



MANAGEMENT SUMMARY

# Pension Plan of Town of West Warwick

December 12, 2016

JULY 1, 2016 ACTUARIAL VALUATION



# Agenda

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# Certification

This report was prepared for the Pension Board to summarize the results of the 7/1/2016 funding valuation and the GASB 67 & 68 accounting report as of June 30, 2016, and may not be appropriate for other uses. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than the intended use.

Except where indicated otherwise, the funding results included in this report are based on the same data, assumptions, methods, and plan provisions as the 7/1/2016 funding valuation. As a result, these sections of the 2016 funding report dated 11/18/2016 should be considered part of this report.

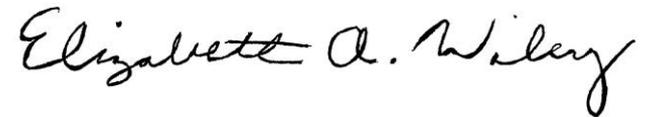
Accounting results are based on the same data, assumptions, methods and plan provisions as described in the 6/30/2016 GASB 67 & 68 report. As a result, these sections of the GASB 67 & 68 report dated 10/19/2016 should be considered part of this report.

This report has been prepared in accordance with generally accepted actuarial principles and practice.

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



**Tayt V. Odom, FSA, EA, MAAA**



**Elizabeth A. Wiley, ASA**

# Highlights



## Changes

- Lower than expected asset returns
- Minimal overall demographic changes
- Update in Mortality Improvement Scale



## Plan Status

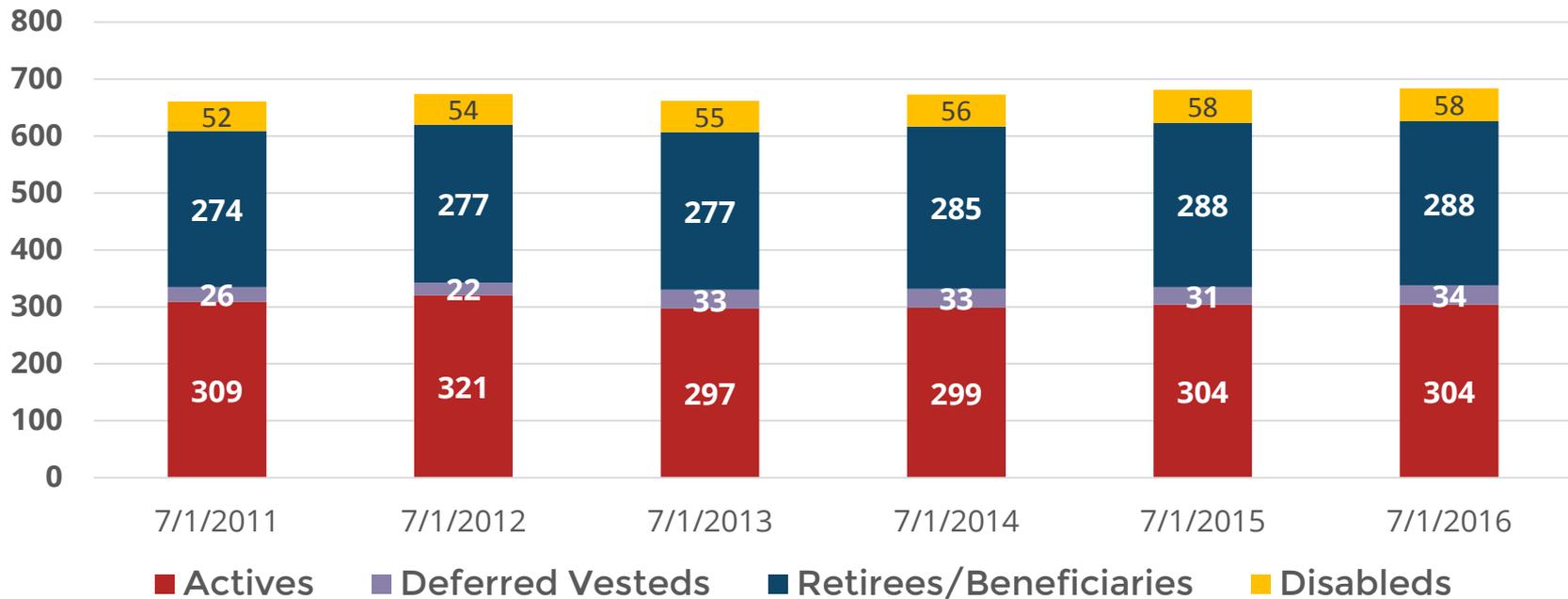
- Recommended contribution higher than scheduled
- Funded percentage increased



## Looking Ahead

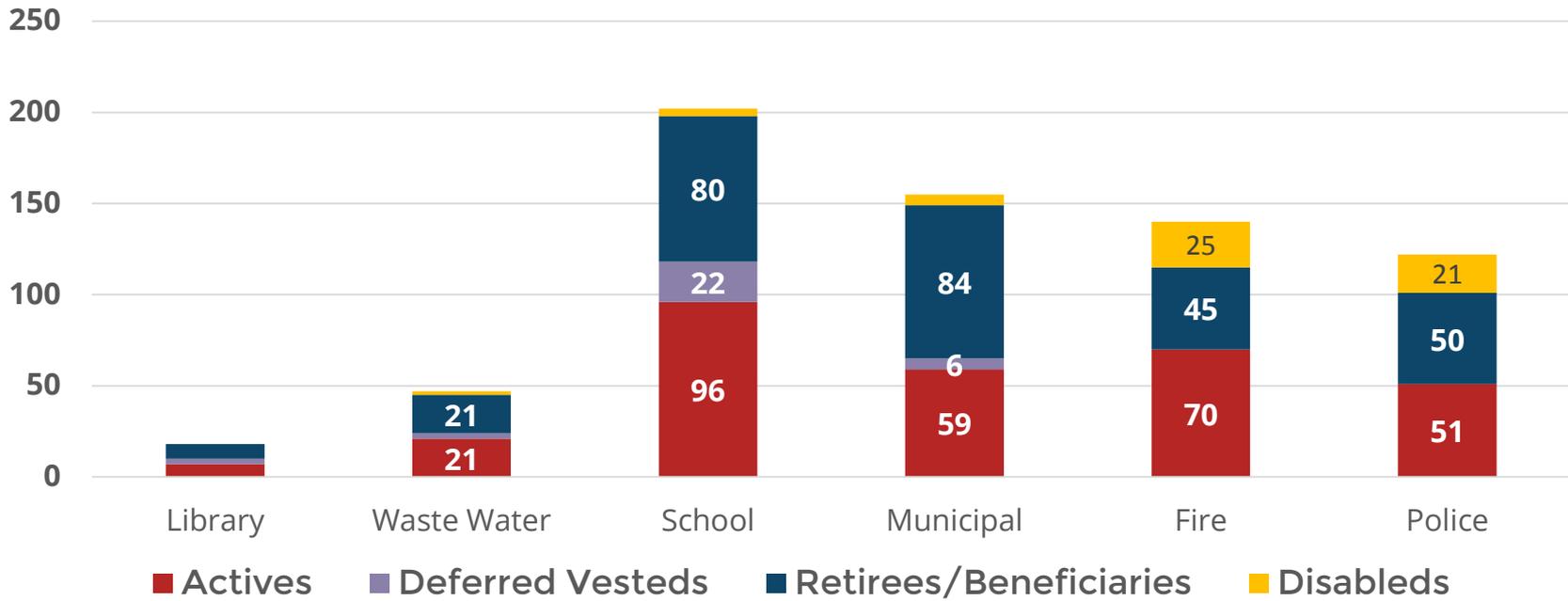
- Continued contributions at the recommended rate should keep plan sustainable long-term

# Participant Information



Active Demographics	2011	2012	2013	2014	2015	2016
Average Age	44.8	44.5	45.0	45.2	45.7	46.0
Average Service	11.1	10.9	11.8	11.9	12.1	12.5
Average Plan Compensation	\$49,078	\$46,278	\$46,991	\$47,503	\$50,028	\$52,934
Total Active Payroll (\$000's)	\$15,165	\$14,855	\$13,956	\$14,203	\$15,208	\$16,092

