

Councilman Verardo made a motion to adopt Ordinance 2013-3
The motion was seconded by Councilman Santilli
Roll call vote:
District 1 Aye to adopt
District 2 Aye to adopt
District 3 Aye to adopt
District 5 Aye to adopt
District 4 Aye to adopt
Motion carried; Vote 5-0

Approval of the minutes and transcripts from previous meetings

Transcripts Prepared by the Stenographer

None

Minutes prepared by the Town Clerk:

January 22, 2013 Regular Meeting

Councilwoman Manzi made a motion to accept the minutes and to put them on file
The motion was seconded by Councilman Santilli
Motion carried; Vote 4-0 with Councilwoman Fuoco abstaining

February 5th, 2013 Special Meeting

Councilwoman Manzi made a motion to accept the minutes and to put them on file
The motion was seconded by Councilman Santilli
Motion carried; Vote 5-0

February 5th, 2013 Executive Session

Councilwoman Manzi made a motion to accept the minutes, keep them sealed and to put them on file
The motion was seconded by Councilman Santilli
Motion carried; Vote 5-0

Claims-

2013-CP-30 Claim from Farmer's Insurance Group on behalf of Wesley Damon for damage to his vehicle caused by a pot hole

2013-CP-31 Claim from Susan Mooradian for vehicle damage caused by a pot hole

2013-CP-32 Claim from Ronald DonFranceso for a flooding issue

Councilwoman Manzi made a motion to refer claims 2013-CP-30, 2013-CP-31 & 2013-CP-32 to the Solicitor
The motion was seconded by Councilman Verardo
Motion carried; Vote 5-0

This is option 6A as described per testimony on 4/15/13.

2013-CP-33 Pension Funding Improvement Plan

This item was taken out of order

Mayor Polisena highlighted some of the contents of the Town's Pension Funding Improvement Plan,

A plan required by State law to bring the pension fund to 60% funded within 20 years

The plan proposes a 20 year freeze on COLA's and 25 years of service with a retirement age of 55 years old

Discussion ensued

Councilman Santilli made a motion to adopt the Pension Funding Improvement Plan

The motion was seconded by Councilman Verardo

Motion carried; Vote 5-0

2013-CP-25 **Presentation by Nyhart; Town of Johnston GASB 45 Financial Report for fiscal years ending June 30th, 2012 and 2013. Said report pertains to "Other Post Employment Benefits"**

This item was taken out of order

Randy Gomez from Nyhart made a presentation to the Council highlighting the results of the recent actuarial valuation of retiree health benefits for the Town

Mr. Gomez outlined possible financial impacts and discussed managing risk

2013-CP-24 **Exit conference with Braver PC to discuss the audit results and findings and recommendations resulting from the audit of the Town's financial statements as of and for the fiscal year ended June 30, 2012**

This item was taken out of order

Robert Civetti of Braver PC gave a summary of the results of the annual audit of the Town's financial statements and supplementary information for the Fiscal Year ended June 30th, 2012

Discussion ensued

Requests to be heard-

Please note: pursuant to Resolution 2005-1 of the Johnston Town Council, any person requesting to address the Council shall be heard for a maximum of 10 minutes. This will be strictly enforced.

Adjournment

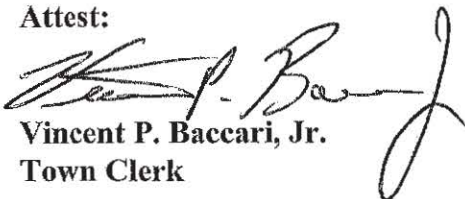
Councilwoman Manzi made a motion to adjourn

The motion was seconded by Council President Russo

Motion carried; Vote 5-0

The meeting adjourned at 9:04 p.m.

Attest:


Vincent P. Baccari, Jr.
Town Clerk

TOWN OF JOHNSTON
FUNDING IMPROVEMENT PLAN DISCUSSION

During the past few years the Town of Johnston has undertaken many significant efforts to address significant unfunded liabilities in both its locally administered pension plans and its other post-employment benefits (“OPEB”) obligations. These efforts overlap with the Study Commission’s statutory responsibility “to make recommendations for the improved security and funding of locally administered plans and other post-retirement benefit obligations of cities and towns . . . ” set forth in the Rhode Island Retirement Security Act.

OPEB

Recently, the Town has updated the actuarial valuation reports for both its pension and OPEB liabilities. Attached to this report as Exhibit A is a copy of the Town’s most recent OPEB Actuarial Valuation Report. The OPEB report reflects the first significant changes to retiree healthcare undergone during the previous fiscal year. Those changes were considered a priority given the existing OPEB Valuation Reports which indicated that the Town had an OPEB liability in excess of double the liability of the pension plan. The Town moved all retirees receiving healthcare and age 65 or older onto Medicare based plans under the new so-called “Muni-care” statute, R.I. Gen. Laws § 28-54-1. The Town passed an ordinance to initiate the process, attached as Exhibit B, and saw the following savings:

Plan Before Medicare Changes:

- Unfunded Actuarial Accrued Liability- \$229,015,277 (Actuary indicated to the Town that this number would have risen to over \$258,000,000 in 2012 without any changes)
- ARC- \$17,249,186

Plan After Medicare Changes:

- Unfunded Actuarial Accrued Liability- \$ 186,959,602 (over \$71,000,000 less than the 2012 valuation indicated by the actuary if there had been no changes)
- ARC- \$ 14,727,631

Medicare OPEB Savings:

- Actuarial Gain- \$42,055,675
- ARC Savings- \$2,521,555

In addition to the Medicare efforts, the Town has prepared and is presenting the Town Council with an OPEB Trust that will give the Town a funding mechanism to address these liabilities. The Town is further negotiating changes to health care benefits, and is beginning to coordinate benefits to eliminate instances of double coverage.

Pension

In the fall of 2010 the Town began the process of first addressing deficiencies in its Pension Plan. The Town Council passed a pension ordinance (attached as Exhibit C) in early 2011. The ordinance created a Retirement Board that, for the first time in Johnston history, oversees the Pension Plan investments through a trust and is be responsible for reviewing retirement calculations and ensuring proper retirement status. The Pension Ordinance also established a disability review process to prevent abuse of disability pension provisions, a requirement to file tax returns to ensure that disabled retirees capable

of earning a living are not abusing disability pension provisions, and an honorable service requirement for all Johnston Police Officers and Fire Fighters. With the pension ordinance in place ensuring payment of only proper benefits prospectively, the Town began studying ways to make the Pension Plans sustainable for the Town and its budget.

The first step was engaging the Town's Actuary to perform the Rhode Island Retirement Security Act mandated experience study. That report, attached as Exhibit D, showed that the new Johnston Retirement Board needed to approve an updated series of assumptions. The Board approved an updated set of assumptions highlighted by a recommended reduction in the assumed investment rate of return to 7.5%. With a realistic set of assumptions the Town was able to study the status of the pension.

The updated Pension Plan valuation showed the following:

- Actuarial Accrued Liability- \$148,000,000
- Unfunded- \$110,000,000
- Funded Percentage- 25.7%
- Police and Fire ARC- \$12,800,000*
- Contribution as a percentage of payroll- 137.8%*

With a baseline that is clearly unsustainable for the Town and its Retirement Board, the Town asked the actuary to look at the following changes (Annual Required Contribution in parenthesis):

Phase I Study (attached as Exhibit G):

- Pensionable earnings definition includes only base, holiday, and longevity (\$11,100,000)
- Change salary averaging from 3 to 5 years (\$12,400,000)
- Change salary averaging from 3 to 7 years (\$12,200,000)
- Change salary averaging from 3 to 10 years (\$11,800,000)
- Cap COLA increase at 2.5% (\$12,400,000)
- Cap COLA increases for all retirees receiving a higher than \$40,000 annual benefit (\$9,500,000)
- Eliminate all future COLA increases for both actives and retirees (\$9,100,000)

The Town believed these would give a menu of items from which it could select one or more and create a sustainable pension plan. However, the most impactful change, elimination of future COLA increases, only reduced the Annual Required Contribution ("ARC") to the still highly unaffordable \$9,100,000. The Town immediately conferenced with the actuary to discuss additional possible changes and, with their counsel, requested the following additional study:

Phase II Study (attached as Exhibit H):

* Liability, Unfunded Liability, and Funded Percentage have been updated by the actuary for the new valuation estimation (attached as Exhibit E along with the July 1, 2011 Valuation Reports as exhibit F), however, combined ARC and Contribution as a percentage of payroll have not been finalized in the latest valuation report and are likely to rise when the new report is released.

- Phase I composite- change pensionable earnings to base, holiday, and longevity, change salary averaging from 3 to 10 years, freeze COLA for 10 years and then reinstate for future years (\$8,900,000)
- Same as above composite but freeze COLA for 15 years (\$8,400,000)
- Same as above composite but freeze COLA for 20 years (\$8,000,000)
- Same as above composite but maintain COLA and offset all future retirees benefit dollar for dollar by Social Security benefits when elected (\$9,500,000)

When the Town reviewed the study it was disappointed to learn that the options still did not approach an affordable level. At \$8,000,000 in ARC payments the Town would still be unable to afford to sustain the Pension Plan. Once again the Town conferenced with its actuary to discuss additional changes. With their guidance the Town added the following study items:

Phase III Study (attached as Exhibit I):

- Minimum retirement age of 55 (\$11,500,000)
- Reset amortization from 18 years to 24 years (\$11,500,000)
- Minimum retirement age of 55, reset amortization to 24 years, change pensionable earnings to base pay, holiday and longevity, change salary averaging to 10 years, freeze COLA increases for 20 years, then returns tied to Northeast Urban CPI and capped at 150% of Rhode Island Mean Income (\$6,700,000)

The Phase III study helped the Town realize the dramatic changes to the Pension Plan benefits that would be required to create a sustainable benefit. However, at still well over twice the current payment the Town can afford further adjustments were still required.

Phase IV (attached as Exhibit J):

The actuary recommended that the Town would need to see the results of the funded ratio through the amortization period to see how close the Town was to a solution. The Phase IV results displayed that even with all the changes proposed the Town's ARC would still rise to a level that is entirely unrealistic for the Town to afford. While the Town would emerge from critical status it would be dishonest to present a plan to all stakeholders that the Town cannot fulfill.

Phase V (attached as Exhibit K):

The actuary next recommended studying the benefit changes with (1) the Town's current contribution along with an inflationary increase and: (2) the Town's current contribution with an inflationary increase and an additional across the board 25% benefit cut, which included a benefit cut to existing retirees. Phase IV showed that the current contribution that the Town can afford would result in almost total depletion of the fund even with significant benefit changes. The end of a 24 year amortization period would leave the Pension Trust less than 10% funded. Even a 25% across the board benefit reduction combined with all other benefit reform would only allow the Town to maintain a roughly flat funded percentage of 30%.

Phase VI (attached as Exhibit L):

With the actuary's recommended benefit reduction scenario run in Phase V it became clear to the Town that it must reallocate the Public Safety budget in order to create a sustainable pension plan. The Town reviewed the results and, with advice from the Actuary, requested one final study. In order to create a plan that can emerge from critical status the Town requested a study showing the amount the Town must add to the ARC (along with the entire Phase III package of benefit changes) in order to emerge from critical status. Phase VI showed that the Town must reallocate \$1,700,000 of its Public Safety budget into the Pension Plan each year going forward in order to emerge from critical status.

Conclusion

The Town of Johnston has and continues to vigorously confront the OPEB and Pension problems challenging the Town's financial stability. Having saved substantial money by taking advantage of the Medicare-based health care plans available without eliminating coverage to retirees, the Town will now look to other solutions to ensure a fully funded OPEB Trust in the future. Once the Town's Trust is in place it will look to coordinate benefits, explore new ways to deliver health care such as health savings accounts, and negotiate further cost sharing with its employees. All of these efforts will reduce the OPEB liability and allow the Town to fund an OPEB Trust and put the employees and taxpayers on a sustainable financial path.

In addition to the implementation of an OPEB Trust, the Town has pursued accountable monitoring of pension benefits through its pension ordinance and the resulting Johnston Retirement Board. After updating the assumptions and studying the problem, the Town now intends to negotiate the changes necessary to ensure its taxpayers, employees, and former employees that current and future benefits can be fully funded and are sustainable. The Town has studied its pension system with the help of skilled professionals and determined that it must make the following changes to the system in order to fully fund the benefits:

- Implement a minimum retirement age of 55
- Change the pensionable earnings calculation to only include base pay, holiday and longevity
- Change salary averaging to 10 years
- Freeze COLA increases for 20 years
- When COLA returns after 20 years it is tied to Northeast Urban CPI and only applies to those receiving a benefit less than 150% of the Rhode Island Mean Income
- Reset the amortization period to 24 years
- Reallocate Public Safety resources in a way that does not jeopardize the health and safety of its residents but allows for greater funding of retirement benefits

All of these changes will be sought first and foremost through negotiating with the Town's active employees and retirees. While the Town intends to expend all necessary efforts negotiating these changes it is understood that they must be made expediently. In the event the negotiations are not entertained by the current and former employees the Town will move on to other legal options.

Town of Johnston
Funding Improvement Plan
Exhibits

nyhart

***Town of Johnston
GASB 45 Financial Report***

***Fiscal Years Ending
June 30, 2012 and 2013***

Revised November 19, 2012

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Certification

This report summarizes the GASB actuarial valuation for the Town of Johnston 2012/13 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 45 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions). The valuation is also based upon our understanding of the plan provisions as summarized within the report.

The information presented herein is based on the information furnished to us by the Plan Sponsor that has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census provided by the Plan Sponsor. We have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based.

The actuarial assumptions were selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All computations have been made in accordance with generally accepted actuarial principles and practice.

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 that could materially affect the results contained herein.

Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report.

Nyhart



Randy Gomez, FSA, MAAA

November 19, 2012



Evi Laksana, ASA, MAAA

Effective July 1, 2012, the Town replaced the self-funded plan for Medicare retirees with a fully-insured Plan 65 (Part C) as well as the Blue Medicare Rx PDP drug coverage (Part D).

- Plan 65 supplements Medicare Parts A and B so that the gap items from A and B are picked up by the fully-insured program (typically between 10% and 20% of the remaining doctor's visit or hospital stay).
- Blue Medicare Rx provides a fully-insured 80/20 coverage.

All retirees are now required to enroll in Medicare Part A and Part B upon retirement. The Town will pay for the Medicare Part B premium for current and future retirees. For a closed group of existing retirees, the Town will also pay for the Medicare Part B premium penalty for those who did not enroll in Medicare Part B when first eligible. This change generated a significant reduction in the Town's liabilities.

Several actuarial methods and assumptions have been changed since the last valuation, which was for the fiscal year ending June 30, 2011:

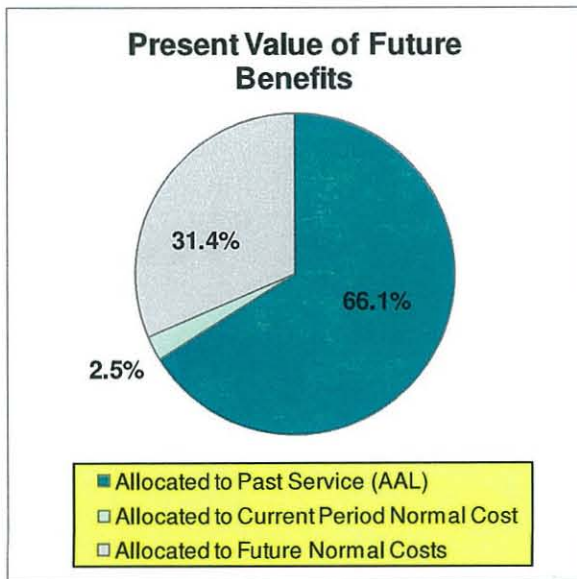
1. Mortality table has been updated to RP-2000 Combined Healthy Mortality Table fully generational projected using scale AA for healthy participants and RP-2000 Disabled Retiree Mortality Table fully generational projected using scale AA for disabled participants. The prior assumptions did not include future mortality.
2. Percentage of active employees electing spousal coverage has been changed from 1972 Social Security Awards experience to 60% of male and 50% of female employees are assumed to be married at retirement.
3. Medical trend rates have been reset to the same initial rate as the last actuarial valuation.
4. Retirement rates for Town's General employees and School's Non-Certified employees have been updated to follow Rhode Island Municipal Employees Retirement System (MERS) retirement rates used in their June 30, 2010 valuation.

Sources of GASB Liabilities and Assets

1. The Town and School explicitly subsidize the retiree health care coverage. Refer to Substantive Plan Provisions section for more information on the Town' explicit subsidy.
2. Retiree health coverage is implicitly more expensive than active health coverage. This higher cost of coverage creates a GASB 45 liability assigned to the Town and School.
3. The Town and School have historically funded its retiree health benefits on a pay-as-you-go basis.

Below is the breakdown of Present Value of Future Benefits (PVFB) allocated for past, current, and future service. Pages 3 and 4 show the GASB results for the fiscal year beginning July 1, 2012 based on the Projected Unit Credit cost method.

	<i>Present Value of Future Benefits (PVFB)</i>	<i>Actuarial Accrued Liability (AAL) PVFB allocated to past service</i>	<i>Normal Cost (NC) PVFB allocated to current period service</i>	<i>Future Normal Costs PVFB allocated to future service</i>
	A	B	C	D = A - B - C
As of 7/1/2012	\$ 282,832,594	\$ 186,959,602	\$ 7,038,841	\$ 88,834,151



PVFB is the amount needed as of July 1, 2012 to fully fund the Town's and School's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

AAL is the portion of PVFB considered to be accrued or earned as of July 1, 2012. This amount is a required disclosure in the Required Supplementary Information section.

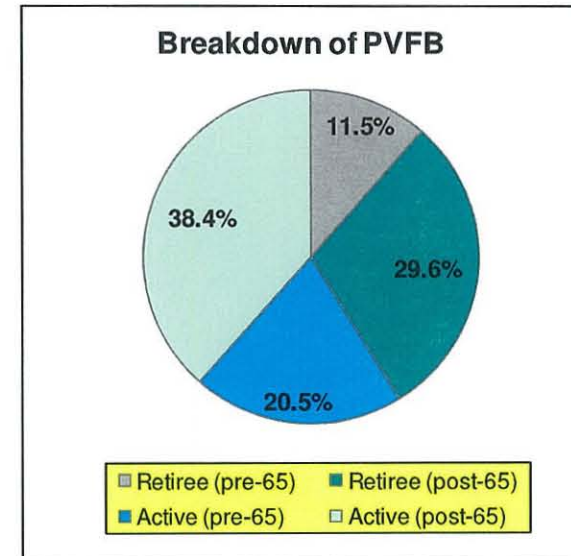
NC is the portion of actuarial present value of retiree health care benefits and expenses allocated to 2012/13 by the actuarial cost method (Projected Unit Credit).

Summary of Results

1. Present Value of Future Benefits (PVFB)

As of July 1, 2012

Current retirees	
Explicit (Pre-Medicare)	\$ 28,529,241
Implicit (Pre-Medicare)	4,036,196
Post-Medicare	83,839,360
Total	\$ 116,404,797
Future retirees	
Explicit (Pre-Medicare)	\$ 49,410,069
Implicit (Pre-Medicare)	8,506,845
Post-Medicare	108,510,883
Total	\$ 166,427,797
Total PVFB	\$ 282,832,594
Discount Rate	3.50%



Summary of Results – Continued

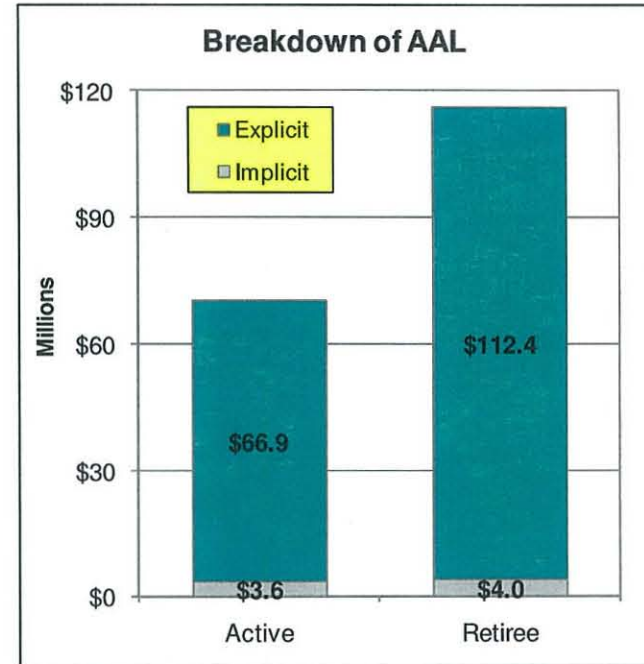
2. Actuarial Accrued Liabilities (AAL)

As of July 1, 2012

Current retirees		
Explicit (Pre-Medicare)	\$	28,529,241
Implicit (Pre-Medicare)		4,036,196
Post-Medicare		83,839,360
Total	\$	116,404,797
Future retirees		
Explicit subsidy (Pre-Medicare)	\$	21,908,983
Implicit subsidy (Pre-Medicare)		3,624,791
Post-Medicare		45,021,031
Total	\$	70,554,805
Total liabilities	\$	186,959,602
Discount Rate		3.50%

3. Income Statement and Balance Sheet Impact

	<i>2011/12</i>	<i>2012/13</i>
Annual OPEB Cost	\$ 17,194,189	\$ 14,479,364
Total Employer Contributions ¹ (Affects Income Statement)	\$ 5,284,569	\$ 4,451,602
Net OPEB Obligation at year-end (Affects Balance Sheet Liability)	\$ 51,639,428	\$ 61,667,190

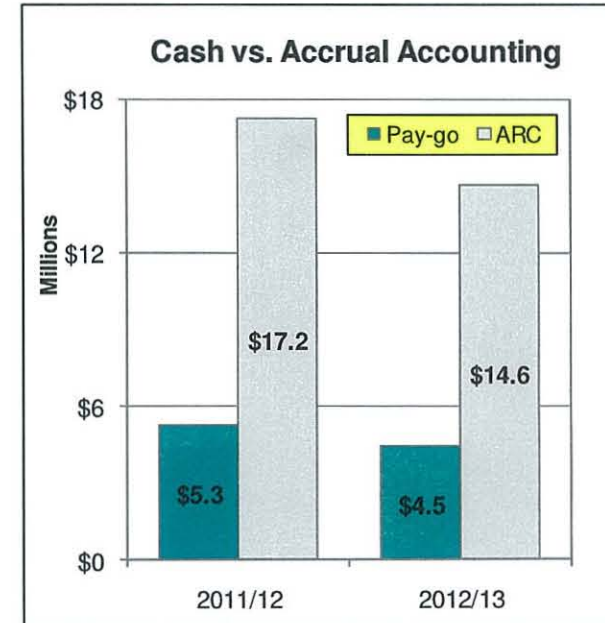


Explicit Subsidies are created when retirees are not charged the full cost of health care as measured by the premium or premium equivalent rates determined annually by the employer.

Implicit Subsidies are additional employer liabilities when the inherently higher health care costs for retired employees are not directly reflected in the determination of the premium or premium equivalent rates.

¹ Total employer contribution for FY 2011/12 is based on unaudited retiree healthcare expenses. 2012/13 employer contribution is an estimated amount and it will be updated once the actual FY 2012/13 retiree healthcare expenses are available.

Required Supplementary Information	2011/12 ²	2012/13
Actuarial Accrued Liability as of beginning of year	\$ 229,015,277	\$ 186,959,602
Actuarial Value of Assets as of beginning of year	0	0
Unfunded Actuarial Accrued Liability (UAAL)	\$ 229,015,277	\$ 186,959,602
Covered payroll	N/A	N/A
UAAL as a % of covered payroll	N/A	N/A
Annual Required Contribution	2011/12	2012/13
Normal cost as of beginning of year	\$ 8,752,450	\$ 7,038,841
Amortization of the UAAL for 30 years	8,179,117	7,190,754
Total normal cost and amortization payment	\$ 16,931,567	\$ 14,229,595
Interest to end of year	317,619	498,036
Total Annual Required Contribution (ARC)	\$ 17,249,186	\$ 14,727,631



Annual Required Contribution (ARC) is the annual expense recorded in the income statement under GASB 45 accrual accounting. It replaces the cash basis method of accounting recognition with an accrual method. The GASB 45 ARC is higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

² 2011/12 figures are based on Town of Johnston June 30, 2010 actuarial valuation.

Net OPEB Obligation	2011/12	2012/13
ARC as of end of year	\$ 17,249,186	\$ 14,727,631
Interest on Net OPEB Obligation (NOO) to end of year	1,390,543	1,807,380
NOO amortization adjustment to the ARC	(1,445,540)	(2,055,647)
Annual OPEB cost	\$ 17,194,189	\$ 14,479,364
Annual employer contribution for pay-go cost (estimated) ³	(5,284,569)	(4,451,602)
Annual employer contribution for pre-funding	0	0
Change in NOO	\$ 11,909,620	\$ 10,027,762
NOO as of beginning of year	39,729,808	51,639,428
NOO as of end of year	\$ 51,639,428	\$ 61,667,190

Pay-as-you-go Cost is the expected total employer cash cost for the coming period based on all explicit and implicit subsidies. It is also the amount recognized as expense on the Income Statement under pay-as-you-go accounting.

Net OPEB Obligation is the cumulative difference between the annual OPEB cost and employer contributions. This obligation will be created if cash contributions are less than the current year expense under GASB 45 accrual rules.

The net obligation is recorded as a liability on the employer's balance sheet which will reduce the net fund balance.

The value of implicit subsidies is considered as part of cash contributions for the current period. Other cash expenditures that meet certain conditions are also considered as contributions for GASB 45 purposes.

³ FY 2011/12 annual employer contribution for pay-go cost is based on unaudited retiree healthcare expenses. FY 2012/13 annual employer contribution for pay-go cost is an estimated amount and it will be updated once the actual FY 2012/13 retiree healthcare expenses are available.

Schedule of Funding Progress

<i>As of</i>	<i>Actuarial Value of Assets (AVA)</i>	<i>Actuarial Accrued Liability (AAL)</i>	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	<i>AVA as a % of AAL</i>	<i>Covered Payroll</i>	<i>UAAL as a % of Covered Payroll</i>
	<i>A</i>	<i>B</i>	<i>C = B - A</i>	<i>D = A / B</i>	<i>E</i>	<i>F = C / E</i>
July 1, 2012	\$ -	\$ 186,959,602	\$ 186,959,602	0.0%	N/A	N/A
July 1, 2011	\$ -	\$ 229,015,277	\$ 229,015,277	0.0%	N/A	N/A
July 1, 2010	\$ -	\$ 229,015,277	\$ 229,015,277	0.0%	N/A	N/A

Schedule of Employer Contributions

<i>FYE</i>	<i>Employer Contributions</i>	<i>Annual Required Contribution (ARC)</i>	<i>% of ARC Contributed</i>
	<i>A</i>	<i>B</i>	<i>C = A / B</i>
June 30, 2013	\$ 4,451,602 ⁴	\$ 14,727,631	30.2%
June 30, 2012	\$ 5,284,569	\$ 17,249,186	30.6%
June 30, 2011	\$ 5,755,376	\$ 17,249,186	33.4%

Historical Annual OPEB Cost

<i>As of</i>	<i>Annual OPEB Cost</i>	<i>% of Annual OPEB Cost Contributed</i>	<i>Net OPEB Obligation</i>
June 30, 2013	\$ 14,479,364	30.7%	\$ 61,667,190
June 30, 2012	\$ 17,194,189	30.7%	\$ 51,639,428
June 30, 2011	\$ 17,210,046	33.4%	\$ 39,729,808

⁴ Estimated employer contribution for FY 2012/13 that will be updated once the actual 2012/13 retiree healthcare expense is available.

The Actuarial Accrued Liability (AAL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the AAL and whether they increase or decrease the liability.

Expected Events

- Increases in AAL due to additional benefit accruals as employees continue to earn service each year
- Increases in AAL due to interest as the employees and retirees age
- Decreases in AAL due to benefit payments

Unexpected Events

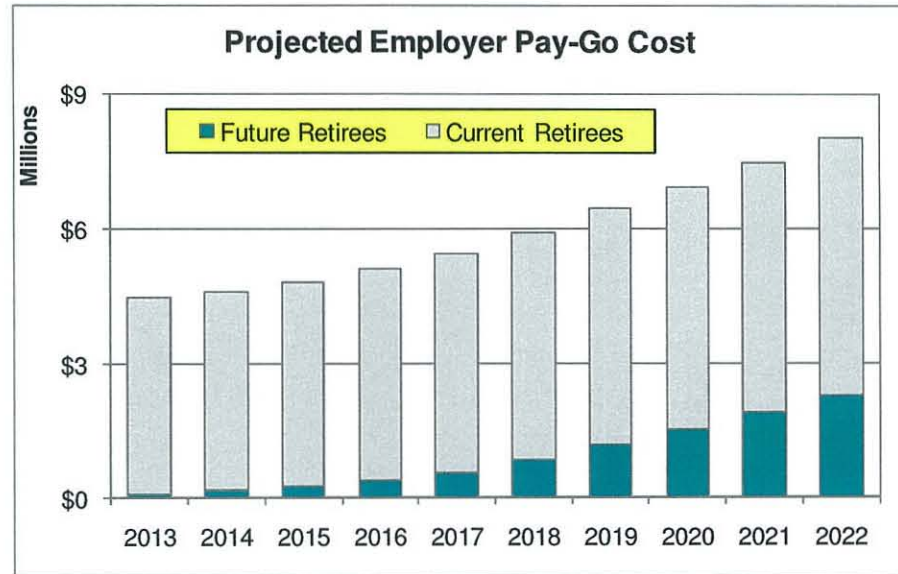
- Increases in AAL when actual premium rates increase more than expected. A liability decrease occurs when premium rates increase less than expected.
- Increases in AAL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in AAL depending on whether benefit provisions are improved or reduced.

(Results are shown in thousands)	2011/12	2012/13
Actuarial Accrued Liability as of beginning of year	\$ 229,015,277	\$ 186,959,602
Normal cost as of beginning of year	8,752,450	7,038,841
Expected benefit payments during the year	(5,755,376)	(4,451,602)
Interest adjustment to end of year	8,222,018	6,712,712
Expected Actuarial Accrued Liability as of end of year ⁵	\$ 240,234,369	\$ 196,259,553
Actuarial (gain) / loss	(53,274,767)	TBD
Actual Actuarial Accrued Liability as of end of year	\$ 186,959,602	TBD

⁵ The above reconciliation was calculated using a “no loss/gain” basis for illustration purposes only. The actual 2013 year-end liability may be higher or lower depending on plan experience.

The projection below shows the anticipated pay-as-you-go cost for employer subsidized benefits for the next 10 years. Results are shown separately for current and future retirees. The projections include explicit and implicit subsidies.

FYE	Future Retirees	Current Retirees	Total
2013	\$ 92,317	\$ 4,359,285	\$ 4,451,602
2014	\$ 160,254	\$ 4,428,414	\$ 4,588,668
2015	\$ 239,458	\$ 4,554,545	\$ 4,794,003
2016	\$ 379,202	\$ 4,713,829	\$ 5,093,031
2017	\$ 564,741	\$ 4,864,051	\$ 5,428,792
2018	\$ 862,989	\$ 5,045,355	\$ 5,908,344
2019	\$ 1,191,094	\$ 5,254,730	\$ 6,445,824
2020	\$ 1,531,179	\$ 5,393,638	\$ 6,924,817
2021	\$ 1,882,131	\$ 5,585,592	\$ 7,467,723
2022	\$ 2,276,616	\$ 5,735,775	\$ 8,012,391



Eligibility

Firefighters are eligible for lifetime retiree health benefits upon attainment of 20 years of service.

Police officers are eligible for lifetime retiree health benefits upon attainment of 18 years of service. Officers who retire after 18 years of service (early retirement) will receive health coverage benefits that were in existence on July 1, 2012. Those who retire after 20 years of service will receive health coverage benefits in existence on July 1, 2010.

Town general employees are eligible for lifetime retiree health benefits upon attainment of age 58 with 10 years of service or 26 years of service with no age requirement. For Laborers' Local 808, only employees hired prior to April 19, 2012 are eligible for retiree health benefits.

School Certified employees are eligible for retiree health benefits upon meeting Rhode Island Employees Retirement System eligibility requirements and 20 years of service with Johnston School Corporation. Retirees electing spousal coverage are required to pay the full incremental spouse cost. No spousal coverage is available once the retiree reaches Medicare eligibility.

School Non-Certified employees are eligible for retiree health benefits according to the requirements below:

- Hired prior to September 1, 1999: age 58 with 15 years of service or 25 years of service
- Hired on/after September 1, 1999: Age 60 with 20 years of service or age 55 with 25 years of service

There is no spousal coverage available at retirement (pre or post Medicare).

Disability Benefits

Firefighters and police officers are eligible for disability retiree health benefits with no age or service requirement.

All other employees are eligible for disability retiree health benefits upon attainment of 20 years of service (no age requirements).

Spouse Benefit

Upon death of retiree, coverage continues to surviving spouses. Town's subsidy will continue to spouses for those who are receiving subsidized health benefits.

Retiree Cost Sharing

Retiree medical benefits are non-contributory for all retirees and their spouses. Only School Certified employees receive free dental benefits for employee-only coverage at retirement. This dental coverage will terminate at Medicare eligibility.

Explicit Subsidy

The Town and School pay the full cost of coverage for pre and post-Medicare retiree health benefits.

Part B Subsidy

Town retirees receive Medicare Part B premium subsidy upon Medicare eligibility for themselves and their spouses. The monthly Part B premium effective on January 1, 2012 is \$99.90. The Town also pays for the Medicare Part B premium penalty for a closed group of existing retirees and spouses who were not enrolled in Medicare Part B when first eligible. The Town will not pay for the Part B premium penalty for future retirees.

Medical Benefit

Same benefit options are available to retirees as active employees. All pre Medicare health plans are self-insured. Post-Medicare Blue Medicare Rx plan is fully-insured and community-rated. Below are the monthly Healthmate premiums effective on July 1, 2012 for pre-Medicare current and future retirees:

Group	Group Name	Plan	Single	Family
Active Employees				
250	Johnston School Dept	HM 8810	\$ 593.62	\$ 1,537.47
613	Johnston School Non-Cert	HM 8814	\$ 628.71	\$ 1,626.63
5C16	Town of Johnston Police	HM 9558	\$ 561.14	\$ 1,463.96
5C17	Town of Johnston Fire	HM 9555	\$ 574.75	\$ 1,499.30
978	Town of Johnston Employees	HM 9558	\$ 561.14	\$ 1,463.96
Retirees				
250 R	Johnston School Dept – retirees	HM 8783	\$ 604.92	\$ 1,563.36
1E495	Johnston School Dept – retirees II	HM 8810	\$ 593.62	\$ 1,537.47
613R	Johnston School Non-Cert retirees	HM 8869	\$ 637.65	\$ 1,649.67
61314R	Johnston School Non-Cert retirees 2010	HM 8814	\$ 628.71	\$ 1,626.63
8U758	Town of Johnston Police retirees	HM 9558	\$ 561.14	\$ 1,463.96
101788	Johnston Firefighters retirees	HM 9676	\$ 567.65	\$ 1,480.85
8U883	Town of Johnston Fire retirees (2)	HM 9555	\$ 574.75	\$ 1,499.30
100596 / 8846	Town of Johnston retirees	HM 9558	\$ 561.14	\$ 1,463.96

Upon Medicare eligibility, the Town and School provide Blue Medicare Rx plan with monthly premium of \$167. Plan 65 monthly premiums are \$185.88 for the Town and \$162.15 for the School.

Dental Benefit

Monthly dental working rate for School Certified employee is \$29.50 effective on July 1, 2012.

The actuarial assumptions used in this report represent a reasonable long-term expectation of future OPEB outcomes. As national economic and Town experience change over time, the assumptions will be tested for ongoing reasonableness and, if necessary, updated.

There have been changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending June 30, 2011. Refer to Actuary's Notes on page 1 for complete information on these changes. For the current year GASB valuation, we have updated the per capita costs. We expect to update health care trend rates and per capita costs again for the next full GASB valuation, which will be for the fiscal year ending June 30, 2015.

Measurement Date	July 1, 2012
Discount Rate	3.5% unfunded
Payroll Growth	N/A
Cost Method	Projected Unit Credit
Amortization	Payments increasing at 3.5% and amortization period is a closed 26 years.
Census Data	Census data was provided by the Town and it was collected as of July 2012. We have reviewed it for reasonableness and no material modifications were made to the census data.
Mortality	Healthy retiree: RP-2000 Healthy Mortality Table fully generational projected using Scale AA Disabled retiree: RP-2000 Disabled Mortality Table fully generational projected using Scale AA
Disability	Sample annual disability rates are as shown below.

Age	Town			School Teachers		School
	Police	Fire	General	Male	Female	General
20	0.17%	0.34%	0.04%	0.02%	0.01%	0.04%
25	0.17%	0.34%	0.05%	0.02%	0.02%	0.05%
30	0.22%	0.44%	0.06%	0.03%	0.02%	0.06%
35	0.29%	0.58%	0.09%	0.04%	0.03%	0.09%
40	0.44%	0.88%	0.13%	0.06%	0.05%	0.13%
45	0.72%	1.44%	0.22%	0.09%	0.08%	0.22%
50	1.21%	2.42%	0.37%	0.15%	0.14%	0.37%
55	1.21%	2.42%	0.61%	0.25%	0.23%	0.61%
60	1.21%	2.42%	0.85%	0.35%	0.31%	0.85%

Withdrawal Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. Annual rates are as shown below.

No terminations are assumed for Police and Firefighters hired before 1/1/1999.

YOS	Fire hired after 1998	Teachers		All others	
		Male	Female	Male	Female
0	10.00%	17.00%	13.00%	17.50%	18.00%
1	5.28%	9.00%	7.59%	9.59%	10.69%
2	4.81%	5.62%	6.56%	8.25%	9.06%
3	4.36%	4.55%	5.66%	7.13%	7.69%
4	3.94%	3.64%	4.86%	6.18%	6.53%
5	3.54%	2.89%	4.18%	5.41%	5.58%
6	3.16%	2.29%	3.59%	4.80%	4.81%
7	2.81%	1.81%	3.09%	4.31%	4.20%
8	2.49%	1.45%	2.67%	3.95%	3.74%
9	2.19%	1.20%	2.33%	3.68%	3.41%
10	1.91%	1.04%	2.05%	3.50%	3.18%
11	1.66%	0.95%	1.83%	3.38%	3.04%
12	1.43%	0.94%	1.65%	3.30%	2.97%
13	1.23%	0.94%	1.52%	3.26%	2.95%
14	1.05%	0.94%	1.42%	3.23%	2.95%
15	0.90%	0.94%	1.34%	3.19%	2.97%
16	0.77%	0.94%	1.28%	3.12%	2.97%
17	0.67%	0.94%	1.22%	3.02%	2.95%
18	0.59%	0.94%	1.16%	2.85%	2.87%
19	0.00%	0.94%	1.09%	2.61%	2.73%
20	0.00%	0.94%	1.01%	2.27%	2.50%
21	0.00%	0.94%	0.90%	1.82%	2.17%
22	0.00%	0.94%	0.75%	1.24%	1.70%
23	0.00%	0.94%	0.56%	0.52%	1.10%
24	0.00%	0.94%	0.33%	0.52%	0.32%

Retirement Rate

Annual retirement rates are as shown below.

YOS	Police	Firefighters	
		Hired before 1999	Hired after 1998*
20	5%	20%	15%
21	10%	20%	10%
22 – 23	20%	50%	5%
24	20%	50%	10%
25	20%	50%	12%
26	50%	100%	12%
27	100%	100%	14%
28	100%	100%	16%
29	100%	100%	18%
30+	100%	100%	35%

* All employees are assumed to retire no later than age 65.

The following rates apply to Town's General employees and School's Non-Certified employees. For members who reach 30 years of service prior to age 58, service-based rates are used. For all other members, age-based rates are used.

YOS	Service-based rates (00/30)		Age	Age-based rates (58/10)	
	Male	Female		Male	Female
30	30%	30%	58	12%	12%
31	30%	25%	59 – 61	10%	10%
32 – 34	25%	10%	62	30%	20%
36	25%	20%	63 – 64	20%	15%
37	25%	25%	65	20%	20%
38	35%	25%	66 – 68	25%	25%
39	50%	25%	69	30%	25%
40+	100%	100%	70 – 74	30%	20%
			75+	100%	100%

Retirement Rates (continued)

The following rates apply to Teachers Schedule A members who are eligible to retire as of September 30, 2009. For members who reach 28 years of service prior to age 60, service-based rates are used. For members who reach age 60 before 28 years of service, age-based rates are used.

YOS	Service-based rates (00/28)		Age	Age-based rates (60/10)	
	Male	Female		Male	Female
28	25%	20%	60	20%	20%
29	15%	15%	61	15%	15%
30 – 31	20%	20%	62	30%	25%
32 – 33	30%	30%	63	25%	20%
34	40%	35%	64	10%	20%
35	55%	50%	65	25%	35%
36 – 39	40%	40%	66 – 74	25%	25%
40+	100%	100%	75+	100%	100%

For Schedule A members who are not eligible to retire as of September 30, 2009, members who would have been assumed to retire prior to age 62 under the above schedule are assumed to retire when first eligible for an unreduced benefit at age 62.

For Schedule B members, 75% of members who reach age 59 with 29 years of service before age 65 are assumed to retire when first eligible, at age 59 with 29 years of service. 75% of other members are expected to retire when first eligible, at age 65 with 10 years of service. The rates in the table above are applied after first eligibility. Schedule B members who retire under provisions other than age 59 with 29 years of service are assumed to retire at the rates shown below.

Age	Unisex
55 – 58	0%
59	1%
60 – 62	2%
63	3%
64	4%

Health Care Trend Rates

FYE	Medical	Part B
2013	9.50%	3.00%
2014	9.00%	3.25%
2015	8.50%	3.50%
2016	8.00%	3.75%
2017	7.50%	4.00%
2018	7.00%	4.25%
2019	6.50%	4.50%
2020	6.00%	4.50%
2021	5.50%	4.50%
2022+	5.00%	4.50%

The trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Dental trend rate is a constant 5.0%.

Per Capita Costs

Annual per capita costs were calculated based on the weighted average premium rates as of July 1, 2012 actuarially increased using aging factors and current enrollment. Sample annual per capita costs at select ages are as shown below:

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Age	Town General		Town Police/Fire		School	
	Male	Female	Male	Female	Male	Female
<55	\$ 6,700	\$ 7,000	\$ 6,800	\$ 7,100	\$ 7,300	\$ 7,600
55 – 59	\$ 8,000	\$ 7,800	\$ 8,100	\$ 7,900	\$ 8,700	\$ 8,500
60 – 64	\$ 10,300	\$ 9,300	\$ 10,400	\$ 9,300	\$ 11,200	\$ 10,100
65+	\$ 4,235	\$ 4,235	\$ 4,235	\$ 4,235	\$ 3,950	\$ 3,950

Annual administrative fees are included in the above per capita costs. The costs are assumed to increase with health care trend rates.

In addition to the above per capita costs, for the Town’s Medicare retirees there is the additional cost for Medicare Part B premium subsidy in the amount of \$1,199 annually for future retirees. For current retirees, there are additional Part B premium subsidy penalties that vary by retiree. The Part B costs and penalties are assumed to increase with Part B trend rates.

Annual dental per capita cost for School Certified retiree is \$354 and it is assumed to increase with dental trend rates.

Employer Funding Policy

Pay-as-you-go cash basis

Health Care Coverage Election Rate

100% of active employees with current coverage are assumed to continue coverage at retirement.
0% of active employees without current coverage are assumed to elect coverage at retirement.

100% of retirees with current coverage are assumed to continue coverage.
0% of retirees without current coverage are assumed to elect coverage in the future.

Spousal Coverage

60% of male and 50% of female employees are assumed to be married at retirement. Husbands are assumed to be three years older than wives.

Spousal coverage for current retirees is based on actual data.

Explicit Subsidy

The difference between (a) the premium rates and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a Town retiree enrolled in HM 9558.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 561.14	\$ 0.00	\$ 561.14
Spouse	\$ 902.82	\$ 0.00	\$ 902.82

Implicit Subsidy

The difference between (a) the per capita cost and (b) the premium rates. Below is an example of the monthly implicit subsidies for a male Town retiree age 60 enrolled in HM 9558.

	Per Capita Cost	Premium Rate*	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 858.33	\$ 561.14	\$ 297.19
Spouse	\$ 775.00	\$ 775.00	\$ 0.00

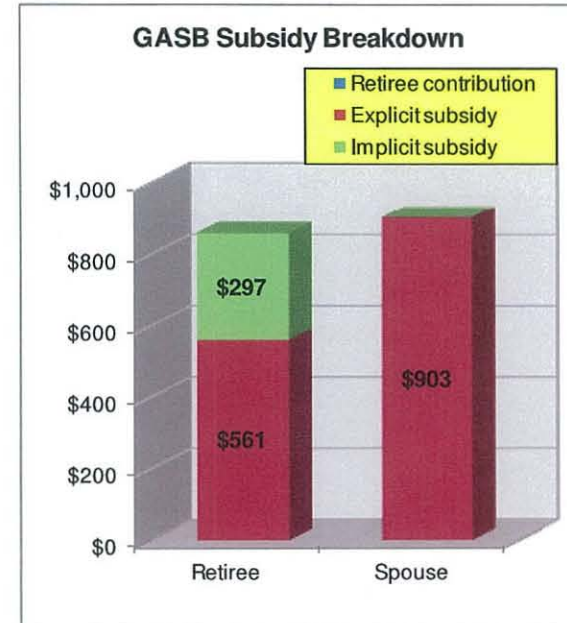
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for plans using a true community-rated premium rate.

* The spouse incremental premium rate is limited to the per capita cost.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male Town retiree age 60 and his spouse enrolled in HM 9558.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 561.14	\$ 902.82
Implicit subsidy	\$ 297.19	\$ 0.00
Total monthly cost	\$ 858.33	\$ 902.82



Summary of Plan Participants

<i>Active Employees</i>	<i>Single</i>	<i>Family</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
General 978	37	78	115	48.5	9.4	N/A
Fire 5C17	11	67	78	40.7	10.8	N/A
Police 5C16	18	60	78	38.6	8.9	N/A
School Certified 250	69	221	290	47.5	11.1	N/A
School Non-Certified 613	20	83	103	54.9	9.6	N/A
Total actives with coverage	155	509	664	47.0	10.3	N/A

No information is provided on active employees who currently have no coverage.

<i>Retirees⁶</i>	<i>Single</i>	<i>Family</i>	<i>Total</i>	<i>Avg. Age</i>
General 8846	14	11	25	65.7
General 100596	78	6	84	75.0
Fire 101788	10	23	33	58.1
Fire 8U883	22	30	52	58.5
Police 8U758	45	47	92	61.8
School Certified 250R	64	6	70	62.7
School Certified 1E495	13	1	14	60.8
School Non-Certified 613R	158	14	172	72.1
School Non-Certified 61314R	3		3	60.6
Total retirees with coverage	407	138	545	66.8

⁶ Retirees' enrollment above does not include spouses of retirees covered under the Town's and School's group health plan. Out of 138 retirees with family coverage there are 135 of them that have spouses.

Active Age-Service Distribution

Age	Years of Service										Total	
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	5	2										7
25 to 29	8	21	9									38
30 to 34	3	26	34	14								77
35 to 39	4	14	14	22	8							62
40 to 44	3	19	24	40	28	6						120
45 to 49	3	18	20	25	32	5	1					104
50 to 54	4	17	21	36	9	5	6					98
55 to 59		5	20	26	12	8	2					73
60 to 64	1	9	8	19	8	6						51
65 to 69	1	6	3	4	1	2		1				18
70 & up		4			5	1	6					16
Total	32	141	153	186	103	33	15	1	0	0		664

Definitions

GASB 45 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Accrued Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of plan benefits and expenses which is not provided for by the future Normal Costs.
2. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
3. **Actuarial Cost Method** – A procedure for determining the Actuarial Present Value of future benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
4. **Actuarial Present Value** – The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
 - a) adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.);
 - b) multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and
 - c) discounted according to an assumed rate (or rates) of return to reflect the time value of money.
5. **Annual OPEB Cost** – An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.
6. **Annual Required Contribution (ARC)** – The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.
7. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
8. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the actuarial accrued liability.
9. **Healthcare Cost Trend Rate** – The rate of change in the per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

10. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
11. **Net OPEB Obligation** – The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.
12. **Normal Cost** – The portion of the Actuarial Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.
13. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
14. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
15. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.

APPENDIX

Appendix A – Required Supplementary Information by Group

Schedule of Funding Progress for Fiscal Year Ending June 30, 2012

<i>Groups</i>	<i>Actuarial Value of Assets (AVA) As of July 1, 2011</i>	<i>Actuarial Accrued Liability (AAL)⁷ As of July 1, 2011</i>	<i>Unfunded Actuarial Accrued Liability (UAAL) As of July 1, 2011</i>	<i>AVA as a % of AAL</i>	<i>Covered Payroll For 2012/13</i>	<i>UAAL as a % of Covered Payroll</i>
	<i>A</i>	<i>B</i>	<i>C = B - A</i>	<i>D = A / B</i>	<i>E</i>	<i>F = C / E</i>
Fire	\$ -	\$ 79,702,824	\$ 79,702,824	0.0%	N/A	N/A
Police	\$ -	\$ 76,280,183	\$ 76,280,183	0.0%	N/A	N/A
Water	\$ -	\$ 122,886	\$ 122,886	0.0%	N/A	N/A
Town	\$ -	\$ 20,193,563	\$ 20,193,563	0.0%	N/A	N/A
School	\$ -	\$ 52,715,821	\$ 52,715,821	0.0%	N/A	N/A
Total	\$ -	\$ 229,015,277	\$ 229,015,277	0.0%	N/A	N/A

Schedule of Employer Contributions for Fiscal Year 2011/12

	<i>Annual OPEB Costs (AOC) For 2011/12</i>	<i>Actual Contributions For 2011/12</i>	<i>% of AOC Contributed For 2011/12</i>
	<i>A</i>	<i>B</i>	<i>C = A / B</i>
Fire	\$ 5,152,353	\$ 1,162,689	22.6%
Police	\$ 5,680,290	\$ 1,388,384	24.4%
Water	\$ 10,523	\$ 0	0.0%
Town	\$ 1,624,844	\$ 590,481	36.3%
School	\$ 4,726,179	\$ 2,143,015	45.3%
Total	\$ 17,194,189	\$ 5,284,569	30.7%

⁷ Based on Town of Johnston June 30, 2010 actuarial valuation.

