan liabilities.

Other Requirements of PPACA:

For purposes of this valuation, extended coverage for adult children and 100% coverage of preventive care are assumed to be reflected in per capita costs.

For purposes of this valuation, elimination of lifetime maximum benefits and removal of the limits on essential healthcare are assumed to have no impact on plan liabilities.



Summary of Plan Provisions

This summary is provided for valuation purposes only. It outlines the major features of the Plan.

Eligibility

Police & Fire: Age 50 with 20 years of service or 25 years of service, or disability retirement.

DPW: Normal retirement at age 65 with 5 years of service; early retirement at age 60 with 25 years of service; or disability retirement.

BOE Certified: Normal retirement at age 60 with 20 years of service or 35 years at any age; early retirement at age 55 with 20 of service or 25 years at any age.

All others: Normal retirement at age 65 with 5 years of service; early retirement at age 55 with 15 of service; or disability retirement.

Cost Sharing Town Non-Bargained

Non-bargained, retired before June 30, 2001: Retiree is responsible for entire health premium.

Non-bargained, retired between July 1, 2001 and June 30, 2007: Retiree is responsible for entire health premium. The Town provides a stipend of up to \$2,400 per year in total for the retiree's or spouse's coverage.

Non-bargained, retired between July 1, 2007 and June 30, 2011: The retiree's health premium is paid by the Town until death. The town provides a stipend of up to \$2,400 per year for spouse's coverage, if applicable.

Non-bargained, retired on or after July 1, 2011: The Town pays the retiree's health premium until death, subject to the retiree's premium contribution which is the same percentage rate as active employees on the date of the employee's retirement (*based on the dual rate*). The Town pays a stipend of up to \$2,400 per year in total for the retiree's or spouse's benefits.

Non-bargained Employees hired on or after January 1, 2011 shall pay 50% of the premium cost for retiree single coverage.



Cost Sharing Public Works Union

DPW, retired before June 30, 2001: Retiree is responsible for entire health premium.

DPW, retired July 1, 2001 – June 30, 2007: The retiree's health premium is paid by the Town from time of unreduced retirement until age 65.

DPW, retired July 1, 2007 – December 31, 2011: The retiree's health premium is paid by the Town from the time of unreduced retirement date, until death.

DPW, retired January 1, 2012 – June 30, 2014: The Town pays the retiree's health premium until death, subject to the retiree's premium contribution which is the same as that of active employees (*based on the dual rate*). The Town pays a stipend of up to \$2,500 per year for spouse's medical benefits until age 65.

DPW, retired on or after July 1, 2014: The Town pays the retiree's health premium until death, subject to the retiree's premium contribution which is the same as that of active employees (*based on the dual rate*). The Town pays a stipend of up to \$2,250 per year for retiree's or spouse's medical benefits until age 65.

DPW Employees hired on or after July 1, 2010 shall pay 50% of the premium cost for retiree single coverage. There is no spouse stipend for employees hired on or after July 1, 2010.

Effective January 1, 2011, **DPW Actives** contribute 0.25% to OPEB. Effective January 1, 2015, Actives contribute 0.5%. Effective January 1, 2016, Actives contribute 0.75%.

Cost Sharing Library

Library: Library employees are not eligible for retiree health at time of retirement.

Cost Sharing Police

Police, retired before June 30, 2000: Retiree is responsible for entire health premium.

Police, retired July 1, 2000 – June 30, 2003: Retiree's health premium is paid by the Town until age 65. Stipend of up to \$2,200 of premiums per year for spouse coverage, until spouse is 65.

Police, retired July 1, 2003 – June 30, 2006: Retiree's health and dental premiums are paid by the Town until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage, until spouse is 65.

Police, retired July 1, 2006 – June 30, 2012: Retiree's health premium is paid by the Town until death. Retiree's dental premium is paid by the Town until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage.

Police, retired July 1, 2012 – June 30, 2014: Retiree's health premium is paid by the Town until death, subject to the retiree's premium contribution which is the same percentage rate as active employees (*based on the dual rate*). Retiree's dental premium is paid by the Town until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage. Retiree may elect to waive retiree medical coverage. Town will compensate retiree \$4,000 annually. Retiree may not subsequently receive coverage under the Town's plans once the retiree makes this election.

