The Retirement Plan for Employees of the Town of Portsmouth, Rhode Island

Actuarial Valuation and Review as of July 1, 2016

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November 29, 2016

Mr. David Faucher
Interim Finance Director
Town of Portsmouth, Rhode Island
2200 East Main Road
Portsmouth, RI 02871

Dear Mr. Faucher:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2016. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2017 and later years and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Town to assist in administering the Plan. The census information and financial information on which our calculations were based was prepared by the staff of the Town of Portsmouth. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. We have not been retained to perform an analysis of the potential range of financial measurements, except where otherwise noted.

The actuarial calculations were directed under the supervision of Kathleen A. Riley, FSA, MAAA, EA. She is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of her knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in her opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

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

Sincerely,

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

By: ____________________________

Kathleen A. Riley, FSA, MAAA, EA	*William J. Connolly, FCA, MAAA, EA*
Senior Vice President and Actuary	*Consulting Actuary*

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SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

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Purpose

This report has been prepared by Segal Consulting to present a valuation of The Retirement Plan for Employees of the Town of Portsmouth, Rhode Island as of July 1, 2016. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to provide certain disclosure information required by the Governmental Account Standards Board Statements No. 67 and 68 as of June 30, 2016. 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 employees, inactive vested employees, and retired employees and beneficiaries as of July 1, 2016;
- The assets of the Plan as of June 30, 2016;
- 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. The actuarial valuation report as of July 1, 2016 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected.
2. During the plan year ended June 30, 2016, the market value rate of return was -0.83%. Because the actuarial value of assets gradually recognizes market value fluctuations over a five-year period, the actuarial rate of return for the plan year ended June 30, 2016 was 5.23% resulting in an investment loss of $0.7 million. The actuarial value of assets as of June 30, 2016 was $49.6 million, or 105.7% of the market value of assets of $46.9 million. As of June 30, 2015, the actuarial value of assets was 99.5% of the market value.

3. This valuation reflects the following plan changes:
   - For Fire, the COLA for employees who retire under Accidental Disability was changed from 3% compounding commencing on the January 1st immediately following the participant's retirement to 3% non-compounding commencing on the January 1st immediately following the participant's retirement, the accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service and the employee contribution rate was changed from 4.0% of base pay to 4.0% of gross annual earnings inclusive of base salary, longevity, EMT bonus and holiday pay.
   - For Town Non-Management, the employee contribution rate decreased from 6.0% to 5.0% effective July 1, 2016, the accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service, and effective July 1, 2016 for employees retiring at or after age 60 with at least 25 years of credited service, the COLA is 1.7% commencing on the earlier of age 65 or the second anniversary of retirement for participants retiring on or after July 1, 2016.

   These plan changes resulted in an increase in the unfunded actuarial accrued liability of $1.1 million and an increase in the employer normal cost of $59,000.
4. The unfunded liability was expected to decrease from $37.1 million as of July 1, 2015 to $36.9 million as of July 1, 2016. The actual unfunded liability as of July 1, 2016 was $39.8 million. The $2.9 million increase from the expected unfunded liability was due to the plan changes noted above and a net experience loss of $1.8 million as detailed in Section 2C.
5. The recommended contribution for the fiscal year ended June 30, 2017 is the previously budgeted amount of $3,955,207. The results of this valuation are used to determine the Actuarially Determined Contribution for the fiscal year ending June 30, 2018 of $4,322,591. In the prior valuation, the fiscal 2018 contribution was projected to be $3,881,692. The increase is primarily due to the investment loss on a market value basis, the plan changes described above, and the experience loss detailed in Section 2C.
6. On a market value basis, the funded ratio has decreased from 56.4% as of July 1, 2015 to 52.5% as of July 1, 2016. On an actuarial basis, the funded ratio has decreased from 56.2% as of July 1, 2015 to 55.5% as of July 1, 2016.
7. Section 5 shows the disclosure information required by GASB Statements No. 67 and 68.
   - It is important to note that the new GASB rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.

- The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis. The NPL increased from $36.9 million as of June 30, 2015 to $42.4 million as of June 30, 2016 and the Plan's Fiduciary Net Position as a percent of the TPL decreased from 56.40% to 52.52%.
- The NPL was measured as of June 30, 2016 and 2015 and determined based upon the results of the actuarial valuations as of July 1, 2016 and July 1, 2015 respectively.
- The discount rate used to determine the TPL and NPL as of June 30, 2016 and 2015 was 6.75%.

Summary of Key Valuation Results

	2016	2015
Contributions for fiscal year beginning July 1:		
Actuarially Determined Contribution for fiscal 2017 and fiscal 2016	$3,955,207	$3,623,290
Actuarially Determined Contribution for fiscal 2018 and fiscal 2017	4,322,591	3,955,207
Funding elements for plan year beginning July 1:		
Normal cost, including administrative expenses	$1,351,275	$1,287,788
Market value of assets	46,929,737	47,752,905
Actuarial value of assets	49,583,425	47,537,913
Actuarial accrued liability	89,361,468	84,662,311
Unfunded actuarial accrued liability	39,778,043	37,124,398
Funded ratio based on market value of assets	52.5%	56.4%
Funded ratio based on actuarial value of assets	55.5%	56.2%
Demographic data for plan year beginning July 1:		
Number of retired employees and beneficiaries	161	153
Number of inactive employees with a vested right to a deferred or immediate benefit	7	7
Number of active employees	153	160
Total compensation	$8,073,529	$7,969,261
Average compensation	52,768	49,808

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the Town of Portsmouth. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** The valuation is based on the market value of assets as of the valuation date, as provided by the Town of Portsmouth. The Town of Portsmouth uses an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Town of Portsmouth. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Sections of this report may include actuarial results that are not rounded, but that does not imply precision.
- If the Town of Portsmouth is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Town of Portsmouth should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

A. EMPLOYEE DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered employees, including active employees, inactive employees, retired employees and beneficiaries.

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

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

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

CHART 1

Employee Population: 2011 – 2016

Year Ended June 30	Active Employees	Inactive Employees	Retired Employees and Beneficiaries	Ratio of Non-Actives to Actives
2011	189	14	109	0.65
2012	178	13	121	0.75
2013	165	14	137	0.92
2014	164	11	144	0.95
2015	160	7	153	1.00
2016	153	7	161	1.10

**Note: Employee counts prior to 2014 are from the prior actuary's reports.*

Active Employees

Plan costs are affected by the age, years of service and compensation of active employees. In this year's valuation, there were 153 active employees with an average age of 46.9, average years of service of 11.2 years and average compensation of $52,768. The 160 active employees in the prior valuation had an average age of 47.1, average service of 10.9 years and average compensation of $49,808.

Among the active employees, there were none with unknown age and/or service information.

Inactive Employees

In this year's valuation, there were seven employees with a vested right to a deferred or immediate vested benefit.

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

CHART 2

Distribution of Active Employees by Age as of June 30, 2016

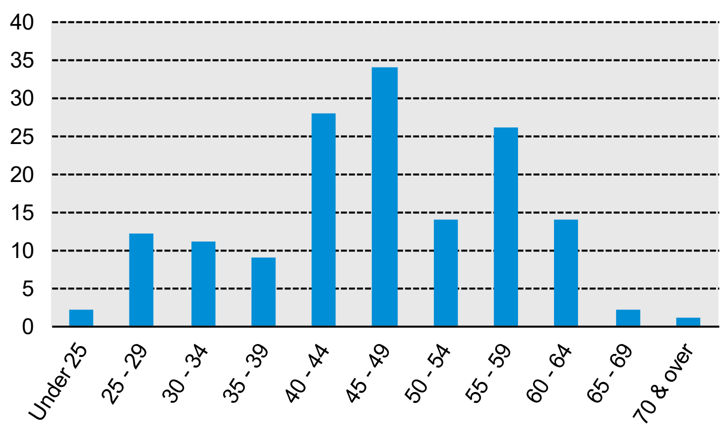
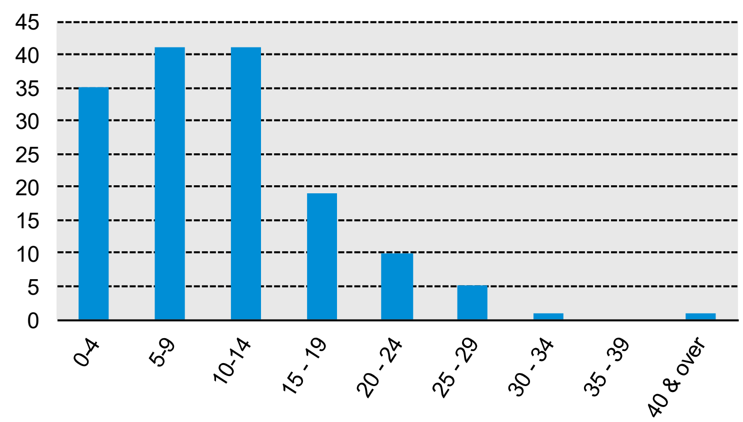


CHART 3

Distribution of Active Employees by Years of Service as of June 30, 2016



Retired Employees and Beneficiaries

As of June 30, 2016, 150 retired employees and 11 beneficiaries were receiving total monthly benefits of $374,927. For comparison, in the previous valuation, there were 143 retired employees and 10 beneficiaries receiving monthly benefits of $350,010. These figures include the benefits paid by MetLife.

