



FIREFIGHTERS' PENSION TRUST FUND OF THE CITY OF STAMFORD

GASB 67 AND GASB 68 DISCLOSURE

REPORTING AS OF JUNE 30, 2017





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All the items listed below are required by GASB 67 and GASB 68 but are not included in this report:

- Statement of Changes in Fiduciary Net Position
- Statement of Fiduciary Net Position
- Investments That Represent 5% or More of the Plan’s Fiduciary Net Position
- Investment Policy
- Pension Board Composition
- Authority to Amend Plan

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Certification

This report presents the results of the June 30, 2017 GASB 67 and GASB 68 Disclosure for the Firefighters' Pension Trust Fund of the City of Stamford (the Plan). The report is intended to satisfy the requirements of both GASB 67 and GASB 68. This report may not be appropriate for any other purpose.

The report has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with the Actuarial Standards Board 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 disclosure report, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Plan Sponsor or Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

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

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

I have no relationship with the employer or the Plan that would impair, or appear to impair, my objectivity in performing the work presented in this report. I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Evan W. Woollacott, Jr., FCA, MAAA
Enrolled Actuary 17-04513

January 4, 2018



Money-Weighted Rate of Return June 30, 2017

Beg. Value 116,799,798 **Ending Value** 129,663,624

	Date	Employer Contributions	Employee Contributions	Benefit Payments	Admin. Expenses	Net External Cash Flows	Period Invested	Period Weight	Net External Cash Flows w/ Interest
Beg. of Yr.	7/1/2016						12	1.000	133,407,642
July	7/31/2016	5,140,000	69,241	(880,651)	(18,223)	4,310,367	11	0.917	4,869,017
August	8/31/2016	-	115,046	(1,107,591)	(18,223)	(1,010,768)	10	0.833	(1,129,190)
September	9/30/2016	-	97,982	(873,966)	(18,223)	(794,207)	9	0.750	(877,481)
October	10/31/2016	-	377,135	(864,046)	(18,223)	(505,134)	8	0.667	(551,949)
November	11/30/2016	-	103,283	(863,856)	(18,223)	(778,796)	7	0.583	(841,598)
December	12/31/2016	-	127,465	(867,488)	(18,223)	(758,246)	6	0.500	(810,363)
January	1/31/2017	-	25,159	(860,339)	(18,223)	(853,403)	5	0.417	(902,011)
February	2/28/2017	-	175,814	(822,960)	(18,223)	(665,369)	4	0.333	(695,519)
March	3/31/2017	-	125,531	(795,272)	(18,223)	(687,964)	3	0.250	(711,214)
April	4/30/2017	-	100,985	(785,260)	(18,223)	(702,498)	2	0.167	(718,238)
May	5/31/2017	-	100,369	(777,920)	(18,223)	(695,774)	1	0.083	(703,525)
June	6/30/2017	-	125,541	(779,268)	(18,220)	(671,947)	0	0.000	(671,947)
End of Yr.	6/30/2017	5,140,000	1,543,551	(10,278,617)	(218,673)				129,663,624

Money-Weighted Rate of Return

14.22%



Schedule of Investment Returns Last 4 Fiscal Years

Year Ended June 30:	Annual Money-Weighted Rate of Return, Net of Investment Expense
2014	12.67%
2015	-0.15%
2016	-3.38%
2017	14.22%



Contributions Compared to ADEC and Payroll Schedule of Contributions Last 4 Fiscal Years

	2017	2016	2015	2014
Actuarially determined employer contribution (ADEC)	\$ 5,140,000	\$ 4,342,000	\$ 3,575,000	\$ 3,119,000
Contributions in relation to the ADEC	5,140,000	4,342,000	3,515,000	3,119,000
Contribution deficiency (excess)	\$ -	\$ -	\$ 60,000	\$ -
Covered payroll	\$ 23,382,336	\$ 21,610,577	\$ 20,981,143	\$ 21,475,500
Contributions as a % of covered payroll	21.98%	20.09%	16.75%	14.52%



Discount Rate Calculation

The long-term expected rate of return on investments may be used to discount liabilities to the extent that the plan's fiduciary net position and future contributions are projected to be sufficient to cover expected benefit payments and administrative expenses for current plan members. Projections of the plan's fiduciary net position incorporate all cash flows for contributions from the employer and employee and administrative expenses. Professional judgment should be applied to the projections of contributions in circumstances where (a) contributions amounts are established by statute or contract or (b) a formal written policy exists. Consideration should also be given to the most recent five-year contribution history as key indicators of future contributions. It should not include cash flows for future plan members.

