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June 1, 2018

PERSONAL & CONFIDENTIAL

Ms. Linda Savitsky
Interim Director of Finance
City of West Haven
355 Main Street
West Haven, CT 06516

Re: City of West Haven Other Post-Employment Benefits Program
July 1, 2015 Actuarial Valuation

Dear Linda:

We are pleased to provide this actuarial report for the City of West Haven Other Post-Employment Benefits Program. The report shows the financial status of the plan as of July 1, 2015.

We have included 10 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

RAS:jc

WHV060118OPEBFYE2015



**CITY OF WEST HAVEN
OTHER POST-EMPLOYMENT BENEFITS PROGRAM**

July 1, 2015 Actuarial Valuation

Prepared by

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TABLE OF CONTENTS

Certification	1
Discussion of Experience	3
The Valuation Process	4
Implicit Rate Subsidies	5
Summary of Liabilities	6
Projected Payouts	7
Projected Liabilities	8
Summary of Census Data	9
Current Premiums	10
Expected Healthcare Costs	11
Glossary	12
Actuarial Method	14
Actuarial Assumptions	15
Summary of Plan Provisions	19

Certification

We have performed an actuarial valuation of the City of West Haven 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.

The ultimate cost of an OPEB plan is the total amount needed to provide benefits for plan members and beneficiaries and to pay the expenses of administering the plan. OPEB costs are met by contributions and by investment return on any plan assets. The principal purpose of this report is to set forth an actuarial determination of plan liabilities. In addition, this report provides:

- Information needed to meet disclosure requirements
- Review of plan experience since the last valuation to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application.
- Assessment of the relative funded position of the plan, i.e., through a comparison of plan assets and projected plan liabilities.
- Comments on any other matters which may be of assistance in the operation of the plan.

This report may not be used for purposes other than those listed above without Milliman's prior written consent. If this report is distributed to other parties, it must be copied in its entirety, including this certification section. 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 other purposes.

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 or accounting standards. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

In preparing this report, we relied on employee census data, claims and premium information as of the valuation date, furnished by the City. 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.

Certification

In our opinion, each assumption used is individually reasonable (taking into account the experience of the plan and reasonable expectations) and, in combination, offer our best estimate of anticipated experience under the plan. On the basis of the foregoing, we hereby certify that to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

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

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 actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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.



Rebecca A. Sielman, FSA
Consulting Actuary



Jennifer M. Castelhana, FSA
Consulting 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 1,915 to 1,479. The total number of active members decreased from 1,084 to 901, and the total number of retirees and spouses of retirees decreased from 831 to 578.

The average age of active members stayed the same at 47.8, and the average age of retired members decreased from 69.4 to 66.5.

Assumption and Method Changes

Discount Rate: We changed the discount rate assumption from a fixed 4.00% rate to a variable assumption based on the Bond Buyer General Obligation 20-Year Municipal Bond Index as of the end of the fiscal year containing the valuation date. For this valuation, it is 2.85% based on the Index as of June 30, 2016.

Medical Claims Costs: We updated the expected claims costs based on our analysis of the claims experience and premium information that was 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. This assumption was revised to an initial inflation rate of 6.37%, grading down to an ultimate inflation rate of 4.40% over a period of 70 years (Prior valuation: an initial inflation rate of 8.00% graded down to an ultimate inflation rate of 5.00% over a period of 6 years).

We changed the actuarial cost method from Projected Unit Credit to Entry Age Normal. The Entry Age Normal cost method will be required starting in FY 2017 for financial reporting purposes per GASB 74 and 75; making this change provides the City with a single set of results for all plan liability reporting purposes.

Police: Certain actuarial demographic assumptions for Police are based on the assumptions used in the January 1, 2016 City of West Haven Police Pension Plan.

Teachers and Administrators: Certain actuarial demographic assumptions for Teachers and Administrators are based on the assumptions used in the June 30, 2016 valuation of the Connecticut State Teachers' Retirement System.

All others: Certain actuarial demographic assumptions for City Employees are based on the assumptions used in the 2016 valuation of the Connecticut Municipal Employees' Retirement System.

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 trend rate 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?