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

CHART 4

Distribution of Retired Employees and Beneficiaries by Type and by Monthly Amount as of June 30, 2016

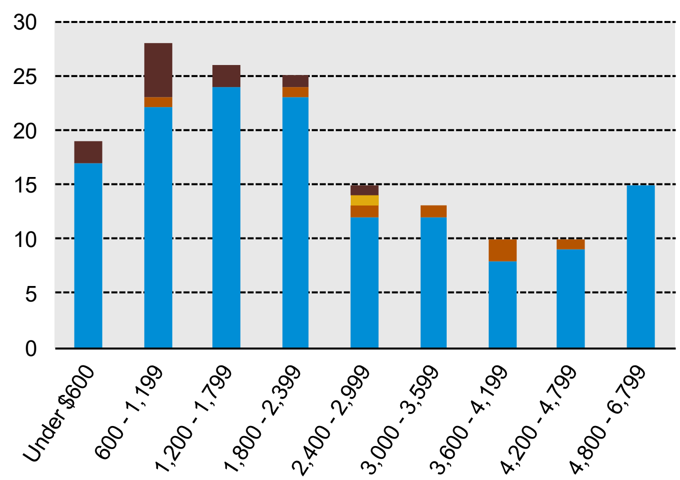
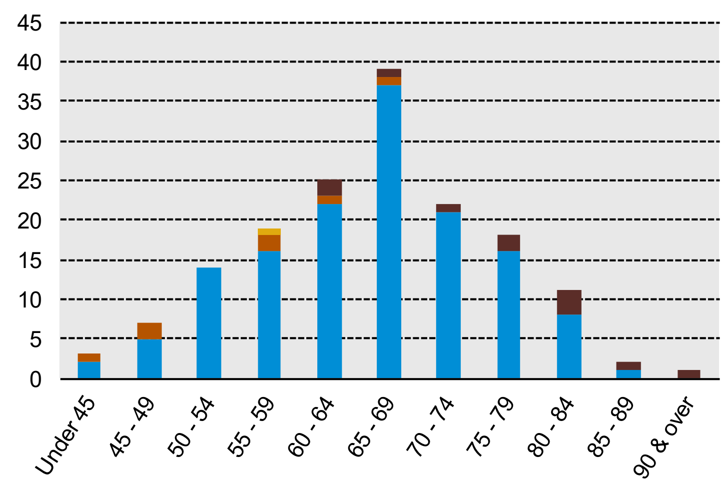


CHART 5

Distribution of Retired Employees and Beneficiaries by Type and by Age as of June 30, 2016



B. FINANCIAL INFORMATION

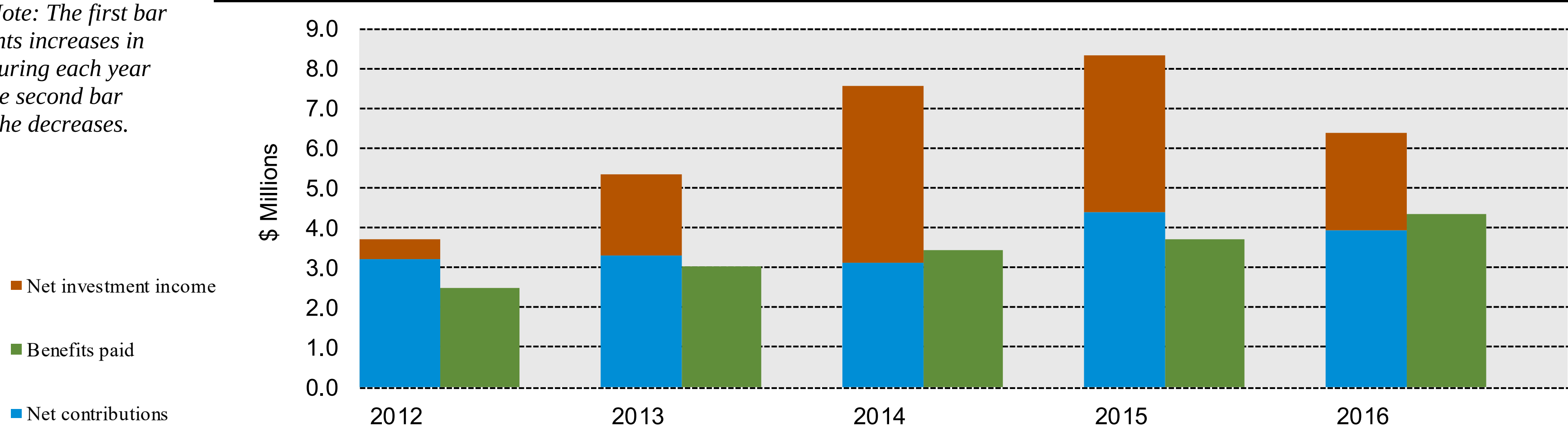
Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

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 C and D.

The chart depicts the components of changes in the actuarial value of assets over the last five 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, 2012 – 2016



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Town has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

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

CHART 7

Determination of Actuarial Value of Assets for Year Ended June 30, 2016

1. Market value of assets, June 30, 2016			$46,929,737
	Original	Unrecognized	
2. Calculation of unrecognized return*	Amount	Return	
(a) Year ended June 30, 2016	-$3,604,596	-$2,883,676	
(b) Year ended June 30, 2015	-2,905,039	-1,743,024	
(c) Year ended June 30, 2014	3,561,195	1,424,478	
(d) Year ended June 30, 2013	2,742,672	548,534	
(e) Year ended June 30, 2012	-3,473,811	0	
(f) Total unrecognized return			-2,653,688
3. Preliminary actuarial value: (1) - (2f)			49,583,425
4. Adjustment to be within 20% corridor			0
5. Final actuarial value of assets as of June 30, 2016: (3) - (4)			$49,583,425
6. Actuarial value as a percentage of market value: (5) ÷ (1)			105.7%
7. Amount deferred for future recognition: (1) - (5)			-$2,653,688

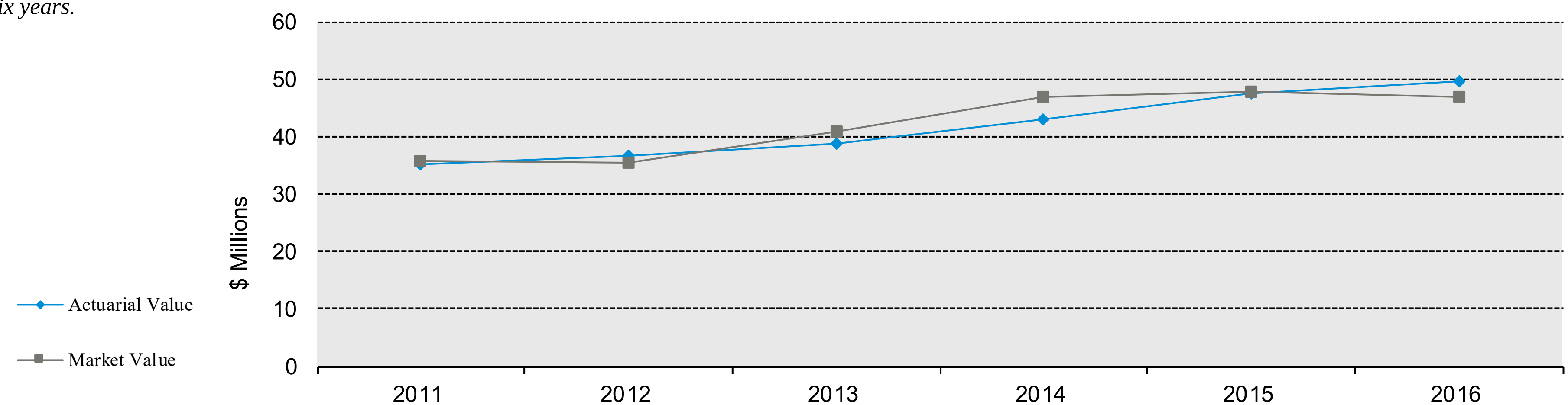
* *Unrecognized return is the difference between the total return and the expected return on a market value basis and is recognized over a five-year period.*