If the amount of the plan's fiduciary net position is projected to be greater than or equal to the benefit payments and administrative expenses made in that period, the actuarial present value of payments should be discounted using the long-term expected rate of return on those investments. A 20-year, high quality (AA/Aa or higher), tax-exempt municipal bond yield or index rate must be used to discount benefit payments for periods where the fiduciary net position is not projected to cover expected benefit payments and administrative expenses.

Plans that are projected to have sufficient fiduciary net position indefinitely will use the long-term expected return on investments to determine liabilities but will have to substantiate their projected solvency.

GASB permits alternative methods to evaluate the sufficiency of the plan's net fiduciary position. Based on the plan's current net pension liability and current contribution policy, the plan's projected fiduciary net position will be sufficient to cover projected benefit payments and administrative expenses indefinitely. Therefore, since the fund is not projected to run out of money, we have used the 7.25% interest rate assumption to discount plan liabilities.



Target Allocation and Expected Rate of Return

Actuarial Valuation as of July 1, 2016

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
Large Cap Equities	35.00%	4.65%	1.63%
International Equities	20.00%	5.50%	1.10%
Small Cap Equities	15.00%	5.50%	0.83%
High Quality Bonds	14.00%	1.95%	0.27%
International Income	2.00%	2.00%	0.04%
High Yield	2.00%	3.25%	0.07%
Emerging Markets	2.00%	3.75%	0.08%
Alternative Investments	10.00%	5.00%	0.50%
	100.00%		4.52%
Long-Term Inflation Expectation			2.75%
Long-Term Expected Nominal Return			7.27%

**Long-Term Returns are provided by HHIA. The returns are geometric means.*

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the pension plan's target asset allocation.

The information above is based on geometric means and does not reflect additional returns through investment selection, asset allocation and rebalancing. The results support a rate between 7.00% and 7.50%. An expected rate of return of 7.25% was used.

The July 1, 2016 Actuarial Valuation directly calculated the July 1, 2016 Total Pension Liability (TPL). The July 1, 2016 TPL was increased by service cost and interest and decreased by benefit payments to estimate the TPL as of June 30, 2017.



Schedule of Changes in Net Pension Liability and Related Ratios Last 5 Fiscal Years

