



Management Summary
& Plan Analysis

Town of Narragansett Pension Plan

July 1, 2017 ACTUARIAL VALUATION

February 5, 2018



Agenda

- 3-4 Nyhart Services
- 5 Highlights
- 6-14 Funding Results
 - 7-8 Contribution Recommendation
 - 9 Funded Status
 - 10 Cost of Benefits as a Percentage of Payroll
 - 11 Summary of Annual Contributions - Employer
 - 12 Annual Benefit Payments
 - 13 Asset Reconciliation
 - 14 Annual Investment Return Rates
- 15-17 GASB 67 & 68 Results
- 18-20 Projections
- 21-28 Appendix
 - Certification
 - Participant Information
 - Summary of Plan Provisions
 - Summary of Actuarial Assumptions & Methods

Nyhart



What We Do

Actuarial Services & Consulting

- Pension valuations for public and private sector plans
- Retiree medical valuations (GASB 74/75 and ASC 715)
- Pension de-risking
- Annuity placements
- Multi-year cost modeling
- Experience studies
- Pension sustainability studies
- TV lump sum windows and annuity purchases
- Cash balance plans
- Plan design
- Asset liability studies including glide path modeling and EROA analysis
- Compensation consulting

Benefit Administration Services

- Pension administration services through nyPAS – Nyhart’s web-based platform
- Call center, including bilingual services
- Access to nyPAS for benefit estimates
- Direct mailing and online availability of annual funding notices and benefit statements
- Lump sum windows and other large administration projects
- Defined contribution recordkeeping
- Compliance testing
- HSA, FSA, and COBRA administration
- Benefit Statements

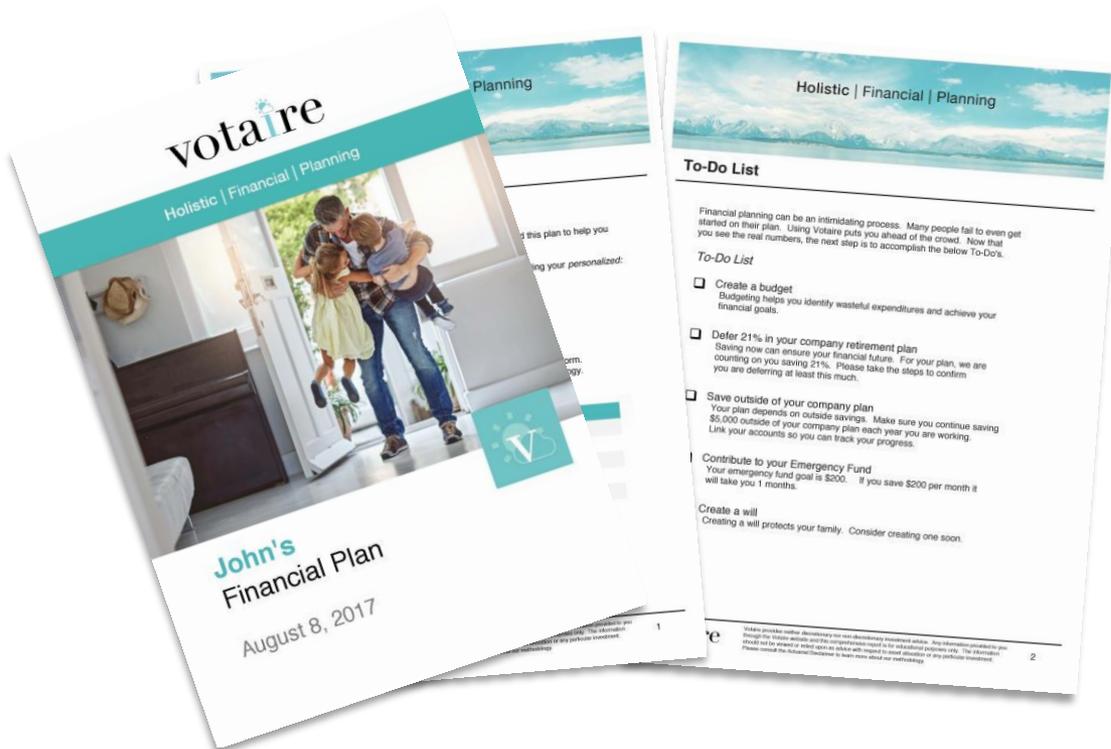
Votaire: Financial Planning

- Comprehensive planning for all users
- Answers questions about healthcare costs
- Place to track in-plan and out-of-plan accounts



Holistic | Financial | Planning

Employees' financial stress hampers productivity. **Votaire** is meant to alleviate that stress for employees of all ages.



WE HELP EMPLOYEES:

- 1 Build retirement income
- 2 Plan for healthcare costs
- 3 Create a financial plan
- 4 Monitor all accounts in one place

Highlights



Changes

- Asset return better than expected
- Minimal demographic changes



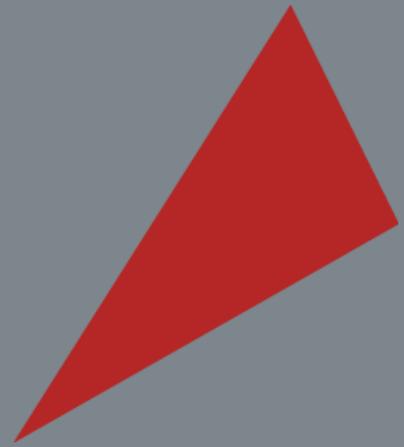
Plan Status

- Recommended contribution slightly lower than scheduled (\$6.1 million actual vs \$6.5 million projected)
- Funded percentage increased from 62.0% to 64.6%



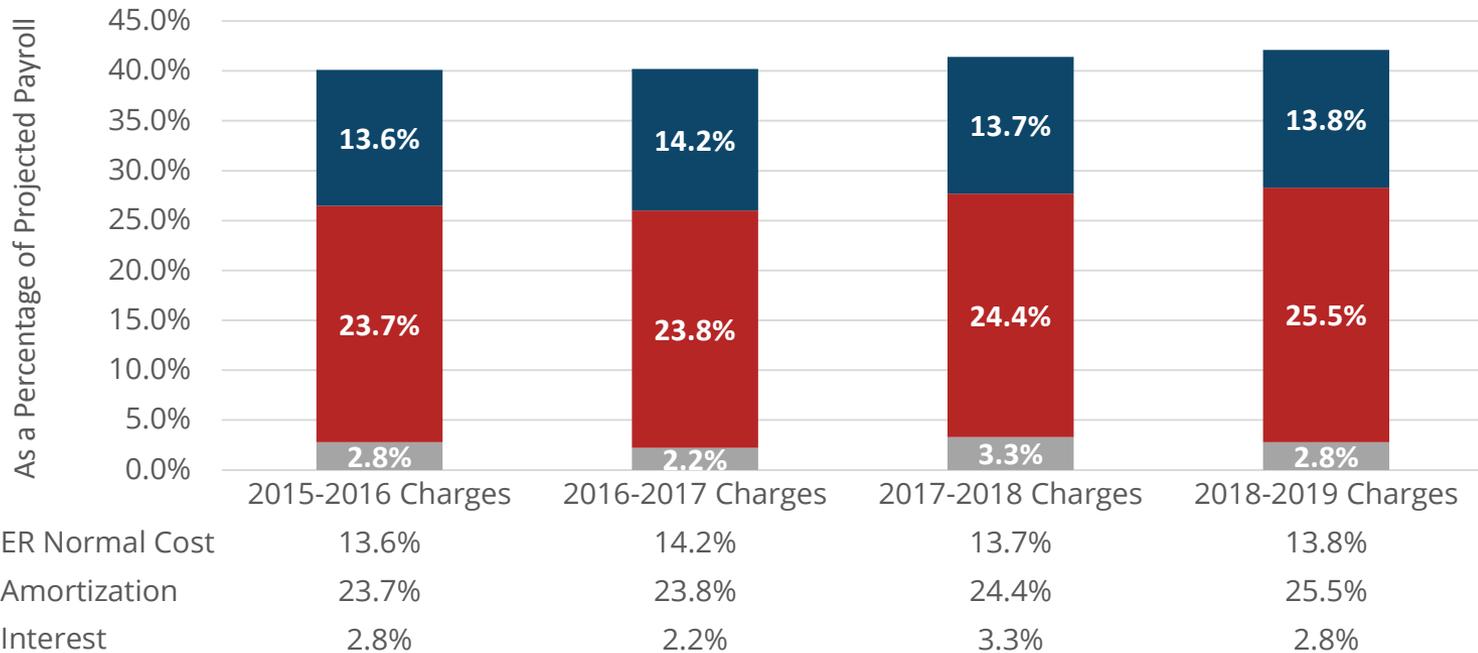
Looking Ahead

- Contributions are expected to steadily increase along with payroll
- Experience study due this year – Nyhart will complete in Spring 2018 (Required every 3 years by RIRSA)