Both the actuarial value and market value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Plan'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 the change in the actuarial value of assets versus the market value over the past six years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2011 – 2016



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. Each year 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 year. 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 in one year without making a change in assumptions reflects the belief that the single years' 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 loss for the year ended June 30, 2016 is $1,753,016. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

CHART 9

Actuarial Experience for Year Ended June 30, 2016

1.	Net loss from investments*	-$721,404
2.	Net loss from administrative expenses	-9,013
3.	Net loss from other experience**	-1,022,599
4.	Net experience loss: (1) + (2) + (3)	-$1,753,016

* *Details in Chart 10*

** *Details in Chart 13*

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 Portsmouth's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 6.75%. The actual rate of return on an actuarial basis for the 2016 plan year was 5.23%.

Since the actual return for the year was less than the assumed return, the Town of Portsmouth experienced an actuarial loss during the year ended June 30, 2016 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 10

Actuarial Value Investment Experience for Year Ended June 30, 2016

1.	Actual return	$2,472,978
2.	Average value of assets	47,324,180
3.	Actual rate of return: (1) ÷ (2)	5.23%
4.	Assumed rate of return	6.75%
5.	Expected return: (2) x (4)	$3,194,382
6.	Actuarial gain/(loss): (1) – (5)	-$721,404

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last five years, including a five-year average.

Based upon this experience and future expectations, we have maintained the assumed rate of return of 6.75%.

CHART 11

Investment Return - Actuarial Value vs. Market Value: 2012 - 2016

Year Ended June 30	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent
2012	$476,263	1.34%	-$1,043,944	-2.90%
2013	2,031,630	5.54	5,140,734	14.47
2014	4,410,989	11.41	6,306,511	15.51
2015	3,961,266	9.16	277,740	0.59
2016	2,472,978	5.23	-395,702	-0.83
Total	$13,353,126		$10,285,339	
	Five-year average return:	6.63%		4.97%

Note: Each year's yield is weighted by the average asset value in that year.

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

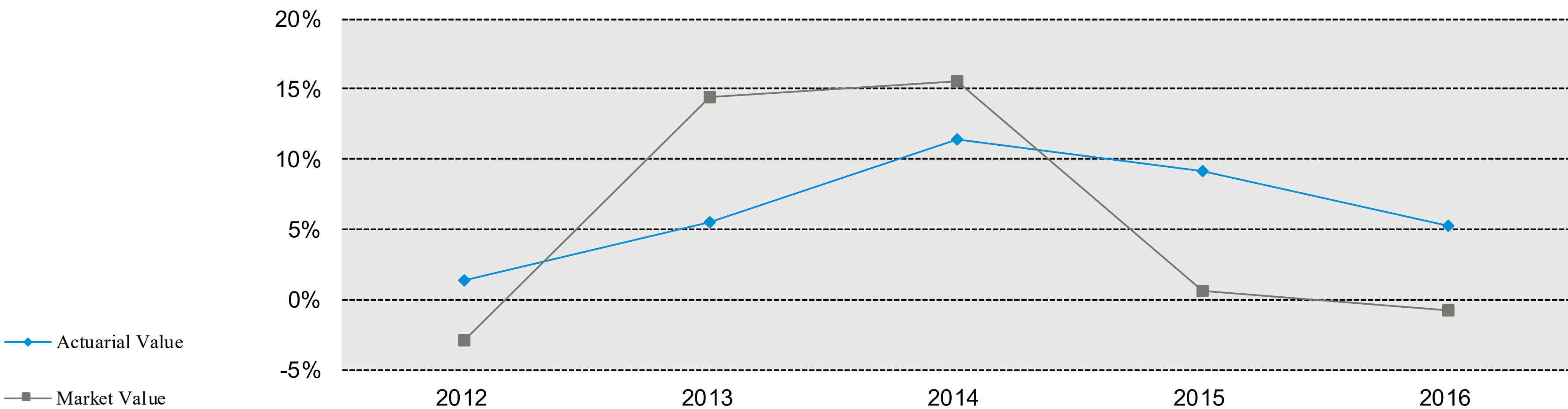
Administrative Expenses

Administrative expenses for the year ended June 30, 2016 totaled $45,000 compared to the assumption of $35,000. This resulted in a loss of $9,013 for the year. Based on guidance from the Town, we have maintained the assumption of $35,000 for the current year.

This chart illustrates how this leveling effect has actually worked over the years 2012 - 2016.

CHART 12

Market and Actuarial Rates of Return for Years Ended June 30, 2012 - 2016



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 employees,
- 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 year ended June 30, 2016 amounted to $1,022,599, which is 1.1% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Retirement Plan for Employees of the Town of Portsmouth, Rhode Island for the year ended June 30, 2016 is shown in the chart below.

This valuation reflects the following plan changes:

- For Fire, the COLA for employees who retire under Accidental Disability was changed from 3% compounding commencing on the January 1st immediately following the participant's retirement to 3% non-compounding commencing on the January 1st immediately following the participant's retirement, the accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service and the employee contribution rate was changed from 4.0% of base pay to 4.0% of gross annual earnings inclusive of base salary, longevity, EMT bonus and holiday pay.
- For Town Non-Management, the employee contribution rate decreased from 6.0% to 5.0% effective July 1, 2016, the accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service, and effective July 1, 2016 for employees retiring at or after age 60 with at least 25 years of credited service, the COLA is 1.7% commencing on the earlier of age 65 or the second anniversary of retirement for participants retiring on or after July 1, 2016.

These plan changes resulted in an increase in the unfunded actuarial accrued liability of $1.1 million and an increase in the employer normal cost of $59,000.

The chart shows elements of the experience gain/(loss) for the most recent year.

CHART 13

Experience Due to Changes in Demographics for Year Ended June 30, 2016

1.	Loss due to fewer deaths than expected amongst retired employees and beneficiaries	-$329,589
2.	Loss due to retirements earlier than expected	-163,539
3.	Loss due to salary increases greater than expected for continuing actives	-130,291
4.	Miscellaneous experience loss	-399,180
5.	Net loss	$1,022,599

The unfunded liability was expected to decrease from $37.1 million as of July 1, 2015 to $36.9 million as of July 1, 2016. The actual unfunded liability as of July 1, 2016 is $2.9 million higher than expected as detailed in Chart 14 below.

CHART 14

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2016

1.	Unfunded actuarial accrued liability at beginning of year		$37,124,398
2.	Normal cost at beginning of year		1,287,788
3.	Total contributions		-3,970,535
4.	Interest		
	(a) For whole year on (1) + (2)	$2,592,823	
	(b) For half year on (3)	-131,567	
	(c) Total interest		2,461,256
5.	Expected unfunded actuarial accrued liability		$36,902,907
6.	Changes due to:		
	(a) Experience loss	$1,753,016	
	(b) Plan changes	1,122,120	
	(c) Total changes		2,875,136
7.	Unfunded actuarial accrued liability at end of year		$39,778,043

D. RECOMMENDED CONTRIBUTION

The Town has a policy to fund the unfunded actuarial accrued liability of The Retirement Plan for Employees of the Town of Portsmouth, Rhode Island by June 30, 2040 in level amortization payments. The projection of the unfunded actuarial accrued liability recognizes any deferred investment gains or losses due to the operation of the actuarial valuation method.

Because the fiscal year ending June 30, 2017 contribution has been previously budgeted at $3,955,207, the results of this valuation are used to determine the Actuarially Determined Contribution for the fiscal year ending June 30, 2018 of $4,322,591. This contribution is comprised of a projected employer normal cost payment and a 23-year level payment on the projected July 1, 2017 unfunded actuarial accrued liability.

The funding schedule shown in Chart 16 shows the Actuarially Determined Contribution for each year until the projected full funding date of June 30, 2040.