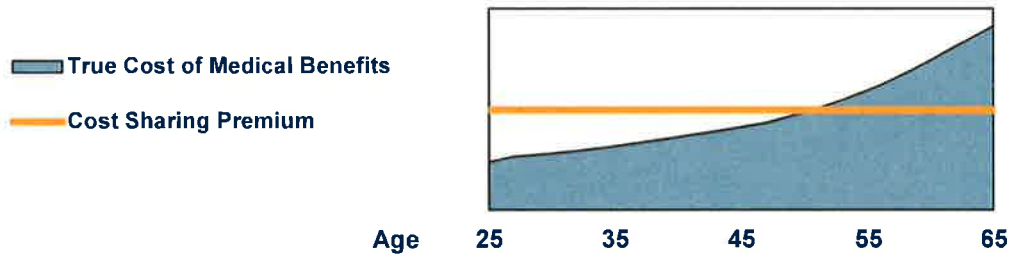
Discount Rate assumption: What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the City, 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").

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 75 requires 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 City is calculated as the difference between the gross liability and the offset liability.

Summary of Liabilities

We have calculated the Accrued Liability separately for four groups of City employees. 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 City, taking into account any implicit rate subsidies.

	Police	City	BOE Certified	BOE Non- Certified	Total
Current active members					
Employees under age 65	\$6,646,579	\$1,904,319	\$9,062,173	\$2,370,800	\$19,983,871
Employees over age 65	3,107,395	8,092,976	9,065,844	24,043,848	44,310,063
Dependents under age 65	2,441,497	612,687	1,459,080	223,294	4,736,558
Dependents over age 65	<u>882,278</u>	<u>1,135,782</u>	<u>2,626,976</u>	<u>2,262,080</u>	<u>6,907,116</u>
Total	13,077,749	11,745,764	22,214,073	28,900,022	75,937,608
Current retired members					
Employees under age 65	12,946,293	63,595	3,481,008	2,209,539	18,700,435
Employees over age 65	6,070,758	788,546	21,649,809	17,318,381	45,827,494
Dependents under age 65	20,987,206	652,823	1,449,182	114,083	23,203,294
Dependents over age 65	<u>6,759,932</u>	<u>366,488</u>	<u>1,289,238</u>	<u>2,890,114</u>	<u>11,305,772</u>
Total	46,764,189	1,871,452	27,869,237	22,532,117	99,036,995
Total Accrued Liability	59,841,938	13,617,216	50,083,310	51,432,139	174,974,603

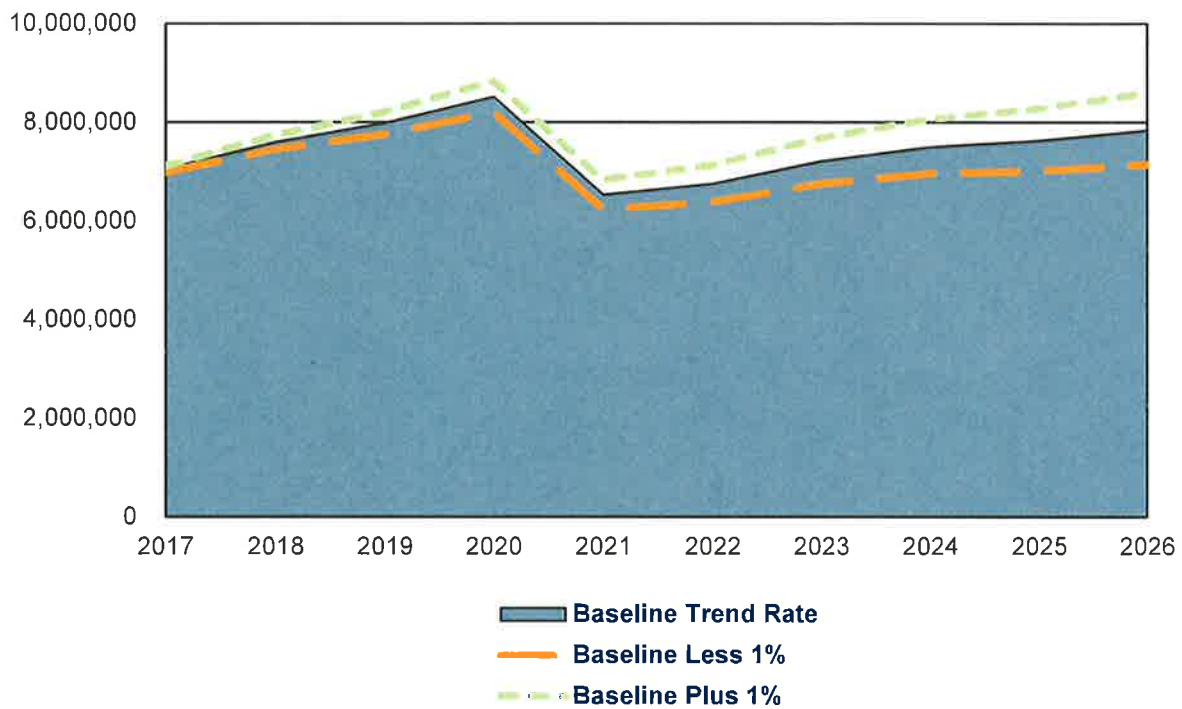
The following presents information regarding how sensitive the Accrued Liability is to changes in either the discount rate or the trend rate.

