



Town of Westerly Police Pension Fund

July 1, 2017 ACTUARIAL VALUATION

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At the request of the plan sponsor, this report summarizes the actuarial results of the Town of Westerly Police Pension Fund as of July 1, 2017. The purpose of this report is to communicate the following results of the valuation:

- Funded Status;
- Determine Actuarial Recommended Contribution for plan year ending June 30, 2018; and
- Determine Actuarial Recommended Contribution for plan year ending June 30, 2019.

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census and asset information has been provided to us by the employer. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the employer. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

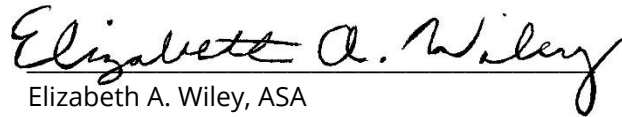
- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart


Elizabeth A. Wiley, ASA

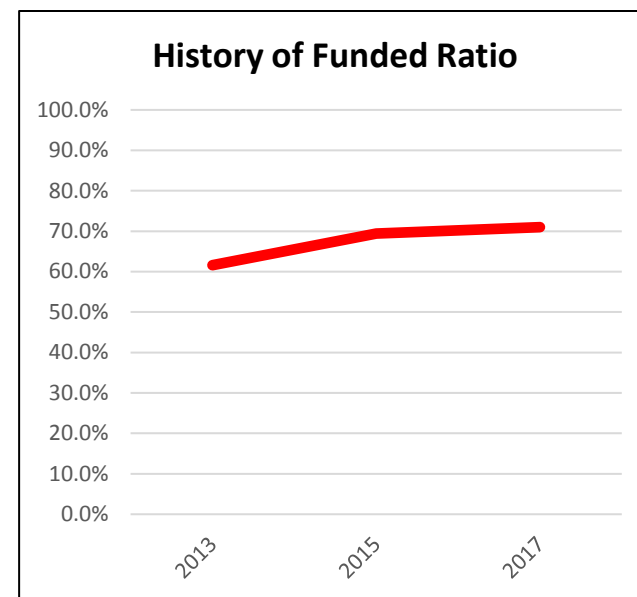

David D. Harris, ASA, EA, MAAA

12/8/2017
Date

Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

Valuation Date	July 1, 2015	July 1, 2017
Funded Status Measures		
Entry Age Accrued Liability	\$41,967,326	\$46,420,634
Actuarial Value of Assets	29,123,313	32,963,763
Unfunded Actuarial Accrued Liability (UAAL)	12,844,013	13,456,871
Funded Percentage (AVA)	69.4%	71.0%
Funded Percentage (MVA)	69.2%	70.2%
Asset Performance		
Market Value of Assets (MVA)	\$29,062,295	\$32,601,961
Actuarial Value of Assets (AVA)	\$29,123,313	\$32,963,763
Actuarial Value/Market Value	100.2%	101.1%
Participant Information		
Active Participants	49	48
Terminated Vested Participants	1	1
Retirees, Beneficiaries, and Disabled Participants	46	48
Total	96	97



Cost Measures for Plan Year Ending:	June 30, 2017	June 30, 2018	June 30, 2019
Actuarial Recommended Contribution	\$1,667,700	\$1,610,200	\$1,636,400
Actuarial Recommended Contribution (as a percentage of projected payroll)	40.9%	43.9%	42.3%
Total Payroll	\$4,077,370	\$3,665,217	\$3,866,804

Changes since Prior Valuation and Key Notes

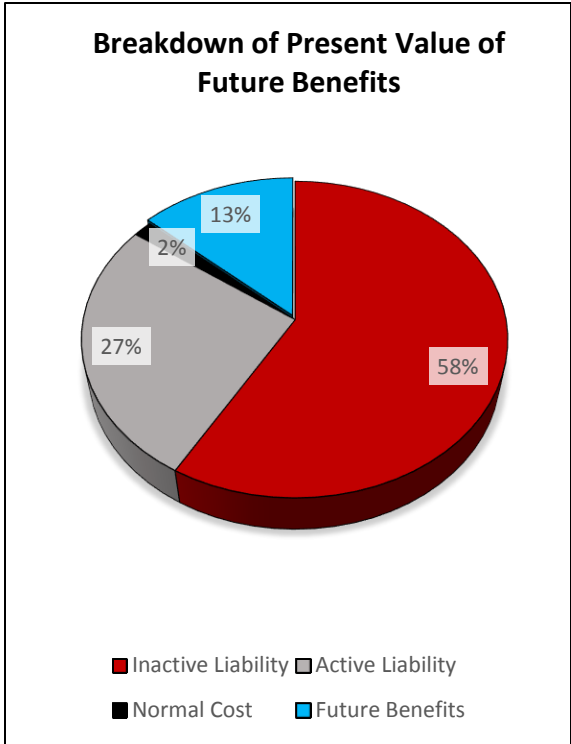
The mortality table has been updated from using the fully generational scale MP-2015 to using the fully generational scale MP-2016. The mortality table (RP-2014 Total) and the year in which improvements begin (2006) remain the same. This change results in a decrease in liability and normal cost.

