



THE CLASSIFIED EMPLOYEES' RETIREMENT TRUST FUND OF THE
CITY OF STAMFORD

GASB 67 AND GASB 68 DISCLOSURE

REPORTING AS OF JUNE 30, 2016





Table of Contents

Introduction and Certification	1
Money-Weighted Rate of Return	2
Schedule of Investment Returns	3
Contributions Compared to ADEC and Payroll	4
Discount Rate Calculation	5
Target Allocation and Expected Rate of Return	6
Schedule of Changes in Net Pension Liability and Related Ratios	7
Schedule of Net Pension Liability	8
Disclosure Overview	9
Changes in the Net Pension Liability	10
Components of the Pension Expense	11
Pension Expense and Deferred Outflows and Inflows of Resources Related to Pensions	16
Sensitivity of the Net Pension Liability to Changes in the Discount Rate	20
Participant Breakdown	20
Description of Significant Changes Prior to Year End	21
DROP Balances	21
Valuation Date and Roll Forward Process	21
Funding Policy	21
Assumption Section	21
Description of Actuarial Methods	22
Description of Actuarial Assumptions	23
Summary of Plan Provisions	26
WPCA Disclosures	29

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 (optional)
Statement of Fiduciary Net Position (optional)
Investments That Represent 5% or More of the Plan's Fiduciary Net Position (optional)
Investment Policy
Pension Board Composition
Authority to Amend Plan

Report Prepared By:

Evan W. Woollacott
Vice President and Consulting Actuary
860.856.2118
ewoollacott@hhconsultants.com

Yelena Pelletier
Actuary
860.856.2066
ypelletier@hhconsultants.com

Michael Lindberg
Actuarial Analyst
860.856.2132
mlindberg@hhconsultants.com



Introduction and Certification

This report presents the results of the June 30, 2016 GASB 67 and GASB 68 Disclosure for the Classified Employees' Retirement 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 14-04513

December 12, 2016



Money-Weighted Rate of Return June 30, 2016

Beg. Value 206,622,350 **Ending Value** 190,594,323

	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.	7/1/2015						12	1.000	197,562,351
July	7/31/2015	6,388,000	157,343	(1,313,505)	(18,998)	5,212,840	11	0.917	5,002,926
August	8/31/2015	-	197,224	(1,369,881)	(25)	(1,172,682)	10	0.833	(1,129,673)
September	9/30/2015	-	163,140	(1,241,131)	(63,382)	(1,141,373)	9	0.750	(1,103,628)
October	10/31/2015	-	162,863	(1,262,145)	(31,824)	(1,131,106)	8	0.667	(1,097,795)
November	11/30/2015	-	202,715	(1,193,459)	(58,397)	(1,049,141)	7	0.583	(1,022,056)
December	12/31/2015	-	161,834	(1,210,912)	(5,665)	(1,054,743)	6	0.500	(1,031,360)
January	1/31/2016	-	153,840	(1,240,759)	(19,504)	(1,106,423)	5	0.417	(1,085,944)
February	2/29/2016	-	112,072	(1,297,855)	(37,194)	(1,222,977)	4	0.333	(1,204,834)
March	3/31/2016	-	220,196	(1,346,895)	(11,912)	(1,138,611)	3	0.250	(1,125,919)
April	4/30/2016	-	146,584	(1,300,900)	(21,264)	(1,175,580)	2	0.167	(1,166,828)
May	5/31/2016	-	183,732	(1,283,076)	(40,718)	(1,140,062)	1	0.083	(1,135,810)
June	6/30/2016	-	198,063	(1,263,573)	198,403	(867,107)	0	0.000	(867,107)
End of Yr.	6/30/2016	6,388,000	2,059,606	(15,324,091)	(110,480)				190,594,323

Money-Weighted Rate of Return	-4.38%
--------------------------------------	---------------



Schedule of Investment Returns Last 3 Fiscal Years

	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	-4.38%	1.44%	16.60%



Contributions Compared to ADEC and Payroll Schedule of Contributions Last 3 Fiscal Years