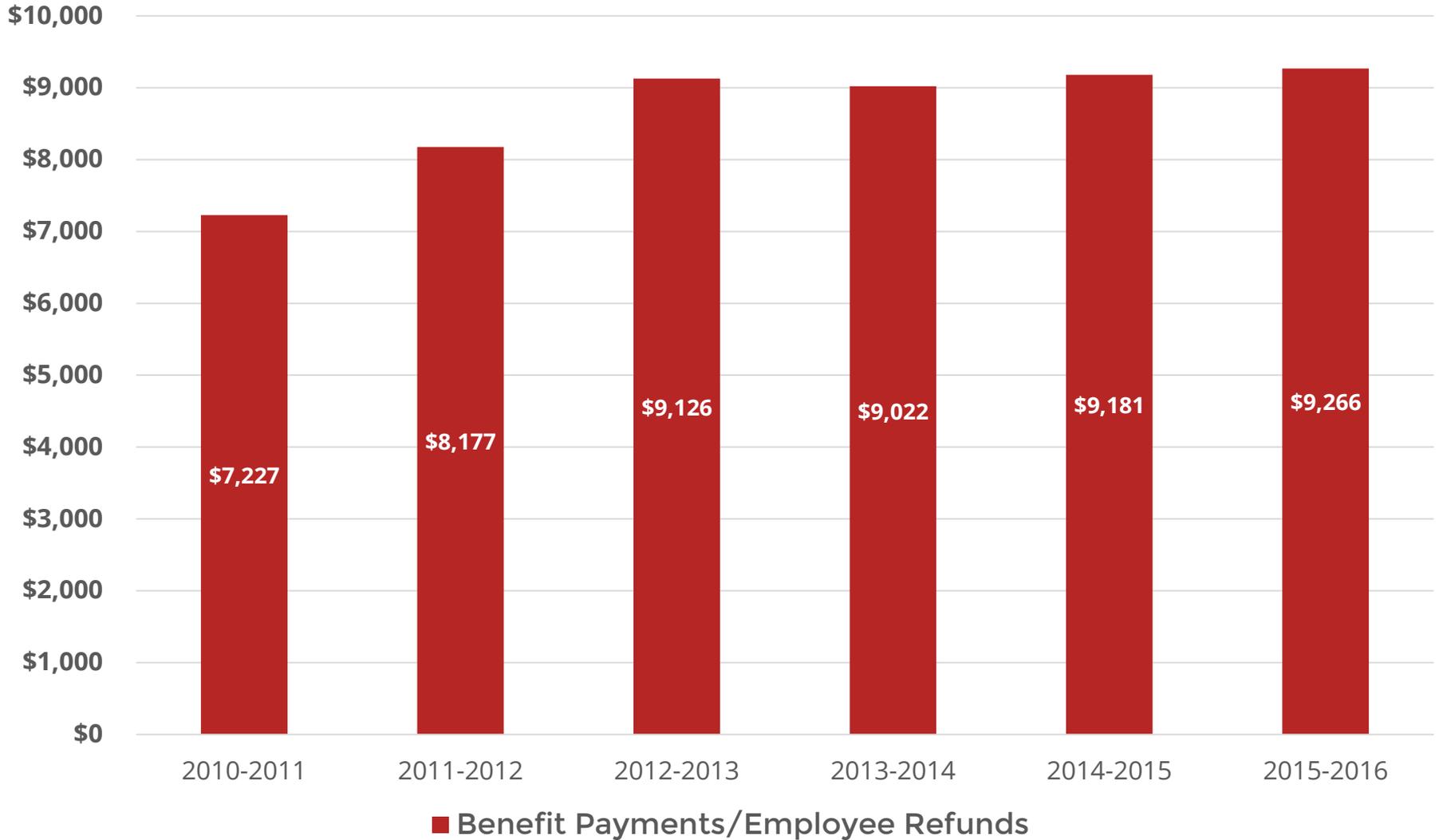
# Participant Information - by Division



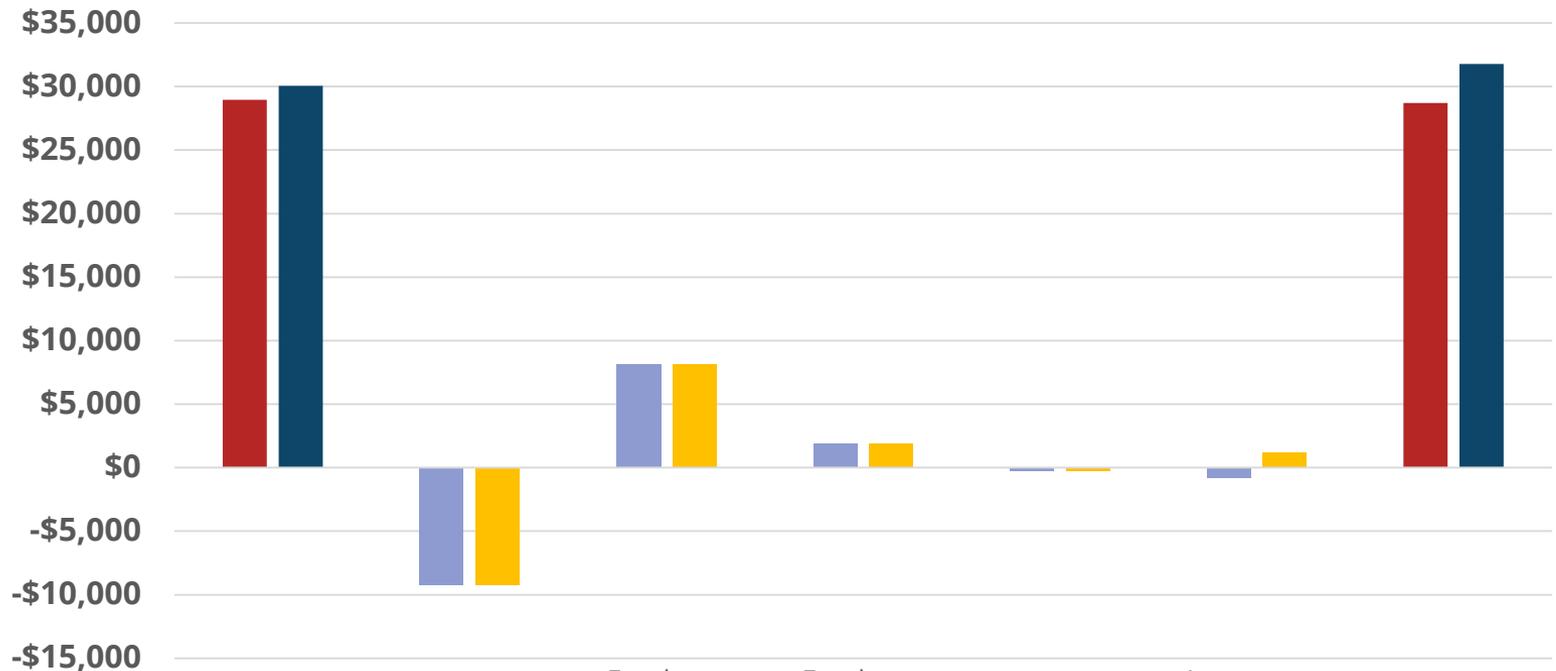
Division	Library	Waste Water	School	Municipal	Fire	Police
<b>Disableds</b>	0	2	4	6	25	21
<b>Retirees/Beneficiaries</b>	8	21	80	84	45	50
<b>Deferred Vesteds</b>	3	3	22	6	0	0
<b>Actives</b>	7	21	96	59	70	51