The valuation interest rate has been reduced from 7.50% to 7.25% to match future expected asset performance. This change resulted in an increase in liability and normal cost.

Present Value of Future Benefits

The Present Value of Future Benefits represents the future benefits payable to the existing participants.

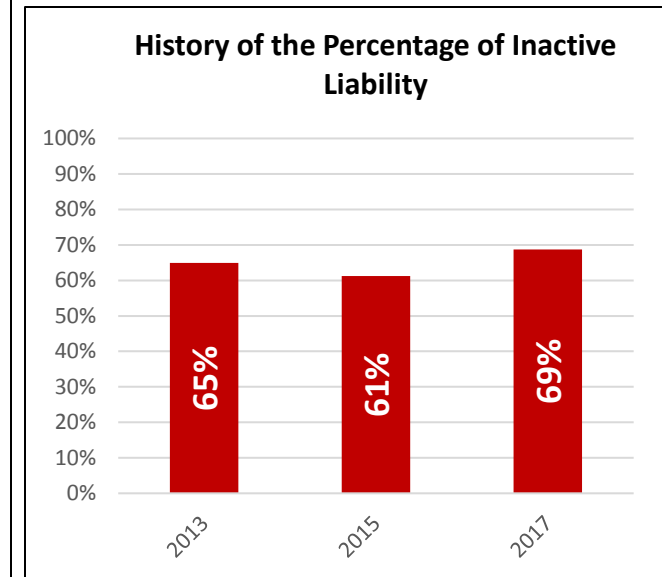
	July 1, 2017
Present Value of Future Benefits	
Active participants	
Retirement	\$21,229,312
Disability	\$645,523
Death	\$219,949
Termination	\$614,066
Refund of contributions	\$0
Total active	\$22,708,850
Inactive participants	
Retired participants	\$30,302,845
Beneficiaries	\$1,334,551
Disabled participants	\$0
Terminated vested participants	\$267,136
Total inactive	\$31,904,532
Total	\$54,613,382



Accrued Liability

The Accrued Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions.

	July 1, 2017
Active participants	
Retirement	\$14,377,463
Disability	\$176,575
Death	\$65,013
Termination	(\$102,949)
Refund Contributions	\$0
Total Active	<u>\$14,516,102</u>
Inactive participants	
Retired participants	\$30,302,845
Beneficiaries	\$1,334,551
Disabled participants	\$0
Terminated vested participants	\$267,136
Total Inactive	<u>\$31,904,532</u>
Total	\$46,420,634
Normal Cost	\$904,511



Asset Information

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

July 1, 2017

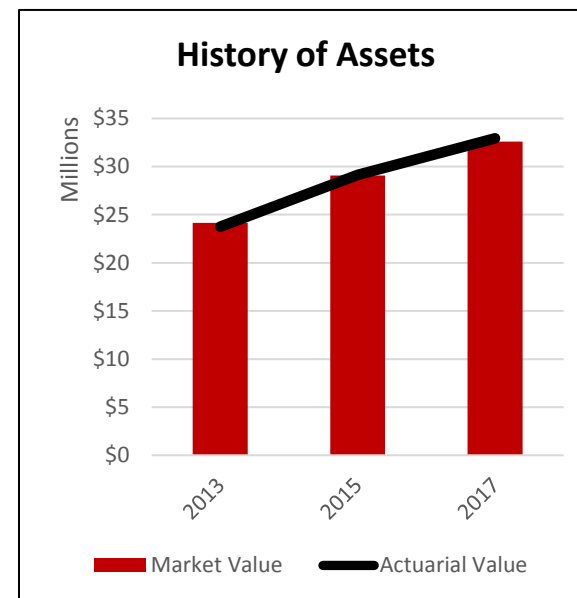
Market Value Reconciliation

Market value of assets, as of 7/1/2016	\$32,102,387
Contributions	
Employer contributions	2,120,000
Employee contributions	388,426
Total	\$2,508,426
Investment income	3,809,221
Benefit payments	(2,940,074)
Investment expenses	(77,950)
Market value of assets, beginning of current year	\$35,402,010
Return on Market Value	11.7%

Actuarial Value of Assets

Value at beginning of current year	\$35,794,887
Actuarial Value as a % of Market Value	101.11%

	Market Value of Assets	Actuarial Value of Assets
Pension	\$32,601,961	\$32,963,763
OPEB	\$2,800,049	\$2,831,124



Asset Information (continued) – Development of Actuarial Value of Assets

Plan Assets are used to develop funded percentages and contribution requirements.

