



Pension Plan of Town of West Warwick

***Management Summary of
7/1/2015 Actuarial Valuation***

March 7, 2016

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This report has been prepared for the primary purpose of summarizing the actuarial valuation for the Pension Plan of Town of West Warwick as of July 1, 2015, the GASB 67 & 68 accounting report as of June 30, 2015, and various other matters to be discussed with the Pension Board. To the best of our knowledge, the reports summarized herein present fair positions of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries, and are based on the plan provisions and assumptions summarized within each report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such facts as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or other additional cost or contribution requirement based on the plan's funded status); and changes in plan provisions of applicable law. The scope of our assignment did not include an analysis of the potential range of future measurements.

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.

To our knowledge there have been no significant events prior to the current year's measurement date or as of the date of this report which could materially affect the results contained herein.

Nyhart

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March 7, 2016
Date

➤ **Actuarial Assumptions**

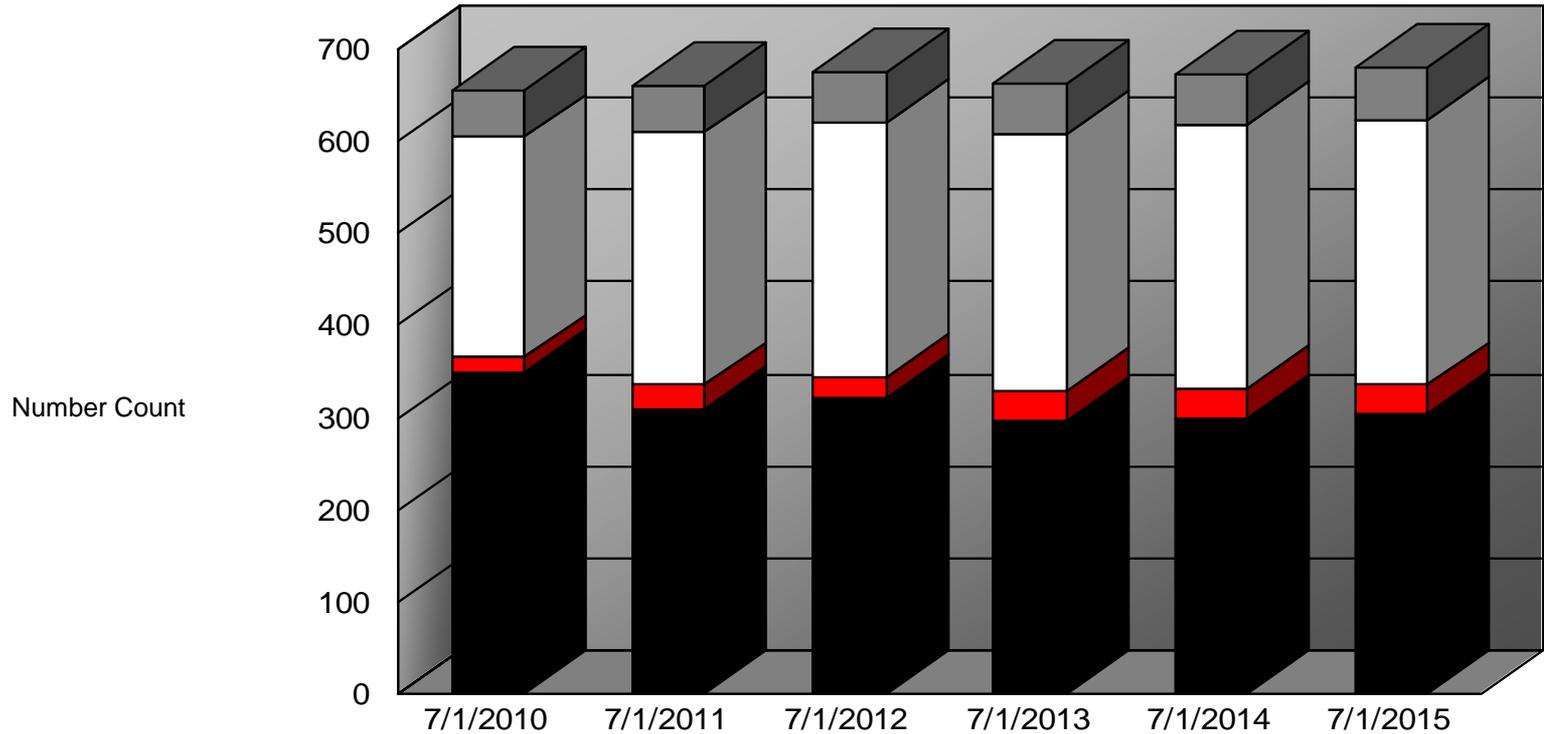
- The mortality assumption changes described below increased the plan’s accrued liability by approximately 2% as of July 1, 2015.

Valuation Year	Public Safety	Disabled	All Others
2014 Valuation	RP-2000 Blue Collar with generational projection per Scale AA	RP-2000 Disabled with generational projection per Scale AA	RP-2000 Healthy with generational projection per Scale AA
2015 Valuation	RP-2014 Blue Collar with Social Security generational improvements from 2006	RP-2014 Disabled with Social Security generational improvements from 2006	RP-2014 Healthy with Social Security generational improvements from 2006

➤ **Actuarial Methods**

- Historically, the recommended contribution was determined annually for the plan year beginning on the valuation date.
- In an effort to expedite the recommended contribution calculations for town budgeting purposes, the recommended contribution is now based on the calculated contribution as a percentage of payroll from the prior valuation date. This percentage is applied to projected payroll for the following plan year.

Participant Information

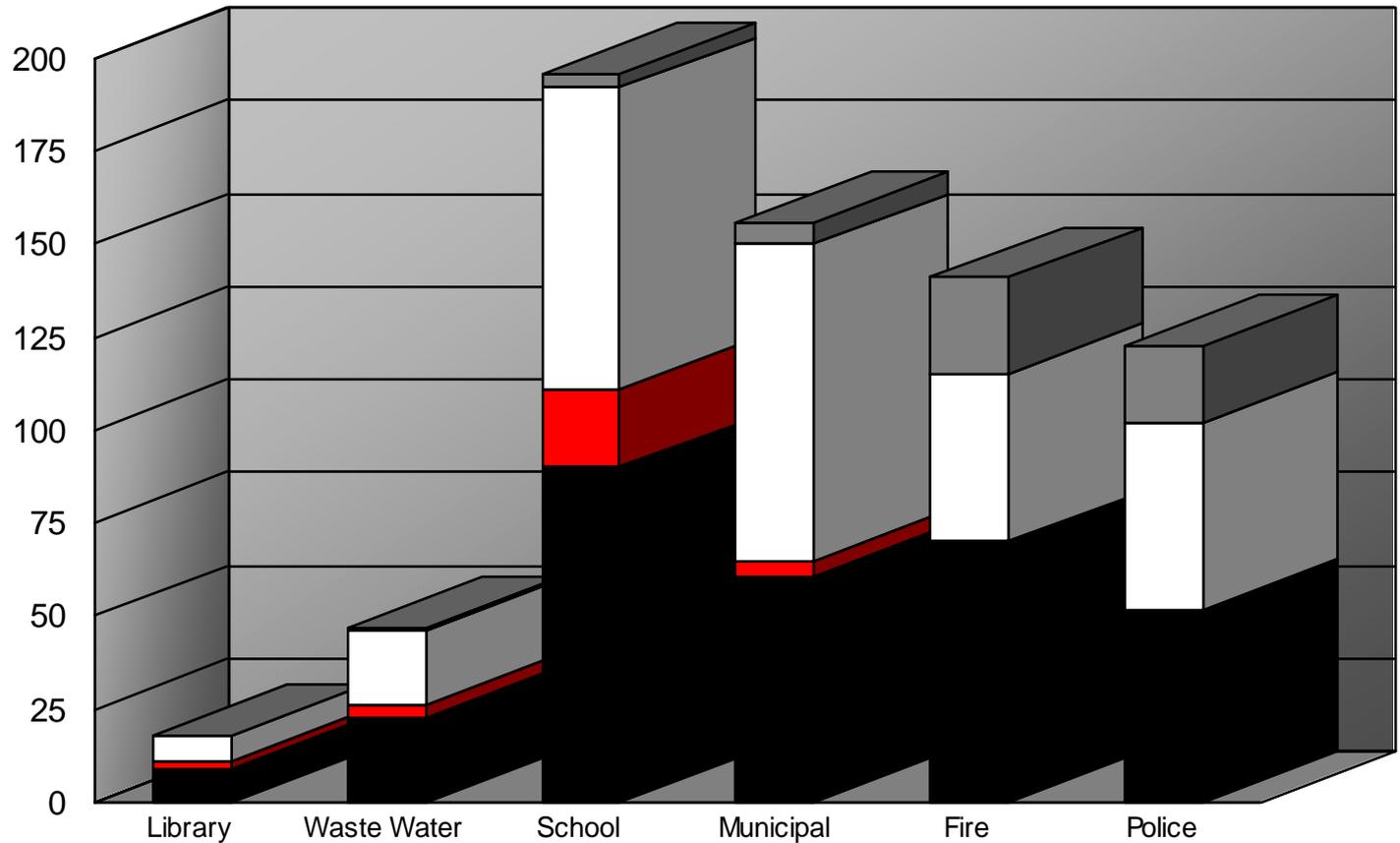


■ Disableds	50	52	54	55	56	58
□ Retirees/Beneficiaries	239	274	277	277	285	288
■ Deferred Vesteds	17	26	22	33	33	31
■ Actives	348	309	321	297	299	304

