Segal Consulting

# Town of Johnston, Rhode Island Police Pension System

## Governmental Accounting Standards Board Statements 67 and 68 (GASB 67 and 68) Actuarial Valuation as of June 30, 2019

This report has been prepared at the request of the Board of Trustees to assist the Pension System in preparing their financial report for their liabilities associated with the Town of Johnston, Rhode Island Police Pension System. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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October 29, 2019

Mr. Joseph Chiodo CPA, MBA
Finance Director
Town of Johnston, Rhode Island
1385 Hartford Avenue
Johnston, Rhode Island 02919-7134

Dear Joe:

We are pleased to submit this Governmental Accounting Standards Board Statements 67 and 68 (GASB 67 and GASB 68) Actuarial Valuation for the Town of Johnston, Rhode Island Police Pension System for the fiscal year ending June 30, 2019. It contains various information that will need to be disclosed in order for the Town of Johnston to comply with GASB 67 and GASB 68. The results assume the Police Pension System is a single employer plan. Results are shown separately for both the consolidated and Firefighters Pension Systems, assuming each group is classified as a separate plan.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board of Trustees to assist in preparing their financial report for their liabilities associated with the Police Pension System. The census and financial information on which our calculations were based were provided by the Town. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Malichi S. Waterman, FCA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Police Pension System.

Information shown in Illustration 3 of GASB Statement 67 not included here will need to be provided by the Town of Johnston, the investment consultant, custodian, or auditor.

The information included in these exhibits is based on asset information provided by the Town of Johnston's Finance Department and matches what will be used in the June 30, 2019 actuarial valuation reports.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: Jeanette R. Cooper

Jeanette R. Cooper, FSA, FCA, MAAA, EA
Vice President and Consulting Actuary

Malichi Waterman

Malichi S. Waterman, FCA, MAAA, EA
Consulting Actuary

# Table of Contents

**Town of Johnston, Rhode Island Police Pension System Actuarial Valuation and Review as of June 30, 2019**

## GASB Information


General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Single Employer Pension Plan .. 5
Net Pension Liability ..... 6
Target Asset Allocation ..... 7
Discount Rate Sensitivity ..... 8
Schedule of Changes in Net Pension Liability – Last Two Fiscal Years ..... 9
Schedule of Contributions – Last Two Fiscal Years ..... 11
Pension Expense ..... 12
Deferred Outflows of Resources and Deferred Inflows of Resources ..... 13
Schedule of Changes in the Net Pension Liability ..... 14
Schedule of Recognition of Changes in Total Net Pension Liability ..... 15

# GASB Information

## General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Single Employer Pension Plan

*Plan membership.* At June 30, 2019, pension plan membership for the Town of Johnston, Rhode Island Police Pension System consisted of the following:

| | |
|---|---|
| Retired members or beneficiaries currently receiving benefits[1] | 105 |
| Vested terminated members entitled to but not yet receiving benefits | 0 |
| Active members | 47 |
| Total | 152 |

[1]*Includes nine alternate payees receiving benefits subject to a QDRO*

The Pension System was closed to new Police Officers as of July 1, 2010.

*Benefits provided:* The major plan provisions for participants of the Police Pension are summarized in Section 4, Exhibit II of the July 1, 2019 actuarial valuation report.

## Net Pension Liability

| Reporting Date | June 30, 2019 | June 30, 2018 |
|---|---|---|
| **Measurement Date** | **June 30, 2019** | **June 30, 2018** |
| **Components of the Net Pension Liability** | | |
| Total Pension Liability | $77,795,962 | $75,853,812 |
| Plan Fiduciary Net Position | 21,891,502 | 20,382,631 |
| Net Pension Liability | 55,904,460 | 55,471,181 |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 28.14% | 26.87% |

*Actuarial assumptions.* The TPL as of June 30, 2019 and 2018, that were measured by actuarial valuations as of July 1, 2019 and 2018, respectively, used the following actuarial assumptions, applied to all periods included in the measurement:

| | |
|---|---|
| **Inflation** | **2.50%** |
| **Salary increases** | **3.75%** |
| **Investment rate of return** | **7.25%**, net of pension plan investment expense, including inflation |
| **Other assumptions** | See the July 1, 2019 and July 1, 2018 actuarial valuations for a complete description of all actuarial assumptions. |