# Annual Benefit Payments



# 2015-2016 Asset Reconciliation



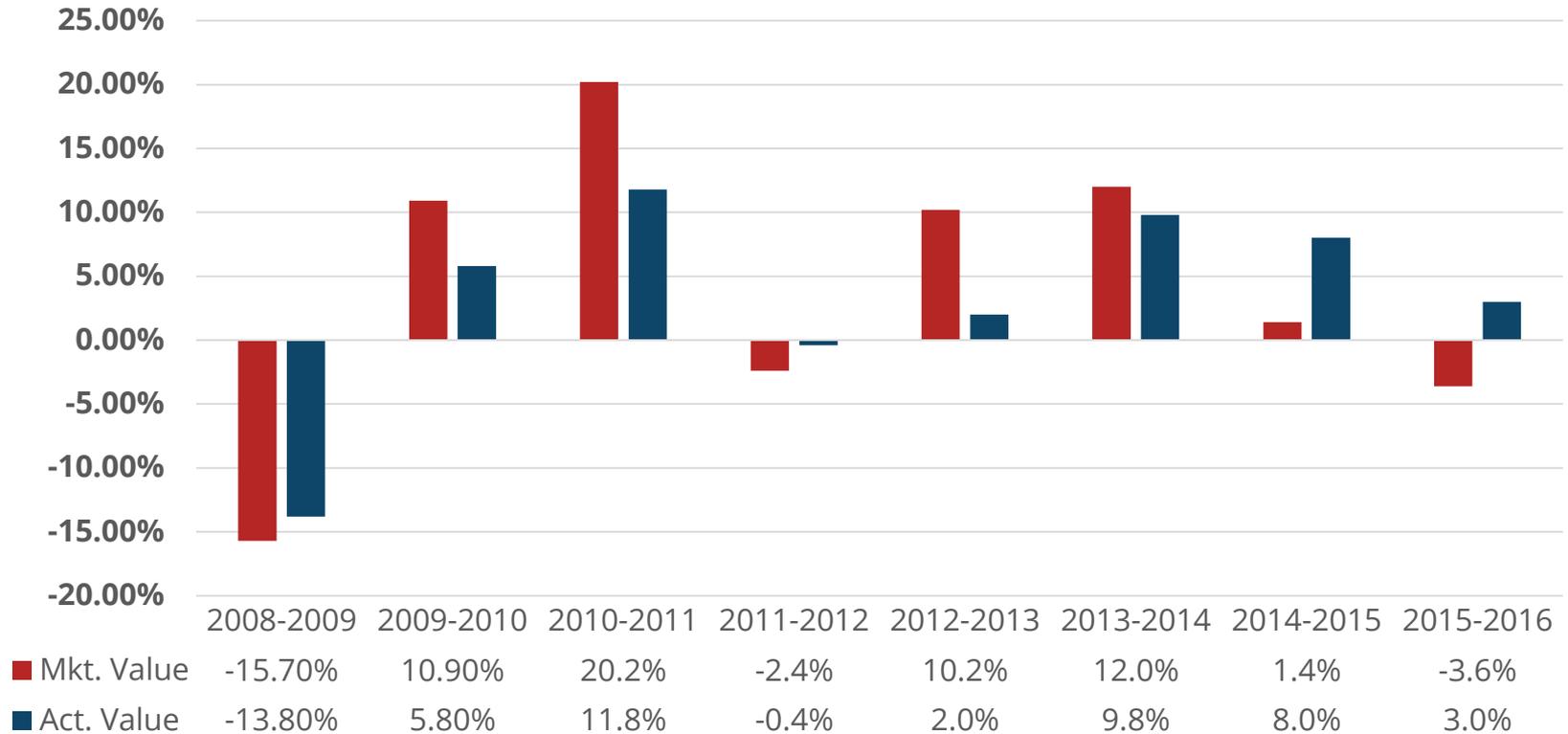
	7/1/2015	Benefits Paid	Employer Contributions	Employee Contributions	Expenses*	Investment Return	6/30/2016
■ Market Value of Assets	\$28,965	-\$9,266	\$8,180	\$1,885	-\$259	-\$793	\$28,712
■ Actuarial Value of Assets	\$30,065	-\$9,266	\$8,180	\$1,885	-\$259	\$1,174	\$31,779

## ACTUARY'S COMMENT

The 2015-2016 return was approximately -3.6%, resulting in a market value of assets that is approximately \$3.3 million lower than projected under last year's valuation.

\*Expenses shown include legal, administrative, and investment expenses.