CHART 15

Recommended Contribution

	Year Beginning July 1			
	2016		2015	
	Amount	% of Compensation	Amount	% of Compensation
1. Total normal cost	$1,316,275	15.75%	$1,252,788	15.19%
2. Administrative expenses	35,000	0.42%	35,000	0.42%
3. Expected employee contributions	-327,811	-3.92%	-339,273	-4.11%
4. Employer normal cost: (1) + (2) + (3)	$1,023,464	12.25%	$948,515	11.50%
5. Employer normal cost, adjusted for timing	1,048,843	12.55%	972,036	11.78%
6. Actuarial accrued liability	89,361,468		84,662,311	
7. Actuarial value of assets	49,583,425		47,537,913	
8. Unfunded actuarial accrued liability: (6) - (7)	$39,778,043		$37,124,398	
9. Payment on unfunded actuarial accrued liability, adjusted for timing	2,906,364	34.78%	2,561,254	32.14%
10. Total recommended contribution: (5) + (9)	$3,955,207	47.33%	$3,623,290	43.93%
11. Projected compensation	$8,356,102		$8,248,185	

Notes: Recommended contributions are assumed to be paid at the beginning of every quarter.
Recommended contributions are determined with previous valuations.

CHART 16

Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of Unfunded Liability	(4) Actuarially Determined Contribution: (2) + (3)	(5) Increase	(6) Payroll	(7) Contributions as a % of Payroll: (4) / (6)	(8) Actuarial Accrued Liability	(9) Actuarial Value of Assets	(10) Total Unfunded Liability: (8) – (9)	(11) Funded Ratio: (9) / (8)
2017	$1,048,843	$2,906,364	$3,955,207	- -	$8,356,102	47.33%	$89,361,468	$49,583,425	$39,778,043	55.49%
2018	1,016,127	3,306,464	4,322,591	9.29%	8,152,807	53.02%	92,363,873	52,696,761	39,667,112	57.05%
2019	981,730	3,372,497	4,354,227	0.73%	7,937,744	54.85%	95,296,633	55,619,360	39,677,273	58.36%
2020	959,930	3,498,296	4,458,226	2.39%	7,822,470	56.99%	98,112,297	57,820,953	40,291,344	58.93%
2021	941,159	3,567,584	4,508,743	1.13%	7,702,741	58.53%	100,861,929	60,715,274	40,146,655	60.20%
2022	909,512	3,567,584	4,477,096	-0.70%	7,500,781	59.69%	103,516,257	64,375,946	39,140,311	62.19%
2023	890,310	3,567,584	4,457,894	-0.43%	7,354,966	60.61%	106,092,878	68,026,839	38,066,039	64.12%
2024	864,614	3,567,584	4,432,198	-0.58%	7,120,980	62.24%	108,566,628	71,647,375	36,919,253	65.99%
2025	833,068	3,567,584	4,400,652	-0.71%	6,894,166	63.83%	110,886,803	75,191,744	35,695,059	67.81%
2026	783,904	3,567,584	4,351,488	-1.12%	6,598,981	65.94%	113,009,651	78,621,419	34,388,232	69.57%
2027	729,455	3,567,584	4,297,039	-1.25%	6,285,236	68.37%	114,868,803	81,875,609	32,993,194	71.28%
2028	685,901	3,567,584	4,253,485	-1.01%	5,999,212	70.90%	116,483,762	84,979,771	31,503,991	72.95%
2029	636,973	3,567,584	4,204,557	-1.15%	5,691,628	73.87%	117,804,058	87,889,791	29,914,267	74.61%
2030	599,978	3,567,584	4,167,562	-0.88%	5,438,333	76.63%	118,882,346	90,665,109	28,217,237	76.26%
2031	542,119	3,567,584	4,109,703	-1.39%	5,100,057	80.58%	119,663,386	93,257,729	26,405,657	77.93%
2032	501,390	3,567,584	4,068,974	-0.99%	4,840,085	84.07%	120,166,819	95,695,023	24,471,796	79.64%
2033	457,834	3,567,584	4,025,418	-1.07%	4,566,452	88.15%	120,405,658	97,998,259	22,407,399	81.39%
2034	402,960	3,567,584	3,970,544	-1.36%	4,223,270	94.02%	120,313,146	100,109,491	20,203,655	83.21%
2035	364,078	3,567,584	3,931,662	-0.98%	3,986,368	98.63%	119,931,338	102,080,179	17,851,159	85.12%
2036	328,056	3,567,584	3,895,640	-0.92%	3,729,821	104.45%	119,242,714	103,902,845	15,339,869	87.14%
2037	296,180	3,567,584	3,863,764	-0.82%	3,525,850	109.58%	118,271,891	105,612,824	12,659,067	89.30%
2038	275,581	3,567,584	3,843,165	-0.53%	3,379,032	113.74%	117,049,612	107,252,301	9,797,311	91.63%
2039	262,301	3,567,584	3,829,885	-0.35%	3,294,188	116.26%	115,622,783	108,880,397	6,742,386	94.17%
2040	255,121	3,567,584	3,822,705	-0.19%	3,263,249	117.14%	114,038,851	110,557,597	3,481,254	96.95%
2041	248,338	- -	248,338	-93.50%	3,241,007	7.66%	112,309,866	112,309,866	- -	100.00%

Notes: Contribution is assumed to be paid at the beginning of each quarter.
Normal cost and payroll are based on a closed group projection, except for School Management and employees eligible for a disability benefit only, for whom normal cost and payroll are projected to increase 2.75% per year.
Schedule reflects deferred investment losses.
Columns (8) through (11) are as of the beginning of the fiscal year.
The measurements in column (11) are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

EXHIBIT A
Table of Plan Coverage

Category	Year Ended June 30 2016	Year Ended June 30 2015	Change From Prior Year
Active employees in valuation:			
Number	153	160	-4.4%
Average age	46.9	47.1	N/A
Average years of service	11.2	10.9	N/A
Total compensation	$8,073,529	$7,969,261	1.3%
Average compensation	52,768	49,808	5.9%
Employee contributions	5,462,412	5,409,120	1.0%
Inactive employees with a vested right to a deferred or immediate benefit	7	7	0.0%
Retired employees:			
Number in pay status	142	135	5.2%
Average age	65.3	64.5	N/A
Average monthly benefit	$2,380	$2,332	2.1%
Disabled employees:			
Number in pay status	8	8	0.0%
Average age	53.6	52.6	N/A
Average monthly benefit	$3,037	$2,967	2.4%
Beneficiaries in pay status:			
Number in pay status	11	10	10.0%
Average age	76.0	75.5	N/A
Average monthly benefit	$1,147	$1,147	0.0%

EXHIBIT B

Employees in Active Service as of June 30, 2016
By Age, Years of Service, and Average Compensation

Age	Years of Service								
	Total	**0-4**	**5-9**	**10-14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 & over**
Under 25	2	2	- -	- -	- -	- -	- -	- -	- -
	$45,429	$45,429	- -	- -	- -	- -	- -	- -	- -
25 - 29	12	12	- -	- -	- -	- -	- -	- -	- -
	$53,058	$53,058	- -	- -	- -	- -	- -	- -	- -
30 - 34	11	5	5	1	- -	- -	- -	- -	- -
	$60,342	$54,548	$64,006	$70,994	- -	- -	- -	- -	- -
35 - 39	9	1	4	4	- -	- -	- -	- -	- -
	$59,674	$57,015	$51,387	$68,626	- -	- -	- -	- -	- -
40 - 44	28	7	6	10	4	1	- -	- -	- -
	$62,232	$51,450	$58,635	$62,179	$75,913	$105,088	- -	- -	- -
45 - 49	34	3	10	13	6	2	- -	- -	- -
	$55,146	$51,459	$41,017	$55,337	$77,045	$64,377	- -	- -	- -
50 - 54	14	1	4	4	1	3	1	- -	- -
	$44,894	$34,199	$30,214	$35,794	$77,451	$58,226	$78,161	- -	- -
55 - 59	26	4	9	2	7	- -	3	1	- -
	$44,564	$57,616	$30,524	$22,915	$55,119	- -	$59,955	$41,946	- -
60 - 64	14	- -	3	5	1	4	1	- -	- -
	$37,076	- -	$34,244	$31,366	$23,614	$45,812	$52,644	- -	- -
65 - 69	2	- -	- -	2	- -	- -	- -	- -	- -
	$82,304	- -	- -	$82,304	- -	- -	- -	- -	- -
70 & over	1	- -	- -	- -	- -	- -	- -	- -	1
	$56,858	- -	- -	- -	- -	- -	- -	- -	$56,858
Total	153	35	41	41	19	10	5	1	1
	$52,768	$52,472	$43,557	$53,588	$65,938	$59,177	$62,134	$41,946	$56,858

