

The logo for nyhart, featuring the word "nyhart" in a lowercase, sans-serif font. The letters are white and are set against a solid black rectangular background. A vertical red line is positioned to the left of the black box, extending from the top to the bottom of the page.

nyhart

# ***Town of Narragansett Pension Plan***

***Management Summary of  
7/1/2015 Actuarial Valuation  
February 16, 2016***

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*This report has been prepared for the primary purpose of summarizing the actuarial valuation for the Town of Narragansett Pension Plan 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 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.*

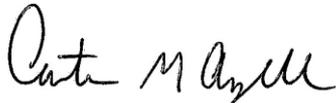
*Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for 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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**February 16, 2016**  
Date

## ➤ **Plan Provisions**

- Employee contribution rates were updated to 10% of pay for school employees.

## ➤ **Actuarial Assumptions for Liabilities as of July 1, 2015**

- As a result of the July 1, 2007 – July 1, 2014 experience study, actuarial assumptions were updated for mortality, discount rate, termination rates and disability rates.
- The mortality assumption was updated from the RP-2000 mortality table with generational improvements using Scale AA to the RP-2014 mortality table with Social Security generational improvements, with blue collar adjustments for public safety employees.
- For plan liabilities as of July 1, 2015 and the determination of the contribution for the plan year ending June 30, 2017, the discount rate has been updated from 7.50% to 7.20%.
- The termination table for municipal employees has been updated from the adjusted T2 Table of the *Pension Actuary's Handbook* to the unadjusted T2 Table of the *Pension Actuary's Handbook*.
- Given updates to the data incorporating disabled participants, the assumed rates of disability have been changed from 0% to 50% of the 1985 Pension Disability Table.

## ➤ **Actuarial Methods**

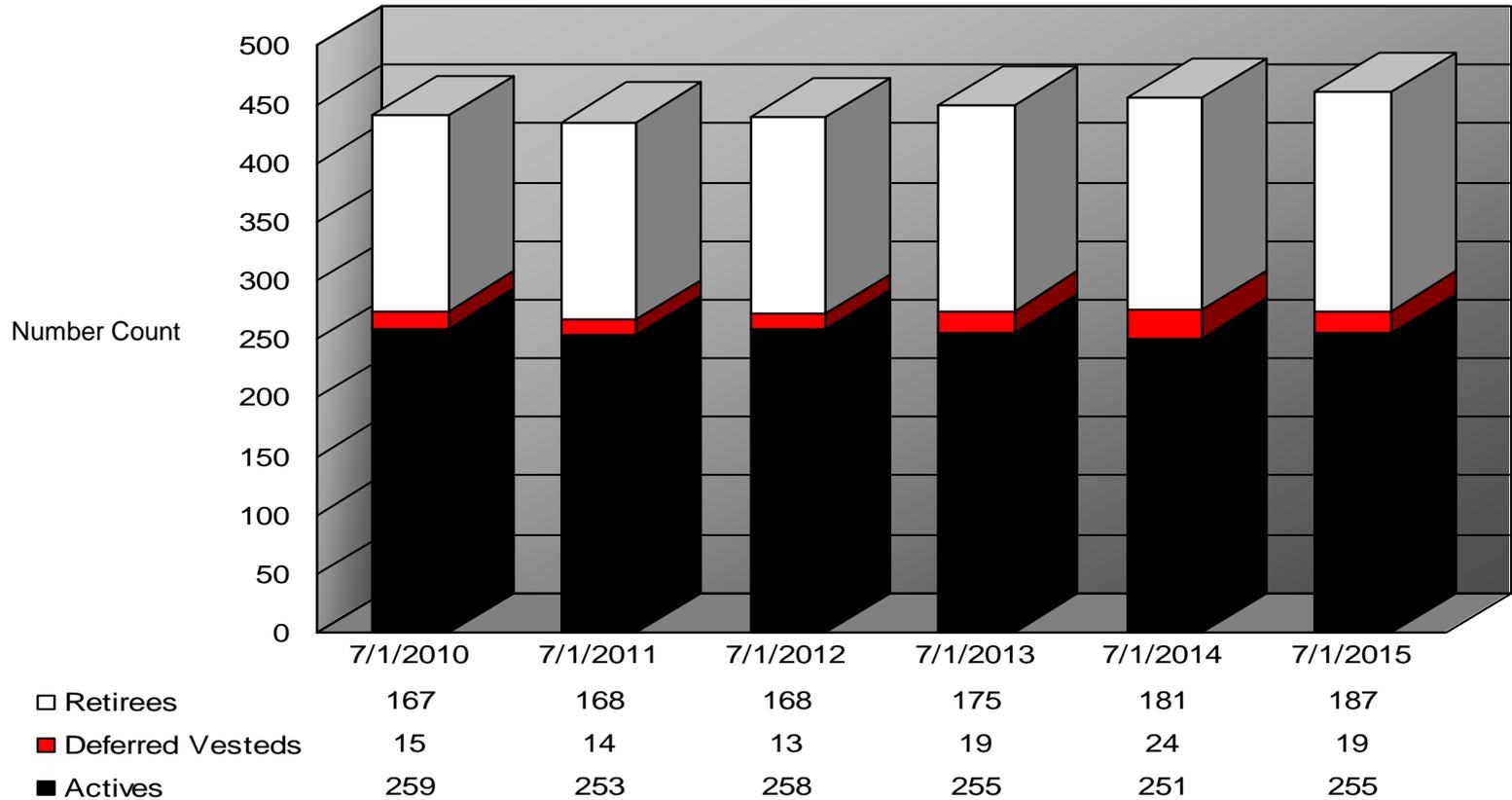
- For plan years ending on or before June 30, 2015, the recommended funding contribution was calculated directly as the sum of the cost of benefits earned in the upcoming year and an amortization of the unfunded liability.
- Beginning for plan years beginning July 1, 2015 and thereafter, the recommended funding contribution is 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.
- The recommended funding contribution is adjusted for a 3-year phasing in of the interest rate change above.

## ➤ **Population Changes**

The total number of participants in the plan has stayed relatively flat.

- **New mortality study published by Society of Actuaries Committee in October, 2014**
  - Most current table available had been RP-2000
  - New RP-2014 Table released at the end of October, 2014
    - Reflects mortality experience through 2008 and then projected to 2014
    - Several tables released including total population, blue collar only, and white collar only
  - Committee released their best estimate of mortality improvement scale – MP-2014
  - This scale is one reasonable projection scale, but other reasonable projection scales exist
  
- **Town of Narragansett Adopted RP-2014 Table with Social Security Administration generational improvement scale from 2014 Trustees' report (with blue collar adjustments where applicable) for 7/1/2015 reporting**
  - The blue collar variant is based on the covered population (police/fire)
  - The Social Security improvement scale was selected for consistency with historical improvements and concerns over conservative bias of MP-2014
  
- **The Society of Actuaries published updated improvement scale MP-2015 in October 2015**
  - MP-2015 reflects actual Social Security mortality data for the years 2010 and 2011, which had mortality improvements less than anticipated in scale MP-2014
  - The use of scale MP-2015 produces benefit obligations near the mid-point of using the SSA scale (lowest obligations) and using MP-2014 (highest obligations)
  - Scale MP-2015 validates concerns over the conservative bias in MP-2014 and the continued use of the SSA scale