Funding Results

Contribution Recommendation

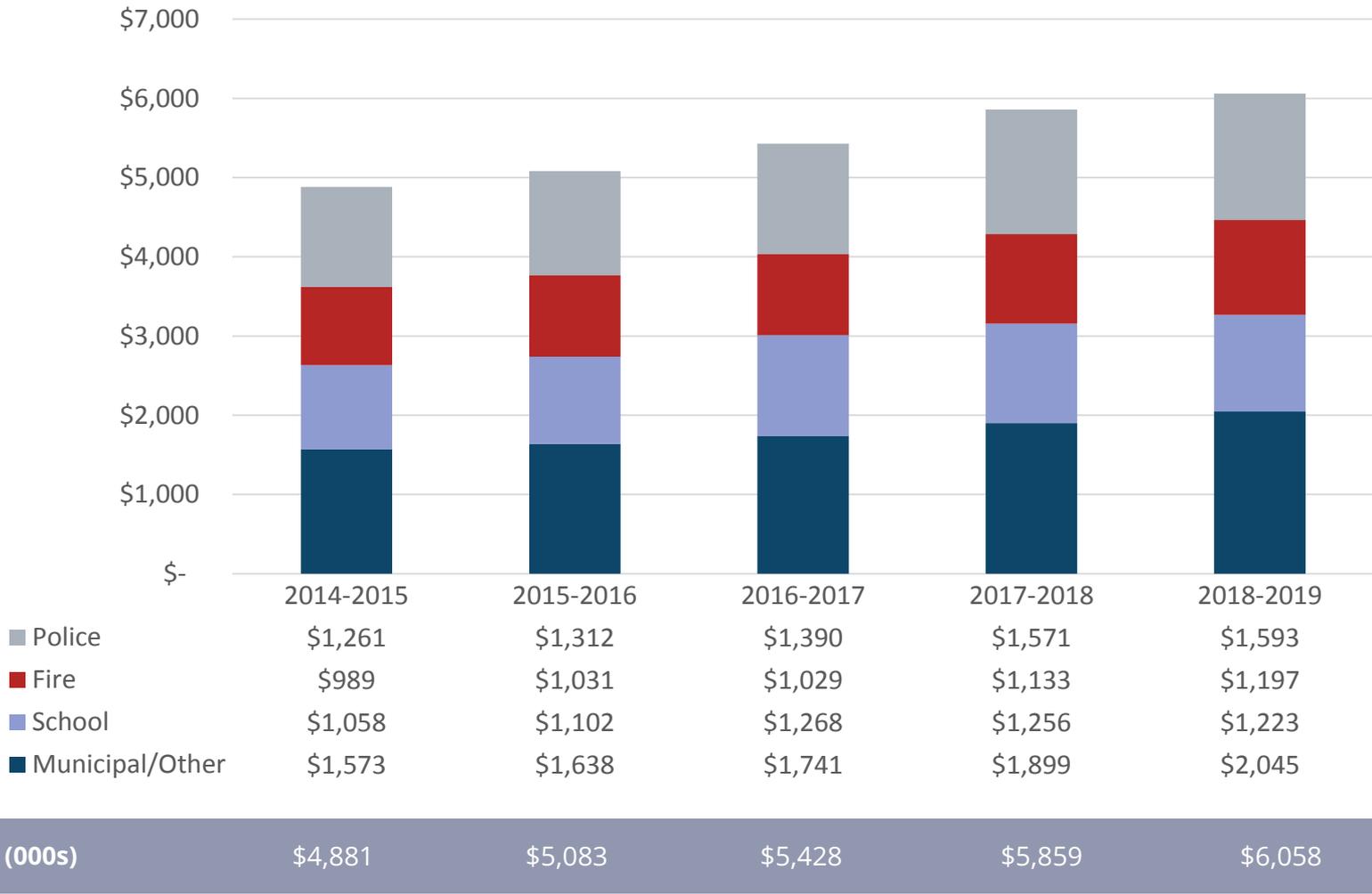


| | | | | |
|---|--------------|--------------|--------------|--------------|
| Total as a Percentage of Payroll | 40.1% | 40.2% | 41.4% | 42.1% |
| Projected Payroll | \$12,675,803 | \$13,503,670 | \$14,151,902 | \$14,389,316 |
| Recommended Contribution | \$5,082,997 | \$5,428,475 | \$5,858,887 | \$6,057,902 |

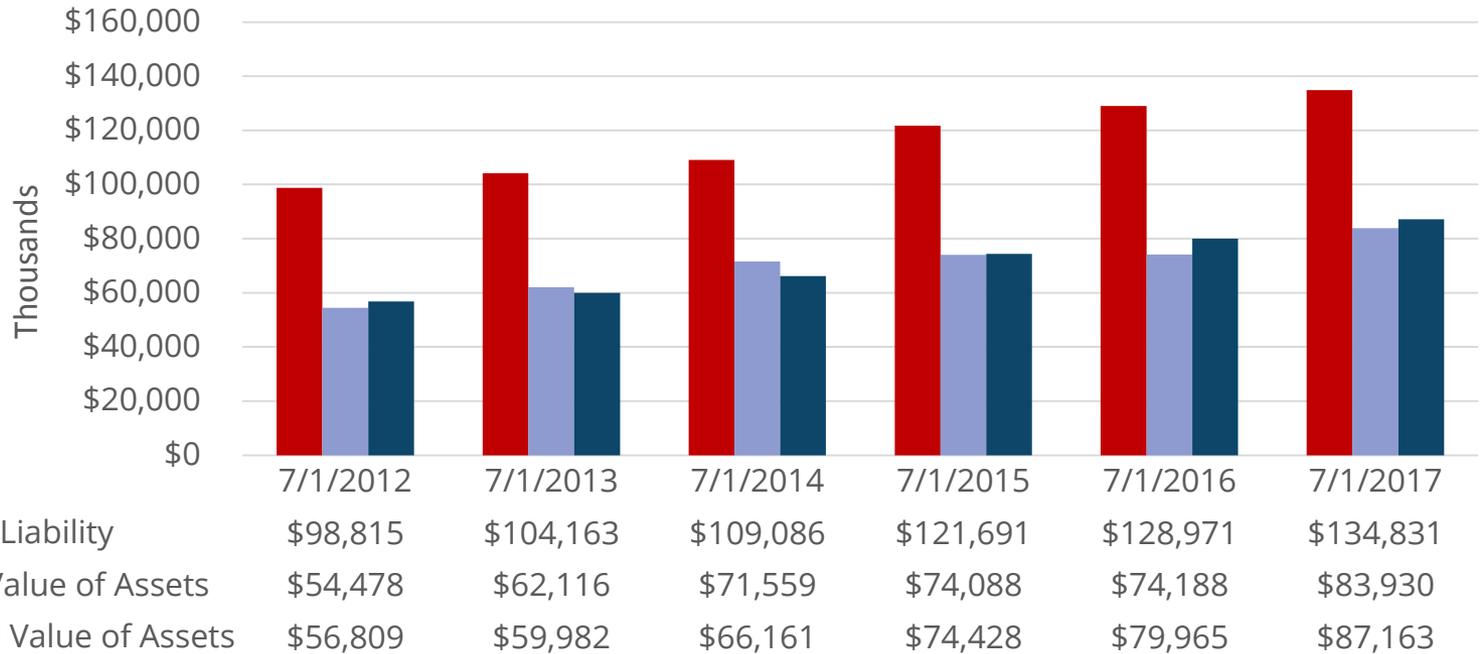
ACTUARY'S COMMENT

The contribution recommendation consists of the annual normal cost and an amortization (over 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, contribution recommendations are based on valuation results from the previous year, projected forward based on expected payroll.