	July 1, 2017
Investment Gain or (Loss)	
1. Expected market value of assets	
(a) Market value of assets, as of 7/1/2016	\$32,102,387
(b) Contributions	2,508,426
(c) Benefit payments	(2,940,074)
(d) Expected return	2,391,785
(e) Expected market value of assets, beginning of current year	\$34,062,524
2. Market value of assets, beginning of current year	\$35,402,010
3. Actual return on market value	\$3,731,271
4. Amount subject to phase in [(3) – (1d)]	\$1,339,486
5. Phase in of asset gain/(loss)	
(a) Current year (80% x \$1,339,486)	\$1,071,589
(b) First prior year (60% x (\$2,211,565))	(1,326,939)
(c) Second prior year (40% x (\$979,173))	(391,669)
(d) Third prior year (20% x \$1,270,708)	254,142
(e) Total phase-in	(\$392,877)
6. Actuarial value of assets, beginning of current year [(2)-(5e)]	\$35,794,887
7. Return on actuarial value of assets	7.0%
	Actuarial Value of Assets
Pension	\$32,963,763
OPEB	\$2,831,124

Reconciliation of Gain/Loss

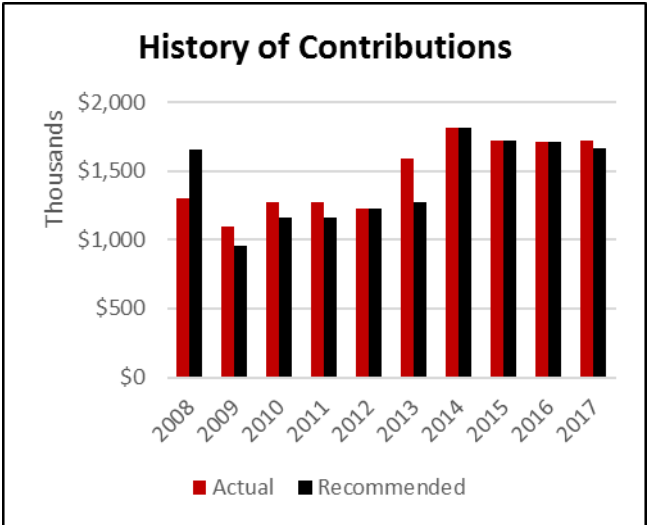
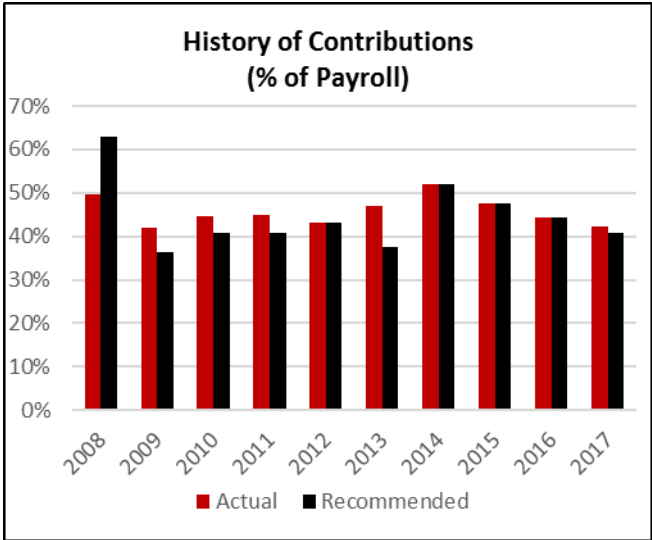
	July 1, 2017
Liability (Gain)/Loss	
1. Actuarial liability, as of 7/1/2015	\$41,967,326
2. Normal cost for prior 2 years	1,988,824
3. Benefit payments	(4,277,632)
4. Expected Interest	6,519,853
5. Change in Assumptions	1,221,777
6. Change in Plan Provisions	0
7. Expected actuarial liability, beginning of current year	\$47,420,148
8. Actual actuarial liability	\$46,420,634
9. Liability (Gain)/Loss, (8) - (7)	(\$999,514)
 Asset Gain/(Loss)	
10. Actuarial value of assets, as of 7/1/2015	\$29,123,313
11. Contributions	4,205,158
12. Benefit payments	(4,277,632)
13. Expected Investment return	4,526,880
14. Expected actuarial value of assets, beginning of current year	\$33,577,719
15. Actual actuarial value of assets, beginning of current year	\$32,963,763
16. Asset Gain/(Loss), (15) - (14)	(\$613,956)
 Total (Gain)/Loss, (9) - (16)	 (\$385,558)