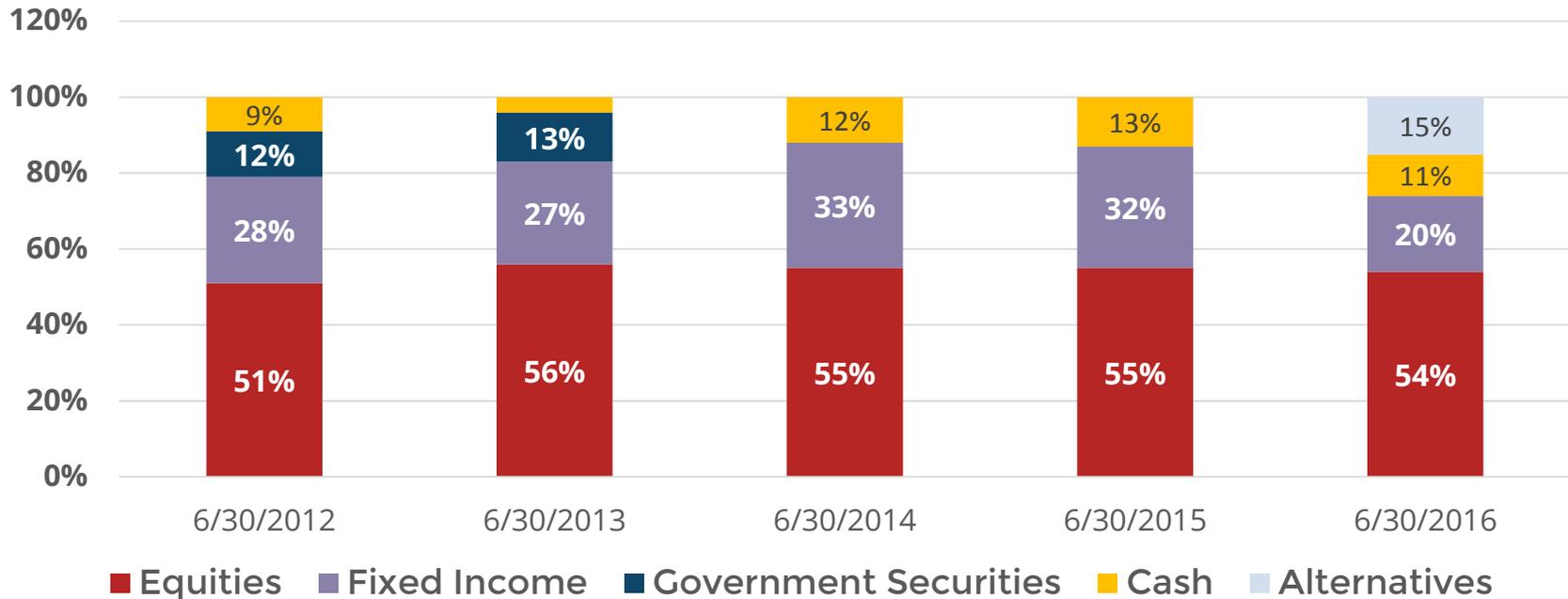
# Annual Investment Return Rates



## ACTUARY'S COMMENT

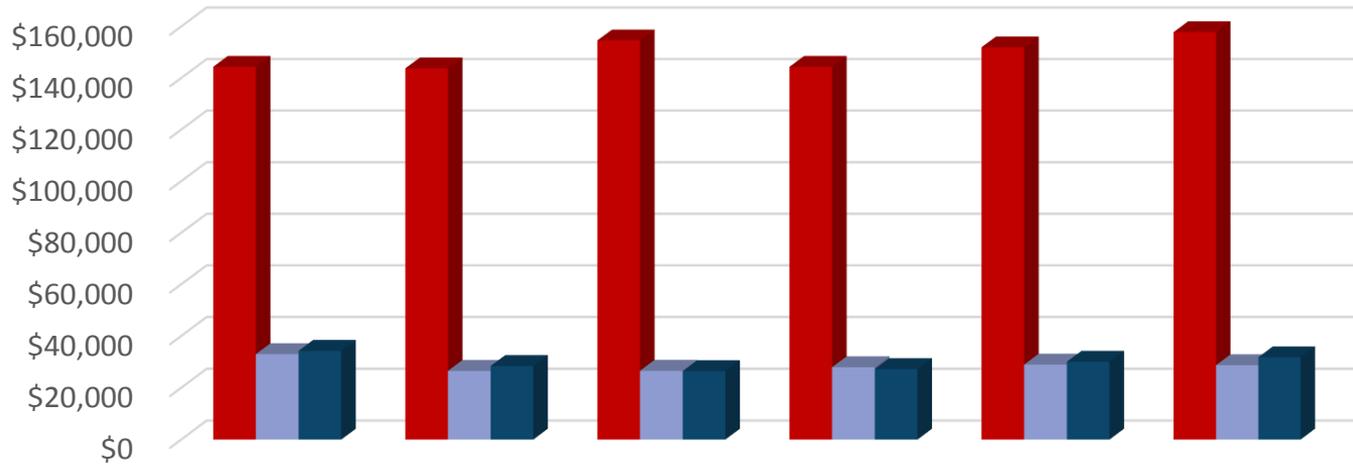
Over the past eight plan years, the plan's average annual investment return has been 3.6%.

# Asset Class Allocation



Asset Class	6/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016
<b>Alternatives</b>	0%	0%	0%	0%	15%
<b>Cash</b>	9%	4%	12%	13%	11%
<b>Government Securities</b>	12%	13%	0%	0%	0%
<b>Fixed Income</b>	28%	27%	33%	32%	20%
<b>Equities</b>	51%	56%	55%	55%	54%

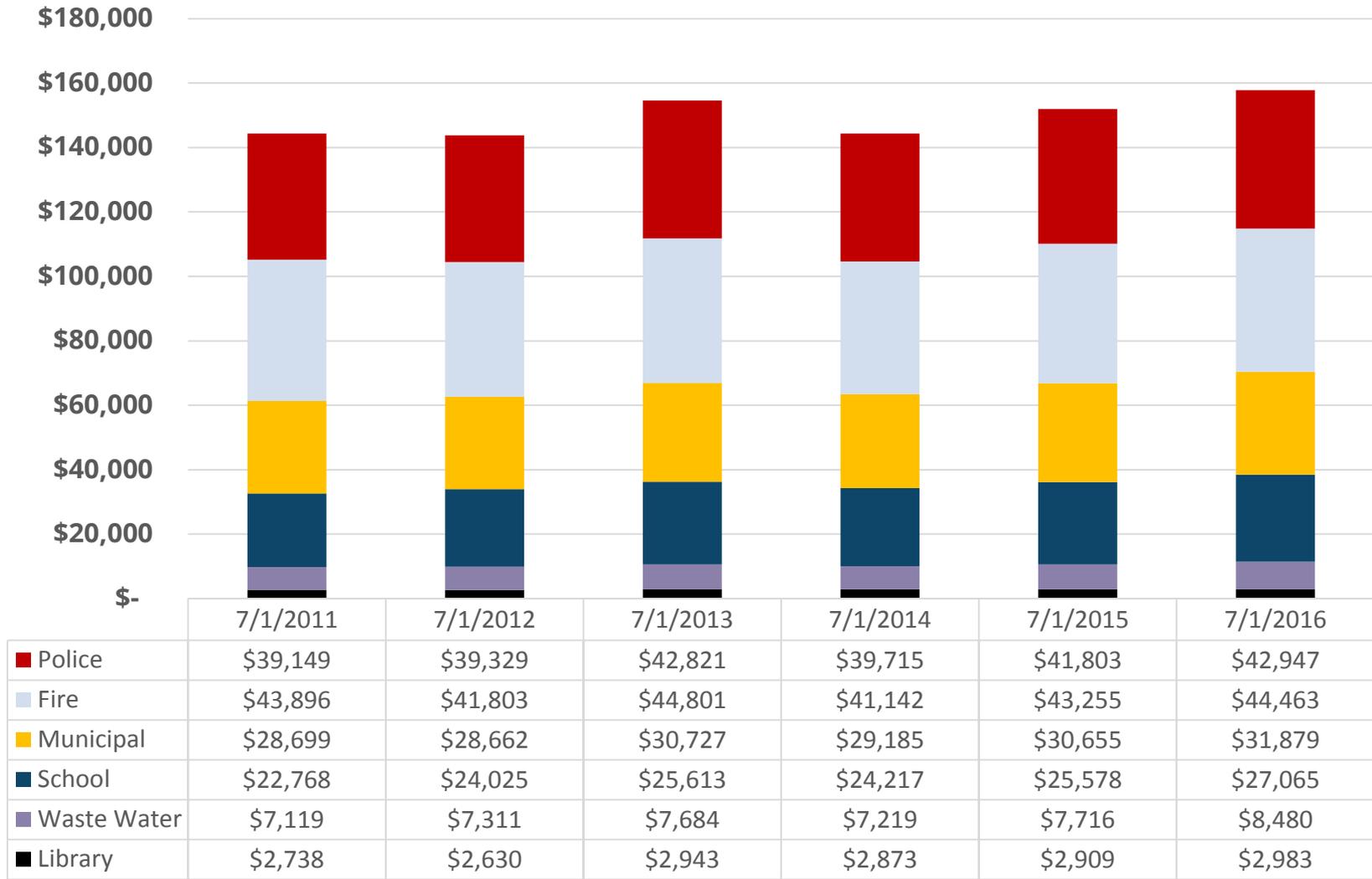
# Funded Status



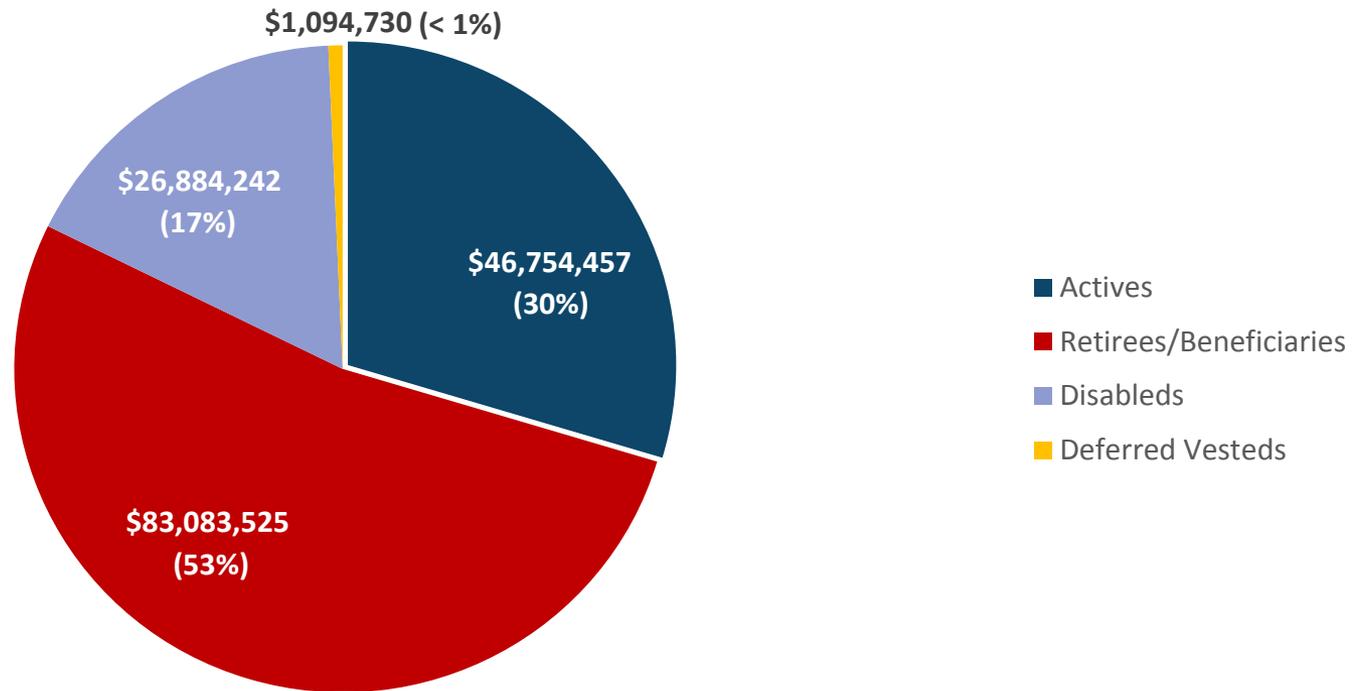
	7/1/2011	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016
■ Accrued Liability	\$144,369	\$143,760	\$154,589	\$144,351	\$151,916	\$157,817
■ Market Value of Assets	\$32,976	\$26,528	\$26,565	\$27,929	\$28,965	\$28,712
■ Plan Assets	\$34,278	\$28,421	\$26,429	\$27,237	\$30,065	\$31,779