	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 3,555,727	\$ 3,468,981	\$ 3,053,426	\$ 2,964,491	\$ 2,878,147
Interest	12,778,225	12,339,942	12,773,960	12,287,263	11,806,488
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	4,684,643	-	(4,349,248)	-	-
Changes of assumptions	3,441,972	-	2,792,894	-	-
Benefit payments, including refunds of member contributions	(10,278,617)	(9,436,881)	(9,168,689)	(8,956,725)	(8,192,407)
Net change in total pension liability	14,181,950	6,372,042	5,102,343	6,295,029	6,492,228
Total pension liability - beginning	177,745,053	171,373,011	166,270,668	159,975,639	153,483,411
Total pension liability - ending: (a)	<u>\$ 191,927,003</u>	<u>\$ 177,745,053</u>	<u>\$ 171,373,011</u>	<u>\$ 166,270,668</u>	<u>\$ 159,975,639</u>
Plan fiduciary net position					
Contributions - employer	\$ 5,140,000	\$ 4,342,000	\$ 3,515,000	\$ 3,119,000	\$ 2,340,000
Contributions - member	1,543,551	1,240,582	1,175,378	1,189,553	1,389,537
Net investment income (loss)	16,677,565	(4,243,849)	(191,595)	15,710,982	6,455,328
Benefit payments, including refunds of member contributions	(10,278,617)	(9,436,881)	(9,168,689)	(8,956,725)	(8,192,407)
Administrative expenses	(218,673)	(58,551)	(106,441)	(898,984)	-
Other	-	18,030	-	-	-
Net change in plan fiduciary net position	12,863,826	(8,138,669)	(4,776,347)	10,163,826	1,992,458
Plan fiduciary net position - beginning	116,799,798	124,938,467	129,714,814	119,550,988	117,558,530
Plan fiduciary net position - ending: (b)	<u>129,663,624</u>	<u>116,799,798</u>	<u>124,938,467</u>	<u>129,714,814</u>	<u>119,550,988</u>
Net pension liability - ending: (a) - (b)	<u>\$ 62,263,379</u>	<u>\$ 60,945,255</u>	<u>\$ 46,434,544</u>	<u>\$ 36,555,854</u>	<u>\$ 40,424,651</u>
Plan fiduciary net position as a % of total pension liability	67.56%	65.71%	72.90%	78.01%	74.73%
Covered payroll	\$ 23,382,336	\$ 21,610,577	\$ 20,981,143	\$ 21,475,500	\$ 20,850,000
Net pension liability as a % of covered payroll	266.28%	282.02%	221.32%	170.22%	193.88%



Schedule of Net Pension Liability Last 6 Fiscal Years

	2017	2016	2015	2014	2013
Total pension liability*	\$ 191,927,003	\$ 177,745,053	\$ 171,373,011	\$ 166,270,668	\$ 159,975,639
Plan fiduciary net position	<u>129,663,624</u>	<u>116,799,798</u>	<u>124,938,467</u>	<u>129,714,814</u>	<u>119,550,988</u>
Net pension liability (asset)	\$ 62,263,379	\$ 60,945,255	\$ 46,434,544	\$ 36,555,854	\$ 40,424,651
Plan fiduciary net position as a % of total pension liability	67.56%	65.71%	72.90%	78.01%	74.73%
Covered payroll	\$ 23,382,336	\$ 21,610,577	\$ 20,981,143	\$ 21,475,500	\$ 20,850,000
Net pension liability as a % of covered payroll	266.28%	282.02%	221.32%	170.22%	193.88%

	2012
Total pension liability*	\$ 153,483,411
Plan fiduciary net position	<u>117,558,530</u>
Net pension liability (asset)	\$ 35,924,881
Plan fiduciary net position as a % of total pension liability	76.59%
Covered payroll	\$ 22,638,000
Net pension liability as a % of covered payroll	158.69%

**Total pension liability calculated using the Entry Age Normal Actuarial Cost Method, as required by paragraph 46 of GASB Statement 67.*



Disclosure Overview as of June 30, 2017

	Plan's Funded Status			Deferred Outflows/(Inflows) of Resources			Recognized in Net Pension Liability	Recognized in Total Pension Expense
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	(Gains)/ Losses	Assumption Changes	Projected Net Investment Income		
Balances -- prior year disclosure	(177,745,053)	116,799,798	(60,945,255)	(3,275,360)	2,103,290	16,572,625	(60,945,255)	
Changes in net pension liability:								
Service cost	(3,555,727)		(3,555,727)					3,555,727
Interest	(12,778,225)		(12,778,225)					12,778,225
Net investment income		16,677,565	16,677,565					(16,677,565)
Contributions - employer		5,140,000	5,140,000				5,140,000	
Contributions - member		1,543,551	1,543,551					(1,543,551)
Benefit payments, including refunds of member contributions	10,278,617	(10,278,617)	-					
Administrative expense		(218,673)	(218,673)					218,673
Other		-	-					-
Recognized in total pension expense								
Differences between expected and actual experience				(63,651)			63,651	63,651
Changes of assumptions					(786,080)		786,080	786,080
Differences between projected and actual earnings on pension plan						(2,977,582)	2,977,582	2,977,582
Deferred outflows/inflows of resources								
Differences between expected and actual experience	(4,684,643)		(4,684,643)	4,684,643			(4,684,643)	
Changes of assumptions	(3,441,972)		(3,441,972)		3,441,972		(3,441,972)	
Differences between projected and actual earnings on pension plan						(8,345,409)	8,345,409	8,345,409
Total pension expense							(10,504,231)	10,504,231
Balances -- end of year	(191,927,003)	129,663,624	(62,263,379)	1,345,632	4,759,182	5,249,634	(62,263,379)	



Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2016	\$ 177,745,053	\$ 116,799,798	\$ 60,945,255
Changes for the year:			
Service cost	3,555,727		3,555,727
Interest	12,778,225		12,778,225
Differences between expected and actual experience	4,684,643		4,684,643
Changes of assumptions	3,441,972		3,441,972
Contributions - employer		5,140,000	(5,140,000)
Contributions - member		1,543,551	(1,543,551)
Net investment income		16,677,565	(16,677,565)
Benefit payments, including refunds of member contributions	(10,278,617)	(10,278,617)	-
Administrative expense		(218,673)	218,673
Other		-	-
Net changes	<u>14,181,950</u>	<u>12,863,826</u>	<u>1,318,124</u>
Balances at June 30, 2017	<u>\$ 191,927,003</u>	<u>\$ 129,663,624</u>	<u>\$ 62,263,379</u>



Components of the Pension Expense for the Fiscal Year Ended June 30, 2017

Description	Amount
Service cost	\$ 3,555,727
Interest on the total pension liability	12,778,225
Differences between expected and actual experience	63,651
Changes of assumptions	786,080
Member contributions	(1,543,551)
Projected earnings on pension plan investments	(8,332,156)
Differences between projected and actual earnings on plan investments	2,977,582
Pension plan administrative expense	218,673
Other changes in fiduciary net position	-
Total pension expense	\$ 10,504,231



Increase (Decrease) in Pension Expense from the Recognition of the Effects of Differences Between Expected and Actual Experience

Year	Differences between Expected and Actual Experience	Recognition Period (Years)									
			2017	2018	2019	2020	2021	2022	2023	2024	
2015	\$ (4,349,248)	8.1	\$ (536,944)	\$ (536,944)	\$ (536,944)	\$ (536,944)	\$ (536,944)	\$ (536,944)	\$ (536,944)	\$ (53,696)	
2016	-	7.7	-	-	-	-	-	-	-	-	
2017	4,684,643	7.8	600,595	600,595	600,595	600,595	600,595	600,595	600,595	\$ 480,478	
Net increase (decrease) in pension expense			<u>\$ 63,651</u>	<u>\$ 63,651</u>	<u>\$ 63,651</u>	<u>\$ 63,651</u>	<u>\$ 63,651</u>	<u>\$ 63,651</u>	<u>\$ 63,651</u>	<u>\$ 546,899</u>	<u>\$ 480,478</u>



Increase (Decrease) in Pension Expense from the Recognition of the Effects of Changes of Assumptions

Year	Changes of Assumptions	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024
2015	\$ 2,792,894	8.1	\$ 344,802	\$ 344,802	\$ 344,802	\$ 344,802	\$ 344,802	\$ 344,802	\$ 34,478	
2016	-	7.7	-	-	-	-	-	-	-	
2017	3,441,972	7.8	441,278	441,278	441,278	441,278	441,278	441,278	441,278	\$ 353,026
Net increase (decrease) in pension expense			<u>\$ 786,080</u>	<u>\$ 786,080</u>	<u>\$ 786,080</u>	<u>\$ 786,080</u>	<u>\$ 786,080</u>	<u>\$ 786,080</u>	<u>\$ 475,756</u>	<u>\$ 353,026</u>



**Increase (Decrease) in Pension Expense from the Recognition of Differences between
 Projected and Actual Earnings on Pension Plan Investments**