Contribution Recommendation - by Division

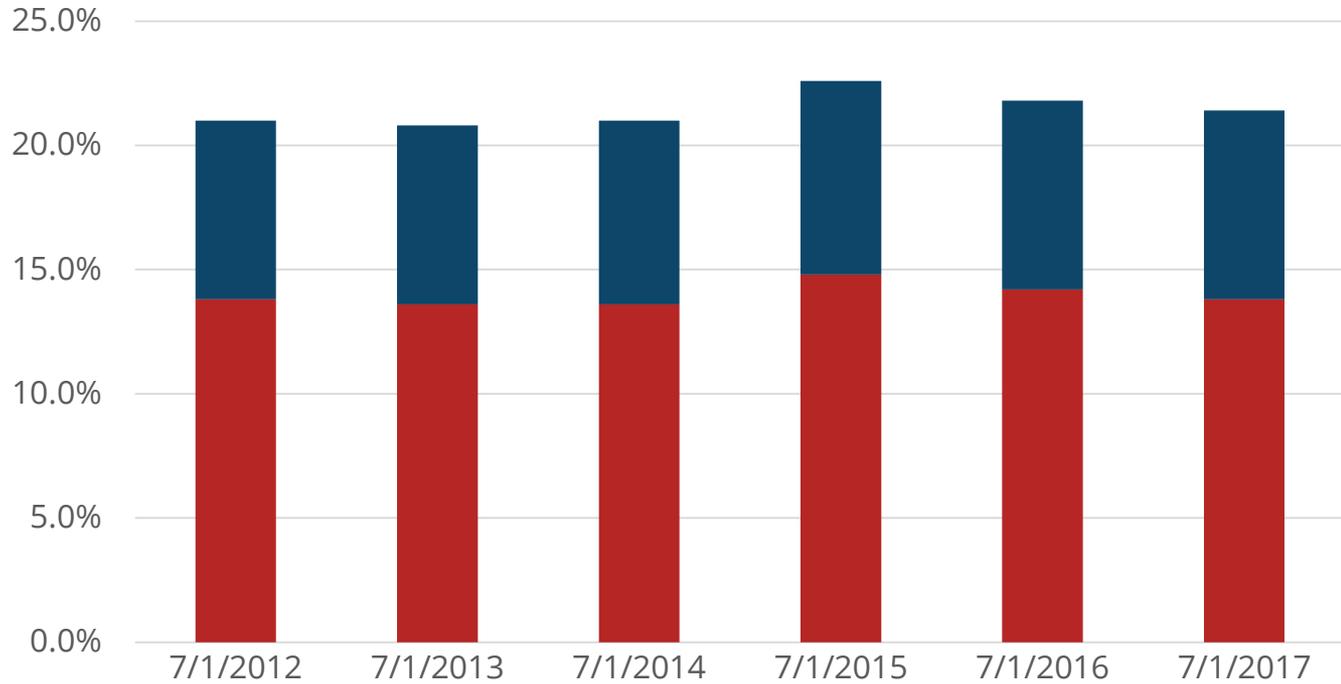


Funded Status



| Funded Percentage | 7/1/2012 | 7/1/2013 | 7/1/2014 | 7/1/2015 | 7/1/2016 | 7/1/2017 |
|----------------------------------|----------|----------|----------|----------|----------|----------|
| Actuarial Value of Assets | 57.5% | 57.6% | 60.6% | 61.2% | 62.0% | 64.6% |
| Market Value | 55.1% | 59.6% | 65.6% | 60.9% | 57.5% | 62.2% |

Cost of Benefits as a Percentage of Payroll



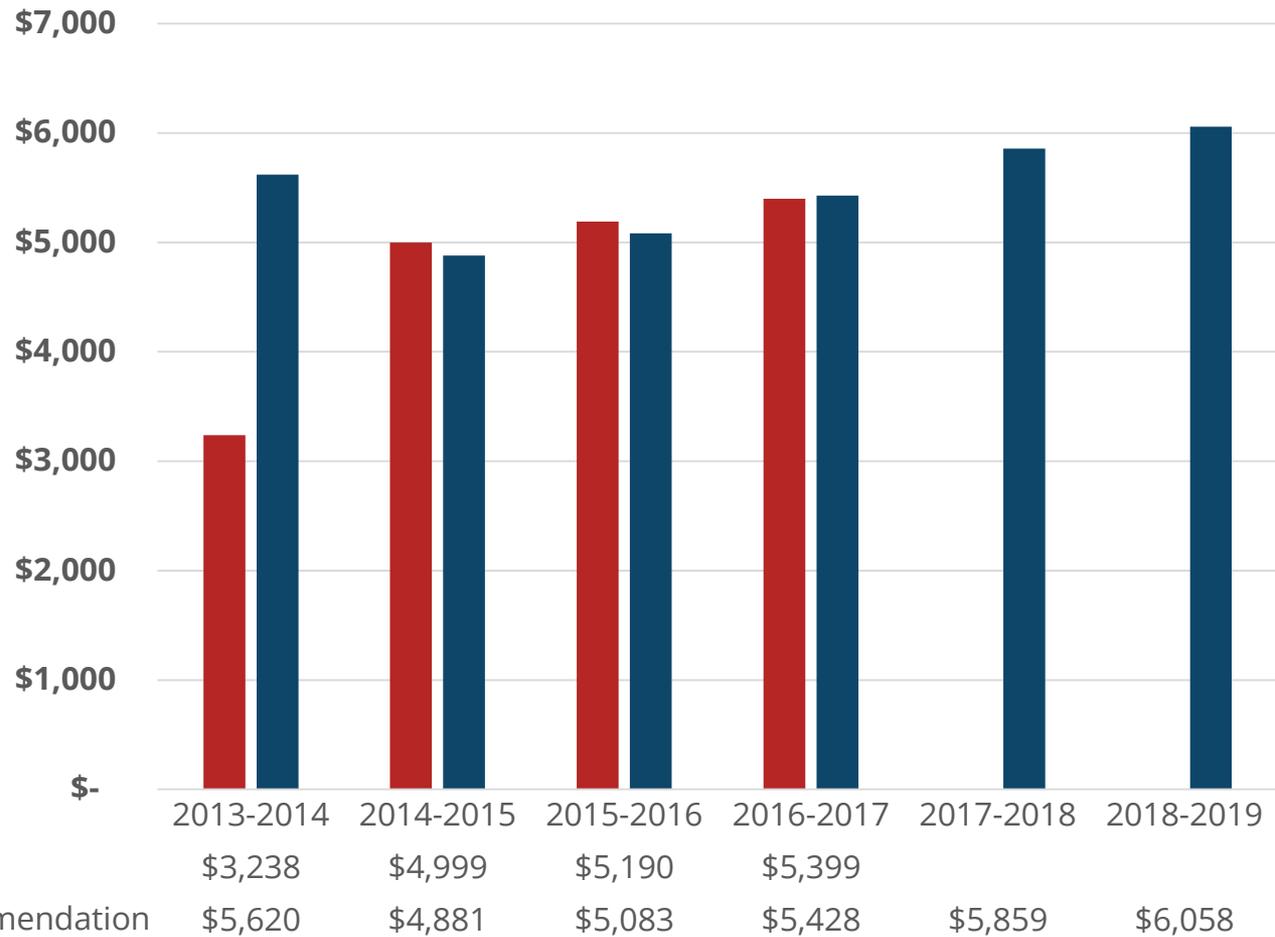
■ Employee Cost of Benefits
■ Employer Cost of Benefits