Active Demographics

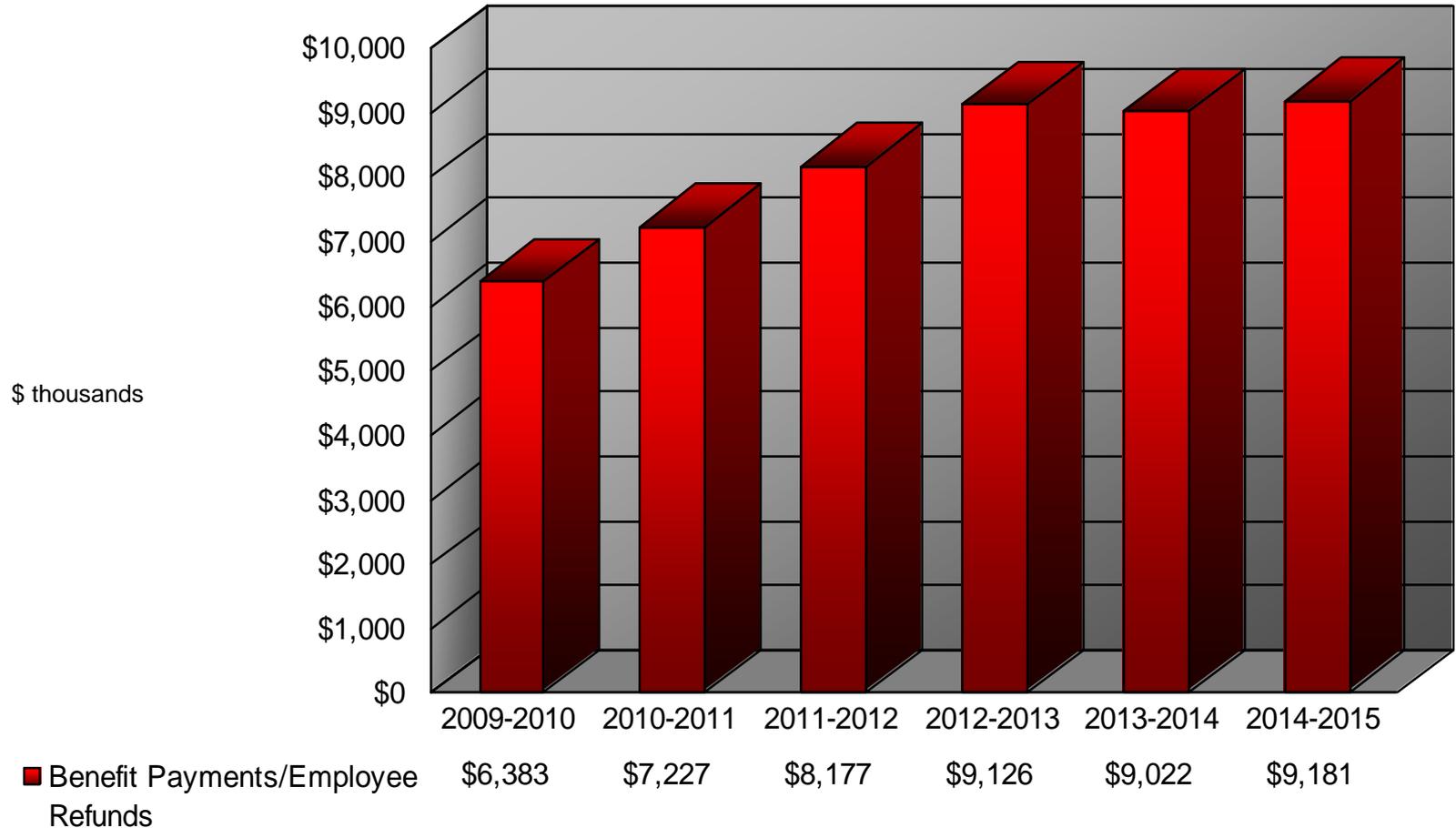
Average Age	45.2	44.8	44.5	45.0	45.2	45.7
Average Service	12.0	11.1	10.9	11.8	11.9	12.1
Average Plan Compensation	\$46,850	\$49,078	\$46,278	\$46,991	\$47,503	\$50,028
Active Payroll (\$000's)	\$16,303	\$15,165	\$14,855	\$13,956	\$14,203	\$15,208

Participant Information – by Division



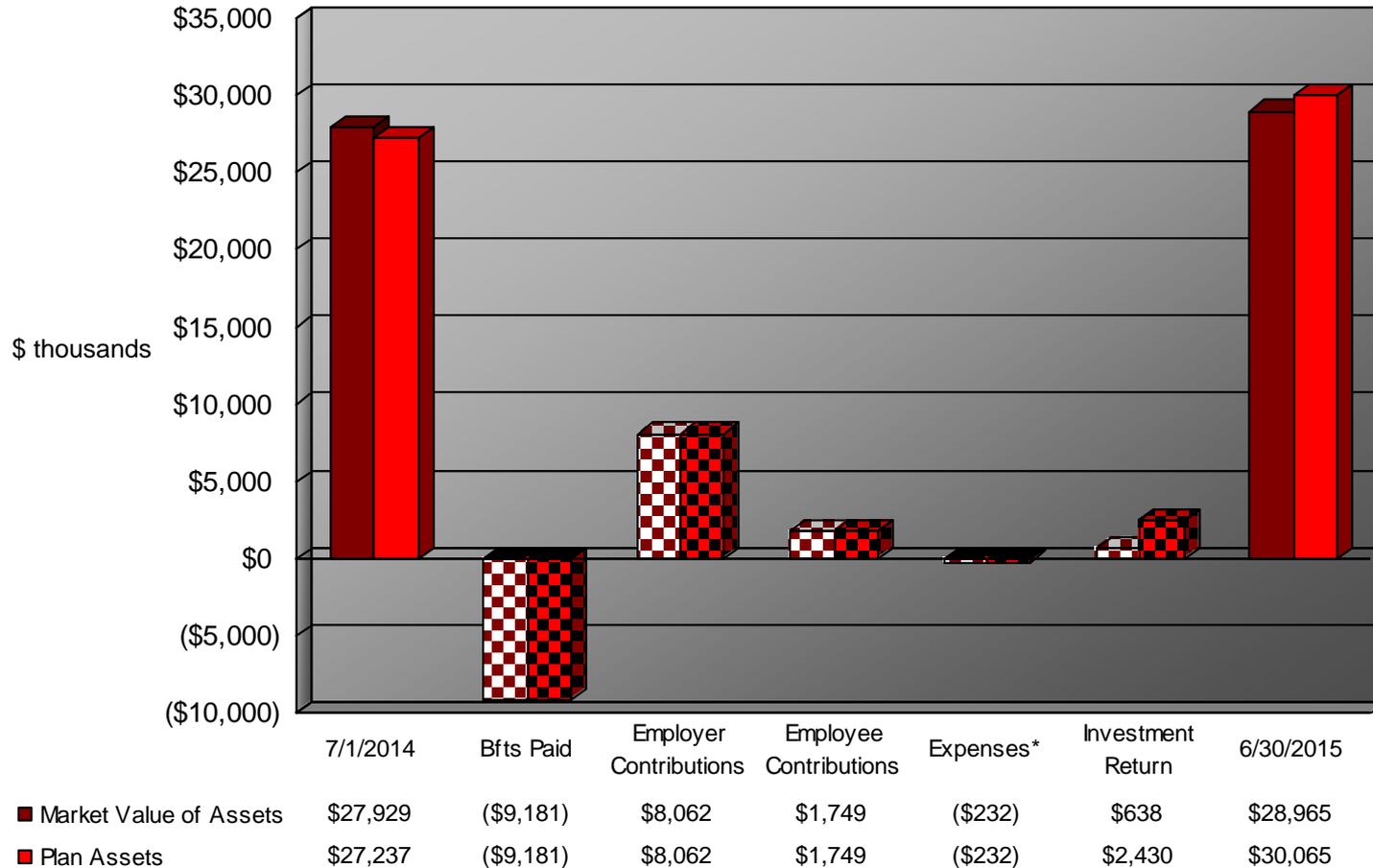
	Library	Waste Water	School	Municipal	Fire	Police
■ Disableds	0	1	4	6	26	21
□ Retirees/Beneficiaries	7	20	81	85	45	50
■ Deferred Vesteds	2	3	21	4	0	1
■ Actives	9	23	90	61	70	51