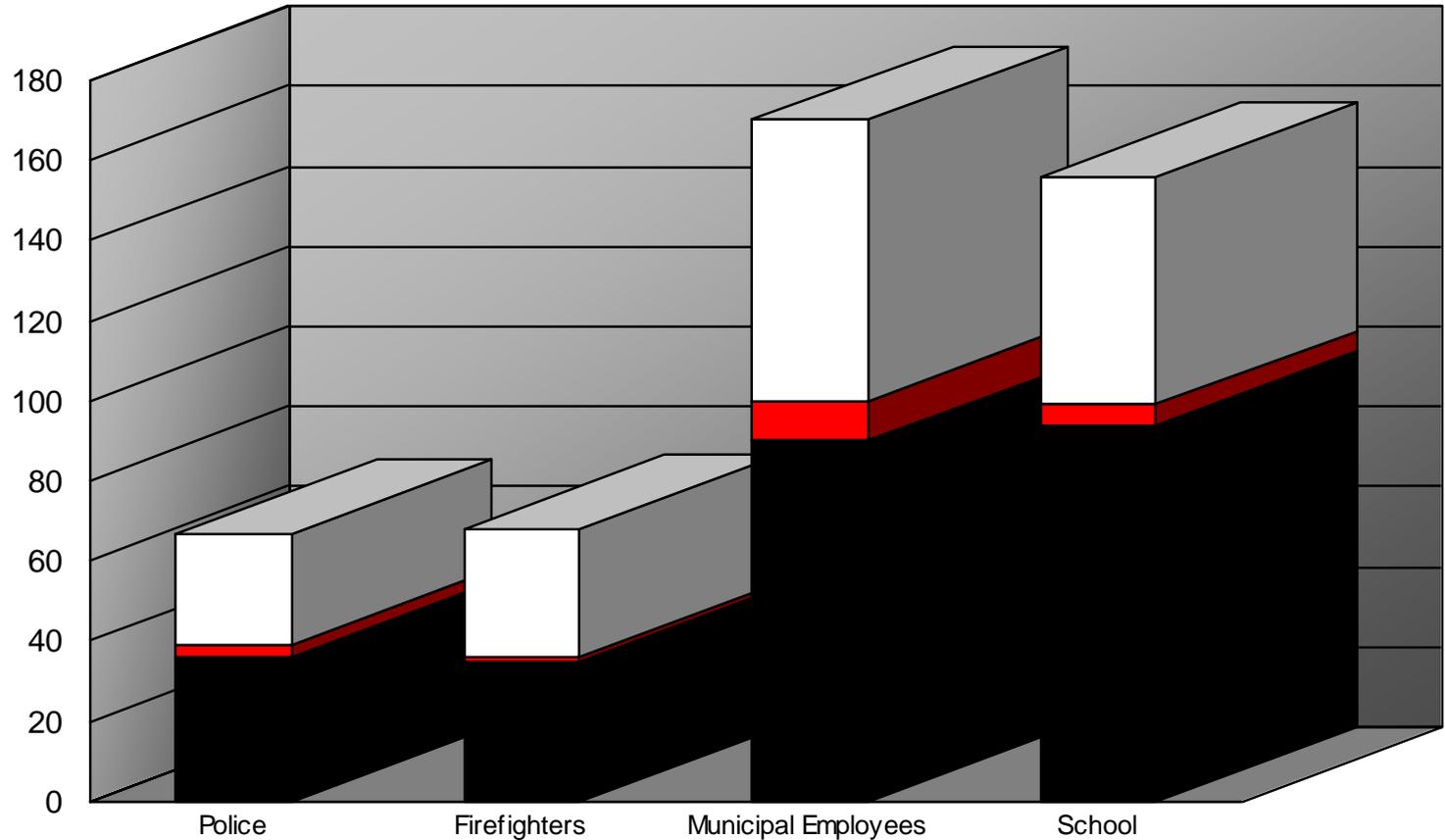
# Participant Information



## Active Demographics

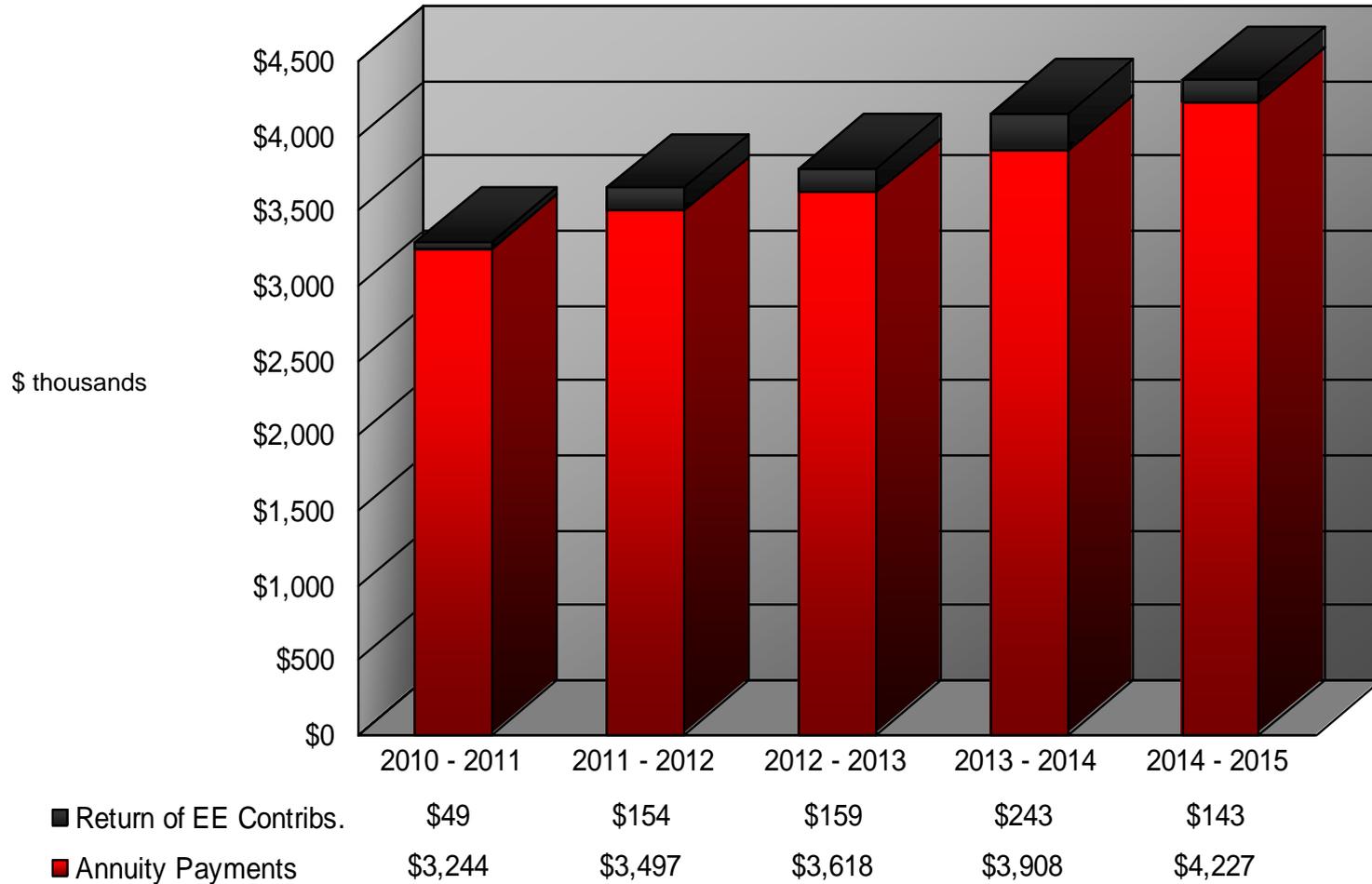
Average Age	46.5	46.3	46.9	47.7	47.1	47.6
Average Service	10.3	10.1	10.9	11.2	10.9	10.9
Average Compensation	\$46,238	\$45,033	\$48,381	\$48,887	\$48,559	\$50,919
Active Payroll (\$000's)	\$11,976	\$11,393	\$12,482	\$12,466	\$12,188	\$12,984

# Participant Information – by Division



□ Retirees	28	32	70	57
■ Deferred Vested	3	1	10	5
■ Active	36	35	90	94
<b>Total</b>	<b>67</b>	<b>68</b>	<b>170</b>	<b>156</b>

# Annual Benefit Payments



*Actuary's Comment – Annual annuity payments have generally been increasing. This pattern will likely continue due to both an increasing number of retirees and annual cost of living adjustments.*

# Summary of Plan Provisions

➤ **Effective Date**

July 1, 1984

➤ **Participation**

Employees who work 20 or more hours per week and more than five months per year are eligible to participate once they begin making required employee contributions

➤ **Normal Retirement Eligibility**

*Police*— age 58 with 10 years of credited service or 20 years of credited service. For police hired after July 1, 2013, normal retirement is 25 years of credited service

*Firefighters* – 20 years of credited service. For firefighters hired after July 1, 2011, normal retirement is 23 years from date of hire with a minimum 20 years of credited service. For firefighters hired after July 1, 2013, normal retirement is 25 years of credited service

*Council 94 Hired On/After 7/1/2014* – age 65 with 10 years of credited service or 25 years of credited service

*Local 1033 Hired On/After 7/1/2014* – age 58 with 10 years of credited service or 25 years of credited service

*All other participants* – age 58 with 10 years of credited service or 20 years of credited service

➤ **Benefit**

Participants hired before July 1, 2011 receive a benefit equal to 2.5% x Credited Service x AAC, limited to 75% (30 year service cap)

Participants hired after July 1, 2011 receive a benefit equal to 2.0% x Credited Service (up to 20 years) x AAC + 2.5% x Credited Service (Years 20-34) x AAC, limited to 75% (34 year service cap)