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Total as % of Payroll | 21.0% | 20.8% | 21.0% | 22.6% | 21.8% | 21.4% |
|------------------------------|-------|-------|-------|-------|-------|-------|

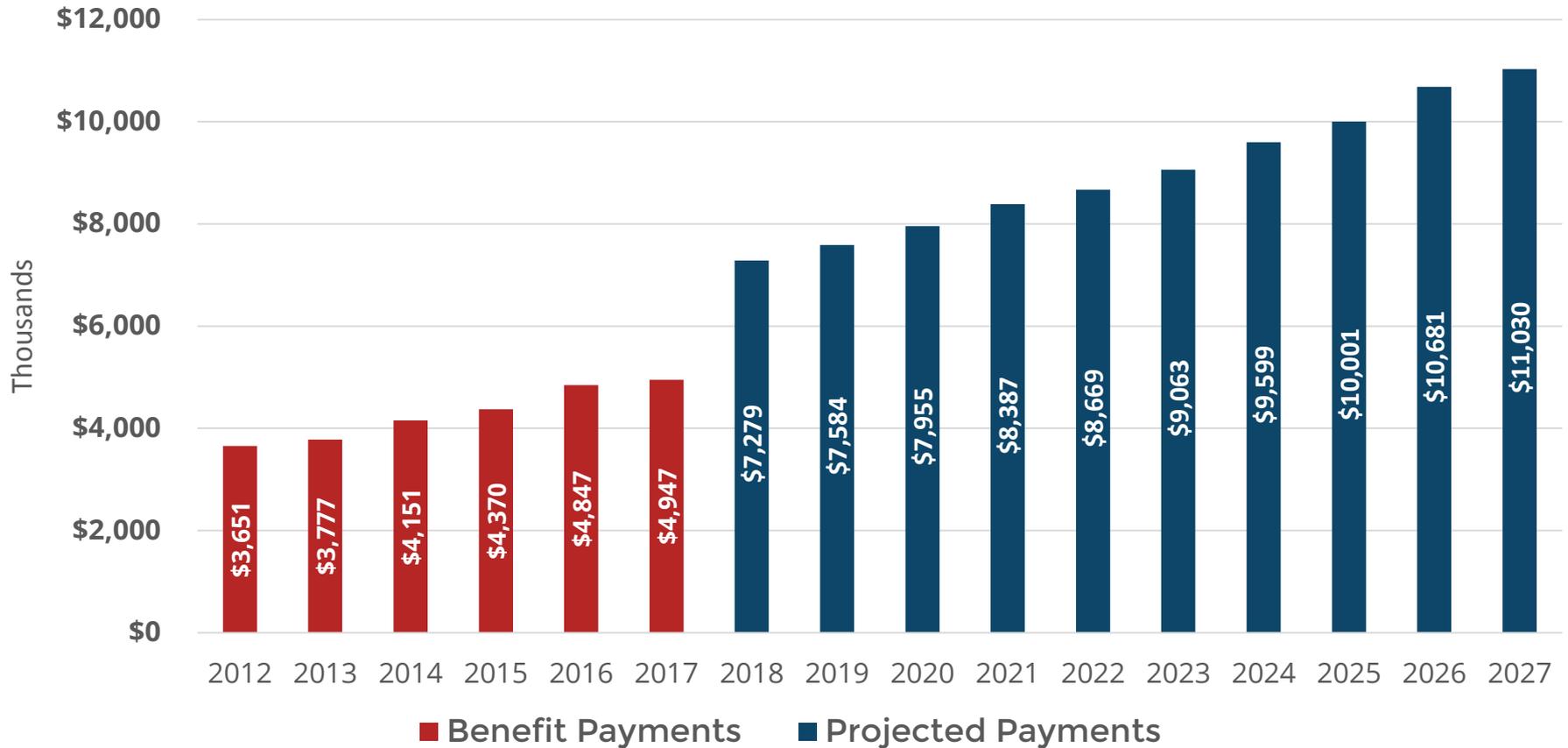
ACTUARY'S COMMENT

The figures above indicate the cost of benefits earned in the current year as a percentage of pay. It will vary based on the age of active participants, assumed salary growth during the year, and key assumptions like the discount rate and mortality.

Summary of Annual Contributions - Employer



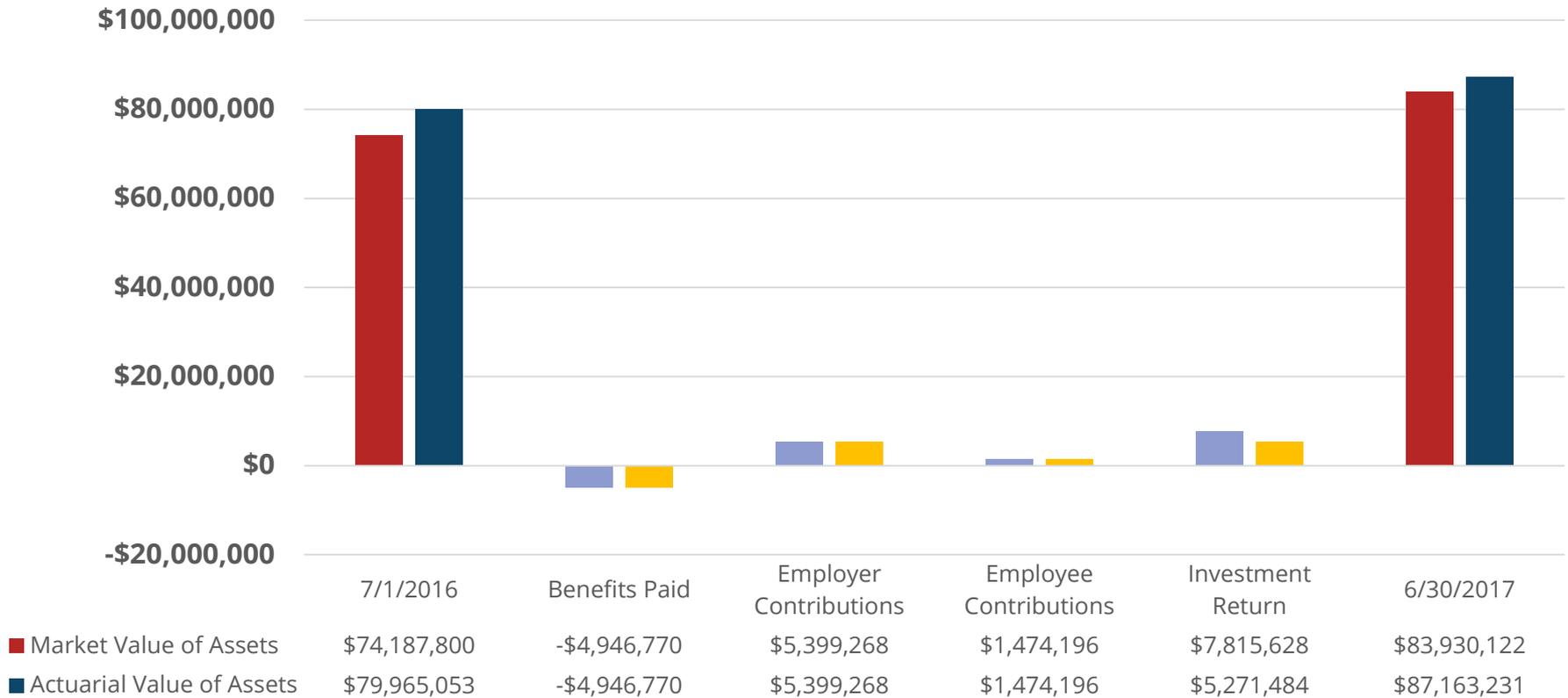
Annual Benefit Payments



ACTUARY'S COMMENT

Annual benefit payments have steadily been increasing. This pattern will likely continue as new retirements occur. Annual cost of living adjustments are also playing a part in the benefit payment increases.