Appendix A – Continued

Net OPEB Obligation (NOO) as of June 30, 2012

<i>Groups</i>	<i>Annual Required Contribution (ARC)⁸ For 2011/12</i>	<i>Interest on Existing NOO For 2011/12</i>	<i>ARC Adjustment For 2011/12</i>	<i>AOC For 2011/12</i>	<i>Actual Contributions For 2011/12</i>	<i>Net Increase in NOO For 2011/12</i>	<i>NOO As of June 30, 2012</i>
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D = A + B + C</i>	<i>E</i>	<i>F = D - E</i>	<i>G</i>
Fire	\$ 5,168,284	\$ 402,794	\$ (418,725)	\$ 5,152,353	\$ 1,162,689	\$ 3,989,664	\$ 15,498,063
Police	\$ 5,695,274	\$ 378,866	\$ (393,850)	\$ 5,680,290	\$ 1,388,384	\$ 4,291,906	\$ 15,116,655
Water	\$ 10,589	\$ 1,677	\$ (1,743)	\$ 10,523	\$ 0	\$ 10,523	\$ 58,440
Town	\$ 1,631,985	\$ 180,546	\$ (187,687)	\$ 1,624,844	\$ 590,481	\$ 1,034,363	\$ 6,192,816
School	\$ 4,743,054	\$ 426,660	\$ (443,535)	\$ 4,726,179	\$ 2,143,015	\$ 2,583,164	\$ 14,773,454
Total	\$ 17,249,186	\$ 1,390,543	\$ (1,445,540)	\$ 17,194,189	\$ 5,284,569	\$ 11,909,620	\$ 51,639,428

⁸ Based on Town of Johnston June 30, 2010 actuarial valuation.

Appendix A – Continued**Schedule of Funding Progress for Fiscal Year Ending June 30, 2013**

<i>Groups</i>	<i>Actuarial Value of Assets (AVA) As of July 1, 2012</i>	<i>Actuarial Accrued Liability (AAL) As of July 1, 2012</i>	<i>Unfunded Actuarial Accrued Liability (UAAL) As of July 1, 2012</i>	<i>AVA as a % of AAL</i>	<i>Covered Payroll For 2012/13</i>	<i>UAAL as a % of Covered Payroll</i>
	A	B	C = B - A	D = A / B	E	F = C / E
Fire	\$ -	\$ 58,763,753	\$ 58,763,753	0.0%	N/A	N/A
Police	\$ -	\$ 53,081,741	\$ 53,081,741	0.0%	N/A	N/A
Water	\$ -	\$ 187,136	\$ 187,136	0.0%	N/A	N/A
Town	\$ -	\$ 29,576,007	\$ 29,576,007	0.0%	N/A	N/A
School	\$ -	\$ 45,350,965	\$ 45,350,965	0.0%	N/A	N/A
Total	\$ -	\$ 186,959,602	\$ 186,959,602	0.0%	N/A	N/A

Schedule of Employer Contributions for Fiscal Year 2012/13

	<i>Annual OPEB Costs (AOC) For 2012/13</i>	<i>Expected Contributions For 2012/13</i>	<i>% of AOC Contributed For 2012/13</i>
	A	B	C = A / B
Fire	\$ 4,273,457	\$ 1,004,806	23.5%
Police	\$ 4,327,732	\$ 964,004	22.3%
Water	\$ 13,569	\$ 1,905	14.0%
Town	\$ 2,602,846	\$ 851,676	32.7%
School	\$ 3,261,760	\$ 1,629,211	49.9%
Total	\$ 14,479,364	\$ 4,451,602	30.7%

Appendix A – Continued

Net OPEB Obligation (NOO) as of June 30, 2013

<i>Groups</i>	<i>Annual Required Contribution (ARC) For 2012/13</i>	<i>Interest on Existing NOO For 2012/13</i>	<i>ARC Adjustment For 2012/13</i>	<i>AOC For 2012/13</i>	<i>Expected Contributions For 2012/13</i>	<i>Net Increase in NOO For 2012/13</i>	<i>NOO As of June 30, 2013</i>
	A	B	C	D = A + B + C	E	F = D - E	G
Fire	\$ 4,347,967	\$ 542,432	\$ (616,942)	\$ 4,273,457	\$ 1,004,806	\$ 3,268,651	\$ 18,766,714
Police	\$ 4,400,408	\$ 529,083	\$ (601,759)	\$ 4,327,732	\$ 964,004	\$ 3,363,728	\$ 18,480,383
Water	\$ 13,851	\$ 2,045	\$ (2,327)	\$ 13,569	\$ 1,905	\$ 11,664	\$ 70,104
Town	\$ 2,632,618	\$ 216,749	\$ (246,521)	\$ 2,602,846	\$ 851,676	\$ 1,751,170	\$ 7,943,986
School	\$ 3,332,787	\$ 517,071	\$ (588,098)	\$ 3,261,760	\$ 1,629,211	\$ 1,632,549	\$ 16,406,003
Total	\$ 14,727,631	\$ 1,807,380	\$ (2,055,647)	\$ 14,479,364	\$ 4,451,602	\$ 10,027,762	\$ 61,667,190

Appendix B – Comparison of Participant Demographic Information

	<u>As of July 1, 2010</u>	<u>As of July 1, 2012</u>
Active Participants	694	664
Retired Participants ⁹	668	680
Averages for Active		
Age	46.2	47.0
Service	6.9	10.3
Averages for Inactive	63.4	64.6

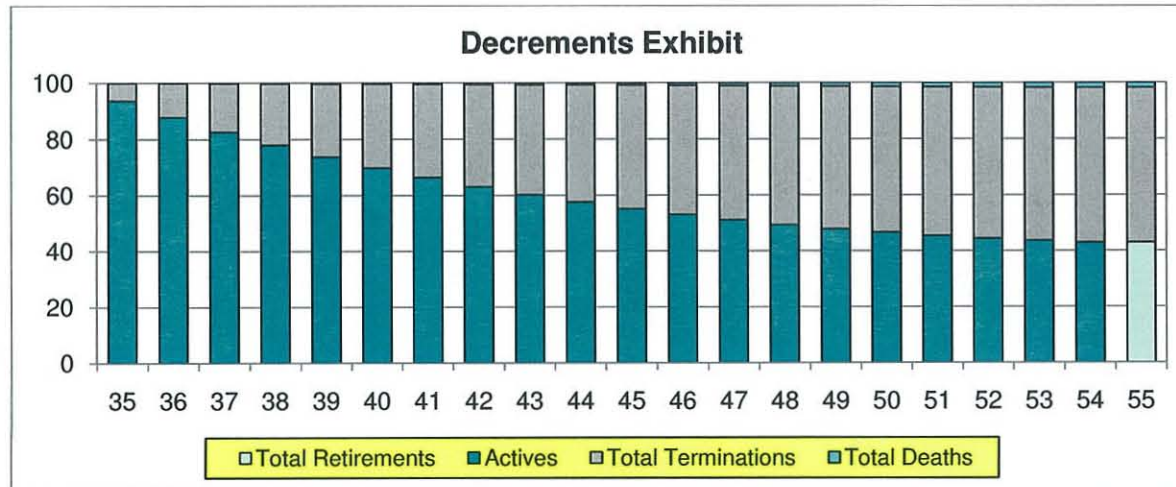
⁹ Figures shown above include spouses of retirees covered under the Town's and School's group health plans.

Appendix C – Decrements Exhibit (Turnover and Mortality Rates)

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 42.949 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# Deaths per year*	# of Terminations per year*	# of Retirements per year*	Total Decrements
35	100.000	0.077	6.276	0.000	6.353
36	93.647	0.079	5.672	0.000	5.751
37	87.896	0.079	5.127	0.000	5.206
38	82.690	0.080	4.636	0.000	4.716
39	77.974	0.080	4.194	0.000	4.274
40	73.700	0.080	3.796	0.000	3.876
41	69.824	0.080	3.436	0.000	3.516
42	66.308	0.081	3.109	0.000	3.190
43	63.118	0.082	2.811	0.000	2.893
44	60.225	0.084	2.539	0.000	2.623
45	57.602	0.087	2.290	0.000	2.377

Age	# Remaining Employees	# Deaths per year*	# of Terminations per year*	# of Retirements per year*	Total Decrements
46	55.225	0.089	2.058	0.000	2.147
47	53.078	0.092	1.839	0.000	1.931
48	51.147	0.095	1.629	0.000	1.724
49	49.423	0.099	1.425	0.000	1.524
50	47.899	0.102	1.227	0.000	1.329
51	46.570	0.114	1.037	0.000	1.151
52	45.419	0.121	0.856	0.000	0.977
53	44.442	0.130	0.688	0.000	0.818
54	43.624	0.139	0.536	0.000	0.675
55	42.949	0.000	0.000	42.949	42.949

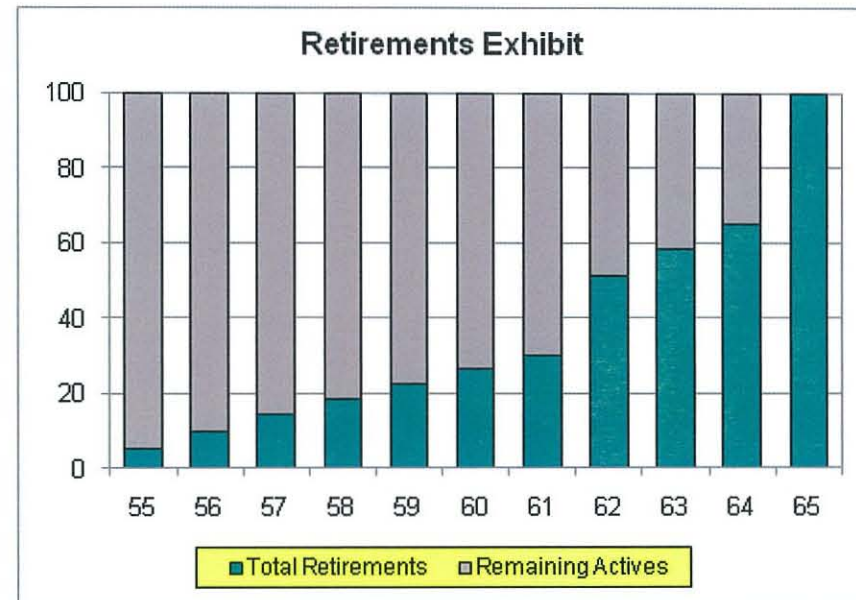


* The above rates are illustrative rates and are not used in our GASB calculations.

Appendix D – Retirement Rates Exhibit

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

Age	Active Employees BOY	Annual Retirement Rates*	# Retirements per year	Active Employees EOY
55	100.000	5%	5.000	95.000
56	95.000	5%	4.750	90.250
57	90.250	5%	4.513	85.738
58	85.738	5%	4.287	81.451
59	81.451	5%	4.073	77.378
60	77.378	5%	3.869	73.509
61	73.509	5%	3.675	69.834
62	69.834	30%	20.950	48.884
63	48.884	15%	7.333	41.551
64	41.551	15%	6.233	35.318
65	35.318	100%	35.318	0.000



* The above rates are illustrative rates and are not used in our GASB calculations.

Appendix E – Illustration of GASB Calculations

The purpose of the illustration is to familiarize non-actuaries with the GASB 45 actuarial calculation process.

I. Facts

1. The employer provides subsidized retiree health coverage worth \$100,000 to employees retiring at age 55 with 25 years of service. The employer funds for retiree health coverage on a pay-as-you-go basis.
2. Employee X is age 50 and has worked 20 years with the employer.
3. Retiree health subsidies are paid from the general fund assets which are expected to earn 4.5% per year on a long-term basis.
4. Based on Employee X's age and sex he has a 98.0% probability of living to age 55 and a 95.0% probability of continuing to work to age 55.

II. Calculation of Present Value of Future Benefits

Present Value of Future Benefits represents the cost to finance benefits payable in the future to current and future retirees and beneficiaries, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

	Value	Description
A.	\$100,000	Projected benefit at retirement
B.	80.2%	Interest discount for five years = $(1 / 1.045)^5$
C.	98.0%	Probability of living to retirement age
D.	95.0%	Probability of continuing to work to retirement age
E.	\$74,666	Present value of projected retirement benefit measured at employee's current age = $A \times B \times C \times D$

Appendix E – Continued**III. Calculation of Actuarial Accrued Liability**

Actuarial Accrued Liability represents the portion of the Present Value of Future Benefits which has been accrued recognizing the employee's past service with the employer. The Actuarial Accrued Liability is a required disclosure in the Required Supplementary Information section of the employer's financial statement.

	Value	Description
A.	\$74,666	Present value of projected retirement benefit measured at employee's current age
B.	20	Current years of service with employer
C.	25	Projected years of service with employer at retirement
D.	\$59,733	Actuarial accrued liability measured at employee's current age = $A \times B / C$

IV. Calculation of Normal Cost

Normal Cost represents the portion of the Present Value of Future Benefits allocated to the current year.

	Value	Description
A.	\$74,666	Present value of projected retirement benefit measured at employee's current age
B.	25	Projected years of service with employer at retirement
C.	\$2,987	Normal cost measured at employee's current age = A / B

V. Calculation of Annual Required Contribution

Annual Required Contribution is the total expense for the current year to be shown in the employer's income statement.

	Value	Description
A.	\$2,987	Normal Cost for the current year
B.	\$3,509	30-year amortization (level dollar method) of Unfunded Actuarial Accrued Liability using a 4.5% interest rate discount factor
C.	\$292	Interest adjustment = $4.5\% \times (A + B)$
D.	\$6,788	Annual Required Contribution = $A + B + C$



Town of Johnston
State of Rhode Island and Providence Plantations

ADOPTED
DATE 12/11/11
[Signature]

Ordinance 2011- 24

AN ORDINANCE AMENDING ARTICLE II OF CHAPTER 47 OF THE TOWN OF JOHNSTON
CODE OF ORDINANCES ENTITLED "PERSONNEL RULES AND REGULATIONS"

Article II of Chapter 47 of the Town of Johnston Code of Ordinances entitled "Personnel Rules and Regulations" is hereby amended by adding thereto the following:

The Town Council of the Town of Johnston hereby ordains:

ARTICLE II, Rules and Regulations.

§ 47-9. Working conditions.

H.

Insurance coverage.

(1) All retirees of the Town of Johnston, as a condition of receiving or continuing to receive retirement payments and health benefits shall enroll in Medicare as soon as he / she is eligible, notwithstanding the provisions of any other statute, ordinance, interest arbitration award, or collective bargaining agreement to the contrary.

(2) *The Town shall adopt the provisions of R.I. Gen. Laws § 28-54-1, and in accordance therewith, shall require all its retirees, as a condition of receiving or continuing to receive retirement payments and health benefits, to enroll in Medicare as soon as he or she is eligible, notwithstanding the provisions of any other statute, ordinance, interest arbitration award or collective bargaining agreement to the contrary. The Town shall reserve the right to negotiate any Medicare supplement or gap coverage for Medicare-eligible retirees, but shall not be required to provide any other healthcare benefits to any Medicare-eligible retiree or his or her spouse who has reached sixty-five (65) years of age, notwithstanding the provisions of any other statute, ordinance, interest arbitration award or collective bargaining agreement to the contrary. The Town provided benefits that are provided to Medicare-eligible individuals shall be secondary to Medicare benefits. Nothing contained herein shall impair collectively bargained Medicare Supplement Insurance.*

This ordinance shall take effect immediately upon its passage.

[Signature]
Councilperson

Approved as to form:

[Signature]
Town Solicitor

Ordinance 2011-24

Date of passage **October 11, 2011**

Aye

Eileen Fuoco
District 1

Aye

Ernest F. Pitochelli
District 2

Aye

David J. Santilli
District 3

Abstained

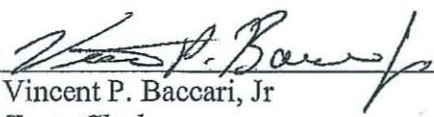
Stephanie P. Manzi – Vice President
District 5

Aye

Robert V. Russo – President
District 4

Approve Veto


Joseph M. Polisena
Mayor

Attest: 
Vincent P. Baccari, Jr
Town Clerk

Date 10/15/11



Town of Johnston
State of Rhode Island and Providence Plantations

Ordinance 2011- 1

2/17/11
revised
as Amended
attest. *[Signature]*

**“AN ORDINANCE AMENDING CHAPTER 47 OF THE
TOWN OF JOHNSTON CODE OF ORDINANCES”**

**ARTICLE VII, CHAPTER 47
TOWN OF JOHNSTON FIRE FIGHTER AND POLICE OFFICER PENSION FUND**

Section 47-38. Establishment; effective date.

The Town of Johnston (hereinafter the “Town”) Fire Fighter and Police Officer Pension Fund (hereinafter the “Fund”) is hereby established for the purpose of providing retirement pension benefits, survivors’ benefits and other benefits for fire fighters and police officers of the Town, pursuant to the provisions of the applicable state law and the Town Charter. The effective date of the Fund shall be upon final passage of this Ordinance, and shall affect all active employees and members of the Town retirement system for both the fire and police departments as such individuals are defined herein, with the exception of those members currently enrolled in the Rhode Island Municipal Employees’ Retirement System (“MERS”). Any and all ordinances and parts thereof inconsistent herewith are hereby repealed.

Section 47-39. Retirement Board—Established; composition; terms; vacancies; oath; general management of the Fund; and jurisdiction.

(a.) The Fund created by this article shall be construed to be a trust, separate and distinct from all other entities. The responsibility for the direction and operation of the Fund and for making effective the provisions thereof is hereby vested in a retirement board (hereinafter the “board”). The board shall consist of seven (7) members, who shall be elected according to the rules of election to be adopted by the board, as follows:

- (1) One (1) member representing the Town, who shall be the Director of Finance.
- (2) One (1) police officer who is a member of the IBPO, Local 307, having at least ten (10) years of credited service, and shall be selected by the IBPO, Local 307.
- (3) One (1) fire fighter who is a member of the IAFF, AFL-CIO, Local 1950, having at least ten (10) years of credited service, and shall be selected by the IAFF, AFL-CIO, Local 1950.
- (4) Two (2) members shall be designees of the Town Council.
- (5) Two (2) members shall be designees of the Mayor.

(b.) Each member of the board shall serve for two (2) years and shall continue in office until his/her successor is appointed and qualified. Upon the initial appointment, one (1) appointee of the Mayor and one (1) appointee of the Town Council will serve a one (1) year term, and the second appointee will serve a two (2) year term. Any member who is a fire fighter or police officer shall be disqualified to serve in that capacity upon termination of service with the Town. If a vacancy occurs for a member's position on the board, the vacancy shall be filled for the unexpired term in the same manner as the office was previously filled.

(c.) Each member shall take an oath that, so far as it devolves upon him/her, he/she will diligently and honestly administer the affairs of the board and that he/she will not knowingly or willfully permit to be violated any of the provision of this article applicable to the Fund. Such oath shall be subscribed by the member making it, certified by the officer before whom it is taken and immediately filed with the Town clerk. A member shall be deemed to have qualified for membership on the board when such oath shall have been filed.

(d.) Subject to the limitations of the pension plans, the board shall, from time to time, establish rules and regulations for the administration of the Fund and to implement the provisions of this article as may be required. It shall hold regular meetings at least quarterly in each year and such special meetings as may be necessary. The annual meeting shall be held in the month of January of each year. All meetings shall be open to the public and a record of the proceedings of all meetings shall be kept by the board.

(e.) Each member shall be entitled to one (1) vote on the board, and the concurrence of four (4) members shall be necessary for a decision at any regular or special meeting.

(f.) No members shall be employed in the Actuarial or Investment Service Industry.

(g.) The board shall have exclusive original jurisdiction over all matters relating to or affecting the Fund including all claims for benefits and refunds, and its actions, decisions or determinations in any matter shall be reviewable according to law.

Section 47-40. Same—Officers and their duties.

The board shall have the following officers, whose duties shall be prescribed by the bylaws to be adopted by the board;

(a.) A chair, vice-chair and secretary shall be elected from among its members;

(b.) The director of finance shall be the treasurer of the Fund and have custody of its monies and securities; all disbursements by the Fund shall be made by the director of finance upon authorization of the board;

(c.) The town solicitor, ex officio, shall be legal counsel to the board and shall represent the board in all litigation affecting the Fund, and shall be responsible for conducting any and all investigations regarding administration of the Fund and its members;

(d.) A medical director shall be appointed to advise the board on medical questions pertaining to claims received by the board and on any other matters requiring medical advice that may arise in the administration of the Fund. The medical director shall not be a resident of the Town of Johnston.

Section 47-41. Authority to engage actuarial, investment and other services.

The board may engage such actuarial, investment, administrative and other services as may be required or deemed advisable to transact the business of the Fund, subject to the advice and consent of the Town Council

Section 47-42. Membership.

Membership of the Fund shall include:

(a.) All present employees of the fire department or the police department of the Town on the effective date having previously been sworn in as a fire fighter or police officer, including those on probationary status, and all members of the retirement system for the fire department and police department.

(b.) Any person who is temporarily absent on the effective date due to sickness or disability and any person on approved leave of absence on such date for any cause shall be considered as being an employee on the effective date, provided that such leave shall not have extended for more than one (1) year continuously, except in the case of military service.

(c.) Membership shall not include: (1) civilian employees of the fire department or police department of the Town; (2) persons privately employed as fire fighters or police officers; and (3) persons temporarily employed as fire fighters or police officers, except interim employees engaged in time of war.

Section 47-43. Method of Funding.

(a.) Beginning as of the effective date, each member shall contribute, as his/her share of the cost of the pension benefits and benefits prescribed in this article, the amount provided for in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the member's respective employment with the Town. These contributions shall be made in the form of a deduction from salary notwithstanding that the salary paid in cash to such member shall be reduced thereby below the minimum prescribed by law. Each member shall be deemed to consent to such deductions, and payment to a member of salary less deductions shall constitute a full and complete discharge and acquittance of all claims and demands whatsoever for the services rendered by such member during the period covered by the payment, except as to the benefits provided in this article.

(b.) For service rendered after the effective date, the Town shall make contributions concurrently with the contributions by the members in the amount set forth in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the member's respective employment with the Town.

(c.) The board shall make annual recommendations to the Town regarding contribution rates to the Fund by members and the Town.

(d.) Pursuant to the provisions of the United States Internal Revenue Code, including but not limited to Section 414(h)(2), the Town shall pick up and pay the contributions which

would be payable by the members under subsection (a) above. The contributions so picked up shall be treated as employer contributions in determining tax treatment under the United States Internal Revenue Code. Member contributions which are picked up pursuant to this subsection shall be treated and identified as member contributions for all purposes of the system except as specifically provided to the contrary in this subsection.

Member contributions made pursuant to this subsection shall be credited to a separate fund within a member's individual account so that the amounts contributed prior to the effective date for the pick-up of member contributions may be distinguished from the amount contributed on or after such date.

Section 47-44. Contribution rates.

(a.) *Determination.* The Town plans and intends to maintain this Fund on a sound actuarial basis in accordance with generally accepted accounting and actuarial practice so that, insofar as practicable, two-thirds of the cost of this Fund will be paid by the Town and one-third of such cost will be paid by the contributions from members to whom the terms of this article apply. Such contribution rates shall be determined on the basis of such mortality, interest and other actuarial assumptions as shall be adopted by the board, subject to approval of the Town Council. For this purpose, the board may employ an actuary, an individual or a firm, at least one of whose employees is a member of the Society of Actuaries, and such other assistance as it shall deem expedient to assist in determining the cost of benefits provided hereunder and the corresponding contribution rates of members and officers.

(b.) *Member contributions.* Commencing upon final passage of this Ordinance, the percentage of the annual salary paid to each member participating in this Fund shall be deducted and placed in the Fund, in accordance with the employee contribution terms set forth in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the respective member's employment with the Town.

(c.) *Town contributions.* Commencing upon final passage of this Ordinance, the percentage of the annual salary paid to each member participating in this Fund shall be contributed by the Town and placed in the Fund, in accordance with the contribution terms set forth in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the respective member's employment with the Town.

(d.) *Periodic review.* At least once every two (2) years, the board shall be required to have made an actuarial study of this Fund in order to review the experience under the retirement plan and to determine what revision, if any, is required in the contribution rates established hereunder to maintain the Fund on a sound actuarial basis with the Town contributing two-thirds and the members one-third of the cost of the plan benefits.

Section 47-45. Accounting generally.

(a.) The assets of the Fund shall be held for the express purposes set forth in the provisions of this article subject to the conditions prescribed in this section. An adequate system of accounts and records shall be established and maintained that will give effect to the requirements of this article. All assets of the Fund shall be credited to designated reserve accounts according to the purposes for which they are held, as follows:

(1) Members' contribution reserve.

a. That portion of the amounts contributed by members to the Fund on or after the effective date, representing the employee contribution rates set forth in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the respective member's employment with the Town.

b. Upon retirement for service or disability, the accumulated contributions to the credit of the member shall be transferred from this reserve to the retirement reserve. Refunds of member contributions paid upon separation or death of a member shall be charged to this reserve.

c. Member contributions picked up by the Town shall be paid from the same source of funds used for the payment of compensation to a member. A deduction shall be made from a member's compensation equal to the amount of his/her contributions picked up by the Town. This deduction, however, shall not reduce his/her compensation for purposes of computing benefits under the system pursuant to this section.

(2) Town contribution reserve. All amounts contributed by the Town in accordance with the provisions hereof, except contributions for administrative expense, shall be credited to this reserve.

a. All income from investments, including gains from investment transactions, shall be credited to this reserve. All losses on investments and amounts required for interest on the other reserves shall be charged hereto.

b. Upon the granting of any pension for service, disability or death, an amount representing the excess of the actuarial value of the pension over the accumulated contributions of the member shall be transferred from this reserve to the retirement reserve.

c. If at the close of any year it shall be determined by actuarial valuation that the balance in the retirement reserve is insufficient to meet the liability for pension benefits chargeable thereto, an amount equal to such deficiency shall be transferred from this reserve to the retirement reserve.

(3) Retirement reserve. Upon the granting of any pension for service, disability or death, the accumulated contributions of the member in his/her individual account and an amount representing the actuarial value of the member over such accumulated contributions shall be transferred from the members' contribution reserve and Town contribution reserve, respectively. Hereafter, all payments by the system on account of any pension shall be charged to this reserve.

(4) Administrative expense reserve. Amounts contributed by the system for administrative expense shall be credited to this reserve. All expenses of administration of the Fund shall be charged to this reserve. The board shall certify to the Town annually the amount of its requirements for administrative expenses. To provide for the initial expenses incident to the organization and establishment of the Fund, the Town shall contribute, upon the adoption of this article, a sum estimated by the board as being necessary for that purpose.

(5) Actuarial studies. An actuarial study of the operating experience of the Fund, as a check of the mortality, turnover, disability, interest and other actuarial factors assumed in calculations of

liabilities and costs shall be made at least once every two (2) years by an actuary engaged by the board. An annual actuarial valuation shall be completed as of the close of each fiscal year for the purpose of establishing the financial condition of the system and as a check on the adequacy of the reserves of the Fund.

(b.) Any excess balance in the retirement reserve as determined by actuarial valuation shall be applied to reduce the Town's contributions in the succeeding year, and deficiency in the retirement reserve, which shall be charged to the Town contribution reserve, shall be removed by an increase in the Town's contribution rate for the succeeding fiscal year. Such adjustments as may be required in this or any other reserve shall be made upon recommendation of the actuary.

Section 47-46. Custodian of fund; deductions from pay.

The finance director or a designee of the Mayor shall be custodian of said pension Fund and is hereby authorized and directed, effective upon final passage of this ordinance, to deduct in weekly installments from the annual salary paid to each member of the fire department and the police department, the percentage of his/her salary specified herein and to put the same in this Fund. All of the monies coming from the various sources which the Town finance director is hereby authorized to receive shall be known as the Town of Johnston Fire Fighter and Police Officer Pension Fund. Said Fund shall be kept separate and apart from all other monies in his/her care and he/she shall pay semimonthly from said Fund to the beneficiaries thereof such sums as are hereinafter provided.

Section 47-47. Investment of fund assets; accounting.

Subject to the approval of the Town Council, the Town finance director shall invest said funds and shall add the interest, dividends and other income from such investments to said Fund. The finance director shall keep accurate books of account of said Fund and shall allow the Mayor, the Town Council and the board to inspect his/her books of said Fund at any time. The finance director shall make an annual report in writing at the end of each fiscal year to the Mayor, the Town Council and the board.

Section 47-48. Eligibility for retirement; retirement allowance.

(a.) Any fire fighter or police officer, after serving twenty (20) continuous years, or as otherwise may be provided in the recognized collective bargaining agreement applicable to said member, may apply to the board to be placed on the pension list.

Thereafter said retiree shall be entitled to an annual pension equal to the amount provided for in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the respective member's employment with the Town at the time of his/her application to the board. In the event said member does not apply to be placed on the pension list within thirty (30) days of eligibility, the board may, at its discretion, place said member on the pension list.

(b.) Effective upon final passage of this Ordinance, the retirement allowance for a member retiring under this section will be the percentage set forth in the recognized collective bargaining agreement negotiated between the Town and the exclusive bargaining agent for the fire department, or police department depending on the respective member's employment with the Town at the time of his/her application to the board for retirement.

Section 47-49. Buyback of military service.

(a.) At the time of his/her retirement, any member of the fire department or police department who is eligible to retire and who had previously been honorably discharged from service with the armed forces of the United States will be eligible to buy back up to the number of years additional service as provided for in the recognized collective bargaining agreement applicable to said member, by contributing to the fund an additional percentage of his/her highest year's pay, equal to the annual contribution rate prevailing at the time of the member's retirement plus interest, for each year of service purchased. In no event will a member who has completed fewer than twenty (20) years of service be eligible to buy back service.

(b.) A member eligible to purchase service under subsection (a) of this section has the option to buy up to the number of years additional service, as provided for in the recognized collective bargaining agreement applicable to said member, in six-month increments, but no more than the number of his/her full years of military service.

Section 47-50. Administration of disability pensions.

(a.) The determination of disability from any cause, whether service connected or non-service connected, shall be made upon the basis of reports on examinations made by three (3) physicians consisting of a physician selected by the Town, a physician employed by the board as provided for in Section 47-40(d), and a third physician to be selected by the other two (2) physicians. A majority decision by the selected physicians must be reached with regard to determination of disability, and the member shall be provided a written determination of the decision within sixty (60) days after the date that the board has received all three (3) physicians' reports.

(b.) If a member applying to the board for a non-service connected disability is determined by the selected physicians not to be disabled, the board shall determine by a majority vote whether the individual can be placed back into service.

(c.) A member of the fire department or police department on disability, whether service connected or non-service connected, shall be required to submit to an examination at least one (1) time per year by a physician appointed by the board to establish that the member is incapacitated for service as a fire fighter or police officer and is entitled to continue to receive a disability pension. The board may cancel a disability pension upon evidence that the member is no longer disabled for such service. If such cancellation occurs and the member does not reenter service, he shall be entitled to a refund of the excess, if any, of the contributions made by the member, including interest, over the amounts received by the member on the disability pension. Should a retiree refuse to submit to such medical examination, his/her pension may be discontinued until his/her withdrawal of such refusal, and, should his/her refusal continue for one (1) year, all rights in and to his/her pension may be revoked by the board.

(d.) If a medical examination or an investigation made by the board discloses that a member is engaged or is able to engage in any gainful occupation, payment of the disability pension shall be discontinued or reduced to an amount which, when added to the member's income from such gainful occupation, shall not exceed 50% of the rate of his/her salary in effect at the date of disability. The term "salary" is defined as a member's base pay as of the date of his/her disability.

(e.) Any member receiving a disability pension shall be required to submit to the board at least once each year a sworn written report of his/her earned income for the preceding twelve (12) months on a form supplied by the board, together with supporting data as may reasonably be required. Any adjustment in disability pension payments as aforesaid shall be based upon such statements of income. A disability pension shall be suspended if such statement discloses income from a gainful occupation equal to or in excess of the aforesaid amount, but shall be resumed when such condition has changed.

Earned income is defined as amounts received as compensation for services rendered. The member's pension amount for the following twelve (12) months after the filing of the report of earned income shall be reduced dollar for dollar by any amount the actual earned income exceeded the salary paid to a permanent member with the same rank and seniority on active duty at the time such reports are filed. However, in no event shall any member on a disability pension receive an annual sum less than 50 % of his/her salary in effect at the date of disability.

(f.) Should a retired employee receiving a disability pension again become an active employee for the Town, his/her disability retirement pension shall cease and he/she shall immediately become a member of the retirement system as of the date of his/her reemployment. His/her creditable service at the time of his/her disability retirement shall be restored in full force and effect. Reentry into service shall be at the discretion of the board.

Section 47-51. Effect of worker's compensation payments or personal injury recovery payments on disability payments.

Any amounts paid or payable under the provisions of any worker's compensation law, or as the result of any action for damages for personal injuries against a third party on account of death or disability of a Town employee occurring while in the performance of duty, shall be offset against and payable in lieu of any benefits payable out of funds provided by the Town for death or disability payments to the employee.

Section 47-52. Service-connected disability.

(a.) A member incurring disability resulting from an act of duty and determined to be totally disabled, in accordance with Section 47-50(a), shall be entitled to a service connected disability pension equal to 66 2/3% of his or her rate of salary in effect at the date of disability. The term "salary" is defined as a member's base pay as of the date of his/her disability.

(b.) A member incurring disability resulting from an act of duty and determined to be partially permanently disabled, in accordance with Section 47-50(a), shall be entitled to a service connected disability pension that shall not exceed 50% of the rate of his/her salary in effect at the date of disability. The term "salary" is defined as a member's base pay as of the date of his/her disability. The term "partially permanently disabled" is defined as an individual who is disabled to perform his/her duties as a fire fighter or police officer, based upon his/her employment with the Town, but who has not been determined to be totally disabled.

Section 47-53. Nonservice-connected disability.

(a.) When any member of the fire department or police department shall become permanently unfit for duty as a result of a nonservice-connected injury or disease and is therefore placed by the board on the pension list, said member shall receive an annual sum of 50% of

his/her highest salary, which will be paid in semimonthly payments. The term "salary" is defined as a member's base pay.

(b.) Nonservice-connected disability shall be considered total and permanent if it results in some impairment of mind or body that substantially precludes a member from performing with reasonable regularity the substantial and material parts of any gainful work or occupation that he would be competent to perform were it not for the fact that the impairment is founded upon conditions which render it reasonably certain that it will continue indefinitely.

(c.) The disability pension shall be payable during continuing disability of the member, provided that if the credited service of the member at the commencement of disability was twenty (20) years or more, the member shall receive upon attainment of age 55, in lieu of the nonservice-connected disability pension, a service retirement pension as prescribed in this article.

(d.) Should a member recover from disability and reenter the service of the Town as a fire fighter or police officer and render at least three (3) years of continuous service thereafter, he/she shall be credited for service retirement disability pension purposes with the periods of time during which he/she shall have received a nonservice-connected disability pension. Otherwise, such member reentering service shall not be entitled to a service credit for the period of such disability.

(e.) Disability incurred while in military service shall not be considered for the purposes hereof.

(f.) A nonservice-connected disability shall begin to accrue upon the expiration of 90 days following commencement of disability, provided that the member received salary for a period of more than 90 days, the disability pension shall begin to accrue from the date salary ceased. If written application for the disability pension shall not have been filed with the board prior to the expiration of 90 days from date of disability, the disability pension shall begin to accrue from the date application therefor has been filed, but, not in any event prior to the time when payments to the member on account of salary have ceased.

Section 47-54. Service-connected death.

The terms provided in this Section shall not be effective until the current recognized collective bargaining agreement negotiated by the Town and the exclusive bargaining agent for the fire department, or police department depending on the member's respective employment with the Town, has expired. Until said expiration the terms provided in said recognized collective bargaining agreement shall apply. After expiration of said recognized collective bargaining agreement, the following terms shall apply:

(a.) Upon death of a member in the line of duty, which is deemed to qualify for a benefit pursuant to the federal Public Safety Officers' Death Benefit Act, regardless of the age or length of service of the member, a surviving spouse shall be entitled to an pension equal to 50 percent of the member's rate of salary at the date of his/her death. The term "salary" is defined as a member's base pay as of the date of his/her date of death.

(b.) If no widow survives, each minor child under 18 years of age shall be entitled to fifteen percent (15%) of such member's salary, subject to a limitation for the combined payments to children equal to sixty percent (60%) of such salary.

(c.) In the event that either of the foregoing limitations is exceeded, the pensions shall be prorated to conform to the applicable limitation.

(d.) If minor children under age 18 survive the member, the widow shall receive on account of each minor child an additional ten percent (10%) of the member's salary. The combined payments to a widow and children shall in no event exceed seventy percent (70%) of such member's salary.

(e.) The pension payment to a widow shall be payable during widowhood. Minor children shall be eligible for pension payments until their attainment of 18 years of age, death or marriage, whichever occurs first.

(f.) Any pension payment payable to a beneficiary hereunder shall be reduced by the Town by the amount of the workmen's compensation benefit.

Section 47-55. Nonservice-connected death.

The terms provided in this Section shall not be effective until the current recognized collective bargaining agreement negotiated by the Town and the exclusive bargaining agent for the fire department, or police department depending on the member's respective employment with the Town, has expired. Until said expiration the terms provided in said recognized collective bargaining agreement shall apply. After expiration of said recognized collective bargaining agreement, the following terms shall apply:

Upon death of a member due to any cause other than an act of duty occurring while a member is in service, on sick leave with salary, on an approved leave of absence extending not more than six (6) months continuously or while in receipt of a service retirement pension or nonservice-connected disability pension, if such member shall have at least three (3) years of credited service, his surviving widow shall be entitled to a pension payment. The pension payment shall be equal to thirty percent (30%) of the member's final salary, increased one percentage point for each year of credited service above the three (3) years, up to a maximum amount equal to fifty percent (50%) of his/her final salary. The term "final salary" is defined as a member's base pay as of the date of his/her date of death. Eligibility for such pension payment shall be subject to the following conditions:

(1) The widow shall have been married to the member at least one (1) year prior to the date of death of the member or prior to the date of retirement on a nonservice-connected disability pension; whichever occurs first and in any event while the member was in service.

(2) The widow shall be at least 55 years of age, otherwise commencement of payments on the pension shall be deferred until the widow attain such age.

(3) The pension shall terminate in any event upon remarriage, and any change in marital status thereafter shall create no rights for the widow to any pension or any other payment from the Fund.

(4) The minimum payment to a widow in any case shall be thirty percent (30%) of average final salary, and the maximum shall be fifty percent (50%) of such final salary.

(a.) If a widow has an unmarried minor child in her care under 18 years of age, payment of the widow's pension shall begin immediately regardless of whether the widow shall have attained age 55. In such a case, the pension for the widow shall be increased ten percent (10%) of the member's final salary on account of each such minor child, provided that the maximum payment on account of a widow and children shall not exceed sixty percent (60%) of final salary. If such limitation is exceeded, all pension benefits shall be prorated to conform therewith.

(b.) Payments on account of minor children shall terminate upon their attainment of 18 years of age, death or marriage, whichever first occurs. If a widow remarries, the pension on account of each minor child shall be increased to fifteen percent (15%) of the member's final salary, subject to a limitation of fifty percent (50%) of the member's final salary to all minor children.

(c.) Should payments on account of minor children terminate before the widow attains age 55, the pension to the widow shall be suspended until the widow attains age 55.

(d.) Minor children shall include children of the blood and adopted children, provided that the proceedings for adoption shall have been initiated at least one (1) year prior to the date of death of the member.

Section 47-56. Refund of contributions.

The terms provided in this Section shall not be effective until the current recognized collective bargaining agreement negotiated by the Town and the exclusive bargaining agent for the fire department, or police department depending on the member's respective employment with the Town, has expired. Until said expiration the terms provided in said recognized collective bargaining agreement shall apply. After expiration of said recognized collective bargaining agreement, the following terms shall apply:

(a.) Any member withdrawing from service prior to retirement shall be entitled to a refund, in a single sum, of the amount of his/her contributions to the system, without interest. The payment of a refund under the provisions hereof shall automatically effect a waiver and forfeiture of all accrued rights and benefits in the system on the part of any member. The board may, in its discretion and regardless of cause, withhold payments of a refund for a period not to exceed one (1) year after receipt of an application therefor.

(b.) Any member who has received a refund shall be considered a new member upon subsequent reemployment, provided that if such member shall render at least three (3) years of service following his/her latest reentry into service, he/she shall be entitled to regain his/her previously forfeited service credits upon repayment of all amount received as refunds, including regular interest from dates of refunds to date of repayment. The time and manner of making such repayments shall be fixed by the board.

(c.) Upon death of a member leaving no survivors eligible for pension from the system, his/her accumulated contributions in the system, without interest, shall be paid in a single sum to such person as he/she shall nominated by written designation duly executed and filed with the board. If no such designation shall have been made, payment shall be made to the legal representative.

Section 47-57. Fraud, false representation.

Any person who knowingly makes any false statement or falsifies or permits to be falsified any record of this system in any attempt to defraud the Fund is guilty of a misdemeanor. The Fund and the Town shall have the right to recover by setoff or otherwise any payments made under false representations. If any such person shall be a member of the Fund or the beneficiary of a member, he or she shall forfeit all rights to further participation in any of the benefits hereunder.

Section 47-58. Honorable service; revocation or reduction of benefits of employees committing crime related to employment.

(a.) *General Provisions.*

(1) Payment of an employee's pension benefit or other benefits or payments as provided for herein shall be for honorable service only.

(2) For purposes of this section, "crime related to his/her employment" shall mean any of the following:

- a. the committing, aiding or abetting of an embezzlement of a public fund;
- b. the committing, aiding or abetting of any felonious theft by a employee from his/her employer;
- c. bribery in connection with employment of a public employee; and
- d. the committing of any felony by a employee who willfully, and with the intent to defraud, realizes or obtains, or attempts to realize or obtain, a profit, gain, or advantage for himself or herself or for some other person through the use or attempted use of the power, rights, privileges, duties, or position of his/her office or employment.

(3) For purposes of this section, "pleads guilty or nolo contendere" shall include all pleas of guilty or nolo contendere.

(4) For purposes of this section, "employee" shall mean any current or former member of the fire department or police department.

(b.) *Revocation or reduction authorized.* Notwithstanding any other provision of law, any pension benefit or other benefits or payments to which an employee is otherwise entitled to under this chapter shall be revoked or reduced in accordance with the provisions of this section if such employee is convicted of or pleads guilty or nolo contendere to any crime related to his or her employment. Any such conviction or plea shall be deemed to be a breach of the employee's collective bargaining agreement with his/her employer.

(c.) *Hearing; civil action.* Whenever any employee is convicted of or pleads guilty or nolo contendere to any crime related to his/her employment, the board shall conduct a meeting, with the employee having the opportunity to be heard, to determine if a recommendation of revocation or reduction of pension benefit or other benefits or payments of any kind to which the employee is otherwise entitled to under this chapter is warranted. If the board determines that revocation or reduction of any pension benefit or other benefits or payments of any kind to which the employee is otherwise entitled under this chapter is warranted, the board shall initiate a civil action in the superior court for the revocation or reduction of same.

(d.) *Return of payroll deducted contributions when benefits are revoked.* Any employee whose pension benefit or other benefits or payments of any kind are revoked pursuant to this section shall be entitled to a return of his/her payroll deducted contribution, without interest.

(e.) *Return of payroll deducted contributions when benefits are reduced.* Any employee whose pension benefit or other benefits or payments of any kind are reduced pursuant to this section shall be entitled to a pro rata return of a portion of his/her payroll deducted contribution, in an amount proportionate to the amount of any such reduction, without interest.

Section 47-59. Public Records.

All records relating to the Fund and the membership therein shall be deemed public records and available for review upon the filing of a written public records request to the board.

Section 47-60. Severability.

If any provision of this Ordinance is determined to be unconstitutional or otherwise invalid, the remaining provisions of this Ordinance shall not be affected thereby.

This Ordinance shall take effect immediately upon its passage.

Ernest Petroschelli

Councilperson

Approved to form:



Town Solicitor

Ordinance 2011-1

Date of passage **February 17, 2011**

_____ Aye
Eileen Fuoco
District 1

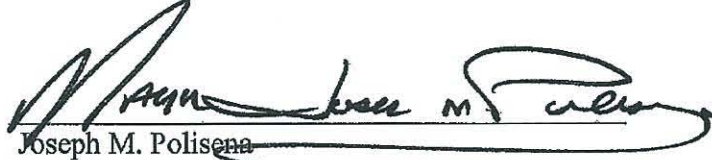
_____ Aye
Ernest F. Pitochelli
District 2


_____ Aye
David J. Santilli
District 3

_____ Aye
Stephanie P. Manzi – Vice President
District 5

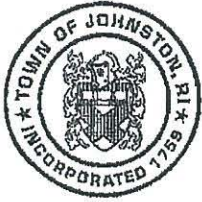
_____ Aye
Robert V. Russo – President
District 4

Approve Veto


Joseph M. Polisena
Mayor

Attest: 
Vincent P. Baccari, Jr
Town Clerk

Date 2/18/11



Town of Johnston
State of Rhode Island and Providence Plantations

Ordinance 2011- 32

ADOPTED
DATE 1/24/11
[Signature]

“AN ORDINANCE AMENDING SECTION 47-61 OF THE TOWN OF JOHNSTON CODE OF ORDINANCES”

Ordinance 2011-1 of the Town of Johnston Code of Ordinances is hereby amended by adding the following Section 47-61 entitled, “Appeals” thereto:

The Town Council of the Town of Johnston hereby ordains:

Section 47-61. Appeals.

Appeals of decisions of the board shall be taken in accordance with the Administrative Procedures Act of the Rhode Island General Laws.

This Ordinance shall take effect immediately upon its passage

David Santilli

Councilperson

Approved to form:

[Signature]

Town Solicitor

Ordinance 2011-32

Date of passage **December 12, 2011**

Absent

Eileen Fuoco
District 1

Aye

Ernest F. Pitochelli
District 2

Aye

David J. Santilli
District 3

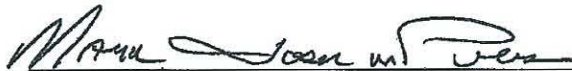
Aye


Stephanie P. Manzi – *Vice President*
District 5

Aye

Robert V. Russo – *President*
District 4

Approve Veto


Joseph M. Polisena
Mayor

Attest: 
Vincent P. Baccari, Jr
Town Clerk

Date 12/15/2011



Town of Johnston
State of Rhode Island and Providence Plantations

Ordinance 2012- 3

ADOPTED
DATE 3/12/12
W. B. B...

**“AN ORDINANCE AMENDING SECTION 47-50 OF THE TOWN OF
JOHNSTON CODE OF ORDINANCES”**

Section 47-50, subsections (a), (b) & (c) of the Town of Johnston Code of Ordinances entitled
“Administration of disability pensions” is hereby amended as follows:

The Town Council of the Town of Johnston hereby ordains:

Section 47-50. Administration of disability pensions.

(a.) The determination of disability from any cause, whether service connected or non-service connected, shall be made upon the basis of reports on examinations made by three (3) physicians consisting of a physician selected by the Town, a physician ~~employed by the board as provided for in Section 47-40(d)~~ selected by the member, and a third physician to be selected by the other two (2) physicians. If the Town and member’s physicians cannot agree on a third neutral physician, the third physician will be selected from a list maintained by a third party administrator hired by the Town. The three (3) physicians must each specialize in the area of medicine related to the member’s alleged disability.

A majority decision by the selected physicians must be reached with regard to determination of disability. A copy of each of the three (3) physicians’ medical reports shall be provided to the medical director and the board within sixty (60) days of the medical examination of the disability retirement applicant. Based upon its review of the three (3) physicians’ medical reports, the board shall vote weather the applicant is entitled to a service connected or to a non-service connected disability pension related to a single incident, and The member shall be provided a written determination of the board’s decision within sixty (60) days after the date that the board has received all three (3) physicians’ reports.

(b.) If a member applying to the board for a non-service connected disability is determined by a majority of the three (3) selected physicians not to be disabled, the board shall determine by a majority vote whether the individual can be placed back into service.

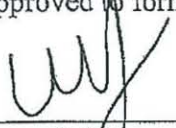
(c.) A member of the fire department or police department on disability, whether service connected or non-service connected, shall be required to submit to an examination at least one (1) time per year by a physician ~~appointed~~ selected by the board to establish that the member is incapacitated for service as a fire fighter or police officer and is entitled to continue to receive a disability pension every year for the first five (5) years following the member's initial disability determination and every other year thereafter. The board may cancel a disability pension upon evidence that the member is no longer disabled for such service. If such cancellation occurs and the member does not reenter service, he shall be entitled to a refund of the excess, if any, of the contributions made by the member, including interest, over the amounts received by the member on the disability pension. Should a retiree refuse to submit to such medical examination, his/her pension may be discontinued until his/her withdrawal of such refusal, and, should his/her refusal continue for one (1) year, all rights in and to his/her pension may be revoked by the board.

This Ordinance shall take effect immediately upon its passage.

Ernest Pitochelli

Councilperson

Approved to form:



Town Solicitor

Ordinance 2012-3

Date of passage **March 12, 2012**

Aye
Eileen Fuoco
District 1

Aye
Ernest F. Pitochelli
District 2


Aye
David J. Santilli
District 3

Aye
Stephanie P. Manzi – *Vice President*
District 5

Aye
Robert V. Russo – *President*
District 4

Approve Veto


Joseph M. Polisena
Mayor

Attest: 
Vincent P. Baccari, Jr
Town Clerk

Date 3/14/12



Town of Johnston
State of Rhode Island and Providence Plantations

Ordinance 2011- 5

ADOPTED
6/13/11
Attest: *[Signature]*

“AN ORDINANCE AMENDING SECTION 47-39 OF THE TOWN OF JOHNSTON CODE OF ORDINANCES”

Section 47-39 of the Town of Johnston Code of Ordinances entitled “Retirement Board— Established; composition; terms; vacancies; oath; general management of the Fund; and jurisdiction” is hereby amended by removing therefrom Sections 47-39 a. 2 and 3 in their entirety and adding Sections 47-39 a. 2 and 3 thereto as follows:

The Town Council of the Town of Johnston hereby ordains:

- (2) One (1) police officer who is a member of the IBPO, Local 307, having at least five (5) years of credited service, and shall be selected by the IBPO, Local 307.
- (3) One (1) fire fighter who is a member of the IAFF, AFL-CIO, Local 1950, having at least five (5) years of credited service, and shall be selected by the IAFF, AFL-CIO, Local 1950.

This Ordinance shall take effect immediately upon its passage.

Ernest Pirochelli

Councilperson

Approved to form:

[Signature]

Town Solicitor

Ordinance 2011-5

Date of passage June 14, 2011

Aye
Eileen Fuoco
District 1


Aye
Ernest F. Pitochelli
District 2

Aye
David J. Santilli
District 3

Aye
Stephanie P. Manzi – *Vice President*
District 5

Aye
Robert V. Russo – *President*
District 4

Approve Veto


Joseph M. Polisena
Mayor

Attest: 
Vincent P. Baccari, Jr
Town Clerk

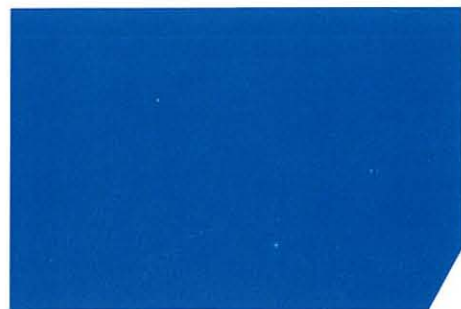
Date 6/14/11

**TOWN OF JOHNSTON,
RHODE ISLAND POLICE AND
FIREFIGHTER PENSION SYSTEMS**

Actuarial Experience Review

July 1, 2007 to June 30, 2011

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March 30, 2012

Board of Trustees
Town of Johnston, Rhode Island
Police and Firefighters Pension Systems
Johnston, Rhode Island

Dear Board Members:

We are pleased to present this report on our actuarial experience investigation of the Police and Firefighters Pension Systems covering the period from July 1, 2007 to June 30, 2011.