EXHIBIT C

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended June 30, 2016		Year Ended June 30, 2015	
Net assets at actuarial value at the beginning of the year		$47,537,913		$42,930,879
Contribution income:				
Employer contributions	$3,623,290		$4,054,721	
Employee contributions	347,245		348,380	
Less administrative expenses	-45,000		-30,000	
Net contribution income		3,925,535		4,373,101
Net investment income		2,472,978		3,961,266
Total income available for benefits		$6,398,513		$8,334,367
Less benefit payments		-$4,353,001		-$3,727,333
Change in reserve for future benefits		$2,045,512		$4,607,034
Net assets at actuarial value at the end of the year		$49,583,425		$47,537,913

EXHIBIT D

Department Results as of July 1, 2016

Category	School	Fire	Police	Public Works	Town	Total
1. Demographics						
Active employees in valuation	57	33	35	15	13	153
Inactive employees	5	0	1	0	1	7
Retired employees and beneficiaries in pay status	53	39	39	11	19	161
Total	115	72	75	26	33	321
2. Total normal cost	$223,672	$422,588	$495,249	$45,526	$129,240	$1,316,275
3. Administrative expenses	5,947	11,237	13,169	1,211	3,436	35,000
4. Expected employee contributions	-85,575	-79,658	-136,906	-4,245	-21,427	-327,811
5. Employer normal cost: (2) + (3) + (4)	$144,044	$354,167	$371,512	$42,492	$111,249	$1,023,464
6. Employer normal cost, adjusted for timing	147,616	362,949	380,724	43,546	114,008	1,048,843
7. Employer normal cost as a percentage of compensation	6.97%	15.83%	15.98%	5.12%	12.42%	12.25%
8. Actuarial accrued liability	$12,821,450	$29,610,971	$30,689,006	$3,694,172	$12,545,869	$89,361,468
9. Actuarial value of assets	7,114,156	16,430,050	17,028,212	2,049,762	6,961,245	49,583,425
10. Unfunded actuarial accrued liability: (8) – (9)	$5,707,294	$13,180,921	$13,660,794	$1,644,410	$5,584,624	$39,778,043
11. Payment on unfunded actuarial accrued liability, adjusted for timing	441,775	938,860	1,026,796	120,872	378,061	2,906,364
12. Recommended contribution for fiscal year 2017: (6)+(11)	589,391	1,301,809	1,407,520	164,418	492,069	3,955,207
13. Recommended contribution as a percentage of projected compensation	28.50%	58.18%	60.53%	19.81%	54.94%	47.33%
14. Projected compensation	$2,068,098	$2,237,452	$2,325,192	$829,778	$895,582	$8,356,102
15. Recommended contribution for fiscal year 2018	614,264	1,457,534	1,510,783	179,864	560,146	4,322,591
16. Recommended contribution for fiscal year 2019	619,858	1,467,461	1,538,124	179,483	549,301	4,354,227

EXHIBIT E
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) Withdrawal 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 are many approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

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.

EXHIBIT I
Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:			
1.	Retired employees as of the valuation date (including 11 beneficiaries in pay status)		161
2.	Employees active during the year ended June 30, 2016 with total accumulated contributions of $5,462,412 and projected 2016-2017 compensation of $8,356,102		153
3.	Inactive employees with a vested right to a deferred or immediate benefit		7
The actuarial factors as of July 1, 2016 are as follows:			
1.	Normal cost		$1,316,275
2.	Administrative expenses		35,000
3.	Expected employee contributions		-327,811
4.	Employer normal cost (1) + (2) + (3)		$1,023,464
5.	Actuarial accrued liability		89,361,468
	Retired employees and beneficiaries	$62,304,960	
	Active employees	25,773,464	
	Inactive employees	1,283,044	
6.	Actuarial value of assets ($46,929,737 at market value as reported in the draft Annual Statement)		49,583,425
7.	Unfunded actuarial accrued liability: (5) – (6)		39,778,043
The determination of the recommended contribution is as follows:			
1.	Employer normal cost, adjusted for timing		$1,048,843
2.	Payment on the unfunded actuarial accrued liability (final payment in fiscal 2040) as of July 1, 2016, adjusted for timing		2,906,364
3.	Recommended fiscal 2017 contribution: (1) + (2)		3,955,207
4.	Projected compensation as of July 1, 2016		8,356,102
5.	Total recommended contribution as a percentage of projected compensation: (3) ÷ (4)		47.33%

Notes: Recommended contribution is the amount previously budgeted.
Recommended contribution is assumed to be paid at the beginning of each quarter.

EXHIBIT II
Funded Ratio

A 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. 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.

These measurements are not necessarily appropriate for assuming the sufficiency of Plan assets to cover the estimated cost of settling the Plan’s benefit obligation or the need for or the amount of future contributions.

The chart below depicts a history of funded ratios for this plan. On a market value basis, the funded ratio has decreased from 56.4% as of July 1, 2015 to 52.5% as of July 1, 2016. On an actuarial value basis, the funded ratio has decreased from 56.2% as of July 1, 2015 to 55.5% as of July 1, 2016.

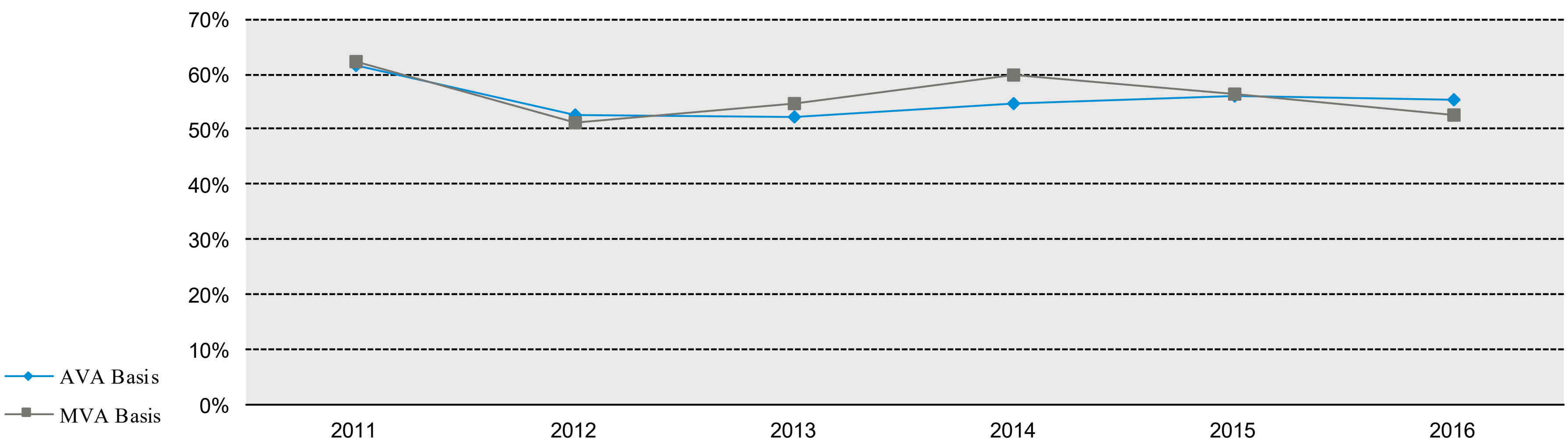


EXHIBIT III
Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Pre-Retirement:	RP-2014 Employee Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006
Healthy Retiree:	RP-2014 Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006
Disabled Retiree:	RP-2014 Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006 and set forward 5 years
	The underlying tables with generational projection to the ages of participants as of the measurement date reasonably reflect the mortality experience of the Plan as of the measurement date based on historical and current demographic data. As part of the analysis, a comparison was made between the actual number of retiree deaths and the projected number based on the prior years' assumption over the most recent three years. These mortality tables were then adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Termination Rates before Retirement:

Fire and Police Rate (%)

	Mortality		Disability		Withdrawal	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
20	0.05	0.02	0.09	0.05	9.87	14.87
25	0.05	0.02	0.13	0.09	6.87	9.87
30	0.05	0.02	0.18	0.15	4.87	6.87
35	0.06	0.03	0.25	0.23	3.87	4.87
40	0.08	0.05	0.35	0.27	2.65	3.65
45	0.12	0.08	0.47	0.44	1.50	2.50
50	0.20	0.12	0.68	0.66	0.16	1.16
55	0.30	0.17	1.14	1.06	- -	- -
60	0.50	0.28	1.72	1.23	- -	- -

Notes: Mortality rates do not reflect generational projection.
100% of the disability rates shown represent accidental disability.