Pre-retirement mortality rates are based on the sex-distinct RP-2014 Employee Mortality Table. Healthy annuitant mortality rates for males are based on the RP-2014 Blue Collar Healthy Annuitant Mortality Table. Healthy annuitant rates for females are based on the RP-2014 Healthy Annuitant Mortality Table for females. Disabled mortality rates were based on the sex-distinct RP-2014 Disabled Retiree Mortality Table. Healthy annuitant and disabled mortality tables are projected generationally with Scale MP-2016.

The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an experience study for the period July 1, 2014 to June 30, 2017. As noted in the study, due to the low number of participants in the Police and Firefighters System, the mortality experience is not credible. Therefore, the mortality assumptions match those used for the State of Rhode Island Municipal Employees Retirement System valuation as of June 30, 2017.

## Target Asset Allocation

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

| Asset Class | Target Allocation | Long-Term Expected Real Rate of Return[1] |
|---|---|---|
| Domestic equity | 40.0% | 7.41% |
| International equity - developed markets | 17.5% | 6.96% |
| International equity - emerging markets | 2.5% | 9.86% |
| Fixed income - core | 28.0% | 1.96% |
| Fixed income - high yield | 6.0% | 4.16% |
| Real estate | 5.0% | 4.76% |
| Cash | 1.0% | 0.00% |
| Total | 100.00% | |

[1]*As provided by Segal Marco, a member of the Segal Group.*

*Discount rate.* The discount rates used to measure the Total Pension Liability (TPL) were 7.25% as of June 30, 2019 and June 30, 2018. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current 8.00% contribution rate and that the Town of Johnston's scheduled contribution of $4,575,446 for the fiscal year ending June 30, 2017 will increase 3.00% each year unless otherwise provided. Based on these assumptions, the Police Pension System's Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on Police Pension System investments of 7.25% was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2019 and June 30, 2018.

## Discount Rate Sensitivity

*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the Net Pension Liability (NPL) of the Police Pension System as of June 30, 2019, calculated using the discount rate of 7.25%, as well as what the Police Pension System's NPL would be if it were calculated using a discount rate that is one percentage-point lower (6.25%) or one percentage-point higher (8.25%) than the current rate.

| | 1% Decrease (6.25%) | Current Discount Rate (7.25%) | 1% Increase (8.25%) |
|---|---|---|---|
| **Net Pension Liability** | **$65,692,146** | **$55,904,460** | **$47,894,833** |

## Schedule of Changes in Net Pension Liability – Last Two Fiscal Years

| Reporting Date for Employer under GASB 68 | June 30, 2019 | June 30, 2018 |
|---|---|---|
| **Measurement Date for Employer under GASB 68** | **June 30, 2019** | **June 30, 2018** |
| **Total Pension Liability** | | |
| Service cost | $1,477,049 | $1,494,639 |
| Interest | 5,447,208 | 5,264,762 |
| Change of benefit terms | 0 | 0 |
| Differences between expected and actual experience | -588,200 | -608,409 |
| Changes of assumptions | 0 | 3,182,925 |
| Benefit payments, including refunds of employee contributions | -4,393,907 | -4,364,593 |
| Net change in Total Pension Liability | $1,942,150 | $4,969,324 |
| Total Pension Liability – beginning | 75,853,812 | 70,884,488 |
| Total Pension Liability – ending | $77,795,962 | $75,853,812 |
| **Plan Fiduciary Net Position** | | |
| Contributions – employer | $4,854,090 | $4,714,480 |
| Contributions – employee | 314,146 | 363,787 |
| Net investment income | 763,639 | 1,512,485 |
| Benefit payments, including refunds of employee contributions | -4,393,907 | -4,364,593 |
| Administrative expense | -66,174 | -73,110 |
| Other | 37,077 | 4,215 |
| Net change in Plan Fiduciary Net Position | $1,508,871 | $2,157,264 |
| Plan Fiduciary Net Position – beginning | 20,382,631 | 18,225,367 |
| Plan Fiduciary Net Position – ending | $21,891,502 | $20,382,631 |
| System's Net Pension Liability – ending | $55,904,460 | $55,471,181 |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 28.14% | 26.87% |
| Covered employee payroll | $4,671,254 | $4,741,461 |
| System's Net Pension Liability as percentage of covered employee payroll | 1,196.78% | 1,169.92% |