Based on our analysis of the plan's actuarial experience for the period, we offer for the Board's consideration certain changes in the actuarial assumptions and amortization method. We encourage the Board's comments and input on this study as we consider modifications to the actuarial assumptions and methods used to value the plan.

This study was performed under the supervision of Ms. Jeanette R. Cooper with the assistance of Mr. Malichi Waterman and Ms. Jody Martin.

To the best of our knowledge, this report is complete and accurate and the calculations were performed in accordance with generally accepted actuarial principles and practices. The supervising actuary is a member of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meets their "General Qualification Standards for Prescribed Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Sincerely,


William Connolly, FCA, MAAA, EA
Consulting Actuary


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

Benefits, Compensation and HR Consulting Offices throughout the United States and Canada



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I. Executive Summary

A. Introduction

The annual actuarial valuations for the Town of Johnston, Rhode Island Police and Firefighters Pension Systems (“Plans”) provide projections of future benefit payments for all current participants based upon actuarial assumptions adopted by the Board that are discounted to the valuation date. The actuarial valuation methods are tools that develop long-term budget patterns to assure necessary contributions are systematically deposited in the Plan so that funds are available to pay promised benefits as they come due. The methods and assumptions must comply with generally accepted actuarial principles and practices, GASB accounting standards and state law.

The assumptions and methods used in the annual actuarial valuations are adopted by the Board of Trustees, based on recommendations of the actuary and the findings of actuarial experience studies. Pursuant to current legislation for the state of Rhode Island, an actuarial experience study should be prepared at least every three years. The purpose of the study is to modify current assumptions to reflect emerging experience as well as expected experience in future years.

In reviewing this report, note that both Plans have been closed to new hires. The Firefighters System was closed to employees hired on or after July 1, 1999. The Police System was closed to new employees hired on or after July 1, 2010.

The experience study includes a complete review of all assumptions and methods used in the valuation. The assumptions can be broken down into two categories: economic and demographic assumptions. Economic assumptions include inflation, investment rate of return (or discount rate), payroll growth rates, salary scale, cost-of-living adjustments (COLAs), and administrative expenses. Demographic assumptions include mortality, turnover (or withdrawal), retirement, disability, percent married, and spousal age difference.

The methods studied include the base actuarial cost method for determining allocation of liabilities to past and future years, the asset smoothing method, and the amortization of unfunded liability.

Following the Executive Summary are additional sections which include detailed analysis, address specific issues and provide recommendations. The sections are:

- Economic assumptions;
- Demographic assumptions; and
- Actuarial methods.

Appendices at the end of the report detail all of the proposed decrement rates. A summary of the key points of our review and our recommendations follows.

B. Findings and Recommendations

At the direction of the Board of Trustees (“Board”), we have performed a review of the Police and Firefighters Pension Systems experience. As mentioned earlier, both Plans have been closed to new hires.

The experience review affords an opportunity for the Board, staff and actuary to consider how specific assumptions or methods may be affecting contribution rates and the proper funding of the Plans. We have reviewed both the economic and demographic experience of the Plans as it relates to the expected actuarial experience based on the current plan assumptions. Included are recommendations for changes in assumptions and methods that we believe will more accurately reflect the future experience of the Plans and will help to stabilize annual cost requirements from year to year.

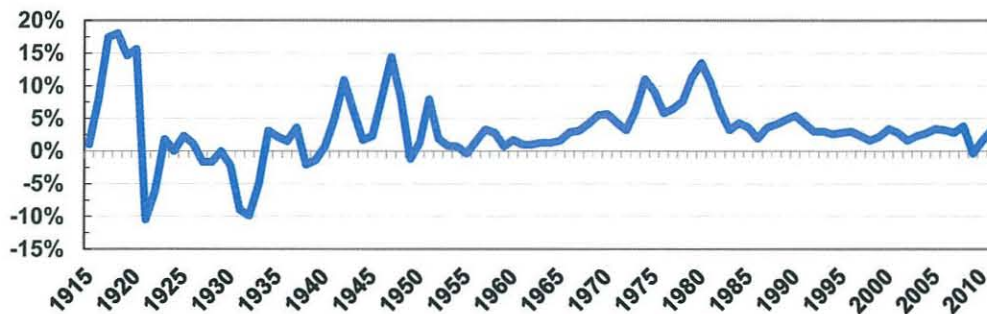
The detailed analysis of each individual assumption is discussed later in this report.

Economic Assumptions

Economic assumptions include inflation, investment rate of return (or discount rate), payroll growth rates, salary scale, and COLAs.

Inflation

Inflation continues at relatively low levels from a historical perspective, as shown in the graph below.



There is an explicit assumption for inflation in the actuarial valuation of 3.50%. The future outlook for inflation remains relatively low despite the volatile nature of energy and commodities prices. Taking into account recent experience as well as the future outlook, we recommend a decrease in the current implicit inflation assumption to a rate of 2.75%. We have also adjusted the proposed economic assumptions in conjunction with the lower inflation assumption.

We utilized the “building block” approach to develop economic assumptions. Under the “building block” approach, inflation is the basis for all economic assumptions. The investment return assumption is comprised of inflation and the expected risk premium for each asset class. The underlying salary scale assumption is composed of inflation, productivity increases, and merit increases. Finally, payroll growth is a function of the inflation and productivity components of salary scale.

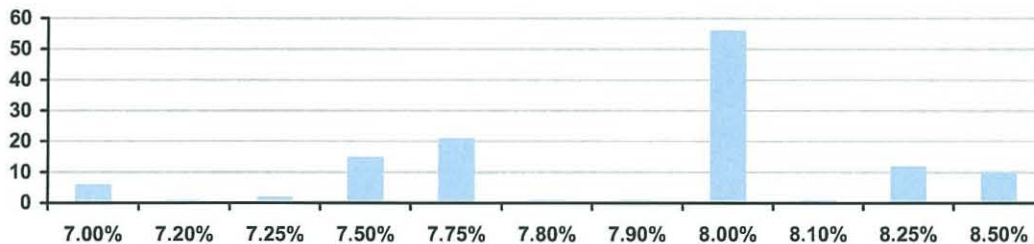
Economic Assumptions (continued)

Investment Return

The Plan has averaged a 3.91% and 4.44% investment return rate over the last five years on a market value basis for Police and Firefighters respectively. This compares to the assumption of 7.75%. Thus, on average, the plan has underperformed the assumption significantly over the last five years for both Plans.

The current 7.75% investment return assumption is not out of line with other public plans as reported by the recent National Association of State Retirement Administrators (NASRA) study shown below.

2010 NASRA Public Funds Survey Investment Return Assumption



However, the NASRA study needs to be normalized to take into account some key differences in asset allocation and asset classes. The major source of discrepancy in the investment return assumption for most public plans is the investment mix or asset allocation of the portfolio. Thus, the study results should be normalized to take into account the fund's target asset allocation (50% equities, 49% fixed income, 1% cash). Also note the NASRA survey points out that about 35% of the survey group have lowered its investment return assumption since 2001.

Given the Plan's recent investment performance, asset allocation and taking into account the uncertain short-to-mid-term outlook for stocks and bonds, we recommend lowering the investment return assumption to 7.50%. Note that this assumption is net of investment expenses. As the current actives retire and the cash flow needs of the Plans increase, we will need to consider possible further decreases in the investment return assumption. This assumption is discussed in more detail in *Section II, subsection B*.

Payroll Growth Rate

The City's current funding policy is to make payments on the Unfunded Actuarial Accrued Liability (UAAL) that are designed to increase such that they remain a level percentage of payroll (i.e., level percent of pay amortization). For the July 1, 2007, 2009, and 2011 valuations, payroll growth was set equal to the inflation assumption of 3.50%.

The payroll growth rate of 3.50% is used for determining the amortization amount of the unfunded actuarial accrued liability (UAAL). Due to both Plans being closed to new entrants, we are recommending a level dollar amortization method going forward as described in the Methods section. However, if a level dollar amortization is not used, we recommend this assumption be lowered from 3.50% to 3.25%. Thus the increase in future UAAL amortization payments would be 0.25% less. The 3.25% is composed of the recommended inflation assumption of 2.75% plus assumed productivity increases of 0.50%. Another option to consider is increasing the amortization payments by inflation instead of a payroll growth assumption.

Economic Assumptions (continued)

Salary Scale

The current salary increase assumption is a flat 4.50% annual increase regardless of age or years of service. Many plans have salary scales based on age and/or service since more rapid career progression (and highest percentage increases in salary) often occurs within the first few years of employment. We have not found this to be the case in the Johnston Police and Firefighters Plans.

While salary increases for both groups were rather flat from 2009 to 2011, the increases from the 2007 to 2009 valuations exceeded 20%. The current contracts call for minimal increases.

Since both Plans are only available to existing hires, the general increase rate in the most recent contracts is fixed, and the increases are not correlated with age, we have decided to maintain the flat increase rate. We also recognized the new contract rates, the decrease in assumed inflation, and the long-term nature of the actuarial assumptions. Therefore, we are proposing that the salary increase rate be decreased from 4.50% to 4.00%. The 4.00% increase is comprised of a 2.75% inflation increase, a 0.50% productivity increase, and a 0.75% promotional and longevity increase.

In addition to the salary increase assumption, the Firefighters Plan includes an assumption on severance pay where the severance pay is estimated as 50% of base pay at retirement. This increases the final average salary which includes overtime and other portions of total pay by 12.5%.

A similar type of assumption does not exist in the Police Plan valuation. The Police Plan benefit provisions differ in that instead of automatically increasing final year pay by severance pay, unused sick time can be counted toward additional service credits up to 240 days or as a cash reimbursement which could increase the final year pay. Our recommendation is to introduce the same assumption as is used for the Firefighters valuation as a proxy for estimating the value of sick leave pay. The impact of this change is included in the demographic changes.

Administrative Expenses

There is not a current assumption for administrative expenses. When administrative expenses are paid from the pension plan trusts, it is typical for plans to include an assumption for administrative expenses as part of the Normal Cost. The administrative expenses are not provided separately for the Firefighters Plan and the Police Plan's asset reconciliation has shown annual administrative expenses of roughly \$3,000 per year for the last two years. Our understanding from the Town is that these expenses cover the ING account balance maintenance fees. Investment expenses were not provided for either Plan.

The recommended investment return assumption of 7.50% is assumed to be net of investment expenses. Since the majority of administrative expenses are paid outside of the pension trusts, we do not recommend adding an explicit administrative expense assumption at this time. If the amount of administrative expenses paid from plan assets is shown to increase significantly over the next study period, we would likely propose an explicit administrative expense assumption in our next review.

Economic Assumptions (continued)

Cost-of-Living Adjustments

Retirees in the Firefighters Plan receive an annual COLA equal to one-half of the negotiated base pay increase for active firefighters. Based on the current 3.50% assumed payroll growth, the COLA assumption for the Firefighters valuation is 1.75%. Police Plan participants who retired prior to July 1, 2005 have this same provision while participants who retired after June 30, 2005 receive 3.00% increases compounded each year. The Police valuation uses a 1.75% assumed increase rate for participants who retired prior to July 1, 2005 and 3.00% otherwise.

Based on the payroll growth assumption decrease from 3.50% to 3.25%, we are recommending a corresponding decrease in the COLA assumption from 1.75% to 1.625%. The 3.00% fixed rate for Police participants who retired or will retire after June 30, 2005 is unaffected.

Demographic Assumptions

Demographic assumptions include mortality, turnover (or withdrawal), retirement, disability, percent married, and spousal age difference. A summary of our findings for each of the assumptions is discussed on the next few pages.

Mortality

The current assumption for healthy lives is based on mortality rates from the sex-distinct RP-2000 Combined Healthy Mortality Table (RP-2000). The current assumption for disabled lives is based on mortality rates from the sex-distinct RP-2000 Disability Retiree Mortality Table. Both of these tables were first introduced with the July 1, 2009 valuations. The actual rates of mortality among healthy lives in pay status were more than expected for both Plans although male firefighters had slightly lower mortality rates than expected. Among disabled lives in pay status, the Police Plan mortality rates were less than expected for both males and females and the Firefighters Plan mortality rates were more than expected for males and less than expected for females.

Due to the small numbers of participants in both Plans, the healthy and disabled experience is generally not considered credible. It is our understanding that the State of Rhode Island will deem the mortality assumptions reasonable if they match the assumptions used for the State of Rhode Island Municipal Employees Retirement System (MERS).

The MERS assumptions are as follows:

Healthy Mortality for Males: 115% of the RP-2000 Combined Healthy Mortality Table for Males with White Collar adjustments, projected with Scale AA from 2000

Healthy Mortality for Females: 95% of the RP-2000 Combined Healthy Mortality Table for Females with White Collar adjustments, projected with Scale AA from 2000

Disabled Mortality for Males: 60% of PBGC Table V(a) for disabled males eligible for Social Security disability benefits

Disabled Mortality for Females: 60% of PBGC Table VI(a) for disabled females eligible for Social Security disability benefits

Demographic Assumptions (continued)

In comparing the base rates of these tables to the current rates being used, at some combinations of age and gender, the MERS rates predict less deaths and in some cases more. However, in general the healthy rates predict less deaths due to the use of generational mortality. Under generational mortality, mortality rates vary by year of birth with younger participants having longer life expectancies. Scales to reflect this type of improvement are currently being refined. The healthy mortality rates in the MERS plan reflect generational improvements through the use of Scale AA. We anticipate that this scale will be updated as newer scales become available. Based on the small numbers of participants in both Plans, we are recommending using the MERS assumptions for both healthy and disabled mortality. Using the MERS mortality assumption including the generational component will increase liabilities and costs. However, future updates in mortality should have less impact going forward. The proposed healthy mortality rates without adjustment for generational mortality are shown in Appendix A. The proposed disability mortality rates are shown in Appendix B.

Turnover (Withdrawal)

Currently, no participants in either Plan are assumed to withdraw. During the four-year study period, no firefighters withdrew from the force. Two police officers withdrew during the first two years of the study period and no police officers withdrew during the last two years. Since no new hires will be eligible for either Plan, we recommend continuing the current assumption of no withdrawals.

Retirement

The current retirement rates are based on service and reflect that unreduced benefits are available to police officers at any age upon completing 18 years of service and are available to firefighters at any age upon completing 20 years of service. These rates were last updated with the July 1, 2009 valuation.

In general, the retirement rates in the Police Plan were close to expected and the actual number of retirements was only one less than expected. However, over the study period, the distribution of the retirements was slightly different than the assumption with a greater number of retirements for participants with 18 and 19 years of service and the retirement of one participant with less than 18 years of service who purchased service and was then able to retire. To reflect the higher rates at lower service levels and to account for participants who will purchase service, we recommend increasing the retirement rates at 18 and 19 years of service from 5% and 10%, respectively to 15% for both service levels and decreasing the rates at 20 to 23 years of service from 20% to 15%. We are recommending maintaining the current rates of 50% at 24 years of service and 100% at 25 years of service.

The experience for the Firefighters Plan had a similar trend but was more pronounced. For this Plan, during the study period there were six participants who purchased service who were then able to retire. Based on the experience, we are proposing increasing the retirement rate at 20 years of service from 20% to 75%, increasing the rate at 21 years of service from 20% to 50% and maintaining the 50% rates at 21 through 25 years of service with 100% retirement at 26 years of service.

See Section III, subsection C for detailed analysis and Appendix C for the proposed retirement tables.

Demographic Assumptions (continued)

Disability

During the study period, three police officers and three firefighters were reported as disabled with the overall disability rates among police officers somewhat higher than for firefighters. Currently the assumption is based on a table of unisex rates with firefighters twice as likely to become disabled as police officers. Based on the recent experience, we are recommending doubling the rates in the Police Plan valuation to match the rates in the Firefighters valuation. See Section III, subsection D for detailed analysis and Appendix D for the proposed Police Plan disability table.

Other Demographic Assumptions

Other demographic assumptions that generally impact the valuation are the percent married and the spousal age difference.

The current assumption is that 100% of participants are married and female spouses are assumed three years younger than male spouses. We were not supplied spousal information for active or retired participants. Therefore, we were not able to analyze this experience. In light of that we looked at the recommended assumption for the MERS plan. The MERS experience review includes a recommendation of an 85% married assumption but is silent on the spousal age difference. We are therefore proposing decreasing the marriage assumption from 100% to 85% and maintaining the assumption that female spouses are three years younger than male spouses.

Methods

Actuarial methods include the asset valuation method, actuarial cost method and amortization method of the unfunded actuarial accrued liability (UAAL).

Asset Valuation Method

The current asset valuation method sets the actuarial value of assets equal to market value. Using this method results in more volatile returns from year to year than if investment gains and losses were smoothed. When a plan is ongoing with new entrants coming into the plan each year, a smoothed method is typically used. A common smoothing method is to recognize each year's investment gain or loss on a straight-line basis over a period of three to five years with the resulting value constrained to be within a 10% to 20% corridor around market value. For plans where participation is frozen, this type of smoothing method is still often used. However, it is not uncommon to use market value when most of the participants are no longer accruing benefits.

Since both plans have been frozen to new entrants, we are not recommending a change in the asset method. However, the Board may wish to consider using a smoothed asset value if volatility is a concern. Note that as of July 1, 2011, 66% of all participants in the Firefighters Plan were already in pay status and 57% of all participants in the Police Plan were already in pay status.

Actuarial Cost Method

The actuarial cost method is a mechanism to orderly fund benefits over a participant's lifetime. The actuarial cost method allocates liability for service already accrued (i.e. Actuarial Accrued

Liability) and future service (i.e. Normal Cost). The current actuarial cost method is the “replacement life” Entry Age Normal actuarial cost method, which recognizes that every member that retires is likely to be *replaced* by a new member. Under this method, a normal cost is calculated for each employee which is the level annual contribution as a percent of pay required to be made from the employee’s date of hire for as long as they remain active so that sufficient assets will be accumulated to provide their benefit. The normal cost reflects current plan changes while the accrued liability is a balancing item.

Given the Plan’s desire for a stable funding pattern and ability to recognize future plan changes when made, we do not suggest a change to the actuarial cost method.

Amortization Method

The amortization method for amortizing the unfunded actuarial accrued liability (UAAL) is based on a level percent-of-pay methodology, over a closed 30-year period commencing on July 1, 1999. The payments to amortize the UAAL will remain level, in terms of covered payroll, but will increase when viewed as a dollar amount. The closed amortization period will increase the funded percentage of the Plan, if all assumptions are met, and will lead to a fully funded plan at the end of the amortization period.

Since there are no new participants entering the Plans, the contribution as a percent of payroll will continue to grow over time as the payroll for the remaining active participants continues to shrink. While we are not recommending a change in the remaining period, we are recommending a change to a flat dollar amortization method. Changing to a flat dollar amortization method will increase the annual amortization payment in earlier years and reduce it in later years. As an alternative, the Board may wish to consider increasing the amortization payments by the proposed inflation assumption of 2.75% instead of the flat dollar method or increasing by the payroll growth assumption of 3.25%.

To illustrate the impact, in Section IV, Subsection C, we show a comparison of projected amortization payments over the remaining 18 years under the existing level percentage of payroll method and the level dollar method and inflationary increase method. All three methods take into account the other proposed assumptions and assume no additional gains or losses after July 1, 2011.

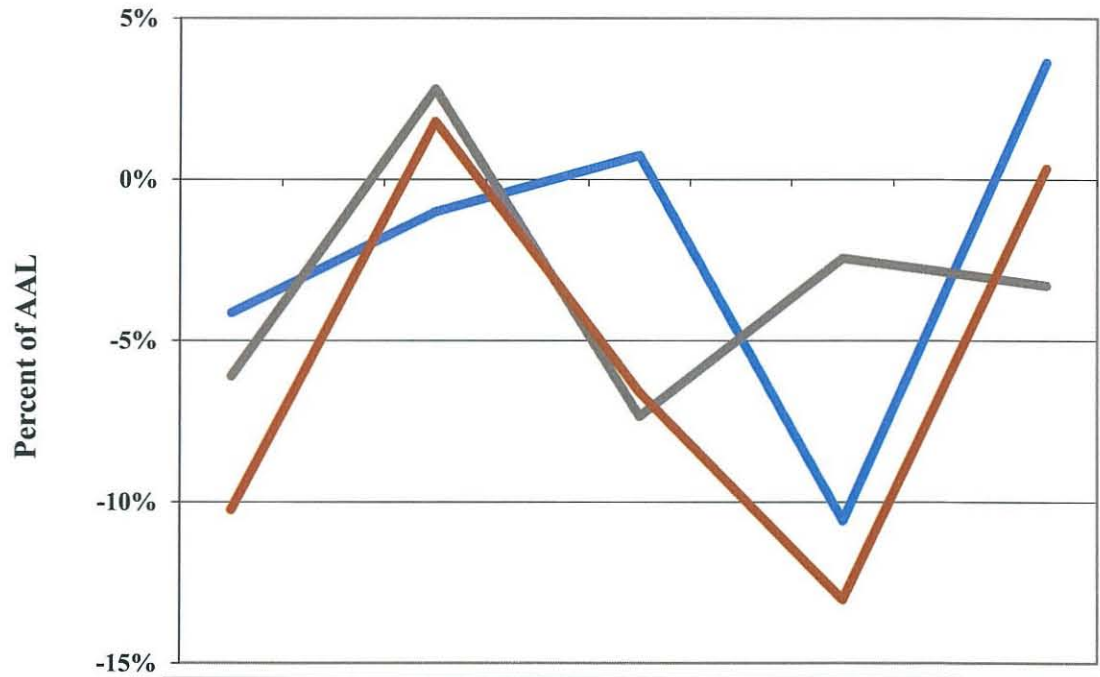
Summary of Actuarial Experience

This section shows the plans actuarial gains and losses in the last five valuations. Each valuation’s gain or loss represents the gain or loss over the two year period ending on the valuation date shown. For example, the Police Plan had a noninvestment loss of \$2 million for the period from July 2001 through June 2003. year’s actuarial gain and loss is further divided into the investment and non-investment gain or loss. As shown in the chart, the Police Plan experienced non-investment losses in four of the last five valuations while the Firefighters Plan had non-investment losses in only two of the five years.

POLICE

Valuation Date	Actuarial Accrued Liability (AAL)	Total Actuarial (Loss)/Gain		Investment (Loss)/Gain		Non-Investment (Loss)/Gain*	
		Amount (in \$)	% of AAL	Amount (in \$)	% of AAL	Amount (in \$)	% of AAL
June 2003	\$33,045,461	-\$3,386,079	-10.2%	-\$1,366,963	-4.1%	-\$2,019,116	-6.1%
June 2005	37,167,194	668,117	1.8%	-374,587	-1.0%	1,042,704	2.8%
June 2007	44,432,940	-2,933,048	-6.6%	332,075	0.7%	-3,265,123	-7.3%
June 2009	50,859,638	-6,627,508	-13.0%	-5,384,348	-10.6%	-1,243,160	-2.4%
June 2011	61,433,064	198,335	0.3%	2,142,325	3.6%	-1,943,990	-3.3%

POLICE - GAINS/(LOSSES) AS A PERCENT OF AAL

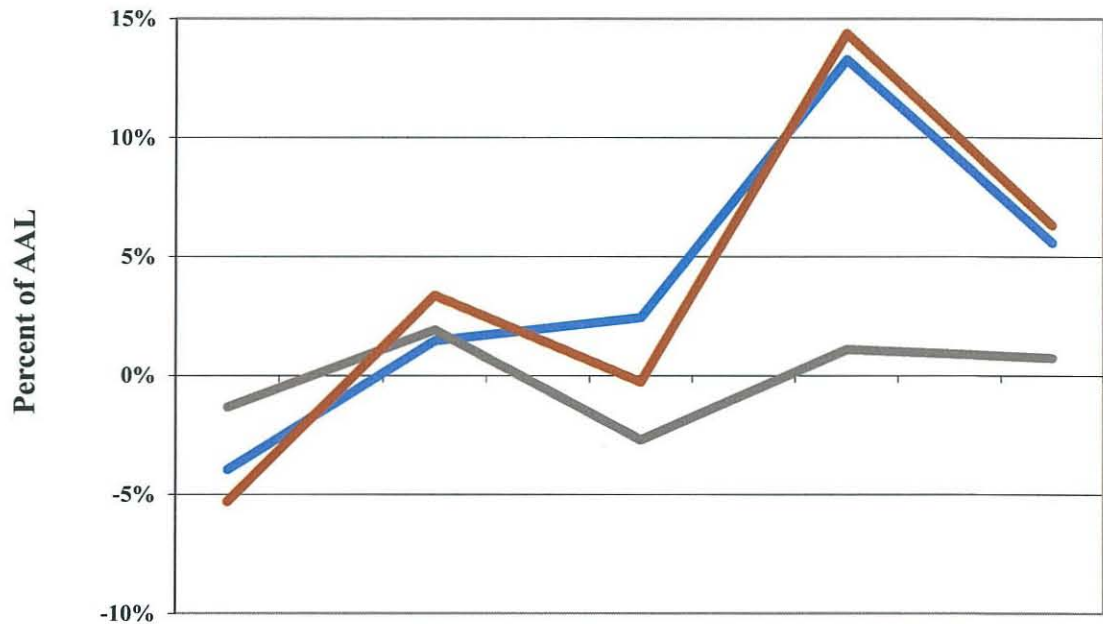


	Jun-03	Jun-05	Jun-07	Jun-09	Jun-11
— Investment Gain/(Loss)	-4.1%	-1.0%	0.7%	-10.6%	3.6%
— Non-Investment Gain/(Loss)	-6.1%	2.8%	-7.3%	-2.4%	-3.3%
— Total	-10.2%	1.8%	-6.6%	-13.0%	0.3%

FIREFIGHTERS

Valuation Date	Actuarial Accrued Liability (AAL)	Total Actuarial (Loss)/Gain		Investment (Loss)/Gain		Non-Investment (Loss)/Gain*	
		Amount (in \$)	% of AAL	Amount (in \$)	% of AAL	Amount (in \$)	% of AAL
June 2003	\$40,123,051	-\$2,129,519	-5.3%	-\$1,591,039	-4.0%	-\$538,480	-1.3%
June 2005	44,078,961	1,485,046	3.4%	642,272	1.5%	842,774	1.9%
June 2007	51,243,220	-140,989	-0.3%	1,247,667	2.4%	-1,388,656	-2.7%
June 2009	62,401,191	8,971,159	14.4%	8,289,095	13.3%	682,064	1.1%
June 2011	70,408,046	4,446,923	6.3%	3,925,658	5.6%	521,265	0.7%

FIREFIGHTERS - GAINS/(LOSSES) AS A PERCENT OF AAL



	Jun-03	Jun-05	Jun-07	Jun-09	Jun-11
Investment Gain/(Loss)	-4.0%	1.5%	2.4%	13.3%	5.6%
Non-Investment Gain/(Loss)	-1.3%	1.9%	-2.7%	1.1%	0.7%
Total	-5.3%	3.4%	-0.3%	14.4%	6.3%

C. Impact of Assumption Changes on Valuation Results

To illustrate the impact of the proposed assumption changes, the following table shows the July 1, 2011 valuation results for the Police and Firefighters Plans and for both Plans combined if the proposed changes were adopted as of July 1, 2011.

Column A shows the 2011 valuation results using the current assumptions. *Column B* shows the impact of the recommended demographic assumptions. *Column C* shows the impact of both the recommended demographic and economic assumptions. *Column D* shows the cumulative impact of the recommended demographic and economic assumptions, and the change in the amortization method from a level percent of payroll method to a level dollar method. *Column E* shows the cumulative impact of the recommended demographic and economic assumptions, and the change in the amortization method from a level percent of payroll method to an inflationary increasing amortization method.

POLICE	(A)	(B)	(C)	(D)	(E)
Description	July 1, 2011 Valuation Results (FY '13)	New Demographic Assumptions	New Demographic & Economic Assumptions	New Demographic & Economic Assumptions and Level Dollar Amortization Method	New Demographic & Economic Assumptions and Inflationary Amortization Method
1. Actuarial Accrued Liability (AAL)	\$61,400,000	\$65,600,000	\$67,200,000	\$67,200,000	\$67,200,000
2. Actuarial Value of Assets (AVA)	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$43,300,000	\$47,500,000	\$49,100,000	\$49,100,000	\$49,100,000
4. Funded Percentage [(2)/(1)]	29.5%	27.6%	27.0%	27.0%	27.0%
5. Employer Normal Cost	\$1,100,000	\$1,500,000	\$1,600,000	\$1,600,000	\$1,600,000
6. Payment on UAAL	3,300,000	3,600,000	3,800,000	4,700,000	3,900,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$5,000,000	\$5,800,000	\$5,900,000	\$7,000,000	\$6,100,000
8. Recommended Contribution as a Percentage of Projected Payroll	90.0%	104.4%	107.0%	126.0%	109.7%

FIREFIGHTERS	(A)	(B)	(C)	(D)	(E)
Description	July 1, 2011 Valuation Results (FY '13)	New Demographic Assumptions	New Demographic & Economic Assumptions	New Demographic & Economic Assumptions and Level Dollar Amortization Method	New Demographic & Economic Assumptions and Inflationary Amortization Method
9. Actuarial Accrued Liability (AAL)	\$70,400,000	\$72,200,000	\$73,200,000	\$73,200,000	\$73,200,000
10. Actuarial Value of Assets (AVA)	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>
11. Unfunded Actuarial Accrued Liability (UAAL) [(9) - (10)]	\$46,700,000	\$48,500,000	\$49,500,000	\$49,500,000	\$49,500,000
12. Funded Percentage [(10)/(9)]	33.7%	32.8%	32.4%	32.4%	32.4%
13. Employer Normal Cost	\$800,000	\$900,000	\$900,000	\$900,000	\$900,000
14. Payment on UAAL	3,600,000	3,700,000	3,800,000	4,700,000	3,900,000
15. Total Recommended Contribution adjusted for Timing [(13) + (14) + Interest]	\$4,900,000	\$5,100,000	\$5,200,000	\$6,300,000	\$5,400,000
16. Recommended Contribution as a Percentage of Projected Payroll	130.5%	135.8%	137.4%	165.5%	141.5%

COMBINED PLAN	(A)	(B)	(C)	(D)	(E)
Description	July 1, 2011 Valuation Results (FY '13)	New Demographic Assumptions	New Demographic & Economic Assumptions	New Demographic & Economic Assumptions and Level Dollar Amortization Method	New Demographic & Economic Assumptions and Inflationary Amortization Method
17. Actuarial Accrued Liability (AAL)	\$131,800,000	\$137,800,000	\$140,400,000	\$140,400,000	\$140,400,000
18. Actuarial Value of Assets (AVA)	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>
19. Unfunded Actuarial Accrued Liability (UAAL) [(17) - (18)]	\$90,000,000	\$96,000,000	\$98,600,000	\$98,600,000	\$98,600,000
20. Funded Percentage [(18)/(17)]	31.7%	30.3%	29.8%	29.8%	29.8%
21. Employer Normal Cost	\$1,900,000	\$2,400,000	\$2,500,000	\$2,500,000	\$2,500,000
22. Payment on UAAL	6,900,000	7,300,000	7,600,000	9,400,000	7,800,000
23. Total Recommended Contribution adjusted for Timing [(21) + (22) + Interest]	\$9,900,000	\$10,900,000	\$11,100,000	\$13,300,000	\$11,500,000
24. Recommended Contribution as a Percentage of Projected Payroll	106.5%	117.1%	119.3%	142.0%	122.6%

C. Impact of Assumption Changes on Valuation Results *(continued)*

Police Plan

The net impact of the recommended demographic changes increases the unfunded actuarial accrued liability (UAAL) by approximately \$4.2 million and increases the recommended contribution by approximately \$0.8 million, or 14.4% of projected payroll (*Column B - Column A*). The largest components of the increase were the proposed changes to the healthy mortality table and the final year salary.

The net impact of the recommended economic changes increases the UAAL by approximately \$1.6 million, and the contribution by approximately \$0.1 million, or 2.6% of projected payroll (*Column C - Column B*).

The net impact of the change to a level dollar amortization method leaves the UAAL unchanged but increases the recommended contribution by approximately \$1.1 million, or 19.0% of projected payroll (*Column D - Column C*). In later years, this change serves to decrease the contribution amount. This is illustrated in Section IV Subsection C.

Overall, the recommended demographic assumption and economic assumptions increase the UAAL by approximately \$5.8 million and the recommended demographic assumptions, economic assumptions and level dollar amortization method increase the recommended contribution by approximately \$2.0 million, or 36.0% of projected payroll (*Column D - Column A*).

If an inflationary increase amortization method is used instead and all other assumptions are made, the recommended contribution increases by approximately \$1.1 million, or 19.7% of projected payroll (Column E – Column A).

Firefighters Plan

The net impact of the recommended demographic changes increases the unfunded actuarial accrued liability (UAAL) by approximately \$1.8 million and increases the recommended contribution by approximately \$0.2 million, or 5.3% of projected payroll (*Column B - Column A*). The largest component of the increase was the proposed changes to the healthy mortality table and the final year salary.

The net impact of the recommended economic changes increases the UAAL by approximately \$1.0 million, and the contribution by approximately \$0.1 million, or 1.6% of projected payroll (*Column C - Column B*).

The net impact of the change to a level dollar amortization method leaves the UAAL unchanged but increases the recommended contribution by approximately \$1.1 million, or 28.1% of projected payroll (*Column D - Column C*). In later years, this change serves to decrease the contribution amount. This is illustrated in Section IV Subsection C.

Overall, the recommended demographic assumption and economic assumptions increase the UAAL by approximately \$2.8 million and the recommended demographic assumptions, economic assumptions and level dollar amortization method increase the recommended contribution by approximately \$1.4 million, or 35.0% of projected payroll (*Column D - Column A*).

If an inflationary increase amortization method is used instead and all other assumptions are made, the recommended contribution increases by approximately \$0.5 million, or 11.0% of projected payroll (*Column E – Column A*).

Combined Plans

As requested, we also looked at the net impact on the combined plans.

The net impact of the recommended demographic changes increases the unfunded actuarial accrued liability (UAAL) by approximately \$6.0 million and increases the recommended contribution by approximately \$1.0 million, or 10.6% of projected payroll (*Column B - Column A*).

The net impact of the recommended economic changes increases the UAAL by approximately \$2.6 million, and the contribution by approximately \$0.2 million, or 2.2% of projected payroll (*Column C - Column B*).

The net impact of the change to a level dollar amortization method leaves the UAAL unchanged but increases the recommended contribution by approximately \$2.2 million, or 22.7% of projected payroll (*Column D - Column C*).

Overall, the recommended demographic assumption and economic assumptions increase the UAAL by approximately \$8.6 million and the recommended demographic assumptions, economic assumptions and amortization method increase the recommended contribution by approximately \$3.4 million, or 35.5% of projected payroll (*Column D - Column A*).

If an inflationary increase amortization method is used instead and all other assumptions are made, the recommended contribution increases by approximately \$1.6 million, or 16.1% of projected payroll (*Column E – Column A*).

II. Economic Assumptions

The economic assumptions have a significant impact on the development of plan liabilities. Changes to these assumptions can substantially alter the results determined by the actuary. The goal of an experience study is to produce a consistent set of economic assumptions that appropriately reflect expected future economic trends.

The primary economic assumptions that affect the Plan's funding are:

- Inflation;
- Investment Rate of Return (or Discount Rate);
- Payroll Growth Rate;
- Salary Scale (Merit Increases); and
- COLAs

The Actuarial Standards Board (ASB) has adopted Actuarial Standard of Practice No. 27 (ASOP 27 - Selection of Economic Assumptions for Measuring Pension Obligations) to provide actuaries guidance in developing economic assumptions. A key feature of the ASB's guidance is the "building block" approach in developing economic assumptions.

The "building block" approach uses the actuary's best estimate for key components of economic assumptions. The actuary begins with a reasonable range of each component, then selects a specific point within the range based on historical data, plan specific data and the future economic environment.

The inflation component is included in all economic assumptions, and therefore is key to developing a consistent set of actuarial assumptions. Under the "building block" approach, we consider the investment rate of return assumption as the combination of an inflation component and a real rate of return component. The components of the salary increase assumption are inflation, productivity, and merit increases which include promotional and longevity increases.

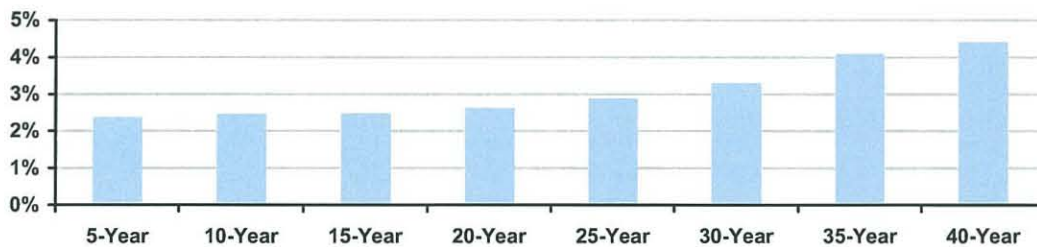
Since the Plans are frozen to new entrants, consideration must be given to the impact of future cash flow needs as the active census declines.

A. Inflation

In developing the recommendation for the assumed inflation component, actuarial standards of practice suggest the actuary review appropriate inflation data. This data may include consumer price indexes, the implicit price deflator, forecasts of inflation, and yields on government securities of various maturities. For this study, we reviewed a commonly referenced historical measure of inflation, the Consumer Price Index for all urban consumers (CPI-U).

The graph below shows how recent inflation experience is below the longer-term average rate. The five-year average inflation rate is slightly below 2.50% while the 25 and 30-year averages are around 3.00%.

Average Inflation as of December 31, 2011



The average annual rate of increase in the CPI-U in the 2000s has been the lowest since the early 1960s. Inflation for 2011 was approximately 3.2%, which was around the 30-year average and higher than the two previous years. Historical trend is an important consideration for the assumed rate of inflation, but is not the sole indicator in determining the reasonable bounds of expected inflation.

The typical range of expected inflation for actuarial assumptions in recent years is between 2.50% and 4.00%. A recent National Association of State Retirement Administrators (NASRA) survey of public plans indicated an average of 3.50%. Considering this trend, as well as the bond market's current low future expectation, we have determined the current reasonable range to be between 2.50% and 3.50%.

As a check of the validity of this reasonable range, we reference the *2011 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (2009 OASDI Trustees Report)*. The range of inflation rates in this report was 1.8% for the low-cost projection and 3.8% for the high-cost projection.

Once the reasonable range is set, we determine the specific point in the range which is the best estimate of long-term future inflation rates. The current inflation assumption is 3.50%. Given the reasonable range and the current environment, we recommend using a 2.75% assumption.

B. Investment Rate of Return

The discount rate is used to determine the present value of expected future plan payments. Generally, the appropriate discount rate is the same as the investment return assumption. The current assumption is 7.75%, net of investment expenses, for both Plans.

Since the Plans' asset methods have the actuarial value of assets set equal to market value, our analysis is based only on market returns. Plan returns on a market value basis have been less than the 7.75% return assumption for the last decade. The average net investment return on a market value basis for the five-year period ending June 30, 2011 was 3.91% for Police and 4.44% for Firefighters, as shown below. Looking at a ten-year period, the average net investment return on a market value basis was 4.06% for Police and 5.04% for Firefighters.

Year Ended June 30	Police Market Value Investment Return	Firefighters Market Value Investment Return	Assumed Investment Return
2002	-3.65%	-12.22%	8.00%
2003	-1.89	5.15	8.00
2004	8.04	15.69	8.00
2005	4.42	7.49	8.00
2006	7.94	8.50	7.75
2007	10.01	14.35	7.75
2008	-1.79	-5.39	7.75
2009	-15.44	-18.41	7.75
2010	9.80	13.68	7.75
2011	19.68	22.16	7.75
Five-Year Average	3.91%	4.44%	7.75%
Ten-Year Average	4.06%	5.04%	7.81%

Note: Market returns determined by the actuary may not match recorded market returns by the Plan since the values are calculated based upon an average value of market assets that include cash inflows and outflows.

The investment rate of return assumption is developed using the “building block” approach as outlined in ASOP 27. Under this approach, the investment rate of return assumption is made up of two components; the inflation component and the real investment rate of return component. The reasonable range of the inflation component determined above is combined with the reasonable range of the real rate of return component. This reasonable range is then evaluated and refined. The final recommendation is a specific point in this best-estimate range. In developing the reasonable range for the real rate of return, we consider future capital market assumptions for the Plans’ major asset classes. Estimates of future capital market assumptions for the Funds’ major asset classes are shown in the following table:

Asset Class	Assumed Future Real Rate Return
Domestic equities	6.8%
International equities – developed markets	7.4%
International equities – emerging markets	7.9%
Fixed income	2.8%
Cash and cash equivalents	0.0%

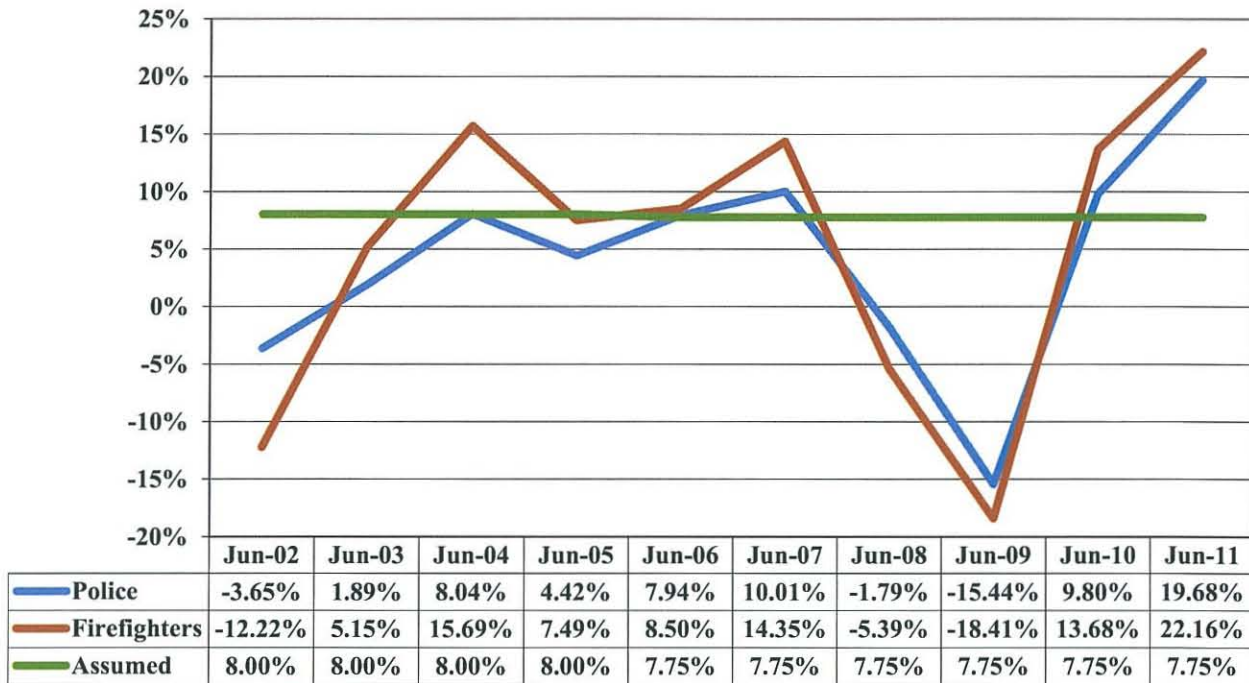
Based on the Plan’s short-term target investment allocation of 50% domestic equities, 0% international equities, 49% fixed income, and 1% in cash and using the assumed future real return rates shown above, the real rate of return for the Plan is 4.77%. Combining the best-estimate real rate of return with the assumed rate of inflation of 2.75% yields an investment rate of return assumption of 7.52%, net of investment and administrative expenses. Thus we are recommending a 7.50% investment return assumption, a decrease of 0.25% in the rate at this time.

Based on the Plan’s longer-term target investment allocation of 36.5% domestic equities, 12.0% international equities-developed markets, 1.5% international equities-emerging markets, 49.0% fixed income, and 1.0% in cash and using the assumed future real return rates shown above, the real rate of return for the Plan is 4.86%. Combining the best-estimate real rate of return with the assumed inflation rate of 2.75% yields an investment rate of return of 7.61%. Under this target allocation, we would also recommend a 7.50% assumed rate of return.

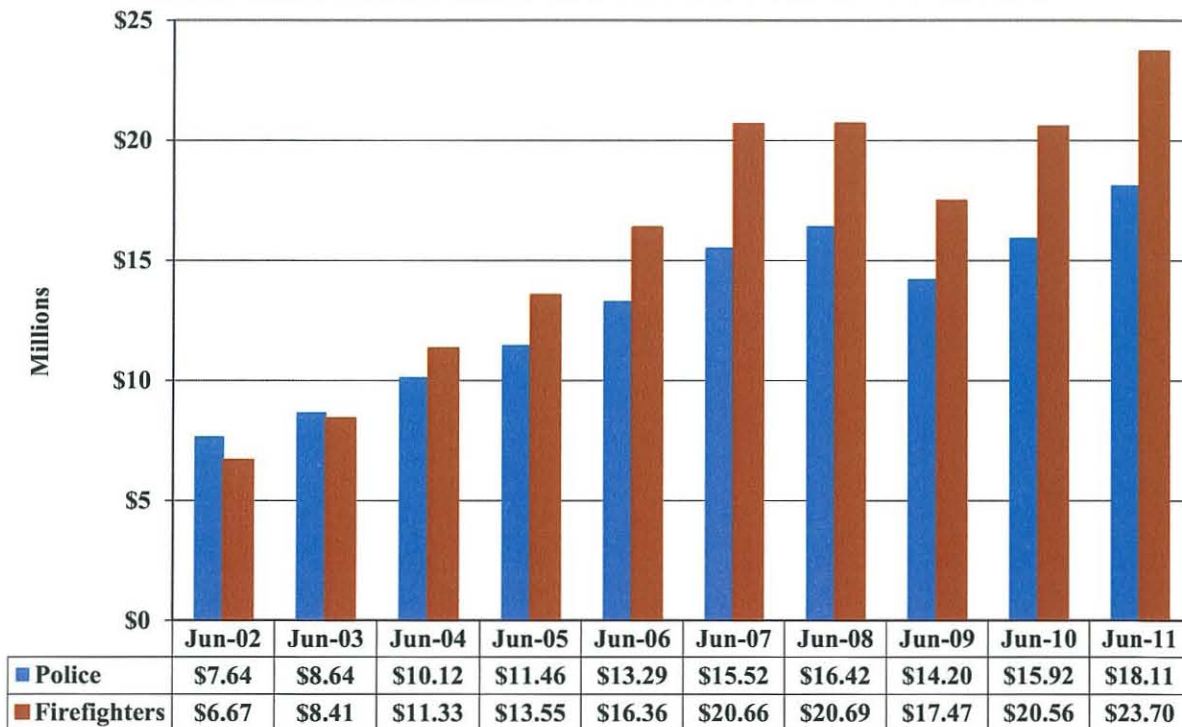
As the current actives retire and the cash flow needs of the Plans increase, we will need to consider possible further decreases in the investment return assumption.

Graphs 1A and 1B display the rates of return and the asset changes over the last ten years.

**GRAPH 1A:
SUMMARY OF INVESTMENT RETURN
FOR THE PERIOD JUNE 30, 2002 THROUGH JUNE 30, 2011**



**GRAPH 1B:
POLICE AND FIREFIGHTERS PLAN ASSETS
FOR THE PERIOD JUNE 30, 2002 THROUGH JUNE 30, 2011**



C. Payroll Growth

Payroll growth is used for determining the amortization amount of the unfunded actuarial accrued liability (UAAL), which is calculated as a level percentage of payroll. Currently the payroll growth assumption is 3.50% per year.

Based on a long-term future productivity assumption of 0.50% coupled with the 2.75% inflation rate, we recommend decreasing this assumption to 3.25%. Due to both Plans being closed to new entrants, we are recommending a level dollar amortization method going forward as described in the Methods section.

D. Salary Scale

The salary scale is used to determine participants' ultimate benefits in the Plan. Generally, a participant's salary will change over the long term in accordance with inflation, productivity growth and merit scale (promotional and longevity increases). The actuary should review available compensation data when selecting this assumption, including: Plan sponsor's current compensation practices and any anticipated changes; historical compensation increases and practices of the plan sponsor and other sponsors in the same industry or geographic area; and historical national wage and productivity increases.

The current salary increase assumption is a flat 4.50% annual increase regardless of age or years of service. Since more rapid career progression often occurs within the first few years of employment, the highest percentage increases in salary tend to happen in the first few years of service. The actual salary experience was examined by age. The experience did not show that participants at younger ages received higher salary increases. While salary increases for both groups were rather flat from 2009 to 2011, the increases from the 2007 to 2009 valuations exceeded 20%. The current contracts call for minimal increases.

Since both Plans are only available to existing hires, the general increase rate in the most recent contracts is fixed, and there is no positive correlation between a participant's age and their salary increase, we have decided to maintain the flat increase rate. We also recognized the new contract rates, the decrease in assumed inflation, and the long-term nature of the actuarial assumptions. Therefore, we are proposing that the salary increase rate be decreased from 4.50% to 4.00%. The 4.00% increase is comprised of a 2.75% inflation increase, a 0.50% productivity increase, and a 0.75% promotional and longevity increase.

It should be noted that the experience analysis reveals significant variations from year to year. Table 2 displays the actual experience against the current and proposed assumptions. Graphs 2A and 2B provide this information pictorially.

In addition to the salary increase assumption, the Firefighters Plan includes an assumption on severance pay where the severance pay is estimated as 50% of base pay at retirement. This increases the final average salary which includes overtime and other portions of total pay by 12.5%. A similar type of assumption does not exist in the Police Plan. The Police Plan benefit provisions differ in that instead of automatically increasing final year pay by severance pay, unused sick time can be counted toward additional service credits up to 240 days or as a cash reimbursement which could increase the final year pay. Our recommendation is to introduce the same assumption as is used for the Fire Plan valuation as a proxy for estimating the value of sick leave pay. Note that the impact of this change is included in the demographic change in the cost impact charts.