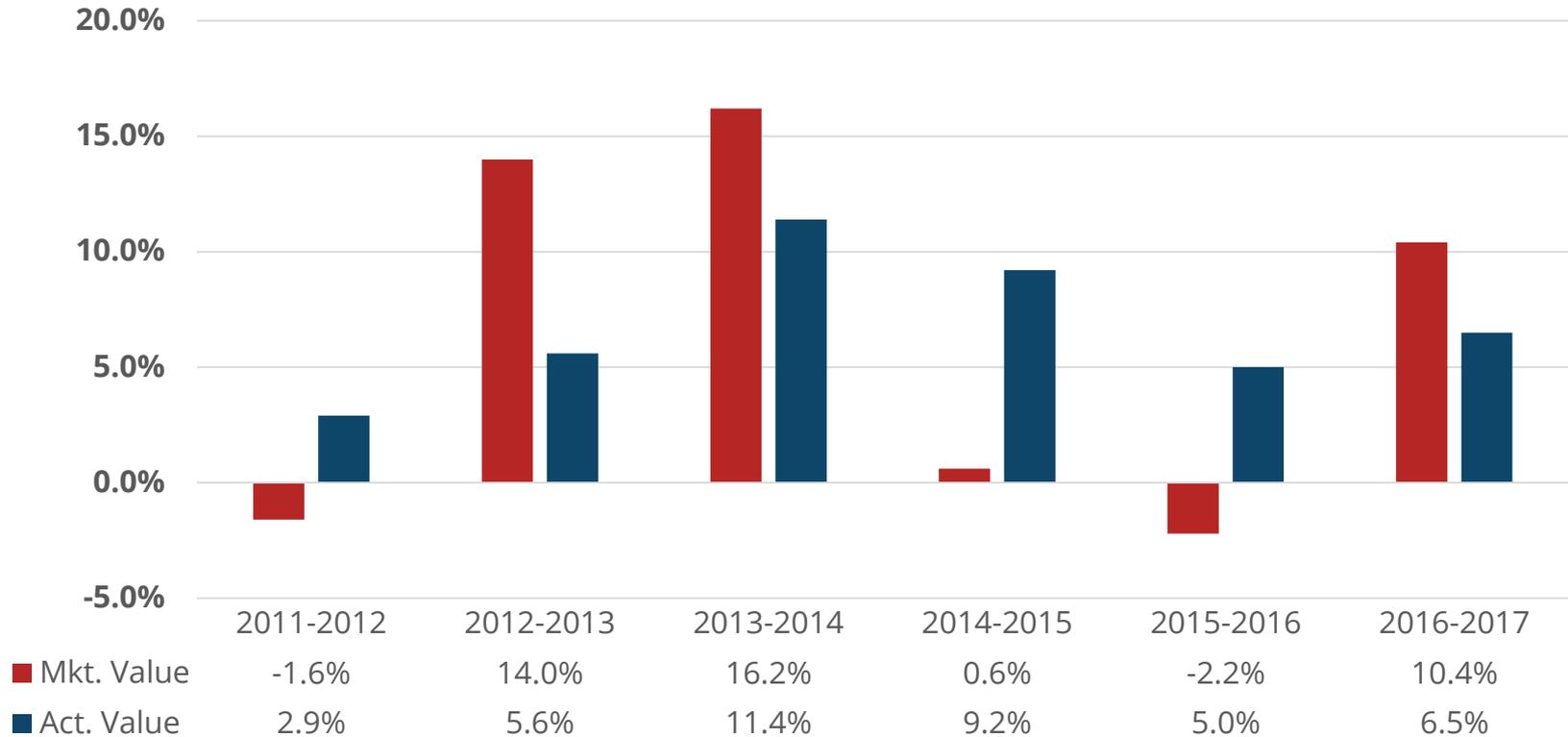
2016-2017 Asset Reconciliation



ACTUARY'S COMMENT

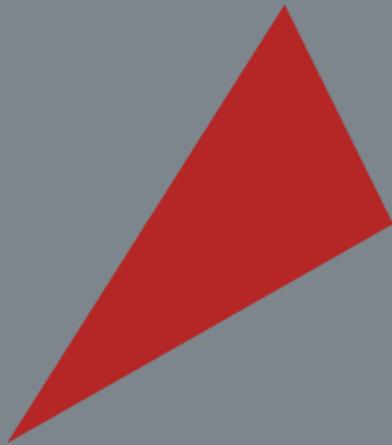
The 2016-2017 return was approximately 10.4%, resulting in a market value of assets that is approximately \$2,400,000 higher than projected under last year's valuation. The plan's funding requirements are based on the Actuarial Value of Assets, not the Market Value of Assets. While this "smoothing" approach 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



ACTUARY'S COMMENT

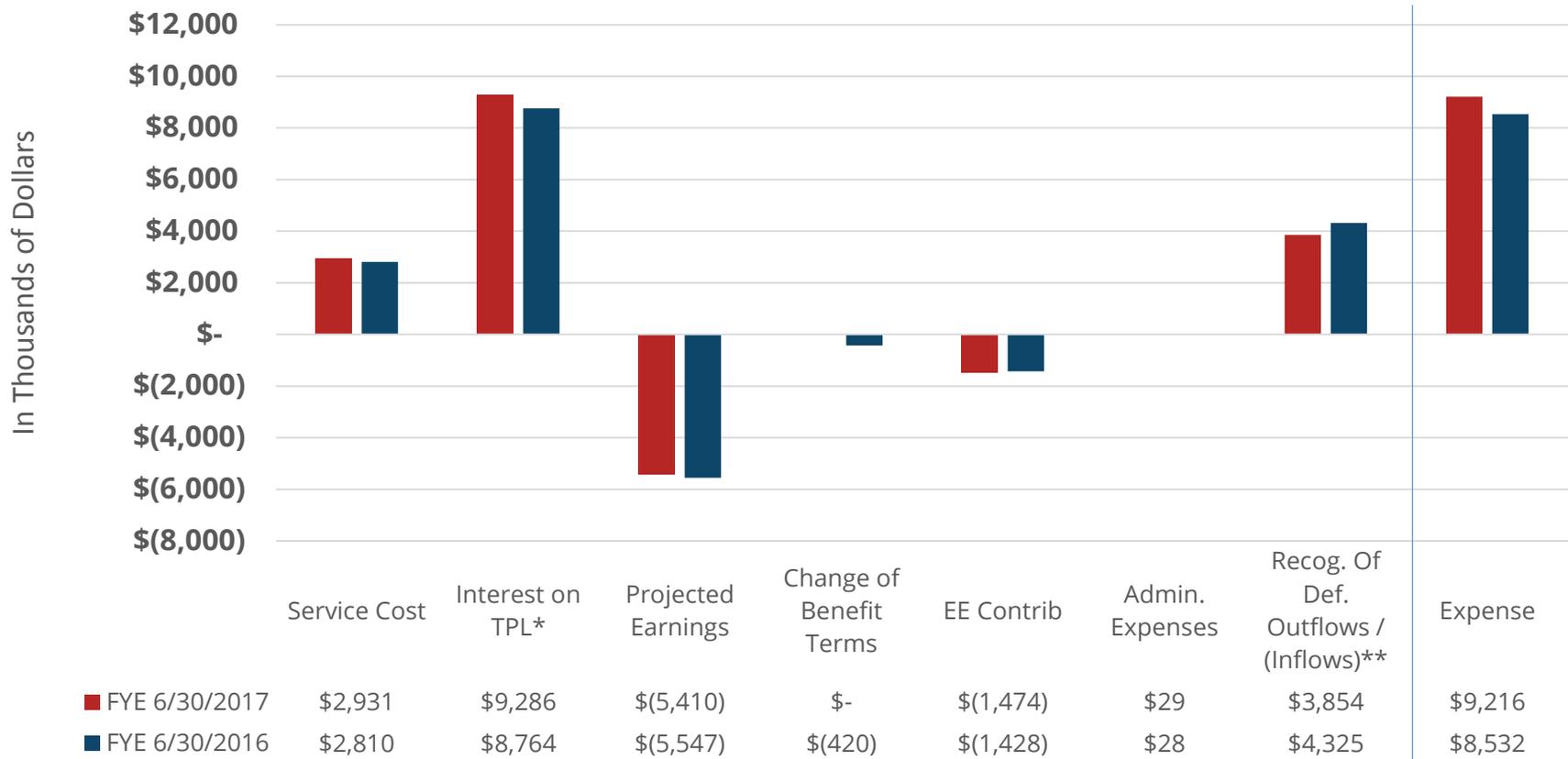
Over the past six plan years, the plan's average annual investment market return has been 6.0%.