	1% Decrease 1.85%	Baseline 2.85%	1% Increase 3.85%
Discount Rate Sensitivity			
Accrued Liability	203,977,672	174,974,603	151,953,466
Trend Rate Sensitivity			
Accrued Liability	150,699,642	174,974,603	205,861,774

Projected Payouts

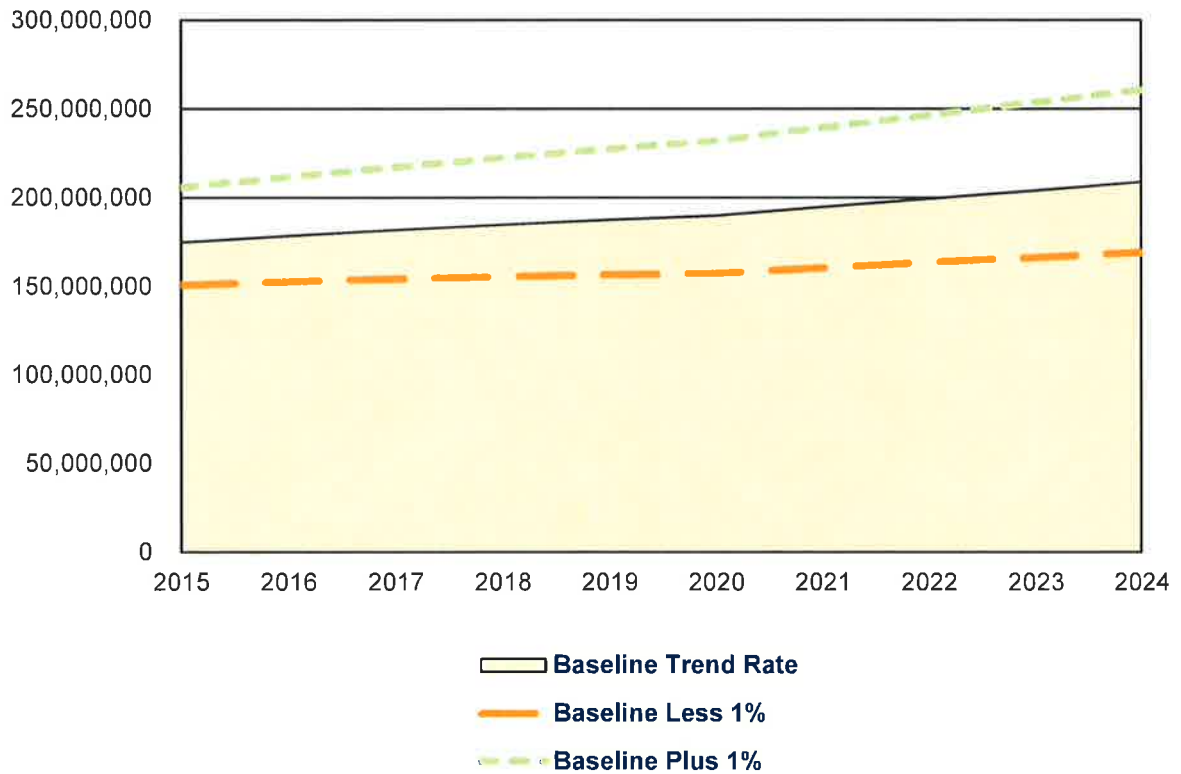
The table and graph below show the expected annual payments for OPEB benefits for the next 10 years.