**TABLE 2:
SALARY SCALE EXPERIENCE
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

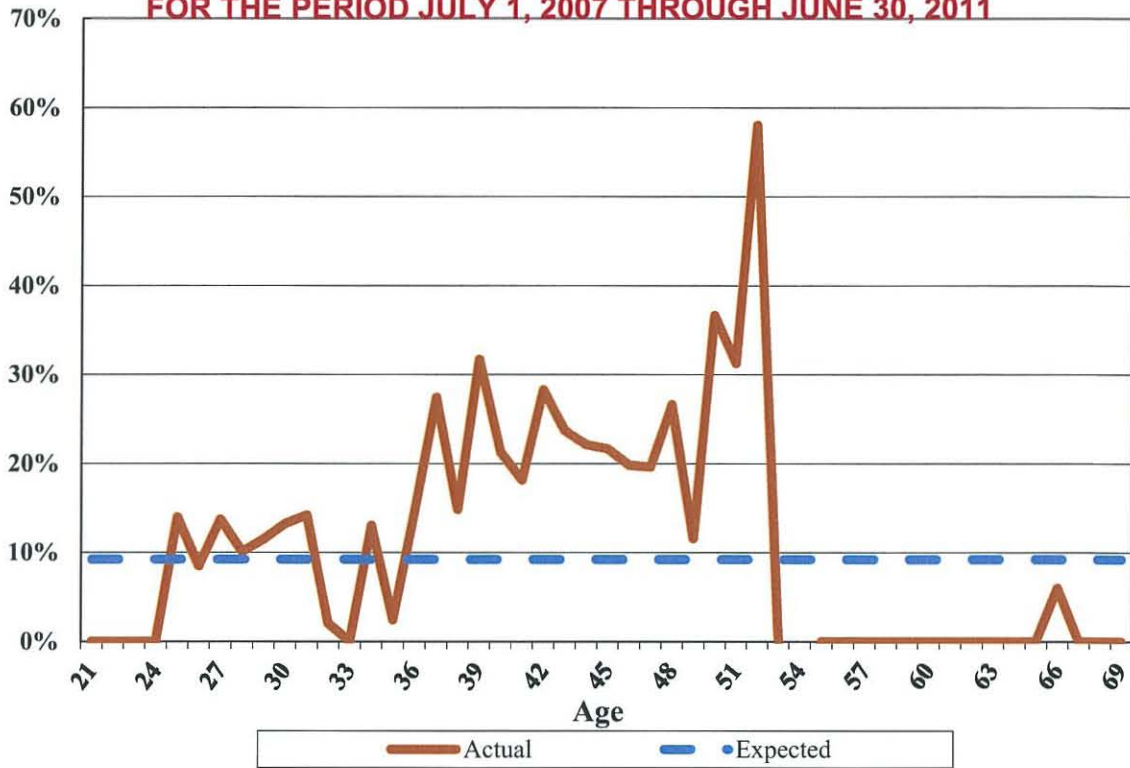
POLICE

Age	Total Exposures	Actual Salary Increase For the 2-Year Period Ended June 30,		Study Period Actual	Study Period Expected
		2009	2011		
Under 25	0	0.00%	0.00%	0.00%	9.20%
25-29	26	24.26%	4.17%	11.70%	9.20%
30-34	16	23.48%	6.11%	12.92%	9.20%
35-39	24	35.35%	5.98%	17.29%	9.20%
40-44	35	38.38%	5.70%	20.74%	9.20%
45-49	17	41.74%	4.67%	20.76%	9.20%
50-54	7	38.97%	-2.20%	26.99%	9.20%
55-59	0	0.00%	0.00%	0.00%	9.20%
60-64	0	0.00%	0.00%	0.00%	9.20%
65 & Over	2	6.26%	5.76%	5.99%	9.20%
TOTAL	127	33.77%	5.14%	17.49%	9.20%

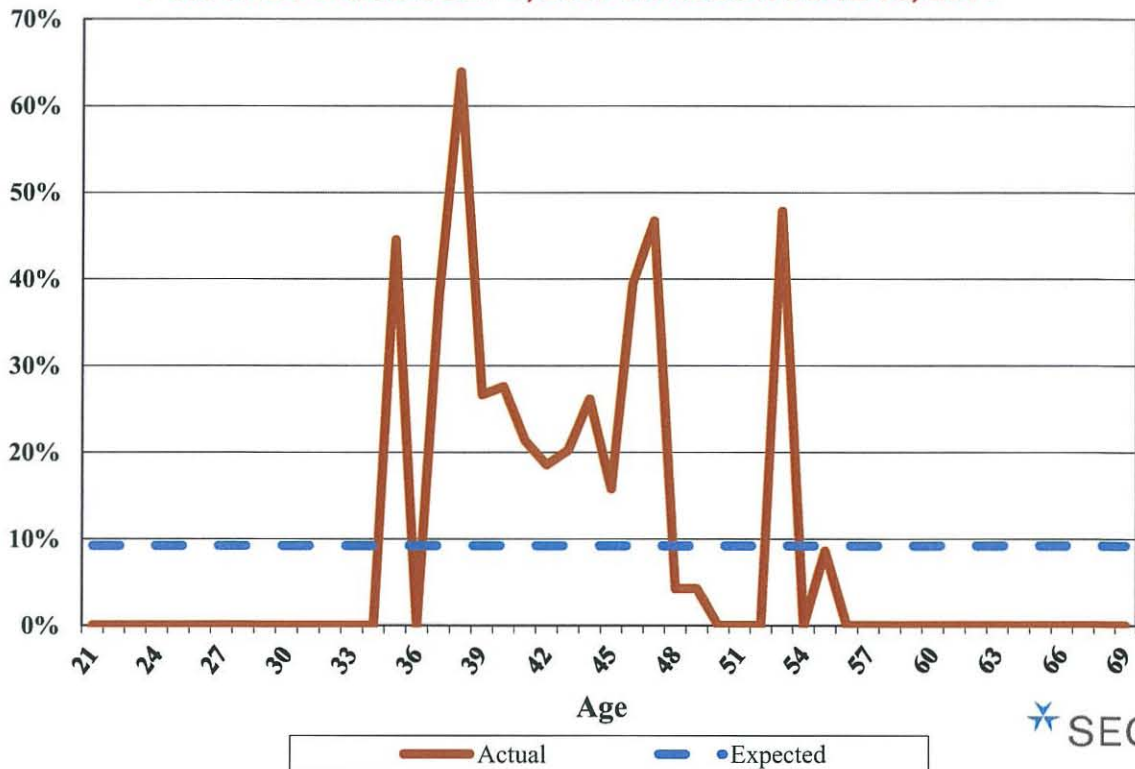
FIREFIGHTERS

Age	Total Exposures	Actual Salary Increase For the 2-Year Period Ended June 30,		Study Period Actual	Study Period Expected
		2009	2011		
Under 25	0	0.00%	0.00%	0.00%	9.20%
25-29	0	0.00%	0.00%	0.00%	9.20%
30-34	0	0.00%	0.00%	0.00%	9.20%
35-39	19	60.69%	5.83%	36.43%	9.20%
40-44	39	54.78%	1.93%	22.45%	9.20%
45-49	21	78.46%	6.27%	25.13%	9.20%
50-54	1	47.83%	0.00%	47.83%	9.20%
55-59	1	0.00%	8.59%	8.59%	9.20%
60-64	0	0.00%	0.00%	0.00%	9.20%
65 & Over	0	0.00%	0.00%	0.00%	9.20%
TOTAL	81	61.00%	4.19%	26.18%	9.20%

**GRAPH 2A:
SALARY SCALE - POLICE
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**



**GRAPH 2B:
SALARY SCALE - FIREFIGHTERS
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**



E. Cost-of-Living Assumptions

The COLA assumption is used to determine the assumed annual increase in the retirement benefit for retirees subject to increases based on 50% of the negotiated pay increases for active participants.

Retirees in the Firefighters Plan receive an annual COLA equal to one-half of the negotiated base pay increase for active firefighters. Based on the current 3.50% assumed payroll growth, the COLA assumption for the Firefighters valuation is 1.75%. Police Plan participants who retired prior to July 1, 2005 have this same provision while participants who retired after June 30, 2005 receive 3.00% increases compounded each year. The Police valuation uses a 1.75% assumed increase rate for participants who retired prior to July 1, 2005 and 3.00% otherwise.

Based on the payroll growth assumption decrease from 3.50% to 3.25%, we are recommending a corresponding decrease in the COLA assumption from 1.75% to 1.625%. The 3.00% fixed rate for Police participants who retired after June 30, 2005 is unaffected.

III. Demographic Assumptions

The demographic assumptions used to value the Plan reflect the expected occurrences of various events among participants of the Plan. The assumptions should reflect specific characteristics of the plan and produce reasonable results. A reasonable assumption is one that is expected to model the contingency being measured and not expected to produce significant gains or losses over time. The types of demographic assumptions used to measure pension obligations include, but are not limited to the following:

- Mortality;
- Termination of Employment (Withdrawal);
- Retirement;
- Disability; and
- Others, including Percent Married and Spousal Age Difference

The Actuarial Standards Board (ASB) has adopted Actuarial Standard of Practice No. 35 (ASOP 35 - Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations) to provide actuaries guidance in developing demographic assumptions. The standard recommends the actuary follow a general process for selecting demographic assumptions. The first step of the general procedure is to identify the types of assumptions to use. The actuary should consider relevant plan provisions that will affect timing and value of any potential benefit payments, all contingencies that give rise to benefits or loss of benefits and the characteristics of the covered group. The next step is to identify the relevant assumption universe. The assumption universe may include prior experience studies or general studies of trends relevant to the type of demographic assumption in addition to plan experience to the extent that it is credible. The third step is to consider the assumption format. The format may include different tables for different segments of the covered population (i.e. different mortality tables for males and females, or different turnover before and after a select period). The final step is to select the specific assumption and evaluate the reasonableness of each assumption. The specific experience of the plan should be incorporated but not given undue weight to past experience if some of that experience is attributable to a phenomenon that is unlikely to continue. For example, if recent rates of termination were due to a one-time reduction in workforce it may be unreasonable to assume that such rates will continue.

A. Mortality Rates

One of the most basic actuarial assumptions is the probability of death. The mortality assumption takes the form of a mortality table which contains for each age in the table a probability of a person dying between that age and the next. There are two sets of mortality tables currently in use for the Plan. There are different mortality assumptions for non-disabled lives (which include pre-retirement and post-retirement participants) and for disabled retirees. Mortality rates for non-disabled lives are based on the sex-distinct RP-2000 Combined Healthy Mortality Table (“RP-2000”). Mortality rates for disabled lives are based on the sex-distinct RP-2000 Disabled Retiree Mortality Table.

Recent changes to ASOP 35 have increased the actuary’s responsibility to reflect and to disclose the allowance for future mortality improvement. Ways to reflect anticipated future mortality improvement include:

- Generational mortality. Each year of birth has its own mortality table that reflects the forecasted improvements. Thus, younger participants have more future mortality improvement built in than older participants do.
- Projection to a future year. The same mortality table is used for everyone, but that table is intended to be reflective of mortality at a future date, not as of today.
- Mortality of a longer-lived group. The table in use, without projection, forecasts fewer deaths than the current experience level, thus implicitly allowing for future mortality improvement.

1. Healthy Mortality

The mortality experience among retirees and beneficiaries determines the durations over which retirement benefits are paid. Lower mortality rates mean longer benefit payment periods and, therefore, higher benefit costs. The current assumption for healthy lives is based on mortality rates from the sex-distinct RP-2000 Combined Healthy Mortality Table (RP-2000). This table was first introduced in the July 1, 2009 valuation. Previously, the healthy mortality rates were from the sex-distinct 1994 Uninsured Pensioner Mortality Table (UP-94) set forward one year in age. We did not analyze the pre-retirement healthy mortality experience due to the limited experience available.

The experience analysis for the study period reveals that post-retirement participants have been dying at a rate higher than expected for both Police and Firefighters. The actual rate of death for post-retirement was 81% higher than expected for Police, while the rate for Firefighters was 61% higher than expected. Combined, the actual number of retiree and beneficiary deaths was about 77% higher than the expected number.

The following table provides a summary of retiree and beneficiary mortality experience by gender for the study period:

Post-Retirement Healthy Mortality	Exposures	Actual Deaths	Expected Deaths	Ratio of Actual Deaths to Expected Deaths
Police Male	74	2	1.08	185%
Police Female	27	2	1.13	177%
Police Total	101	4	2.21	181%
Firefighters Male	55	0	0.41	0%
Firefighters Female	6	1	0.21	476%
Firefighters Total	61	1	0.62	161%

In setting mortality assumptions, in the past we have generally taken the approach that actual deaths will be 7% to 10% greater than assumed to allow for future improvements in life expectancy. When the number of deaths assumed is too high, the cost of the plan is understated and if the number is too low, the cost of the plan is overstated.

Due to the small numbers of participants in both Plans, the healthy experience is generally not considered credible. It is our understanding that the State of Rhode Island will deem the mortality assumptions reasonable if they match the assumptions used for the State of Rhode Island Municipal Employees Retirement System (MERS).

The MERS assumptions are as follows:

Healthy Mortality for Males: 115% of the RP-2000 Combined Healthy Mortality Table for Males with White Collar adjustments, projected with Scale AA from 2000

Healthy Mortality for Females: 95% of the RP-2000 Combined Healthy Mortality Table for Females with White Collar adjustments, projected with Scale AA from 2000

In comparing the base rates of these tables to the current rates being used, at some combinations of age and gender, the MERS rates predict less deaths and in some cases more. However, in general the healthy rates predict less deaths due to the use of generational mortality. Under generational mortality, mortality rates vary by year of birth with younger participants having longer life expectancies. Scales to reflect this type of improvement are currently being refined. The healthy mortality rates in the MERS plan reflect generational improvements through the use of Scale AA. We anticipate that this scale will be updated as newer scales become available. Based on the small numbers of participants in both Plans, we are recommending using the MERS assumptions for healthy mortality. Using generational mortality will increase liabilities and costs but should result in fewer changes in later years. *The proposed healthy mortality rates without adjustment for generational mortality are shown in Appendix A.*

On the following pages, Tables 3A and 3B shows the post-retirement healthy mortality experience for the study period. Graphs 3A, 3B, 3C and 3D illustrate this information for males and females, Police and Firefighters, respectively.

**TABLE 3A:
POST-RETIREMENT HEALTHY MORTALITY - POLICE
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

MALE

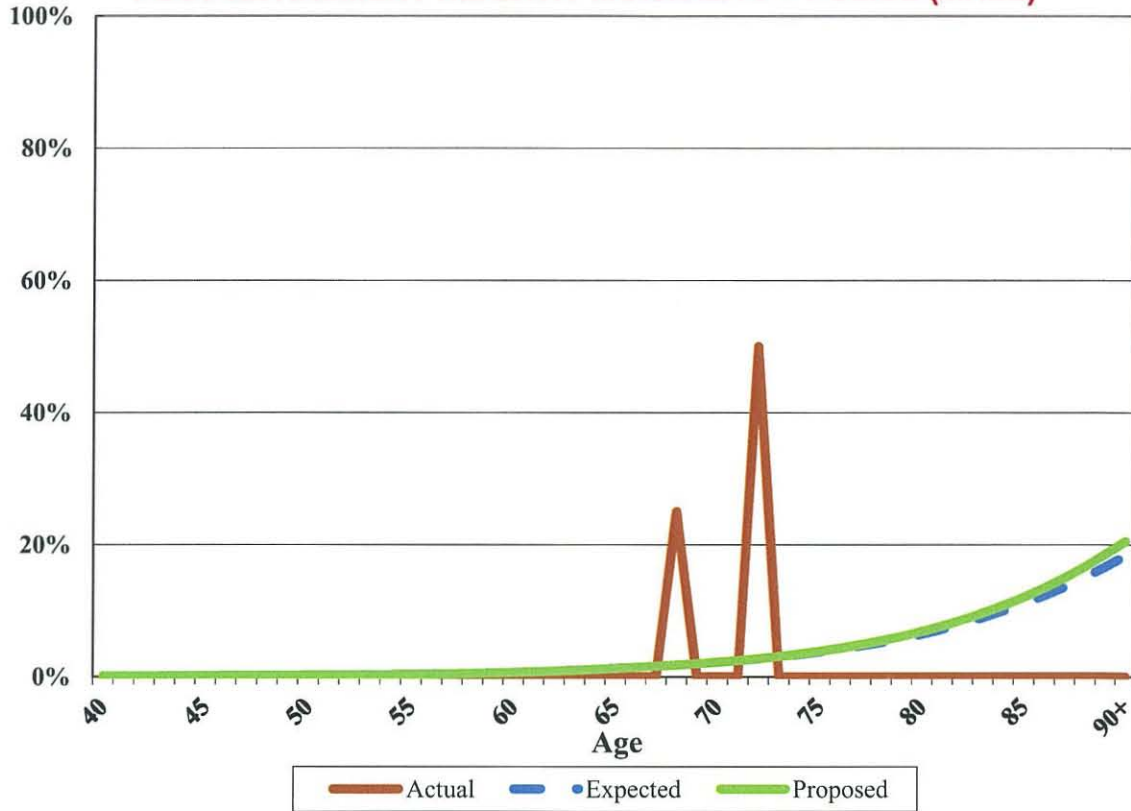
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 50	23	0	0.00%	0.03	0.13%	0.00%	0.17%
50-54	8	0	0.00%	0.01	0.13%	0.00%	0.25%
55-59	3	0	0.00%	0.02	0.67%	0.00%	0.53%
60-64	10	0	0.00%	0.09	0.90%	0.00%	0.90%
65-69	11	1	9.09%	0.18	1.64%	555.56%	1.63%
70-74	10	1	10.00%	0.27	2.70%	370.37%	2.80%
75-79	7	0	0.00%	0.30	4.29%	0.00%	4.36%
80-84	2	0	0.00%	0.16	8.00%	0.00%	8.67%
85-89	0	0	0.00%	0.00	0.00%	0.00%	0.00%
90 & Over	0	0	0.00%	0.00	0.00%	0.00%	0.00%
Total	74	2	2.70%	1.06	1.43%	188.68%	1.49%

FEMALE

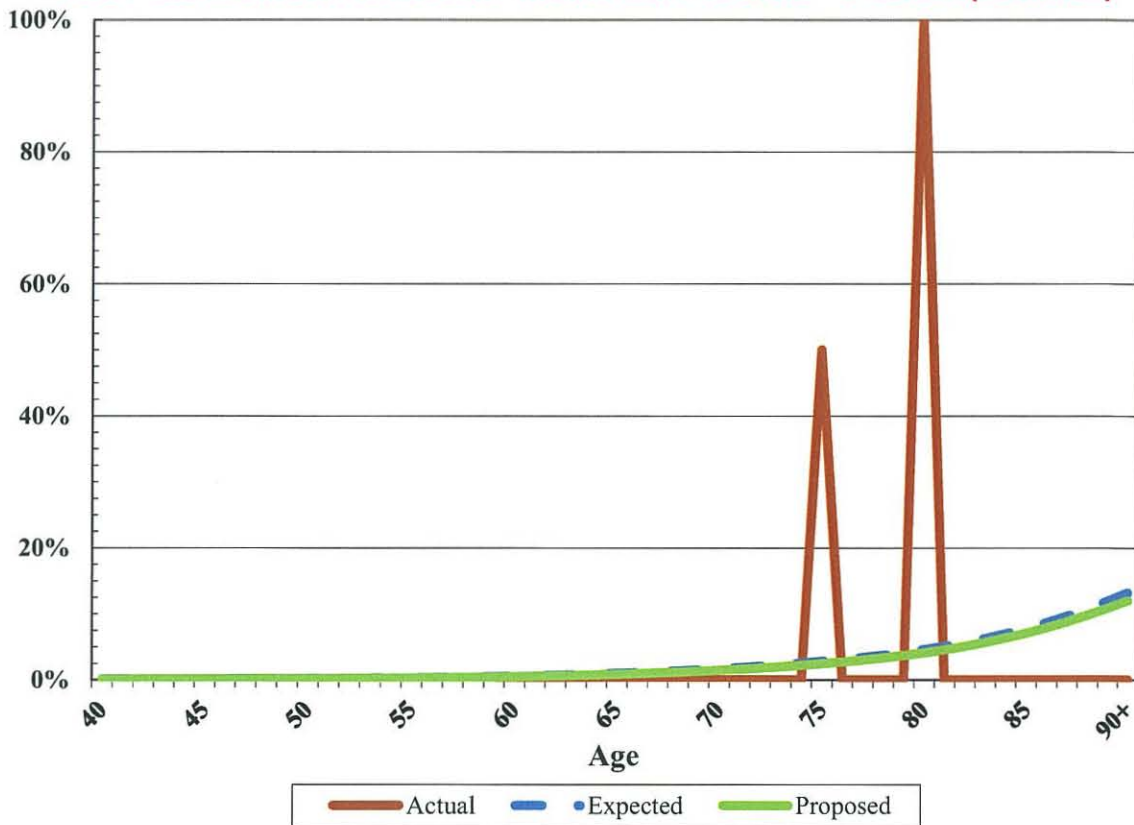
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 50	1	0	0.00%	0.00	0.00%	0.00%	0.13%
50-54	0	0	0.00%	0.00	0.00%	0.00%	0.00%
55-59	3	0	0.00%	0.01	0.33%	0.00%	0.40%
60-64	3	0	0.00%	0.02	0.67%	0.00%	0.50%
65-69	2	0	0.00%	0.02	1.00%	0.00%	0.88%
70-74	5	0	0.00%	0.09	1.80%	0.00%	1.58%
75-79	6	1	16.67%	0.20	3.33%	500.00%	2.97%
80-84	1	1	100.00%	0.05	5.00%	2000.00%	4.09%
85-89	3	0	0.00%	0.35	11.67%	0.00%	10.50%
90 & Over	3	0	0.00%	0.40	13.33%	0.00%	11.98%
Total	27	2	7.41%	1.14	4.22%	175.44%	3.78%

Grand Total	101	4	3.96%	2.20	2.18%	181.82%	2.10%
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**TABLE 3A:
POST-RETIREMENT HEALTHY MORTALITY – POLICE (MALE)**



**GRAPH 3B:
POST-RETIREMENT HEALTHY MORTALITY RATES – POLICE (FEMALE)**



**TABLE 3B:
POST-RETIREMENT HEALTHY MORTALITY - FIREFIGHTERS
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

MALE

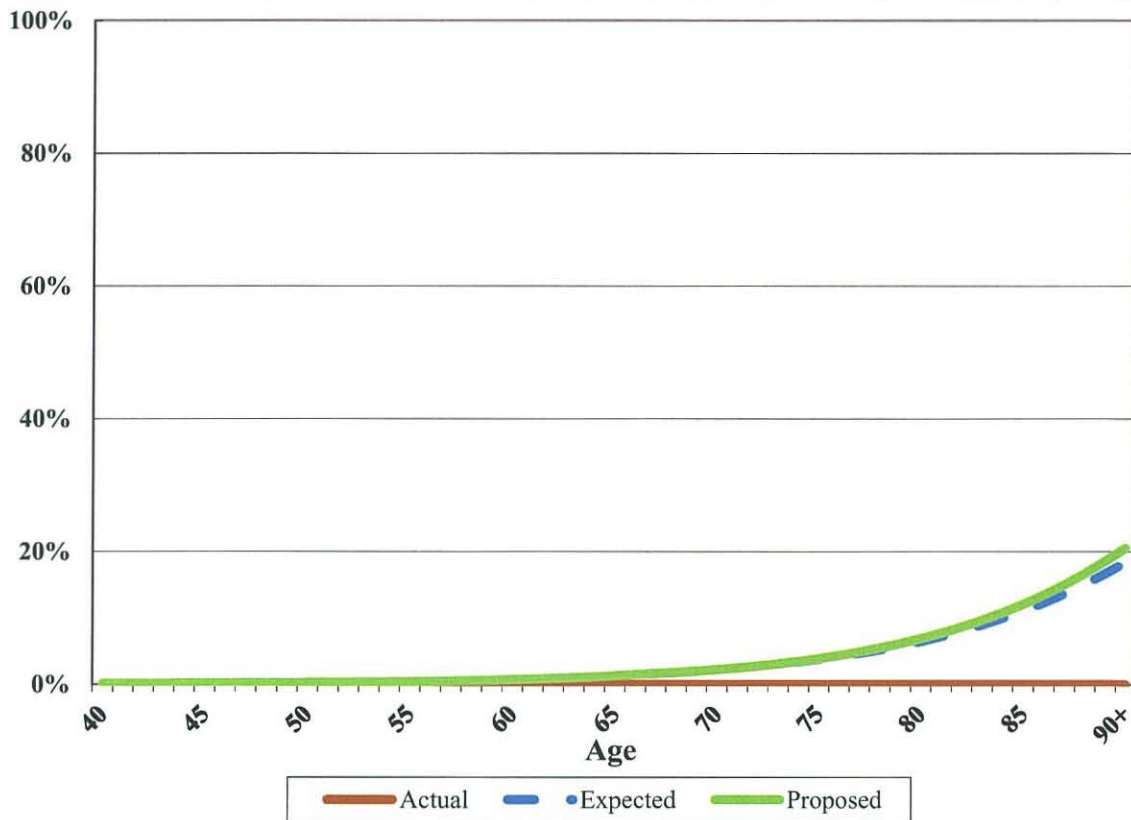
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 50	10	0	0.00%	0.01	0.10%	0.00%	0.15%
50-54	9	0	0.00%	0.03	0.33%	0.00%	0.25%
55-59	14	0	0.00%	0.07	0.50%	0.00%	0.47%
60-64	11	0	0.00%	0.10	0.91%	0.00%	0.63%
65-69	8	0	0.00%	0.12	1.50%	0.00%	1.52%
70-74	2	0	0.00%	0.05	2.50%	0.00%	2.22%
75-79	1	0	0.00%	0.04	4.00%	0.00%	7.79%
80-84	0	0	0.00%	0.00	0.00%	0.00%	0.00%
85-89	0	0	0.00%	0.00	0.00%	0.00%	0.00%
90 & Over	0	0	0.00%	0.00	0.00%	0.00%	0.00%
Total	55	0	0.00%	0.42	0.76%	0.00%	0.76%

FEMALE

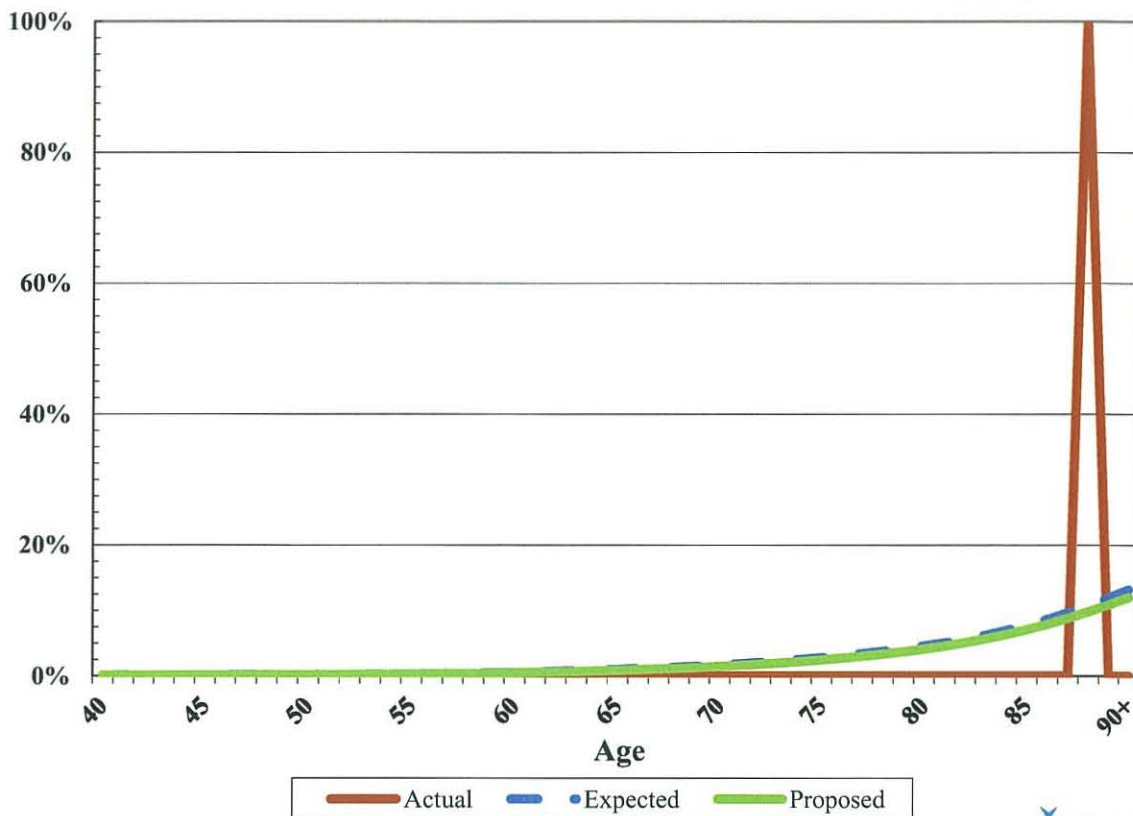
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 50	0	0	0.00%	0.00	0.00%	0.00%	0.00%
50-54	1	0	0.00%	0.00	0.00%	0.00%	0.20%
55-59	3	0	0.00%	0.00	0.00%	0.00%	0.19%
60-64	0	0	0.00%	0.00	0.00%	0.00%	0.00%
65-69	0	0	0.00%	0.00	0.00%	0.00%	0.00%
70-74	0	0	0.00%	0.00	0.00%	0.00%	0.00%
75-79	0	0	0.00%	0.00	0.00%	0.00%	0.00%
80-84	0	0	0.00%	0.00	0.00%	0.00%	0.00%
85-89	2	1	50.00%	0.20	10.00%	500.00%	8.83%
90 & Over	0	0	0.00%	0.00	0.00%	0.00%	0.00%
Total	6	1	16.67%	0.20	3.33%	500.00%	3.17%

Grand Total	61	1	1.64%	0.62	1.02%	161.29%	1.00%
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**GRAPH 3C:
POST-RETIREMENT HEALTHY MORTALITY RATES— FIREFIGHTERS (MALE)**



**GRAPH 3D:
POST-RETIREMENT HEALTHY MORTALITY RATES— FIREFIGHTERS (FEMALE)**



2. Disabled Annuitant Mortality

Mortality experience among disabled annuitants is studied separately from other retirees because of characteristically higher levels of mortality exhibited by disabled retirees. The current assumption for disabled lives is based on mortality rates from the sex-distinct RP-2000 Disability Retiree Mortality Table. This table was introduced with the July 1, 2009 valuations. Previously, the disabled mortality rates were from the PBGC Table V(a) for males and PBGC Table VI(a) for females.

Among disabled lives in pay status, the Police Plan mortality rates were less than expected for both males and females and the Firefighters Plan mortality rates were more than expected for males and less than expected for females.. The following table summarizes the disabled annuitant mortality experience:

Disabled Annuitant Mortality	Exposures	Actual Deaths	Expected Deaths	Ratio of Actual Deaths to Expected Deaths
Police Male	45	1	2.22	45%
Police Female	5	0	0.06	0%
Police Total	50	1	2.28	44%
Firefighters Male	70	3	2.50	120%
Firefighters Female	2	0	0.01	0%
Firefighter Total	72	3	2.51	119%

However, due to the small numbers of participants in both Plans, the disabled experience is generally not considered credible. It is our understanding that the State of Rhode Island will deem the mortality assumptions reasonable if they match the assumptions used for the State of Rhode Island Municipal Employees Retirement System (MERS).

The MERS assumptions are as follows:

Disabled Mortality for Males: 60% of PBGC Table V(a) for disabled males eligible for Social Security disability benefits

Disabled Mortality for Females: 60% of PBGC Table VI(a) for disabled females eligible for Social Security disability benefits

The proposed disability mortality rates are shown in Appendix B.

Tables 4A and 4B summarize the disabled annuitant mortality experience for the study period for Police and Firefighter respectively. Graphs 4A, 4B, 4C and 4D illustrate this information for males and females.

**TABLE 4A:
DISABLED ANNUITANT MORTALITY EXPERIENCE - POLICE
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

MALE

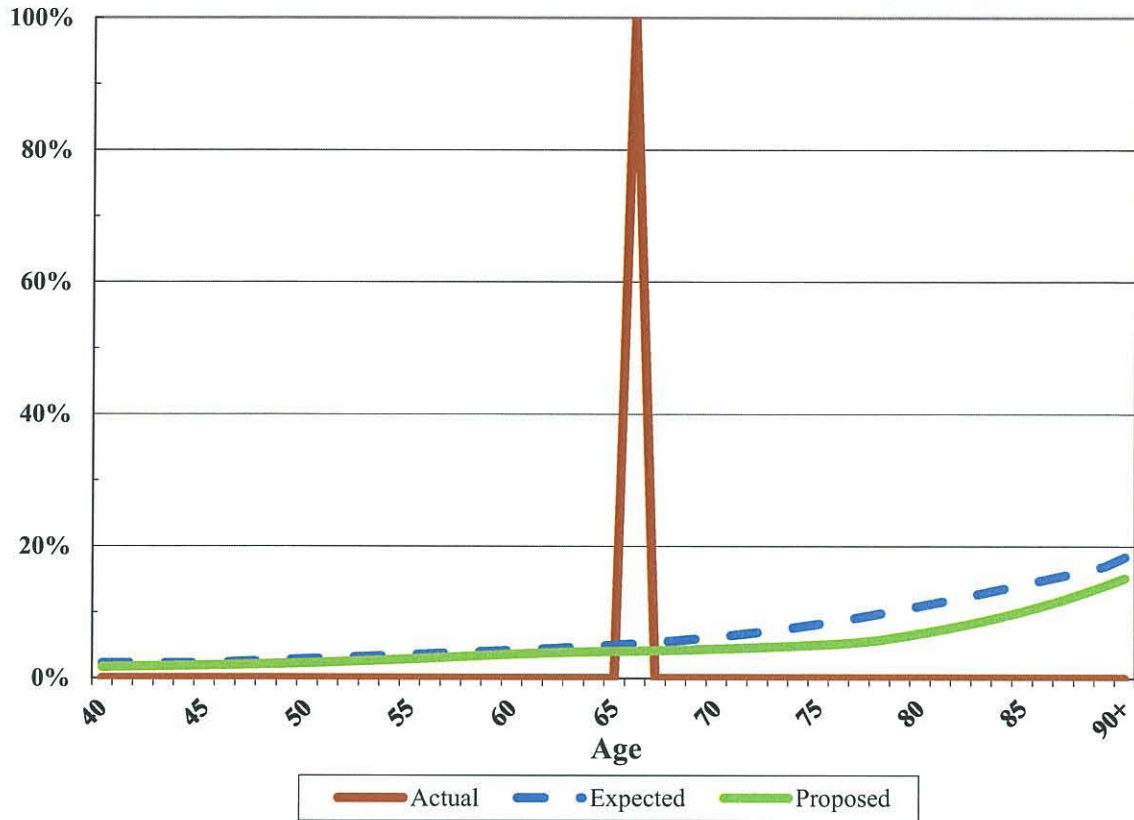
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 45	4	0	0.00%	0.09	2.26%	0.00%	1.67%
45-49	6	0	0.00%	0.15	2.56%	0.00%	2.07%
50-54	7	0	0.00%	0.22	3.10%	0.00%	2.47%
55-59	3	0	0.00%	0.12	3.93%	0.00%	3.33%
60-64	13	0	0.00%	0.59	4.52%	0.00%	3.84%
65-69	4	1	25.00%	0.22	5.41%	462.00%	4.18%
70-74	4	0	0.00%	0.28	6.97%	0.00%	4.66%
75-79	0	0	0.00%	0.00	0.00%	0.00%	0.00%
80 & Over	4	0	0.00%	0.55	13.84%	0.00%	9.80%
Total	45	1	2.22%	2.22	4.93%	45.05%	3.80%

FEMALE

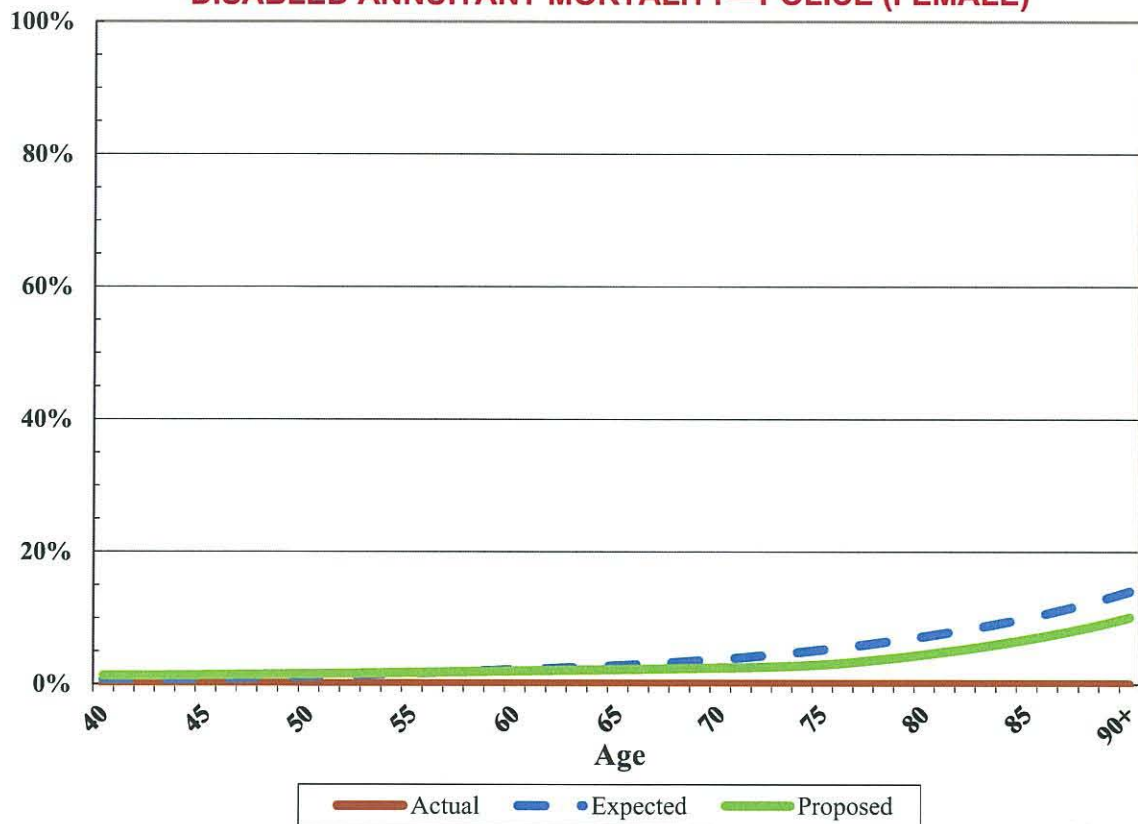
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 45	1	0	0.00%	0.01	0.75%	0.00%	1.27%
45-49	1	0	0.00%	0.01	1.06%	0.00%	1.49%
50-54	3	0	0.00%	0.04	1.25%	0.00%	1.59%
55-59	0	0	0.00%	0.00	0.00%	0.00%	0.00%
60-64	0	0	0.00%	0.00	0.00%	0.00%	0.00%
65-69	0	0	0.00%	0.00	0.00%	0.00%	0.00%
70-74	0	0	0.00%	0.00	0.00%	0.00%	0.00%
75-79	0	0	0.00%	0.00	0.00%	0.00%	0.00%
80 & Over	0	0	0.00%	0.00	0.00%	0.00%	0.00%
Total	5	0	0.00%	0.06	1.20%	0.00%	1.60%

Grand Total	50	1	2.00%	2.28	4.56%	43.86%	3.58%
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**GRAPH 4A:
DISABLED ANNUITANT MORTALITY—POLICE (MALE)**



**GRAPH 4B:
DISABLED ANNUITANT MORTALITY—POLICE (FEMALE)**



**TABLE 4B:
DISABLED ANNUITANT MORTALITY EXPERIENCE - FIREFIGHTERS
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

MALE

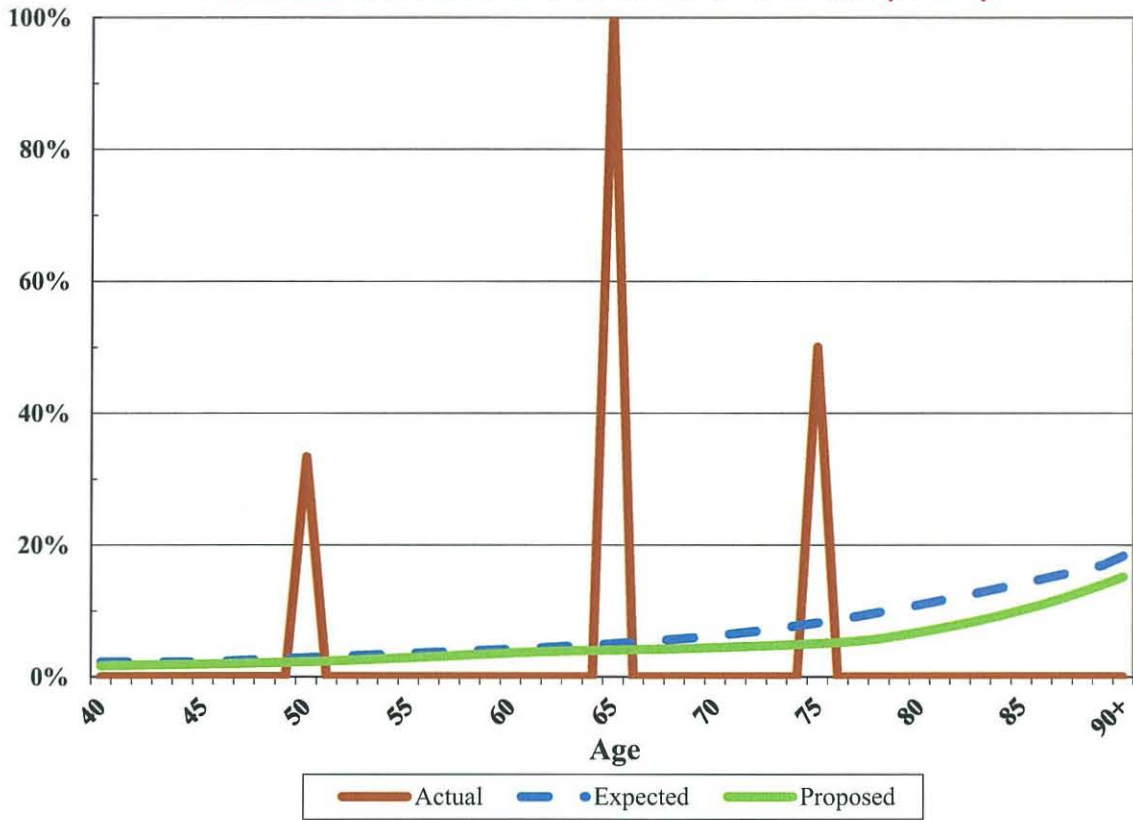
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 45	19	0	0.00%	0.43	2.26%	0.00%	1.72%
45-49	10	0	0.00%	0.26	2.56%	0.00%	2.08%
50-54	8	1	12.50%	0.25	3.14%	398.07%	2.51%
55-59	15	0	0.00%	0.58	3.84%	0.00%	3.23%
60-64	10	0	0.00%	0.44	4.35%	0.00%	3.74%
65-69	2	1	50.00%	0.10	5.23%	955.80%	4.13%
70-74	4	0	0.00%	0.29	7.14%	0.00%	4.72%
75-79	2	1	50.00%	0.16	8.21%	609.26%	5.05%
80 & Over	0	0	0.00%	0.00	0.00%	0.00%	0.00%
Total	70	3	4.29%	2.50	3.57%	120.00%	2.81%

FEMALE

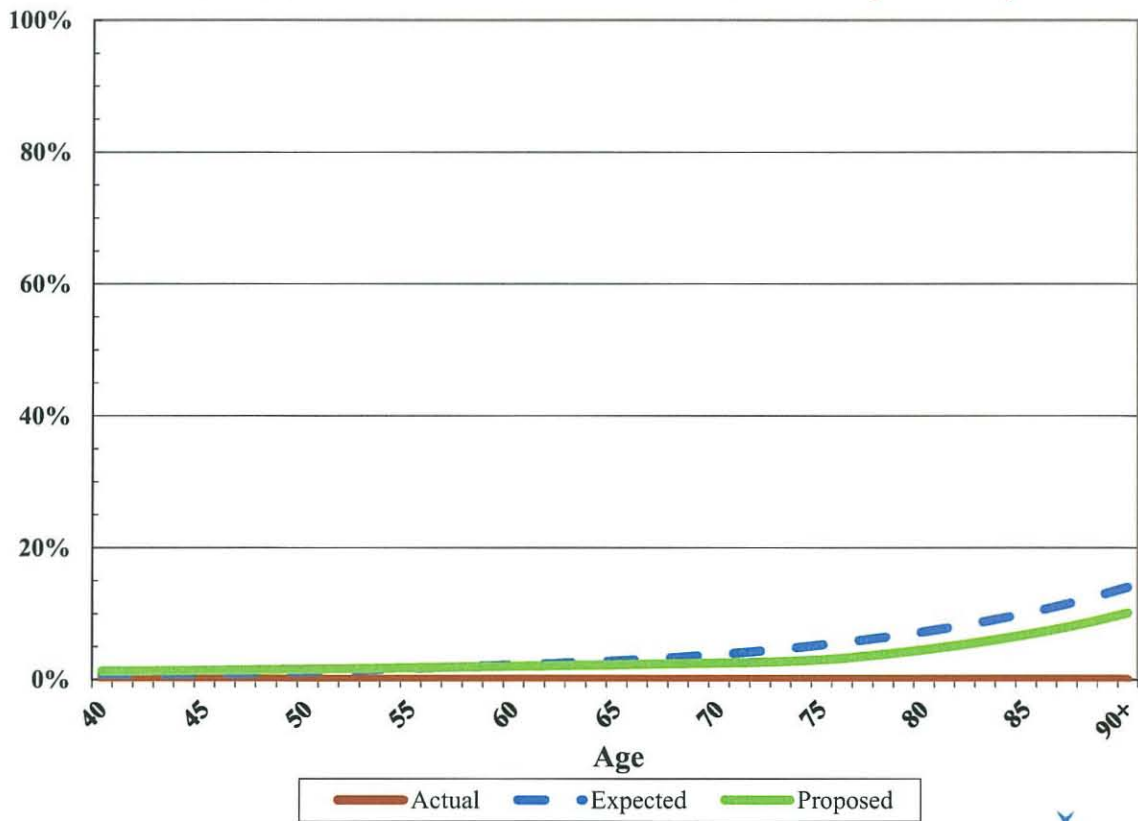
Age	Total Exposures	Actual Deaths	Actual Mortality Rate	Expected Deaths	Current Mortality Rate	Ratio of Actual Rate to Expected Rate	Proposed Mortality Rate
Under 45	2	0	0.00%	0.01	0.75%	0.00%	1.26%
45-49	0	0	0.00%	0.00	0.00%	0.00%	0.00%
50-54	0	0	0.00%	0.00	0.00%	0.00%	0.00%
55-59	0	0	0.00%	0.00	0.00%	0.00%	0.00%
60-64	0	0	0.00%	0.00	0.00%	0.00%	0.00%
65-69	0	0	0.00%	0.00	0.00%	0.00%	0.00%
70-74	0	0	0.00%	0.00	0.00%	0.00%	0.00%
75-79	0	0	0.00%	0.00	0.00%	0.00%	0.00%
80 & Over	0	0	0.00%	0.00	0.00%	0.00%	0.00%
Total	2	0	0.00%	0.01	0.50%	0.00%	1.50%

Grand Total	72	3	4.17%	2.51	3.49%	119.52%	2.78%
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**GRAPH 4C:
DISABLED ANNUITANT MORTALITY—POLICE (MALE)**



**GRAPH 4D:
DISABLED ANNUITANT MORTALITY—POLICE (FEMALE)**



B. Turnover Rates

The assumed turnover rates used in annual actuarial valuations project the percentage of employees at each age or service duration who will terminate employment prior to retirement. These rates take into account possible terminations from all causes other than retirement, death, or disability. They include both voluntary and involuntary withdrawals from service.

Terminations before retirement give rise to some benefit rights, but may also involve the forfeiture of a portion of previously accrued benefits. Forfeitures resulting from turnover are anticipated in advance and help finance benefits which become payable to other employees.

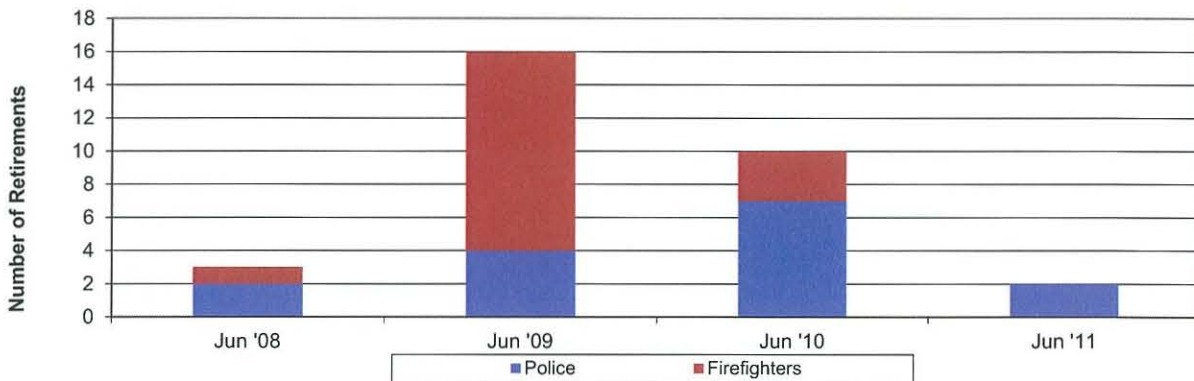
Currently, no participants in either Plan are assumed to withdraw. During the four-year study period, no firefighters withdrew from the force. Two police officers withdrew during the first two years of the study period and no police officers withdrew during the last two years. Since no new hires will be eligible for either Plan, we recommend continuing the current assumption of no withdrawals.

C. Retirement Rates

Under the Plan, Police participants are eligible to retire with an unreduced benefit after attaining 18 years of service, regardless of age. Likewise, Firefighters participants are allowed to retire at any age upon attaining 20 years of service.

An accurate prediction of the ages at which members will retire is essential in order to obtain a realistic assessment of the Plan's liabilities for retirement benefits. Because retirement accounts for most of the plan's liability, it is important to review this assumption thoroughly in order to predict the relative value of retirement benefits versus ancillary (i.e., death and disability) benefits, and to properly measure the overall magnitude of retirement liabilities.

A total of 31 participants retired during the study period.



The actual number of retirements has been less than expected for Police and greater than expected for Firefighters, as shown in the table below.