GASB 67 & 68 Results



GASB 67, 68 Accounting - Pension Expense



ACTUARY'S COMMENT

* TPL refers to Total Pension Liability

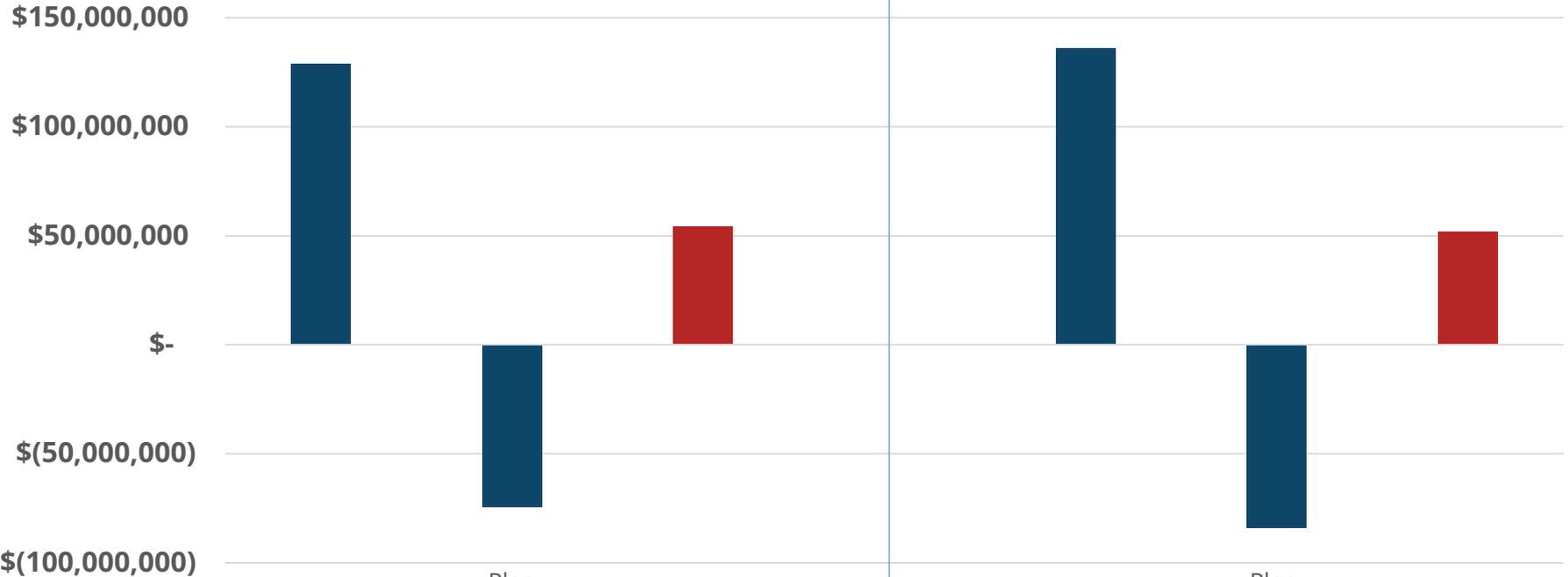
** This figure includes charges due to differences between expected and actual experience in measurement of the TPL, changes of assumptions, and differences between projected and actual earnings on pension plan investments



GASB 67, 68 Accounting - Balance Sheet Liability

6/30/2016

6/30/2017



■ Net Pension Liability

Total Pension Liability

Plan Fiduciary Net Position

Net Pension Liability

Total Pension Liability

Plan Fiduciary Net Position

Net Pension Liability

\$128,509,587

\$(74,187,800)

\$54,321,787

\$135,845,224

\$(83,930,122)

\$51,915,102

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, 2017 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.



7/1/2017 Cost Projection

| Valuation Date (7/1) | Plan Year Ending (6/30) | Employer ADC | Employer Contribution | Valuation Payroll | Projected Payroll | Employer Contribution as a % of Projected Payroll | Benefit Payments | Actuarial Value of Assets | Actuarial Accrued Liability | Unfunded Liability | Funded Ratio |
|----------------------|-------------------------|--------------|-----------------------|-------------------|-------------------|---|------------------|---------------------------|-----------------------------|--------------------|--------------|
| 2013 | 2014 | 5,619,927 | 3,237,890 | 12,466,246 | 12,466,246 | 26.0% | 4,151,080 | 59,981,681 | 104,162,759 | 44,181,078 | 57.6% |
| 2014 | 2015 | 4,881,459 | 4,999,356 | 12,188,272 | 12,188,272 | 41.0% | 4,369,538 | 66,160,637 | 109,086,049 | 42,925,412 | 60.6% |
| 2014 | 2016 | 5,082,997 | 5,190,005 | 12,188,272 | 12,675,803 | 40.9% | 4,369,538 | 66,160,637 | 109,086,049 | 42,925,412 | 60.6% |
| 2015 | 2017 | 5,428,475 | 5,399,268 | 12,984,298 | 13,503,670 | 40.0% | 4,846,536 | 74,427,566 | 121,691,129 | 47,263,563 | 61.2% |
| 2016 | 2018 | 5,858,887 | 5,858,887 | 13,607,598 | 14,151,902 | 41.4% | 4,946,770 | 79,965,053 | 128,970,688 | 49,005,635 | 62.0% |
| 2017 | 2019 | 6,057,902 | 6,057,902 | 13,835,881 | 14,389,316 | 42.1% | 7,279,254 | 87,163,231 | 134,830,699 | 47,667,468 | 64.6% |
| 2018 | 2020 | 6,487,788 | 6,487,788 | 12,996,369 | 13,516,224 | 48.0% | 7,584,164 | 91,976,166 | 140,135,231 | 48,159,065 | 65.6% |
| 2019 | 2021 | 6,819,571 | 6,819,571 | 13,300,771 | 13,832,802 | 49.3% | 7,954,629 | 96,202,782 | 145,926,486 | 49,723,704 | 65.9% |
| 2020 | 2022 | 7,021,163 | 7,021,163 | 13,638,623 | 14,184,168 | 49.5% | 8,387,482 | 101,977,904 | 151,810,145 | 49,832,241 | 67.2% |
| 2021 | 2023 | 7,197,822 | 7,197,822 | 13,869,705 | 14,424,493 | 49.9% | 8,669,162 | 109,561,422 | 157,639,303 | 48,077,881 | 69.5% |
| 2022 | 2024 | 7,344,161 | 7,344,161 | 14,266,047 | 14,836,689 | 49.5% | 9,062,588 | 117,152,566 | 163,679,371 | 46,526,805 | 71.6% |