School, Public Works and Town Rate (%)

	Mortality		Disability		Withdrawal	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
20	0.05	0.02	0.01	0.02	9.92	14.92
25	0.05	0.02	0.02	0.02	6.92	9.92
30	0.05	0.02	0.02	0.04	4.92	6.92
35	0.06	0.03	0.03	0.07	3.92	4.92
40	0.08	0.05	0.06	0.11	2.78	3.78
45	0.12	0.08	0.10	0.16	1.69	2.69
50	0.20	0.12	0.18	0.27	0.47	1.47
55	0.30	0.17	0.36	0.48	0.08	0.08
60	0.50	0.28	0.63	0.58	- -	- -

Note: Mortality rates do not reflect generational projection.

The termination rates and disability rates were based on historical and current demographic data, adjusted to reflect economic conditions of the area and estimated future experience and professional judgment. As part of the analysis, a comparison was made between the actual number of terminations and disability retirements and the projected number based on the prior years' assumption over the most recent three years.

Retirement Rates:

	Rate (%)	
Service	**Police**	**Fire**
20	25.0	20.0
21	15.0	10.0
22	5.0	10.0
23	5.0	10.0
24	5.0	10.0
25	50.0	10.0
26	50.0	10.0
27	50.0	30.0
28	50.0	30.0
29	50.0	30.0
30	100.0	100.0

	Rate (%)		
Age	**School**	**Town Management/ Public Works**	**Town Non-Management**
55	2.0	5.0	- -
56	2.0	5.0	- -
57	2.0	5.0	- -
58	2.0	5.0	- -
59	2.0	5.0	- -
60	30.0	10.0	10.0
61	5.0	10.0	10.0
62	35.0	15.0	15.0
63	35.0	15.0	15.0
64	10.0	15.0	15.0
65	10.0	50.0	50.0
66	10.0	50.0	50.0
67	10.0	100.0	100.0
68	30.0	- -	- -
69	30.0	- -	- -
70	100.0	- -	- -

The retirement rates were based on historical and current demographic data, adjusted to reflect economic conditions of the area and estimated future experience and professional judgment. As part of the analysis, a comparison was made between the actual number of retirements by age and the projected number based on the prior years' assumption over the most recent three years.

Retirement Age for Inactive Vested Participants: Normal Retirement Age

The retirement age for inactive vested participants was based on historical and current demographic data, adjusted to reflect economic conditions of the area and estimated future experience and professional judgment.

Unknown Data for Participants: Same as those exhibit by participants with similar know characteristics

Family Composition:	85% of participants are assumed to be married. None are assumed to have dependent children. Females are assumed to be three years younger than their male spouses.
Benefit Election:	Monthly life annuity for School, Public Works and Town. 67.5% Joint and Survivor annuity for Police and Fire, in accordance with Section 45-21.3-1, General Laws of Rhode Island (1956).
Net Investment Return:	6.75% The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation.
Salary Increases:	3.5% per year. The salary scale assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment.
Interest on Employee Contributions:	5.0%
Administrative Expenses:	$35,000 The administrative expense assumption is based on information provided by the staff of the Town of Portsmouth.
Defined Contribution Account Balance:	Balances as of July 1, 2016 were provided by the Town and were assumed to earn 6.75% annually. Balances were converted to monthly benefits using valuation interest and mortality assumptions.
2015 – 2016 Salary:	Salaries for benefits and contributions were provided by the Town. Salaries for new hires were annualized based on date of hire.
Cost-of-Living Increases:	Cost-of-living increases for pensioners whose COLAs were based on 50% of the percentage salary increase received the previous July 1 by the active bargaining unit from which the employee retired or whose COLAs were based on the annual CPI adjustment are assumed to be 2% annually. Cost-of-living increases for all other pensioners were provided by the Town.

Actuarial Value of Assets:	Market value of assets as reported by the Town less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected market return and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry Age is age at date of hire. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary. Normal Cost is determined using the plan of benefits applicable to each member.
Changes in Assumptions:	None

EXHIBIT IV
Summary of Plan Provisions

This exhibit summarizes the major provisions of The Retirement Plan for Employees of the Town of Portsmouth, Rhode Island 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:	Effective July 1, 2006: July 1 through June 30 Prior to July 1, 2006: January 1 through December 31
	Police
Normal Retirement Benefit:	
Service Requirement	20 years of credited service
Amount	60% of average monthly earnings plus 2% for each year beyond 20 years subject to a maximum of 70%. An employee's average monthly earnings are defined as the highest gross annual salary during the last three years of employment. Gross annual salary includes base salary and longevity, but excludes overtime, clothing allowance, holiday pay and any other forms of compensation. Employees hired on or after July 1, 2010 are not entitled to Normal Retirement Benefits.
Accidental Disability:	
Service Requirement	None.
Amount	67% of gross annual salary. For employees hired on or after July 1, 2010, this benefit will be offset by the actuarially equivalent benefit provided by the account balance from the defined contribution plan.
Ordinary Disability:	
Service Requirement	10 years of credited service
Amount	50% of highest consecutive two years average salary. For employees hired on or after July 1, 2010, this benefit is payable until Normal Retirement Date at which time the participant would begin taking distributions exclusively from the 401(a) plan.

Deferred Vested Benefit:	
Service Requirement	10 years of credited service
Amount	Normal Retirement Benefit payable at Normal Retirement Date, prorated if less than 20 years of service
Spouse's Pre-Retirement Death Benefit:	
Service Requirement	10 years of credited service
Amount	30% of final five year average earnings payable to the spouse plus 10% of final five year average earnings payable to each minor child under age 21. The maximum benefit payable is 50% of final five year average earnings. Employees hired on or after July 1, 2010 are not entitled to pre-retirement death benefits.
Cost of Living Adjustments:	Employees who retired on or after July 1, 2003 with 20 years of credited service receive a 3% COLA commencing on the January 1st following the first anniversary of retirement. Employees who retired prior to July 1, 2003 receive a COLA based on 50% of the percentage salary increase received the previous July 1 by the active bargaining unit employees in the department from which the employee retired. Effective July 1, 2010, employees who retire on or after July 1, 2013 with 20 years of credited service receive a 3% COLA commencing on the January 1st following the second year of retirement. There is no COLA on a Deferred Vested Benefit or a Pre-Retirement Death Benefit.
Employee Contributions:	9.0% of gross annual earnings. No contributions for employees hired on or after July 1, 2010.
Normal Form of Payment:	Benefits will continue to the surviving spouse and dependent children of a deceased retired policeman in accordance with Section 45-21.3-1, General Laws of Rhode Island (1956). The surviving spouse will receive 67.5% of the participant's benefit until death or remarriage in which case dependent children will receive the benefit until age 18. On death, if there is no spousal benefit due, the estate will receive a refund of participant contributions in excess of any retirement payments received.
Credited Service:	Full years plus fractions thereof from date of hire to date of termination.

	An employee covered by the Municipal Retirement System who served as an elected official of the Town and other employees with 10 years of service will be given credited service for such service, not to exceed three years for elected officials and four years for others, provided the employee pays a lump sum amount equal to the full actuarial value of such credit as determined by the Retirement Board.
Changes in Plan Provisions:	There were no changes in plan provisions reflected in this valuation.

	Fire
Normal Retirement Benefit:	
Service Requirement	20 years of credited service
Amount	For service before July 1, 2013: 3% of average monthly earnings per year of credited service to a maximum of 20 years plus 2% for each year beyond 20 years. For service on or after July 1, 2013 and before June 30, 2016: 1% of average monthly earnings per year of credited service. For service on or after July 1, 2016: 2% of average monthly earnings per year of credited service. Fire Deputy and Fire Chief: 3% of average monthly earnings per year of credited service to a maximum of 20 years plus 2% for each year beyond 20 years. The maximum benefit is 74% of average monthly earnings. An employee's average monthly earnings are defined as the highest gross annual salary during the last three years of employment. Gross annual salary includes base salary, longevity and E.M.T. bonus, but excludes overtime, clothing allowance, holiday pay and any other forms of compensation. Employees hired on or after July 1, 2013 are not entitled to Normal Retirement Benefits.
Accidental Disability:	
Service Requirement	None
Amount	66 ⅔% of gross annual salary. For employees hired on or after July 1, 2013, this benefit will be offset by the actuarially equivalent benefit provided by the account balance from the defined contribution plan.
Ordinary Disability:	
Service Requirement	10 years of credited service
Amount	50% of highest consecutive three years average salary. For employees hired on or after July 1, 2013, this benefit is payable until Normal Retirement Date at which time the participant would begin taking distributions exclusively from the 401(a) plan.