Funded Percentage	
<b>Market Value</b>	22.8%    18.5%    17.2%    19.3%    19.1%    18.2%
<b>Plan Assets</b>	23.7%    19.8%    17.1%    18.9%    19.8%    20.1%

# Accrued Liability – by Division



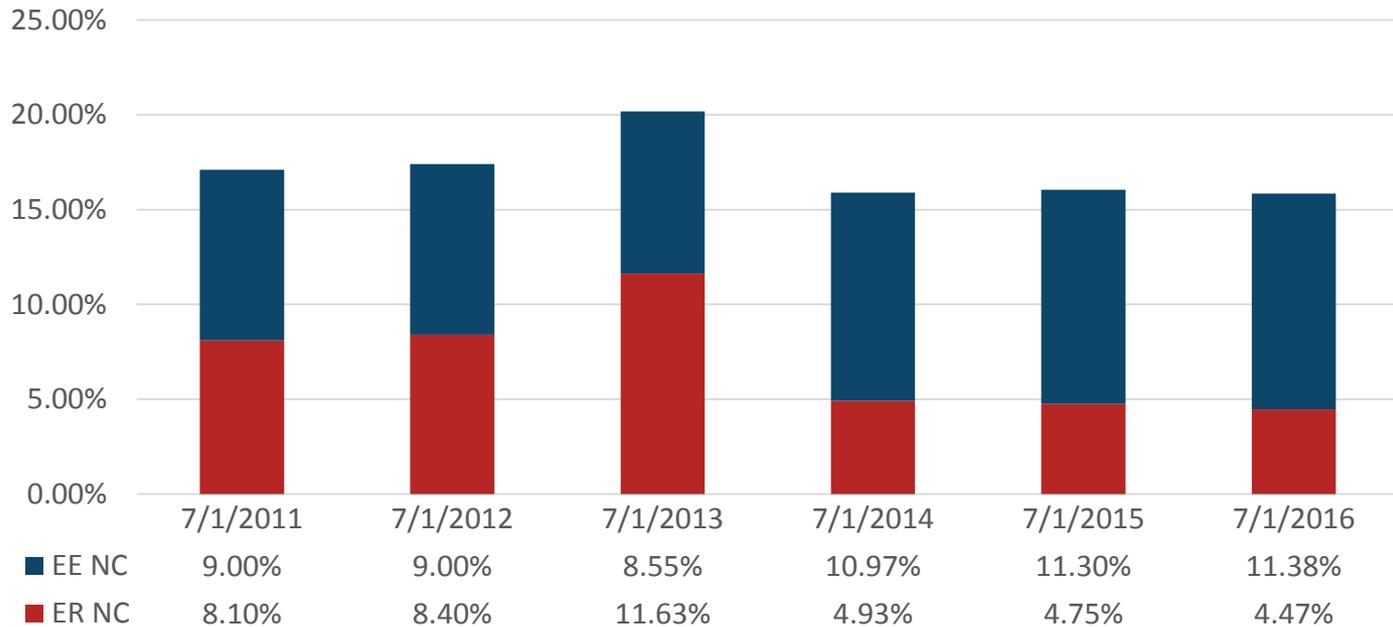
# Accrued Liability – by Status



## ACTUARY'S COMMENT

Over 70% of the plan's liability is for participants who no longer work for the Town. This makes the plan very leveraged and highly volatile with regards to asset returns.

# Normal Cost Percentage



Total NC Percentage

17.10%

17.40%

20.18%

15.90%

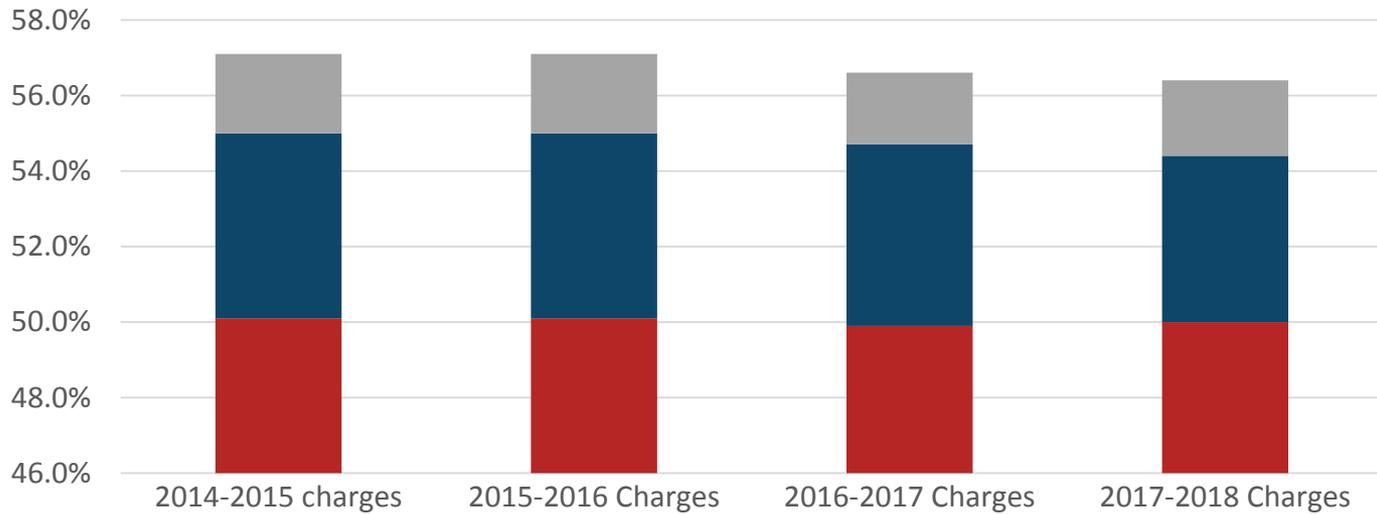
16.05%

15.85%

## ACTUARY'S COMMENT

The Normal Cost Percentage indicates the cost of benefits earned in the current year as a percentage of pay. The decrease in Total Normal Cost Percentage from 2013 to 2014 is largely due to the benefit changes implemented and made effective 7/1/2014.