Police and Fire Union members hired after July 1, 2013 and Local 1033 and Council 94 members hired on/after July 1, 2014 receive a benefit equal to 2.0% x Credited Service x AAC, with Local 1033 and Council 94 limited to 75%

➤ **Vesting**

Eligibility (Non-Fire) – 100% vested at 10 years of service  
Eligibility (Fire) – 100% vested at 20 years of service (25 years of service for those hired on/after 7/1/2013)  
Benefit – Normal Retirement Benefit commencing at normal retirement age

➤ **Final Average Annual Compensation (AAC)**

Average compensation of the highest three consecutive years

# Summary of Plan Provisions

## ➤ **Credited Service**

Contributing employees receive credit for all service from date of membership

## ➤ **Participant Contributions**

*Local 1033/Council 94 and Police* – 11.0% of compensation

*Firefighters* – 11.0% of compensation

*School* – 10.0% of compensation

*All Other Participants* – 10.0% of compensation

*Contributions cease for all participants at 30 years of service.*

## ➤ **Payment Form Options**

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

## ➤ **Cost of Living Adjustment**

*Local 1033* – 3% simple COLA once benefit reaches \$45,000 for participants retiring after January 1, 2012

*Council 94* – 3% simple COLA once benefit reaches \$35,000. For employees hired on or after 7/1/2014, 3% simple COLA upon attainment of age 58

*Police* – 3% compound COLA upon attainment of age 52. 3% compound COLA suspended for active members as of July 1, 2013 for 8 years. Police members hired on or after July 1, 2013 receive a 3% simple COLA when eligible, subject to the same suspension

*Fire* – 3% compound COLA upon attainment of age 52. 3% compound COLA suspended for active members as of July 1, 2013 for 8 years. Fire members retiring on or after July 1, 2015 receive a 3% simple COLA when eligible, subject to the same suspension

*All Other Participants* – 3% compound COLA upon attainment of age 58

# Summary of Actuarial Assumptions and Methods – Funding Valuation

- **Interest Rate**  
7.20%

- **Annual Pay Increases**

Age	Rate
20-29	6.00%
30-34	5.50%
35-39	5.00%
40-44	4.50%
45+	4.00%

\*Salary increases were incorporated for the appropriate groups per recent contract negotiations.

- **Mortality Rates**

*Healthy Lives* - RP2014 Mortality Table with Social Security Generational Improvements, with Blue Collar adjustments for Police & Fire employees

*Disabled Lives* - RP2014 Disabled Mortality Table with Social Security Generational Improvements

- **Expense Loading**  
None

- **Actuarial Cost Method**  
Entry Age Normal

- **Asset Valuation Method**

Smoothed Value – investment gains/losses recognized over five years, subject to a 20% corridor

- **Cost of Living Adjustment**

3.0% increase once eligibility is met, subject to Union guidelines

- **Eligible Spouse**

85% of participants are assumed to be married with female spouse 4 years younger

- **Retirement Rates**

*Police and Firefighters* – 100% earlier of age 58 or 20 years of service

*Municipal Employees* – 100% at earlier of age 58 with 10 years of service or 20 years of service