	2016	2015	2014
Actuarially Determined Employer Contribution (ADEC)	\$ 6,387,000	\$ 6,799,000	\$ 6,504,000
Contributions in relation to the ADEC	<u>6,388,000</u>	<u>6,799,000</u>	<u>6,504,000</u>
Contribution deficiency (excess)	<u>\$ (1,000)</u>	<u>\$ -</u>	<u>\$ -</u>
Covered-employee payroll	\$ 39,506,337	\$ 44,213,643	\$ 44,997,000
Contributions as a percentage of covered-employee payroll	16.17%	15.38%	14.45%



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 7.625% interest rate assumption to discount plan liabilities.



Target Allocation and Expected Rate of Return

Actuarial Valuation as of July 1, 2015

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
Fixed Income	15.00%	2.00%	0.30%
Domestic Equity	30.00%	5.25%	1.58%
International Equity	20.00%	5.50%	1.10%
Asset Allocation	35.00%	3.84%	1.34%
	100.00%		4.32%
Long-Term Inflation Expectation			3.00%
Long-Term Expected Nominal Return			7.32%

**Long-Term Returns are provided by HHIA and FIA. 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 7.25% and 7.75%. An expected rate of return of 7.625% was used for the July 1, 2015 Actuarial Valuation.



Schedule of Changes in Net Pension Liability and Related Ratios Last 4 Fiscal Years

	2016	2015	2014	2013
Total pension liability				
Service cost	\$ 5,018,705	\$ 4,566,053	\$ 4,433,061	\$ 4,303,943
Interest	18,876,464	18,755,559	18,090,605	17,452,292
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	(2,027,851)	(8,199,467)	-	-
Changes of assumptions	-	4,836,505	-	-
Benefit payments, including refunds of member contributions	<u>(15,324,091)</u>	<u>(14,405,292)</u>	<u>(13,759,945)</u>	<u>(13,542,242)</u>
Net change in total pension liability	6,543,227	5,553,358	8,763,721	8,213,993
Total pension liability - beginning	<u>250,062,776</u>	<u>244,509,418</u>	<u>235,745,697</u>	<u>227,531,704</u>
Total pension liability - ending: (a)	<u>\$ 256,606,003</u>	<u>\$ 250,062,776</u>	<u>\$ 244,509,418</u>	<u>\$ 235,745,697</u>
Plan fiduciary net position				
Contributions - employer	\$ 6,388,000	\$ 6,799,000	\$ 6,504,000	\$ 5,897,100
Contributions - member	2,059,606	2,017,452	1,833,677	1,629,143
Net investment income	(9,080,116)	3,015,465	30,688,329	21,604,798
Benefit payments, including refunds of member contributions	(15,324,091)	(14,405,292)	(13,759,945)	(13,542,242)
Administrative expenses	(110,480)	(117,430)	(324,083)	(261,579)
Other	<u>39,054</u>	<u>-</u>	<u>8,118</u>	<u>-</u>
Net change in plan fiduciary net position	(16,028,027)	(2,690,805)	24,950,096	15,327,220
Plan fiduciary net position - beginning	<u>206,622,350</u>	<u>209,313,155</u>	<u>184,363,059</u>	<u>169,035,839</u>
Plan fiduciary net position - ending: (b)	<u>190,594,323</u>	<u>206,622,350</u>	<u>209,313,155</u>	<u>184,363,059</u>
Net pension liability - ending: (a) - (b)	<u>\$ 66,011,680</u>	<u>\$ 43,440,426</u>	<u>\$ 35,196,263</u>	<u>\$ 51,382,638</u>
Plan fiduciary net position as a percentage of the total pension liability	74.28%	82.63%	85.61%	78.20%
Covered-employee payroll	\$ 39,506,337	\$ 44,213,643	\$ 44,997,000	\$ 43,686,000
Net pension liability as a percentage of covered-employee payroll	167.09%	98.25%	78.22%	117.62%