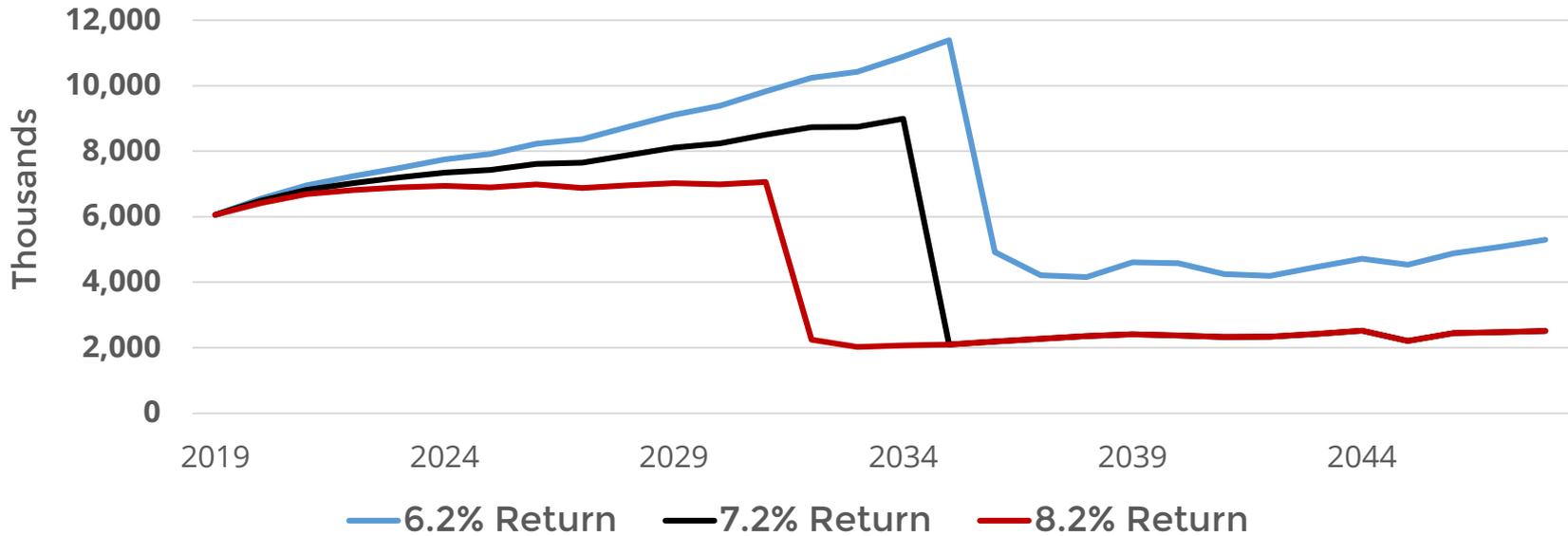
Projections above are based on plan provisions and assumptions as detailed in the 7/1/2017 valuation report dated December 19, 2017 unless noted otherwise on the following page.

"ADC" refers to the "Actuarially Determined Contribution".

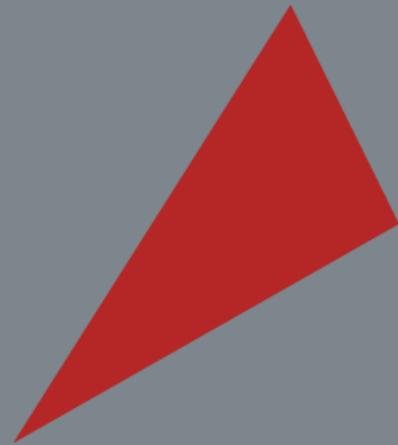
These numbers are estimates only and are not guarantees of future plan costs.

Projections

Recommended Contribution



| Plan Year Ending | 2019 | 2024 | 2029 | 2034 | 2039 | 2044 | 2049 | 2019-2049 |
|---|--------------|--------------|--------------|---------------|--------------|--------------|--------------|-----------|
| Projected Payroll (000s) | 14,389 | 14,837 | 16,117 | 17,523 | 20,560 | 21,716 | 22,638 | |
| Recommended Contribution as % of Pay | 6,058 42% | 7,745 52% | 9,106 57% | 10,882 62% | 4,605 22% | 4,712 22% | 5,524 24% | 211,904 |
| Recommended Contribution as % of Pay | 6,058 42% | 7,344 49% | 8,107 50% | 8,990 51% | 2,405 12% | 2,519 12% | 2,603 12% | 158,335 |
| Recommended Contribution as % of Pay | 6,058 42% | 6,944 47% | 7,027 44% | 2,068 12% | 2,405 12% | 2,519 12% | 2,603 12% | 130,479 |



Appendix



Certification

This report was prepared for the Pension Board to summarize the results of the 7/1/2017 funding valuation and the GASB 67 & 68 accounting report as of June 30, 2017, 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 results included in this report are based on the same data, assumptions, methods, and plan provisions as the 7/1/2017 funding valuation. As a result, these sections of the 2017 funding report dated 12/19/2017 should be considered part of this report.

Accounting results are based on the same data, assumptions, methods and plan provisions as described in the 6/30/2017 GASB 67 & 68 report. As a result, these sections of the GASB 67 & 68 report dated 12/01/2017 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.