Development of Actuarial Recommended Contribution

The minimum recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

July 1, 2017

Funded Position	
1. Entry Age Accrued Liability	\$46,420,634
2. Actuarial value of assets	\$32,963,763
3. Unfunded actuarial accrued liability (UAAL)	\$13,456,871
Employer Contributions	
1. Normal Cost	
(a) Total normal cost	\$904,511
(b) Expected participant contributions	\$448,582
(c) Employer normal cost	\$455,929
2. Amortization of UAAL	\$1,085,602
3. Applicable interest	\$68,623
4. Actuarial recommended funding contribution for plan year ending June 30, 2018	
(1c) + (2) + (3), rounded to the nearest hundred	\$1,610,200



Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

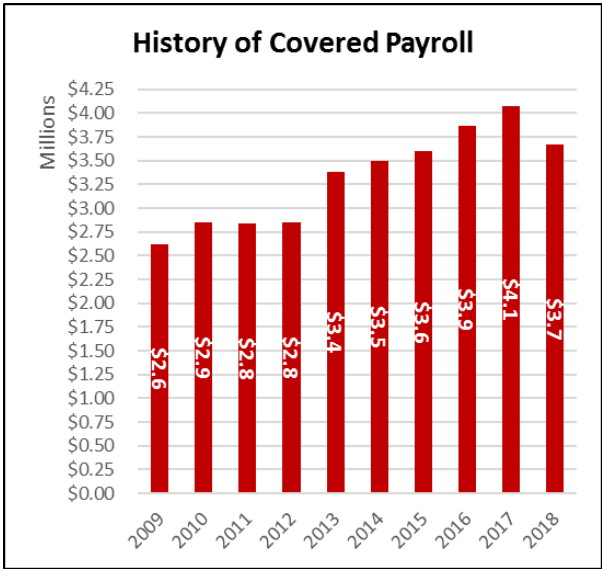
July 1, 2017

Participant Counts

Active Participants	48
Retired Participants	42
Beneficiaries	6
Terminated Vested Participants	1
Total Participants	97

Active Participant Demographics

Average Age	38.2
Average Service	11.1
Average Compensation	\$76,359
Covered Payroll	\$3,665,217



Demographic Information (continued)

	July 1, 2017
Retiree Statistics	
Average Age	61.0
Average Monthly Benefit	\$4,104
Beneficiary Statistics	
Average Age	70.6
Average Monthly Benefit	\$1,698
Terminated Participant Statistics	
Average Age	49.3
Average Monthly Benefit	\$2,216

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	49	1	0	38	8	96
Active						
To Retired	(6)	0	0	6	0	0
To Non-Participating	(1)	0	0	0	0	(1)
To Lump Sum Cash-Out	(1)	0	0	0	0	(1)
Retired						
To Death	0	0	0	(2)	0	(2)
Survivor						
To Death	0	0	0	0	(3)	(3)
Additions	7	0	0	0	1	8
Departures	0	0	0	0	0	0
Current Year	48	1	0	42	6	97

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service									Total
	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	
Under 25	4									4
25 to 29	5	3								8
30 to 34	1	5	1							7
35 to 39		4	1							5
40 to 44			3	6	1					10
45 to 49	1		2	6	2					11
50 to 54					1	1				2
55 to 59				1						1
60 to 64										
65 to 69										
70 & up										
Total	11	12	7	13	4	1				48

Participation

All regular police officers are eligible to participate.

Normal retirement benefit

A pension for life computed as 50% of annual pay for 20 years of service plus 2% times annual pay for each year of service over 20 years up to 5 years plus 1% times annual pay for each year of service over 25 years (maximum service equals 30)

For those hired after July 1, 2010, a pension for life computed as 50% of annual pay for 25 years of service plus 3% times annual pay for each year of service over 25 years (maximum service equals 30)

Normal retirement date

Effective July 1, 1987, a policeman may retire upon completion of 20 years of service

Effective July 1, 2010, a policeman hired after July 1, 2010 may retire upon completion of 25 years of service

Effective July 1, 2013, a policeman hired after July 1, 2013 may retire upon completion of 25 years of service and attainment of age 52

Annual pay

Base salary for the 12 months immediately preceding retirement

Credited service

Period of employment as police officer of Town

Normal form of payment

67.5% Joint & Survivor annuity

Vesting

100% vested after 10 years of service. Participants with less than 10 years of service receive a return of employee contributions with interest.