Schedule of Net Pension Liability Last 5 Fiscal Years

	2016	2015	2014	2013	2012
Total pension liability*	\$ 256,606,003	\$ 250,062,776	\$ 244,509,418	\$ 235,745,697	\$ 227,531,704
Plan fiduciary net position	<u>190,594,323</u>	<u>206,622,350</u>	<u>209,313,155</u>	<u>184,363,059</u>	<u>169,035,839</u>
Net pension liability (asset)	\$ 66,011,680	\$ 43,440,426	\$ 35,196,263	\$ 51,382,638	\$ 58,495,865
Plan fiduciary net position as percentage of total pension liability	74.28%	82.63%	85.61%	78.20%	74.29%
Covered-employee payroll	\$ 39,506,337	\$ 44,213,643	\$ 44,997,000	\$ 43,686,000	\$ 48,396,000
Net pension liability as a % of covered-employee payroll	167.09%	98.25%	78.22%	117.62%	120.87%

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



Disclosure Overview

	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	(250,062,776)	206,622,350	(43,440,426)	(6,335,952)	3,737,299	10,391,450	(43,440,426)	
Changes in net pension liability:								
Service cost	(5,018,705)		(5,018,705)					5,018,705
Interest	(18,876,464)		(18,876,464)					18,876,464
Net investment income		(9,080,116)	(9,080,116)					9,080,116
Contributions - employer		6,388,000	6,388,000				6,388,000	
Contributions - member		2,059,606	2,059,606					(2,059,606)
Benefit payments, including refunds of member contributions	15,324,091	(15,324,091)	0					
Administrative expense		(110,480)	(110,480)					110,480
Other		39,054	39,054					(39,054)
Recognized in total pension expense								
Differences between expected and actual experience				2,478,015			(2,478,015)	(2,478,015)
Changes of assumptions					(1,099,206)		1,099,206	1,099,206
Differences between projected and actual earnings on pension plan						(7,512,871)	7,512,871	7,512,871
Deferred outflows/inflows of resources								
Differences between expected and actual experience	2,027,851		2,027,851	(2,027,851)			2,027,851	
Changes of assumptions	0		0		0		0	
Differences between projected and actual earnings on pension plan						24,575,047	(24,575,047)	(24,575,047)
Total pension expense							(12,546,120)	12,546,120
Balances -- end of year	(256,606,003)	190,594,323	(66,011,680)	(5,885,788)	2,638,093	27,453,626	(66,011,680)	



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, 2015	\$ 250,062,776	\$ 206,622,350	\$ 43,440,426
Changes for the year:			
Service cost	5,018,705		5,018,705
Interest	18,876,464		18,876,464
Differences between expected and actual experience	(2,027,851)		(2,027,851)
Contributions - employer		6,388,000	(6,388,000)
Contributions - member		2,059,606	(2,059,606)
Net investment income		(9,080,116)	9,080,116
Benefit payments, including refunds of member contributions	(15,324,091)	(15,324,091)	-
Administrative expense		(110,480)	110,480
Other		39,054	(39,054)
Net changes	<u>6,543,227</u>	<u>(16,028,027)</u>	<u>22,571,254</u>
Balances at June 30, 2016	<u>\$ 256,606,003</u>	<u>\$ 190,594,323</u>	<u>\$ 66,011,680</u>



Components of the Pension Expense for the Fiscal Year Ended June 30, 2016

Description	Amount
Service cost	\$ 5,018,705
Interest on the total pension liability	18,876,464
Differences between expected and actual experience	(2,478,015)
Changes of assumptions	1,099,206
Member contributions	(2,059,606)
Projected earnings on pension plan investments	(15,494,931)
Differences between projected and actual earnings on plan investments	7,512,871
Pension plan administrative expense	110,480
Other changes in fiduciary net position	<u>(39,054)</u>
Total pension expense	<u>\$ 12,546,120</u>



**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)					
			2015	2016	2017	2018	2019	
2015	\$	(8,199,467)	4.4	\$(1,863,515)	\$(1,863,515)	\$(1,863,515)	\$(1,863,515)	\$ (745,407)
2016		(2,027,851)	3.3		(614,500)	(614,500)	(614,500)	(184,351)
Net increase (decrease) in pension expense				<u>\$(1,863,515)</u>	<u>\$(2,478,015)</u>	<u>\$(2,478,015)</u>	<u>\$(2,478,015)</u>	<u>\$ (929,758)</u>