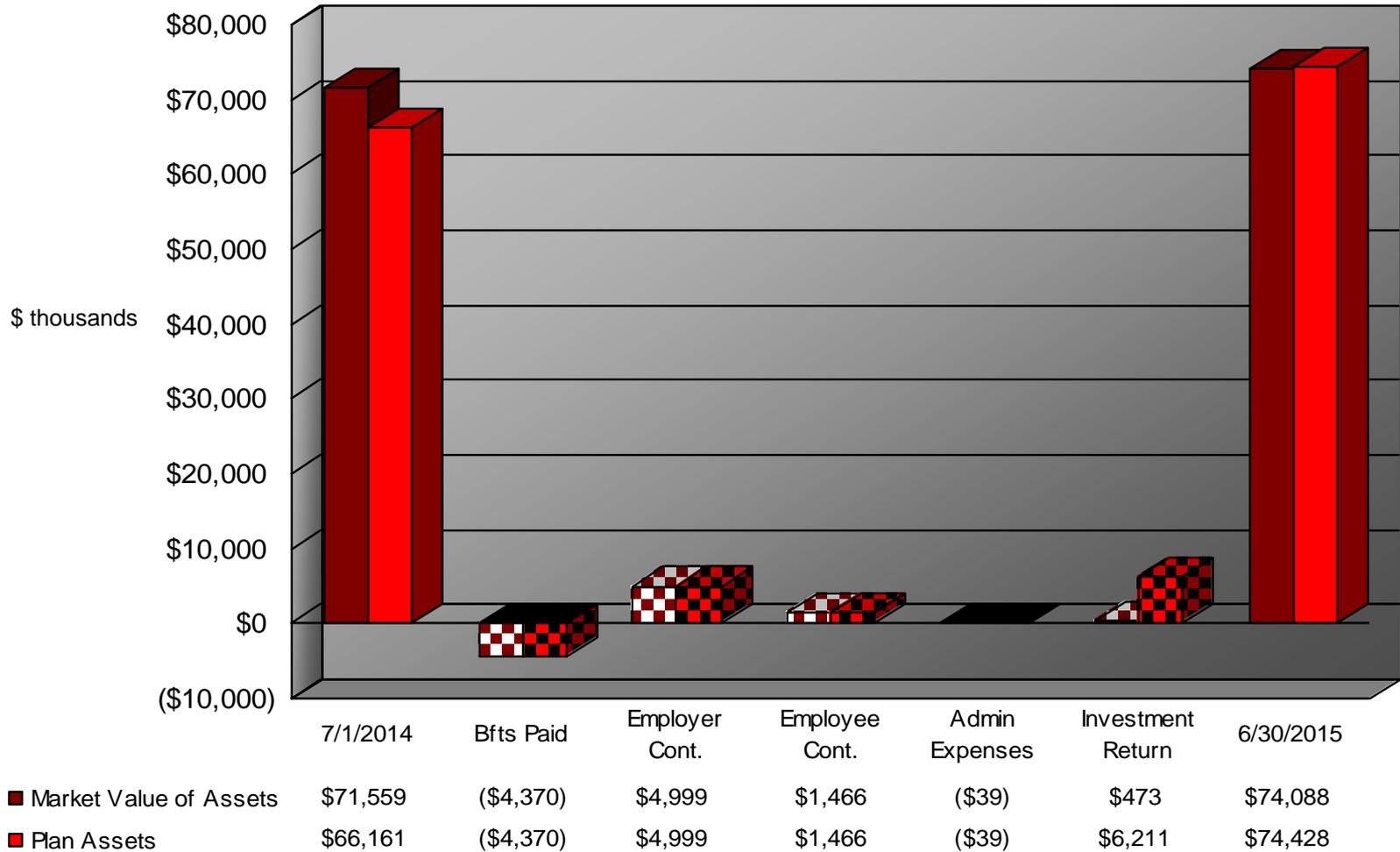
- **Withdrawal Rates**

Age	Male	Female
25	3.99%	3.99%
35	2.00%	2.00%
45	0.59%	0.59%
55+	0.00%	0.00%

- **Disability Rates**

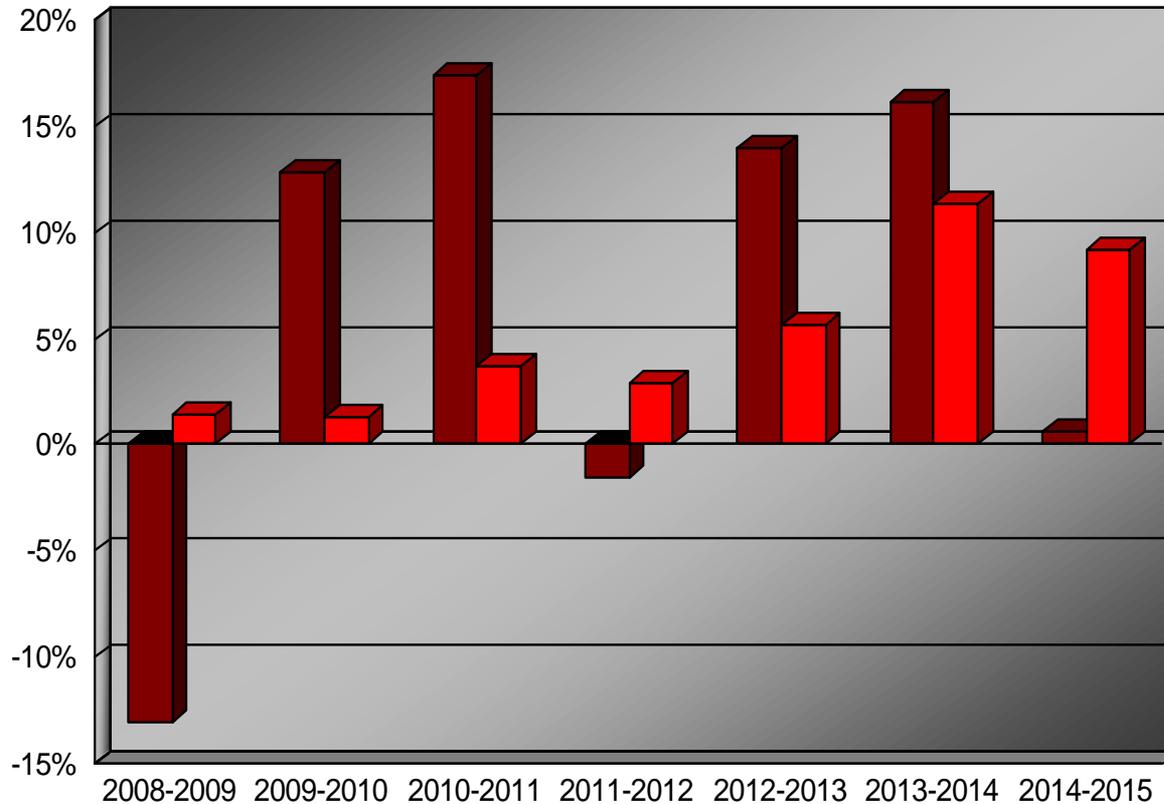
50% of the rates in accordance with the 1985 Pension Disability Table

# 2014 – 2015 Asset Reconciliation



*Actuary's Comment – The 2014 – 2015 return was approximately 0.6%, resulting in a market value of assets which is approximately \$5.0 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.*

# Annual Investment Return Rates

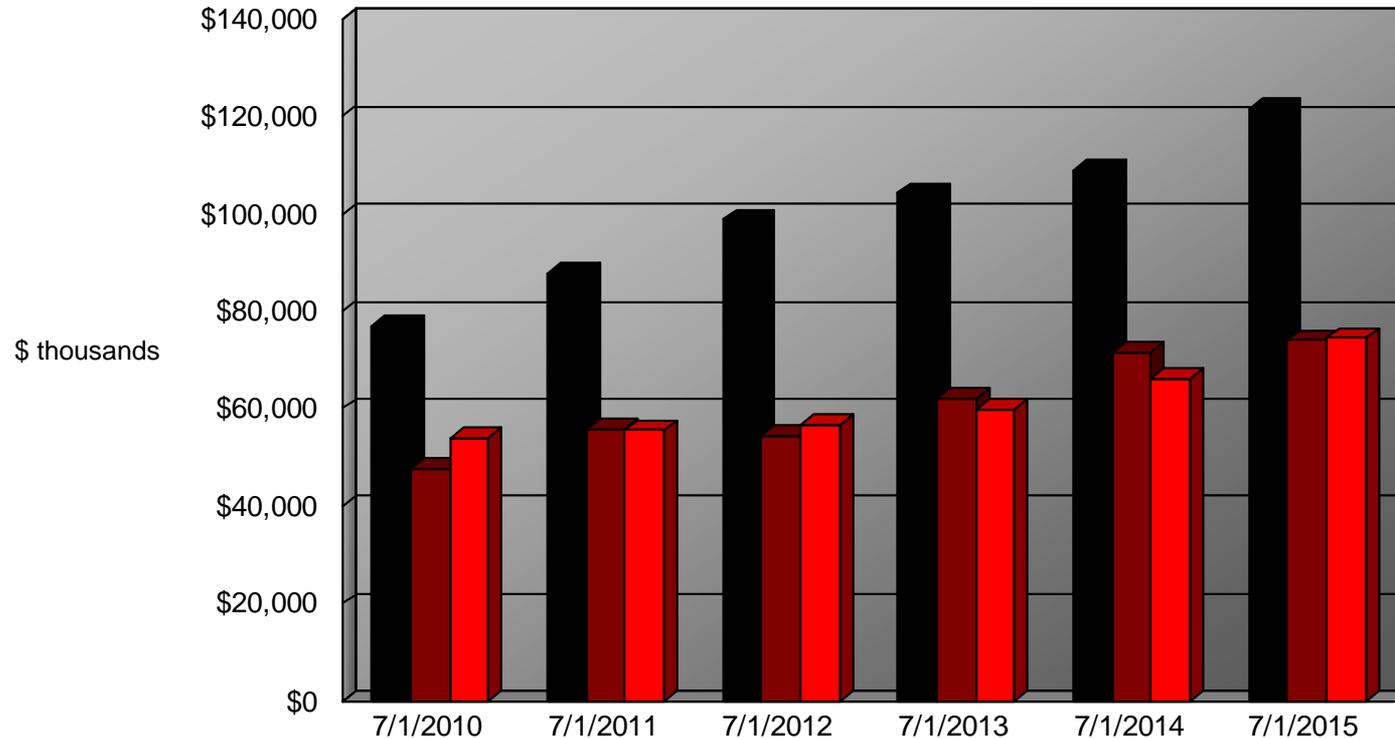


■ Market Value of Assets	-13.10%	12.9%	17.4%	-1.6%	14.0%	16.2%	0.6%
■ Plan Assets	1.40%	1.3%	3.7%	2.9%	5.6%	11.4%	9.2%

Actuary's Comment – Over the past seven plan years, the plan's average annual investment return was 6.1%.

# Funded Status

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

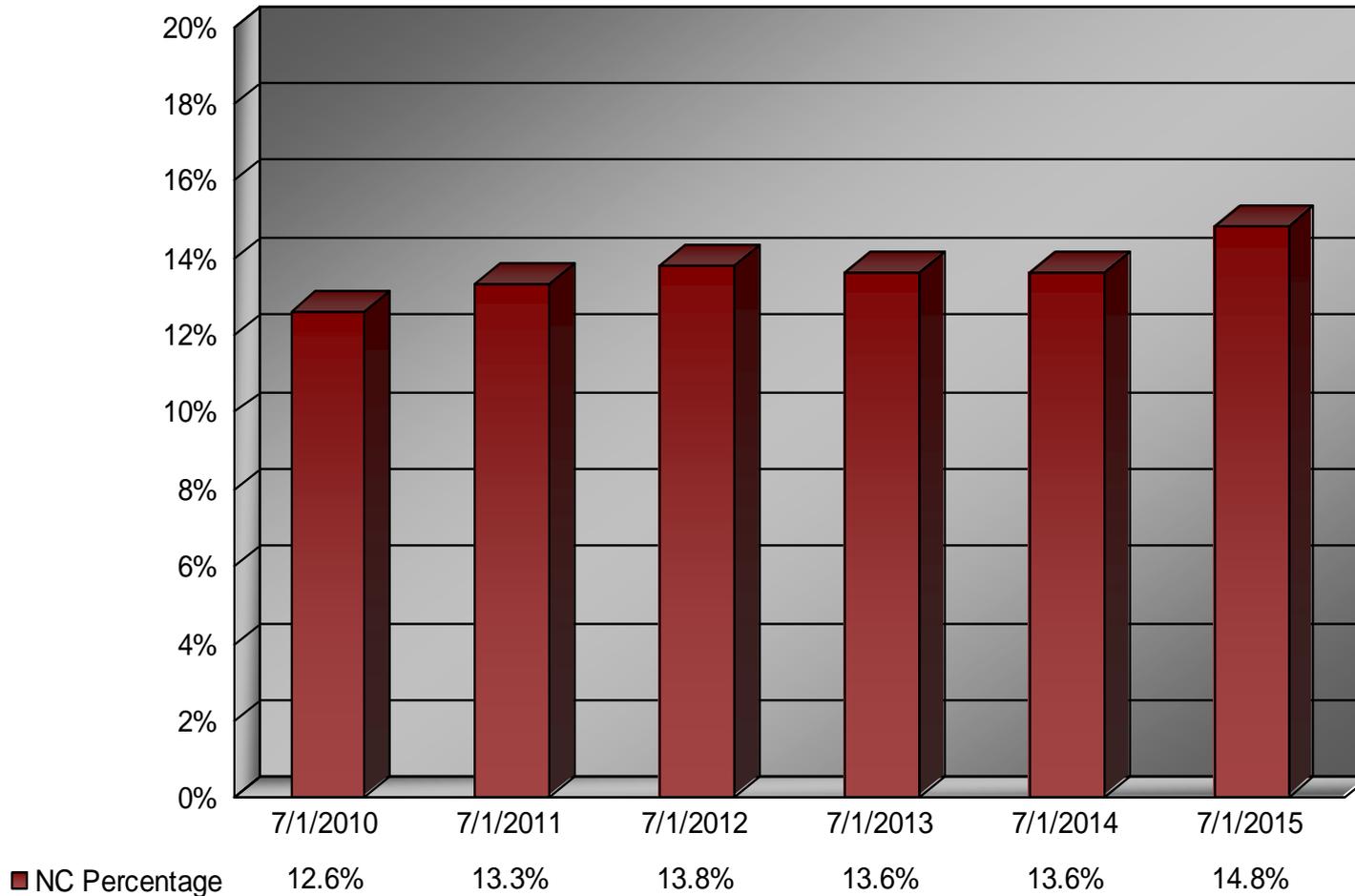


■ Actuarial Liability	\$77,014	\$87,849	\$98,815	\$104,163	\$109,086	\$121,691
■ Market Value of Assets	\$47,736	\$55,788	\$54,478	\$62,116	\$71,559	\$74,088
■ Plan Assets	\$53,870	\$55,636	\$56,809	\$59,982	\$66,161	\$74,428