Group	Exposures	Actual Retirements	Expected Retirements	Ratio of Actual Retirements to Expected Retirements
Police	294	15*	16.25	92%
Firefighters	200	16**	7.10	225%
Total	494	31	23.35	133%

* Includes 1 Police participant with less than 18 years of service at retirement, prior to purchase of service time

** Includes 6 Firefighters with less than 20 years of service at retirement, prior to purchase of military service.

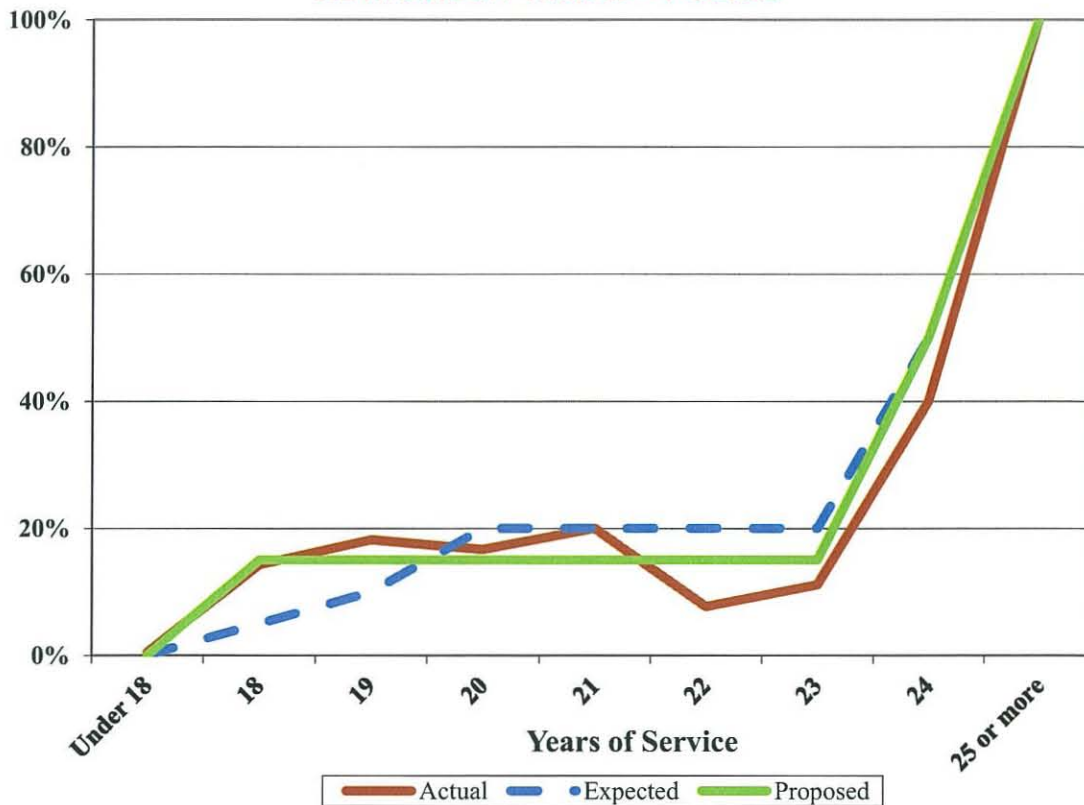
Currently, each plan has their own unique set of service-related retirement rates based on years of service at retirement. We have modified the rates of retirement for each Plan. Table 5 shows the actual, expected and proposed number of retirements for Police. Graph 5 displays the actual, expected and new proposed retirement rates. Similarly, Table 6 shows the actual, expected and proposed number of retirements for Firefighters. Graph 6 displays the actual, expected and new proposed retirement rates for this group.

A complete table of proposed retirement rates for each plan is shown in Appendix C.

**TABLE 5:
RETIREMENT RATES – POLICE
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

Age	Total Exposures	Actual Retirements	Actual Retirement Rate	Expected Retirements	Current Retirement Rate	Proposed Retirement Rate	Proposed Retirements
Under 18	221	1	0.45%	0.00	0.00%	0.00%	0.00
18	7	1	14.29%	0.35	5.00%	15.00%	1.05
19	11	2	18.18%	1.10	10.00%	15.00%	1.65
20	12	2	16.67%	2.40	20.00%	15.00%	1.80
21	10	2	20.00%	2.00	20.00%	15.00%	1.50
22	13	1	7.69%	2.60	20.00%	15.00%	1.95
23	9	1	11.11%	1.80	20.00%	15.00%	1.35
24	10	4	40.00%	5.00	50.00%	50.00%	5.00
25 & Over	1	1	100.00%	1.00	100.00%	100.00%	1.00
Total	294	15	5.10%	16.25	5.53%	5.20%	15.30

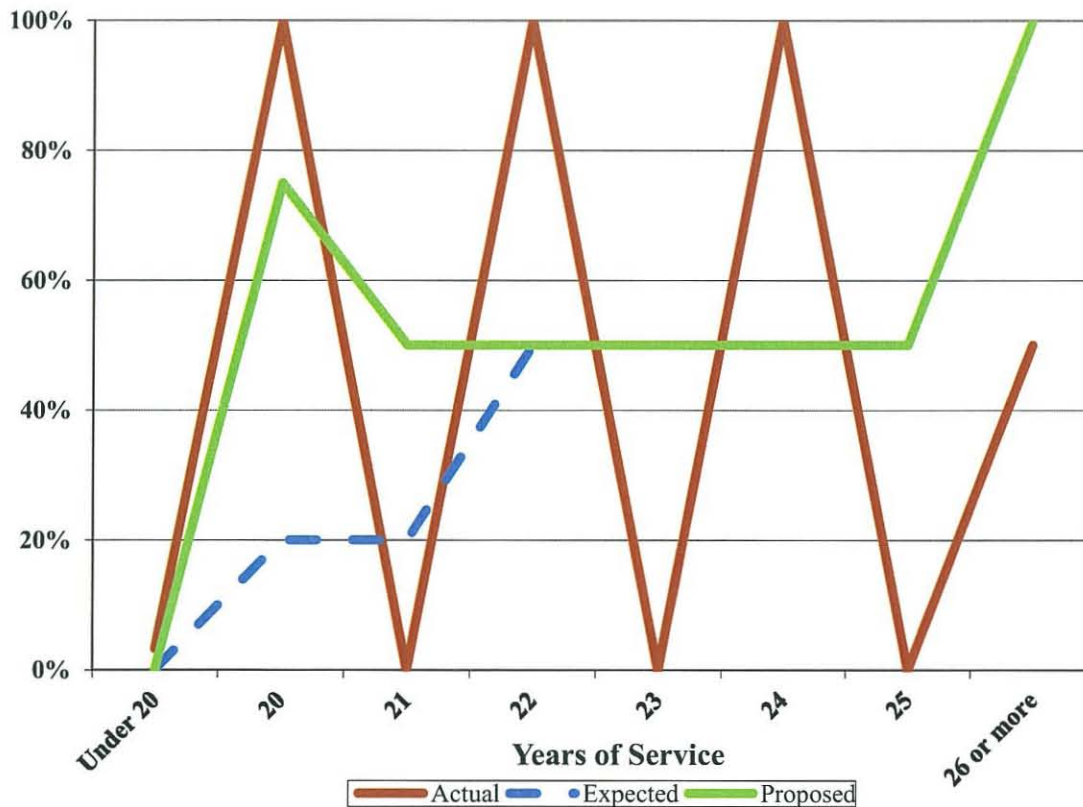
**GRAPH 5:
RETIREMENT RATES – POLICE**



**TABLE 6:
RETIREMENT RATES – FIREFIGHTERS
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011**

Age	Total Exposures	Actual Retirements	Actual Retirement Rate	Expected Retirements	Current Retirement Rate	Proposed Retirement Rate	Proposed Retirements
Under 20	183	6	3.28%	0.00	0.00%	0.00%	0.00
20	3	3	100.00%	0.60	20.00%	75.00%	2.25
21	5	0	0.00%	1.00	20.00%	50.00%	2.50
22	5	5	100.00%	2.50	50.00%	50.00%	2.50
23	1	0	0.00%	0.50	50.00%	50.00%	0.50
24	1	1	100.00%	0.50	50.00%	50.00%	0.50
25	0	0	0.00%	0.00	50.00%	50.00%	0.00
26 & Over	2	1	50.00%	2.00	100.00%	100.00%	2.00
Total	200	16	8.00%	7.10	3.55%	5.13%	10.25

**GRAPH 6:
RETIREMENT RATES – FIREFIGHTERS**



D. Disability Rates

Disability rate tables function in the same way as mortality tables. The rate at each age indicates the probability of becoming disabled before the next age. Disability rates add liability for the value of the disability benefits, but lessen the value of retirement benefits ultimately payable, since anyone who becomes disabled will generally not accrue a full service benefit.

Plan participants are eligible for service-related disability benefits at any age. The current disability assumption is a table of unisex rates based on age where firefighters are assumed to be twice as likely as police officers to become disabled. Chart 7 summarizes the experience during the study period. Graphs 7A and 7B summarize the experience during the four-year study period.

For the study period, the actual number of disabilities was somewhat greater than expected in the Firefighters Plan and significantly greater than expected in the Police Plan. The following table summarizes the disability experience:

	Exposures	Actual Disabilities	Expected Disabilities	Ratio of Actual Disabilities to Expected Disabilities
Police	50	3	0.81	370%
Firefighter	72	3	1.96	153%
Total	122	6	2.77	217%

As shown on the charts, during the study period, police officers had an overall higher rate of disability than firefighters. While the number of disabilities is low, we are recommending increasing the disability rates in the Police Plan to match the rates in the Firefighters Plan. *A complete table of proposed disability rates for the Police Plan is shown in Appendix D.*

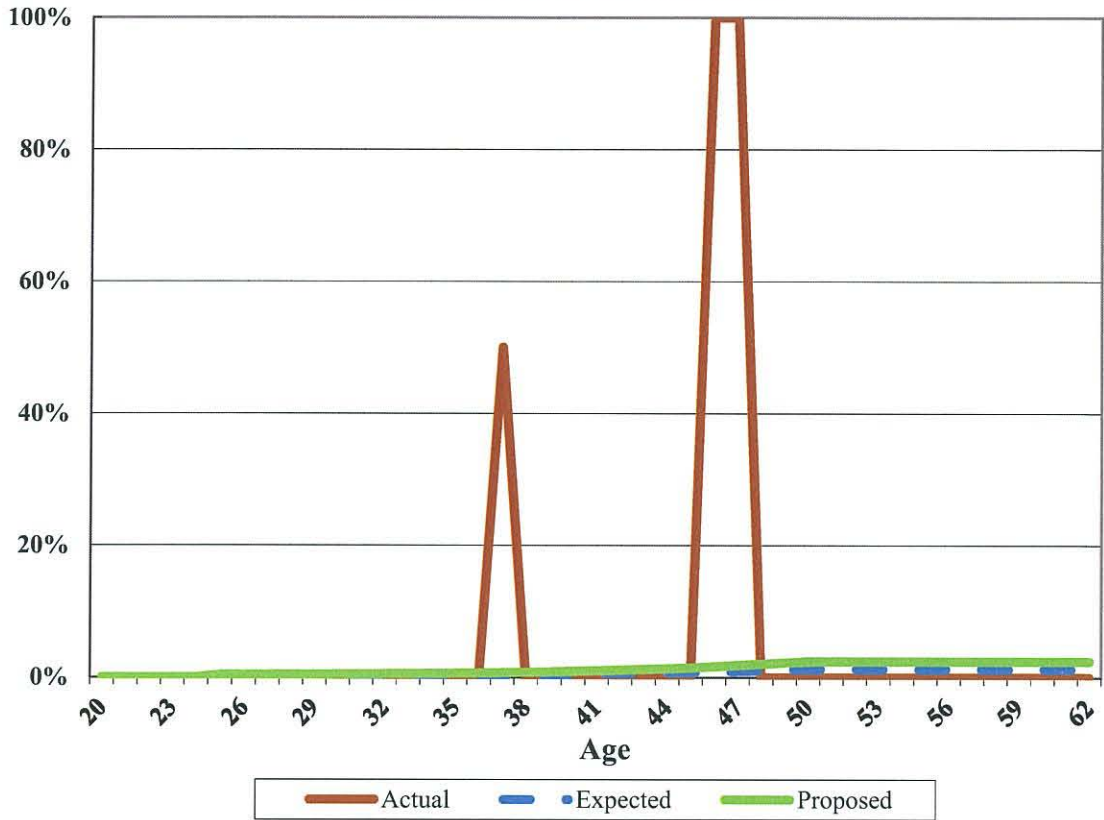
**TABLE 7:
DISABILITY RATES
FOR THE PERIOD JULY 1, 2007 THROUGH JUNE 30, 2011
POLICE**

Age	Total Exposures	Actual Disabilities	Actual Disability Rate	Expected Disabilities	Current Disability Rate	Ratio of Actual Rate to Expected Rate	Proposed Disability Rate
Under 20	0	0	0.00%	0.00	0.00%	0.00%	0.00%
20-24	0	0	0.00%	0.00	0.00%	0.00%	0.00%
25-29	0	0	0.00%	0.00	0.00%	0.00%	0.00%
30-34	0	0	0.00%	0.00	0.00%	0.00%	0.00%
35-39	3	1	33.33%	0.02	0.57%	5813.95%	1.15%
40-44	2	0	0.00%	0.01	0.50%	0.00%	0.99%
45-49	4	2	50.00%	0.08	1.95%	2558.20%	3.91%
50-54	13	0	0.00%	0.21	1.58%	0.00%	3.16%
55-59	2	0	0.00%	0.05	2.42%	0.00%	4.84%
60-64	12	0	0.00%	0.23	1.92%	0.00%	3.83%
65 & Over	14	0	0.00%	0.22	1.56%	0.00%	3.11%
Total	50	3	6.00%	0.81	1.62%	370.37%	3.23%

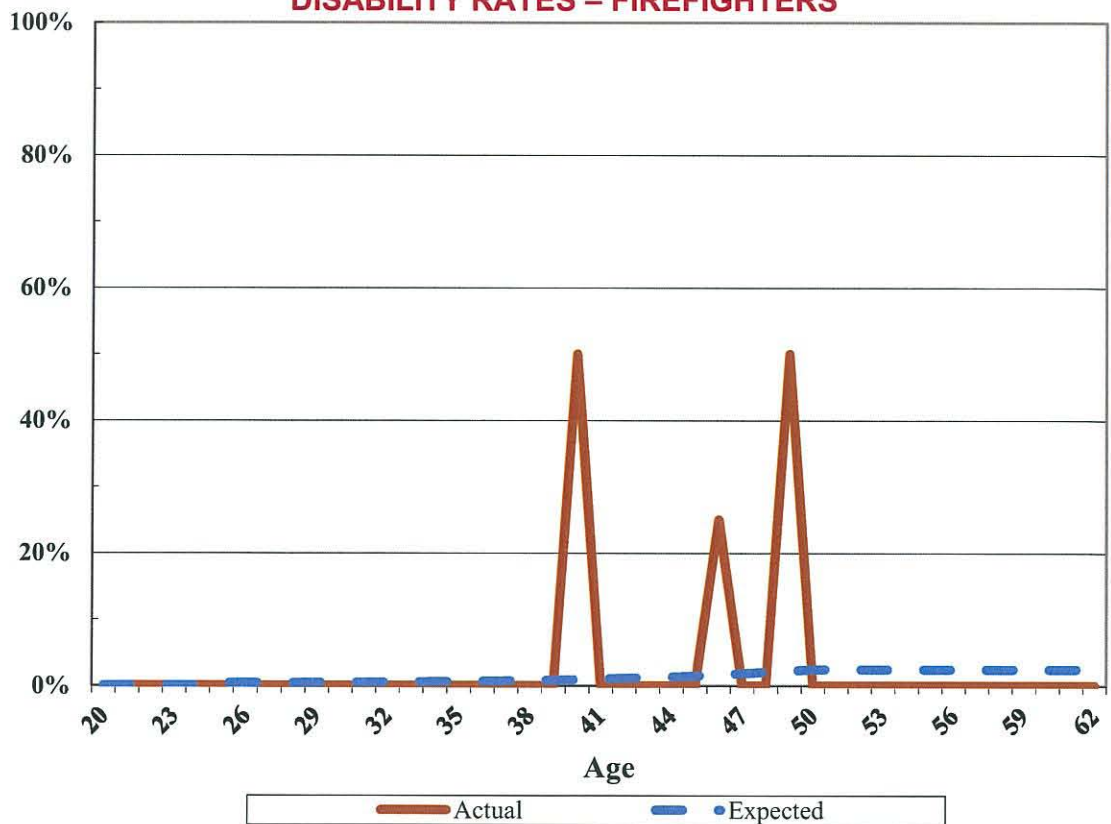
FIREFIIGHTERS

Age	Total Exposures	Actual Disabilities	Actual Disability Rate	Expected Disabilities	Current Disability Rate	Ratio of Actual Rate to Expected Rate	Proposed Disability Rate
Under 20	0	0	0.00%	0.00	0.00%	0.00%	N/A
20-24	0	0	0.00%	0.00	0.00%	0.00%	N/A
25-29	0	0	0.00%	0.00	0.00%	0.00%	N/A
30-34	0	0	0.00%	0.00	0.00%	0.00%	N/A
35-39	9	0	0.00%	0.09	1.02%	0.00%	N/A
40-44	10	1	10.00%	0.14	1.42%	702.25%	N/A
45-49	8	2	25.00%	0.23	2.85%	878.43%	N/A
50-54	10	0	0.00%	0.31	3.15%	0.00%	N/A
55-59	12	0	0.00%	0.48	4.03%	0.00%	N/A
60-64	15	0	0.00%	0.41	2.74%	0.00%	N/A
65 & Over	8	0	0.00%	0.29	3.63%	0.00%	N/A
Total	72	3	4.17%	1.96	2.73%	152.85%	N/A

**GRAPH 7A:
DISABILITY RATES - POLICE**



**GRAPH 7B:
DISABILITY RATES - FIREFIGHTERS**



E. Marriage Assumption and Spousal Age Difference

As described in the Executive Summary, we are proposing decreasing the assumed married percentage from 100% to 85% and maintaining the assumption that female spouses are three years younger than male spouses.

IV. Actuarial Methods

A. Asset Smoothing

There was a historical drop in the Plan's assets during the 2008-2009 plan year and many plans are revisiting the methodology for determining the actuarial value of assets. Most ongoing plans use some form of asset smoothing with a corridor around the market value of assets. The most common smoothing period is five years and the most common corridor is 20%. Recently, the Society of Actuaries issued Actuarial Standards of Practice (ASOP) No. 44 to provide actuaries guidance with smoothing techniques. This ASOP provides guidance in helping the actuary determine a "reasonable" smoothing period and corridor. In light of ASOP No. 44 and that both Plans are closed to new hires, we are not proposing a change in asset method. However, if the Board would like to mitigate volatility in the recommended contribution amounts due to large market swings, they may wish to consider using a smoothing method.

B. Actuarial Cost Method

Actuarial cost methods are the means by which the present value of future benefits are allocated over the working lifetime of plan participants. The most commonly used method for public sector plans is the Entry Age Normal method.

Under the Entry Age Normal method the annual normal cost is a function of the member's plan entry age and represents the share of the cost of the expected retirement benefit that is allocated to each year. The allocation is designed to produce a normal cost that remains level as a percentage of payroll for the working career of the member. The Entry Age Normal method develops a normal cost that stays constant as a percentage of payroll for each member.

The Segal Company uses a variation of the Entry Age Normal method called the Replacement Life method. It recognizes that every member that retires is likely to be *replaced* by a new member. This method bases the normal cost exclusively on the most recent plan provisions, and allows historical plan structures to all flow into the actuarial accrued liability calculation. We have found that this approach provides a more stable and level normal cost calculation, because the normal costs for current members and new members are based on exactly the same plan design.

C. Amortization of Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability (UAAL) is amortized on a level percent-of-pay basis over a closed 30-year period commencing on July 1, 1999. There are 18 years remaining on this period as of July 1, 2011. We recommend that the period continue to remain closed. The payments to amortize the UAAL will remain level, in terms of covered payroll, but will increase when viewed as a dollar amount. Due to the expected decrease in annual payroll each year due to the closed participant group, we are recommending a change to a flat dollar amortization method. Changing to a flat dollar amortization method will increase the annual amortization payment in earlier years and reduce it in later years. Another alternative would be to increase the amortization payments annually by the proposed inflation assumption of 2.75% instead of the 3.25% payroll growth assumption.

To illustrate the impact, the charts below provide a comparison of projected amortization payments over the remaining 18 years under the existing level percentage of payroll method and the recommended level dollar method as well as the inflationary increase method. All three methods take into account the other proposed assumptions and assume no additional gains or losses after July 1, 2011.

POLICE	Valuation Date	Years Remaining	Level % of Payroll		Level Dollar		Inflationary	
			Amortization payments increase 3.25% per year		Amortization payments remain level		Amortization payments increase 2.75% per year	
			UAAL	Payment Amount	UAAL	Payment Amount	UAAL	Payment Amount
	07/01/2011	18	49,091,859	3,759,886	49,091,859	4,705,008	49,091,859	3,896,652
	07/01/2012	17	48,731,871	3,882,082	47,715,865	4,705,008	48,584,848	4,003,810
	07/01/2013	16	48,213,524	4,008,250	46,236,672	4,705,008	47,924,616	4,113,915
	07/01/2014	15	47,520,670	4,138,518	44,646,540	4,705,008	47,096,504	4,227,047
	07/01/2015	14	46,635,814	4,273,019	42,937,147	4,705,008	46,084,666	4,343,291
	07/01/2016	13	45,540,004	4,411,893	41,099,550	4,705,008	44,871,978	4,462,732
	07/01/2017	12	44,212,719	4,555,279	39,124,133	4,705,008	43,439,940	4,585,457
	07/01/2018	11	42,631,748	4,703,326	37,000,560	4,705,008	41,768,569	4,711,557
	07/01/2019	10	40,773,054	4,856,184	34,717,719	4,705,008	39,836,289	4,841,125
	07/01/2020	9	38,610,636	5,014,010	32,263,665	4,705,008	37,619,801	4,974,255
	07/01/2021	8	36,116,373	5,176,965	29,625,556	4,705,008	35,093,962	5,111,047
	07/01/2022	7	33,259,864	5,345,216	26,789,590	4,705,008	32,231,633	5,251,601
	07/01/2023	6	30,008,246	5,518,936	23,740,926	4,705,008	29,003,534	5,396,020
	07/01/2024	5	26,326,008	5,698,301	20,463,613	4,705,008	25,378,077	5,544,411
	07/01/2025	4	22,174,785	5,883,496	16,940,501	4,705,008	21,321,191	5,696,882
	07/01/2026	3	17,513,135	6,074,710	13,153,155	4,705,008	16,796,133	5,853,546
	07/01/2027	2	12,296,307	6,272,138	9,081,759	4,705,008	11,763,280	6,014,519
	07/01/2028	1	6,475,982	6,475,982	4,705,008	4,705,008	6,179,918	6,179,918
	07/01/2029	0	0	0	0	0	0	0

FIRE	Valuation Date	Years Remaining	Level % of Payroll		Level Dollar		Inflationary	
			Amortization payments increase 3.25% per year		Amortization payments remain level		Amortization payments increase 2.75% per year	
			UAAL	Payment Amount	UAAL	Payment Amount	UAAL	Payment Amount
	07/01/2011	18	49,505,090	3,791,534	49,505,090	4,744,612	49,505,090	3,929,452
	07/01/2012	17	49,142,072	3,914,759	48,117,514	4,744,612	48,993,811	4,037,512
	07/01/2013	16	48,619,361	4,041,989	46,625,870	4,744,612	48,328,021	4,148,543
	07/01/2014	15	47,920,675	4,173,354	45,022,352	4,744,612	47,492,939	4,262,628
	07/01/2015	14	47,028,371	4,308,988	43,298,571	4,744,612	46,472,584	4,379,851
	07/01/2016	13	45,923,337	4,449,030	41,445,506	4,744,612	45,249,688	4,500,297
	07/01/2017	12	44,584,880	4,593,623	39,453,461	4,744,612	43,805,596	4,624,055
	07/01/2018	11	42,990,601	4,742,916	37,312,012	4,744,612	42,120,156	4,751,216
	07/01/2019	10	41,116,262	4,897,061	35,009,955	4,744,612	40,171,611	4,881,875
	07/01/2020	9	38,935,641	5,056,215	32,535,244	4,744,612	37,936,466	5,016,126
	07/01/2021	8	36,420,383	5,220,542	29,874,930	4,744,612	35,389,365	5,154,070
	07/01/2022	7	33,539,829	5,390,210	27,015,092	4,744,612	32,502,943	5,295,807
	07/01/2023	6	30,260,840	5,565,392	23,940,766	4,744,612	29,247,672	5,441,441
	07/01/2024	5	26,547,607	5,746,267	20,635,865	4,744,612	25,591,697	5,591,081
	07/01/2025	4	22,361,441	5,933,021	17,083,097	4,744,612	21,500,663	5,744,836
	07/01/2026	3	17,660,552	6,125,844	13,263,872	4,744,612	16,937,514	5,902,819
	07/01/2027	2	12,399,812	6,324,934	9,158,204	4,744,612	11,862,298	6,065,146
	07/01/2028	1	6,530,494	6,530,494	4,744,612	4,744,612	6,231,938	6,231,938
	07/01/2029	0	0	0	0	0	0	0

V. Appendices

Appendix A. Proposed Healthy Annuitant Mortality Rates

Non-Disabled					
Age	Male	Female	Age	Male	Female
21	0.04%	0.02%	71	2.46%	1.60%
22	0.04%	0.02%	72	2.75%	1.78%
23	0.04%	0.02%	73	3.07%	1.99%
24	0.04%	0.02%	74	3.45%	2.21%
25	0.04%	0.02%	75	3.87%	2.44%
26	0.04%	0.02%	76	4.35%	2.71%
27	0.04%	0.02%	77	4.87%	3.00%
28	0.05%	0.02%	78	5.46%	3.32%
29	0.05%	0.02%	79	6.12%	3.68%
30	0.04%	0.03%	80	6.83%	4.09%
31	0.04%	0.03%	81	7.68%	4.55%
32	0.05%	0.03%	82	8.62%	5.07%
33	0.06%	0.04%	83	9.66%	5.65%
34	0.06%	0.04%	84	10.79%	6.31%
35	0.07%	0.04%	85	12.04%	7.05%
36	0.07%	0.05%	86	13.43%	7.87%
37	0.08%	0.05%	87	14.97%	8.79%
38	0.09%	0.05%	88	16.66%	9.79%
39	0.10%	0.06%	89	18.53%	10.86%
40	0.10%	0.06%	90	20.50%	11.98%
41	0.11%	0.07%	91	22.42%	13.16%
42	0.12%	0.07%	92	24.39%	14.34%
43	0.13%	0.08%	93	26.39%	15.53%
44	0.14%	0.09%	94	28.34%	16.67%
45	0.15%	0.10%	95	30.27%	17.76%
46	0.17%	0.11%	96	32.65%	19.51%
47	0.18%	0.12%	97	34.48%	20.45%
48	0.20%	0.13%	98	36.26%	21.28%
49	0.21%	0.14%	99	37.97%	21.98%
50	0.23%	0.15%	100	39.62%	22.56%
51	0.26%	0.17%	101	41.24%	23.26%
52	0.29%	0.18%	102	42.74%	24.18%
53	0.31%	0.20%	103	44.05%	25.27%
54	0.34%	0.22%	104	45.08%	26.51%
55	0.38%	0.25%	105	45.76%	27.85%
56	0.43%	0.28%	106	46.00%	29.24%
57	0.47%	0.32%	107	46.00%	30.66%
58	0.52%	0.35%	108	46.00%	32.06%
59	0.57%	0.40%	109	46.00%	33.40%
60	0.64%	0.44%	110	46.00%	34.64%
61	0.73%	0.50%	111	46.00%	35.74%
62	0.84%	0.57%	112	46.00%	36.67%
63	0.97%	0.65%	113	46.00%	37.38%
64	1.11%	0.73%	114	46.00%	37.84%
65	1.27%	0.82%	115	46.00%	38.00%
66	1.45%	0.93%	116	46.00%	38.00%
67	1.61%	1.04%	117	46.00%	38.00%
68	1.79%	1.16%	118	46.00%	38.00%
69	1.98%	1.28%	119	46.00%	38.00%
70	2.22%	1.44%	120	115.00%	95.00%

Appendix B. Proposed Disabled Annuitant Mortality Rates

Disabled					
Age	Male	Female	Age	Male	Female
21	2.90%	1.58%	71	4.54%	2.53%
22	2.90%	1.58%	72	4.66%	2.60%
23	2.90%	1.58%	73	4.78%	2.68%
24	2.90%	1.58%	74	4.91%	2.79%
25	2.90%	1.58%	75	5.05%	2.95%
26	2.77%	1.54%	76	5.21%	3.17%
27	2.62%	1.52%	77	5.45%	3.47%
28	2.47%	1.48%	78	5.77%	3.79%
29	2.32%	1.45%	79	6.26%	4.12%
30	2.17%	1.42%	80	6.77%	4.48%
31	2.03%	1.39%	81	7.33%	4.88%
32	1.92%	1.36%	82	7.93%	5.31%
33	1.81%	1.33%	83	8.59%	5.77%
34	1.73%	1.31%	84	9.31%	6.26%
35	1.67%	1.28%	85	10.09%	6.77%
36	1.63%	1.27%	86	10.95%	7.33%
37	1.63%	1.26%	87	11.88%	7.93%
38	1.64%	1.25%	88	12.90%	8.59%
39	1.66%	1.25%	89	13.98%	9.31%
40	1.69%	1.25%	90	15.15%	10.09%
41	1.73%	1.26%	91	16.43%	10.95%
42	1.78%	1.28%	92	17.83%	11.88%
43	1.83%	1.30%	93	19.36%	12.90%
44	1.88%	1.31%	94	20.97%	13.98%
45	1.93%	1.34%	95	22.73%	15.15%
46	1.98%	1.37%	96	24.65%	16.43%
47	2.04%	1.41%	97	26.75%	17.83%
48	2.12%	1.45%	98	29.03%	19.36%
49	2.20%	1.49%	99	31.46%	20.97%
50	2.30%	1.54%	100	34.10%	22.73%
51	2.41%	1.58%	101	36.98%	24.65%
52	2.52%	1.63%	102	40.12%	26.75%
53	2.63%	1.69%	103	43.54%	29.03%
54	2.76%	1.73%	104	47.19%	31.46%
55	2.89%	1.77%	105	51.16%	34.10%
56	3.04%	1.81%	106	55.48%	36.98%
57	3.19%	1.84%	107	60.00%	40.12%
58	3.33%	1.89%	108	60.00%	43.54%
59	3.49%	1.94%	109	60.00%	47.19%
60	3.62%	1.99%	110	60.00%	60.00%
61	3.74%	2.03%	111	0.00%	0.00%
62	3.86%	2.08%	112	0.00%	0.00%
63	3.94%	2.13%	113	0.00%	0.00%
64	4.01%	2.17%	114	0.00%	0.00%
65	4.07%	2.22%	115	0.00%	0.00%
66	4.12%	2.27%	116	0.00%	0.00%
67	4.18%	2.32%	117	0.00%	0.00%
68	4.25%	2.36%	118	0.00%	0.00%
69	4.34%	2.41%	119	0.00%	0.00%
70	4.43%	2.47%	120	0.00%	0.00%

Appendix C. Proposed Retirement Rates

Police	
Years of Service at Retirement	
Service	Rate
Under 18	0.00%
18	15.00%
19	15.00%
20	15.00%
21	15.00%
22	15.00%
23	15.00%
24	50.00%
25 & Over	100.00%

Firefighters	
Years of Service at Retirement	
Service	Rate
Under 20	0.00%
20	75.00%
21	50.00%
22	50.00%
23	50.00%
24	50.00%
25	50.00%
26 & Over	100.00%

Appendix D. Proposed Disability Retirement Rates

Police	
Age	Male Rate
20	0.00%
21	0.00%
22	0.00%
23	0.00%
24	0.00%
25	0.34%
26	0.36%
27	0.38%
28	0.40%
29	0.42%
30	0.44%
31	0.47%
32	0.50%
33	0.52%
34	0.55%
35	0.58%
36	0.64%
37	0.70%
38	0.76%
39	0.82%
40	0.88%
41	0.99%
42	1.10%
43	1.22%
44	1.33%
45	1.44%
46	1.64%
47	1.83%
48	2.03%
49	2.22%
50	2.42%
51	2.42%
52	2.42%
53	2.42%
54	2.42%
55	2.42%
56	2.42%
57	2.42%
58	2.42%
59	2.42%
60	2.42%
61	2.42%
62	2.42%
63	2.42%
64	2.42%



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January 31, 2013

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
Town Hall
1385 Hartford Avenue
Johnston, RI 02919-7134

Re: **Town of Johnston Police and Firefighters Pension System – Estimated Unfunded Liability at July 1, 2012**

Dear Joe:

As requested, below are rough estimates of the unfunded liability at July 1, 2012 for the Police and Firefighters portions of the Combined Pension System:

Police

Estimated Asset Value at July 1, 2012	\$16,000,000
Estimated Actuarial Accrued Liability at July 1, 2012	\$70,000,000
Estimated Unfunded Actuarial Liability	\$54,000,000
Funded Percentage	22.9%

Fire

Estimated Asset Value at July 1, 2012	\$22,000,000
Estimated Actuarial Accrued Liability at July 1, 2012	\$78,000,000
Estimated Unfunded Actuarial Liability	\$56,000,000
Funded Percentage	28.2%

Combined

Estimated Asset Value at July 1, 2012	\$38,000,000
Estimated Actuarial Accrued Liability at July 1, 2012	\$148,000,000
Estimated Unfunded Actuarial Liability	\$110,000,000
Funded Percentage	25.7%

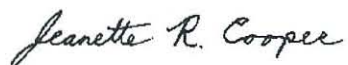
These estimates were based on the July 1, 2011 valuation results adjusted for the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter and new asset information as of July 1, 2012.



Mr. Joseph L. Chiodo, CPA, MBA
January 31, 2013
Page 2

Note that the liabilities do not include any benefit changes under consideration. Please let us know if you have any questions.

Sincerely,



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

cc: William Conley, Esq.
Doug Jeffrey
Joe Rodio, Jr., Esq.
Joe Rodio, Sr., Esq.
William Connolly
Malichi Waterman
Veronika Khanina

Town of Johnston, Rhode Island Police Pension System

Actuarial Valuation and Review as of
July 1, 2011

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March 30, 2012

*Mr. Joseph Chiodo, CPA, MBA
Finance Director
Town of Johnston, Rhode Island Police Pension System
1385 Hartford Avenue
Johnston, Rhode Island 02919*

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2011. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal years ending June 30, 2013 and June 30, 2014 and analyzes the preceding two years' experience.


The census information on which our calculations were based was prepared by the Town of Johnston and the financial information was obtained from the Town of Johnston financial statements and supplementary information for the fiscal years ended June 30, 2010 and June 30, 2011. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Jeanette R. Cooper, FSA, FCA, MAAA, EA, Enrolled Actuary.


This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Town are reasonably related to the experience of and the expectations for the Plan.

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.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY
By: 
William Connolly, FCA, MAAA, EA
Consulting Actuary


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

SECTION 1

VALUATION SUMMARY

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SECTION 1: Valuation Summary for the Town of Johnston, Rhode Island Police Pension System

Purpose

This report has been prepared by The Segal Company to present a valuation of the Town of Johnston, Rhode Island Police Pension System as of July 1, 2011. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Town;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2011, provided by the Town;
- The assets of the Plan as of June 30, 2011, provided by the Town;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

1. Throughout this report, the July 1, 2009 valuation results were restated to reflect an understatement in the cost-of-living adjustment and to reflect the timing of contributions. As a result, the Annual Required Contribution (ARC) for the fiscal year ending June 30, 2012 is \$4,730,394.
2. As developed in this July 1, 2011 actuarial valuation, the ARC amounts for the years ending June 30, 2013 and June 30, 2014 are \$4,984,688 and \$5,159,152, respectively. These figures reflect the increase in the employee contribution rate from 6% of gross pay used in the prior valuation to 8% of gross pay effective July 1, 2012. These figures assume there will be no other changes to the plan design before June 30, 2014.
3. The ARC increased from \$4,570,429 for the fiscal year ending June 30, 2011 to \$4,984,688 for the fiscal year ending June 30, 2013. The ARC as a percentage of payroll also increased from 82.97% to 90.00%, and the unfunded actuarial liability increased from \$39,755,770 to \$43,319,896. This unfunded liability is amortized over an 18-year period when determining the contribution requirements. The most significant reasons for these cost increases were contributions less than the recommended amount, the scheduled change in the amortization payment, and demographic experience including four new retirees who had not been valued in the prior valuation. Chart 13 on page 12 contains a breakdown of the increase in the contributions.

SECTION 1: Valuation Summary for the Town of Johnston, Rhode Island Police Pension System

4. The investment rate of return on a market basis for the year ended June 30, 2010 was 9.80%, and the market return for the year ended June 30, 2011 was 19.68%. Since these two years of return were greater than the assumed rate of return of 7.75% per year, there was an actuarial investment gain amounting to \$2,142,325.
5. The GASB Schedule of Funding Progress, provided in Exhibit III of Section 4, shows that the funded ratio has increased from 26.32% as of July 1, 2009 to 29.49% as of July 1, 2011, primarily due to favorable investment performance.
6. The plan was closed to new hires effective July 1, 2010. This change had no impact on the contributions shown in this valuation. Other than this change and the increase in the employee contribution rate, there were no changes in plan provisions, methods or assumptions first reflected in this valuation.
7. The actuarial valuation report as of July 1, 2011 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected and could affect the future actuarial costs of the Plan. We are prepared to work with the Town to model the effects of these and any other subsequent developments.

SECTION 1: Valuation Summary for the Town of Johnston, Rhode Island Police Pension System

Summary of Key Valuation Results

	2011	2009*
Contributions for following fiscal year beginning July 1:		
Recommended contribution	\$4,984,688	\$4,570,429
Recommended contribution as a percentage of projected payroll	90.00%	82.97%
Funding elements for plan year beginning July 1:		
Total normal cost	\$1,551,718	\$1,544,693
Market value of assets	18,113,745	14,201,866
Actuarial value of assets	18,113,745	14,201,866
Actuarial accrued liability	61,433,641	53,957,636
Unfunded actuarial accrued liability	43,319,896	39,755,770
GASB 25/27 for plan year beginning July 1:		
Annual required contributions (ARC)	\$4,730,394	\$3,454,336
Actual contributions	--	3,013,527
Percentage of ARC contributed	--	87.24%
Funded ratio	29.49%	26.32%
Covered payroll	\$5,170,018	\$5,142,023
Demographic data for plan year beginning July 1:		
Number of retired participants and beneficiaries	92	80
Number of vested former participants	--	--
Number of active participants	70	73
Total payroll	\$5,170,018	\$5,142,023
Average payroll	73,857	70,439
Projected payroll	5,538,253	5,508,264

** 2009 results are restated to reflect that the liability had been understated in the prior valuation report due to the COLA adjustment and to reflect the timing of contributions.*

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the participant population has changed over the past seven valuations can be seen in this chart.

CHART 1
Participant Population: 1999 – 2011

Year Ended June 30	Active Participants	Vested Terminated Participants*	Retired Participants and Beneficiaries**	Ratio of Non-Actives to Actives
1999	69	--	49	0.71
2001	68	2	49	0.75
2003	72	1	54	0.76
2005	76	1	65	0.87
2007	74	--	68	0.92
2009	73	--	80	1.10
2011	70	--	92	1.31

*Excludes terminated participants due a refund of employee contributions.

** Includes disabled retirees.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 70 active participants with an average age of 38.7, average years of service of 10.3 years and average payroll of \$73,857. The 73 active participants in the prior valuation had an average age of 38.8, average service of 10.6 years and average payroll of \$70,439.

Inactive Participants

In this year's valuation, there were no participants with a vested right to a deferred or immediate vested benefit.

These graphs show a distribution of active participants by age and by years of service.

CHART 2
Distribution of Active Participants by Age as of June 30, 2011

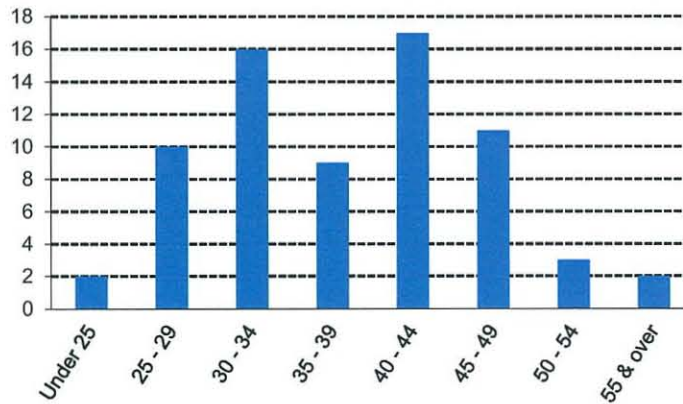
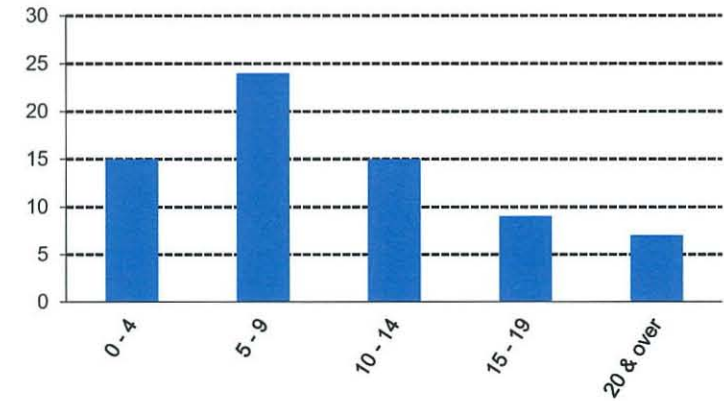


CHART 3
Distribution of Active Participants by Years of Service as of June 30, 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

Retired Participants and Beneficiaries

As of June 30, 2011, 80 retired participants (including seven QDROs) and 12 beneficiaries were receiving total monthly benefits of \$257,745. For comparison, in the previous valuation, there were 65 retired participants and 15 beneficiaries receiving monthly benefits of \$215,446.

These graphs show a distribution of the current retired participants excluding QDROs based on their monthly amount and age, by type of pension.

CHART 4
Distribution of Retired Participants by Type and by Monthly Amount as of June 30, 2011

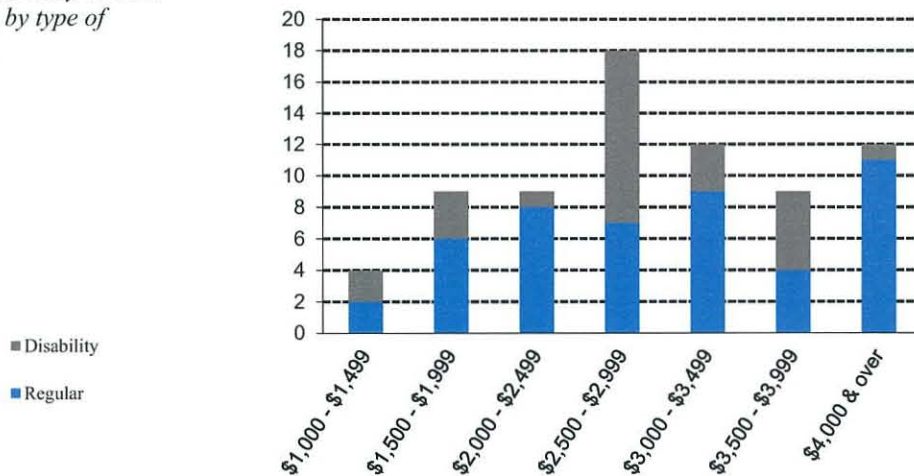
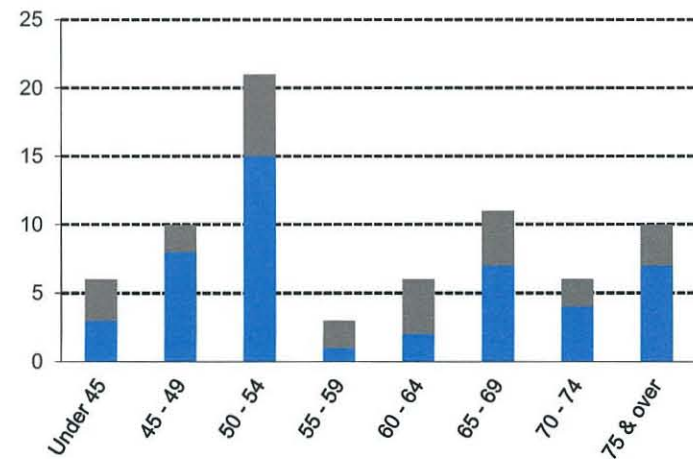


CHART 5
Distribution of Retired Participants by Type and by Age as of June 30, 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

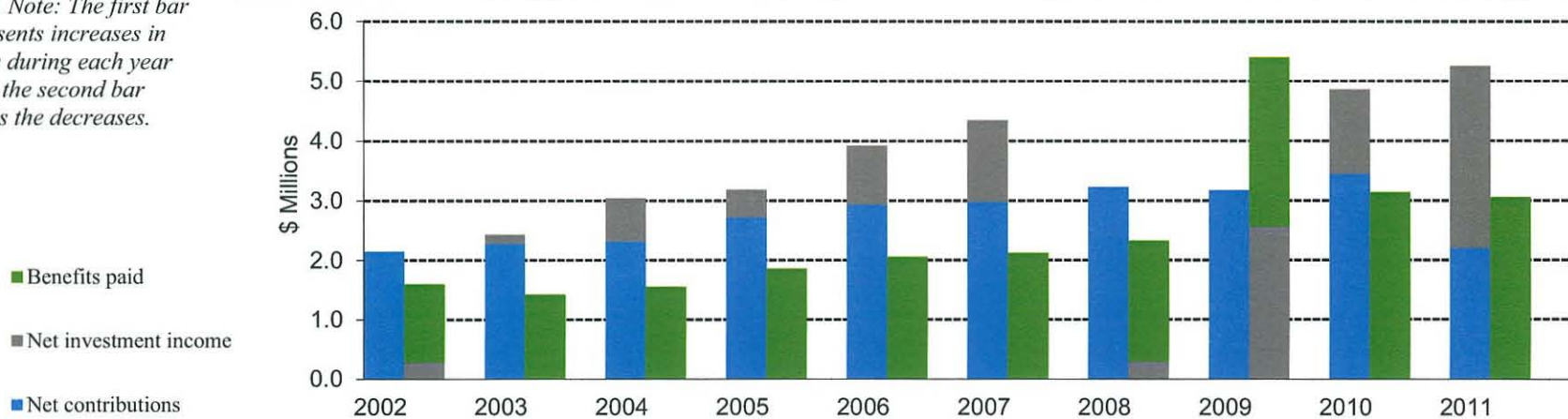
B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6
Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2002 – 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

It is desirable to have level and predictable plan costs from one year to the next. However, the Town has approved an asset valuation method that uses market value. Under this valuation method, the full value of market fluctuation is recognized in a single year and, as a result, the asset value and the plan costs are relatively volatile.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7
Determination of Actuarial Value of Assets

	Year Ended	
	June 30, 2011	June 30, 2010
1. Actuarial value of assets at beginning of year (equal to market value)	\$15,918,687	\$14,201,866
2. Employer contributions	1,899,530	3,013,527
3. Employee contributions	306,796	438,133
4. Net investment income	3,048,523	1,407,076
5. Benefit payments	-3,059,791	-3,141,915
6. Actuarial value of assets at end of year (equal to market value)	<u>\$18,113,745</u>	<u>\$15,918,687</u>

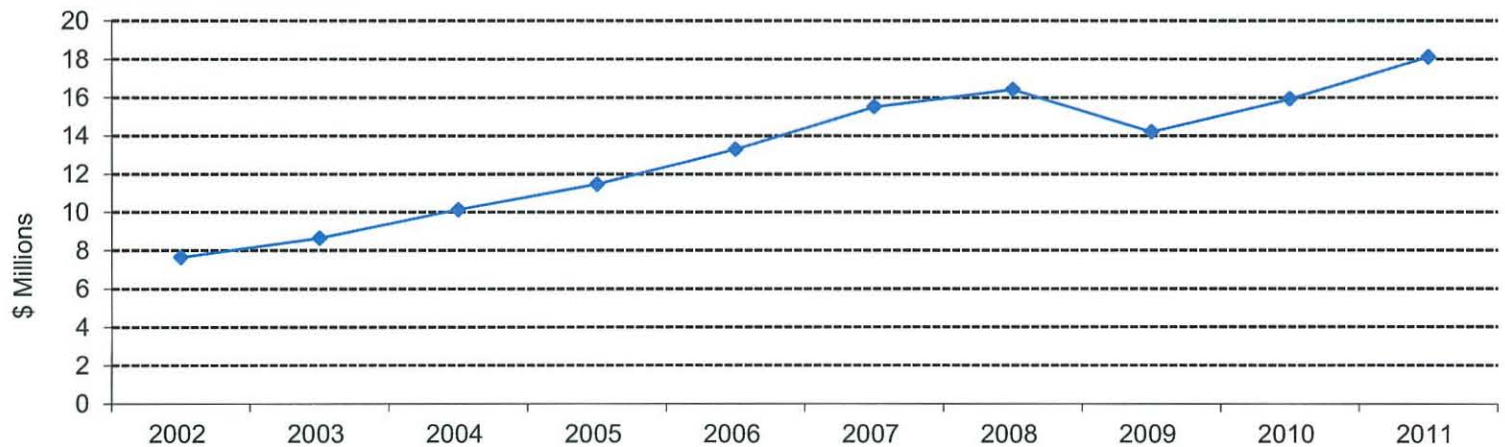
SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

The actuarial value (equal to the market value of assets) is a representation of the Town of Johnston's financial status. The actuarial asset value is significant because the Town of Johnston's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows how the actuarial value of assets (equal to the market value of assets) has changed over the past ten years.

CHART 8

Actuarial Value of Assets (equal to Market Value of Assets) as of June 30, 2002 – 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. At each valuation, actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous valuation. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses over two years without making a change in assumptions reflects the belief that the experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain is \$198,335, \$2,142,325 in investment gains offset by a \$1,943,990 loss due to demographic experience. The net experience variation from individual sources other than investments was 3.2% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

CHART 9

Actuarial Experience for Two-Year Period Ended June 30, 2011

1. Net gain from investments*	\$2,142,325
2. Net loss from other experience	<u>-1,943,990</u>
3. Net experience gain: (1) + (2) + (3)	\$198,335

* Details in Chart 10

This chart provides a summary of the actuarial experience over the past two years.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Town of Johnston's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.75%. The actual rate of return on an actuarial basis for the 2010-2011 plan year was 19.68% and 9.80% for the 2009-2010 year.

Since the actual return for both years was greater than the assumed return, the Town of Johnston Police Pension System experienced an actuarial gain during the two-year period ending June 30, 2011 with regard to its investments.

We have maintained the assumed rate of return of 7.75% for this valuation.

This chart shows the gain due to investment experience.