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

Year	Changes of Assumptions	Recognition Period (Years)	2015	2016	2017	2018	2019
2015	\$ 4,836,505	4.4	\$ 1,099,206	\$ 1,099,206	\$ 1,099,206	\$ 1,099,206	\$ 439,681
2016	-	3.3	-	-	-	-	-
Net increase (decrease) in pension expense			<u>\$ 1,099,206</u>	<u>\$ 1,099,206</u>	<u>\$ 1,099,206</u>	<u>\$ 1,099,206</u>	<u>\$ 439,681</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)	2015	2016	2017	2018	2019	2020
2015	\$ 12,989,312	5	\$ 2,597,862	\$ 2,597,862	\$ 2,597,862	\$ 2,597,862	\$ 2,597,864	
2016	24,575,047	5		4,915,009	4,915,009	4,915,009	4,915,009	\$ 4,915,011
Net increase (decrease) in pension expense			<u>\$ 2,597,862</u>	<u>\$ 7,512,871</u>	<u>\$ 7,512,871</u>	<u>\$ 7,512,871</u>	<u>\$ 7,512,873</u>	<u>\$ 4,915,011</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	\$ 250,062,776	100%	7.625%	\$ 19,067,287
Service cost	5,018,705	100	7.625	382,676
Benefit payments, including refunds of member contributions	(15,324,091)	50	7.625	<u>(573,499)</u>
Total interest on the pension liability				\$ 18,876,464

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	\$ 206,622,350	100%	7.625%	\$ 15,754,954
Contributions - employer	6,388,000	50	7.625	239,069
Contributions - member	2,059,606	50	7.625	77,080
Benefit payments, including refunds of member contributions	(15,324,091)	50	7.625	(573,499)
Administrative expense and other	(71,426)	50	7.625	<u>(2,673)</u>
Total projected earnings				\$ 15,494,931



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

For the fiscal year ended June 30, 2016, the recognized pension expense is \$12,546,120. As of June 30, 2016, 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		\$ (5,885,788)
Changes of assumptions	\$ 2,638,093	
Net difference between projected and actual earnings on pension plan investments	<u>27,453,626</u>	
Total	<u>\$ 30,091,719</u>	<u>\$ (5,885,788)</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:	
2017	\$ 6,134,062
2018	6,134,062
2019	7,022,796
2020	4,915,011
2021	-
Thereafter	-



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, 2016 (c)	Balances at June 30, 2016	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015		\$ (8,199,467)	\$ (3,727,030)		\$ (4,472,437)
2016		(2,027,851)	(614,500)		(1,413,351)
				<u>\$ -</u>	<u>\$ (5,885,788)</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, 2016 (c)	Balances at June 30, 2016	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 4,836,505		\$ 2,198,412	\$ 2,638,093	
				\$ 2,638,093	\$ -



**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, 2016 (c)	Balances at June 30, 2016	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 12,989,312		\$ 5,195,724	\$ 7,793,588	
2016	24,575,047		4,915,009	19,660,038	
				<u>\$ 27,453,626</u>	<u>\$ -</u>



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

	Current Discount Rate (7.625%)	1% Decrease (6.625%)	1% Increase (8.625%)
Net pension liability as of June 30, 2016	\$ 66,011,680	\$ 91,131,140	\$ 44,608,039

Participant Breakdown as of July 1, 2014*

	Participant Count
Inactive plan members or beneficiaries currently receiving benefits	732
Inactive plan members entitled to but not yet receiving benefits	163
Active plan members	603
Total members	1,498

**With Smith House revision*



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, 2014 Actuarial Valuation to calculate the ADEC for fiscal 2016.