Annual Benefit Payments



Actuary's Comment – Annual benefit payments have steadily been increasing up through the 2012-2013 plan year. Benefit payments decreased in the 2013-2014 plan year due to the reduction in monthly payments for disabled Fire members and a decrease in payouts of employee contributions. While benefit payments are still expected to increase, the rate of increase is expected to be lower than the increases shown over the last 6 years due to the suspension and reductions in COLA increases beginning 7/1/2014.

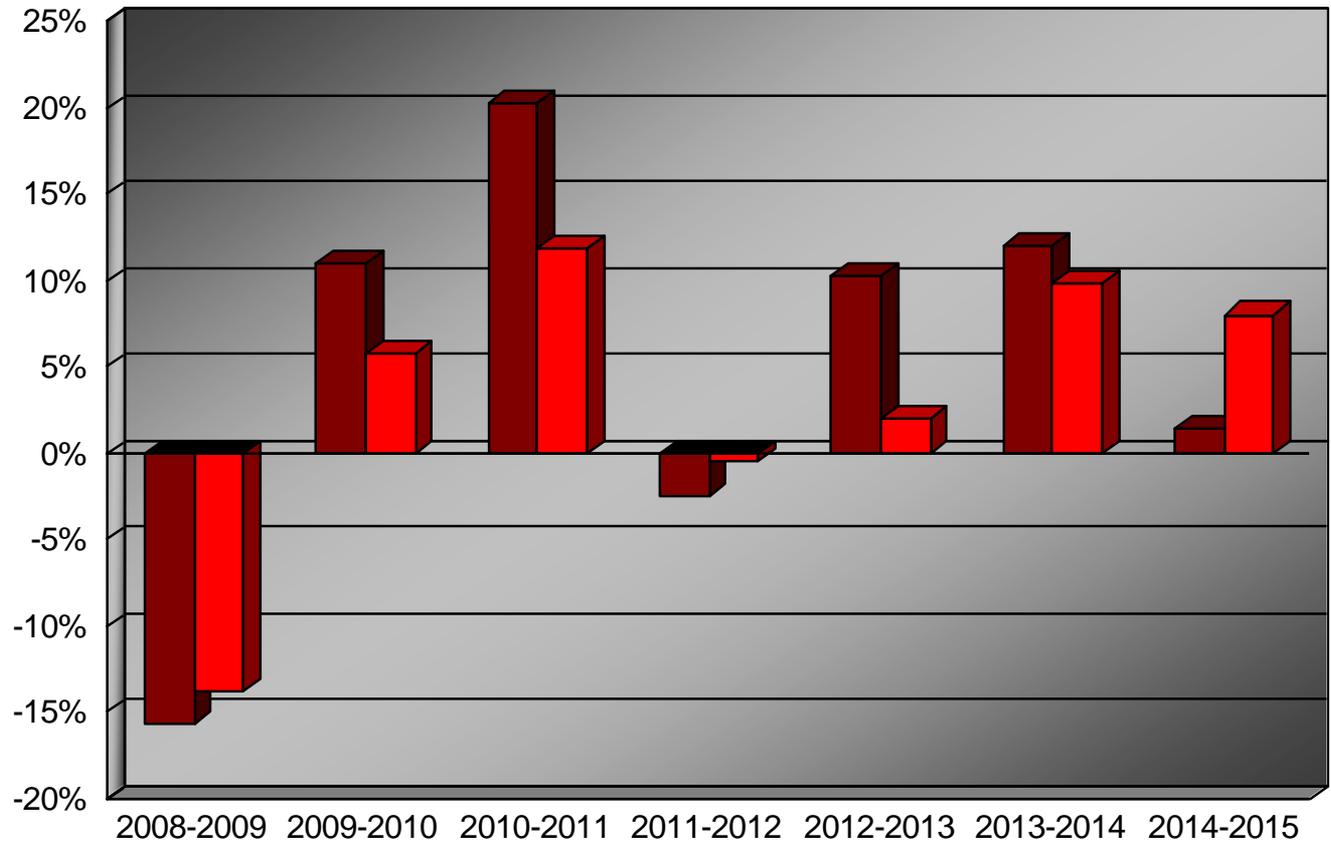
2014 - 2015 Asset Reconciliation



Actuary's Comment – The 2014-2015 return was approximately 1.4%, resulting in a market value of assets which is approximately \$1.7 million lower than projected under last year's valuation. The plan's funding requirements are based on the Plan Assets, not the Market Value of Assets. While this "smoothing" approach will not reduce long-term costs, it will change the timing at which costs are accounted for. The theoretical rationale for this approach is that gains and losses will offset one another before they must be paid for.

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

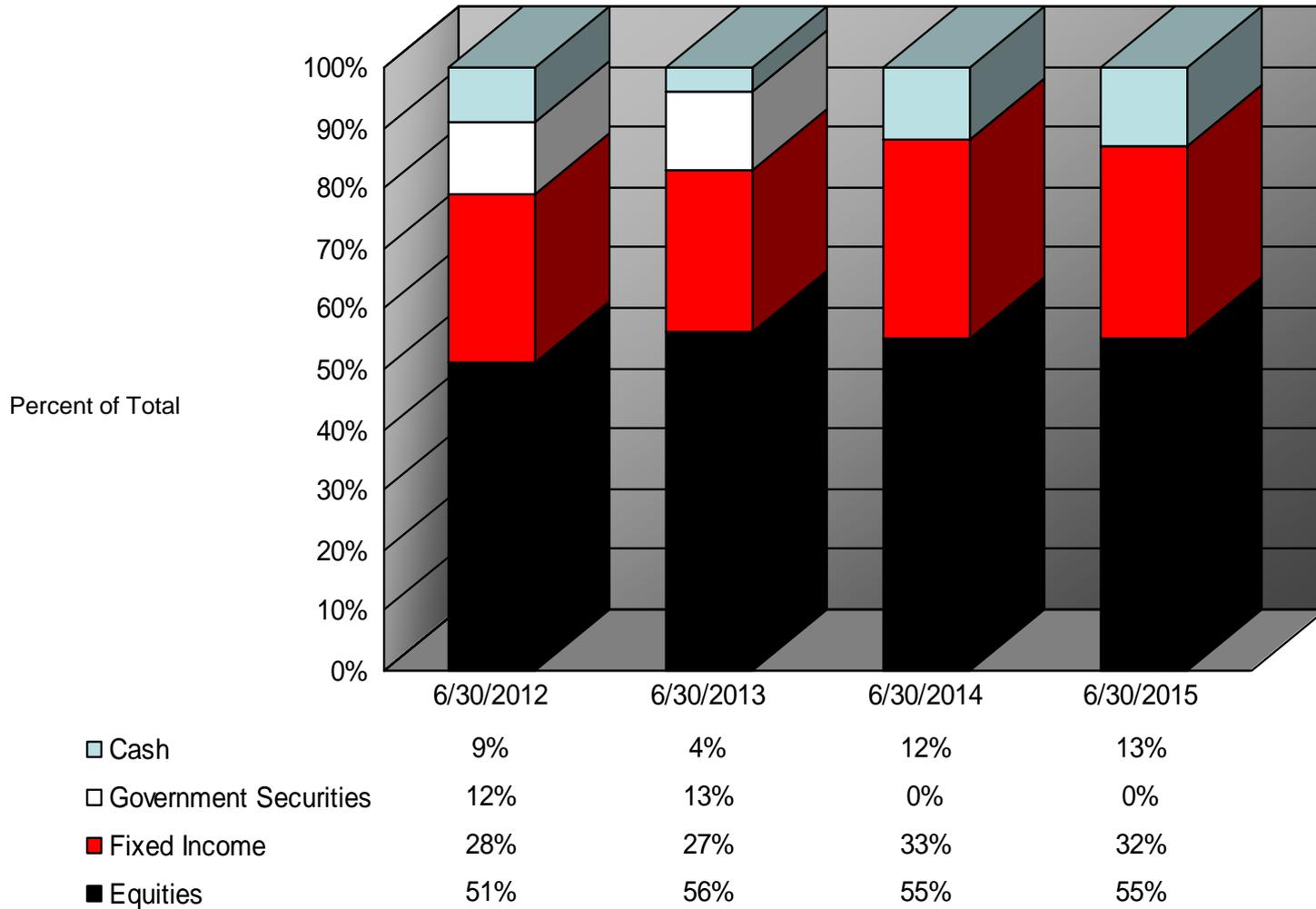
Annual Investment Return Rates



■ Market Value of Assets	-15.7%	10.9%	20.2%	-2.4%	10.2%	12.0%	1.4%
■ Plan Assets	-13.8%	5.8%	11.8%	-0.4%	2.0%	9.8%	8.0%

Actuary's Comment – Over the past seven plan years, the plan's average annual investment return was 4.6%.