**Notes to Schedule:**

*Benefit changes:* There have been no changes in benefit provisions reflected for the first time in the June 30, 2019 or June 30, 2018 disclosures.

*Change of assumptions:* The blended discount rate used to determine the total pension liability was updated from 7.50% to 7.25% as of June 30, 2018. A comprehensive Actuarial Experience Review, covering the period July 1, 2014 through June 30, 2017, was completed in 2017. As a result of that

study, the following assumption changes were proposed by the actuary and subsequently were approved by the Board in May, 2018. These changes are reflected for the first time in the June 30, 2018 disclosure:

- The investment return assumption was lowered from 7.50% to 7.25%.
- The inflation assumption was lowered from 2.75% to 2.50%.
- The payroll growth rate assumption was decreased from 3.25% to 3.00%, maintaining the productivity assumption of 0.75%.
- The salary scale assumption was decreased from a flat rate of 4.00% per year to 3.75%.
- The administrative expense assumption of $75,000 payable at the beginning of the year was increased to $87,500.
- The pre-retirement mortality assumption for males was changed from 115% of the RP-2000 Combined Healthy White Collar Mortality Table for males to the RP-2014 Employee Table for males. For females, the assumption was changed from 95% of the RP-2000 Combined Healthy White Collar Mortality Table for females to the RP-2014 Employee Table for females. The generational projection scale for pre-retirement mortality was removed.
- The post-retirement mortality assumption for healthy male retirees and beneficiaries was changed from 115% of the RP-2000 Combined Healthy White Collar Mortality Table for males to the RP-2014 Blue Collar Healthy Annuitant Mortality Table for males. The post-retirement mortality assumption for healthy female retirees and beneficiaries was changed from 95% of the RP-2000 Combined Healthy White Collar Mortality Table for females to the RP-2014 Combined Healthy Annuitant Mortality Table for females. The generational projection scale for post-retirement mortality was also revised from the sex-distinct Scale AA, projected from 2000 to the sex-distinct Scale MP-2016.
- The mortality assumption for disabled retirees was changed from 60% of the sex-distinct PBGC Table VI(a) for disabled participants eligible for Social Security disability benefits to the sex-distinct RP-2014 Disabled Retiree Table. In conjunction with the revised mortality table for disabled lives, a sex-distinct generational projection of Scale MP-2016 was introduced.

## Schedule of Contributions – Last Two Fiscal Years

| Year Ended June 30 | Actuarially Determined Contributions[1] | Contributions in Relation to the Actuarially Determined Contributions[2] | Contribution Deficiency / (Excess) | Covered-Employee Payroll[(2)] | Contributions as a Percentage of Covered Employee Payroll |
|---|---|---|---|---|---|
| 2018 | $8,509,584 | $4,714,480 | $3,795,104 | $4,741,461 | 99.43% |
| 2019 | 4,854,090 | 4,854,090 | 0 | 4,671,254 | 103.91% |

[1]The Actuarially Determined Contribution for the year ending June 30, 2018 was based on a valuation performed prior to the implementation of the Funding Improvement Plan.

[2]The Contributions in Relation to the Actuarially Determined Contributions meet the required amounts under the Funding Improvement Plan of $4,712,709 for the year ending June 30, 2018 and $4,854,090 for the year ending June 30, 2019.