Funded Percentage	7/1/2010	7/1/2011	7/1/2012	7/1/2013	7/1/2014	7/1/2015
Market Value	62.0%	63.5%	55.1%	59.6%	65.6%	60.9%
Plan Assets	69.9%	63.3%	57.5%	57.6%	60.6%	61.2%

# Annual Cost of Benefits Earned

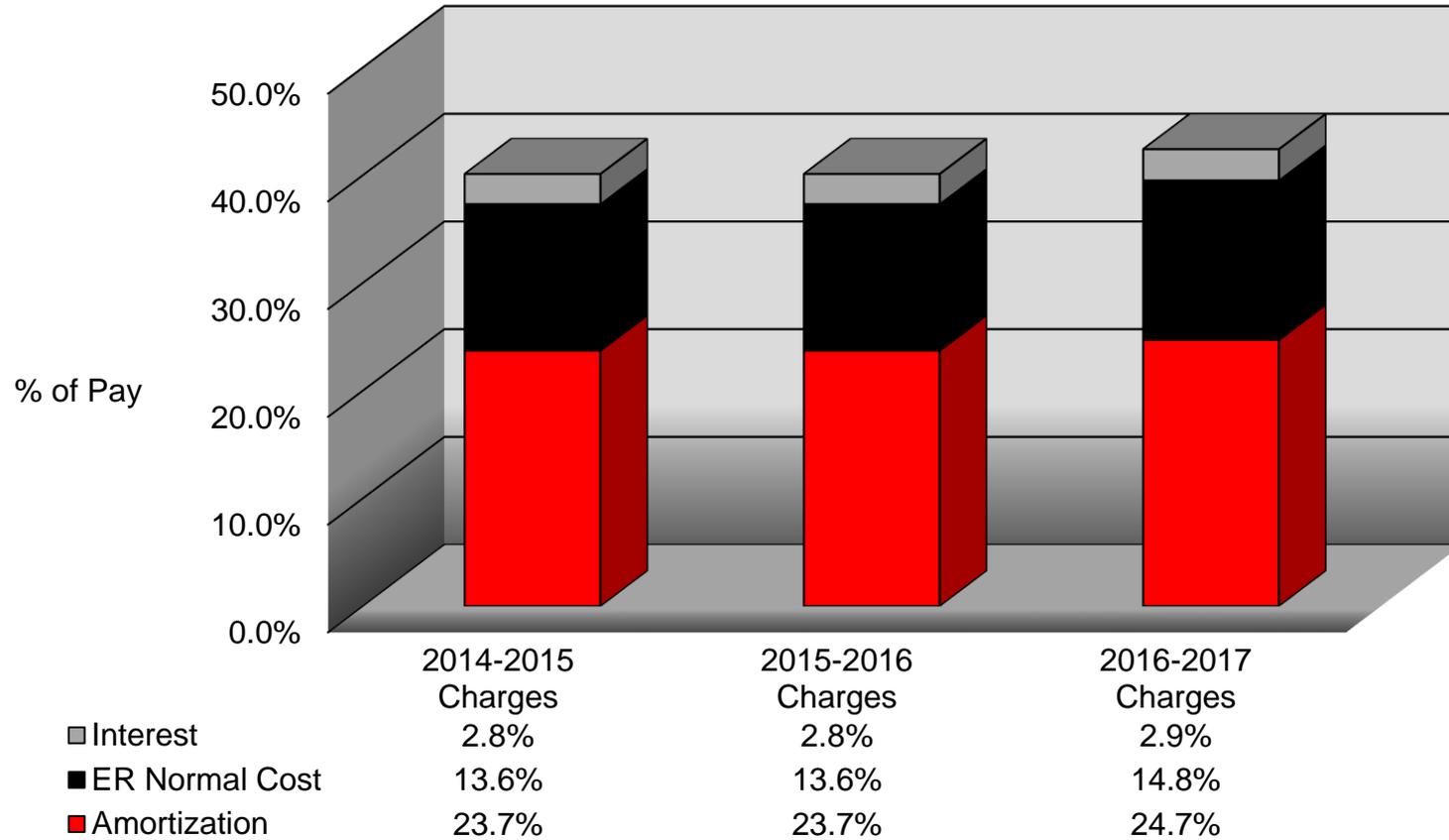
The Normal Cost Percentage is the ratio of present value of benefits earned during the current year to the active participant payroll.



*Actuary's Comment – The Normal Cost Percentage indicates the cost of benefits earned in the current year as a percentage of pay. It will vary based on the age of active participants and assumed salary growth during the year.*

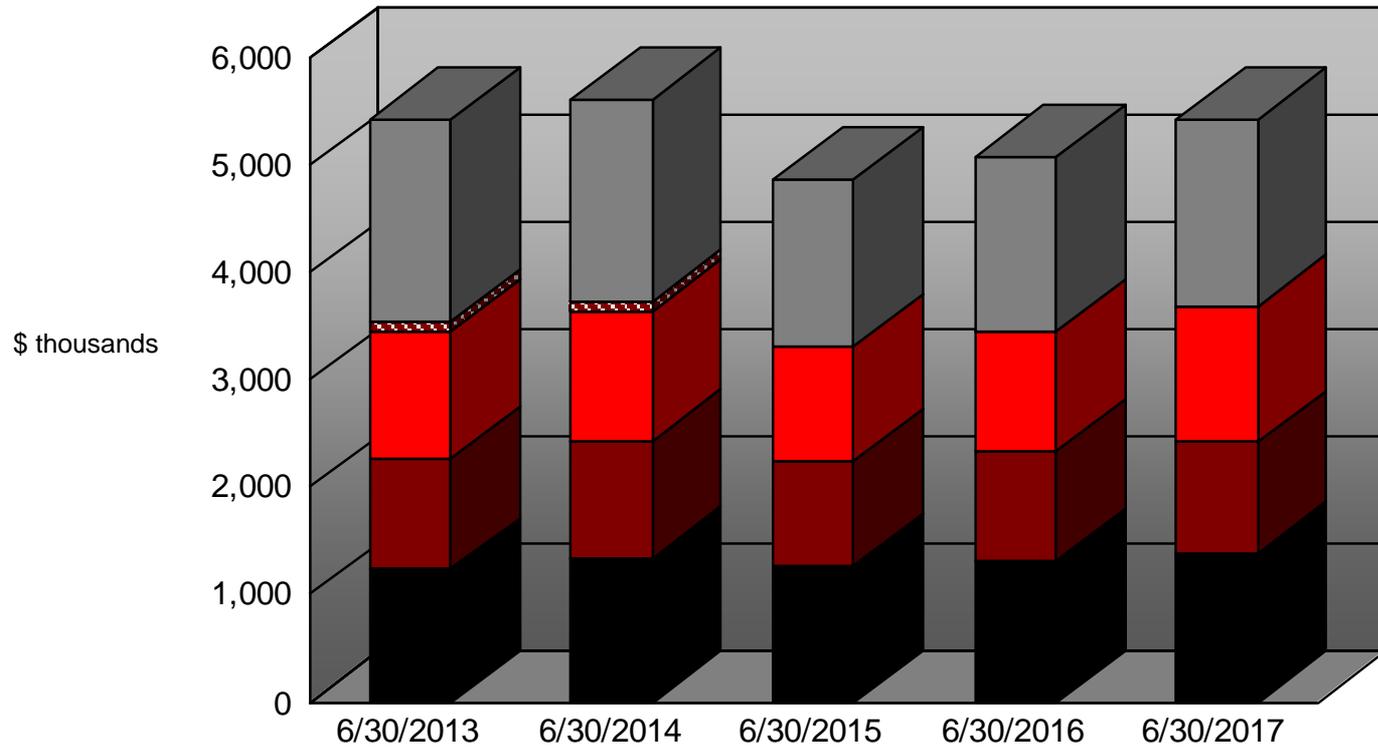
# Contribution Recommendation

The contribution recommendation consists of the annual normal cost and an amortization (over a closed 20-year period as a level % of pay) of past service liability. These components add up (along with interest) 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.