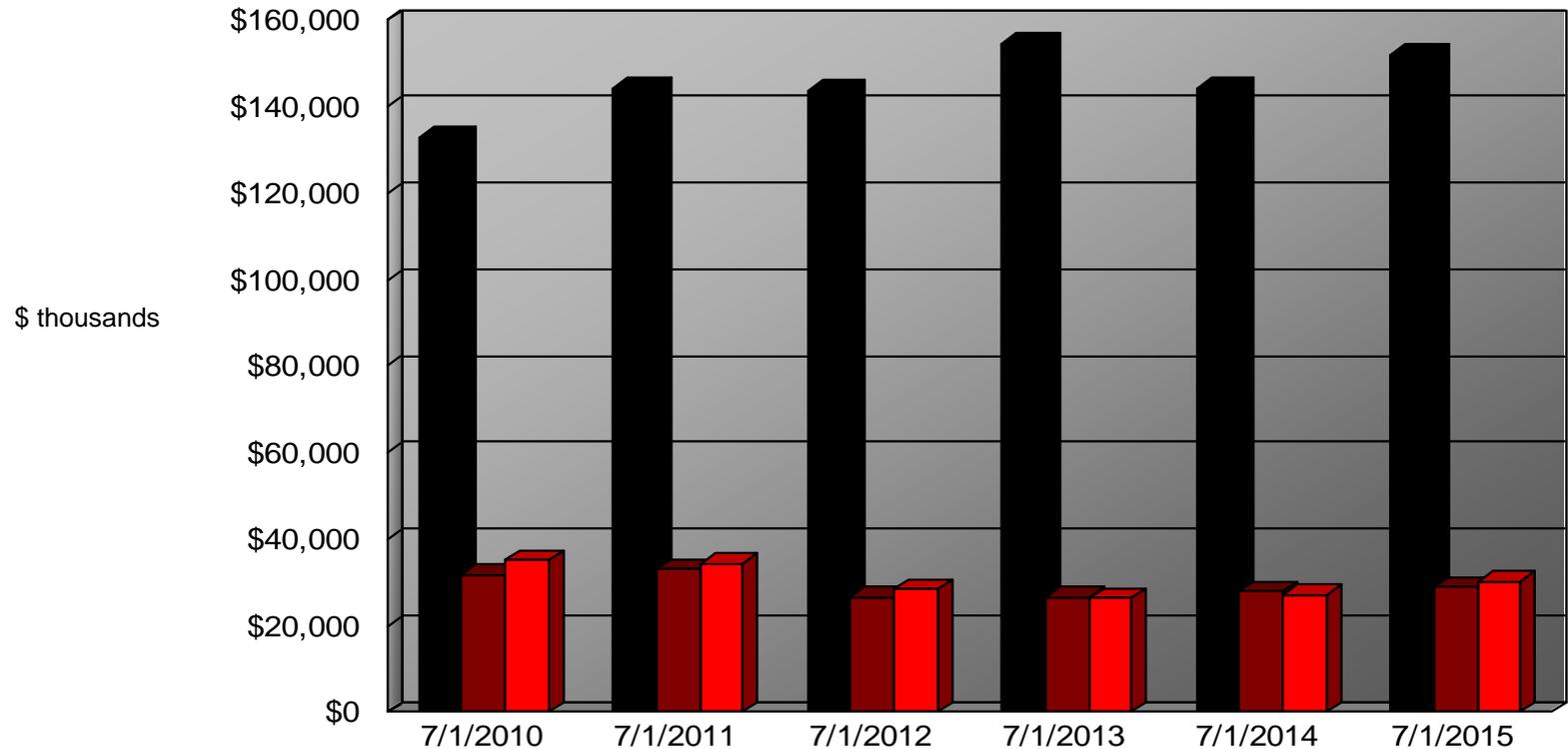
Asset Class Allocation



Actuary's Comment – The plan asset mix should be considered when setting the expected investment return assumption.

Funded Status

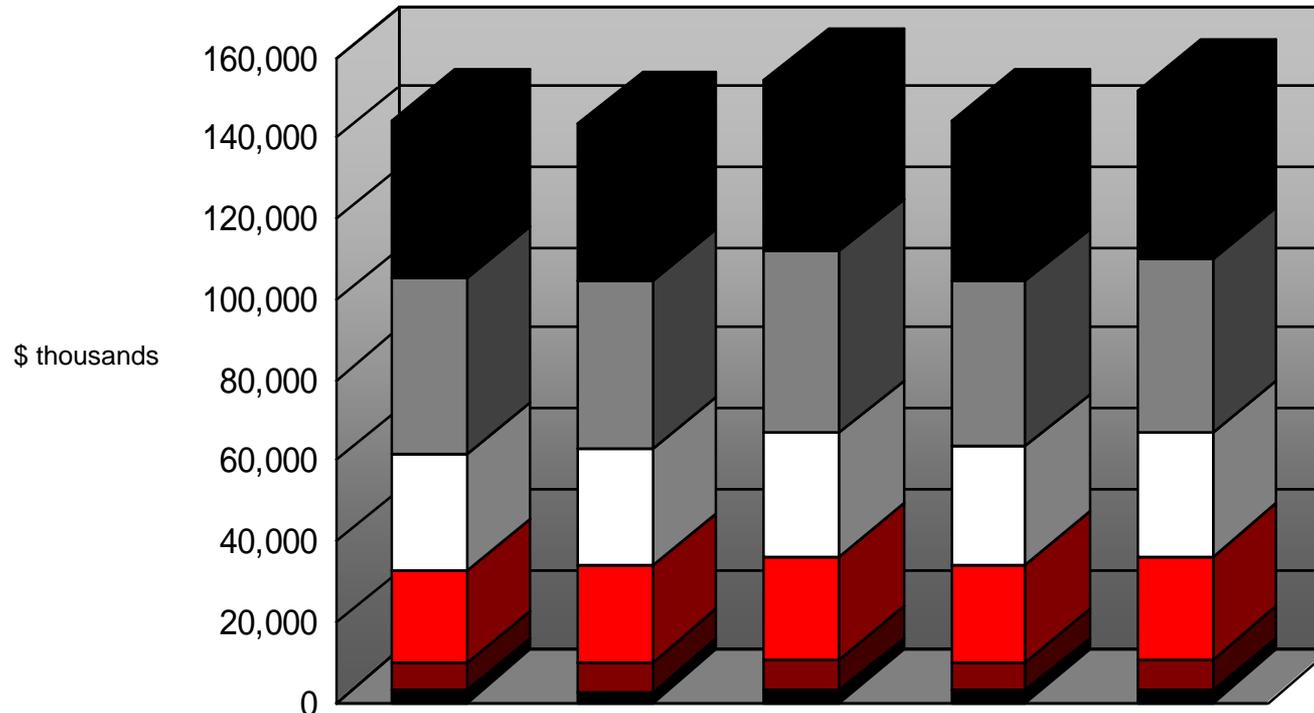
The Accrued Liability is the present value of benefits to be paid in the future, based on pay and service earned to date. The future benefits are discounted at the valuation interest rate.