Year	Differences between Projected and Actual Earnings on Pension Plan Investments		Recognition Period (Years)				
	Investments	Recognition Period (Years)	2017	2018	2019	2020	2021
2015	\$ 10,070,148	5	\$ 2,014,030	\$ 2,014,030	\$ 2,014,028		
2016	13,163,171	5	2,632,634	2,632,634	2,632,634	\$ 2,632,635	
2017	(8,345,409)	5	<u>(1,669,082)</u>	<u>(1,669,082)</u>	<u>(1,669,082)</u>	<u>(1,669,082)</u>	<u>\$ (1,669,081)</u>
Net increase (decrease) in pension expense			<u>\$ 2,977,582</u>	<u>\$ 2,977,582</u>	<u>\$ 2,977,580</u>	<u>\$ 963,553</u>	<u>\$ (1,669,081)</u>



Interest on the Total Pension Liability Recognized in Expense

	Amount for Period	Portion of Period	Interest Rate	Interest on the Total Pension Liability
Beginning total pension liability	\$ 177,745,053	100%	7.25%	\$ 12,886,516
Service cost	3,555,727	100	7.25	257,790
Benefit payments, including refunds of member contributions	(10,278,617)	50	7.25	<u>(366,081)</u>
Total interest on the pension liability				\$ 12,778,225

Projected Earnings on Pension Plan Investments Recognized in Expense

	Amount for Period	Portion of Period	Projected Rate of Return	Projected Earnings
Beginning plan fiduciary net position	\$ 116,799,798	100%	7.25%	\$ 8,467,985
Contributions - employer	5,140,000	50	7.25	183,065
Contributions - member	1,543,551	50	7.25	54,975
Benefit payments, including refunds of member contributions	(10,278,617)	50	7.25	(366,081)
Administrative expense and other	(218,673)	50	7.25	<u>(7,788)</u>
Total projected earnings				\$ 8,332,156



Pension Expense and Deferred Outflows and Inflows of Resources Related to Pensions

For the fiscal year ended June 30, 2017, the recognized pension expense is \$10,504,231. As of June 30, 2017, deferred outflows and inflows of resources related to pensions are reported as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 4,084,048	\$ (2,738,416)
Changes of assumptions	4,759,182	
Net difference between projected and actual earnings on pension plan investments	<u>5,249,634</u>	<u></u>
Total	<u>\$ 14,092,864</u>	<u>\$ (2,738,416)</u>

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in the pension expense as follows:

Year Ended June 30:	
2018	\$ 3,827,313
2019	3,827,311
2020	1,813,284
2021	(819,350)
2022	849,731
Thereafter	1,856,159



Deferred Outflows and Inflows of Resources from Differences between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense through June 30, 2017 (c)	Balances at June 30, 2017	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015		\$ (4,349,248)	\$ (1,610,832)		\$ (2,738,416)
2017	\$ 4,684,643		600,595	\$ 4,084,048	
				<u>\$ 4,084,048</u>	<u>\$ (2,738,416)</u>



Deferred Outflows and Inflows of Resources from Changes of Assumptions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense through June 30, 2017 (c)	Balances at June 30, 2017	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 2,792,894		\$ 1,034,406	\$ 1,758,488	
2017	3,441,972		441,278	3,000,694	
				<u>\$ 4,759,182</u>	<u>\$ -</u>



Deferred Outflows and Inflows of Resources from Differences between Projected and Actual Earnings on Pension Plan Investments

Year	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense through June 30, 2017 (c)	Balances at June 30, 2017	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 10,070,148		\$ 6,042,090	\$ 4,028,058	
2016	13,163,171		5,265,268	7,897,903	
2017		\$ (8,345,409)	(1,669,082)		\$ (6,676,327)
				<u>\$ 11,925,961</u>	<u>\$ (6,676,327)</u>



Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	Current Discount Rate (7.25%)	1% Decrease (6.25%)	1% Increase (8.25%)
Net pension liability as of June 30, 2017	\$ 62,263,379	\$ 86,044,653	\$ 42,378,167

Participant Breakdown as of July 1, 2016

	Participant Count
Inactive plan members or beneficiaries currently receiving benefits	227
Inactive plan members entitled to but not yet receiving benefits	2
Active plan members	274
Total members	503



Description of Significant Changes Prior to Year End

There were no significant plan changes since the last published valuation.