Fiscal Year	Baseline Less 1%	Baseline Trend Rate	Baseline Plus 1%
2017	\$6,991,367	\$7,056,148	\$7,120,929
2018	7,460,906	7,600,006	7,740,424
2019	7,771,658	7,990,267	8,213,047
2020	8,209,031	8,518,738	8,837,363
2021	6,241,761	6,534,786	6,839,125
2022	6,394,536	6,756,349	7,135,714
2023	6,764,853	7,213,699	7,688,812
2024	6,971,560	7,502,478	8,069,825
2025	7,025,181	7,628,593	8,279,551
2026	7,151,503	7,842,283	8,594,577



Projected Liabilities

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



This work product was prepared solely for the City 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.

Summary of Census Data

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

	Police	City	BOE Certified	BOE Non- Certified	Total
Number of members					
Active	101	172	442	186	901
Retired members	92	17	166	145	420
Beneficiaries	28	2	13	2	45
Spouses of retirees	70	3	20	20	113
Total	291	194	641	353	1,479
Average age					
Active	40.0	52.4	44.9	54.7	47.8
Retired members	55.5	76.2	65.0	74.1	66.5
Average retirement age					
Active	55.4	62.9	60.6	63.4	61.0
Retired members	N/A	N/A	N/A	N/A	N/A
Expected lifetime					
Active [to retirement]	15.5	10.5	15.7	8.7	13.2
Retired [lifetime]	26.9	11.5	9.3	13.9	14.8

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 City regarding current plan elections, the following weighted average blended actual premiums were used:

2015 - 2016 Monthly Premiums		Employee	Spouse
Medical - Police	Pre-65	\$813.72	\$1,049.83 *
	Post-65	219.35	219.35
Medical - City	Pre-65	813.72	866.96
	Post-65	219.35	219.35
Medical - BOE Certified	Pre-65	776.10	849.45
	Post-65	776.10	849.45
Medical - BOE Non-Certified	Pre-65	776.10	849.45
	Post-65	322.64	322.64
Dental		36.77	57.71
Medicare Part B		104.90	104.90

* 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 health care costs (per person per month) are shown below.

Age	Police		City	
	Employee	Spouse*	Employee	Spouse
40	\$663	\$928	\$663	\$618
45	728	1,003	728	692
50	814	1,117	814	806
55	961	1,252	961	941
60	1,187	1,427	1,187	1,116
65	123	123	123	123
70	144	140	144	140
75	162	156	162	156
80	176	168	176	168

Age	BOE Certified Non-Medicare		BOE Certified Medicare	
	Employee	Spouse	Employee	Spouse
40	\$772	\$486	\$772	\$486
45	816	573	816	573
50	875	707	875	707
55	983	874	983	874
60	1,164	1,086	1,164	1,086
65	1,589	1,593	470	471
70	1,807	1,860	538	548
75	2,019	2,107	603	619
80	2,176	2,283	650	670

Age	BOE Non-Certified	
	Employee	Spouse
40	\$772	\$486
45	816	573
50	875	707
55	983	874
60	1,164	1,086
65	470	471
70	538	548
75	603	619
80	650	670

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 for Police.

Glossary

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 under GASB 45 – Unit Credit, Entry Age Normal, Attained Age, Aggregate, Frozen Entry Age, and Frozen Attained Age. Entry Age Normal is required under GASB 75.

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. 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.

Actuarially Determined Contribution (“ADC”) - This is the employer's periodic contributions to a defined benefit OPEB plan, calculated in accordance with actuarial standards of practice.

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 75 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 is based on a municipal bond index at the measurement date.

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

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.

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.

Trend Rate - This is the rate at which medical or dental costs are assumed to increase over time.

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 **Entry Age Normal Cost Method**. Recommended annual contributions consist of two pieces: Normal Cost plus a payment towards the Unfunded Accrued Liability.

The **Normal Cost** is determined by calculating the present value of future benefits for present active Members. This cost is then spread as a level percentage of earnings from entry age to termination as an Active Member. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the **Accrued Liability**. In fact, it is calculated by adding the present value of benefits for Retired and Terminated Vested Members to the present value of benefits for Active Members and subtracting the present value of future Normal Costs Contributions.

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.

Discount Rate	2.85%	(Prior: 4.00%)
Inflation Rate	2.75%	
Medical Trend Rate	6.37% - 4.40% over 70 years (Prior: 8.00% - 6.00% over 6 years)	
Dental Trend Rate	3.00%	(Prior: 5.00%)
Salary Scale	Police and All Others: 3.50%	

Teachers and Administrators[#]:

Service	Rate
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%

Mortality

Police: RP-2000 Mortality Table (with blue collar adjustment) for Healthy Annuitants and Non-Annuitants projected to 2020 per Scale AA. This assumption includes a margin for improvements in longevity beyond the valuation date. No deaths are assumed to be in the line of duty.