Methods and assumptions used to establish "actuarially determined contribution" rates:

| | |
|---|---|
| **Valuation date** | Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported. Subsequent contributions are based on increasing the prior year's contribution amount 3% until the System is fully funded. |
| **Actuarial cost method** | Entry Age Actuarial Cost Method |
| **Amortization method** | Closed level dollar for remaining unfunded liability |
| **Remaining amortization period** | 26.75 years |
| **Asset valuation method** | Market Value |
| **Actuarial assumptions:** | |
| **Investment rate of return** | 7.50%, net of pension plan investment expense, including inflation |
| **Inflation rate** | 2.75% |
| **Projected salary increases** | 4.00% |
| **Cost of living adjustments** | 0% through June 30, 2022; 1.25% compounded annually commencing July 1, 2022 |
| **Other assumptions** | See the July 1, 2016 and July 1, 2017 actuarial valuations for a complete listing of assumptions used to determine the Actuarially Determined Contributions for years ending July 30, 2018 and June 30, 2019 |

## Pension Expense

| Reporting Date for Employer under GASB 68 | June 30, 2019 | June 30, 2018 |
|---|---|---|
| **Measurement Date for Employer under GASB 68** | **June 30, 2019** | **June 30, 2018** |
| **Components of Pension Expense** | | |
| Service cost | $1,477,049 | $1,494,639 |
| Interest on the Total Pension Liability | 5,447,208 | 5,264,762 |
| Current-period benefit changes | 0 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | -588,200 | -608,409 |
| Expensed portion of current-period changes of assumptions | 0 | 3,182,925 |
| Employee contributions | -314,146 | -363,787 |
| Projected earnings on plan investments | -1,504,755 | -1,391,082 |
| Expensed portion of current-period differences between actual and projected earnings on plan investments | 148,224 | -24,279 |
| Administrative expense | 66,174 | 73,110 |
| Other | -37,077 | -4,215 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 456,427 | 456,427 |
| Recognition of beginning of year deferred inflows of resources as pension expense | -135,384 | -111,103 |
| **Pension Expense** | **$5,015,520** | **$7,968,988** |

## Deferred Outflows of Resources and Deferred Inflows of Resources

| Reporting Date for Employer under GASB 68 | June 30, 2019 | June 30, 2018 |
|---|---|---|
| **Measurement Date for Employer under GASB 68** | **June 30, 2019** | **June 30, 2018** |
| **Deferred Outflows of Resources** | | |
| Changes of assumptions or other inputs | $0 | $0 |
| Net difference between projected and actual earnings on pension plan investments | 532,305 | 260,456 |
| Difference between expected and actual experience in the Total Pension Liability | 0 | 0 |
| Total Deferred Outflows of Resources | $532,305 | $260,456 |
| **Deferred Inflows of Resources** | | |
| Changes of assumptions or other inputs | $0 | $0 |
| Net difference between projected and actual earnings on pension plan investments | 0 | 0 |
| Difference between expected and actual experience in the Total Pension Liability | 0 | 0 |
| Total Deferred Inflows of Resources | $0 | $0 |
| **Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:** | | |
| Reporting Date for Employer under GASB 68 Year Ended June 30: | | |
| 2019 | N/A | $321,043 |
| 2020 | $247,301 | 99,078 |
| 2021 | 12,839 | -135,384 |
| 2022 | 123,942 | -24,281 |
| 2023 | 148,223 | 0 |
| Thereafter | 0 | 0 |

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

The average of the expected remaining service lives of all employees that are provided with pensions through the Town of Johnston Police Pension System (active and inactive employees) determined as of June 30, 2019 (the beginning of the measurement period ending June 30, 2020) is 1.00 year.

## Schedule of Changes in the Net Pension Liability

| | Total Pension Liability (TPL) (a) | Fiduciary Net Position (FNP) (b) | Net Pension Liability (NPL) (a) - (b) |
|---|---|---|---|
| **Balances at June 30, 2018** | **$75,853,812** | **$20,382,631** | **$55,471,181** |
| Changes for the year: | | | |
| Service cost | $1,477,049 | - - | $1,477,049 |
| Interest | 5,447,208 | - - | 5,447,208 |
| Change of benefit terms | - - | - - | - - |
| Change of assumptions | - - | - - | - - |
| Differences between expected and actual experience | (588,200) | - - | (588,200) |
| Contributions – employer | - - | $4,854,090 | (4,854,091) |
| Contributions – employee | - - | 314,146 | (314,146) |
| Net investment income | - - | 763,639 | (763,638) |
| Benefit payments, including refunds of employee contributions | (4,393,907) | (4,393,907) | - - |
| Administrative expense | - - | (66,174) | 66,174 |
| Other | - - | 37,077 | (37,077) |
| Net changes | $1,942,150 | $1,508,871 | $433,279 |
| **Balances at June 30, 2019** | **$77,795,962** | **$21,891,502** | **$55,904,460** |