# Contribution Recommendation



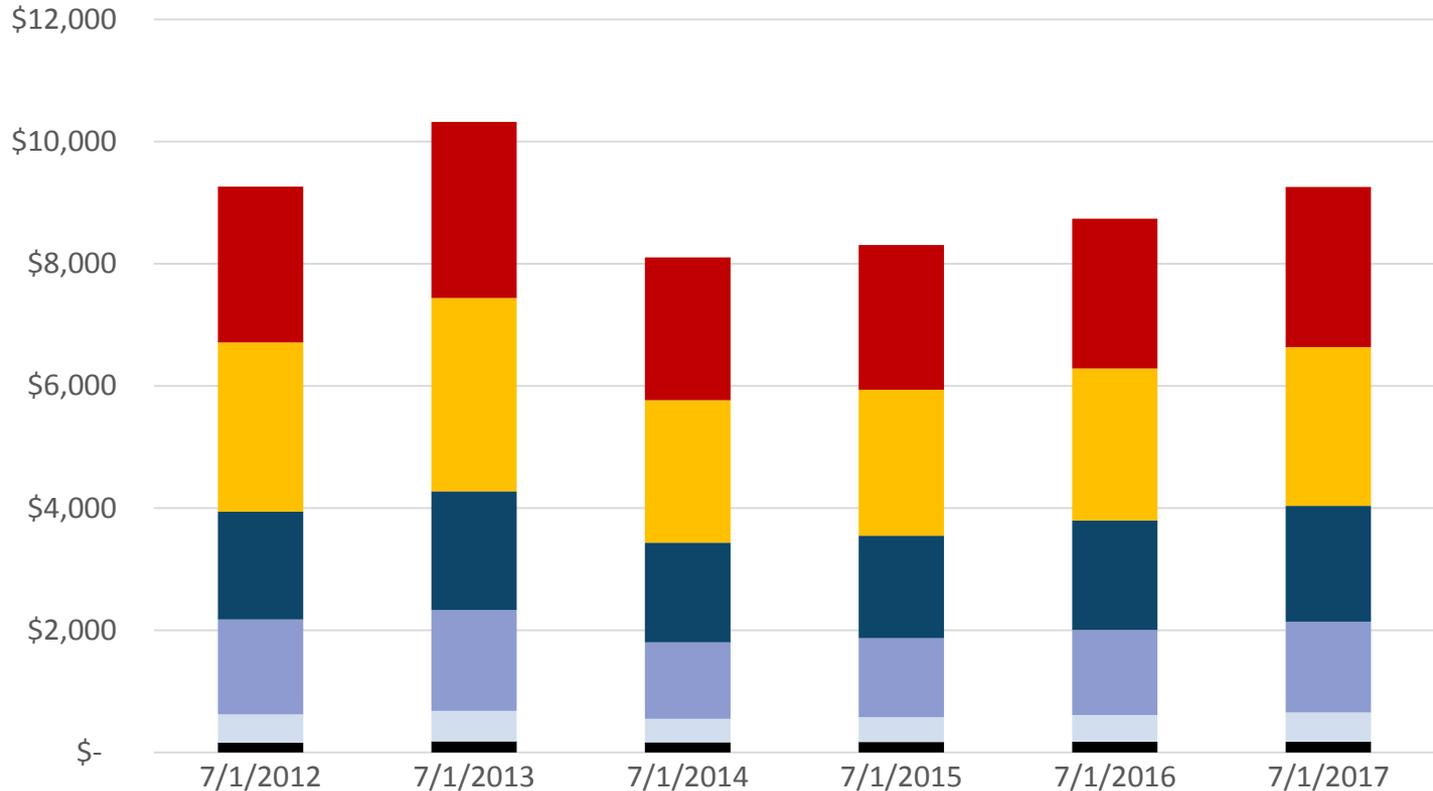
Interest	2.1%	2.1%	1.9%	2.0%
ER Normal Cost	4.9%	4.9%	4.8%	4.4%
Amortization	50.1%	50.1%	49.9%	50.0%

<b>Total</b>	<b>57.1%</b>	<b>57.1%</b>	<b>56.6%</b>	<b>56.4%</b>
<b>Projected Payroll</b>	\$14,203,313	\$14,552,901	\$15,441,246	\$16,413,653
<b>Recommended Contribution</b>	\$8,103,839	\$8,309,706	\$8,739,745	\$9,257,300

## ACTUARY'S COMMENT

The contribution recommendation is first determined as a percentage of payroll based on the sum of the annual normal cost and an amortization (over 25-year period as a level % of pay) of past service liability, with interest. This percentage is applied to projected payroll for the following plan year.

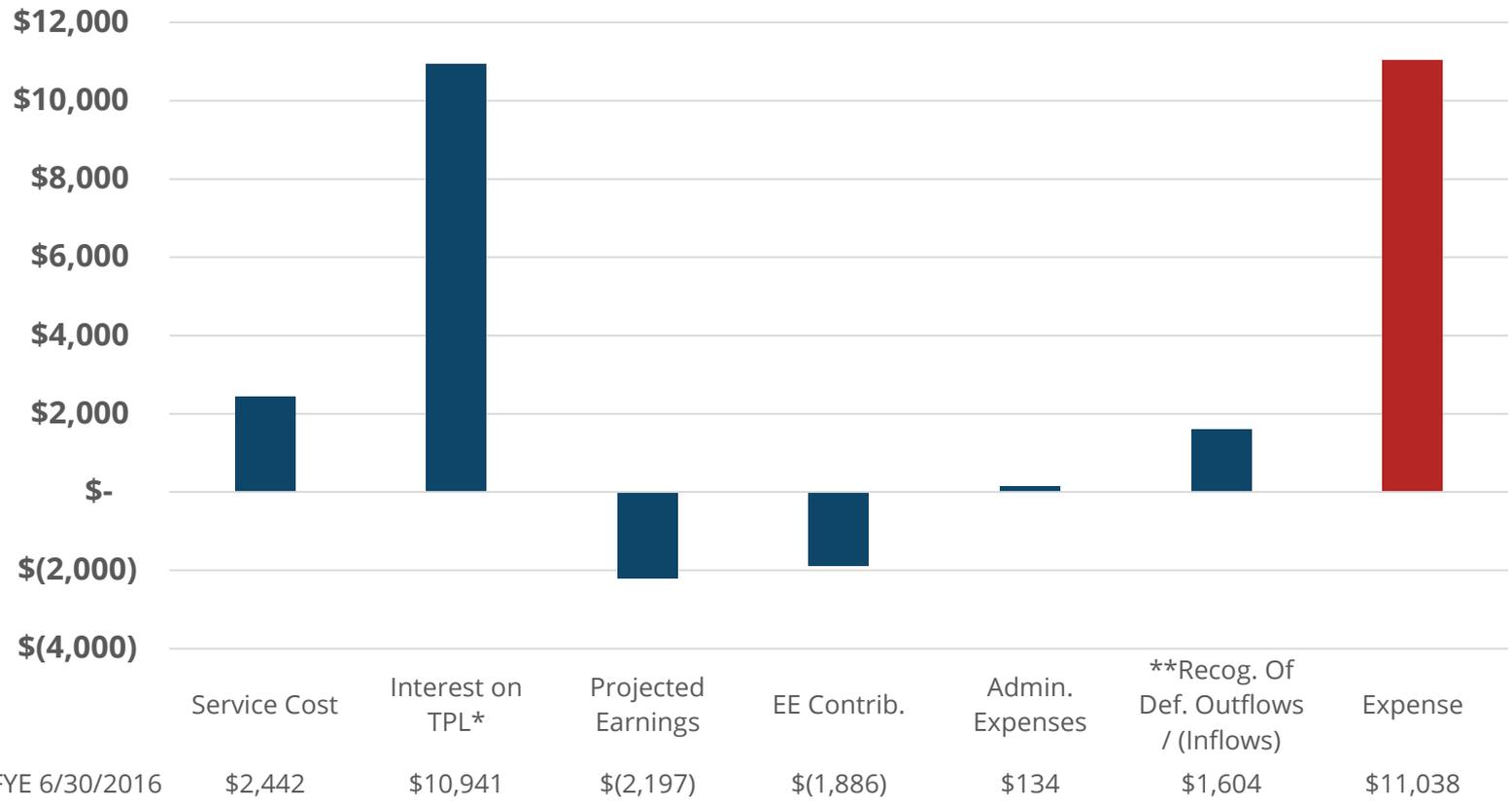
# Contribution Recommendation - by Division



	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Police	\$2,551	\$2,882	\$2,337	\$2,369	\$2,455	\$2,621
Fire	\$2,770	\$3,162	\$2,331	\$2,393	\$2,484	\$2,598
Municipal	\$1,766	\$1,943	\$1,631	\$1,678	\$1,795	\$1,897
School	\$1,555	\$1,654	\$1,251	\$1,294	\$1,392	\$1,483
Waste Water	\$462	\$499	\$387	\$404	\$438	\$480
Library	\$160	\$182	\$167	\$172	\$176	\$178