The July 1, 2014 Actuarial Valuation was used to project the July 1, 2015 Total Pension Liability (TPL). The July 1, 2015 TPL was increased by service cost and interest and decreased by benefit payments to estimate the TPL as of June 30, 2016. The TPL as of June 30, 2016 also includes census adjustments due to Smith House. The TPL as of June 30, 2016 was also adjusted to reflect any material plan changes after the valuation.

Funding Policy

The Plan Sponsor uses the Entry Age Normal 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, 2015 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 standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor. A full actuarial experience study has not been completed.



Description of Actuarial Methods

Asset Valuation Method - Valuation

The Actuarial Value of Assets used in the development of the Annual Recommended Contribution is designed to smooth out fluctuations in the market value. An Expected Actuarial Value of Assets is determined based on the prior year's Actuarial Value of Assets and the assumed interest rate equal to the valuation interest rate. The Actuarial Value of Assets is equal to the Expected Actuarial Asset Value plus 20% of the difference between the Market Value and the Expected Value. The Actuarial Value of Assets is limited to a minimum of 70% or a maximum of 130% of the Market Value.

Asset Valuation Method – GASB 67/68

As required by GASB 67/68, the market value of assets was used.

Actuarial Cost Method

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

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

The Ongoing Annual Cost equals the total present value for all participants of the benefit accruing during the coming year, increased to reflect salaries projected to the assumed retirement date.

The Accrued Liability equals the present value of all benefits accrued to date, increased to reflect salaries for all active participants. The total Accrued Liability is reduced by plan assets to develop the Unfunded Accrued Liability.

The cost of amortizing the Unfunded Accrued Liability constitutes a portion of the Annual Recommended Contribution.

The total Annual Recommended Contribution equals the Ongoing Annual Cost, further increased by any positive amortization of the Unfunded Accrued Liability. The amortization period is 15 years.



Description of Actuarial Assumptions

	Year Ending June 30, 2016	Year Ending June 30, 2015
Investment rate of return (net of investment-related and administrative expenses)	7.625%	7.625%
Rate of compensation increase (including inflation)	Graded Scale	Graded Scale

Inflation

3.0%.

This assumption is based on long term (1926-2013) 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

50/50 Blend of RP-2000 No Collar Combined Table and RP-2000 Blue Collar Combined Table.

Mortality Improvement

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

We have selected mortality tables commonly used by public pension systems (such as the State of Connecticut). The plan does not have sufficiently credible data on which to perform a mortality experience study.

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

Yearly Rates of Increases

Age	Rate
20	6.50%
25	6.50%
30	5.85%
35	5.20%
40	4.55%
45	3.90%
50	3.25%
55+	3.00%

This year a one-time adjustment was made to the UAW group to reflect actual bargained increases.

The assumption is based on input from the plan sponsor regarding future expectations, as well as knowledge that younger employees generally earn higher annual percentage increases than older employees.



Retirement Age

Assumed annual rates of retirement after the earliest of 1) 50 with 25 years of service, 2) 55 with 15 years of service, or 3) 60 with 10 years of service are as follows:

Age	Retirement Rate
50-61	5%
62-65	100%

Turnover

The following annual rates of turnover are assumed:

Age	Probability
20	10.6%
25	7.9%
30	5.8%
35	4.2%
40	3.1%
45	2.1%
50	1.3%
55	0.5%
60	0.5%

Disability

The following annual rates of disability are assumed:

Age	Probability
20	.05%
25	.05%
30	.05%
35	.06%
40	.09%
45	.18%
50	.40%
55	.85%
60	.85%

The actuarial assumptions in regards to rates of decrement shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Payroll Growth

3%, only used to project normal cost to the next year.

Medicare Part B Reimbursements

3% per year increase assumption.



Survivorship

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

Expenses

The assumed administrative expense is the average of the prior two years. For this valuation, that amount is \$221,000. This amount was added to the plan's Normal Cost.

Pension Service Exchange and Payout Bank

50% of retirees are assumed to elect the maximum exchange (based on their current bank) and 50% of retirees are assumed to elect a lump sum payout.



Summary of Plan Provisions

Pension Earnings

Salary in Final Year of Employment. For UAW, the average of the highest three years out of the last 10 years.