**CHART 10
Actuarial Value Investment Experience**

	Year Ended	
	June 30, 2011	June 30, 2010
1. Actual return	\$3,048,523	\$1,407,076
2. Average value of assets	15,491,955	14,356,739
3. Actual rate of return: (1) ÷ (2)	19.68%	9.80%
4. Assumed rate of return	7.75%	7.75%
5. Expected return: (2) x (4)	\$1,200,627	\$1,112,647
6. Actuarial gain: (1) – (5)	<u>\$1,847,896</u>	<u>\$294,429</u>

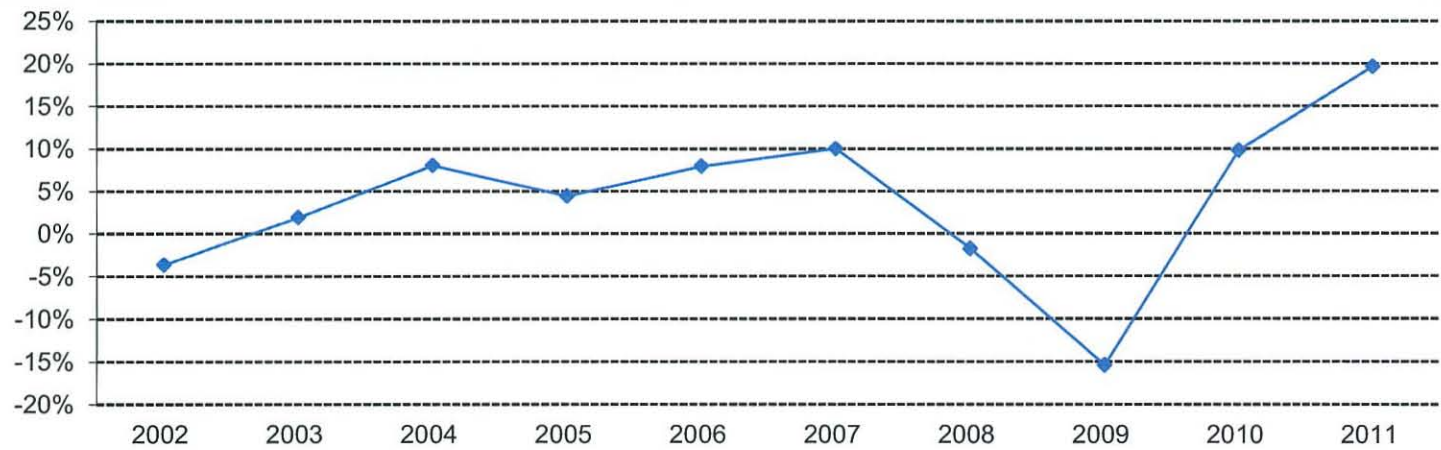
SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

The actuarial value of assets has been equal to market value for the last 10 years. This has resulted in relatively volatile actuarial rates of return and pension plan cost.

This chart illustrates the rates of return.

CHART 11

Actuarial Rates of Return (equal to Market Value Rates of Return) for Years Ended June 30, 2002 - 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net loss from this other experience for the two-year period ending June 30, 2011 amounted to \$1,943,990, which is 3.2% of the actuarial accrued liability.

Of the \$1,943,990 loss, \$1,484,911 is attributable to four new retirees who were not included in the last valuation as either active or retired participants. The remaining \$459,079 loss is attributable to several factors including:

- six new entrants to the Plan,
- 13 new retirements in addition to the four new retirees who were not valued in the Plan last year as actives or retirees, and
- one retiree who purchased service and retired earlier than expected.

The remaining miscellaneous loss of \$459,079, representing 0.75% of the accrued liability, is not significant.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 90.00% of payroll.

The recommended contribution is based on a 30-year amortization of the unfunded actuarial accrued liability as specified in the law governing the System. As of July 1, 2011, there are 18 years remaining on this schedule. The amortization payment is assumed to increase 3.5% annually.

The chart compares this valuation's recommended contribution with the prior valuation.

**CHART 12
Recommended Contribution***

	Year Beginning July 1			
	2011		2009	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$1,551,718		\$1,544,693	
2. Expected employee contributions	<u>-413,601</u>		<u>-297,654</u>	
3. Employer normal cost: (1) + (2)	\$1,138,117		\$1,247,039	
4. Actuarial accrued liability	61,433,641		53,957,636	
5. Actuarial value of assets	<u>18,113,745</u>		<u>14,201,866</u>	
6. Unfunded actuarial accrued liability: (4) - (5)	\$43,319,896		\$39,755,770	
7. Payment on unfunded actuarial accrued liability	3,315,466		2,836,424	
8. Total recommended contribution: (3) + (7), adjusted for timing	<u>\$4,984,688</u>	<u>90.00%</u>	<u>\$4,570,429</u>	<u>82.97%</u>
9. Projected payroll (assuming 3.5% growth)	\$5,538,253		\$5,508,264	

* Recommended contributions are assumed to be paid at the middle of the next fiscal year. For the July 1, 2009 valuation, the recommended contribution was restated to reflect an understatement in the COLA and to reflect the timing of contributions.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

The recommended contribution for the next fiscal year is based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 13
Reconciliation of Recommended Contribution

Recommended Mid-Year Contribution for Fiscal Year ending June 30, 2011	\$4,570,429
Effect of contributions less than recommended contribution	\$326,994
Effect of schedule change in amortization payment due to payroll growth	226,116
Effect of investment gain	-183,515
Effect of demographic loss due to four retirees not included in the prior valuation	127,200
Effect of increase in employee contribution rate	-115,604
Effect of remaining demographic loss	39,325
Miscellaneous changes	-6,257
Total change	<u>\$414,259</u>
Recommended Mid-Year Contribution for Fiscal Year ending June 30, 2013	\$4,984,688

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Police Pension System

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of GASB reporting requirements. Chart 14 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the

actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated under GASB Standards. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

Although the GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 15 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 14
Required Versus Actual Employer Contributions

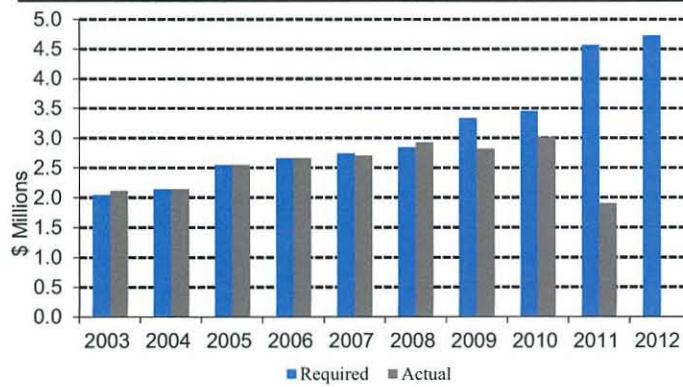
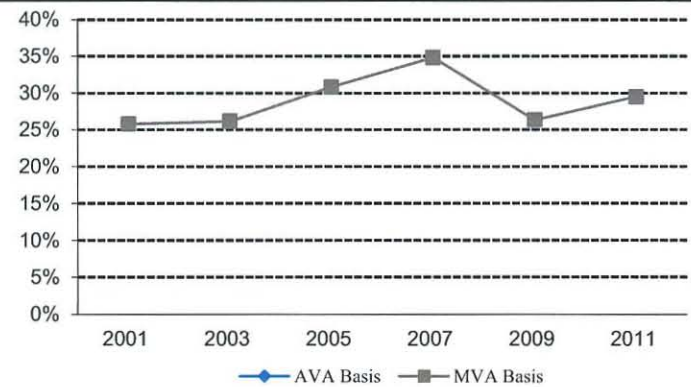


CHART 15
Funded Ratio



SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT A

Table of Plan Coverage

Category	Year Ended June 30		Change From Prior Year
	2011	2009	
Active participants in valuation:			
Number	70	73	-4.1%
Average age	38.7	38.8	N/A
Average years of service	10.3	10.6	N/A
Total payroll	\$5,170,018	\$5,142,023	0.5%
Average payroll	73,857	70,439	4.9%
Total active vested participants	31	33	-6.1%
Vested terminated participants			
	0	0	N/A
Retired participants:			
Number in pay status	54	38	42.1%
Average age	58.8	60.0	N/A
Average monthly benefit	\$2,990	\$2,849	4.9%
Disabled participants:			
Number in pay status	26	27	-3.7%
Average age	60.3	58.6	N/A
Average monthly benefit	\$2,901	\$3,088	-6.1%
Beneficiaries in pay status:			
Number in pay status	12	15	-20.0%
Average age	60.4	76.1	N/A
Average monthly benefit	\$1,740	\$1,587	9.6%

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT B

**Participants in Active Service as of June 30, 2011
By Age, Years of Service, and Average Payroll**

Age	Years of Service					
	Total	0-4	5-9	10-14	15-19	20-24
Under 25	2	2	--	--	--	--
	\$54,251	\$54,251	--	--	--	--
25 - 29	10	5	5	--	--	--
	65,623	62,234	\$69,011	--	--	--
30 - 34	16	4	12	--	--	--
	63,916	52,361	67,768	--	--	--
35 - 39	9	1	2	6	--	--
	75,024	58,113	64,309	\$81,414	--	--
40 - 44	17	3	4	6	2	2
	79,773	70,215	67,303	79,787	\$100,017	\$98,771
45 - 49	11	--	--	2	4	5
	89,299	--	--	79,165	83,598	97,913
50 - 54	3	--	1	1	1	--
	77,808	--	66,213	85,284	81,927	--
55 - 59	1	--	--	--	1	--
	34,433	--	--	--	34,433	--
60 - 64	--	--	--	--	--	--
	--	--	--	--	--	--
65 - 69	1	--	--	--	1	--
	101,125	--	--	--	101,125	--
Total	70	15	24	15	9	7
	\$73,857	\$59,858	\$67,596	\$80,721	\$83,545	\$98,159

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT C

Reconciliation of Participant Data

	Active Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of July 1, 2009	73	27	38	15	153
New participants	6	N/A	N/A	N/A	6
Retirements	-9	N/A	17	N/A	8
New disabilities	0	0	N/A	N/A	0
Return to work	0	0	0	N/A	0
Deaths	0	-1	-1	-2	-4
Data adjustments	<u>0</u>	<u>0</u>	<u>0</u>	<u>-1</u>	<u>-1</u>
Number as of July 1, 2011	70	26	54	12	162

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial and Market Value Basis

	Year Ended June 30, 2011	Year Ended June 30, 2010
Net assets at actuarial value at the beginning of the year:	\$15,918,687	\$14,201,866
Contribution income:		
Employer contributions	\$1,899,530	\$3,013,527
Employee contributions	306,796	438,133
Less administrative expenses	<u>-3,800</u>	<u>-3,760</u>
Net contribution income	\$2,202,526	\$3,447,900
Investment income	<u>3,048,523</u>	<u>1,407,076</u>
Total income available for benefits	\$5,251,049	\$4,854,976
Less benefit payments	-\$3,055,991	-\$3,138,155
Change in reserve for future benefits	\$2,195,058	\$1,716,821
Net assets at actuarial value at the end of the year:	\$18,113,745	\$15,918,687

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT E

Summary Statement of Plan Assets

	Year Ended June 30, 2011	Year Ended June 30, 2010
Cash equivalents	\$28,616	\$33,875
Accounts receivable	\$845,254	\$15,922
Investments:		
Investments	\$15,736,688	\$13,353,948
Pension for Unfunded Police and Fire Trust Funds	<u>1,503,187</u>	<u>2,514,942</u>
Total investments at market value	<u>\$17,239,875</u>	<u>\$15,868,890</u>
Total assets	\$18,113,745	\$15,918,687
Less accounts payable	\$0	\$0
Net assets at market value	<u>\$18,113,745</u>	<u>\$15,918,687</u>
Net assets at actuarial value	<u>\$18,113,745</u>	<u>\$15,918,687</u>

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT F

Development of the Fund Through June 30, 2011

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return*	Administrative Expenses**	Benefit Payments	Actuarial Value of Assets at End of Year
2002	\$1,959,671	\$184,594	-\$273,640	0	\$1,327,000	\$7,638,893
2003	2,114,315	164,863	152,108	0	1,429,000	8,641,179
2004	2,137,209	175,589	725,436	0	1,555,671	10,123,742
2005	2,544,765	178,917	466,083	0	1,857,996	11,455,511
2006	2,659,279	280,636	944,486	0	2,051,601	13,288,311
2007	2,703,188	274,782	1,372,785	0	2,123,069	15,515,997
2008	2,923,367	309,667	-288,579	0	2,040,057	16,420,395
2009	2,817,204	363,039	-2,561,193	3,340	2,834,239	14,201,866
2010	3,013,527	438,133	1,407,076	3,760	3,138,155	15,918,687
2011	1,899,530	306,796	3,048,523	3,800	3,055,991	18,113,745

* Net of investment fees

**Only reflects ING account balance maintenance fees

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT G

Development of Unfunded Actuarial Accrued Liability

	Year Ended	
	June 30, 2011	June 30, 2010*
1. Unfunded actuarial accrued liability at beginning of year	\$40,915,837	\$39,755,770
2. Normal cost at beginning of year	1,598,757	1,544,693
3. Total contributions	-2,206,326	-3,451,660
4. Interest		
(a) For whole year on (1) + (2)	\$3,294,881	\$3,200,786
(b) For half year on (3)	<u>-85,495</u>	<u>-133,752</u>
(c) Total interest	<u>3,209,386</u>	<u>3,067,034</u>
5. Expected unfunded actuarial accrued liability	\$43,517,654	\$40,915,837
6. Changes due to:		
(a) Experience gain	-\$198,335	\$0
(b) Assumptions	N/A	N/A
(c) Funding method	N/A	N/A
(d) Plan provisions	<u>N/A</u>	<u>N/A</u>
(e) Total changes	<u>-198,335</u>	<u>0</u>
7. Unfunded actuarial accrued liability at end of year	<u>\$43,319,319</u>	<u>\$40,915,837</u>

**Reflects restated July 1, 2009 valuation results due to COLA adjustment*

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT H

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives:

The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

Actuarial Accrued Liability For Pensioners:

The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued Liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Police Pension System

Amortization of the Unfunded

Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return:

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1. Retired participants as of the valuation date (including 12 beneficiaries in pay status)		92
2. Participants inactive during year ended June 30, 2011 with vested rights		0
3. Participants active during the year ended June 30, 2011		70
Fully vested	31	
Not vested	39	
4. Inactive non-vested participants as of June 30, 2011		0

The actuarial factors as of the valuation date are as follows:

1. Total normal cost		\$1,551,718
2. Actuarial accrued liability		61,433,641
Retired participants and beneficiaries	\$41,335,444	
Active participants	20,098,197	
3. Actuarial value of assets (equal to market value)		18,113,745
4. Unfunded actuarial accrued liability		\$43,319,896

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the recommended contribution is as follows:

1. Total normal cost	\$1,551,718
2. Expected employee contributions	<u>-413,601</u>
3. Employer normal cost: (1) + (2)	\$1,138,117
4. Payment on unfunded actuarial accrued liability	3,315,466
5. Total recommended contribution: (3) + (4), adjusted for timing	\$4,984,688
6. Projected payroll	\$5,538,253
7. Total recommended contribution as a percentage of projected payroll: (5) ÷ (6)	90.00%
8. Annual Required Contribution for fiscal year ending June 30, 2013: (5)	\$4,984,688
9. Inflation factor	1.0350
10. Estimated Annual Required Contribution for fiscal year ending June 30, 2014: (8) x (9)	\$5,159,152*

** The actual Annual Required Contribution for fiscal year ending June 30, 2014 will be determined in the next valuation.*

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2003	\$2,045,177	\$2,114,315	103.4%
2004	2,137,209	2,137,209	100.0%
2005	2,544,765	2,544,765	100.0%
2006	2,659,279	2,659,279	100.0%
2007	2,743,417	2,703,188	98.5%
2008	2,839,437	2,923,367	103.0%
2009	3,337,523	2,817,204	84.4%
2010	3,454,336	3,013,527	87.2%
2011	4,570,429*	1,899,530	41.6%*
2012	4,730,394*	--	--

**Reflects restated July 1, 2009 valuation results due to COLA adjustment and timing of contributions*

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
7/1/2001	\$7,095,268	\$27,513,991	\$20,418,723	25.79%	\$3,216,554	634.80%
7/1/2003	8,641,179	33,045,461	24,404,282	26.15%	3,737,006	653.04%
7/1/2005	11,455,511	37,167,194	25,711,683	30.82%	3,850,625	667.73%
7/1/2007	15,515,997	44,530,429	29,014,432	34.84%	4,815,217	602.56%
7/1/2009**	14,201,866	53,957,636	39,755,770	26.32%	5,142,023	773.15%
7/1/2011	18,113,745	61,433,641	43,319,896	29.49%	5,170,018	837.91%

* Not less than zero

** Reflects restated valuation results due to COLA adjustment

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	July 1, 2011
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll assuming 3.5% inflation, closed
Remaining amortization period	18 years remaining as of July 1, 2011
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	7.75%
Projected salary increases	4.50%
Plan membership:	
Retired participants and beneficiaries receiving benefits	92
Terminated participants entitled to, but not yet receiving benefits	0
Active participants	<u>70</u>
Total	162

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT V

Development of the Net Pension Obligation (NPO) and the Annual Pension Cost Pursuant to GASB 27

Plan Year Ended June 30	Employer Annual Required Contribution (a)	Employer Amount Contributed (b)	Interest on NPO (h) x 7.75% (c)	ARC Adjustment (h) / (e) (d)	Amortization Factor (e)	Pension Cost (a) + (c) - (d) (f)	Change in NPO (f) - (b) (g)	NPO Balance NPO + (g) (h)
2006	\$2,659,279	\$2,659,279	\$84,772	\$66,092	16.0329	\$2,677,959	\$18,680	\$1,078,328
2007	2,743,417	2,703,188	83,570	73,998	14.5724	2,752,989	49,801	1,128,129
2008	2,839,437	2,923,367	87,430	79,420	14.2046	2,847,447	-75,920	1,052,209
2009	3,337,523	2,817,204	81,546	76,128	13.8216	3,342,941	525,737	1,577,946
2010	3,454,336	3,013,527	122,291	117,555	13.4230	3,459,072	445,545	2,023,491
2011*	4,570,429	1,899,530	156,821	155,557	13.0080	4,571,693	2,672,163	4,695,654

**Reflects restated July 1, 2009 valuation results due to COLA adjustment and timing of contributions*

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT VI

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy: RP-2000 Combined Healthy Mortality Tables, sex-distinct
Disabled: RP-2000 Disabled Retiree Mortality Tables, sex-distinct

These tables reasonably reflect the projected mortality experience of the Plan as of the measurement date. No provision was made for future mortality improvement after the measurement date.

Age	Termination Rates before Retirement:					
	Mortality		Disability		Withdrawal	
	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.17%	0.17%	0.00%	0.00%
25	0.04	0.02	0.17	0.17	0.00	0.00
30	0.04	0.03	0.22	0.22	0.00	0.00
35	0.08	0.05	0.29	0.29	0.00	0.00
40	0.11	0.07	0.44	0.44	0.00	0.00
45	0.15	0.11	0.72	0.72	0.00	0.00
50	0.21	0.17	1.21	1.21	0.00	0.00
55	0.36	0.27	1.21	1.21	0.00	0.00
60	0.67	0.51	1.21	1.21	0.00	0.00

100% of deaths and disabilities are assumed to be service-related.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

Retirement Rates:	Years of Service	Retirement Probability
	18	5%
	19	10%
	20-23	20%
	24	50%
	25 or more	100%

All employees are assumed to retire no later than age 65.

Percent Married:	All active and retired police are assumed to be married. Wives are assumed to be three years younger than their husbands, unless dates of birth are provided.
Net Investment Return:	7.75%
Salary Increases:	4.50%; including 1% for promotional and longevity increases
Administrative Expenses:	No explicit assumption as the majority of administrative expenses are paid by the plan sponsor outside the trust
Cost of Living Increases:	For all retirements prior to July 1, 2005, ½ of the expected base salary increase (1.75%). For all retirements after July 1, 2005, 3.00% per year.
Actuarial Value of Assets:	Market value
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced participation if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined as if the current benefit accrual rate had always been in effect.
Changes in Assumptions:	There have been no changes in actuarial assumptions since the last valuation.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

EXHIBIT VII

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Town of Johnston Police Pension System that are included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: July 1 through June 30

Normal Retirement:

Eligibility 18 years of service

Amount The annual benefit at retirement is equal to the percentage of final salary specified in the table below. For pension purposes, final average salary is a three-year average of pay that which is documented on the W-2 tax form, except monies paid to the Town of Johnston which were funded by private companies to hire officers for non-municipal detail assignments and the officer's gun/qualification allowance.

<u>Years of Service</u>	<u>Benefit as a Percentage of Final Average Salary</u>
18	45.0%
19	47.5
20	50.0
21	52.5
22	55.0
23	57.5
24	60.0
25	65.0
26	66.0
27	67.0
28	68.0
29	69.0
30 or more	70.0

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

Service Related Disability:

<i>Eligibility</i>	Retirement because of a job related mental or physical incapacity
<i>Amount</i>	66 2/3% of final salary

Vesting:

<i>Eligibility</i>	Upon termination of employment after 10 years of service a member is eligible for a benefit deferred to retirement age.
<i>Benefit Formula</i>	25% of final salary at termination plus cumulative COLA. Member may waive right to deferred retirement benefit in return for refund of employee and employer contribution account.
<i>Commencement Date</i>	21 st anniversary of employment for deferred annuity. Immediate payment for refund.

Spouse's Pre-Retirement Death Benefit:

<i>Eligibility</i>	Death while actively employed
<i>Benefit Formula</i>	Surviving spouse (or if none, dependent children) receives benefit of 50% of final salary (30% of final salary for non-service related death)
<i>Commencement Date</i>	Benefits commence as of the first payroll period after death

Retiree Cost-Of-Living Increases:

For retirements prior to July 1, 2005, pensions for retirees are indexed to one-half of the negotiated base pay increases for active police after benefit commencement.

For retirements after July 1, 2005, pensions for retirees shall increased by a 3.00% compounded COLA. The COLA shall begin in the 25th month following the date of the officer's retirement.

Military Service Purchase:

A member may purchase up to two years of pension service credit for prior military service by contributing 6% of pay at any time prior to retirement, for each year purchased.

Employee Contributions:

6% of gross pay increasing to 7% of gross pay effective July 1, 2011 and further increasing to 8% of gross pay effective July 1, 2012. Employees terminating before retirement may withdraw the employee-provided account and forfeit their right to pension benefits.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Police Pension System

Eligibility:	All members of the Police Department hired before July 1, 2010 (members hired after this date are participants in the Rhode Island Municipal Employees Retirement System).
Changes in Plan Provisions:	Effective July 1, 2011, the employee contribution rate was increased from 6% of gross pay to 7% of gross pay and effective July 1, 2012, the rate was further increased to 8% of gross pay. The plan was closed to new hires effective July 1, 2010. There have been no other changes in plan provisions since the last valuation.

7596475v1/05016.004

Town of Johnston, Rhode Island Firefighters Pension System

Actuarial Valuation and Review as of
July 1, 2011

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March 30, 2012

*Joseph Chiodo, CPA, MBA
Finance Director
Town of Johnston, Rhode Island Firefighters Pension System
1385 Hartford Avenue
Johnston, Rhode Island, 02919*

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2011. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal years ending June 30, 2013 and June 30, 2014 and analyzes the preceding two years' experience.

The census information on which our calculations were based was prepared by the Town of Johnston and the financial information was obtained from the Town of Johnston Financial Statements and Supplementary Information for the Fiscal Years Ended June 30, 2010 and June 30, 2011. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Jeanette R. Cooper, FSA, FCA, MAAA, EA, Enrolled Actuary.


This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Town are reasonably related to the experience of and the expectations for the Plan.


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.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY

By: 
*William Connolly, FCA, MAAA, EA
Consulting Actuary*


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

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SECTION 1: Valuation Summary for the Town of Johnston, Rhode Island Firefighters Pension System

Purpose

This report has been prepared by The Segal Company to present a valuation of the Town of Johnston, Rhode Island Firefighters Pension System as of July 1, 2011. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Town;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2011, provided by the Town;
- The assets of the Plan as of June 30, 2011, provided by the Town;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

1. As developed in the July 1, 2009 actuarial valuation report, the Annual Required Contribution (ARC) for the fiscal year ending June 30, 2012 is \$4,866,078.
2. As developed in this July 1, 2011 actuarial valuation, the ARC amounts for the years ending June 30, 2013 and June 30, 2014 are \$4,941,035 and \$5,113,971, respectively. These figures assume that there are no changes to the plan design before June 30, 2014.
3. The recommended contribution increased from \$4,542,536 to \$4,941,035 this year. Beginning with this valuation, the recommended contribution is shown as the ARC for the upcoming fiscal year. The ARC as a percentage of payroll decreased from 131.69% to 130.54%. The unfunded actuarial liability decreased from \$47,625,201 to \$46,712,642. This unfunded liability is amortized over an 18-year period when determining the contribution requirements. The most significant reasons for the cost increase were contributions less than the recommended amount and the scheduled change in the amortization payment. The contribution increase was partially offset by favorable experience. The Town should consider a change to level dollar funding, rather than level percentage-of-pay, due to the plan having been closed to new entrants since 1999.

SECTION 1: Valuation Summary for the Town of Johnston, Rhode Island Firefighters Pension System

4. The investment rate of return on a market basis for the year ended June 30, 2010 was 13.68%, and the market return for the year ended June 30, 2011 was 22.16%. Since these two years of return were greater than the assumed rate of return of 7.75% per year, there was an actuarial investment gain amounting to \$3,925,658.
5. The GASB Schedule of Funding Progress, provided in Exhibit III of Section 4, shows that the funded ratio has increased from 26.84% as of July 1, 2009 to 33.65% as of July 1, 2011, primarily due to favorable investment performance.
6. There were no changes in plan provisions, methods or assumptions first reflected in this valuation.
7. The actuarial valuation report as of July 1, 2011 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected and could affect the future actuarial costs of the Plan. We are prepared to work with the Town to model the effects of these and any other subsequent developments.

SECTION 1: Valuation Summary for the Town of Johnston, Rhode Island Firefighters Pension System

Summary of Key Valuation Results

	2011	2009
Contributions for the following fiscal year beginning July 1:		
Recommended contribution	\$4,941,035	\$4,542,536*
Recommended contribution as a percentage of projected payroll	130.54%	131.69%
Funding elements for plan year beginning July 1:		
Normal cost	\$1,122,129	\$1,093,878
Market value of assets	23,695,404	17,472,877
Actuarial value of assets	23,695,404	17,472,877
Actuarial accrued liability	70,408,046	65,098,078
Unfunded actuarial accrued liability	46,712,642	47,625,201
GASB 25/27 for plan year beginning July 1:		
Annual required contributions (ARC)	\$4,866,078**	\$3,833,808
Actual contributions	--	3,596,440
Percentage of ARC contributed	--	93.81%
Funded ratio	33.65%	26.84%
Covered payroll	\$3,533,442	\$3,449,317
Demographic data for plan year beginning July 1:		
Number of retired participants and beneficiaries	75	74
Number of active participants	39	42
Total payroll	\$3,533,442	\$3,449,317
Average payroll	90,601	82,127
Projected payroll	3,785,111	3,449,317

* For 2009, the recommended contribution was shown as the contribution as of the end of the current fiscal year.

** The annual required contribution for the fiscal year beginning July 1, 2011 was developed in the July 1, 2009 actuarial valuation.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

With no new active participants entering the plan, we expect the ratio below to continue increasing.

A historical perspective of how the participant population has changed over the past seven valuations can be seen in this chart.

CHART 1
Participant Population: 1999 – 2011

Year Ended June 30	Active Participants	Retired Participants and Beneficiaries*	Ratio of Non-Actives to Actives
1999	73	48	0.66
2001	72	43	0.60
2003	69	47	0.68
2005	63	53	0.84
2007	58	59	1.02
2009	42	74	1.76
2011	39	75	1.92

* Includes disabled retirees.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year’s valuation, there were 39 active participants with an average age of 43.9, average years of service of 16.8 years and average payroll of \$90,601. The 42 active participants in the prior valuation had an average age of 42.1, average service of 15.2 years and average payroll of \$82,127.

This plan has been closed to new hires since July 1, 1999.

Inactive Participants

In this year’s valuation, there were no participants with a vested right to a deferred or immediate vested benefit.

These graphs show a distribution of active participants by age and by years of service.

CHART 2
Distribution of Active Participants by Age as of June 30, 2011

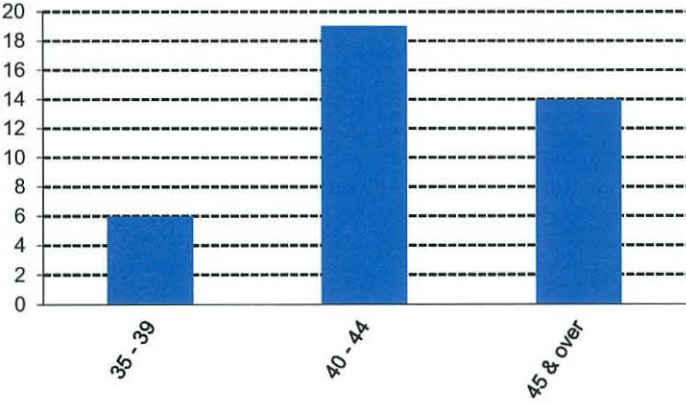
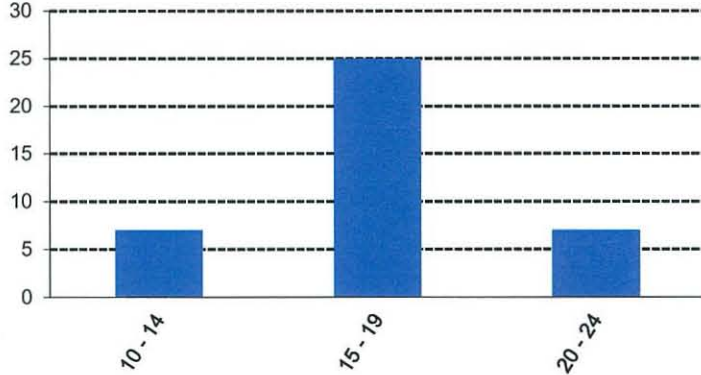


CHART 3
Distribution of Active Participants by Years of Service as of June 30, 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

Retired Participants and Beneficiaries

As of June 30, 2011, 72 retired participants and 3 beneficiaries were receiving total monthly benefits of \$304,311. For comparison, in the previous valuation, there were 71 retired participants and 3 beneficiaries receiving monthly benefits of \$276,976.

These graphs show a distribution of the current retired participants based on their monthly amount and age, by type of pension.

CHART 4
Distribution of Retired Participants by Type and by Monthly Amount as of June 30, 2011

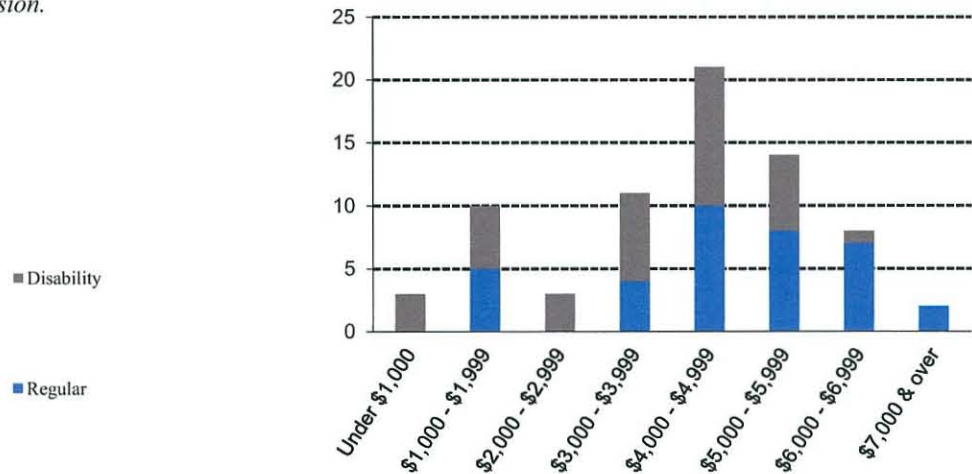
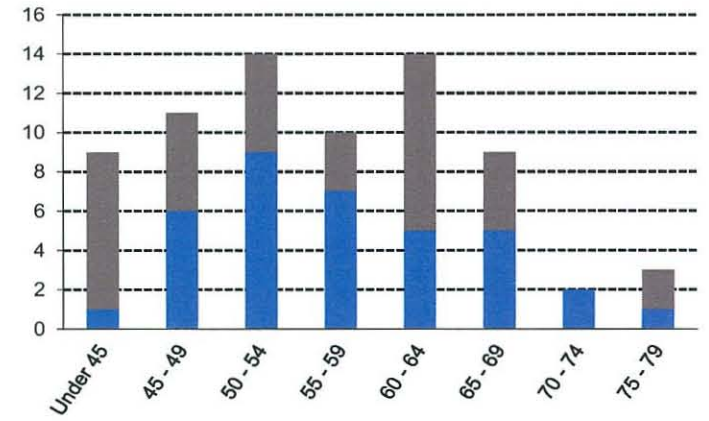


CHART 5
Distribution of Retired Participants by Type and by Age as of June 30, 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

B. FINANCIAL INFORMATION

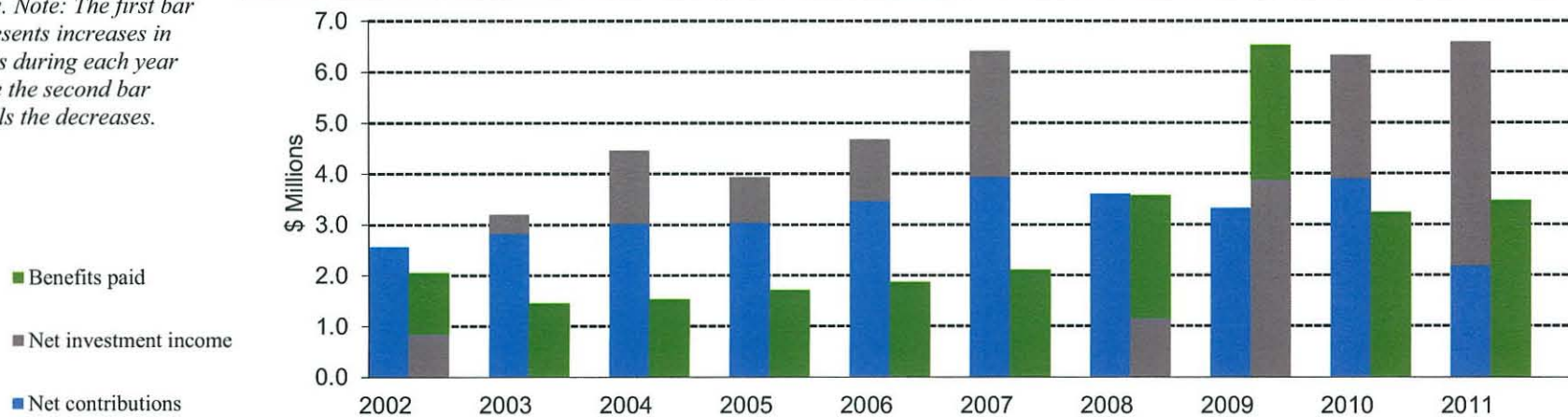
Retirement plan funding anticipates that, over the long term, both net contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2002 – 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

It is desirable to have level and predictable plan costs from one year to the next. However, the Town has approved an asset valuation method that uses market value. Under this valuation method, the full value of market fluctuation is recognized in a single year and, as a result, the asset value and the plan costs are relatively volatile.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7
Determination of Actuarial Value of Assets

	Year Ended	
	June 30, 2011	June 30, 2010
1. Actuarial value of assets at beginning of year (equal to market value)	\$20,561,969	\$17,472,877
2. Employer contributions	1,886,017	3,596,440
3. Employee contributions	296,478	295,826
4. Investment income	4,414,857	2,434,222
5. Benefit payments	-3,463,917	-3,237,396
6. Actuarial value of assets at end of year (equal to market value)	<u>\$23,695,404</u>	<u>\$20,561,969</u>

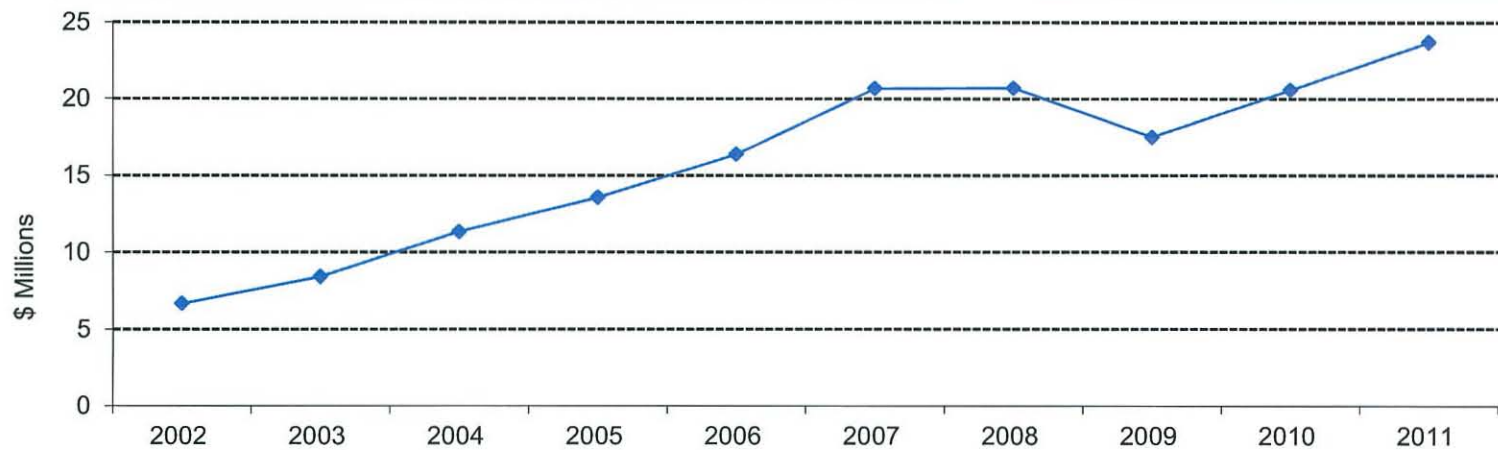
SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

The actuarial value (equal to the market value of assets) is a representation of the Town of Johnston's financial status. The actuarial asset value is significant because the Town of Johnston's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows how the actuarial value of assets (equal to the market value of assets) has changed over the past ten years.

CHART 8

Actuarial Value of Assets (equal to Market Value of Assets) as of June 30, 2002 – 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. At each valuation, actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous valuation. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses over two years without making a change in assumptions reflects the belief that the experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain is \$4,446,923, including \$3,925,658 from investment gains and \$521,265 in gains from all other sources. The net experience variation from individual sources other than investments was 0.7% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience over the past two years.

CHART 9

Actuarial Experience for Two-Year Period Ended June 30, 2011

1. Net gain from investments*	\$3,925,658
2. Net gain from other experience	<u>521,265</u>
3. Net experience gain: (1) + (2)	\$4,446,923

* Details in Chart 10

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Town of Johnston's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.75%. The actual rate of return on an actuarial basis for the 2010-2011 plan year was 22.16% and 13.68% for the 2009-2010 year.

Since the actual return for both years was greater than the assumed return, the Town of Johnston Firefighters Pension System experienced an actuarial gain during the two-year period ending June 30, 2011 with regard to its investments.

We have maintained the assumed rate of return of 7.75% for this valuation.

This chart shows the gain due to investment experience.

CHART 10 Actuarial Value Investment Experience

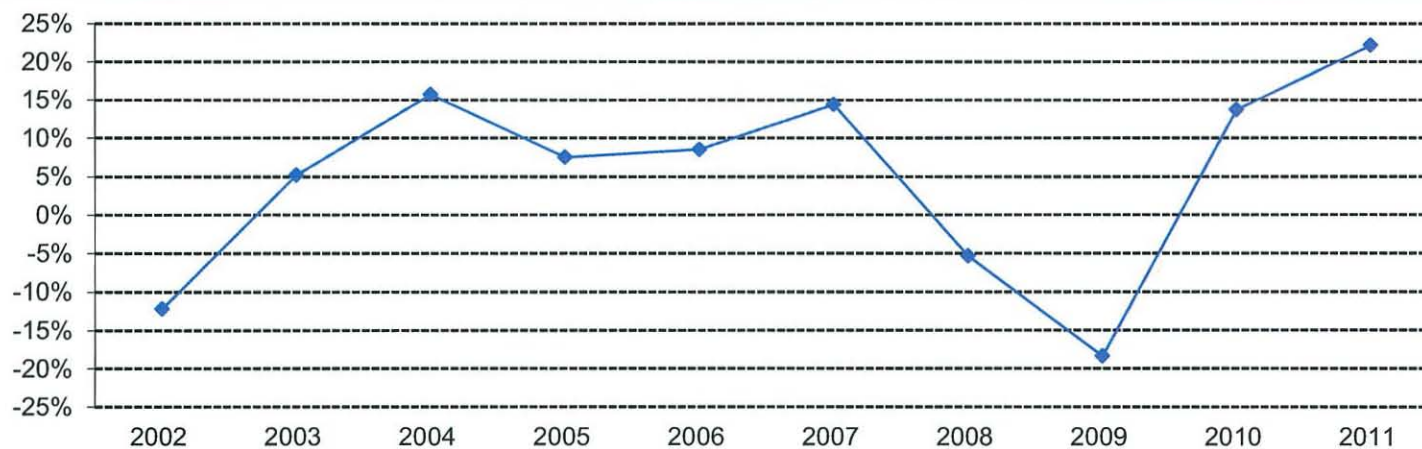
	Year Ended	
	June 30, 2011	June 30, 2010
1. Actual return	\$4,414,857	\$2,434,222
2. Average value of assets	19,921,258	17,800,312
3. Actual rate of return: (1) ÷ (2)	22.16%	13.68%
4. Assumed rate of return	7.75%	7.75%
5. Expected return: (2) x (4)	\$1,543,897	\$1,379,524
6. Actuarial gain: (1) – (5)	<u>\$2,870,960</u>	<u>\$1,054,698</u>

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

The actuarial value of assets has been equal to market value for the last 10 years. This has resulted in relatively volatile actuarial rates of return and pension plan cost.

This chart illustrates the rates of return.

CHART 11
Actuarial Rates of Return (equal to Market Value Rates of Return) for Years Ended June 30, 2002 - 2011



SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the two-year period ending June 30, 2011 amounted to \$521,265, which is 0.7% of the actuarial accrued liability.

A demographic gain or loss less than 1.0% of the actuarial accrued liability is generally not considered significant.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 130.54% of payroll.

The recommended contribution is based on a 30-year amortization of the unfunded actuarial accrued liability as specified in the law governing the System. As of July 1, 2011, there are 18 years remaining on this schedule. Payment is assumed to increase 3.5% annually. Since the Plan is closed and payroll is declining, the Town should consider changing from a level percentage-of-pay amortization to level dollar.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 12
Recommended Contribution

	Year Beginning July 1			
	2011		2009	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$1,122,129	31.76%*	\$1,093,878	31.71%
2. Expected employee contributions	<u>-282,675</u>	<u>-8.00%*</u>	<u>-275,945</u>	<u>-8.00%</u>
3. Employer normal cost: (1) + (2)	\$839,454	23.76%*	\$817,933	23.71%
4. Actuarial accrued liability	70,408,046		65,098,078	
5. Actuarial value of assets	<u>23,695,404</u>		<u>17,472,877</u>	
6. Unfunded actuarial accrued liability: (4) - (5)	\$46,712,642		\$47,625,201	
7. Payment on unfunded actuarial accrued liability	3,575,128	101.18%*	3,397,878	98.51%
8. Total recommended contribution: (3) + (7), adjusted for timing*	<u>\$4,941,035</u>	<u>130.54%</u>	<u>\$4,542,536</u>	<u>131.69%</u>
9. Projected payroll (assuming 3.5% growth)	\$3,785,111		\$3,449,317***	

* As a percent of reported payroll.

**Recommended contributions are assumed to be paid at the middle of the next fiscal year. For the prior valuation, the recommended contribution was shown at the end of the current fiscal year.

*** Payroll was not projected in the prior valuation.

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

The recommended contribution is based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 13
Reconciliation of Recommended Contribution

Recommended End-of-Year Contribution for Fiscal Year Ending June 30, 2010	\$4,542,536
Effect of investment gain	-323,733
Effect of contributions less than recommended contribution	296,937
Effect of expected change in amortization payment due to payroll growth	260,770
Effect of changes in timing of contributions shown	184,323
Miscellaneous changes including demographic experience	-19,798
Total change	<u>\$398,499</u>
Recommended Mid-Year Contribution for Fiscal Year Ending June 30, 2013	\$4,941,035

SECTION 2: Valuation Results for the Town of Johnston, Rhode Island Firefighters Pension System

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of GASB reporting requirements. Chart 14 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the

actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated under GASB Standards. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

Although the GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 15 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 14
Required Versus Actual Contributions

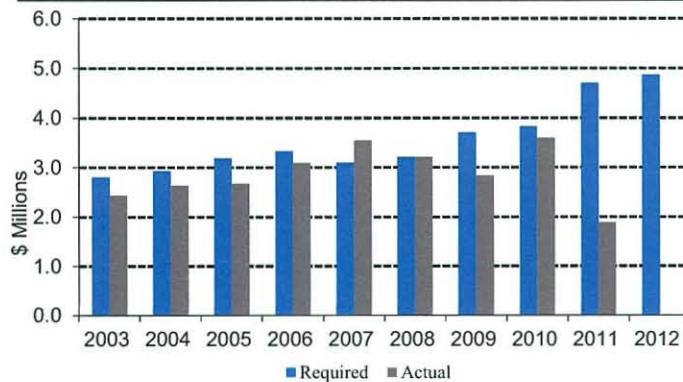
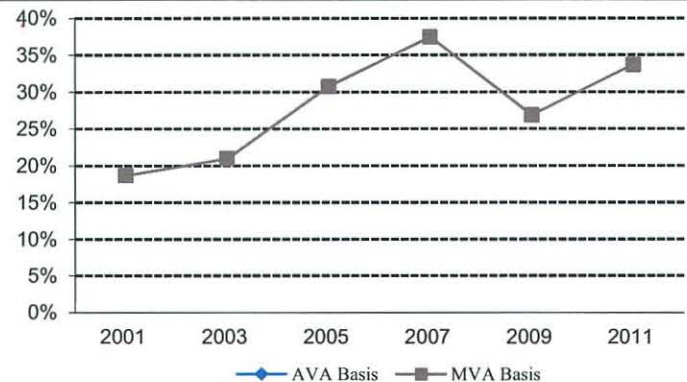


CHART 15
Funded Ratio



SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT A

Table of Plan Coverage

Category	Year Ended June 30		Change From Prior Year
	2011	2009	
Active participants in valuation:			
Number	39	42	-7.1%
Average age	43.9	42.1	N/A
Average years of service	16.8	15.2	N/A
Total payroll	\$3,533,442	\$3,449,317	2.4%
Average payroll	90,601	82,127	10.3%
Total active vested participants	39	42	-7.1%
Retired participants:			
Number in pay status	36	33	9.1%
Average age	57.2	56.1	N/A
Average monthly benefit	\$4,701	\$4,352	8.0%
Disabled participants:			
Number in pay status	36	38	-5.3%
Average age	54.8	53.3	N/A
Average monthly benefit	\$3,613	\$3,351	7.8%
Beneficiaries in pay status			
Number in pay status	3	3	0.0%
Average age	64.3	67.7	N/A
Average monthly benefit	1,675	2,011	-16.7%

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT B

**Participants in Active Service as of June 30, 2011
By Age, Years of Service, and Average Payroll**

Age	Years of Service			
	Total	10-14	15-19	20-24
35 - 39	6	3	3	--
	\$90,881	\$88,170	\$93,592	--
40 - 44	19	4	14	1
	86,834	100,040	80,635	\$120,794
45 - 49	13	--	7	6
	95,999	--	87,948	105,392
50 - 54	--	--	--	--
	--	--	--	--
55 - 59	1	--	1	--
	90,326	--	90,326	--
Total	39	7	25	7
	\$90,601	\$94,952	\$84,625	\$107,592

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT C

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of July 1, 2009	42	0	38	33	3	116
Retirements	-3	0	N/A	3	N/A	0
New disabilities	0	0	0	N/A	N/A	0
Deaths	<u>0</u>	<u>0</u>	<u>-2</u>	<u>0</u>	<u>0</u>	<u>-2</u>
Number as of July 1, 2011	39	0	36	36	3	114

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial and Market Value Basis

	Year Ended June 30, 2011	Year Ended June 30, 2010
Net assets at actuarial value at the beginning of the year:	\$20,561,969	\$17,472,877
Contribution income:		
Employer contributions	\$1,886,017	\$3,596,440
Employee contributions	<u>296,478</u>	<u>295,826</u>
Net contribution income	\$2,182,495	\$3,892,266
Investment income	<u>4,414,857</u>	<u>2,434,222</u>
Total income available for benefits	\$6,597,352	\$6,326,488
Less benefit payments	-\$3,463,917	-\$3,237,396
Change in reserve for future benefits	\$3,133,435	\$3,089,092
Net assets at actuarial value at the end of the year:	\$23,695,404	\$20,561,969

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT E

Summary Statement of Plan Assets

	Year Ended June 30, 2011	Year Ended June 30, 2010
Cash equivalents	\$27,417	\$25,203
Accounts receivable	\$0	\$0
Investments:		\$17,196,620
Investments	\$19,549,761	\$17,196,620
Pension for Unfunded Police and Fire Trust Funds	<u>4,176,825</u>	<u>3,398,348</u>
Total investments at market value	<u>\$23,726,586</u>	<u>\$20,594,968</u>
Total assets	\$23,754,003	\$20,620,171
Less accounts payable	\$58,599	\$58,202
Net assets at market value	<u>\$23,695,404</u>	<u>\$20,561,969</u>
Net assets at actuarial value	<u>\$23,695,404</u>	<u>\$20,561,969</u>

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT F

Development of the Fund Through June 30, 2011

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2002	\$2,185,203	\$378,136	-\$835,250	\$0	\$1,219,000	\$6,669,302
2003	2,436,554	382,882	378,777	0	1,458,671	8,408,844
2004	2,635,099	383,380	1,435,736	0	1,535,398	11,327,661
2005	2,669,806	366,375	897,734	0	1,712,311	13,549,265
2006	3,084,995	371,015	1,219,012	0	1,866,816	16,357,471
2007	3,544,672	383,637	2,478,794	0	2,101,578	20,662,996
2008	3,209,813	390,201	-1,144,522	0	2,428,198	20,690,290
2009	2,833,053	479,991	-3,869,035	\$2,261	2,659,161	17,472,877
2010	3,596,440	295,826	2,434,222	0	3,237,396	20,561,969
2011	1,886,017	296,478	4,414,857	0	3,463,917	23,695,404

* Net of investment fees

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT G

Development of Unfunded/(Overfunded) Actuarial Accrued Liability

	Year Ended	
	June 30, 2011	June 30, 2010
1. Unfunded actuarial accrued liability at beginning of year	\$48,451,717	\$47,625,201
2. Normal cost at beginning of year	1,132,164	1,093,878
3. Total contributions	-2,182,495	-3,892,266
4. Interest		
(a) For whole year on (1) + (2)	\$3,842,751	\$3,775,729
(b) For half year on (3)	<u>-84,572</u>	<u>-150,825</u>
(c) Total interest	<u>3,758,179</u>	<u>3,624,904</u>
5. Expected unfunded actuarial accrued liability	\$51,159,565	\$48,451,717
6. Changes due to:		
(a) Experience gain	-\$4,446,923	\$0
(b) Assumptions	N/A	N/A
(c) Funding method	N/A	N/A
(d) Plan provisions	<u>N/A</u>	<u>N/A</u>
(e) Total changes	<u>-4,446,923</u>	<u>0</u>
7. Unfunded actuarial accrued liability at end of year	<u>\$46,712,642</u>	<u>\$48,451,717</u>

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT H

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial

Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability

For Actives:

The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

Actuarial Accrued Liability

For Pensioners:

The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued

Liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

SECTION 3: Supplemental Information for the Town of Johnston, Rhode Island Firefighters Pension System

Amortization of the Unfunded

Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return:

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1. Retired participants as of the valuation date (including 3 beneficiaries in pay status)		75
2. Participants inactive during year ended June 30, 2011 with vested rights		0
3. Participants active during the year ended June 30, 2011		39
Fully vested	39	
Not vested	0	
4. Inactive non-vested participants as of June 30, 2011		0

The actuarial factors as of the valuation date are as follows:

1. Total normal cost		\$1,122,129
2. Actuarial accrued liability		70,408,046
Retired participants and beneficiaries	\$49,077,678	
Active participants	21,330,368	
3. Actuarial value of assets (equal to market value)		23,695,404
4. Unfunded actuarial accrued liability		\$46,712,642

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the recommended contribution is as follows:

1. Total normal cost	\$1,122,129
2. Expected employee contributions	<u>-282,675</u>
3. Employer normal cost: (1) + (2)	\$839,454
4. Payment on unfunded actuarial accrued liability	3,575,128
5. Total recommended contribution: (3) + (4), adjusted for timing	<u>\$4,941,035</u>
6. Projected payroll	\$3,785,111
7. Total recommended contribution as a percentage of projected payroll: (5) ÷ (6)	130.54%
8. Annual Required Contribution for fiscal year ending June 30, 2013: (5)	\$4,941,035
9. Inflation factor	1.0350
10. Estimated Annual Required Contribution for fiscal year ending June 30, 2014: (8)x(9)	\$5,113,971*

* The actual Annual Required Contribution for fiscal year ending June 30, 2014 will be determined in the next valuation.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2003	\$2,802,155	\$2,436,554	87.0%
2004	2,928,252	2,635,099	90.0%
2005	3,186,975	2,669,806	83.8%
2006	3,330,389	3,084,995	92.6%
2007	3,100,390	3,544,672	114.3%
2008	3,208,904	3,209,813	100.0%
2009	3,704,162	2,833,053	76.5%
2010	3,833,808	3,596,440	93.8%
2011	4,701,525	1,886,017	40.1%
2012	4,866,078	--	--

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
07/01/2001	\$6,160,213	\$33,006,959	\$26,846,746	18.66%	\$4,656,894	576.49%
07/01/2003	8,408,844	40,123,051	31,714,207	20.96%	4,652,694	681.63%
07/01/2005	13,549,265	44,078,961	30,529,696	30.74%	4,295,487	710.74%
07/01/2007	20,662,996	55,191,527	34,528,531	37.44%	4,588,641	752.48%
07/01/2009	17,472,877	65,098,078	47,625,201	26.84%	3,449,317	1,380.71%
07/01/2011	23,695,404	70,408,046	46,712,642	33.65%	3,533,442	1,322.02%

* Not less than zero

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	July 1, 2011
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll assuming 3.5% inflation, closed
Remaining amortization period	18 years remaining as of July 1, 2011
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	7.75%
Projected salary increases	4.50%
Plan membership:	
Retired participants and beneficiaries receiving benefits	75
Terminated participants entitled to, but not yet receiving benefits	0
Active participants	<u>39</u>
Total	114

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT V

Development of the Net Pension Obligation (NPO) and the Annual Pension Cost Pursuant to GASB 27

Plan Year Ended June 30	Employer Annual Required Contribution (a)	Employer Amount Contributed* (b)	Interest on NPO (h) x 7.75% (c)	ARC Adjustment (h) / (e) (d)	Amortization Factor (e)	Pension Cost (a) + (c) - (d) (f)	Change in NPO (f) - (b) (g)	NPO Balance NPO + (g) (h)
2006	\$3,330,389	\$3,084,995	\$218,011	\$169,971	16.0329	\$3,378,429	\$293,434	\$3,018,567
2007	3,100,390	3,544,672	233,939	207,143	14.5724	3,127,186	-417,846	2,601,081
2008	3,208,904	3,209,813	201,584	183,116	14.2046	3,227,372	17,559	2,618,640
2009	3,704,162	2,833,053	202,945	189,459	13.8216	3,717,648	884,595	3,503,235
2010	3,833,808	3,596,440	271,501	260,987	13.4230	3,844,322	247,882	3,751,117
2011	4,701,525	1,886,017	290,712	288,369	13.0080	4,703,868	2,817,851	6,568,968

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT VI

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy: RP-2000 Combined Healthy Mortality Table, sex-distinct
Disabled: RP-2000 Disabled Retiree Mortality Table, sex-distinct

These tables reasonably reflect the projected mortality experience of the Plan as of the measurement date. No provision was made for future mortality improvement after the measurement date.