## Schedule of Recognition of Changes in Total Net Pension Liability

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability**

**Reporting Date for Employer under GASB 68 Year Ended June 30:**

| Reporting Date for Employer under GASB 68 Year Ended June 30 | Differences between Expected and Actual Experience | Recognition Period (Years) | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
|---|---|---|---|---|---|---|---|---|---|
| 2018 | -$608,409 | 1.00 | -$608,409 | $0 | $0 | $0 | $0 | $0 | $0 |
| 2019 | -588,200 | 1.00 | N/A | -588,200 | 0 | 0 | 0 | 0 | 0 |
| Net increase (decrease) in pension expense | | | N/A | -$588,200 | $0 | $0 | $0 | $0 | $0 |

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes on Total Pension Liability**

**Reporting Date for Employer under GASB 68 Year Ended June 30:**

| Reporting Date for Employer under GASB 68 Year Ended June 30 | Differences Due to Assumption Changes | Recognition Period (Years) | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
|---|---|---|---|---|---|---|---|---|---|
| 2018 | $3,182,925 | 1.00 | $3,182,925 | $0 | $0 | $0 | $0 | $0 | $0 |
| 2019 | 0 | 1.00 | N/A | 0 | 0 | 0 | 0 | 0 | 0 |
| Net increase (decrease) in pension expense | | | N/A | $0 | $0 | $0 | $0 | $0 | $0 |

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on Pension Plan Investments**

**Reporting Date for Employer under GASB 68 Year Ended June 30:**

| Reporting Date for Employer under GASB 68 Year Ended June 30 | Differences between Projected and Actual Earnings | Recognition Period (Years) | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
|---|---|---|---|---|---|---|---|---|---|
| 2015 | $1,109,823 | 5.00 | $221,965 | $221,965 | $0 | $0 | $0 | $0 | $0 |
| 2016 | 1,172,309 | 5.00 | 234,462 | 234,462 | 234,462 | 0 | 0 | 0 | 0 |
| 2017 | -555,516 | 5.00 | -111,103 | -111,103 | -111,103 | -111,103 | 0 | 0 | 0 |
| 2018 | -121,403 | 5.00 | -24,279 | -24,281 | -24,281 | -24,281 | -24,281 | 0 | 0 |
| 2019 | 741,116 | 5.00 | N/A | 148,224 | 148,223 | 148,223 | 148,223 | 148,223 | 0 |
| Net increase (decrease) in pension expense | | | N/A | $469,267 | $247,301 | $12,839 | $123,942 | $148,223 | $0 |

## Total Increase (Decrease) in Pension Expense

### Reporting Date for Employer under GASB 68 Year Ended June 30:

| Reporting Date for Employer under GASB 68 Year Ended June 30 | Total Increase (Decrease) in Pension Expense | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
|---|---|---|---|---|---|---|---|---|
| 2015 | $1,109,823 | $221,965 | $221,965 | $0 | $0 | $0 | $0 | $0 |
| 2016 | 1,172,309 | 234,462 | 234,462 | 234,462 | 0 | 0 | 0 | 0 |
| 2017 | -555,516 | -111,103 | -111,103 | -111,103 | -111,103 | 0 | 0 | 0 |
| 2018 | 2,453,113 | 2,550,237 | -24,281 | -24,281 | -24,281 | -24,281 | 0 | 0 |
| 2019 | 152,917 | N/A | -439,976 | 148,223 | 148,223 | 148,223 | 148,223 | 0 |
| Net increase (decrease) in pension expense | | N/A | -$118,933 | $247,301 | $12,839 | $123,942 | $148,223 | $0 |

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