Normal Retirement

Eligibility: The earlier of 1) age 58 with 15 years of service, or 2) age 60 with 10 years of service, or 3) 25 years of service for MAA only.

For UE participants hired on or after 7/1/2012, the 58 and 15 criteria does not apply. For UAW, the 58 and 15 criteria only applies for a grandfathered group (those age 55 with 25+ year of service on 1/1/2015).

Benefit: 2% of pension earnings per year of service to a maximum of 33 years.

For UE participant hired on or after 7/1/2012, the maximum is 30 years of service.

For UAW:

- 1.75% for service after 1/1/2015 for those who are not grandfathered (grandfathered if 25+ years of service or otherwise eligible to retire on 1/1/2015)
- 1.5% for new hires after 1/1/2015
- The maximum multiplier is 70%.

Limits on Annual Benefit

Maximum: None.

Minimum: \$1,000 with 25 years of service.

Early Retirement

Eligibility: Age 50 with 25 years of service.

Benefit: Accrued retirement benefit reduced .25% for each of the first 36 months prior to age 58 and .55% for each month in excess of 36. There is no reduction for a member of the MAA who retires with 25 years of service.

Disability – Non-Service Connected

Service Requirement: 10 years of service, except 15 for UAW, Nurses, and Dental.

Benefit: 50% of pension earnings if less than 25 years of service. Accrued retirement benefit if more than 25 years of service.

Disability – Service Connected

Service Requirement: None.

Benefit: 50% of pension earnings.



Pre-Retirement Death Benefit – Non Service Connected

Service Requirement: None.

Benefit: Return of contributions if less than 15 years of service. \$166.67 minus social security with 15 years of service or more and not eligible to retire. 100% Joint & Survivor benefit if eligible to retire.

Pre-Retirement Death Benefit – Service Connected

Service Requirement: None.

Benefit: 50% of pension earnings less workman's compensation, minimum \$83.33.

Post-Retirement Spouse's Benefit

None.

Post-Retirement Death Benefit

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

Postretirement Life Insurance

Lump sum equal to 6,000 for all retirees except for the LAW.

Vesting in Accrued Benefit

Eligibility: 5 years of service (10 years of service for TEA and UE), payable at later of termination date and age 60 (age 58 if 15+ years of vesting service and eligible for Normal Retirement at 58 and 15).

Benefit: Accrued retirement benefit.

Termination Benefit

Accumulated contributions as lump sum, if not vested.

Employee Contributions

Current: 3% of salary for 1199, 6% of salary for UE and 5% of salary for all others. For UAW participants with multiplier less than 2%, 4.5% of salary.

For LAW, those with 33+ years of service on 8/5/13 do not contribute. For MAA, Nurses, Teamsters, UE and Dental Hygienists, those with 33+ years of service on 7/1/2012 do not contribute. For all other unions, no contributions for those with service over the limit for benefit calculation purposes.



Vacation/Sick Leave Banks:

Union	Payout Bank Source	Additional Pension Credits Available		Eligibility Cut off Date for Sick Pay	Eligibility Cut off Date for Vacation Pay
		Vacation	Sick		
1119	Operating Budget	Yes-payout only	Yes-payout only	7/1/1998	-
Dental	CERF	No	Yes	7/1/1997	-
Law	Operating Budget	Yes-payout only	Yes-payout only	-	-
MAA	CERF	Yes	Yes	7/1/1997	-
Nurses	CERF	Yes	Yes	7/1/1997	-
Teamsters	CERF	Yes	Yes	7/1/1997	-
UAW	CERF	Yes	Yes	7/1/1998	1/1/2015
UE	CERF	Yes	Yes	7/1/2012	7/1/2012

UE hires on or after 7/1/2012 not eligible for exchange. UAW hires on or after 1/1/2015 not eligible for exchange.

The amount of the exchange/payout bank is equal to 50% of sick days subject to a 75 day maximum, plus vacation days. Employees can trade in up to 100 days of eligible time for additional pension credit. Each 25 days grants an additional 1% of salary up to a maximum of 4%. The remainder of the bank is paid out in a lump sum.