# GASB 67, 68 Accounting Results - Pension Expense



## ACTUARY'S COMMENT

\*TPL refers to Total Pension Liability

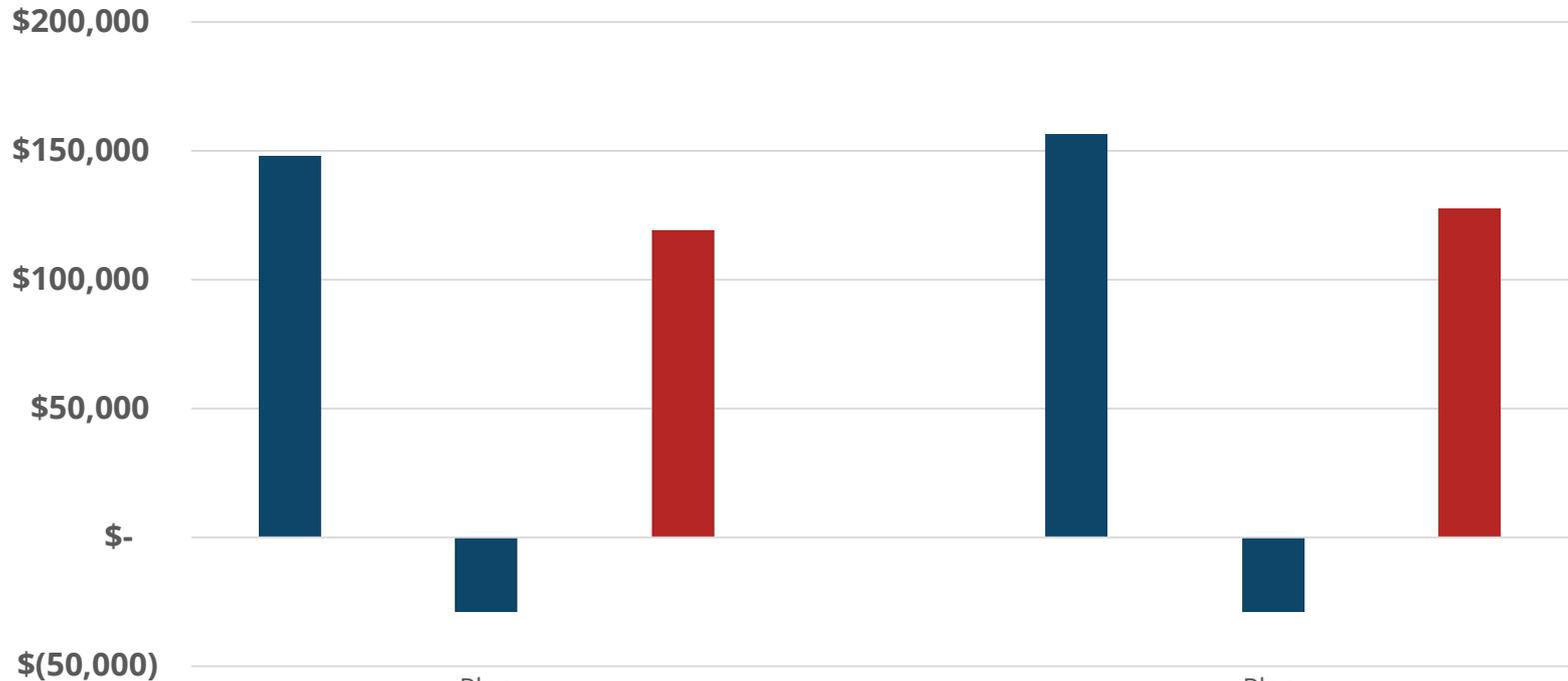
\*\* The \$1,604,000 charge includes charges due to differences between expected and actual experience in measurement of the TPL, changes of assumptions, and differences between projected and actual earnings on pension plan investments



# GASB 67, 68 Accounting Results - Balance Sheet Liability

6/30/2015

6/30/2016



	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
■ Net Pension Liability	\$148,080	\$(28,965)	\$119,115	\$156,249	\$(28,712)	\$127,537

## ACTUARY'S COMMENT

Under GASB 67 and 68, the Net Pension Liability is equal to the unfunded liability at the measurement date. In determining the unfunded liability, the market value of assets is used.



# Comments on Projections

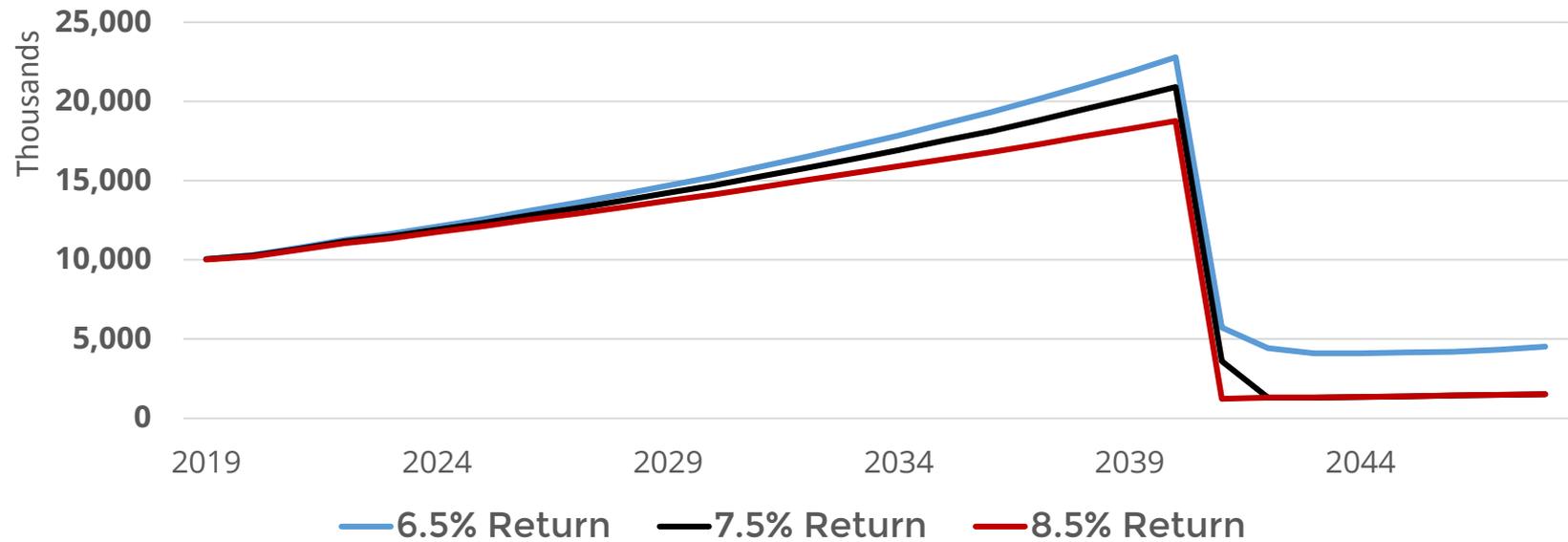
The cost projections contained in this report are based on the valuation results and assumptions noted in the July 1, 2016 actuarial valuation report. Reasonable actuarial techniques and assumptions were used to produce the cost projections.

The following pages show cost projections under different economic scenarios. Note sophisticated demographic projections of participant data were not completed due to the scope of the project. Actual results will vary from projections shown in this report, perhaps significantly, due to changes in the assumptions, plan provisions, participant demographics, interest rate movement, actual asset performance, and other actual experience of the plan. Depending on the use of this information, additional cost projections may be necessary to quantify the sensitivity of results.

While a diligent effort has been made to produce reasonable projections, by their very nature projections are speculative. Plan sponsors are cautioned against placing too much reliance on any particular scenario.