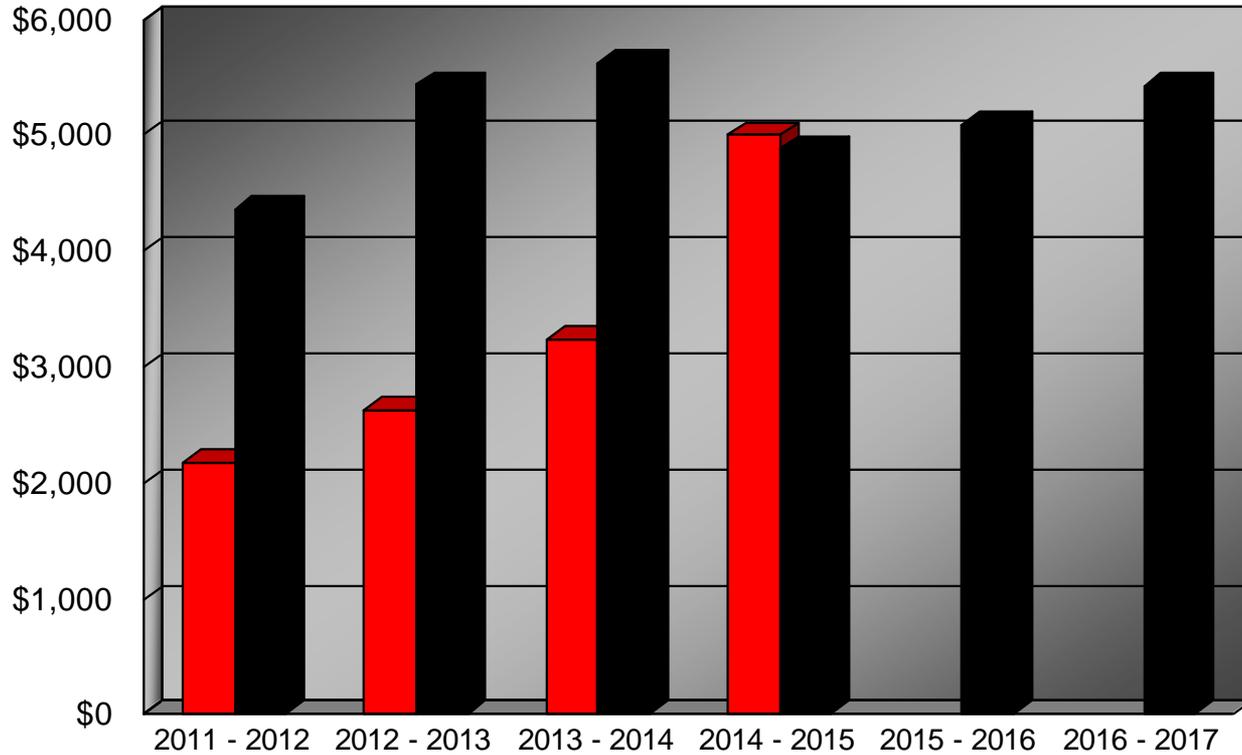
Total	40.1%	40.1%	42.4%
Projected Payroll	N/A	\$12,675,803	\$13,503,670
Prelim. Contribution	\$4,881,459	\$5,082,997	\$5,725,556
Phase-In Adjust.	N/A	N/A	\$297,081
Recommended Contribution	\$4,881,459	\$5,082,997	\$5,428,475

# Contribution Requirement - By Division nyhart



■ Municipal	\$1,881	\$1,883	\$1,573	\$1,638	\$1,741
▨ Chapter 1666	\$105	\$107	N/A	N/A	N/A
■ School	\$1,179	\$1,203	\$1,058	\$1,102	\$1,268
■ Firefighters	\$1,034	\$1,079	\$989	\$1,031	\$1,029
■ Police	\$1,233	\$1,348	\$1,261	\$1,312	\$1,390
<b>Total</b>	<b>\$5,432</b>	<b>\$5,620</b>	<b>\$4,881</b>	<b>\$5,083</b>	<b>\$5,428</b>

# Summary of Annual Costs



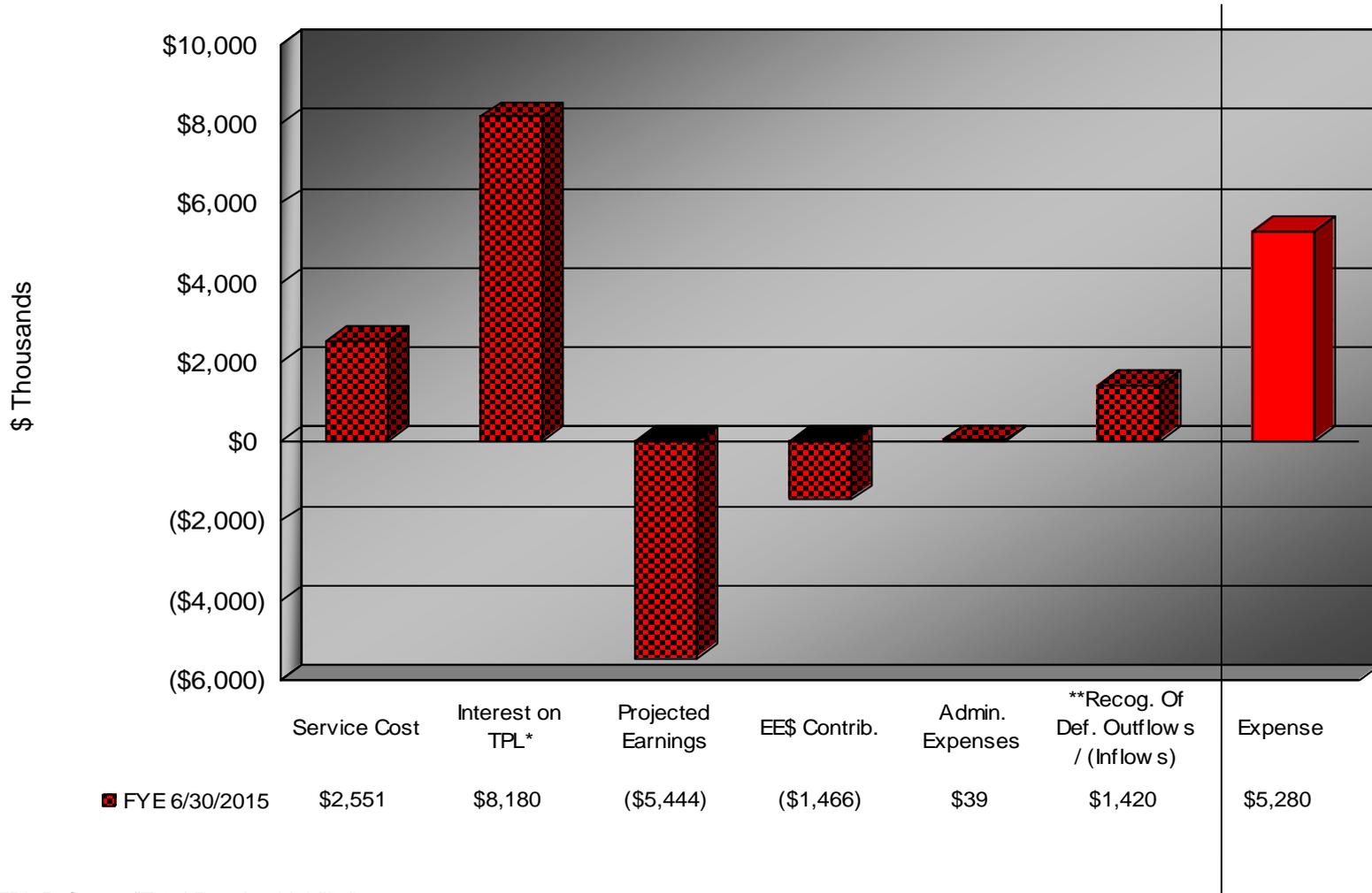
■ Contributions Paid	\$2,178	\$2,627	\$3,238	\$4,999		
■ Contribution Requirement	\$4,360	\$5,432	\$5,620	\$4,881	\$5,083	\$5,428

## **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. Liability due to amendments and significant other gains and losses may also be gradually recognized as expense.