DROP Balances

Currently, there is no Deferred Retirement Option Plan (DROP). Therefore, the DROP balances are \$0.

Valuation Date and Roll Forward Process

The Plan Sponsor uses the July 1, 2015 Actuarial Valuation to calculate the ADEC for the fiscal year ending 2017.

The July 1, 2016 Actuarial Valuation directly calculated the July 1, 2016 Total Pension Liability (TPL). The July 1, 2016 TPL was increased by service cost and interest and decreased by benefit payments to estimate the TPL as of June 30, 2017. The TPL as of June 30, 2017 was also adjusted to reflect any material plan changes after the valuation, if applicable.

Funding Policy

The Plan Sponsor uses the Projected Unit Credit Actuarial Cost Method to calculate the plan liabilities. The Funding Policy has two parts.

1. Normal Cost
2. Amortization of the Unfunded Actuarial Liability (UAL)

Each year the Plan Sponsor pays the Normal Cost plus an amortization of the plan's UAL. For the July 1, 2016 Actuarial Valuation, an open amortization period of 15 years was used.

Assumption Selection

The selections of all assumptions used in determining the total pension liability were made in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board.

The actuarial assumptions used in the valuation were based on the results of an actuarial experience as of July 1, 2013.



Description of Actuarial Methods

Asset Valuation Method

The Actuarial Value of assets used in the development of plan contributions phases in the recognition of differences between the Market Value and Expected Actuarial Value by recognizing 20% of the difference each year. The Actuarial Value is adjusted, if necessary, to be within the range of 70% and 130% of the Market Value of assets.

Actuarial Cost Method

Cost method for determining the GASB liability: Entry Age Normal Actuarial Cost Method (level percentage of salary).

Cost method for determining the ADEC: Projected Unit Credit Actuarial Cost Method

Normal Cost: Under this method, the normal cost equals the total present value of the benefits accruing for all members during the upcoming year, increased to reflect salaries projected to the assumed retirement date.

Unfunded Accrued Liability: The actuarial accrued liability equals the present value of all benefits accrued to date, increased to reflect salaries for all active members. The actuarial accrued liability is reduced by plan assets to develop the unfunded accrued liability.

We have established the July 1, 2014 unfunded accrued liability as a separate base, and will amortize it to completion over 15 years. Future changes in the unfunded accrued liability will be amortized separately, assuming a fresh 15-year amortization each valuation.

Experience Gains and Losses: All experience gains and losses (the financial effect of the difference between the actual experience during the prior period and the result expected by the actuarial assumptions for that prior period) appear directly in the actuarial accrued liability and are amortized at the same rate the plan is amortizing the remaining unfunded accrued liability.



Description of Actuarial Assumptions

Investment Rate of Return

7.25%.

Inflation

2.75% (Prior: 3.00%)

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-2000 Mortality Table with separate male and female rates, with blue collar adjustment, combined table for non-annuitants and annuitants, projected to the valuation date with Scale BB. (Prior: Scale AA)

Mortality Improvement

Projected to date of decrement using Scale BB (generational mortality). (Prior: Scale AA)

We have selected a mortality table commonly used by public pension systems (such as the State of Connecticut).

We are using Scale BB because it is the most up to date mortality improvement scale which was developed for use with RP-2000.

Salary Scale

Service	Rate	Prior:	Service	Rate
0	14.75%		0	15.0%
1-2	9.75%		1-2	10.0%
3	8.75%		3	9.0%
4	7.75%		4	8.0%
5	6.75%		5	7.0%
6	5.75%		6	6.0%
7	5.75%		7	6.0%
8	4.75%		8	5.0%
9	3.75%		9	4.0%
10+	3.25%		10+	3.5%

The salary increase assumption was based on the experience study as of July 1, 2013.