Termination Rates before Retirement:

Age	Rate (%)					
	Mortality		Disability		Withdrawal	
	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.34	0.34	0.00	0.00
25	0.04	0.02	0.34	0.34	0.00	0.00
30	0.04	0.03	0.44	0.44	0.00	0.00
35	0.08	0.05	0.58	0.58	0.00	0.00
40	0.11	0.07	0.88	0.88	0.00	0.00
45	0.15	0.11	1.44	1.44	0.00	0.00
50	0.21	0.17	2.42	2.42	0.00	0.00
55	0.36	0.27	2.42	2.42	0.00	0.00
60	0.67	0.51	2.42	2.42	0.00	0.00

100% of deaths and disabilities are assumed to be service-related.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

Retirement Rates:

Years of Service	Retirement Probability
20-21	20%
22-25	50%
26 or more	100%

All employees are assumed to retire no later than age 65

Percent Married:	All active firefighters and all retirees are assumed to be married. Wives are assumed to be three years younger than their husbands unless dates of birth are provided.
Net Investment Return:	7.75%
Salary Increases:	4.50%; including 1% for promotional and longevity increases
Severance Pay:	Severance pay is estimated as 50% of base pay at retirement. With this assumption, this increases the expected final average salary which includes overtime and other portions of total pay at retirement by 12.5%.
Administrative Expenses:	No explicit assumption as the majority of administrative expenses are paid by the plan sponsor outside the trust
Cost of Living Increases:	½ of the expected base salary increase (1.75%)
Actuarial Value of Assets:	Market value
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced participation if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined as if the current benefit accrual rate had always been in effect.
Changes in Assumptions:	There have been no changes in actuarial assumptions since the last valuation.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

EXHIBIT VII

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Town of Johnston Firefighters Pension System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: July 1 through June 30

Normal Retirement:

Eligibility 20 years of service

Amount The annual benefit at retirement is equal to the percentage of final average salary specified in the table below. For pension purposes, final average salary is a three-year average of pay including base, holiday and longevity pay, clothing and clothing maintenance allowances, "severance pay" (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.

<u>Years of Service</u>	<u>Benefit as a Percentage of Final Average Salary</u>
20	50.0%
21	52.5
22	55.0
23	57.5
24	60.0
25	62.5
26	65.0
27	67.5
28	70.0
29	72.5
30 or more	75.0

Years of service include call service.

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

Commencement Date Retirement benefits commence as of the first payroll period after retirement.

Form of Payment The annual benefit calculated in accordance with the formula above is payable monthly for the remainder of the retired member's life, with 67.5% of the member's benefit payable for the lifetime of his or her surviving spouse. The benefit ceases if the spouse remarries. If there is no spouse, a dependent's benefit may be paid to any children until their 18th birthday.

Disability:

Service Related

Eligibility Job-related mental or physical incapacity. Disability to be determined by the Town.

Amount 66 2/3% of final average salary

Non-Service Related

Eligibility Retirement because of a non-job-related mental or physical incapacity. Disability to be determined by the Town.

Amount Benefit applicable under retirement or vested termination (25% of final average salary for non-vested member is minimum benefit)

Commencement Date Benefits commence as of the first payroll period after disability

Form of Payment Same as Normal Retirement

Vested Termination:

Eligibility 10 years of service

Benefit Formula 25% of final average salary at termination with 10 years of service, increasing by 2.5% for each additional year of service up to a maximum of 47.5% of final average salary.

Commencement Date Age 55

Form of Payment Same as Normal Retirement

SECTION 4: Reporting Information for the Town of Johnston, Rhode Island Firefighters Pension System

Spouse's Pre-Retirement Death Benefit:

<i>Eligibility</i>	Death while actively employed
<i>Benefit Formula</i>	Surviving spouse (or if none, dependent children) receives 50% of final average salary (30% of final average salary for non-service related death). If surviving spouse has dependent children under age 18, additional percentages of final average salary up to a 66 2/3% benefit if service related or 50% benefit if not service related.

Retiree Cost-of-Living Increases: One-half of the negotiated base pay increases for active firefighters

Military Service Purchase: A member may purchase up to four years of pension service credit for prior military service by contributing 10% of the member's base pay at hire at any time prior to retirement, for each year purchased.

Employee Contributions: 8% of salary including base, holiday, longevity, clothing allowance, clothing maintenance allowance, severance and overtime.

Eligibility: All members of the fire department hired before July 1, 1999 (members hired after this date are participants in the Rhode Island Municipal Employees Retirement System).

Changes in Plan Provisions: There have been no changes in plan provisions since the last valuation.

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July 27, 2012

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
1385 Hartford Avenue
Town Hall
Johnston, RI 02919

Re: Town of Johnston Police and Firefighters Pension System – Cost Studies – Phase I

Dear Joe:

As requested, we have completed Phase I of the cost studies for the Police and Firefighters Pension System. Phase 1 includes the following benefit change options:

- Option A – Change the pensionable earnings definition to include only base, holiday, and longevity pay. For Police, the current earnings definition is pay as shown on the W-2 tax form, excluding officers' gun/qualification allowances and monies paid to the Town of Johnston funded by private companies to hire officers for non-municipal detail assignments. For Firefighters, the current earnings definition includes base, holiday, and longevity pay, as well as clothing and clothing maintenance allowances, severance pay (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.
- Option B – Change the salary averaging period from 3 years to 5 years.
- Option C – Change the salary averaging period from 3 years to 7 years.
- Option D – Change the salary averaging period from 3 years to 10 years.
- Option E – Cap the annual COLA increase at 2.5%. This change only affects Police who retire on or after July 1, 2005 who receive a 3.0% compounded COLA. The COLA assumption for all others is 1.625%.
- Option F – Cap the annual COLA so that each current and future retiree and beneficiary will not receive more than \$40,000 per year; however, if they are currently receiving more than \$40,000, the current benefit amount stays in effect.
- Option G – Eliminate all future COLAs for both current and future retirees and beneficiaries.

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Mr. Joseph L. Chiodo, CPA, MBA
July 27, 2012
Page 2

Each of the changes was valued assuming the change would be effective July 1, 2011. The calculations were based on the July 1, 2011 valuation data and asset information as well as the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter. The unfunded liability was amortized using the level dollar method with a remaining period of 18 years.

The impact on the liability and recommended contribution for Options A through D is shown on the attached Exhibit I-A for the Police, Exhibit I-B for the Firefighters, and Exhibit I-C for the combined Plan. Options E, F, and G are shown on Exhibit II-A, II-B, and II-C for Police, Firefighters, and the combined Plan, respectively. On each of the charts, the first column shows the 2011 results under the new assumptions prior to changing any benefits.

We can also perform additional cost studies to show the impact of combining several of the options or show the results if an amortization method with inflationary increases were used instead of a level dollar amortization.

In reviewing the results, please note the following:

- For Option A, we assumed employee contributions would be based on the new salary definition thereby lowering both the benefit earned and the employee contribution requirement. The projected payroll used to determine the recommended contribution rate was determined based on the current pay definition.
- In showing the recommended contribution rate, we determined projected pay using the new 3.25% payroll growth assumption.
- The results for Option G are close to the results for Option F as most active participants are projected to earn annual benefits over \$40,000 prior to the COLA and most retirees and beneficiaries are already receiving benefits in excess of \$40,000.

Phase II

Our understanding is that Phase II of the cost studies is to determine the impact of freezing all COLAs for current and future retirees receiving more than \$35,000 annually in pension benefits until the fund reaches a 70% level. Once the 70% level is achieved, the COLA for all participants would be tied to the Northeast CPI with a maximum annual increase of 2.5%.

In order to estimate the impact of this option, we would need to perform a deterministic projection. We would also need the following:

- If the projection is for the combined Plan only, or if separate projections are needed for Police and Firefighters.

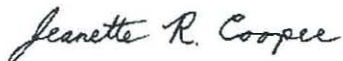
Mr. Joseph L. Chiodo, CPA, MBA
July 27, 2012
Page 3

- The contributions the Town plans to pay for the next 30 years; if results are shown for Police and Firefighters separately, the contributions need to be allocated between Police and Firefighters.
- If the COLA will cease for participants with benefits in excess of \$35,000 if the fund dips below a 70% level at a future date. This provision is more complicated if the results are prepared for the Police and Firefighters separately.
- The assumption you would like us to use for Northeast CPI. One possibility is to use the ceiling of 2.5%.
- If you would like the projection to be run on more than one set of assumptions; for example, the projections can be run on alternative market return rates, or alternative CPI rates.

Once we hear back on these items, Bill Connolly will provide a delivery date and fee quote for Phase II.

We look forward to discussing the Phase I results with you as well as the approach for Phase II.

Sincerely,



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

cc: William Conley
Joe Rodio, Jr.
William Connolly
Malichi Waterman
Veronika Khanina

Exhibit I-A
Town of Johnston, Rhode Island Police Pension System
Impact of Benefit Changes under Options A through D

POLICE	Current	Option A	Option B	Option C	Option D
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	New Earnings Definition – Base, Holiday and Longevity Pay	Five-Year Salary Averaging Period	Seven-Year Salary Averaging Period	Ten-Year Salary Averaging Period
1. Actuarial Accrued Liability (AAL)	\$64,500,000	\$60,500,000	\$63,700,000	\$63,000,000	\$62,000,000
2. Actuarial Value of Assets (AVA)	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$46,400,000	\$42,400,000	\$45,600,000	\$44,900,000	\$43,900,000
4. Funded Percentage [(2)/(1)]	28.1%	29.9%	28.4%	28.7%	29.2%
5. Employer Normal Cost	\$1,300,000	\$1,100,000	\$1,300,000	\$1,300,000	\$1,200,000
6. Payment on UAAL	4,500,000	4,100,000	4,400,000	4,300,000	4,200,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,500,000	\$5,800,000	\$6,300,000	\$6,200,000	\$6,000,000
8. Recommended Contribution as a Percentage of Projected Payroll	117.8%	104.9%	115.2%	112.9%	109.7%

Exhibit I-B

Town of Johnston, Rhode Island Firefighters Pension System Impact of Benefit Changes under Options A through D

FIREFIGHTERS	Current	Option A	Option B	Option C	Option D
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	New Earnings Definition – Base, Holiday and Longevity Pay	Five-Year Salary Averaging Period	Seven-Year Salary Averaging Period	Ten-Year Salary Averaging Period
1. Actuarial Accrued Liability (AAL)	\$73,200,000	\$66,700,000	\$72,300,000	\$71,500,000	\$70,400,000
2. Actuarial Value of Assets (AVA)	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$49,500,000	\$43,000,000	\$48,600,000	\$47,800,000	\$46,700,000
4. Funded Percentage [(2)/(1)]	32.4%	35.6%	32.8%	33.1%	33.7%
5. Employer Normal Cost	\$900,000	\$600,000	\$800,000	\$800,000	\$700,000
6. Payment on UAAL	4,700,000	4,100,000	4,700,000	4,600,000	4,500,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,300,000	\$5,300,000	\$6,100,000	\$6,000,000	\$5,800,000
8. Recommended Contribution as a Percentage of Projected Payroll	167.2%	141.1%	163.5%	160.0%	155.1%

Exhibit I-C

Town of Johnston, Rhode Island Combined Pension System

Impact of Benefit Changes under Options A through D

COMBINED PLAN	Current	Option A	Option B	Option C	Option D
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	New Earnings Definition – Base, Holiday and Longevity Pay	Five-Year Salary Averaging Period	Seven-Year Salary Averaging Period	Ten-Year Salary Averaging Period
1. Actuarial Accrued Liability (AAL)	\$137,700,000	\$127,200,000	\$136,000,000	\$134,500,000	\$132,400,000
2. Actuarial Value of Assets (AVA)	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$95,900,000	\$85,400,000	\$94,200,000	\$92,700,000	\$90,600,000
4. Funded Percentage [(2)/(1)]	30.4%	32.9%	30.7%	31.1%	31.6%
5. Employer Normal Cost	\$2,200,000	\$1,700,000	\$2,100,000	\$2,100,000	\$1,900,000
6. Payment on UAAL	9,200,000	8,200,000	9,100,000	8,900,000	8,700,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$12,800,000	\$11,100,000	\$12,400,000	\$12,200,000	\$11,800,000
8. Recommended Contribution as a Percentage of Projected Payroll	137.8%	119.6%	134.8%	132.0%	128.2%

Exhibit II-A
Town of Johnston, Rhode Island Police Pension System
Impact of Benefit Changes under Options E through G

POLICE	Current	Option E	Option F	Option G
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Cap Annual COLA at 2.5%	Freeze COLA at \$40K Benefit or Current Benefit if Higher	Eliminate Future COLAs
1. Actuarial Accrued Liability (AAL)	\$64,500,000	\$62,000,000	\$51,800,000	\$49,400,000
2. Actuarial Value of Assets (AVA)	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$46,400,000	\$43,900,000	\$33,700,000	\$31,300,000
4. Funded Percentage [(2)/(1)]	28.1%	29.2%	34.9%	36.6%
5. Employer Normal Cost	\$1,300,000	\$1,200,000	\$900,000	\$800,000
6. Payment on UAAL	4,500,000	4,200,000	3,200,000	3,000,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,500,000	\$6,100,000	\$4,600,000	\$4,300,000
8. Recommended Contribution as a Percentage of Projected Payroll	117.8%	110.7%	83.2%	78.0%

Exhibit II-B
Town of Johnston, Rhode Island Firefighters Pension System
Impact of Benefit Changes under Options E through G

FIREFIGHTERS	Current	Option E	Option F	Option G
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Cap Annual COLA at 2.5%	Freeze COLA at \$40K Benefit or Current Benefit if Higher	Eliminate Future COLAs
1. Actuarial Accrued Liability (AAL)	\$73,200,000	\$73,200,000	\$62,000,000	\$61,500,000
2. Actuarial Value of Assets (AVA)	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$49,500,000	\$49,500,000	\$38,300,000	\$37,800,000
4. Funded Percentage [(2)/(1)]	32.4%	32.4%	38.2%	38.5%
5. Employer Normal Cost	\$900,000	\$900,000	\$700,000	\$700,000
6. Payment on UAAL	4,700,000	4,700,000	3,700,000	3,600,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,300,000	\$6,300,000	\$4,900,000	\$4,800,000
8. Recommended Contribution as a Percentage of Projected Payroll	167.2%	167.2%	129.5%	127.7%

Exhibit II-C

Town of Johnston, Rhode Island Combined Pension System Impact of Benefit Changes under Options E through G

COMBINED PLAN	Current	Option E	Option F	Option G
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Cap Annual COLA at 2.5%	Freeze COLA at \$40K Benefit or Current Benefit if Higher	Eliminate Future COLAs
1. Actuarial Accrued Liability (AAL)	\$137,700,000	\$135,200,000	\$113,800,000	\$110,900,000
2. Actuarial Value of Assets (AVA)	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$95,900,000	\$93,400,000	\$72,000,000	\$69,100,000
4. Funded Percentage [(2)/(1)]	30.4%	30.9%	36.7%	37.7%
5. Employer Normal Cost	\$2,200,000	\$2,100,000	\$1,600,000	\$1,500,000
6. Payment on UAAL	9,200,000	8,900,000	6,900,000	6,600,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$12,800,000	\$12,400,000	\$9,500,000	\$9,100,000
8. Recommended Contribution as a Percentage of Projected Payroll	137.8%	133.6%	102.0%	98.2%



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August 17, 2012

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
Town Hall
1385 Hartford Avenue
Johnston, RI 02919-7134

Re: Town of Johnston Police and Firefighters Pension System – Cost Studies – Phase 2

Dear Joe:

As requested, we have completed Phase 2 of the cost studies for the Police and Firefighters Pension System. Phase 2 includes the following benefit change options:

- Option 2A – Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 years to 10 years. Freeze the COLA for 10 years and then reinstate it for all future years.
- Option 2B – Same as Option 2A but freeze the COLA for 15 years.
- Option 2C – Same as Option 2A but freeze the COLA for 20 years.
- Option 2D – Same as Option 2A but have no freeze on the COLA and offset current active participants' benefits by their Social Security benefit.

For Police, the current earnings definition is pay as shown on the W-2 tax form, excluding officers' gun/qualification allowances and monies paid to the Town of Johnston funded by private companies to hire officers for non-municipal detail assignments. For Firefighters, the current earnings definition includes base, holiday, and longevity pay, as well as clothing and clothing maintenance allowances, severance pay (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.

Each of the changes was valued assuming the change would be effective July 1, 2011. The calculations were based on the July 1, 2011 valuation data and asset information as well as the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter. The unfunded liability was amortized using the level dollar method with a remaining period of 18 years.



The impact on the liability and recommended contribution for Options 2A through 2D is shown on the attached Exhibit I-A for the Police, Exhibit I-B for the Firefighters, and Exhibit I-C for the combined Plan. On each of the charts, the first column shows the 2011 results under the new assumptions prior to changing any benefits (current).

As requested, we ran 30-year deterministic projections under the current benefit provisions and the benefit provisions in Options 2A through 2D. The contribution projections are shown on Exhibit II-A for Police, Exhibit II-B for Firefighters, and Exhibit II-C for the combined Plan. The funded percentages are shown on Exhibit III-A for Police, Exhibit III-B for Firefighters, and Exhibit III-C for the combined Plan.

In reviewing the results, please note the following:

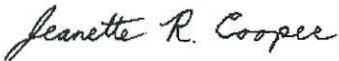
- For all of the options, we assumed employee contributions would be based on the new salary definition, thereby lowering both the benefit earned and the employee contribution requirement. The projected payroll used to determine the recommended contribution rate was determined based on the current pay definition.
- For Options 2A, 2B, and 2C, once unfrozen, the COLA increase is tied to the Northeast Urban CPI, assumed to be at 2.50% and benefits are capped at 150% of the Rhode Island Mean Income (currently \$77,830), also increased at 2.50% per year.
- For Option 2D, retirement benefits were offset by the estimated Social Security benefit payable at age 62.
- In showing the recommended contribution rate, we determined projected pay using the new 3.25% payroll growth assumption.
- The recommended contributions are calculated to be payable in the middle of the next fiscal year. For example, the 2011 recommended contribution is calculated to be payable on January 1, 2013 and the 2012 recommended contribution is calculated to be payable on January 1, 2014. The projections reflect this timing.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as estimates of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methods described in this letter. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or alternative methods are used. Actual experience may differ due to such factors as demographic experience, the economy, stock market performance and the regulatory environment.

Mr. Joseph L. Chiodo, CPA, MBA
August 17, 2012
Page 3

We recommend having legal counsel review any contemplated benefit changes. We look forward to discussing the Phase 2 results with you on a future conference call. In the meantime, please let us know if you have any questions or need additional studies.

Sincerely,



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

cc: William Conley
Joe Rodio, Jr.
William Connolly
Malichi Waterman
Veronika Khanina

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Exhibit I-A
Town of Johnston, Rhode Island Police Pension System
Impact of Benefit Changes under Options 2A through 2D

POLICE	Current	Option 2A	Option 2B	Option 2C	Option 2D
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	New Earnings Definition, 10-Year Pay Averaging Period, 10-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, 15-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, Social Security Offset for Active Participants
1. Actuarial Accrued Liability (AAL)	\$64,500,000	\$52,100,000	\$49,800,000	\$48,100,000	\$57,300,000
2. Actuarial Value of Assets (AVA)	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$46,400,000	\$34,000,000	\$31,700,000	\$30,000,000	\$39,200,000
4. Funded Percentage [(2)/(1)]	28.1%	34.7%	36.3%	37.6%	31.6%
5. Employer Normal Cost	\$1,300,000	\$900,000	\$800,000	\$800,000	\$800,000
6. Payment on UAAL	4,500,000	3,300,000	3,000,000	2,900,000	3,800,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,500,000	\$4,600,000	\$4,300,000	\$4,100,000	\$5,100,000
8. Recommended Contribution as a Percentage of Projected Payroll	117.8%	84.6%	78.8%	74.2%	93.4%

Exhibit I-B
Town of Johnston, Rhode Island Firefighters Pension System
Impact of Benefit Changes under Options 2A through 2D

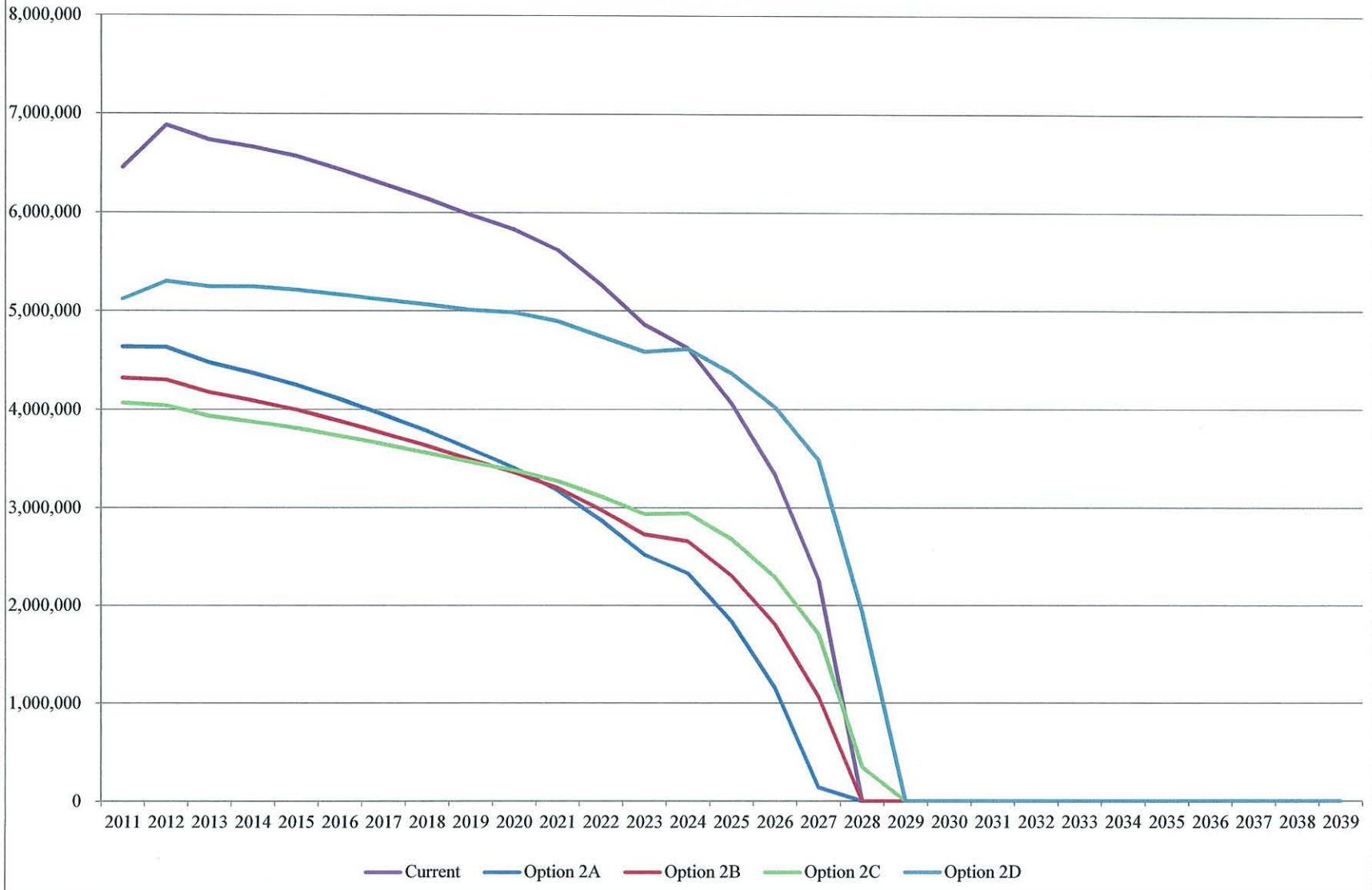
FIREFIGHTERS	Current	Option 2A	Option 2B	Option 2C	Option 2D
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	New Earnings Definition, 10-Year Pay Averaging Period, 10-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, 15-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, Social Security Offset for Active Participants
1. Actuarial Accrued Liability (AAL)	\$73,200,000	\$58,800,000	\$56,900,000	\$55,700,000	\$62,400,000
2. Actuarial Value of Assets (AVA)	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$49,500,000	\$35,100,000	\$33,200,000	\$32,000,000	\$38,700,000
4. Funded Percentage [(2)/(1)]	32.4%	40.3%	41.7%	42.5%	38.0%
5. Employer Normal Cost	\$900,000	\$500,000	\$500,000	\$400,000	\$400,000
6. Payment on UAAL	4,700,000	3,400,000	3,200,000	3,100,000	3,700,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,300,000	\$4,300,000	\$4,100,000	\$3,900,000	\$4,600,000
8. Recommended Contribution as a Percentage of Projected Payroll	167.2%	114.5%	108.3%	104.5%	123.3%

Exhibit I-C

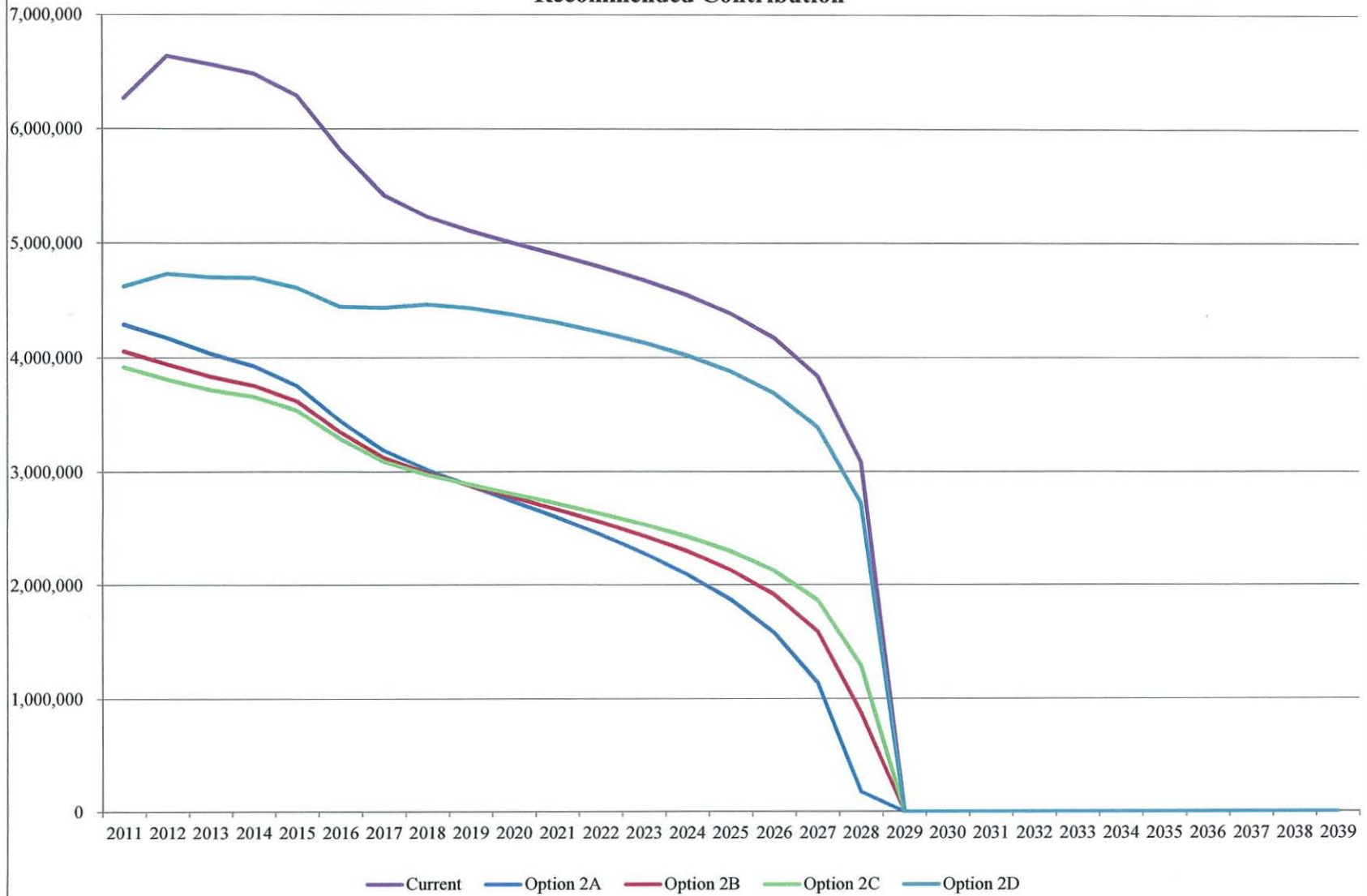
Town of Johnston, Rhode Island Combined Pension System Impact of Benefit Changes under Options 2A through 2D

COMBINED PLAN	Current	Option 2A	Option 2B	Option 2C	Option 2D
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	New Earnings Definition, 10-Year Pay Averaging Period, 10-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, 15-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze	New Earnings Definition, 10-Year Pay Averaging Period, Social Security Offset for Active Participants
1. Actuarial Accrued Liability (AAL)	\$137,700,000	\$110,900,000	\$106,700,000	\$103,800,000	\$119,700,000
2. Actuarial Value of Assets (AVA)	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$95,900,000	\$69,100,000	\$64,900,000	\$62,000,000	\$77,900,000
4. Funded Percentage [(2)/(1)]	30.4%	37.7%	39.2%	40.3%	34.9%
5. Employer Normal Cost	\$2,200,000	\$1,400,000	\$1,300,000	\$1,200,000	\$1,300,000
6. Payment on UAAL	9,200,000	6,600,000	6,200,000	5,900,000	7,500,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$12,800,000	\$8,900,000	\$8,400,000	\$8,000,000	\$9,700,000
8. Recommended Contribution as a Percentage of Projected Payroll	137.8%	96.7%	90.8%	86.5%	105.5%

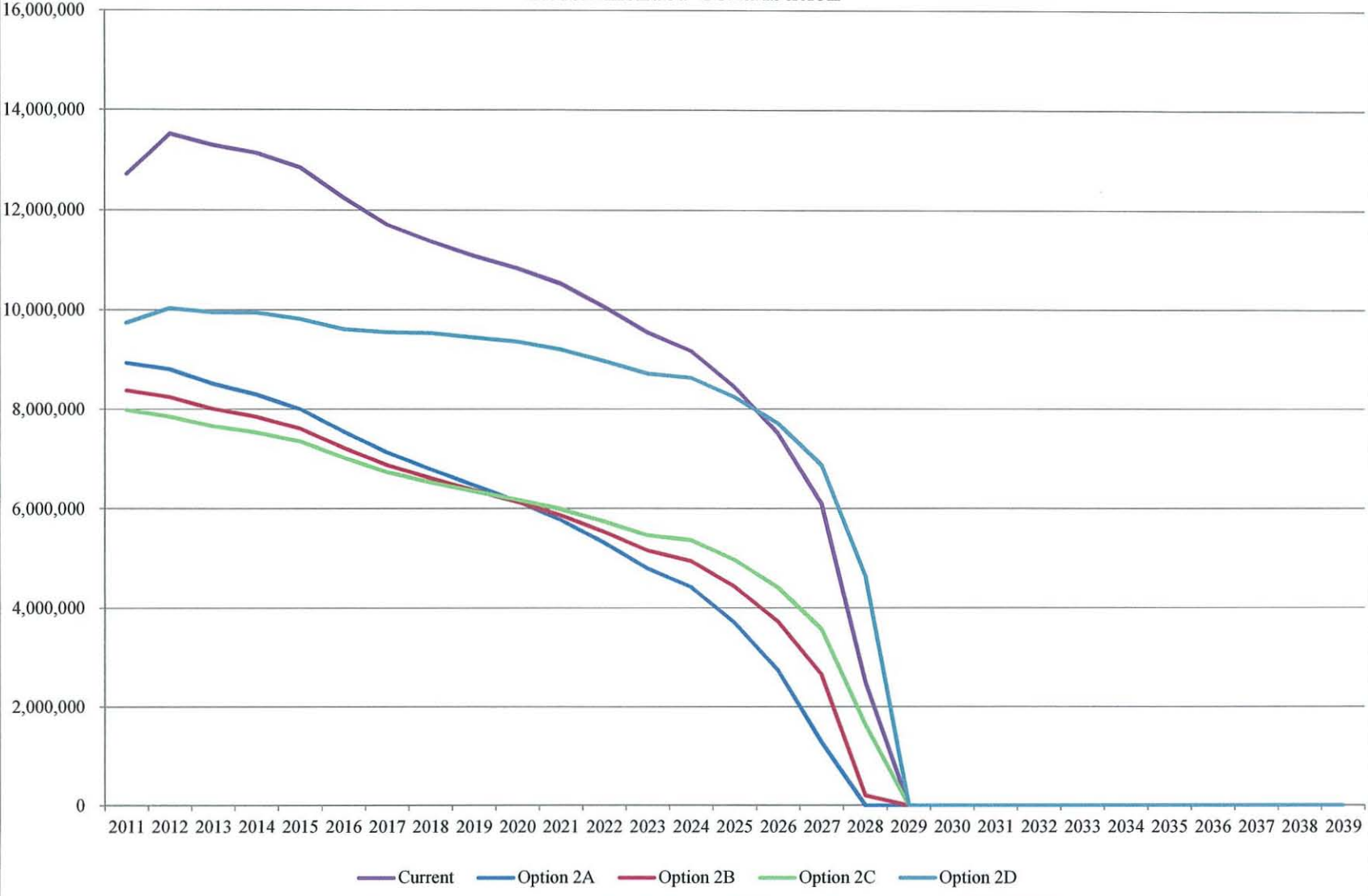
**Exhibit II-A
Town of Johnston, Rhode Island
Police Pension System
Recommended Contribution**



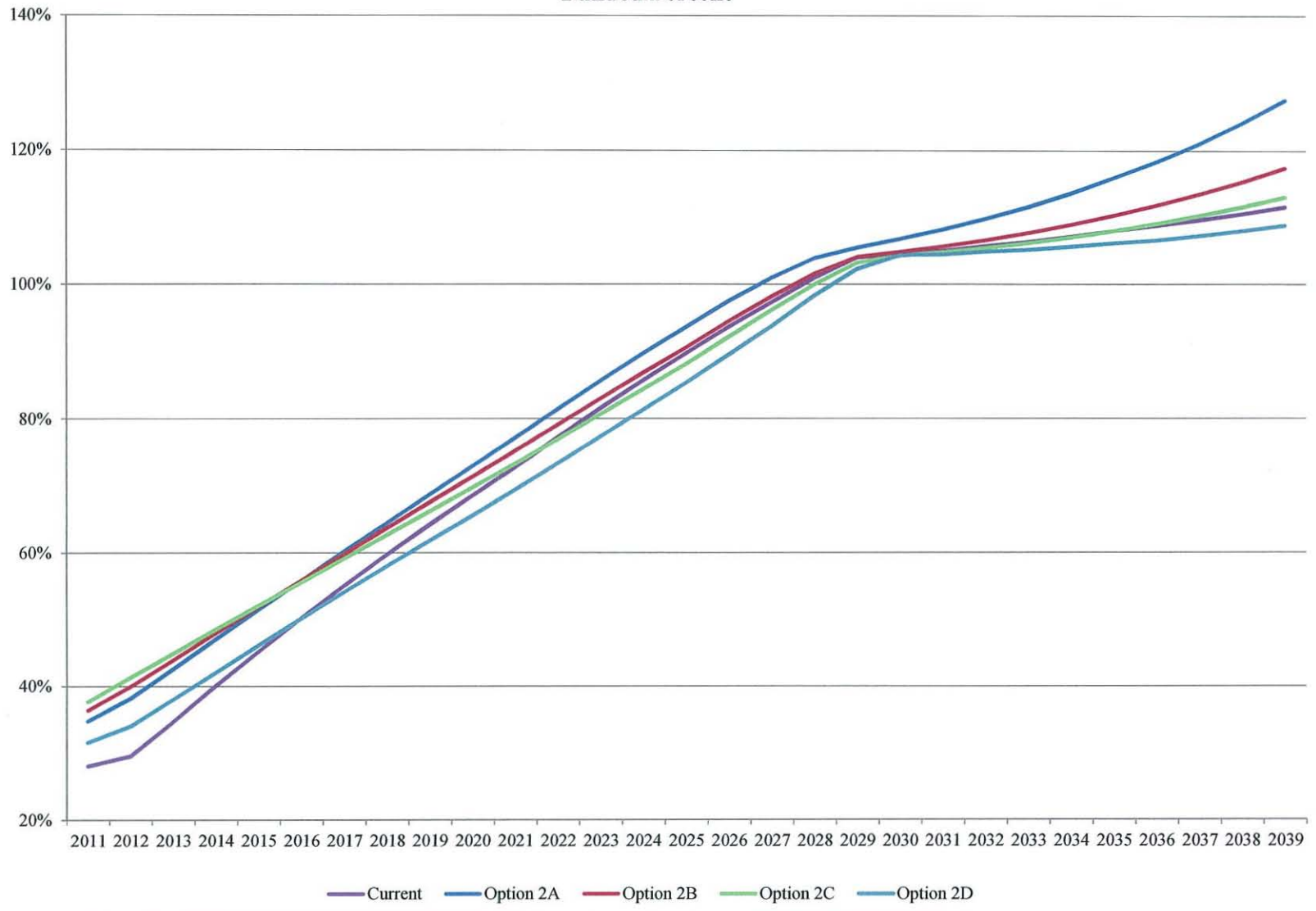
**Exhibit II-B
Town of Johnston, Rhode Island
Firefighters Pension System
Recommended Contribution**



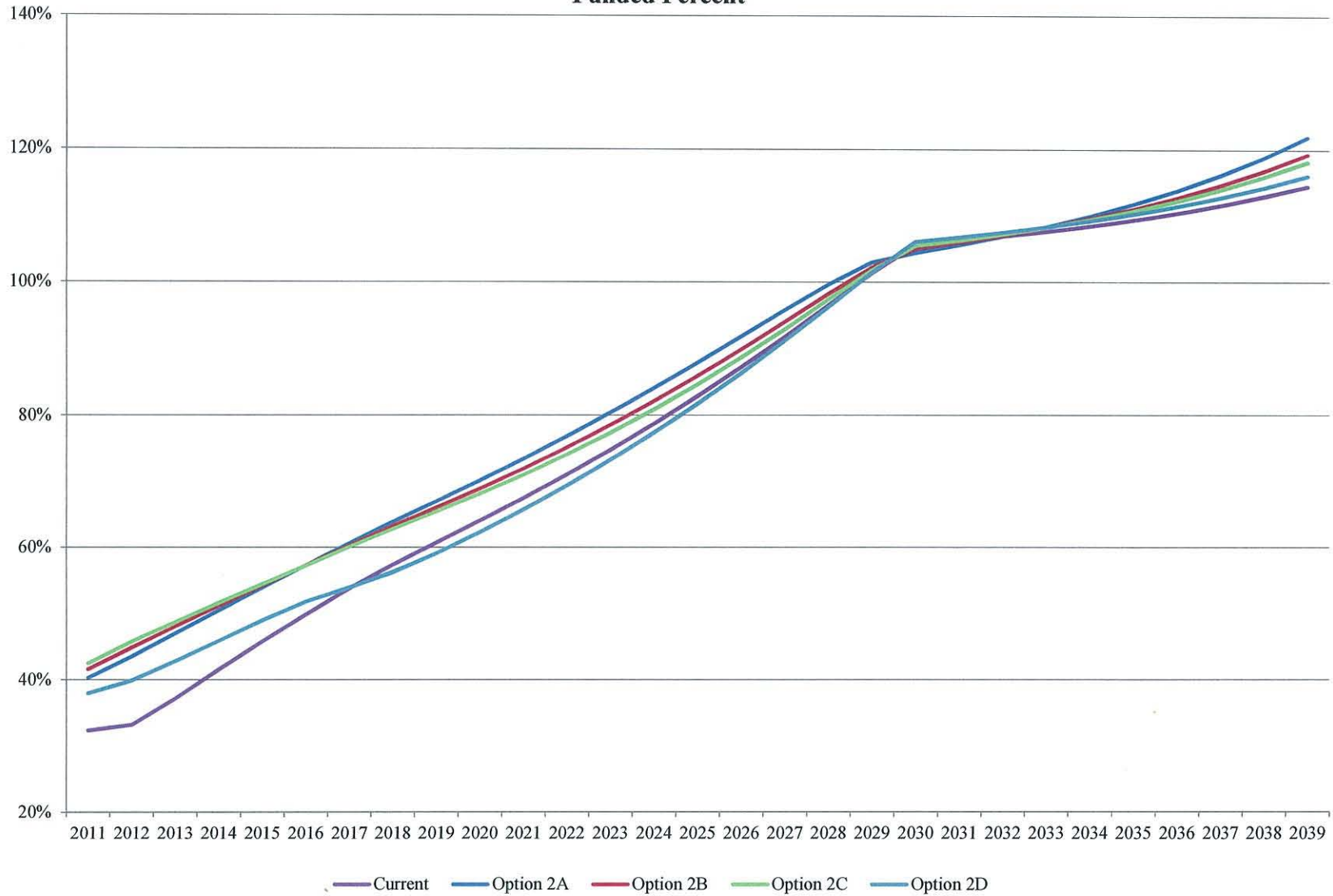
**Exhibit II-C
Town of Johnston, Rhode Island
Firefighters and Police Pension Systems Combined
Recommended Contribution**



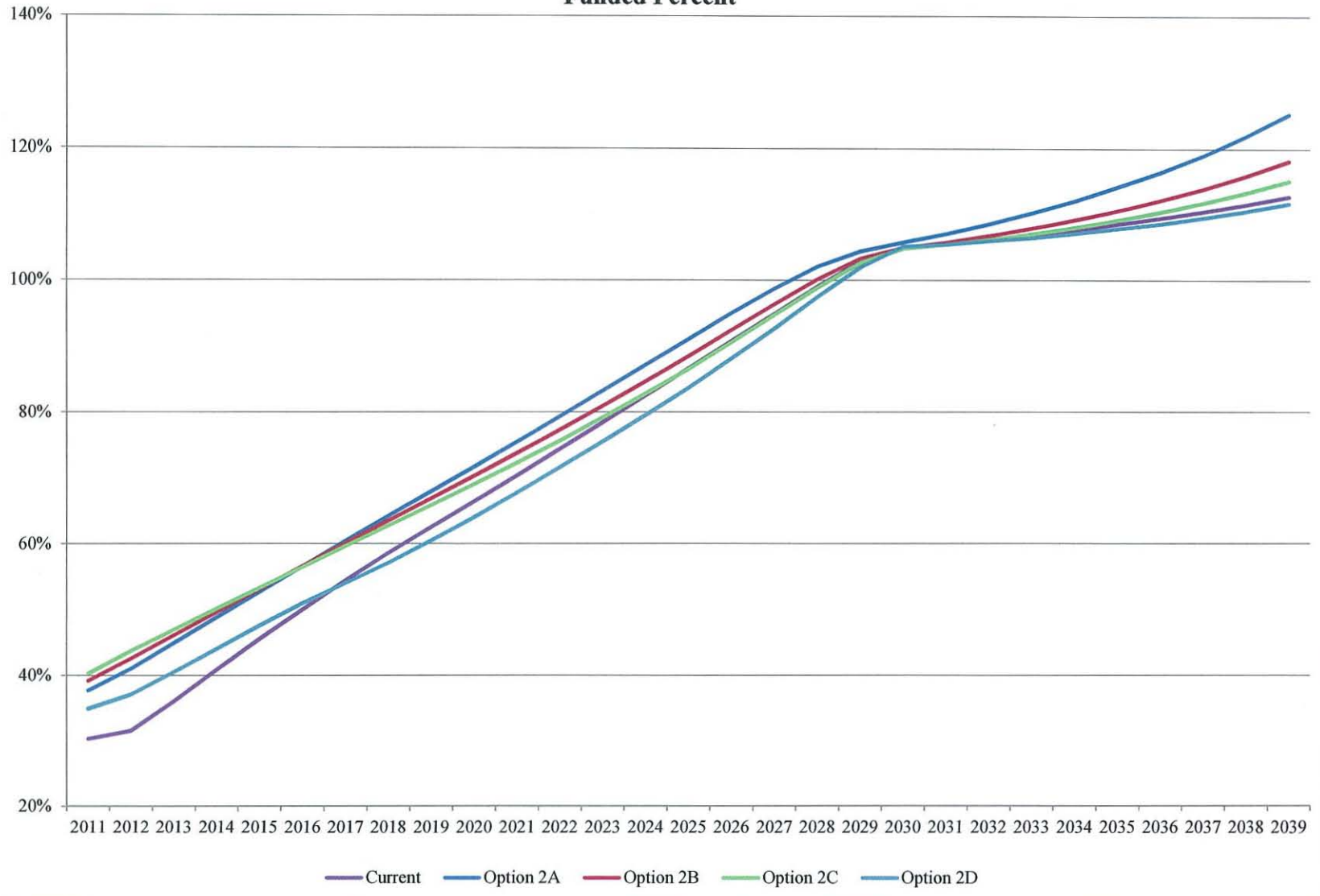
**Exhibit III-A
Town of Johnston, Rhode Island
Police Pension System
Funded Percent**



**Exhibit III-B
Town of Johnston, Rhode Island
Firefighters Pension System
Funded Percent**



**Exhibit III-C
Town of Johnston, Rhode Island
Firefighters and Police Pension Systems Combined
Funded Percent**





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August 28, 2012

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
Town Hall
1385 Hartford Avenue
Johnston, RI 02919-7134

Re: Town of Johnston Police and Firefighters Pension System – Cost Studies – Phase 3

Dear Joe:

As requested, we have completed Phase 3 of the cost studies for the Police and Firefighters Pension System. Phase 3 includes the following benefit and amortization change options:

- Option 3A – Introduce a minimum retirement age of 55 in addition to the current service requirements.
- Option 3B – Change the amortization period from 18 years remaining as of July 1, 2011 to 24 years remaining as of July 1, 2011.
- Option 3C – Introduce a minimum retirement age of 55 in addition to the current service requirements. Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 to 10 years. Freeze the COLA for 20 years and then reinstate it for all future years.