Deferred Vested Benefit:	
Service Requirement	10 years of credited service
Amount	Normal Retirement Benefit payable at Normal Retirement Date, prorated if less than 20 years of service.
Spouse's Pre-Retirement Death Benefit:	
Service Requirement	10 years of credited service
Amount	30% of final five year average earnings payable to the spouse plus 10% of final five year average earnings payable to each minor child under age 21. The maximum benefit payable is 50% of final five year average earnings. Employees hired on or after July 1, 2013 are not entitled to pre-retirement death benefits.
Cost of Living Adjustments:	Employees who retired prior to July 1, 2007 receive a COLA based on 50% of the percentage salary increase received the previous July 1 by the active bargaining unit employees in the department from which the employee retired. Employees who retired on or after July 1, 2007 and before July 1, 2013 with 20 years of credited service receive a 3% COLA commencing on the January 1st immediately following the participant's retirement. Employees who retire on or after July 1, 2013 with 20 years of credited service receive a 1.7% COLA commencing on the January 1st following the fifth anniversary of retirement. Fire Deputy and Fire Chief receive a 3% COLA commencing on the January 1st following the fifth year of retirement, regardless of date of retirement. Employees who retired prior to July 1, 2016 under Accidental Disability receive a 3% compounding COLA commencing on the January 1st immediately following the participant's retirement. Employees who retire on or after July 1, 2016 under Accidental Disability receive a 3% non-compounding COLA commencing on the January 1st immediately following the participant's retirement. There is no COLA on a Deferred Vested Benefit or a Pre-Retirement Death Benefit.

Employee Contributions:	4.0% of gross annual earnings inclusive of base salary, longevity, EMT bonus and holiday pay (previously, 4.0% of base pay). Fire Deputy and Fire Chief: 10.0% of gross annual earnings inclusive of base salary, longevity, EMT bonus and holiday pay. No contributions for employees hired on or after July 1, 2013.
Normal Form of Payment:	Benefits will continue to the surviving spouse and dependent children of a deceased retired policeman in accordance with Section 45-21.3-1, General Laws of Rhode Island (1956). The surviving spouse will receive 67.5% of the participant's benefit until death or remarriage in which case dependent children will receive the benefit until age 18. On death, if there is no spousal benefit due, the estate will receive a refund of participant contributions in excess of any retirement payments received.
Credited Service:	Full years plus fractions thereof from date of hire to date of termination. An employee covered by the Municipal Retirement System who served as an elected official of the Town and other employees with 10 years of service will be given credited service for such service, not to exceed three years for elected officials and four years for others, provided the employee pays a lump sum amount equal to the full actuarial value of such credit as determined by the Retirement Board.
Changes in Plan Provisions:	The following plan changes are reflected in this valuation: ➢ The COLA for employees who retire under Accidental Disability after July 1, 2016 was changed from 3% compounding commencing on the January 1st immediately following the participant's retirement to 3% non-compounding commencing on the January 1st immediately following the participant's retirement. ➢ The accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service. ➢ The employee contribution rate was changed from 4.0% of base pay to 4.0% of gross annual earnings inclusive of base salary, longevity, EMT bonus and holiday pay.

	School
Normal Retirement Benefit:	
Age and Service Requirement	Age 60 with 10 years of credited service
Amount	**Non-Certified**: For service before October 1, 2013: 2.5% of average monthly earnings per year of credited service. For service on or after October 1, 2013: 1% of average monthly earnings per year of credited service. Benefit is reduced prorata if less than 20 years of service. Non-certified employees hired after July 1, 2012 and before October 1, 2013 were transferred to the defined contribution plan effective October 1, 2013. **Management:** 2.5% of average monthly earnings per year of credited service. Benefit is reduced prorata for less than 20 years of service. An employee's average monthly earnings are defined as base annual salary and longevity pay averaged over the final three years of employment. School Department employees who are not School Management, who are hired on or after October 1, 2013 are not eligible to participate in this Plan.
Early Retirement Benefit:	
Age and Service Requirement	Age 55 with 20 years of credited service
Amount	Normal Retirement Benefit multiplied by the ratio of credited service as of the Early Retirement Date to the number of years the employee would have completed if he or she remained employed until Normal Retirement Date.
Ordinary Disability:	
Service Requirement	10 years of credited service
Amount	Accrued benefit as of the date of disability multiplied by the ratio of credited service as of the date of disability to the number of years the employee would have completed if he or she remained employed until Normal Retirement Date.

Deferred Vested Benefit:	
Service Requirement	10 years of credited service
Amount	Normal Retirement Benefit payable at Normal Retirement Date, prorated if less than 20 years of service.
Spouse's Pre-Retirement Death Benefit:	
Service Requirement	10 years of credited service
Amount	100% Joint and Survivor benefit is payable to the spouse upon the death of the employee, prorated if less than 20 years and reduced for early retirement and payable no earlier than when the employee would be eligible to retire.
Cost of Living Adjustments:	
	Non-certified: Effective July 1, 2002, employees who retire at age 55 with 25 years of credited service or age 60 with 20 years credited service shall receive a 1.7% COLA beginning on the first anniversary of retirement. For retirements on or after October 1, 2013, the COLA commences on the fifth anniversary of retirement.
	Management: Effective January 1, 2001 employees who retire at age 55 with 25 years of credited service or age 60 with 20 years of credited service shall receive a 1.7% COLA beginning on the first anniversary of retirement.
	There is no COLA on a Deferred Vested Benefit or a Pre-Retirement Death Benefit.
Employee Contributions:	
	Non-Certified: 4% of gross annual salary.
	Management: 6% of gross annual salary. 2% of gross annual salary for employees hired before July 1, 1991.
Normal Form of Payment:	Life annuity payable monthly.

Credited Service:	Full years plus fractions thereof from date of hire to date of termination. An employee covered by the Municipal Retirement System who served as an elected official of the Town and other employees with 10 years of service will be given credited service for such service, not to exceed three years for elected officials and four years for others, provided the employee pays a lump sum amount equal to the full actuarial value of such credit as determined by the Retirement Board.
Changes in Plan Provisions:	There were no changes in plan provisions reflected in this valuation.

	Town
Normal Retirement Benefit:	
Age and Service Requirement	Age 60 with 10 years of credited service
Amount	**Non-Management**: For service before July 1, 2013: 2.5% of average monthly earnings per year of credited service to a maximum of 27 years. For service on or after July 1, 2013 and before July 1, 2016: 1% of average monthly earnings per year of credited service. For service on or after July 1, 2016: 2% of average monthly earnings per year of credited service. The maximum benefit is 67.5% of average monthly earnings. Benefit is reduced prorata if less than 20 years of service. **Management:** 3.0% of average monthly earnings per year of credited service for up to 20 years of service, plus 2.0% of average monthly earnings per year of credited service to a maximum of 74%. For benefit accrual purposes, credited service is frozen as of July 1, 2014. An employee's monthly earnings are defined as the highest annual salary (base salary and longevity) during the final three years of employment. Town Hall employees hired on or after July 1, 2012 are not eligible to participate in this Plan.
Early Retirement Benefit:	
Age and Service Requirement	**Management:** Age 55 with 25 years of credited service
Amount	**Management:** Normal Retirement Benefit multiplied by the ratio of credited service as of the Early Retirement Date to the number of years the employee would have completed if he or she remained employed until Normal Retirement Date. There is no Early Retirement Benefit for Non-Management employees.