Police, retired July 1, 2014 – present: Retiree's health premium is paid by the Town until death, subject to the retiree's premium contribution which is the same percentage rate as active employees (based on the dual rate). Retiree's dental premium is paid by the Town until age 65. Stipend of up to \$2,000 of premiums per year for spouse coverage. Retiree may elect to waive retiree medical coverage. Town will compensate retiree \$4,000 annually. Retiree may not subsequently receive coverage under the Town's plans once the retiree makes this election.



Cost Sharing Fire

Fire, retired before July 1, 1994: Town pays up to \$750 per year towards health premium.

Fire, retired July 1, 1994 – June 30, 2000: Town pays retiree health premium until age 65.

Fire, retired July 1, 2000 – June 30, 2003: Town pays retiree health premium until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage, until spouse is 65.

Fire, retired July 1, 2003 – June 30, 2007: Town pays retiree health premium until death, dental premium until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage, until spouse is 65.

Fire, retired July 1, 2007 – December 31, 2011: Town pays retiree health premium until death, dental premium until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage, until spouse is 65.

Fire, retired January 1, 2012 – June 30, 2014: Town pays retiree health premium until death, subject to the retiree's premium contribution which is the same percentage rate as active employees (*based on the dual rate.*) Dental premium until age 65. Stipend of up to \$2,500 of premiums per year for spouse coverage, until spouse is 65.

Fire, retired on or after July 1, 2014: Town pays retiree health premium until death, subject to the retiree's premium contribution which is the same percentage rate as active employees on the date of the employee's retirement (*based on the dual rate.*) Dental premium until age 65. Stipend of up to \$2,250 of premiums per year for spouse coverage, until spouse is 65. Retiree may elect to waive retiree medical coverage. Town will compensate retiree \$4,000 annually. Retiree may not subsequently receive coverage under the Town's plans once the retiree makes this election.

Cost Sharing Town Hall Union

Town Hall Union, retired before June 30, 2001: Retiree is responsible for entire health premium.

Town Hall Union, retired July 1, 2001 – June 30, 2007: Retiree is responsible for entire health premium. The Town provides a stipend of up to \$2,400 per year in total for the retiree's or spouse's coverage.

Town Hall Union, retired July 1, 2007 – June 30, 2011: The retiree's health premium is paid by the Town until death. The town provides a stipend of up to \$2,400 per year for spouse's coverage, if applicable.

Town Hall Union Employees hired on or after January 1, 2011 who retire shall pay 50% of the premium cost for retiree single coverage.

Town Hall Union, retired July 1, 2011 – December 31, 2014: The Town pays the retiree's health premium until death, subject to the retiree's premium contribution which is the same percentage rate as in effect for active employees (*based on the dual rate.*) The town provides a stipend of up to \$2,400 per year for spouse's coverage, if applicable.

Town Hall Union, retired on or after January 1, 2015: Retiree's health premium is paid by the Town until death, subject to the retiree's premium contribution which is the same percentage rate as in effect for active employees (*based on the dual rate.*) Stipend of up to \$2,250 of premiums per year for spouse coverage, until spouse is age 65.

Effective July 1, 2015, **Town Hall Union** Actives contribute 0.5% to OPEB. Effective July 1, 2016, Actives contribute 0.75%.



Cost Sharing BOE Custodians

For those employees hired before September 1, 1989, coverage is provided to the retiree only for life. The Board pays 50% or 63.75% of the premium, based on years of service.

Cost Sharing BOE Secretaries

For those employees hired before September 1, 1989, coverage is provided to the retiree only for life. The Board pays 50% or 63.75% of the premium, based on years of service.

Cost Sharing BOE Certified

Retired before September 1, 1993: Insurance coverage is provided to retiree and spouse for life. Board pays 50%, 60%, or 75% based on years of service. Teachers Retirement Board reimburses \$110 per person per month.

For those employees hired before September 1, 1989:

Retired September 1, 1993 to August 31, 2007: Insurance coverage is provided to retiree and spouse for life if participant worked at least 15 years. Board pays a \$2,000 annual stipend until the retiree is 65. Teachers Retirement Board reimburses \$110 per person per month.

Retired after August 31, 2007: Insurance coverage is provided to retiree and spouse until they reach age 65. Board pays a \$2,000 annual stipend until the retiree is 65. Teachers Retirement Board reimburses \$110 per person per month.

For those employees hired after September 1, 1989:

No annual stipend is provided; retiree and spouse must pay 100% of the cost for coverage (less TRB subsidy).

Life Insurance

Police & Fire receive a \$75,000 life insurance benefit, until age 65.