Additional Provisions

Employees in the MAA, LAW and Dental Hygienists Union can pay 3% of 2011-2012 base salary for one additional year of service credit. The additional benefit will only be paid at age 65+. Payment must be made by 6/30/2013 or 6/30/2014 (depending on Union). Not reflected in prior valuation.



WPCA Disclosures

Schedule of Contributions

	2016	WPCA	Other
Actuarially Determined Employer Contribution (ADEC)	\$ 6,387,000	\$ 304,000	\$ 6,083,000
Contributions in relation to the ADEC	<u>6,388,000</u>	<u>304,000</u>	<u>6,084,000</u>
Contribution deficiency (excess)	<u>\$ (1,000)</u>	<u>\$ -</u>	<u>\$ (1,000)</u>
Covered-employee payroll	\$ 39,506,337	\$ 2,333,159	\$ 37,173,178
Contributions as a percentage of covered-employee payroll	16.17%	13.03%	16.37%



Schedule of Changes in Net Pension Liability and Related Ratios

	2016	WPCA	Other
Total pension liability			
Service cost	\$ 5,018,705	\$ 243,865	\$ 4,774,840
Interest	18,876,464	968,669	17,907,795
Changes of benefit terms	-	-	-
Differences between expected and actual experience	(2,027,851)	-	(2,027,852)
Changes of assumptions	-	-	-
Benefit payments, including refunds of member contributions	(15,324,091)	(604,874)	(14,719,217)
Net change in total pension liability	6,543,227	607,660	5,935,566
Total pension liability - beginning	250,062,776	12,756,868	237,305,908
Total pension liability - ending: (a)	<u>\$ 256,606,003</u>	<u>\$ 13,364,528</u>	<u>\$ 243,241,474</u>
Plan fiduciary net position			
Contributions - employer	\$ 6,388,000	\$ 304,000	\$ 6,084,000
Contributions - member	2,059,606	116,658	1,942,948
Net investment income	(9,080,116)	(472,910)	(8,607,206)
Benefit payments, including refunds of member contributions	(15,324,091)	(604,874)	(14,719,217)
Administrative expenses	(110,480)	(5,754)	(104,726)
Other	39,054	2,034	37,020
Net change in plan fiduciary net position	(16,028,027)	(660,846)	(15,367,181)
Plan fiduciary net position - beginning	206,622,350	10,593,830	196,028,520
Plan fiduciary net position - ending: (b)	<u>190,594,323</u>	<u>9,932,984</u>	<u>180,661,339</u>
Net pension liability - ending: (a) - (b)	<u>\$ 66,011,680</u>	<u>\$ 3,431,544</u>	<u>\$ 62,580,135</u>
Plan fiduciary net position as a percentage of the total pension liability	74.28%	74.32%	74.27%
Covered-employee payroll	\$ 39,506,337	\$ 2,333,159	\$ 37,173,178
Net pension liability as a percentage of covered-employee payroll	167.09%	147.08%	168.35%



Components of the Pension Expense for the Fiscal Year Ended June 30, 2016

Description	Amount	WPCA	Other
Service cost	\$ 5,018,705	\$ 243,865	\$ 4,774,840
Interest on the total pension liability	18,876,464	968,669	17,907,795
Differences between expected and actual experience	(2,478,015)	(196,287)	(2,281,728)
Changes of assumptions	1,099,206	84,278	1,014,928
Member contributions	(2,059,606)	(116,658)	(1,942,948)
Projected earnings on pension plan investments	(15,494,931)	(800,747)	(14,694,184)
Differences between projected and actual earnings on plan investments	7,512,871	386,888	7,125,983
Pension plan administrative expense	110,480	5,754	104,726
Other changes in fiduciary net position	<u>(39,054)</u>	<u>(2,034)</u>	<u>(37,020)</u>
Total pension expense	<u>\$ 12,546,120</u>	<u>\$ 573,728</u>	<u>\$ 11,972,392</u>