■ Accrued Liability	\$133,014	\$144,369	\$143,760	\$154,589	\$144,351	\$151,916
■ Market Value of Assets	\$31,624	\$32,976	\$26,528	\$26,565	\$27,929	\$28,965
■ Plan Assets	\$35,008	\$34,278	\$28,421	\$26,429	\$27,237	\$30,065

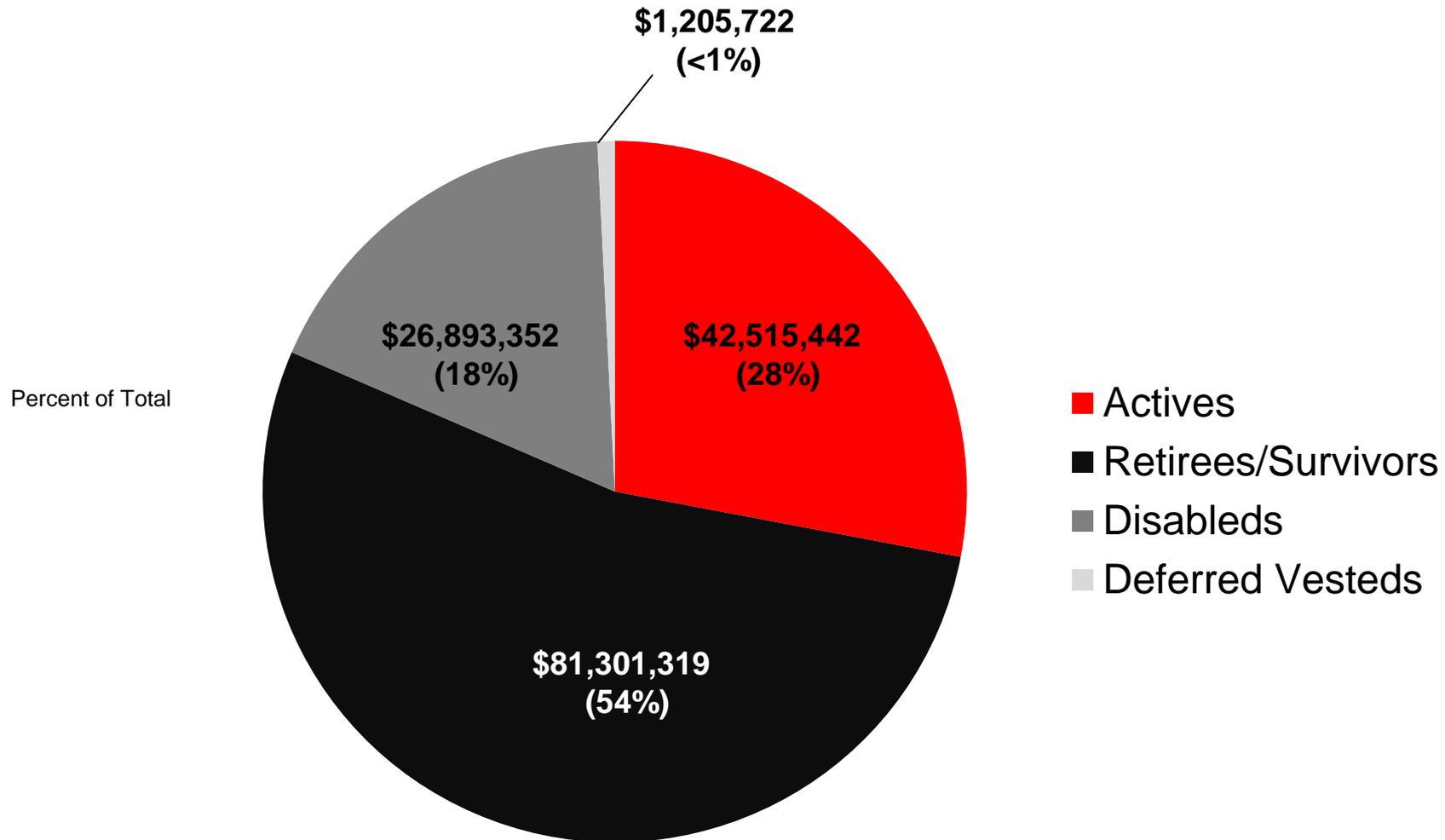
Funded Percentage	7/1/2010	7/1/2011	7/1/2012	7/1/2013	7/1/2014	7/1/2015
Market Value	23.8%	22.8%	18.5%	17.2%	19.3%	19.1%
Plan Assets	26.3%	23.7%	19.8%	17.1%	18.9%	19.8%

Accrued Liability- by Division



	7/1/2011	7/1/2012	7/1/2013	7/1/2014	7/1/2015
■ Police	\$39,149	\$39,329	\$42,821	\$39,715	\$41,803
■ Fire	\$43,896	\$41,803	\$44,801	\$41,142	\$43,255
□ Municipal	\$28,699	\$28,662	\$30,727	\$29,185	\$30,655
■ School	\$22,768	\$24,025	\$25,613	\$24,217	\$25,578
■ Waste Water	\$7,119	\$7,311	\$7,684	\$7,219	\$7,716
■ Library	\$2,738	\$2,630	\$2,943	\$2,873	\$2,909