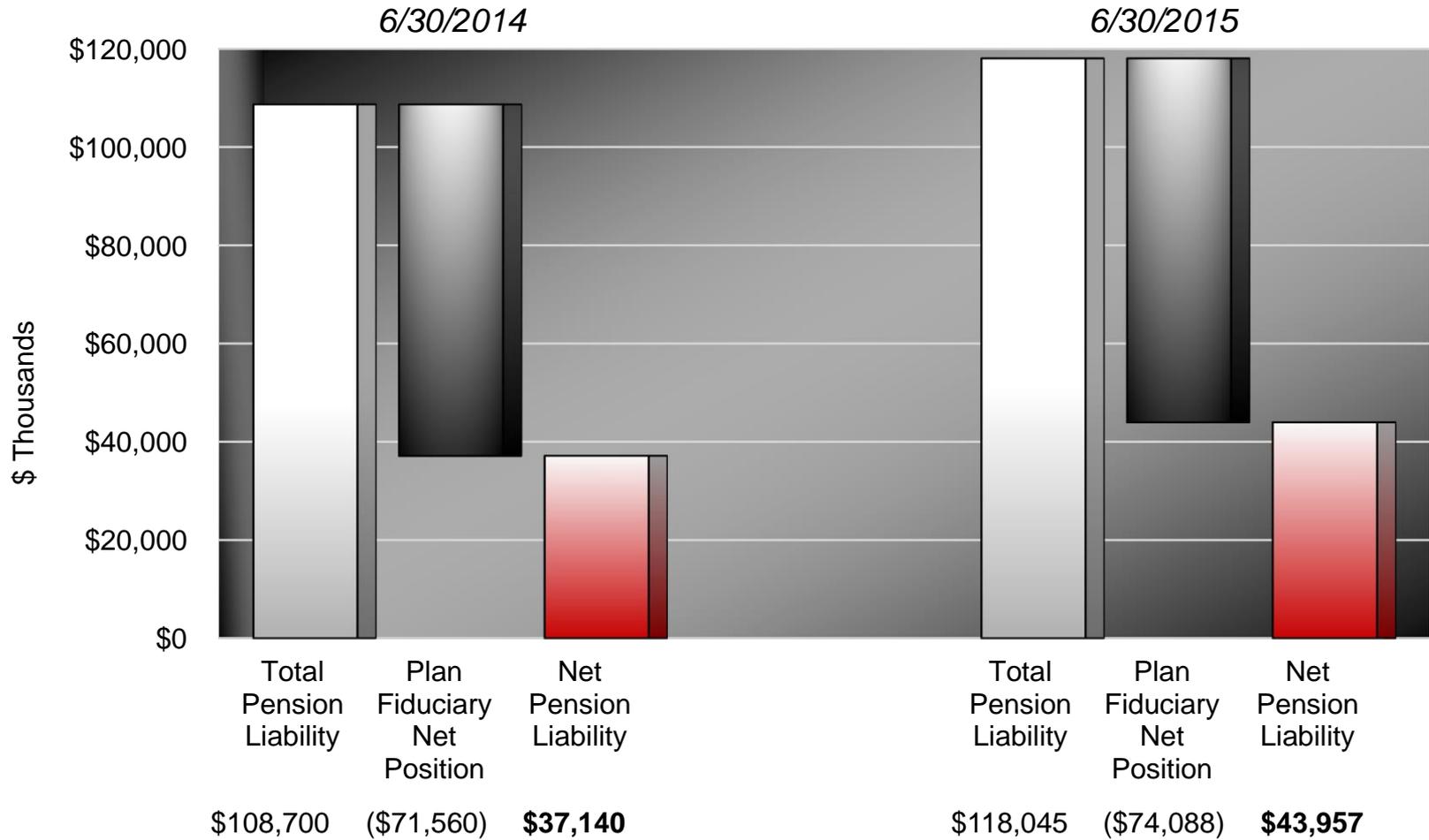


\*TPL Refers to "Total Pension Liability"

\*\*The \$1,420,000 charge is due to recognizing the difference between projected and actual 2014-2015 earnings on investments, demographic experience, and changes in assumptions.

# 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.



## ➤ **Experience Study**

Per the Rhode Island Retirement Security Act of 2011, municipalities maintaining a pension plan must submit an experience study to the study commission once every 3 years. For an experience study, we review the plan's recent experience regarding investment return, pay growth, retirement, withdrawal, and disability. Depending on the results of the analysis, we may recommend changing various economic/demographic assumptions.

We last completed an experience study in March of 2015 and implemented recommendations from that study for the July 1, 2015 valuation. The next experience study is due April 1, 2018.

## ➤ **Economic Environment**

Volatile markets and asset performance below expected will continue to put pressure on both cash requirements and financial statements. The extent of these pressures will depend upon the speed of economic recovery.

## ➤ **Mortality Updates**

The Social Security Administration has already released a new mortality improvement scale that incorporates more years of actual experience. We anticipate updating to this version of the improvement scale for the July 1, 2016 valuation report and that the impact to the liabilities will be immaterial.

We anticipate that a new improvement scale will be released annually or bi-annually and that the update will have negligible impact to the liabilities.

## ➤ **Population Growth/Benefit Improvements?**

Any future plans for changes to the benefit structure or changes to the population?  
Are negotiations ongoing for new Police/Fire contracts?

## ➤ **Plan Document**

There is still a need to create an official plan document. This document will govern who is eligible for the plan, how service/benefits are earned, etc. The next step would be for the Town to review/verify our interpretation of the provisions, allowing us to prepare a draft document to review.

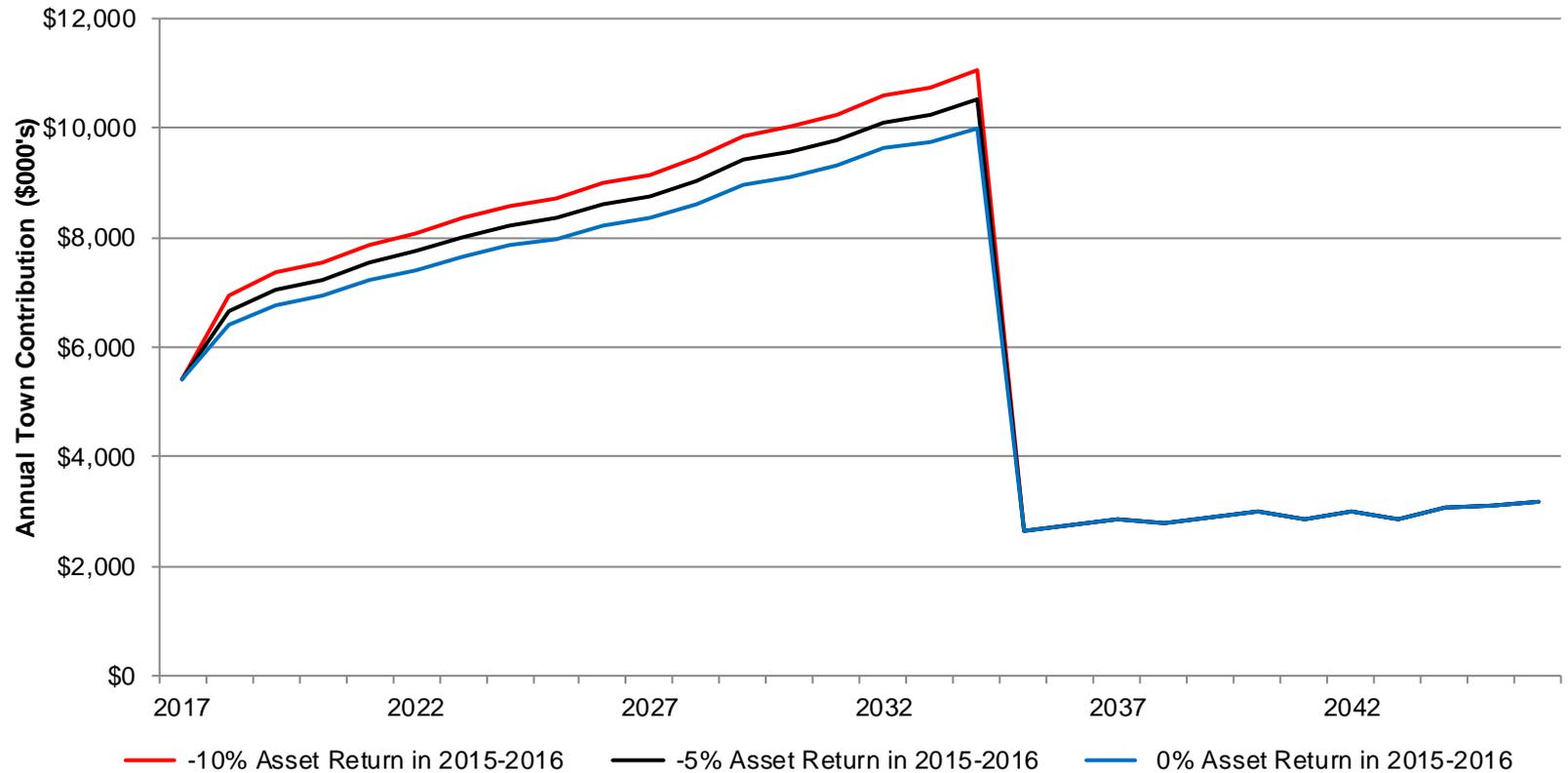
## Important Comments About Cost Information Included in this Report