Non Occupational Disability retirement

10% of final Annual Pay for participants with less than 10 years of service, 18% for 10 to 15 years of service, and 27% for 15 to 20 years of service

Occupational Disability retirement

50% of final Annual Pay

Preretirement death benefit

Return of member's contributions with interest.

Postretirement death benefit

Continuation of 67.5% of deceased retired member's pension to spouse until death or remarriage. If no eligible spouse, benefit payable to dependent children under age 18

Death in line of duty benefit

Heirs shall receive benefits the member would have been entitled to as though they had been members of the bargaining unit for 20 years

Cost-of-living adjustment

Retired prior to June 30, 1990	2.5% Simple, retroactive to July 1, 1993
Retired on or after June 30, 1990	2.5% Simple, effective July 1, 1994
Retired on or after July 1, 1998	3.0% Simple
Hired after July 1, 2010	3.0% Simple after earlier of 5 years of payment or attainment of age 52
Hired after July 1, 2013	2.0% Simple

Member Contributions

12.0% of pay

Unless otherwise specified, assumptions have been set based on results from the 2014 experience study prepared by Hooker & Holcombe.

Valuation Date	July 1, 2017
Participant Data	Collected as of July 1, 2017
Actuarial Cost Method	Entry Age Method
Asset Valuation Method	Fair market value of assets on the measurement date adjusted for a five year phase-in of gains and losses of plan assets at 20% per year
Amortization Method	Closed 30-year level dollar amortization of the Unfunded Actuarial Accrued Liability beginning July 1, 2013.
Interest Rate	7.25% net of investment expenses
	This assumption has been set by the plan sponsor in conjunction with their asset advisors. Detailed evaluation of this assumption was outside the scope of our engagement.

Annual Pay Increases	Service	Rate
	0	15.00%
	1	14.00%
	2	12.00%
	3	11.00%
	4	10.00%
	5	9.00%
	6	8.00%
	7	7.00%
	8	6.00%
	9	5.50%
	10	5.25%
	11-12	5.00%
	13	4.75%
	14	4.50%
	15	4.25%
	16+	4.00%

The annual pay increases reflect the employer's average target increase for a career employee.

Cost of Living Increases

Valued explicitly

Mortality Rates

Healthy

RP 2014 Mortality Table with generational improvements from 2006 using scale MP-2016

Disabled

RP 2014 Disabled Mortality Table with generational improvements from 2006 using scale MP-2016

As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.

Disability Rates

33% of the 1985 Pension Disability Table Class 4 rates for males and females

Withdrawal Rates

Service	Rate
0	7.00%
1	5.50%
2	5.00%
3	4.50%
4	4.00%
5	3.50%
6	3.00%
7	2.50%
8	2.25%
9	2.00%
10	1.75%
11	1.50%
12	1.25%
13	1.00%
14	0.75%
15	0.50%
16+	0.00%

Retirement Rates

For those hired on or before July 1, 2010:

Service	Rate
20-22	30.00%
23	20.00%
24-27	30.00%
28	100.00%

For those hired after July 1, 2010:

Service	Rate
25-27	30.00%
28	20.00%
29	30.00%
30	40.00%
31	100.00%

For those hired after July 1, 2013, these same rates apply upon attainment of age 52.

Marital Status and Ages

70% of males and 60% of females assumed married with wives 3 years younger than husbands

Payment Form

67.5% Joint & Survivor annuity for married; Single Life annuity otherwise

Expense and/or Contingency Loading

Estimated annual administrative fees. As administrative expenses are not paid from the pension trust, no administrative expenses are assumed.

The actuarial report also shows the necessary items required for plan reporting and any state requirements.

- ✓ Actuarial Recommended Contribution for Plan Year Ending June 30, 2019

Development of Actuarial Recommended Contribution for Plan Year Ending June 30, 2019

The minimum recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

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Funded Position	
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1. Normal Cost	
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(b) Expected participant contributions	\$448,582
(c) Employer normal cost	\$455,929
2. Covered payroll	\$3,665,217
3. Employer Normal Cost as a % of payroll	12.44%
4. Projected payroll	\$3,866,804
5. Employer Normal Cost for 2018-2019 Plan Year	\$481,030
6. Amortization of UAAL	\$1,085,602
7. Applicable Interest	\$69,741
8. Actuarially recommended contribution for plan year ending June 30, 2019	
(5) + (6) + (7), rounded to the nearest hundred	\$1,636,400