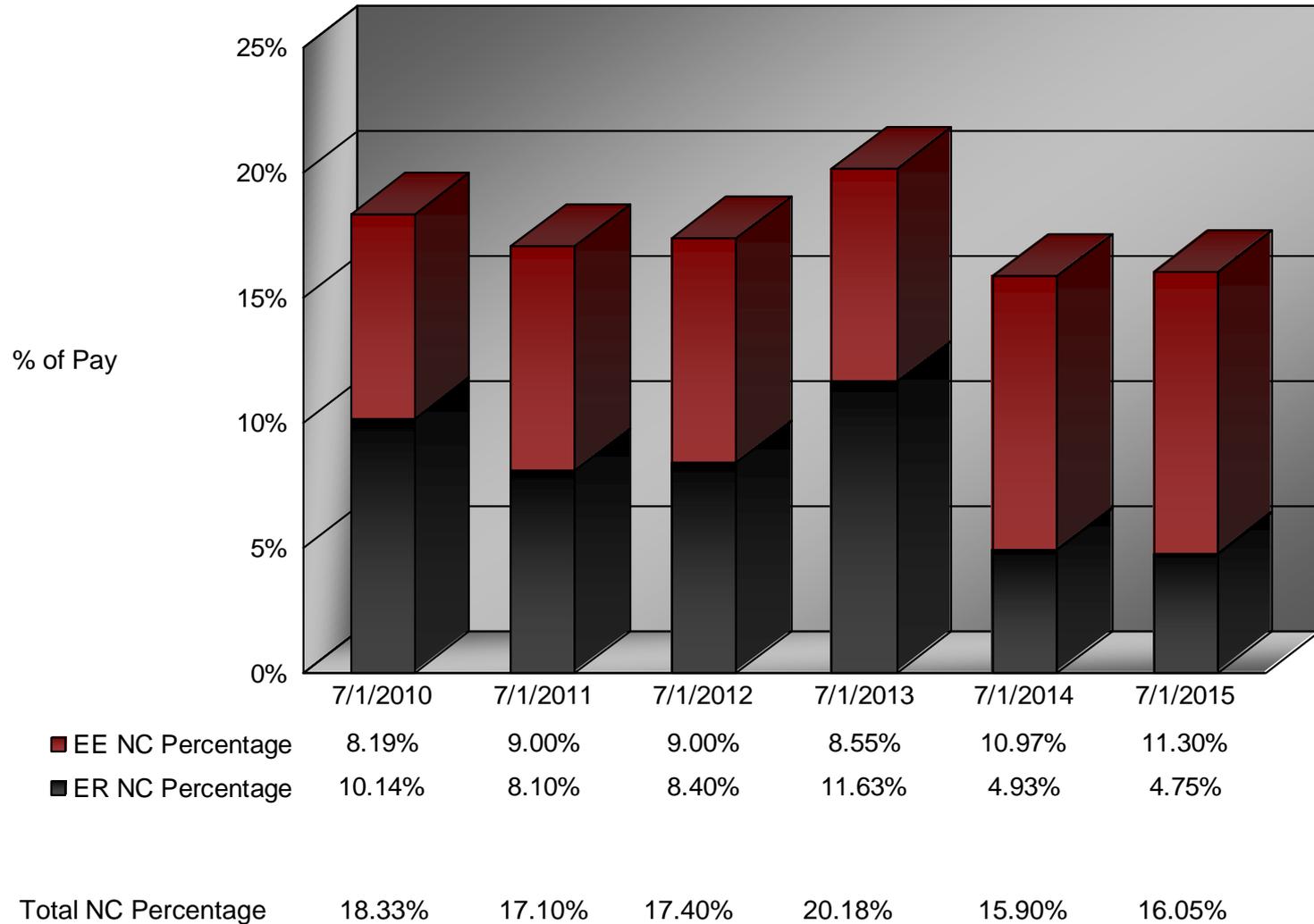
Accrued Liability- by Status



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

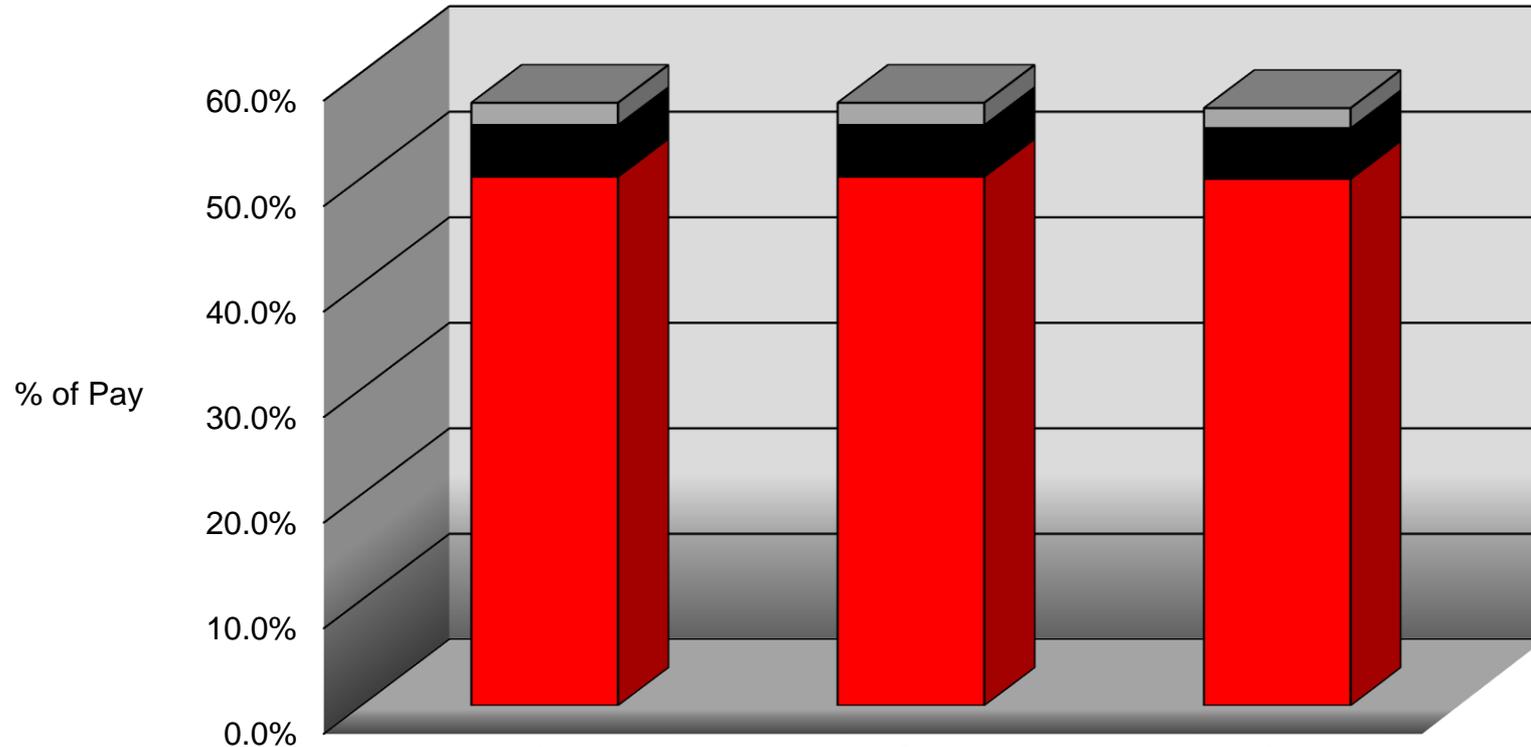
The Normal Cost Percentage is the ratio of present value of benefits earned during the current year to the active participant payroll.



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

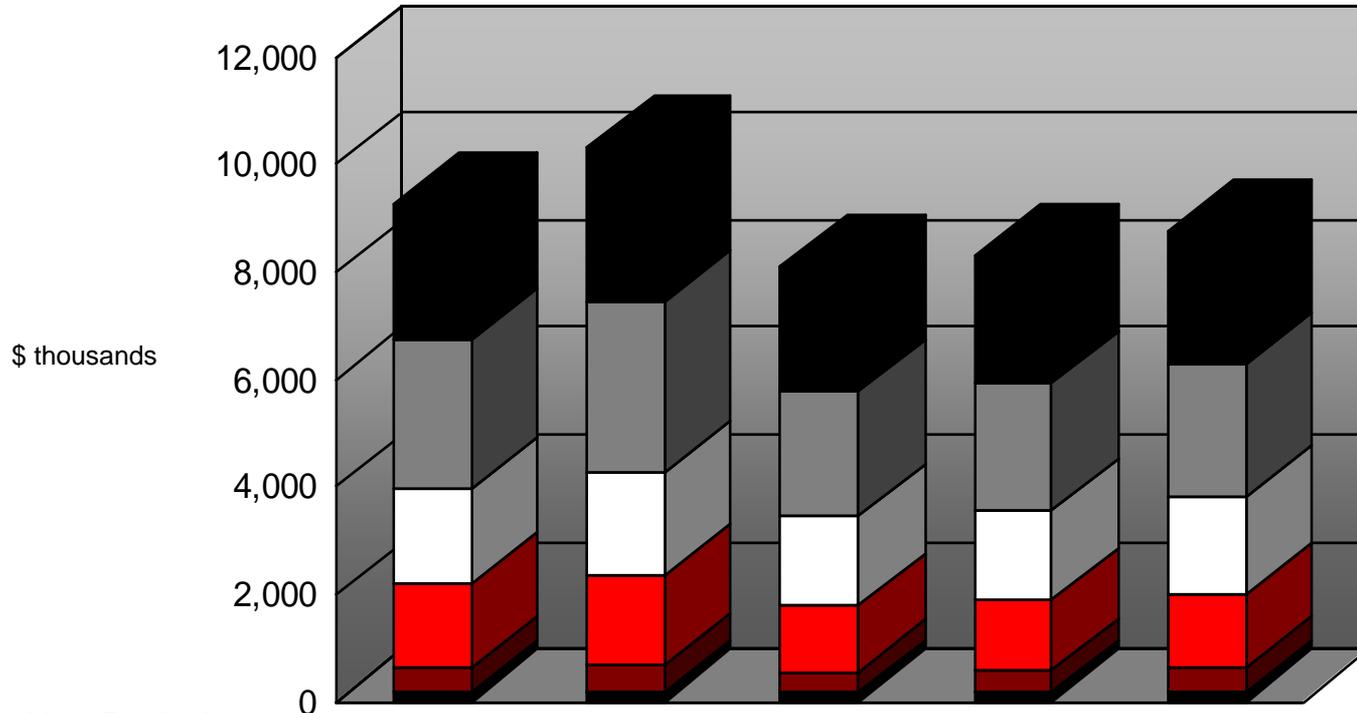
The contribution recommendation consists of the annual normal cost and an amortization (over a closed 25-year period as a level % of pay) of past service liability. These components add up (along with interest to the middle of the plan year) to determine the contribution recommendation for the year. Beginning with the 2015-2016 plan year, contributions are based on the calculated contribution as a percentage of payroll from the prior valuation date. This percentage is applied to projected payroll for the following plan year.