*The cost projections contained in this report are based on the valuation results and assumptions noted in the July 1, 2015 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.*

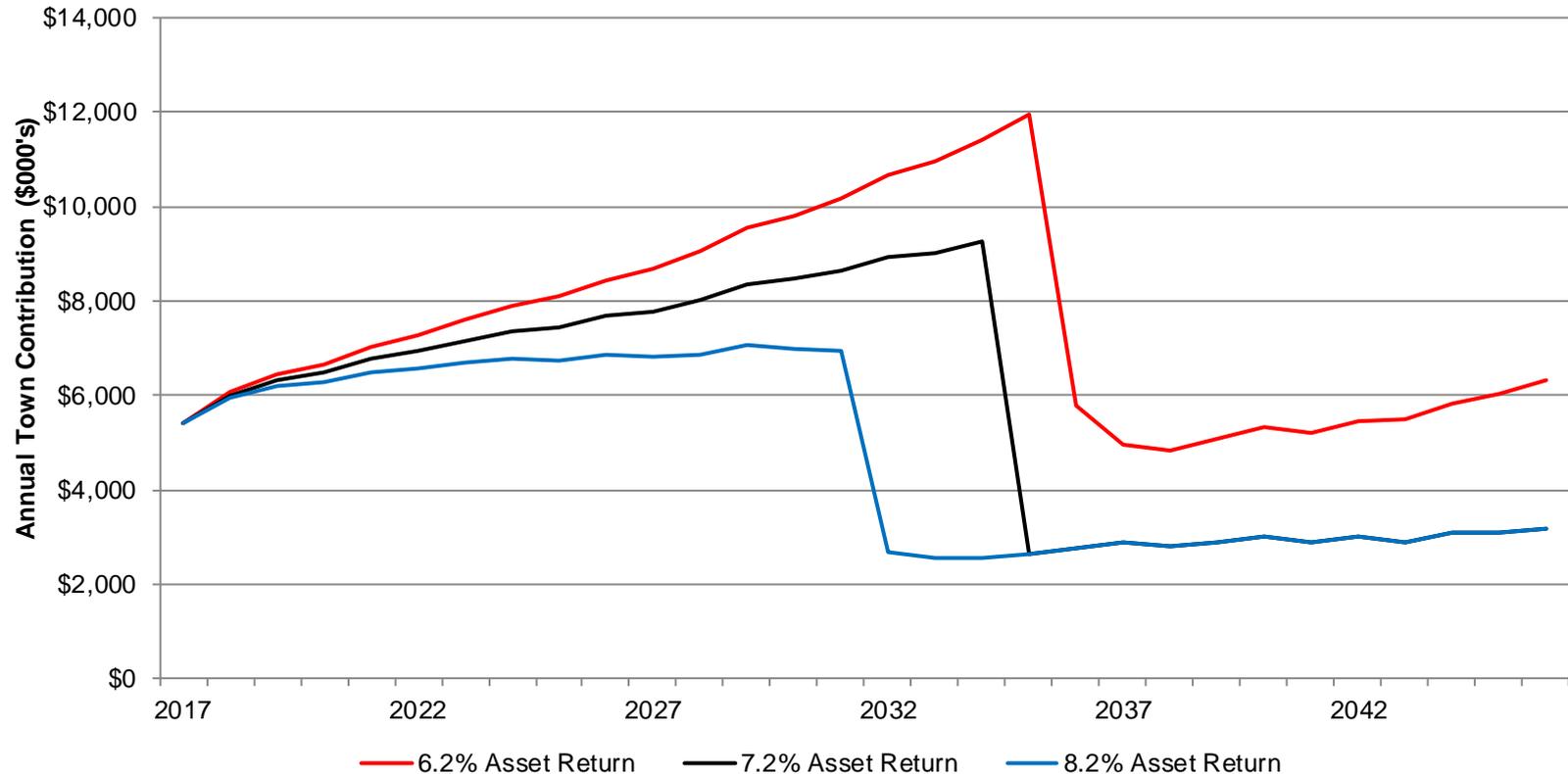
*While a diligent effort has been made to produce reasonable projections, by their very nature projections are speculative. Plan sponsors are cautioned against placing too much reliance on any particular scenario.*

# Projections – 2015-2016 Asset Volatility nyhart



Plan Year Ending	2017	2018	2019	2020	2021	2022	2023	2024
<b>Payroll (in \$000's)</b>	12,247	12,622	12,989	13,338	13,661	13,937	14,373	14,729
<b>Recommended Contribution as % of pay</b>	5,428 44%	6,938 55%	7,351 57%	7,551 57%	7,865 58%	8,084 58%	8,363 58%	8,580 58%
<b>Recommended Contribution as % of pay</b>	5,428 44%	6,670 53%	7,049 54%	7,240 54%	7,546 55%	7,743 56%	8,015 56%	8,221 56%
<b>Recommended Contribution as % of pay</b>	5,428 44%	6,398 51%	6,747 52%	6,930 52%	7,213 53%	7,416 53%	7,667 53%	7,863 53%

# Projections – Various Asset Returns



Plan Year Ending	2017	2018	2019	2020	2021	2022	2023	2024
<b>Payroll (in \$000's)</b>	12,247	12,622	12,989	13,338	13,661	13,937	14,373	14,729
<b>Recommended Contribution as % of pay</b>	5,428 44%	6,054 48%	6,432 50%	6,660 50%	7,019 51%	7,274 52%	7,595 53%	7,878 53%
<b>Recommended Contribution as % of pay</b>	5,428 44%	5,999 48%	6,314 49%	6,470 49%	6,755 49%	6,933 50%	7,160 50%	7,339 50%
<b>Recommended Contribution as % of pay</b>	5,428 44%	5,948 47%	6,196 48%	6,281 47%	6,478 47%	6,564 47%	6,696 47%	6,771 46%

# Assumptions for Cost Projections

Category	Assumption
<b>Asset Return</b>	Plan assets earn 7.20% annually, except as specified otherwise
<b>Active Population</b>	The number of active employees stays constant at 255 throughout the 30-year projection period
<b>Town Contributions</b>	The Town contributes the full Actuarial Recommended Funding Contribution (ARFC) each year
<b>Actuarial Recommended Funding Contribution</b>	GASB rules in effect as of July 1, 2015 are used
<b>Contributions Shown</b>	Include only Employer Defined Benefit money, unless otherwise noted
<b>Annual Contribution</b>	Consists of 2 pieces – benefits being earned during the current year and the amount to cover the amortization of the unfunded liability
<b>Future New Entrants</b>	Modeled after actual new entrant data from 2008-2014. New entrants were modeled for police, fire, municipal, Local 1033 and Council 94 employees separately
<b>Salary Growth</b>	6.0% for participants age 20-29, decreasing 0.5% over 5-year increments until reaching 4.0% for participants age 45 and older. Salary increases were incorporated for the appropriate groups per recent contract negotiations. These include merit, inflation, and any other type of wage increase
<b>Mortality</b>	RP-2014 Mortality Table with Social Security Generational Improvements from 2006, per 2014 Trustees Report. Blue collar adjustments for Police/Fire
<b>Inflation</b>	Inflation is assumed at 2% per year unless explicitly stated otherwise
<b>Retirement Rates, Withdrawal Rates, Disability Rates, COLA, Married Percentage</b>	All other assumptions match those used in the July 1, 2015 valuation

# Additional Disclosures for Cost Projections

Category	Assumption
Data	The same data which was used for the 7/1/2015 Pension Plan valuation was used for the projections.
Assets	The actual market value of assets as of 6/30/2015 and contributions during the 7/1/2014 – 6/30/2015 plan year were incorporated in the projections.