Teachers and Administrators[#]: RP-2000 Combined Healthy Mortality Table for males and females 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.

All Others^{*}: 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.

Actuarial Assumptions

Turnover

Police: None

Teachers and 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	11.00%	10.50%
2-3	8.00%	8.75%
3-4	6.50%	7.50%
4-5	4.50%	6.75%
5-6	3.50%	6.00%
6-7	3.00%	5.25%
7-8	2.75%	4.75%
8-9	2.50%	4.25%
10+	2.50%	4.00%

Age	Male	Female
25	1.50%	4.00%
35	1.50%	3.50%
45	1.59%	1.50%
55	3.44%	2.50%

All Others[†]: rates based on age and gender:

Age	Male	Female
20	18.00%	20.00%
25	18.00%	20.00%
30	12.00%	15.00%
35	10.00%	12.00%
40	7.50%	10.00%
45	5.00%	7.50%
50+	5.00%	5.00%

Actuarial Assumptions

Retirement

Police: 40% are assumed to retire on the 25th anniversary of employment; 95% of the remaining are assumed to retire on the 30th anniversary of employment and every year thereafter; all remaining participants are assumed to retire no later than age 65 or attained age.

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

Age	Unreduced		Proratable		Reduced	
	Male	Female	Male	Female	Male	Female
50	27.50%	27.50%			1.00%	1.00%
51	27.50%	27.50%			1.00%	1.25%
52	27.50%	27.50%			1.00%	1.75%
53	27.50%	27.50%			2.00%	2.25%
54	27.50%	27.50%			3.00%	2.75%
55	38.50%	27.50%			4.00%	4.75%
56	38.50%	27.50%			6.00%	6.25%
57	38.50%	27.50%			7.00%	6.75%
58	38.50%	27.50%			8.00%	7.25%
59	38.50%	27.50%			11.00%	8.50%
60	22.00%	27.50%	6.00%	5.50%		
61	25.30%	27.50%	6.00%	6.50%		
62	25.30%	27.50%	9.00%	7.50%		
63	27.50%	27.50%	11.00%	7.50%		
64	27.50%	27.50%	10.00%	8.00%		
65	36.30%	32.50%	13.00%	12.50%		
66-67	27.50%	32.50%	20.00%	12.50%		
68	27.50%	32.50%	20.00%	12.00%		
69	27.50%	32.50%	30.00%	14.50%		
70-73	100.00%	32.50%	30.00%	14.50%		
74-79	100.00%	32.50%	30.00%	18.00%		
80	100.00%	100.00%	100.00%	100.00%		

All Others⁺: 10% at age 55 with 10 years of service; 15% at any age with 25 years of service; at all other ages:

Age	Rate
to 50	1.00%
50-54	2.00%
55-59	5.00%
60-61	8.00%
62	10.00%
63-64	15.00%
65	20.00%
66-74	15.00%
75+	100.00%

Actuarial Assumptions

Future Retiree Coverage	100% of active employees eligible for City-subsidized benefits are assumed to elect coverage at retirement.
Future Dependent Coverage	25% of current active members are assumed to elect dependent coverage at retirement when coverage is available.
Future Post-65 Coverage	Teachers and Administrators: 100% of 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. 95% of current actives and pre-65 retirees are assumed to be Medicare-eligible . All Others: All current actives and pre-65 retirees are assumed to continue coverage past age 65 (if available).
Valuation of Dental and Life Insurance 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 Administrators are based on the assumptions used in the June 30, 2016 valuation of the Connecticut State Teachers' Retirement System; however, the Mortality assumption is based on the June 30, 2014 valuation of the Connecticut State Teachers' Retirement System.

◆ Certain actuarial demographic assumptions for City Employees are based on the assumptions used in the 2016 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.