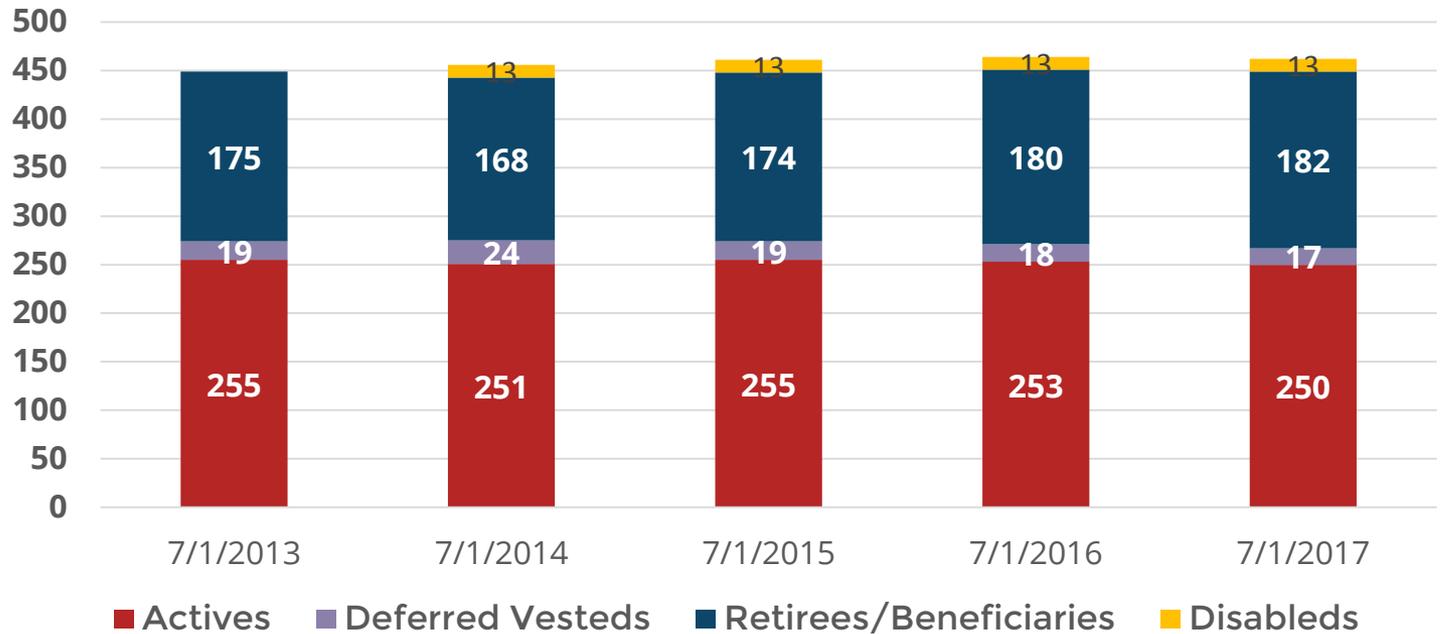


Elizabeth A. Wiley, ASA, EA



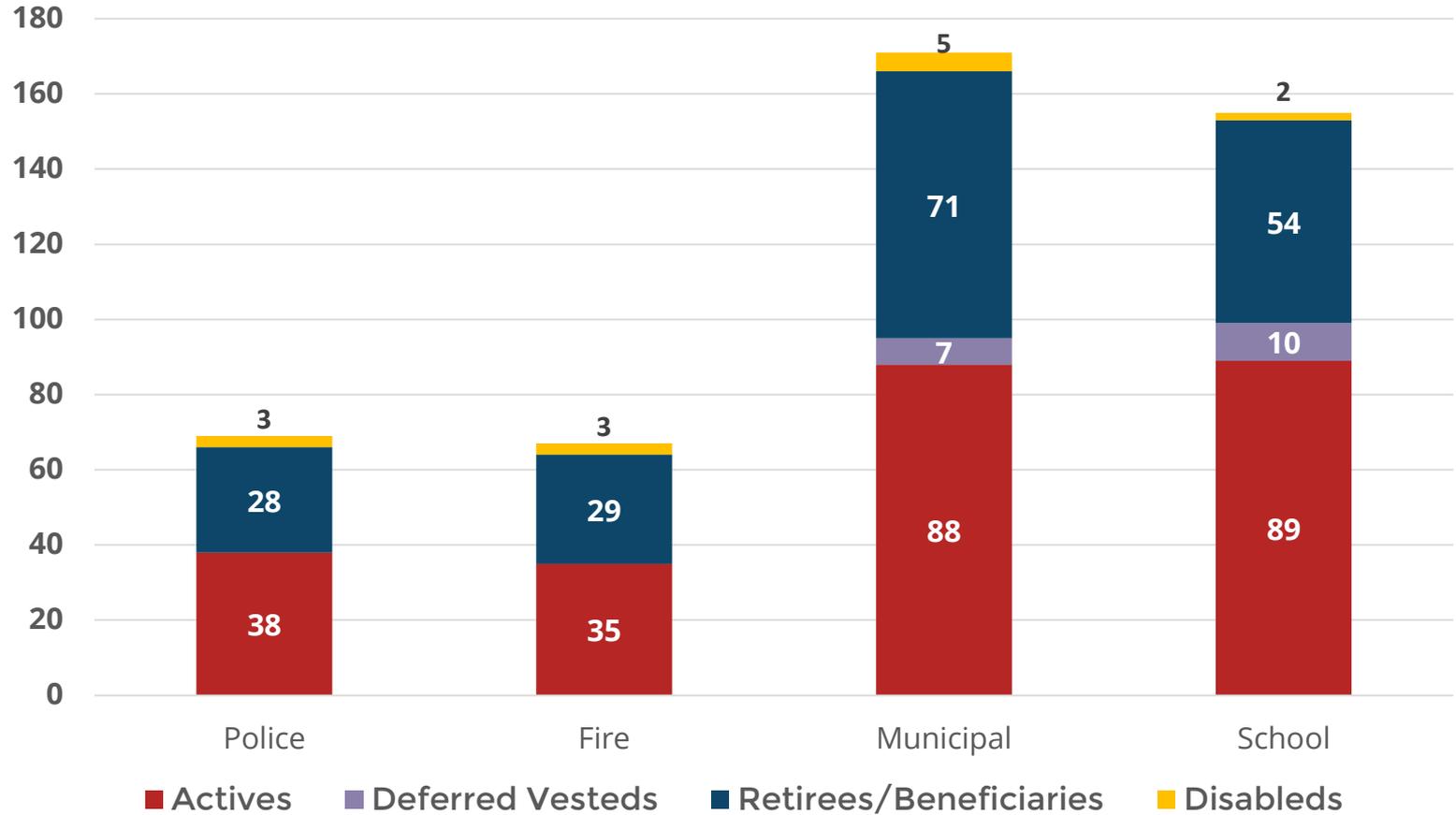
Carter M. Angell, FSA, EA, MAAA

Participant Information



| Active Demographics | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------------------------------|----------|----------|----------|----------|----------|
| Average Age | 47.7 | 47.1 | 47.6 | 47.8 | 48.5 |
| Average Service | 11.2 | 10.9 | 10.9 | 11.5 | 11.6 |
| Average Plan Compensation | \$48,887 | \$48,559 | \$50,919 | \$53,785 | \$55,344 |
| Total Active Payroll (\$000's) | \$12,466 | \$12,188 | \$12,984 | \$13,608 | \$13,836 |

Participant Information - by Division





Summary of Plan Provisions

EFFECTIVE DATE

The Plan became effective 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

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

ANNUAL COMPENSATION

Annual base compensation excluding longevity, incentive and holiday pay. School employees shall have longevity pay included in compensation.

AVERAGE ANNUAL COMPENSATION

Average compensation of the highest three consecutive years

CREDITED SERVICE

Contributing employees receive credit for all service from date of membership

PARTICIPANT CONTRIBUTIONS

Local 1033/Council 94, Firefighters, and Police – 11.0% 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



Summary of Plan Provisions

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
School Hired On/After 7/1/2015 – a compound COLA based on the COLA given to Social Security recipients, if any
All Other Participants – 3% compound COLA upon attainment of age 58

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
School Hired On/After 7/1/2015 – age 65 and 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

NORMAL RETIREMENT BENEFIT

Participants hired before July 1, 2011 receive a benefit equal to $2.5\% \times \text{Credited Service} \times \text{AAC}$, limited to 75% (30 year service cap)
Participants hired after July 1, 2011 receive a benefit equal to $2.0\% \times \text{Credited Service (up to 20 years)} \times \text{AAC} + 2.5\% \times \text{Credited Service (Years 20-34)} \times \text{AAC}$, 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 $2.0\% \times \text{Credited Service} \times \text{AAC}$, with Local 1033 and Council 94 limited to 75%
School participants hired on/after 7/1/2015 receive a benefit equal to $2.0\% \times \text{AAC} \times \text{Credited Service}$, limited to 75%



Summary of Actuarial Assumptions and Methods

| Interest Rate | 7.20% | | | | | | | | | | | | |
|---|---|-----|----------|-------|------|-------|------|-------|------|-------|------|-----|------|
| Mortality Rates | <u>Healthy Lives</u> <i>Municipal Employees</i> - RP-2014 Mortality Table with Social Security Generational Improvements from 2006 based on 2016 Trustee's Report <i>Firefighters and Police</i> - RP-2014 Blue Collar Mortality Table with Social Security Generational Improvements from 2006 based on 2016 Trustee's Report <u>Disabled Lives</u> RP-2014 Disabled Mortality Table with Social Security Generational Improvements from 2006 based on 2016 Trustee's Report | | | | | | | | | | | | |
| Actuarial Cost Method | Entry Age Normal | | | | | | | | | | | | |
| Asset Valuation Method | Smoothed Value – investment gains/losses recognized over five years, subject to a 20% corridor | | | | | | | | | | | | |
| Spousal Assumption | 85% of participants assumed to be married with female spouses 4 years younger than husbands | | | | | | | | | | | | |
| Annual Pay Increases | <table border="1"><thead><tr><th>Age</th><th>Increase</th></tr></thead><tbody><tr><td>25-29</td><td>6.0%</td></tr><tr><td>30-34</td><td>5.5%</td></tr><tr><td>35-39</td><td>5.0%</td></tr><tr><td>40-44</td><td>4.5%</td></tr><tr><td>45+</td><td>4.0%</td></tr></tbody></table> | Age | Increase | 25-29 | 6.0% | 30-34 | 5.5% | 35-39 | 5.0% | 40-44 | 4.5% | 45+ | 4.0% |
| Age | Increase | | | | | | | | | | | | |
| 25-29 | 6.0% | | | | | | | | | | | | |
| 30-34 | 5.5% | | | | | | | | | | | | |
| 35-39 | 5.0% | | | | | | | | | | | | |
| 40-44 | 4.5% | | | | | | | | | | | | |
| 45+ | 4.0% | | | | | | | | | | | | |
| Withdrawal Rates | <i>Municipal Employees</i> – Rates in accordance with the T2 Table of <i>The Pension Actuary's Handbook</i> <i>Firefighters and Police</i> – None | | | | | | | | | | | | |
| Expense and/or Contingency Loading | None | | | | | | | | | | | | |



Summary of Actuarial Assumptions and Methods

| | |
|----------------------------------|--|
| Retirement Rates | <i>Municipal Employees</i> – 100% retirement at the earlier of the completion of 20 years of service or attainment of age 58 with at least 10 years of service <i>Firefighters and Police</i> – 100% retirement at the earlier of the completion of 20 years of service or attainment of age 58 |
| Disability Rates | 50% of the rates in accordance with the 1985 Pension Disability Table |
| Cost of Living Adjustment | Valued explicitly as described under Plan Provisions |