	2014-2015 Charges	2015-2016 Charges	2016-2017 Charges
Interest	2.1%	2.1%	1.9%
ER Normal Cost	4.9%	4.9%	4.8%
Amortization	50.1%	50.1%	49.9%

Total	57.1%	57.1%	56.6%
Projected Payroll	\$14,203,313	\$14,552,901	\$15,441,246
Recommended Contribution	\$8,103,839	\$8,309,706	\$8,739,745

Contribution Recommendation - by Division



Plan Year Beginning:

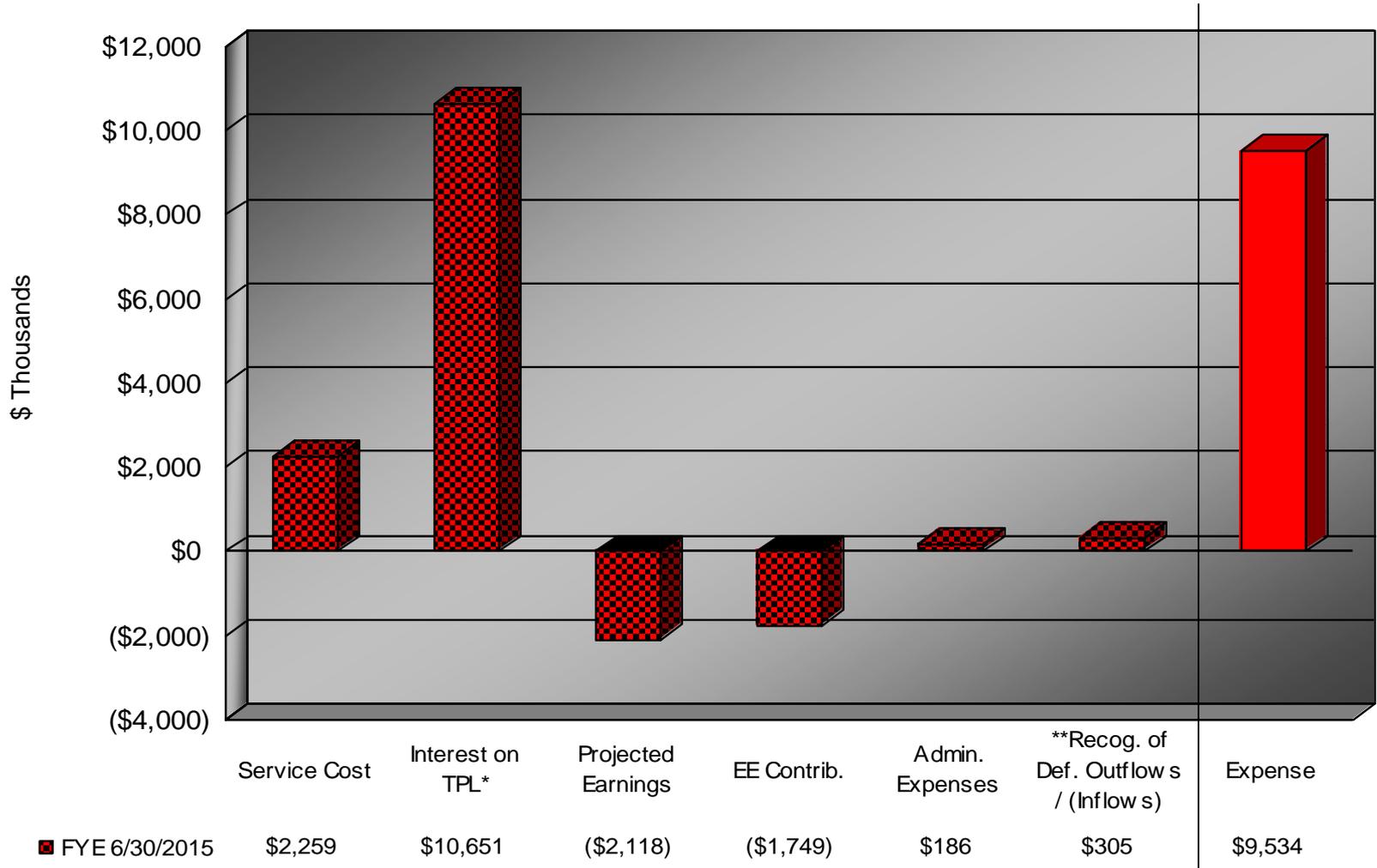
	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016
■ Police	\$2,551	\$2,882	\$2,337	\$2,369	\$2,455
■ Fire	\$2,770	\$3,162	\$2,331	\$2,393	\$2,484
□ Municipal	\$1,766	\$1,943	\$1,631	\$1,678	\$1,795
■ School	\$1,555	\$1,654	\$1,251	\$1,294	\$1,392
■ Waste Water	\$462	\$499	\$387	\$404	\$438
■ Library	\$160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

New GASB Disclosures

- **GASB 67 and 68 replace GASB 25 and GASB 27**
- **GASB 67 (plan reporting) was effective 6/30/2014**
- **GASB 68 (employer reporting) was effective 6/30/2015**
- **Key changes**
 - **Depending on funded status and contribution policy, blended discount rates may be required to determine the plan's liability (requires 30+ year projection to demonstrate trust assets available to make all future payments)**
 - **Balance sheet recognition of the unfunded liability using market value of assets**
 - **Benefit changes for retirees recognized immediately**
 - **Benefit changes for active members recognized over future working lifetimes**
 - **Investment experience recognized over 5 years**
 - **Separation of funding from accounting**

GASB 67,68 Accounting Results - Pension Expense

The Pension Expense consists of the service cost (the present value of the current year's benefit accrual), the interest cost (interest on the total pension liability at the chosen discount rate), and administrative expenses, offset by the projected return on assets and employee contributions. Gains and losses arising from actual demographic experience, assumption changes, and actual investment performance may also be gradually recognized as expense.

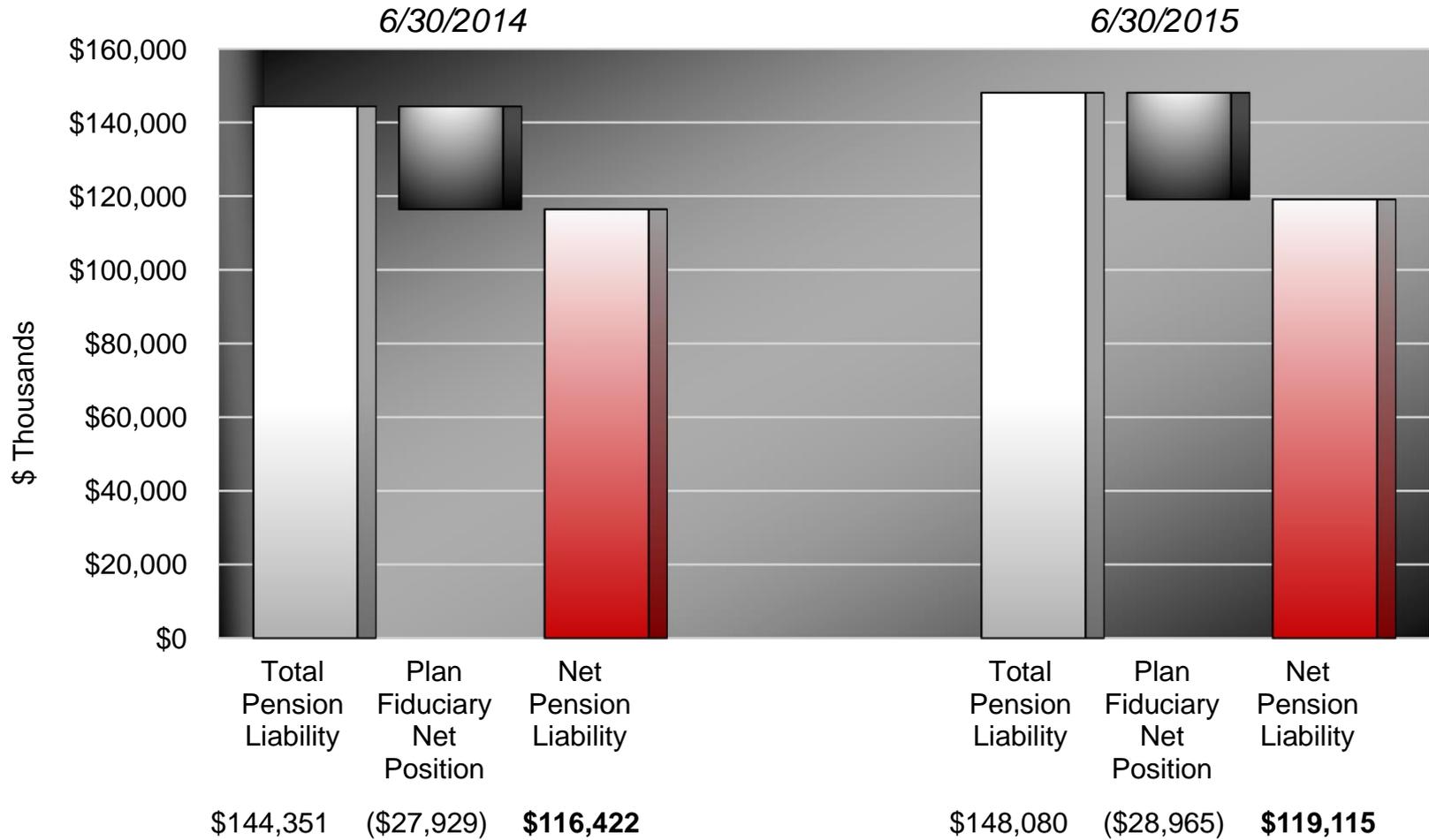


*TPL Refers to "Total Pension Liability"

**The \$305,000 charge is due to recognizing the difference between projected and actual 2014-2015 earnings on investments over five years. This charge will apply for the four following fiscal years.