Police (Local 895)

Eligibility	The earlier of age 65 or attainment of 20 years of service
Cost Sharing	Retirees pay 100% of the active contribution rate (12% effective July 1, 2015) for self and spouse.
Life Insurance	\$10,000

Officials and Communication Workers of the City (Local 1103)

Eligibility	The earlier of age 65 with the attainment of 5 years of service, age 50 with the attainment of 10 years of service, or the attainment of 20 years of service
Cost Sharing	<u>Hired prior to 1/1/2011:</u> Pre-Medicare: Retirees pay 100% of the active contribution rate (12% effective July 1, 2015) for self and spouse. Post-Medicare: Retirees pay 100% of the active contribution rate (12% effective July 1, 2015) for self and spouse, up to a maximum contribution of \$1,000 per year each. <u>Hired after 1/1/2011:</u> Retirees pay 25% of the premium for self and 50% of the premium for spouse.
Medicare Part B	100% reimbursement
Life Insurance	\$25,000

Summary of Plan Provisions

ERS Employees (Local 77)

Eligibility	20 years of service
Cost Sharing	<u>Hired prior to 6/30/2011:</u> Retirees pay 100% of the active contribution rate (15% effective July 1, 2013) for self and spouse. <u>Hired after 6/30/2011:</u> Retirees pay 25% of the premium for self and 50% of the premium for spouse.
Medicare Part B	100% reimbursement
Life Insurance	\$8,000

Waste Management Employees (Local 1303-345)

Eligibility	The earlier of age 65 with the attainment of 5 years of service or age 50 with the attainment of 20 years of service
Cost Sharing	<u>Hired prior to 1/1/2012:</u> Pre-Medicare: Retirees pay 100% of the active contribution rate (10% effective July 1, 2014) for self and spouse. Post-Medicare: Retirees pay 100% of the active contribution rate (10% effective July 1, 2014) for self and spouse, up to a maximum contribution of \$1,000 per year each. <u>Hired after 1/1/2012:</u> Retirees pay 25% of the premium for self and 50% of the premium for spouse.
Life Insurance	\$25,000

Summary of Plan Provisions

General Employees (Local 681)

Eligibility	The earlier of age 65 with the attainment of 5 years of service, age 55 with the attainment of 15 years of service, or the attainment of 20 years of service
Cost Sharing	<u>Hired prior to 7/1/2010:</u> Pre-Medicare: Retirees pay 100% of the active contribution rate (12% effective July 1, 2015) for self and spouse. Post-Medicare: City pays 100% of the cost of insurance for retiree and spouse. <u>Hired after 7/1/2010:</u> Retirees pay 25% of the premium for self and 50% of the premium for spouse.
Medicare Part B	100% reimbursement
Life Insurance	\$25,000

Teachers (Local 1547)

Eligibility	20 years of service
Cost Sharing	Retirees and their dependants are covered for a period of five (5) years from date of retirement. Retirees after 9/1/2004 may add an additional five (5) years of coverage. Retirees pay 100% of the active contribution rate (19% effective July 1, 2015) for self and spouse.
Life Insurance	\$50,000 for a maximum of 10 years

Administrators

Eligibility	Age 52 with the attainment of 12.5 years of service and 75 years of combined age and service by the CT Teacher Retirement System
Cost Sharing	City pays 100% of the cost of insurance for the retiree and their spouse.
Life Insurance	\$60,000

Nurses (Local 1547)

Eligibility	Age 65 with the attainment of 20 years of service
Cost Sharing	Retirees pay 100% of the premium for self and spouse.
Life Insurance	None

Summary of Plan Provisions

Communication Workers of the Board of Education (Local 1103)

Eligibility	The earlier of age 65 with the attainment of 5 years of service or age 55 with the attainment of 10 years of service
Cost Sharing	Pre-Medicare: Retirees pay 100% of the active contribution rate (15% effective July 1, 2013) for self and 100% of the premium for spouse. Post-Medicare: Retirees pay 50% of the premium for self and spouse.
Life Insurance	\$25,000

Paraprofessionals (Local 2262)

Eligibility	The earlier of age 65 with the attainment of 5 years of service or age 55 with the attainment of 12 years of service
Cost Sharing	City pays 100% of the cost of insurance for the retiree. Spouses are not eligible for coverage.
Life Insurance	\$15,000

Other Non-Certified Board of Education Employees (Local 2706)

Eligibility	The earlier of age 65 with the attainment of 5 years of service or age 55 with the attainment of 12 years of service
Cost Sharing	<u>Hired prior to 1/1/2011:</u> Pre-Medicare: City pays 100% of the cost of insurance for retirees and retirees pay 50% of the premium for spouse. Post-Medicare: Retirees pay 50% of the premium for self and spouse. <u>Hired after 1/1/2011:</u> Retirees pay 25% of the premium for self and 50% of the premium for spouse.
Medicare Part B	100% reimbursement
Life Insurance	\$6,000