# Projections

## Varied Asset Returns



Plan Year Ending	2018	2023	2028	2033	2038	2043	2048	2018-2048
<b>Projected Payroll</b>	16,414	18,534	21,026	23,733	26,951	31,017	36,179	
<b>Recommended Contribution (as % of Pay)</b>	9,257 (56%)	11,639 (63%)	14,129 (67%)	17,183 (72%)	20,968 (78%)	4,094 (13%)	4,522 (13%)	385,339
<b>Recommended Contribution (as % of Pay)</b>	9,257 (56%)	11,473 (62%)	13,625 (65%)	16,186 (68%)	19,162 (71%)	1,303 (4%)	1,520 (4%)	345,131
<b>Recommended Contribution (as % of Pay)</b>	9,257 (56%)	11,361 (61%)	13,309 (63%)	15,474 (65%)	17,788 (66%)	1,303 (4%)	1,520 (4%)	330,274



# Appendix



# Summary of Plan Provisions

## EFFECTIVE DATE

*Police and Fire* – April 1, 1957  
*School* – March 1, 1970  
*Others* – July 1, 1969

## PARTICIPATION

Employees are eligible to participate in the Plan upon date of hire

## VESTING

Eligibility – 100% vested at 10 years of service  
Benefit – Normal Retirement Benefit commencing at normal retirement age

## ANNUAL COMPENSATION

*Police* – Basic earnings, longevity pay (excluding overtime and other extra payments), wellness stipend, and 105 hours of holiday pay  
*Fire* – Basic earnings, longevity pay (excluding overtime and other extra payments), all holiday pay, and EMT pay  
*Others* – Basic earnings and longevity pay (excluding overtime and other extra payments)

## AVERAGE ANNUAL COMPENSATION

*Police, Library* – average of Annual Compensation over the last 12 months of employment  
*Fire* – average of highest three consecutive Annual Compensation amounts  
*Municipal Non-Union* – average of final three Annual Compensation amounts  
*Municipal Union, Waste Water, School (Council 94)* – average of final ten Annual Compensation amounts

## CREDITED SERVICE

Contributing employees receive credit for all service from date of membership

## PARTICIPANT CONTRIBUTIONS

*Police* – 12% of Annual Compensation  
*Fire* – 13% of Annual Compensation  
*Library* – 9% of Annual Compensation  
*Others* – 11% of Annual Compensation

## PAYMENT FORM OPTIONS

For married participants, the unreduced payment form is 67.5% joint and survivor annuity. For single participants, the unreduced payment form is a life annuity.



# Summary of Plan Provisions

## NORMAL RETIREMENT - ELIGIBILITY

*Fire hired before 7/1/2014* – age 62 or age 50 with 25 years of credited service. Four members named in the CBA may retire at age 62.5 or upon completion of 20 years of credited service regardless of age

*Fire hired on or after 7/1/2014* – age 62 or age 55 with 25 years of credited service

*Civilian Fire* – age 60 with 10 years of credited service

*Police hired before 7/1/2014* – age 62 or 20 years of credited service regardless of age

*Police hired on or after 7/1/2014* – age 62 or age 50 with 20 years of credited service

*Library* – age 60 with 10 years of credited service or 25 years of credited service regardless of age

*Municipal Non-Union* – age 55 with 10 years of credited service

*Municipal Union, Waste Water, School (Council 94) hired before 7/1/2014* – age 62 with 12 years of credited service or 25 years of service regardless of age

*Municipal Union, Waste Water, School (Council 94) hired on or after 7/1/2014* – age 62 with 12 years of credited service or age 55 with 25 years of service

## NORMAL RETIREMENT - BENEFIT

*Fire* – 2.2% of Average Annual Compensation x credited service up to 25 years, plus 3.0% x Average Annual Compensation x up to 5 additional years

*Police with 20 years of service by 6/30/2014* – 2.5% of Average Annual Compensation x credited service up to 28 years

*Other Police* – 2.5% of Average Annual Compensation x credited service up to 20 years, plus 1.0% of Average Annual Compensation x up to 5 additional years of credited service, plus 2.5% of Average Annual Compensation for next 6 years of service

*Library* – 2.5% of Average Annual Compensation x credited service

*Municipal Union, Waste Water, School (Council 94), Municipal Non-Union* – 2.5% of Average Annual Compensation x credited service prior to 7/1/2014, plus 2.4% of Average Annual Compensation for each year of credited service after 7/1/2014



# Summary of Plan Provisions

## COST OF LIVING ADJUSTMENT\*

*Police* – 2.25% for 15 years effective 7/1/2000; for active members as of 7/1/2014, the COLA is suspended 7 years from retirement

*Fire* – 2.25% for 15 years effective 7/1/2002; for active members as of 7/1/2014, the COLA is suspended until the earlier of 7 years from retirement or age 62.5 (age 67 for civilian members), followed by a 2.25% simple COLA for 15 years

*Library* – 2.25% for 15 years effective 7/1/2002

*Others* – 2.25% for 15 years effective 7/1/2002; for active members as of 7/1/2014, the COLA is suspended 5 years from retirement, followed by 2% compounded for 15 years

\*For inactive members as of 7/1/2014, the COLA has been suspended until 6/30/2019



# Summary of Actuarial Assumptions and Methods

<b>Interest Rate</b>	7.50%	
<b>Mortality Rates</b>	<p>Healthy- <i>Police and Fire</i> – RP-2014 Blue Collar Mortality Table with generational improvements from 2006 based on assumptions from the 2015 SSA Trustees’ Report</p> <p><i>Others and Beneficiaries of All Participants</i> – RP-2014 Mortality Table with generational improvements from 2006 based on assumptions from the 2015 SSA Trustees’ Report</p> <p>Disabled – RP-2014 Disabled Mortality Table with generational improvements from 2006 based on assumptions from the 2015 SSA Trustees’ Report</p>	
<b>Actuarial Cost Method</b>	Entry Age Normal	
<b>Asset Valuation Method</b>	Smoothed Value – investment gains/losses recognized over five years, subject to a 15% corridor	
<b>Spousal Assumption</b>	80% of participants assumed to be married with female spouses 3 years younger than husbands	
<b>COLA – Active Police Disability</b>	90% of assumed active base salary increase rate (0.00% next 2 years; 3.15% compounded thereafter)	
<b>Annual Pay Increases</b>	<b>Years</b> <span style="float: right;"><b>Increases</b></span>	
	July 2013 - June 2018 <span style="float: right;">2% per year</span>	
	July 2018 + <span style="float: right;">3.5% per year</span>	



# Summary of Actuarial Assumptions and Methods

<b>Disability Rates</b>	Age	Police/Fire					Others			
	25	0.28%					0.09%			
	30	0.44%					0.15%			
	35	0.66%					0.22%			
	40	0.99%					0.33%			
	45	1.53%					0.51%			
	50	2.51%					0.84%			
	55	4.49%					0.00%			
	60	6.32%					0.00%			
<b>Withdrawal Rates - Police and Fire</b>	None									
<b>Withdrawal Rates - Others</b>	Age	25	30	35	40	45	50	55	60	
	Rate	5.27%	4.83%	4.47%	3.84%	3.21%	1.52%	0.33%	0.00%	



# Summary of Actuarial Assumptions and Methods

## Retirement Rates

### POLICE HIRED BEFORE 7/1/2014

- 25% at 20 years of service
- 50% at 25 years of service
- 100% at age 62
- 5% all other age/service combinations

### POLICE HIRED AFTER 7/1/2014

- 25% at first eligibility for unreduced retirement if less than 25 years of service
- 50% at first eligibility for unreduced retirement at 25 or more years of service
- 100% at age 62
- 5% at all other age/service combinations

### 4 GRANDFATHERED FIRE MEMBERS

- 25% at 20 years of service
- 50% at 25 years of service
- 100% at age 62
- 5% at all other age/service combinations

### OTHER FIRE MEMBERS

- 50% at first eligibility for unreduced retirement
- 5% at ages 50-54
- 30% at ages 55 and 60 if eligible for unreduced retirement
- 100% at age 62
- 10% at all other age/service combinations

### CIVILIAN FIRE MEMBERS

- 5% at all ages <60
- 50% ages 60 and 62
- 10% at ages 61, 63, 64
- 100% at age 65

Others	Age	< 56	56-59	60	61	62-64	65-66	67-69	70
	Rate	2%	4%	25%	10%	30%	25%	50%	100%