Payroll Growth Assumption

2.75% annually to project normal cost only. (Prior: 3.00%)

Medicare Part B Reimbursements

2.75% increase assumption each year. (Prior: 3.00%)



Retirement Age

Ret Rates by Years of Service*	
Years	Rate
25	0.040
26	0.000
27	0.040
28	0.040
29	0.040
30	0.040
31	0.040
32	0.180
33	0.110
34	0.380
35	0.100
36	0.220
37	0.000
38	0.290
39	0.200
40	1.000

* Retirement rate at age 65 is 1.00

The actuarial assumptions in regards to rates of decrement shown above are based on the results of an actuarial experience study.

Turnover

The following annual rates of turnover are assumed:

Age	Probability
20	5.44%
25	4.89%
30	3.70%
35	2.35%
40	0.00%
45	0.00%
50	0.00%
55	0.00%
60	0.00%

The actuarial assumptions in regards to rates of termination shown above are based on the results of an actuarial experience study.



Disability

The following annual rates of disability are assumed:

Age	Probability
20	0.05%
25	0.05%
30	0.05%
35	0.06%
40	0.09%
45	0.18%
50	0.40%
55	0.85%
60	1.74%

The actuarial assumptions in regards to rates of termination shown above are based on the results of an actuarial experience study.

Survivorship

80% of employees assumed to be married, with wives 4 years younger than husbands.

Expenses

The administrative expense is assumed to be the average of the prior two years of administrative expenses.

Vacation Bank

60% of retirees are assumed to elect additional pension credit as an annuity from the fund.

This assumption was based upon the July 1, 2013 experience study.

Percent of active employees married

80%.

Spouse's age

Husbands are assumed to be 4 years older than wives.



Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Plan identification

Single-employer pension plan

Pension Earnings

Base Salary in Final Year or Employment excluding bonuses and overtime including differential amounts.

Normal Retirement

Eligibility: 20 years of service if hired before January 1, 1981; 20 years of service and age 48 if hired after January 1, 1981.

Benefit:

Years of Service	% of Pension Earnings
20	50.00%
21	52.00%
22	54.00%
23	56.00%
24	58.00%
25	60.00%
26	62.00%
27	64.00%
28	66.00%
29	68.00%
30	70.00%
31	72.00%
32	74.00%

Limits on Annual Benefit

Maximum: 74.00% of pension earnings.

Minimum: None.

Early Retirement

Eligibility: None.

Benefit: See Termination Benefit.

Disability - Non-Service Connected

Service Requirement: 20 years of service.

Benefit: 50% of salary, not less than accrued benefit.



Disability - Service Connected

Service Requirement: None.

Benefit: 100% of pay (or 75% of pay depending on extent of disability).

Pre-Retirement Death Benefit - Non Service Connected and less than 10 years of service

Service Requirement: None.

Benefit: Return of employee contributions with interest.

Pre-Retirement Death Benefit - Service Connected or more than 10 years of service

Service Requirement: None, if service connected; 10 years if non service connected.

Benefit: Greater of 100% of retirement benefit and 50% of salary.

Post-Retirement Spouse's Benefit

100% of pension retiree was receiving.

Post-Retirement Death Benefit

Lump sum, excess of accumulated contributions over benefits paid to member or survivors (if not eligible for spouse's benefit).

Medicare Part B

The City pays the cost of the Medicare Part B supplemental benefit from the pension trust for each retiree receiving Medicare coverage. The 2014 Medicare Part B monthly premium is \$104.90.

Vesting in Accrued Benefit

Eligibility: 15 years of service.

Benefit: 2.5% of final salary times service. Benefit is payable when the employee would have had 20 years of service but not earlier than age 48.

Termination Benefit

Accumulated contributions as lump sum, if not vested.

Employee Contributions

6.25% of salary; no contributions for those with 32 or more years of service.

Additional Retirement Benefits

Employees can trade in vacation leave for additional pension credit. Each 20 days grants an additional 1.5% of salary up to a maximum of 7.5%.