For Police, the current earnings definition is pay as shown on the W-2 tax form, excluding officers' gun/qualification allowances and monies paid to the Town of Johnston funded by private companies to hire officers for non-municipal detail assignments. For Firefighters, the current earnings definition includes base, holiday, and longevity pay, as well as clothing and clothing maintenance allowances, severance pay (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.

Each of the changes was valued assuming the change would be effective July 1, 2011. The calculations were based on the July 1, 2011 valuation data and asset information as well as the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter. For Option 3A, the unfunded liability was amortized using the level dollar method with a remaining period of 18 years.

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The impact on the liability and recommended contribution for Options 3A through 3C is shown on the attached Exhibit I-A for the Police, Exhibit I-B for the Firefighters, and Exhibit I-C for the combined Plan. On each of the charts, the first column shows the 2011 results under the new assumptions prior to changing any benefits (current).

In reviewing the results, please note the following:

- In Options 3A and 3C where a minimum retirement age is introduced, we maintained the current assumption of no terminations prior to retirement. We also modified the retirement rates to use the same service-related rates but assume no retirement if a participant has not reached age 55. For example, under the current assumptions, a police officer is assumed to have a 15% retirement rate at 18 years of service and a 50% retirement rate at 24 years of service. If a participant reaches age 55 prior to 18 years of service, he is not assumed to terminate or retire. If he reaches age 55 at 18 years of service, he is assumed to have a 15% rate of retirement at age 55. If he reaches age 55 at 24 years of service, he is assumed to have a 50% rate of retirement at age 55. Participants who reach age 55 after 18 years of service are assumed to work longer and receive a larger benefit. We can also value the change assuming turnover rates prior to retirement or using alternative retirement rates. If you would like to see the results on other bases, please call to discuss the assumptions to use.
- For Option 3C, we assumed employee contributions would be based on the new salary definition, thereby lowering both the benefit earned and the employee contribution requirement. The projected payroll used to determine the recommended contribution rate was determined based on the current pay definition.
- For Option 3C, once unfrozen, the COLA increase is tied to the Northeast Urban CPI, assumed to be at 2.50% and benefits are capped at 150% of the Rhode Island Mean Income (currently \$77,830), also increased at 2.50% per year.
- In showing the recommended contribution rate, we determined projected pay using the new 3.25% payroll growth assumption.
- The recommended contributions are calculated to be payable in the middle of the next fiscal year. For example, the 2011 recommended contribution is calculated to be payable on January 1, 2013 and the 2012 recommended contribution is calculated to be payable on January 1, 2014. The projections reflect this timing.

Mr. Joseph L. Chiodo, CPA, MBA
August 28, 2012
Page 3

We recommend having legal counsel review any contemplated benefit changes. Please let us know if you have questions on the Phase 3 results or need additional studies.

Sincerely,



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

cc: William Conley
Joe Rodio, Jr.
William Connolly
Malichi Waterman
Veronika Khanina

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Exhibit I-A
Town of Johnston, Rhode Island Police Pension System
Impact of Benefit Changes under Options 3A through 3C

POLICE	Current	Option 3A	Option 3B	Option 3C
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Minimum Retirement Age 55	24-Year Level Dollar Amortization	Minimum Retirement Age 55, 24-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze
1. Actuarial Accrued Liability (AAL)	\$64,500,000	\$61,600,000	\$64,500,000	\$46,500,000
2. Actuarial Value of Assets (AVA)	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$46,400,000	\$43,500,000	\$46,400,000	\$28,400,000
4. Funded Percentage [(2)/(1)]	28.1%	29.4%	28.1%	38.9%
5. Employer Normal Cost	\$1,300,000	\$1,200,000	\$1,300,000	\$700,000
6. Payment on UAAL	4,500,000	4,200,000	3,900,000	2,400,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,500,000	\$5,900,000	\$5,900,000	\$3,500,000
8. Recommended Contribution as a Percentage of Projected Payroll	117.8%	108.5%	107.2%	63.6%

Exhibit I-B

**Town of Johnston, Rhode Island Firefighters Pension System
Impact of Benefit Changes under Options 3A through 3C**

FIREFIGHTERS	Current	Option 3A	Option 3B	Option 3C
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Minimum Retirement Age 55	24-Year Level Dollar Amortization	Minimum Retirement Age 55, 24-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze
1. Actuarial Accrued Liability (AAL)	\$73,200,000	\$68,600,000	\$73,200,000	\$53,700,000
2. Actuarial Value of Assets (AVA)	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$49,500,000	\$44,900,000	\$49,500,000	\$30,000,000
4. Funded Percentage [(2)/(1)]	32.4%	34.5%	32.4%	44.1%
5. Employer Normal Cost	\$900,000	\$700,000	\$900,000	\$300,000
6. Payment on UAAL	4,700,000	4,300,000	4,200,000	2,500,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,300,000	\$5,600,000	\$5,700,000	\$3,200,000
8. Recommended Contribution as a Percentage of Projected Payroll	167.2%	148.3%	150.8%	85.9%

Exhibit I-C

Town of Johnston, Rhode Island Combined Pension System Impact of Benefit Changes under Options 3A through 3C

COMBINED PLAN	Current	Option 3A	Option 3B	Option 3C
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Minimum Retirement Age 55	24-Year Level Dollar Amortization	Minimum Retirement Age 55, 24-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze
1. Actuarial Accrued Liability (AAL)	\$137,700,000	\$130,200,000	\$137,700,000	\$100,200,000
2. Actuarial Value of Assets (AVA)	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$95,900,000	\$88,400,000	\$95,900,000	\$58,400,000
4. Funded Percentage [(2)/(1)]	30.4%	32.1%	30.4%	41.7%
5. Employer Normal Cost	\$2,200,000	\$1,800,000	\$2,200,000	\$1,100,000
6. Payment on UAAL	9,200,000	8,500,000	8,100,000	4,900,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$12,800,000	\$11,500,000	\$11,500,000	\$6,700,000
8. Recommended Contribution as a Percentage of Projected Payroll	137.8%	124.6%	124.9%	72.7%



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October 31, 2012

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
Town Hall
1385 Hartford Avenue
Johnston, RI 02919-7134

Re: Town of Johnston Police and Firefighters Pension System – Cost Studies – Phase 4

Dear Joe:

As requested, we have completed Phase 4 of the cost studies for the Police and Firefighters Pension System. Phase 4 includes the following benefit and amortization change options:

- Option 4A – Introduce a minimum retirement age of 55 in addition to the current service requirements. Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 to 10 years. Freeze the COLA for 20 years and then reinstate it for all future years. This is the same option as Option 3C in the Phase 3 cost study. Amortize the unfunded liability on a level dollar basis over 24 years.
- Option 4B – Introduce a minimum retirement age of 55 in addition to the current service requirements. Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 to 10 years. Freeze the COLA permanently. Amortize the unfunded liability on a level dollar basis over 30 years.

For Police, the current earnings definition is pay as shown on the W-2 tax form, excluding officers' gun/qualification allowances and monies paid to the Town of Johnston funded by private companies to hire officers for non-municipal detail assignments. For Firefighters, the current earnings definition includes base, holiday, and longevity pay, as well as clothing and clothing maintenance allowances, severance pay (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.

The impact on the liability and recommended contribution for Options 4A and 4B is shown on the attached Exhibit I-A for the Police, Exhibit I-B for the Firefighters, and Exhibit I-C for the combined Plan. For purposes of this chart, the benefit changes were assumed to become effective on July 1, 2011 with the 24-year and 30-year amortization periods beginning on July 1, 2011. On each of the charts, the first column shows the 2011 results under the new assumptions prior to



changing any benefits (current). This allows for a same-time comparison of cost against the current July 1, 2011 valuation results with new assumptions and is consistent with the prior cost studies.

We also prepared projections showing future contribution streams for the combined Plan assuming the necessary contribution to meet the funding improvement plan requirements keys off of the percentage contribution 1) during the fiscal year ending in 2014 (top portion of the chart) and 2) during the fiscal year ending in 2013 (bottom portion of the chart). The projections also show the unfunded liability and funded percentage at each future year with the point where the 60% threshold is reached highlighted in yellow. Once the plan is 60% funded, it is no longer in critical status. Projections 4A and 4B show the results on both bases for Options 4A and 4B, respectively.

These projections were run under the following assumptions to reflect the funding improvement plan guidelines, the likely contribution payments in the early years, and the likely timing of the benefit changes:

- The benefit changes are effective on July 1, 2013
- The amortization period is reset to 24 years for Option 4A and 30 years for Option 4B on July 1, 2013.
- The new assumptions from the experience review are first introduced at July 1, 2012 with a 23-year level dollar amortization on that date.
- The contribution for fiscal year-end 2013 is \$3,170,847.
- The contribution for fiscal year-end 2014 is \$3,500,000 unless the guidelines require a higher amount.
- The contribution for fiscal year-end 2015 is \$4,000,000 unless the guidelines require a higher amount.
- There is no decrease in the dollar contribution amount from one year to the next unless the full ARC is being paid, in accordance with the guidelines.

The calculations were based on the July 1, 2011 valuation data and asset information as well as the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter with the exceptions for the projection work as noted above.

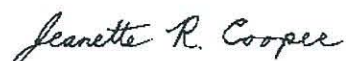
In reviewing the results, please note the following:

- In both Options 4A and 4B where a minimum retirement age is introduced, we maintained the current assumption of no terminations prior to retirement. We also modified the

retirement rates to use the same service-related rates but assume no retirement if a participant has not reached age 55. For example, under the current assumptions, a police officer is assumed to have a 15% retirement rate at 18 years of service and a 50% retirement rate at 24 years of service. If a participant reaches age 55 prior to 18 years of service, he is not assumed to terminate or retire. If he reaches age 55 at 18 years of service, he is assumed to have a 15% rate of retirement at age 55. If he reaches age 55 at 24 years of service, he is assumed to have a 50% rate of retirement at age 55. Participants who reach age 55 after 18 years of service are assumed to work longer and receive a larger benefit. We can also value the change assuming turnover rates prior to retirement or using alternative retirement rates. If you would like to see the results on other bases, please call to discuss the assumptions to use.

- For Options 4A and 4B, we assumed employee contributions would be based on the new salary definition, thereby lowering both the benefit earned and the employee contribution requirement. The projected payroll used to determine the recommended contribution rate was determined based on the current pay definition.
- For Option 4A, once unfrozen, the COLA increase is tied to the Northeast Urban CPI, assumed to be at 2.50% and benefits are capped at 150% of the Rhode Island Mean Income (currently \$77,830), also increased at 2.50% per year.
- In showing the recommended contribution rate, we determined projected pay using the new 3.25% payroll growth assumption.
- The recommended contributions are calculated to be payable in the middle of the next fiscal year. For example, the 2011 recommended contribution is calculated to be payable on January 1, 2013 and the 2012 recommended contribution is calculated to be payable on January 1, 2014. The projections reflect this timing. We recommend having legal counsel review any contemplated benefit changes. We look forward to discussing the Phase 4 results with you shortly.

Sincerely,



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

cc: William Conley
Joe Rodio, Jr.
William Connolly
Malichi Waterman
Veronika Khanina

Exhibit I-A

Town of Johnston, Rhode Island Police Pension System Impact of Benefit Changes under Options 4A and 4B

POLICE	Current	Option 4A	Option 4B
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Minimum Retirement Age 55, 24-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze	Minimum Retirement Age 55, 30-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, Permanent COLA Freeze
1. Actuarial Accrued Liability (AAL)	\$64,500,000	\$46,500,000	\$44,000,000
2. Actuarial Value of Assets (AVA)	<u>18,100,000</u>	<u>18,100,000</u>	<u>18,100,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$46,400,000	\$28,400,000	\$25,900,000
4. Funded Percentage [(2)/(1)]	28.1%	38.9%	41.1%
5. Employer Normal Cost	\$1,300,000	\$700,000	\$500,000
6. Payment on UAAL	4,500,000	2,400,000	2,000,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,500,000	\$3,500,000	\$2,900,000
8. Recommended Contribution as a Percentage of Projected Payroll	117.8%	63.6%	52.3%

Exhibit I-B

Town of Johnston, Rhode Island Firefighters Pension System Impact of Benefit Changes under Options 4A and 4B

FIREFIGHTERS	Current	Option 4A	Option 4B
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Minimum Retirement Age 55, 24-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze	Minimum Retirement Age 55, 30-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, Permanent COLA Freeze
1. Actuarial Accrued Liability (AAL)	\$73,200,000	\$53,700,000	\$51,900,000
2. Actuarial Value of Assets (AVA)	<u>23,700,000</u>	<u>23,700,000</u>	<u>23,700,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$49,500,000	\$30,000,000	\$28,200,000
4. Funded Percentage [(2)/(1)]	32.4%	44.1%	45.7%
5. Employer Normal Cost	\$900,000	\$300,000	\$300,000
6. Payment on UAAL	4,700,000	2,500,000	2,200,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$6,300,000	\$3,200,000	\$2,800,000
8. Recommended Contribution as a Percentage of Projected Payroll	167.2%	85.9%	75.2%

Exhibit I-C

Town of Johnston, Rhode Island Combined Pension System Impact of Benefit Changes under Options 4A and 4B

COMBINED PLAN	Current	Option 4A	Option 4B
Description	July 1, 2011 Valuation Results (FY '13) with New Assumptions	Minimum Retirement Age 55, 24-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, 20-Year COLA Freeze	Minimum Retirement Age 55, 30-Year Amortization, New Earnings Definition, 10-Year Pay Averaging Period, Permanent COLA Freeze
1. Actuarial Accrued Liability (AAL)	\$137,700,000	\$100,200,000	\$95,900,000
2. Actuarial Value of Assets (AVA)	<u>41,800,000</u>	<u>41,800,000</u>	<u>41,800,000</u>
3. Unfunded Actuarial Accrued Liability (UAAL) [(1) - (2)]	\$95,900,000	\$58,400,000	\$54,100,000
4. Funded Percentage [(2)/(1)]	30.4%	41.7%	43.6%
5. Employer Normal Cost	\$2,200,000	\$1,100,000	\$800,000
6. Payment on UAAL	9,200,000	4,900,000	4,200,000
7. Total Recommended Contribution adjusted for Timing [(5) + (6) + Interest]	\$12,800,000	\$6,700,000	\$5,700,000
8. Recommended Contribution as a Percentage of Projected Payroll	137.8%	72.7%	61.6%

Projection 4A

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2013 Paid in FYE 2014

Option 4A-1

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022	06/30/2023
Contribution Expected to be Paid	3,061,630	3,170,847	3,500,000	4,031,201	5,713,550	7,776,956	9,079,543	9,146,438	9,056,662	8,881,099	8,704,417	8,488,459
Annual Required Contribution	9,112,966	9,925,723	12,631,966	8,449,384	8,438,267	8,866,670	9,079,543	9,146,438	9,056,662	8,881,099	8,704,417	8,488,459
State Percentage Required	N/A	N/A	N/A	47.71%	67.71%	87.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	33.60%	31.95%	27.71%	47.71%	67.71%	87.71%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	72,591,316	72,805,836	75,648,241	76,796,171	75,870,636	73,474,985	70,685,479	67,657,410	64,401,595
Funded Percentage	26.60%	30.35%	27.53%	34.69%	34.29%	33.38%	33.91%	36.21%	39.61%	43.07%	46.51%	49.87%

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2012 Paid in FYE 2013

Option 4A-2

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022	06/30/2023
Contribution Expected to be Paid	3,061,630	3,170,847	6,562,306	6,562,306	7,478,518	8,276,306	8,250,048	8,182,851	8,085,975	7,917,266	7,749,173	7,542,210
Annual Required Contribution	9,112,966	9,925,723	12,631,966	8,449,384	8,133,244	8,276,306	8,250,048	8,182,851	8,085,975	7,917,266	7,749,173	7,542,210
State Percentage Required	N/A	N/A	51.95%	71.95%	91.95%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	33.60%	31.95%	51.95%	77.67%	91.95%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	72,591,316	69,628,694	69,574,420	68,435,660	66,367,890	64,123,730	61,636,248	58,940,197	56,034,160
Funded Percentage	26.60%	30.35%	27.53%	34.69%	37.16%	38.73%	41.11%	44.20%	47.30%	50.36%	53.40%	56.38%

Projection 4A

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2013 Paid in FYE 2014

Option 4A-1

Valuation Date	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031	07/01/2032	07/01/2033
ARC for FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034
Contribution Paid in FYE	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034	06/30/2035
Contribution Expected to be Paid	8,193,392	7,862,798	7,509,364	7,200,358	6,881,612	6,518,838	6,119,469	5,781,165	5,422,268	5,049,288	4,605,201	3,981,395
Annual Required Contribution	8,193,392	7,862,798	7,509,364	7,200,358	6,881,612	6,518,838	6,119,469	5,781,165	5,422,268	5,049,288	4,605,201	3,981,395
State Percentage Required	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	60,826,020	56,932,126	52,768,948	48,516,221	44,155,654	39,621,522	34,931,160	30,258,561	25,634,803	21,030,613	16,451,141	11,832,072
Funded Percentage	53.17%	56.47%	59.77%	63.03%	66.29%	69.59%	72.96%	76.36%	79.76%	83.22%	86.74%	90.33%

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2012 Paid in FYE 2013

Option 4A-2

Valuation Date	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031	07/01/2032	07/01/2033
ARC for FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034
Contribution Paid in FYE	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034	06/30/2035
Contribution Expected to be Paid	7,256,430	6,935,446	6,592,005	6,293,452	5,985,716	5,634,641	5,247,837	4,923,212	4,579,471	4,223,685	3,799,765	3,200,814
Annual Required Contribution	7,256,430	6,935,446	6,592,005	6,293,452	5,985,716	5,634,641	5,247,837	4,923,212	4,579,471	4,223,685	3,799,765	3,200,814
State Percentage Required	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	52,825,653	49,316,991	45,558,268	41,730,323	37,815,991	33,750,678	29,552,833	25,397,510	21,316,740	17,282,019	13,298,944	9,303,098
Funded Percentage	59.33%	62.30%	65.27%	68.20%	71.13%	74.10%	77.12%	80.15%	83.17%	86.21%	89.28%	92.39%

Projection 4A

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2013 Paid in FYE 2014

Option 4A-1					Total
Valuation Date	07/01/2034	07/01/2035	07/01/2036	07/01/2037	
ARC for FYE	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
Contribution Paid in FYE	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Expected to be Paid	3,165,722	1,885,739	0	0	160,787,409
Annual Required Contribution	3,165,722	1,885,739	0	0	190,958,203
State Percentage Required	100.00%	100.00%	100.00%	100.00%	
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	
Unfunded Actuarial Liability	7,268,764	2,925,424	-986,520	-3,890,372	
Funded Percentage	93.96%	97.52%	100.86%	103.47%	

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2012 Paid in FYE 2013

Option 4A-2					Total
Valuation Date	07/01/2034	07/01/2035	07/01/2036	07/01/2037	
ARC for FYE	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
Contribution Paid in FYE	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Expected to be Paid	2,418,363	1,190,099	0	0	151,120,369
Annual Required Contribution	2,418,363	1,190,099	0	0	172,538,047
State Percentage Required	100.00%	100.00%	100.00%	100.00%	
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	
Unfunded Actuarial Liability	5,388,759	1,717,179	-1,507,213	-3,725,798	
Funded Percentage	95.52%	98.54%	101.31%	103.33%	

Projection 4B

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (No COLA / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2013 Paid in FYE 2014

Option 4B-1

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Expected to be Paid	3,061,630	3,170,847	3,500,000	4,000,000	4,696,403	6,340,478	7,436,392	7,524,944	7,499,393	7,415,265	7,339,364
Annual Required Contribution	9,112,966	9,925,723	12,631,966	6,625,167	6,936,055	7,228,911	7,436,392	7,524,944	7,499,393	7,415,265	7,339,364
State Percentage Required	N/A	N/A	N/A	47.71%	67.71%	87.71%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	33.60%	31.95%	27.71%	60.38%	67.71%	87.71%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	62,579,456	65,148,933	67,427,768	69,135,409	69,262,601	68,239,110	66,968,189	65,570,783
Funded Percentage	26.60%	30.35%	27.53%	38.13%	36.84%	35.98%	35.68%	36.86%	39.02%	41.20%	43.34%

New Plan as of 7/1/2013 (No COLA / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2012 Paid in FYE 2013

Option 4B-2

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Expected to be Paid	3,061,630	3,170,847	6,562,306	6,562,306	6,562,306	6,684,421	6,668,768	6,656,621	6,627,298	6,548,868	6,479,660
Annual Required Contribution	9,112,966	9,925,723	12,631,966	6,625,167	6,654,229	6,684,421	6,668,768	6,656,621	6,627,298	6,548,868	6,479,660
State Percentage Required	N/A	N/A	51.95%	71.95%	91.95%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	33.60%	31.95%	51.95%	99.05%	98.62%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	62,579,456	61,971,791	61,353,947	60,670,178	59,805,636	58,869,283	57,796,510	56,616,027
Funded Percentage	26.60%	30.35%	27.53%	38.13%	39.92%	41.75%	43.56%	45.48%	47.39%	49.25%	51.08%

Projection 4B

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (No COLA / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2013 Paid in FYE 2014

Option 4B-1

Valuation Date	07/01/2021	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031
ARC for FYE	06/30/2022	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032
Contribution Paid in FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033
Contribution Expected to be Paid	7,246,579	7,103,177	6,960,419	6,821,650	6,697,324	6,600,310	6,476,484	6,334,072	6,257,260	6,181,552	6,127,334
Annual Required Contribution	7,246,579	7,103,177	6,960,419	6,821,650	6,697,324	6,600,310	6,476,484	6,334,072	6,257,260	6,181,552	6,127,334
State Percentage Required	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	64,077,612	62,416,496	60,610,802	58,706,953	56,713,606	54,657,470	52,481,503	50,137,045	47,724,924	45,251,028	42,673,114
Funded Percentage	45.37%	47.28%	49.12%	50.87%	52.55%	54.22%	55.85%	57.50%	59.21%	60.97%	62.85%

New Plan as of 7/1/2013 (No COLA / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Base Initial Percentage of ARC Contributed on ARC for FYE 2012 Paid in FYE 2013

Option 4B-2

Valuation Date	07/01/2021	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031
ARC for FYE	06/30/2022	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032
Contribution Paid in FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033
Contribution Expected to be Paid	6,393,740	6,257,305	6,121,622	5,990,053	5,873,072	5,783,572	5,667,457	5,532,988	5,464,394	5,397,229	5,351,947
Annual Required Contribution	6,393,740	6,257,305	6,121,622	5,990,053	5,873,072	5,783,572	5,667,457	5,532,988	5,464,394	5,397,229	5,351,947
State Percentage Required	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Unfunded Actuarial Liability	55,350,137	53,926,403	52,368,772	50,724,364	49,002,574	47,230,892	45,353,093	43,321,371	41,237,439	39,108,107	36,892,072
Funded Percentage	52.81%	54.45%	56.04%	57.55%	59.00%	60.44%	61.85%	63.28%	64.76%	66.27%	67.88%

Projection 4B

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

**New Plan as of 7/1/2013 (No COLA / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)
Base Initial Percentage of ARC Contributed on ARC for FYE 2013 Paid in FYE 2014**

Option 4B-1

Valuation Date	07/01/2032	07/01/2033	07/01/2034	07/01/2035	07/01/2036	07/01/2037	Total
ARC for FYE	06/30/2033	06/30/2034	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
Contribution Paid in FYE	06/30/2034	06/30/2035	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Expected to be Paid	6,057,389	5,913,449	5,772,312	5,596,633	5,400,784	5,233,187	168,764,628
Annual Required Contribution	6,057,389	5,913,449	5,772,312	5,596,633	5,400,784	5,233,187	196,456,058
State Percentage Required	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Unfunded Actuarial Liability	39,964,549	37,012,437	33,839,372	30,479,103	26,910,518	23,216,372	
Funded Percentage	64.87%	67.05%	69.39%	71.89%	74.57%	77.47%	

**New Plan as of 7/1/2013 (No COLA / Minimum Age 55 Retirement / 30-Year Amortization / New Earnings Definition / 10-Year Average Pay)
Base Initial Percentage of ARC Contributed on ARC for FYE 2012 Paid in FYE 2013**

Option 4B-2

Valuation Date	07/01/2032	07/01/2033	07/01/2034	07/01/2035	07/01/2036	07/01/2037	Total
ARC for FYE	06/30/2033	06/30/2034	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
Contribution Paid in FYE	06/30/2034	06/30/2035	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Expected to be Paid	5,291,416	5,157,478	5,027,084	4,863,100	4,680,210	4,527,315	158,965,009
Annual Required Contribution	5,291,416	5,157,478	5,027,084	4,863,100	4,680,210	4,527,315	177,995,667
State Percentage Required	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Percentage of ARC Paid	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Unfunded Actuarial Liability	34,563,664	32,010,949	29,257,470	26,337,877	23,231,875	20,022,871	
Funded Percentage	69.62%	71.50%	73.54%	75.71%	78.05%	80.57%	



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November 26, 2012

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
Town Hall
1385 Hartford Avenue
Johnston, RI 02919-7134

Re: Town of Johnston Police and Firefighters Pension System – Projections – Phase 5

Dear Joe:

As requested, we have completed Phase 5 for the Police and Firefighters Pension System. Phase 5 shows projection results under the following benefit, amortization, and contribution increase rate options:

➤ **Option 5A** – Introduce a minimum retirement age of 55 in addition to the current service requirements. Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 to 10 years. Freeze the COLA for 20 years and then reinstate it for all future years. This is the same option as Option 3C in the Phase 3 cost study and Option 4A in the Phase 4 cost study. Amortize the unfunded liability on a level dollar basis over 24 years. Assume contributions of \$3.5 million will be paid in the fiscal year ending June 30, 2014 and that contributions after that date will increase 4.25% per year. This is the lowest increase rate that will allow the plan to remain solvent during the projection period with a slight increase in the market value of assets at the end of the projection period.

Option 4B – Introduce a minimum retirement age of 55 in addition to the current service requirements. Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 to 10 years. Freeze the COLA for 20 years and then reinstate it for all future years. Decrease benefits for retirees and beneficiaries already in pay status as of July 1, 2011 by 25%. Amortize the unfunded liability on a level dollar basis over 24 years. Assume contributions of \$3.5 million will be paid in the fiscal year ending June 30, 2014 and that contributions after that date will increase 2.75% per year. This is the lowest increase rate that will allow the plan to remain solvent during the projection period with a slight increase in the percentage of the ARC that is being funded by the end of the projection period.



For Police, the current earnings definition is pay as shown on the W-2 tax form, excluding officers' gun/qualification allowances and monies paid to the Town of Johnston funded by private companies to hire officers for non-municipal detail assignments. For Firefighters, the current earnings definition includes base, holiday, and longevity pay, as well as clothing and clothing maintenance allowances, severance pay (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.

The Phase 5 projections show the annual required contribution (ARC), the percentage of ARC paid, the unfunded actuarial liability, the funded percentage, and the growth or decline in the market value of assets throughout the projection period based on the provisions and assumptions outlined in Options 5A and 5B.

For both options, during the projection period, the plan never reaches the 60% funded level required to exit critical status.

These projections were run under the following assumptions:

- The benefit changes are effective on July 1, 2013
- The amortization period is reset to 24 years on July 1, 2013.
- The new assumptions from the experience review are first introduced at July 1, 2012 with a 23-year level dollar amortization on that date.
- The contribution for fiscal year-end 2013 is \$3,170,847.
- The contribution for fiscal year-end 2014 is \$3,500,000.

The calculations were based on the July 1, 2011 valuation data and asset information as well as the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter with the exceptions for the projection work as noted above.

In reviewing the results, please note the following:

- We ran an additional projection based on the provisions and assumptions used for Option 5A except that the contribution rate increase used was 2.75% instead of 4.25%. Under this projection, the plan was projected to become insolvent in the fiscal year ending June 30, 2031.
- In both Options 5A and 5B where a minimum retirement age is introduced, we maintained the current assumption of no terminations prior to retirement. We also modified the retirement rates to use the same service-related rates but assume no retirement if a participant has not reached age 55. For example, under the current assumptions, a police officer is assumed to have a 15% retirement rate at 18 years of service and a 50% retirement rate at 24 years of service.

If a participant reaches age 55 prior to 18 years of service, he is not assumed to terminate or retire. If he reaches age 55 at 18 years of service, he is assumed to have a 15% rate of retirement at age 55. If he reaches age 55 at 24 years of service, he is assumed to have a 50% rate of retirement at age 55. Participants who reach age 55 after 18 years of service are assumed to work longer and receive a larger benefit. We can also value the change assuming turnover rates prior to retirement or using alternative retirement rates. If you would like to see the results on other bases, please call to discuss the assumptions to use.

- For Options 5A and 5B, we assumed employee contributions would be based on the new salary definition, thereby lowering both the benefit earned and the employee contribution requirement. The projected payroll used to determine the recommended contribution rate was determined based on the current pay definition.
- For Option 5A and 5B, once unfrozen, the COLA increase is tied to the Northeast Urban CPI, assumed to be at 2.50% and benefits are capped at 150% of the Rhode Island Mean Income (currently \$77,830), also increased at 2.50% per year.
- In showing the recommended contribution rate, we determined projected pay using the new 3.25% payroll growth assumption.
- The recommended contributions are calculated to be payable in the middle of the next fiscal year. For example, the 2011 recommended contribution is calculated to be payable on January 1, 2013 and the 2012 recommended contribution is calculated to be payable on January 1, 2014. The projections reflect this timing. We recommend having legal counsel review any contemplated benefit changes. We look forward to discussing the Phase 5 results with you and drafting the Funding Improvement Plan.

Sincerely,



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

cc: William Conley
Joe Rodio, Jr.
William Connolly
Malichi Waterman
Veronika Khanina

Projection 5A

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 5A - Increase Expected Contribution by 4.25% per year

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022	06/30/2023
Contribution Expected to be Paid	3,061,630	3,170,847	3,500,000	3,648,750	3,803,822	3,965,484	4,134,017	4,309,713	4,492,876	4,683,823	4,882,886	5,090,408
Annual Required Contribution	9,112,966	11,533,070	12,631,966	8,449,384	8,438,267	8,905,444	9,319,442	9,812,312	10,323,924	10,815,324	11,364,393	11,933,640
Percentage of ARC Paid	33.60%	27.49%	27.71%	43.18%	45.08%	44.53%	44.36%	43.92%	43.52%	43.31%	42.97%	42.66%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	72,591,316	72,805,836	76,012,663	79,169,268	82,378,996	85,606,051	88,748,123	91,813,303	94,727,446
Funded Percentage	26.60%	30.35%	27.53%	34.69%	34.29%	33.06%	31.87%	30.74%	29.64%	28.52%	27.41%	26.27%
Beginning of Year Asset Value	41,809,149	40,673,838	38,563,878	38,001,019	37,533,309	37,034,504	36,556,086	36,066,708	35,415,568	34,668,634	33,742,861	32,489,743
Expected Contributions	3,061,630	3,170,847	3,500,000	3,648,750	3,803,822	3,965,484	4,134,017	4,309,713	4,492,876	4,683,823	4,882,886	5,090,408
Expected Benefits Paid	7,178,254	8,144,821	6,830,265	6,846,616	6,997,849	7,103,803	7,248,316	7,544,550	7,772,974	8,082,301	8,529,953	8,846,397
Expected Income	2,981,313	2,864,014	2,767,406	2,730,156	2,695,222	2,659,901	2,624,920	2,583,697	2,533,164	2,472,705	2,393,950	2,295,881
End of Year Asset Value	40,673,838	38,563,878	38,001,019	37,533,309	37,034,504	36,556,086	36,066,708	35,415,568	34,668,634	33,742,861	32,489,743	31,029,635

Projection 5A

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 5A - Increase Expected Contribution by 4.25% per year

Valuation Date	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031	07/01/2032	07/01/2033
ARC for FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034
Contribution Paid in FYE	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034	06/30/2035
Contribution Expected to be Paid	5,306,751	5,532,288	5,767,410	6,012,525	6,268,057	6,534,449	6,812,163	7,101,680	7,403,502	7,718,151	8,046,172	8,388,134
Annual Required Contribution	12,494,876	13,101,851	13,775,542	14,600,918	15,550,124	16,636,503	17,926,786	19,601,441	21,711,043	24,505,478	28,343,169	33,949,030
Percentage of ARC Paid	42.47%	42.23%	41.87%	41.18%	40.31%	39.28%	38.00%	36.23%	34.10%	31.50%	28.39%	24.71%
Unfunded Actuarial Liability	97,394,708	99,772,470	101,820,699	103,668,214	105,254,741	106,538,796	107,507,131	108,264,829	108,776,119	109,040,690	109,009,583	108,566,527
Funded Percentage	25.01%	23.72%	22.38%	21.00%	19.65%	18.24%	16.77%	15.40%	14.12%	13.02%	12.11%	11.24%
Beginning of Year Asset Value	31,029,635	29,361,547	27,564,869	25,734,990	23,762,141	21,660,916	19,710,628	17,890,741	16,323,282	15,014,047	13,753,313	12,618,272
Expected Contributions	5,306,751	5,532,288	5,767,410	6,012,525	6,268,057	6,534,449	6,812,163	7,101,680	7,403,502	7,718,151	8,046,172	8,388,134
Expected Benefits Paid	9,157,653	9,386,546	9,523,790	9,774,427	10,011,079	9,980,094	9,991,136	9,905,791	9,845,412	10,018,669	10,134,402	10,274,464
Expected Income	2,182,814	2,057,581	1,926,501	1,789,053	1,641,797	1,495,357	1,359,086	1,236,651	1,132,675	1,039,784	953,190	875,633
End of Year Asset Value	29,361,547	27,564,869	25,734,990	23,762,141	21,660,916	19,710,628	17,890,741	16,323,282	15,014,047	13,753,313	12,618,272	11,607,576

Projection 5A

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 5A - Increase Expected Contribution by 4.25% per year

	07/01/2034	07/01/2035	07/01/2036	07/01/2037	Total
Valuation Date	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
ARC for FYE	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Paid in FYE					
Contribution Expected to be Paid	8,744,630	9,116,277	9,503,719	9,907,627	166,907,791
Annual Required Contribution	43,232,758	61,625,463	116,531,555	113,713,729	689,940,398
Percentage of ARC Paid	20.23%	14.79%	8.16%	8.71%	
Unfunded Actuarial Liability	107,691,298	106,310,563	104,367,173	101,865,756	
Funded Percentage	10.49%	9.84%	9.29%	9.03%	
Beginning of Year Asset Value	11,607,576	10,685,785	10,115,479	9,938,795	
Expected Contributions	8,744,630	9,116,277	9,503,719	9,907,627	
Expected Benefits Paid	10,472,205	10,438,436	10,405,256	10,425,645	
Expected Income	805,784	751,853	724,853	725,984	
End of Year Asset Value	10,685,785	10,115,479	9,938,795	10,146,761	

Projection 5B

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 5B-1 - Decrease Retiree and Beneficiary Benefits by 25%; Increase Expected Contribution by 2.75% per year

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022	06/30/2023
Contribution Expected to be Paid	3,061,630	3,170,847	3,500,000	3,596,250	3,695,147	3,796,763	3,901,174	4,008,457	4,118,689	4,231,953	4,348,332	4,467,911
Annual Required Contribution	9,112,966	11,533,070	12,631,966	6,701,282	6,989,489	7,296,024	7,542,447	7,850,702	8,162,983	8,440,210	8,762,681	9,095,277
Percentage of ARC Paid	33.60%	27.49%	27.71%	53.67%	52.87%	52.04%	51.72%	51.06%	50.46%	50.14%	49.62%	49.12%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	65,189,157	67,863,060	70,617,396	73,368,682	76,135,148	78,911,528	81,616,736	84,294,605	86,910,939
Funded Percentage	26.60%	30.35%	27.53%	41.62%	41.47%	41.39%	41.28%	41.20%	41.14%	41.02%	40.85%	40.59%
Beginning of Year Asset Value	41,809,149	40,673,838	38,563,878	39,655,104	40,880,982	42,038,145	43,241,531	44,447,647	45,472,110	46,373,009	47,027,326	47,264,329
Expected Contributions	3,061,630	3,170,847	3,500,000	3,596,250	3,695,147	3,796,763	3,901,174	4,008,457	4,118,689	4,231,953	4,348,332	4,467,911
Expected Benefits Paid	7,178,254	8,144,821	5,235,966	5,281,315	5,535,061	5,675,775	5,864,547	6,234,105	6,537,493	6,953,552	7,519,461	7,977,153
Expected Income	2,981,313	2,864,014	2,827,192	2,910,943	2,997,077	3,082,398	3,169,488	3,250,112	3,319,703	3,375,916	3,408,132	3,413,228
End of Year Asset Value	40,673,838	38,563,878	39,655,104	40,880,982	42,038,145	43,241,531	44,447,647	45,472,110	46,373,009	47,027,326	47,264,329	47,168,316

Projection 5B

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 5B-1 - Decrease Retiree and Beneficiary Benefits by 25%; Increase Expected Contribution by 2.75% per year

Valuation Date	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031	07/01/2032	07/01/2033
ARC for FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034
Contribution Paid in FYE	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034	06/30/2035
Contribution Expected to be Paid	4,590,779	4,717,025	4,846,743	4,980,029	5,116,979	5,257,696	5,402,283	5,550,846	5,703,494	5,860,340	6,021,500	6,187,091
Annual Required Contribution	9,402,735	9,748,439	10,148,272	10,665,671	11,284,521	11,993,048	12,847,507	14,006,638	15,475,591	17,450,868	20,176,498	24,140,821
Percentage of ARC Paid	48.82%	48.39%	47.76%	46.69%	45.35%	43.84%	42.05%	39.63%	36.85%	33.58%	29.84%	25.63%
Unfunded Actuarial Liability	89,348,631	91,662,012	93,806,527	95,795,069	97,695,856	99,385,977	100,881,086	102,286,956	103,533,007	104,661,366	105,610,646	106,224,661
Funded Percentage	40.20%	39.70%	39.07%	38.41%	37.70%	36.90%	36.03%	35.19%	34.39%	33.67%	33.05%	32.43%
Beginning of Year Asset Value	47,168,316	46,708,064	46,054,196	45,236,141	44,144,840	42,802,138	41,512,069	40,238,293	39,085,434	38,040,222	36,872,032	35,635,197
Expected Contributions	4,590,779	4,717,025	4,846,743	4,980,029	5,116,979	5,257,696	5,402,283	5,550,846	5,703,494	5,860,340	6,021,500	6,187,091
Expected Benefits Paid	8,444,152	8,723,746	8,964,449	9,301,968	9,602,343	9,595,267	9,630,891	9,570,828	9,536,380	9,736,202	9,879,078	10,046,810
Expected Income	3,393,122	3,352,853	3,299,651	3,230,638	3,142,662	3,047,501	2,954,832	2,867,123	2,787,674	2,707,672	2,620,743	2,527,900
End of Year Asset Value	46,708,064	46,054,196	45,236,141	44,144,840	42,802,138	41,512,069	40,238,293	39,085,434	38,040,222	36,872,032	35,635,197	34,303,378

Projection 5B

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 5B-1 - Decrease Retiree and Beneficiary Benefits by 25%; Increase Expected Contribution by 2.75% per year

					Total
Valuation Date	07/01/2034	07/01/2035	07/01/2036	07/01/2037	
ARC for FYE	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
Contribution Paid in FYE	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Expected to be Paid	6,357,236	6,532,060	6,711,691	6,896,263	136,629,208
Annual Required Contribution	30,760,560	43,921,841	83,328,497	81,859,811	511,330,414
Percentage of ARC Paid	20.67%	14.87%	8.05%	8.42%	
Unfunded Actuarial Liability	106,565,323	106,557,024	106,154,530	105,441,076	
Funded Percentage	31.81%	31.20%	30.55%	29.99%	
Beginning of Year Asset Value	34,303,378	32,813,839	31,399,351	30,069,551	
Expected Contributions	6,357,236	6,532,060	6,711,691	6,896,263	
Expected Benefits Paid	10,272,698	10,267,506	10,263,259	10,312,911	
Expected Income	2,425,923	2,320,959	2,221,768	2,127,092	
End of Year Asset Value	32,813,839	31,399,351	30,069,551	28,779,995	



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December 6, 2012

Mr. Joseph L. Chiodo, CPA, MBA
Finance Director
Town of Johnston, RI
Town Hall
1385 Hartford Avenue
Johnston, RI 02919-7134

Re: Town of Johnston Police and Firefighters Pension System – Projections – Phase 6

Dear Joe:

As requested, we have completed Phase 6 for the Police and Firefighters Pension System. Phase 6 shows projection results under the following benefit, amortization, and contribution increase rate option:

Option 6A – Introduce a minimum retirement age of 55 in addition to the current service requirements. Change the pensionable earnings definition to include only base, holiday, and longevity pay. Change the salary averaging period from 3 to 10 years. Freeze the COLA for 20 years and then reinstate it for all future years. These are the same benefit changes as in Option 3C in the Phase 3 cost study, Option 4A in the Phase 4 cost study, and Option 5A in the Phase 5 cost study. Amortize the unfunded liability on a level dollar basis over 24 years. Assume contributions of \$5.2 million will be paid in the fiscal year ending June 30, 2014 and that contributions after that date will increase 2.75% per year.

For Police, the current earnings definition is pay as shown on the W-2 tax form, excluding officers' gun/qualification allowances and monies paid to the Town of Johnston funded by private companies to hire officers for non-municipal detail assignments. For Firefighters, the current earnings definition includes base, holiday, and longevity pay, as well as clothing and clothing maintenance allowances, severance pay (unused sick and vacation pay distributed at retirement), and 75% of overtime pay.

The Phase 6 projection shows the annual required contribution (ARC), the percentage of ARC paid, the unfunded actuarial liability, the funded percentage, and the growth or decline in the market value of assets throughout the projection period based on the provisions and assumptions outlined in Option 6A.



As shown in the projection, the plan reaches a 63.32% funded level at July 1, 2032. A 60% funded level required to exit critical status.

These projections were run under the following assumptions:

- The benefit changes are effective on July 1, 2013
- The amortization period is reset to 24 years on July 1, 2013.
- The new assumptions from the experience review are first introduced at July 1, 2012 with a 23-year level dollar amortization on that date.
- The contribution for fiscal year-end 2013 is \$3,170,847.
- The contribution for fiscal year-end 2014 is \$5,200,000.

The calculations were based on the July 1, 2012 valuation data and asset information as well as the new actuarial assumptions selected by the Board of Trustees as outlined in your June 20, 2012 letter with the exceptions for the projection work as noted above.

In reviewing the results, please note the following:

- In introducing a minimum retirement age of age 55, we maintained the current assumption of no terminations prior to retirement. We also modified the retirement rates to use the same service-related rates but assume no retirement if a participant has not reached age 55. For example, under the current assumptions, a police officer is assumed to have a 15% retirement rate at 18 years of service and a 50% retirement rate at 24 years of service.


If a participant reaches age 55 prior to 18 years of service, he is not assumed to terminate or retire. If he reaches age 55 at 18 years of service, he is assumed to have a 15% rate of retirement at age 55. If he reaches age 55 at 24 years of service, he is assumed to have a 50% rate of retirement at age 55. Participants who reach age 55 after 18 years of service are assumed to work longer and receive a larger benefit.
- We assumed employee contributions would be based on the new salary definition, thereby lowering both the benefit earned and the employee contribution requirement. The projected payroll used to determine the recommended contribution rate was determined based on the current pay definition.
- Once unfrozen, the COLA increase is tied to the Northeast Urban CPI, assumed to be at 2.50% and benefits are capped at 150% of the Rhode Island Mean Income (currently \$77,830), also increased at 2.50% per year.
- In showing the recommended contribution rate, we determined projected pay using the new 3.25% payroll growth assumption.

Mr. Joseph L. Chiodo, CPA, MBA
December 6, 2012
Page 3

- The recommended contributions are calculated to be payable in the middle of the next fiscal year. For example, the 2011 recommended contribution is calculated to be payable on January 1, 2013 and the 2012 recommended contribution is calculated to be payable on January 1, 2014. The projections reflect this timing. We recommend having legal counsel review any contemplated benefit changes.

Please let us know if you have questions or need additional projections.

Sincerely,



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

cc: William Conley, Esq.
Joe Rodio, Jr., Esq.
Joe Rodio, Sr., Esq.
Gina Renzulli
William Connolly
Malichi Waterman
Veronika Khanina

Projection 6

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 6 - Increase Expected Contribution by 2.75% per year to achieve 60% Funded Percentage at 7/1/2032

Valuation Date	07/01/2010	07/01/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021
ARC for FYE	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022
Contribution Paid in FYE	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021	06/30/2022	06/30/2023
Contribution Expected to be Paid	3,061,630	3,170,847	5,200,000	5,343,000	5,489,933	5,640,906	5,796,031	5,955,421	6,119,195	6,287,473	6,460,379	6,638,039
Annual Required Contribution	9,112,966	11,533,070	12,631,966	8,449,384	8,268,937	8,548,398	8,753,821	9,014,305	9,266,153	9,466,061	9,686,547	9,883,423
Percentage of ARC Paid	33.60%	31.95%	41.17%	63.24%	66.39%	65.99%	66.21%	66.07%	66.04%	66.42%	66.69%	67.16%
Unfunded Actuarial Liability	87,380,971	95,938,900	107,080,912	72,591,316	71,042,086	72,358,847	73,492,076	74,537,765	75,452,389	76,125,515	76,556,693	76,662,803
Funded Percentage	26.60%	30.35%	27.53%	34.69%	35.89%	36.27%	36.76%	37.33%	37.99%	38.69%	39.47%	40.33%
Beginning of Year Asset Value	41,809,149	40,673,838	38,563,878	39,764,769	41,187,125	42,711,696	44,397,317	46,220,370	48,038,176	49,925,244	51,807,504	53,545,884
Expected Contributions	3,061,630	3,170,847	5,200,000	5,343,000	5,489,933	5,640,906	5,796,031	5,955,421	6,119,195	6,287,473	6,460,379	6,638,039
Expected Benefits Paid	7,178,254	8,144,821	6,830,265	6,846,616	6,997,849	7,103,803	7,248,316	7,544,550	7,772,974	8,082,301	8,529,953	8,846,397
Expected Income	2,981,313	2,864,014	2,831,156	2,925,972	3,032,487	3,148,519	3,275,338	3,406,935	3,540,847	3,677,087	3,807,954	3,933,128
End of Year Asset Value	40,673,838	38,563,878	39,764,769	41,187,125	42,711,696	44,397,317	46,220,370	48,038,176	49,925,244	51,807,504	53,545,884	55,270,654

Projection 6

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 6 - Increase Expected Contribution by 2.75% per year to achieve 60% Funded Percentage at 7/1/2032

Valuation Date	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026	07/01/2027	07/01/2028	07/01/2029	07/01/2030	07/01/2031	07/01/2032	07/01/2033
ARC for FYE	06/30/2023	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034
Contribution Paid in FYE	06/30/2024	06/30/2025	06/30/2026	06/30/2027	06/30/2028	06/30/2029	06/30/2030	06/30/2031	06/30/2032	06/30/2033	06/30/2034	06/30/2035
Contribution Expected to be Paid	6,820,585	7,008,151	7,200,876	7,398,900	7,602,369	7,811,435	8,026,249	8,246,971	8,473,763	8,706,791	8,946,228	9,192,249
Annual Required Contribution	10,020,032	10,139,241	10,247,807	10,411,750	10,577,384	10,721,898	10,859,807	11,093,264	11,349,785	11,674,166	12,055,667	12,480,879
Percentage of ARC Paid	68.07%	69.12%	70.27%	71.06%	71.87%	72.85%	73.91%	74.34%	74.66%	74.58%	74.21%	73.65%
Unfunded Actuarial Liability	76,338,567	75,531,451	74,191,001	72,435,079	70,191,900	67,407,878	64,057,045	60,231,114	55,880,262	50,989,404	45,494,056	39,261,621
Funded Percentage	41.23%	42.26%	43.44%	44.80%	46.41%	48.27%	50.41%	52.94%	55.88%	59.33%	63.32%	67.90%
Beginning of Year Asset Value	55,270,654	56,991,245	58,798,004	60,797,831	62,893,059	65,111,002	67,744,343	70,786,598	74,374,568	78,529,574	83,058,219	88,054,854
Expected Contributions	6,820,585	7,008,151	7,200,876	7,398,900	7,602,369	7,811,435	8,026,249	8,246,971	8,473,763	8,706,791	8,946,228	9,192,249
Expected Benefits Paid	9,157,653	9,386,546	9,523,790	9,774,427	10,011,079	9,980,094	9,991,136	9,905,791	9,845,412	10,018,669	10,134,402	10,274,464
Expected Income	4,057,659	4,185,154	4,322,741	4,470,755	4,626,653	4,802,000	5,007,142	5,246,789	5,526,656	5,840,523	6,184,810	6,563,531
End of Year Asset Value	56,991,245	58,798,004	60,797,831	62,893,059	65,111,002	67,744,343	70,786,598	74,374,568	78,529,574	83,058,219	88,054,854	93,536,170

Projection 6

Recommended Contribution Calculation for Town of Johnston, Rhode Island Firefighters & Police Pension Systems Combined

New Plan as of 7/1/2013 (20-Year COLA Freeze / Minimum Age 55 Retirement / 24-Year Amortization / New Earnings Definition / 10-Year Average Pay)

Option 6 - Increase Expected Contribution by 2.75% per year to achieve 60% Funded Percentage at 7/1/2032

	07/01/2034	07/01/2035	07/01/2036	07/01/2037	Total
Valuation Date	07/01/2034	07/01/2035	07/01/2036	07/01/2037	
ARC for FYE	06/30/2035	06/30/2036	06/30/2037	06/30/2038	
Contribution Paid in FYE	06/30/2036	06/30/2037	06/30/2038	06/30/2039	
Contribution Expected to be Paid	9,445,036	9,704,774	9,971,656	10,245,876	199,964,764
Annual Required Contribution	13,136,746	14,286,097	17,491,905	6,565,133	297,726,592
Percentage of ARC Paid	71.90%	67.93%	57.01%	156.07%	
Unfunded Actuarial Liability	32,254,716	24,381,969	15,567,263	5,795,286	
Funded Percentage	73.19%	79.32%	86.47%	94.82%	
Beginning of Year Asset Value	93,536,170	99,485,695	106,185,949	113,700,034	
Expected Contributions	9,445,036	9,704,774	9,971,656	10,245,876	
Expected Benefits Paid	10,472,205	10,438,436	10,405,256	10,425,645	
Expected Income	6,976,694	7,433,915	7,947,686	8,520,761	
End of Year Asset Value	99,485,695	106,185,949	113,700,034	122,041,027	