GASB 67,68 Accounting Results - Balance Sheet Liability

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.



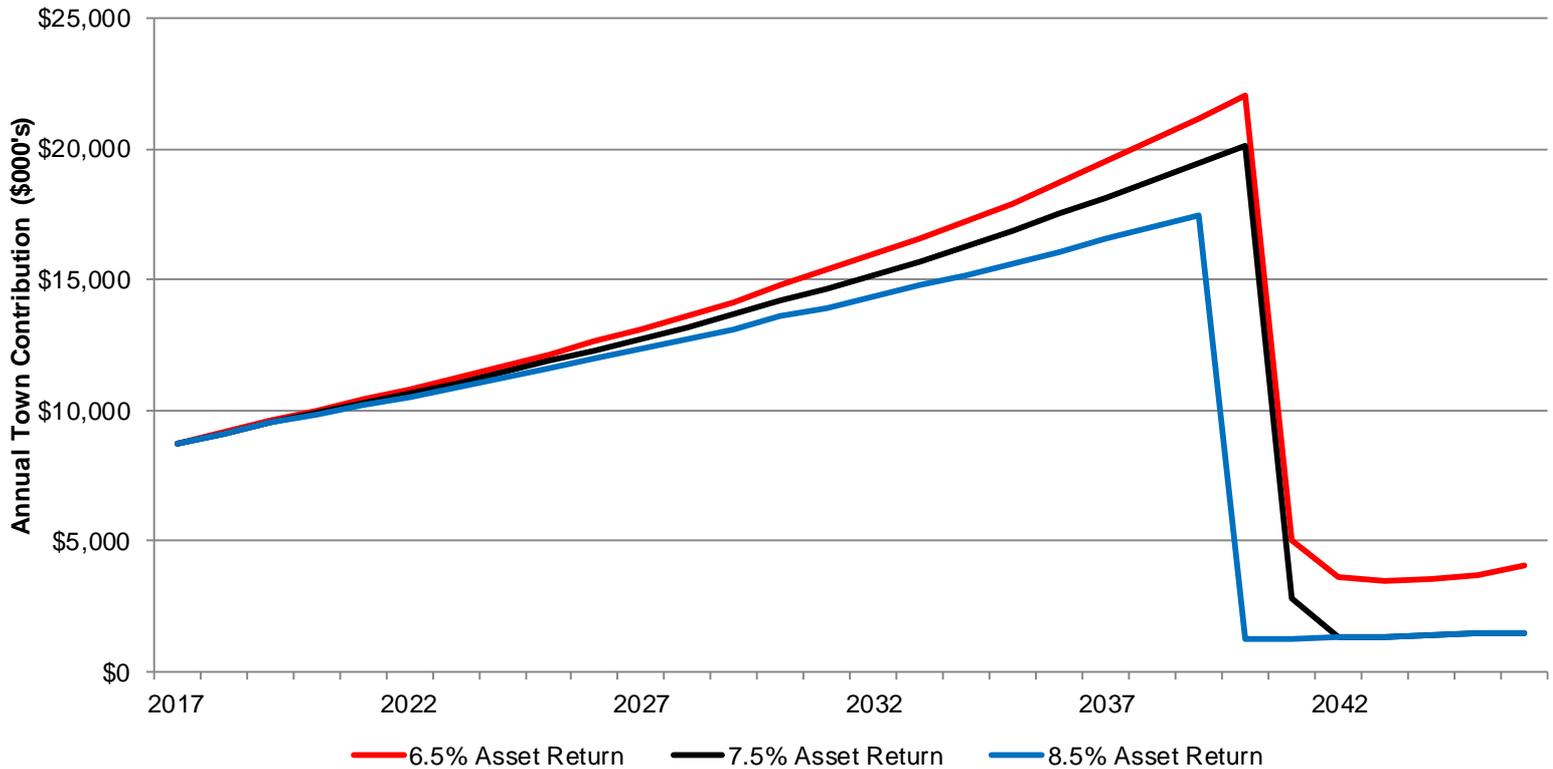
Important Comments About Cost Information Included in this Report

The cost projections contained in this report are based on data as of July 1, 2015. Assumptions used in measuring the liabilities are consistent with the July 1, 2015 actuarial report unless stated otherwise. Reasonable actuarial techniques and assumptions were used to produce the cost projections. Data was provided by the Town.

The following pages show cost projections under specific economic scenarios and are meant to be used for illustration purposes only. Actual results will vary from projections shown in this report due to actual participant data, actual asset returns, and any assumption changes that may be warranted. Depending on the use of this information, additional cost projections may be necessary to quantify the sensitivity of the results.

These projections reflect numerous assumptions and one should focus on the general trend of the results rather than the absolute dollar amounts.

Projections – Various Asset Returns



Plan Year Ending	2017	2022	2027	2032	2037	2042	2046	2017-2046
Payroll (in \$000's)	15,441	17,537	20,211	23,118	26,543	30,774	34,851	
Recommended Contribution as % of pay	8,740 57%	10,768 61%	13,097 65%	15,951 69%	19,536 74%	3,631 12%	4,078 12%	370,414
Recommended Contribution as % of pay	8,740 57%	10,628 61%	12,733 63%	15,188 66%	18,129 68%	1,354 4%	1,464 4%	341,329
Recommended Contribution as % of pay	8,740 57%	10,505 60%	12,349 61%	14,333 62%	16,536 62%	1,354 4%	1,464 4%	305,830

These numbers are estimates only and are not guarantees of future plan costs.

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.

➤ **Normal Retirement**

Eligibility –

Fire hired before 7/1/2014 – age 62 or age 50 with 25 years of credited service. Four members named in 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

Eligibility (Continued) -

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

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

➤ **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 – 11% of Annual Compensation, increasing to 12% at 7/1/2015

Fire – 12% of Annual Compensation, increasing to 13% at 7/1/2015

Library – 9% of Annual Compensation

Others – 11% of Annual Compensation

➤ Payment Form Options

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

➤ Cost of Living Adjustment*

Police – 2.25% for 15 years effective 7/1/2000. For active members as of 7/1/14, the COLA is suspended 7 years from retirement

Fire – 2.25% for 15 years effective 7/1/2002. For active members as of 7/1/14, 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 7/1/14, the COLA is suspended 5 years from retirement, followed by 2% compounded for 15 years.

*For inactive members as of 7/1/14, the COLA has been suspended until 6/30/2019

Summary of Actuarial Assumptions and Methods – Funding Valuation

- **Interest Rate**
7.50%

- **Annual Pay Increases**

Years	Increases
July 2013-June 2018	2% per year
July 2018+	3.5% per year

- **Mortality Rates for Plan Year Ending 6/30/16**

Police and Fire (Healthy) – RP-2000 Combined Blue-Collar Mortality Table with generational projection per Scale AA

Others (Healthy) and Beneficiaries of All Participants– RP-2000 Combined Healthy Mortality Table with generational projection per Scale AA

Disabled – RP-2000 Disabled Mortality Table with generational projection per Scale AA

- **Mortality Rates for Plan Year Ending 6/30/17**

Police and Fire (Healthy) – RP-2014 Blue Collar Mortality Table with Social Security Generational Improvements from 2006

Others (Healthy) and Beneficiaries of All Participants– RP-2014 Mortality Table with Social Security Generational Improvements from 2006

Disabled – RP-2014 Disabled Mortality Table with Social Security Generational Improvements from 2006

- **Retirement Rates**

Police hired before 7/1/14 – 25% at 20 years of service; 50% at 25 years of service; 100% at age 62; 5% at all other age/service combinations

Police hired on/after 7/1/14 – 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 ineligible for unreduced retirement; 50% 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% at 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%

Summary of Actuarial Assumptions and Methods – Funding Valuation – (Continued)

➤ **Actuarial Cost Method**

Entry Age Normal

➤ **Disability Rates**

➤ **Asset Valuation Method**

Smoothed Value – investment gains/losses recognized over five years, subject to a 15% corridor

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%

➤ **Eligible Spouse**

80% of participants are assumed to be married with female spouse 3 years younger

➤ **Withdrawal Rates**

Police and Fire – None

Others –

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%

➤ **Cost of Living Adjustment for Future Police and Fire Disability**

90% of assumed active salary increase rate

Years	Increases
July 2013-June 2018	0.0% per year
July 2018+	3.15% per year