Ordinary Disability:	
Service Requirement	10 years of credited service
Amount	Accrued benefit as of the date of disability multiplied by the ratio of credited service as of the date of disability to the number of years the employee would have completed if he or she remained employed until Normal Retirement Date.
Deferred Vested Benefit:	
Service Requirement	10 years of credited service
Amount	Normal Retirement Benefit payable at Normal Retirement Date, prorated if less than 20 years of service.
Spouse's Pre-Retirement Death Benefit:	
Service Requirement	10 years of credited service
Amount	30% of final five-year average earnings payable to the spouse plus 10% of final five-year average earnings payable to each minor child under 21. The maximum benefit payable is 50% of final five-year average earnings.
Cost of Living Adjustments:	
	Non-Management: Employees who are members of PMEA and who retire on or after July 1, 1998 at age 60 with 20 years of credited service receive a 2.0% COLA with a two-year waiting period from date of retirement. Effective July 1, 2003, the COLA commences the January 1st immediately following retirement. Effective July 1, 2005 employees retiring at or after age 60 with at least 20 years of credited service shall receive a cost of living adjustment of the annual Consumer Price Index (CPI-U, U.S. city average established on December 31 of the preceding year), but shall be not less than 2% or more than 3%, annually commencing on the first anniversary of retirement. For retirements on or after July 1, 2013, the COLA is 1.7% and commences on the fifth anniversary of retirement. Effective July 1, 2016, for employees retiring at or after age 60 with 25 years of credited service, the COLA commences on the earlier of age 65 or the second anniversary of retirement.

	Management: Employees who retire on or after July 1, 2002 at age 60 with 20 years of credited service or age 55 with 25 years of service receive a 2.0% COLA with a one-year waiting period from date of retirement. Employees who retire on or after July 1, 2004 receive a 3.0% COLA commencing on the January 1st following the first anniversary of retirement. For retirements on or after July 1, 2013, the COLA is 1.7% commencing on the January 1st following the fifth anniversary of retirement. There is no COLA on a Deferred Vested Benefit or a Pre-Retirement Death Benefit.
Employee Contributions:	**Non-Management:** Effective July 1, 2016, 5% (previously, 6.0%) of base salary. **Management:** No employee contributions after July 1, 2014.
Normal Form of Payment:	Life annuity payable monthly.
Credited Service:	Full years plus fractions thereof from date of hire to date of termination. An employee covered by the Municipal Retirement System who served as an elected official of the Town and other employees with 10 years of service will be given credited service for such service, not to exceed three years for elected officials and four years for others, provided the employee pays a lump sum amount equal to the full actuarial value of such credit as determined by the Retirement Board.
Changes in Plan Provisions:	The following plan changes are reflected in this valuation. ➤ The COLA was changed from 1.7% commencing on the fifth anniversary of retirement for participants retiring at or after age 60 with at least 20 years of credited service to 1.7% commencing on the earlier of age 65 or the second anniversary of retirement for participants retiring at or after age 60 with at least 25 years or credited service. ➤ The accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service. ➤ The employee contribution rate decreased from 6.0% to 5.0% effective July 1, 2016.

	Public Works
Normal Retirement Benefit:	
Age and Service Requirement	Age 60 with 10 years of credited service
Amount	For employees with less than 10 years of credited service at July 1, 2013 who were hired before June 30, 2010: 2.5% of average monthly earnings per year of credited service up to a maximum of 25%. Benefit is reduced prorata if less than 20 years of service. For employees with 10 or more years of service as of June 30, 2013: 2.5% of average monthly earnings per year of credited service prior to July 1, 2013 to a maximum of 67.5%. Benefit is reduced prorata if less than 20 years of service. An employee's average monthly earnings are defined as annual salary (base salary and longevity) averaged over the final five years of employment. Employees hired on or after July 1, 2010 are not entitled to Normal Retirement Benefits.
Early Retirement Benefit:	
Age and Service Requirement	Age 55 with 20 years of credited service
Amount	Normal Retirement Benefit multiplied by the ratio of credited service as of the Early Retirement Date to the number of years the employee would have completed if he or she remained employed until Normal Retirement Date.
Ordinary Disability:	
Service Requirement	10 years of credited service
Amount	Accrued benefit as of the date of disability multiplied by the ratio of credited service as of the date of disability to the number of years the employee would have completed if he or she remained employed until Normal Retirement Date. For employees hired on or after July 1, 2013, this benefit will be offset by the actuarially equivalent benefit provided by the account balance for the defined contribution plan.

Deferred Vested Benefit:		
	Service Requirement	10 years of credited service
	Amount	Normal Retirement Benefit payable at Normal Retirement Date, prorated if less than 20 years of service.
Spouse's Pre-Retirement Death Benefit:		
	Service Requirement	10 years of credited service
	Amount	30% of final five-year average earnings payable to the spouse plus 10% of final five-year average earnings payable to each minor child under 21. The maximum benefit payable is 50% of final five-year average earnings. Employees hired on or after July 1, 2010 are not entitled to pre-retirement death benefits.
Cost of Living Adjustments:		Employees who retire on or after July 1, 1987 at age 60 with 20 years of credited service shall receive 50% of the percentage salary increase received the previous July 1 by the active bargaining unit employees in the department from which the employee retired. There is a two-year waiting period commencing on the January 1 following date of retirement. Employees who retire on or after July 1, 2013 at age 60 with 10 years of service receive a 1.7% COLA commencing on the sixth anniversary of retirement. There is no COLA on a Deferred Vested Benefit or a Pre-Retirement Death Benefit.
Employee Contributions:		For participants with less than 10 years of service who are eligible for an Option 1 benefit, 4.0% of annual salary, until participant has accrued 10 years of service. No employee contributions after July 1, 2013 for other employees.
Normal Form of payment:		Life annuity payable monthly.

Credited Service:	Full years plus fractions thereof from date of hire to date of termination. An employee covered by the Municipal Retirement System who served as an elected official of the Town and other employees with 10 years of service will be given credited service for such service, not to exceed three years for elected officials and four years for others, provided the employee pays a lump sum amount equal to the full actuarial value of such credit as determined by the Retirement Board.
Changes in Plan Provisions:	There were no changes in plan provisions reflected in this valuation.

EXHIBIT 1
Net Pension Liability

The components of the net pension liability of The Retirement Plan for Employees of the Town of Portsmouth, Rhode Island are as follows:

	June 30, 2016	June 30, 2015
Total pension liability	$89,361,468	$84,662,311
Plan fiduciary net position	46,929,737	47,752,905
System's net pension liability	42,431,731	36,909,406
Plan fiduciary net position as a percentage of the total pension liability*	52.52%	56.40%

* *These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.*

Actuarial assumptions. The total pension liability as of June 30, 2016 was determined by an actuarial valuation as of June 30, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	3.5% per year
Investment rate of return	6.75%, net of pension plan investment expense, including inflation
Pre-retirement:	RP-2014 Employee Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006
Healthy Retiree:	RP-2014 Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006
Disabled Retiree:	RP-2014 Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006 and set forward 5 years

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2016 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Domestic equity	6.49%
International developed markets equity	7.16%
International emerging markets equity	9.46%
Core fixed income	1.68%
Real estate	4.37%

Discount rate: The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that the Town of Portsmouth's contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the Pension System, calculated using the discount rate of 6.75%, as well as what the Pension System's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.75%) or 1-percentage-point higher (7.75%) than the current rate:

	1% Decrease (5.75%)	Current Discount (6.75%)	1% Increase (7.75%)
Net pension liability as of June 30, 2016	$55,311,152	$42,431,731	$32,000,109

EXHIBIT 2
Schedule of Changes in the Net Pension Liability – Last Ten Years

	Year End June 30,									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total pension liability										
Service cost	$1,252,788	$1,240,913	$1,389,334							
Interest	5,652,355	5,245,240	4,915,100							
Differences between expected and actual experience	1,024,895	1,229,633	2,000,989							
Changes of assumptions	0	2,343,849	-203,891							
Changes of benefit terms	1,122,120	0	-879,278	(Historical information prior to implementation of GASB 67/68 is not required)						
Benefit payments	-4,353,001	-3,727,333	-3,417,068							
Net change in total pension liability	$4,699,157	$6,332,302	$3,805,186							
Total pension liability - beginning	84,662,311	78,330,009	74,524,823							
Total pension liability - ending (a)	$89,361,468	$84,662,311	$78,330,009							
Plan fiduciary net position										
Contributions – employer	$3,623,290	$4,054,721	$2,792,576							
Contributions – employee	347,245	348,380	388,692							
Net investment income	-395,702	277,740	6,330,851							
Benefit payments	-4,353,001	-3,727,333	-3,417,068	(Historical information prior to implementation of GASB 67/68 is not required)						
Administrative expenses	-45,000	-30,000	-61,112							
Net change in fiduciary net position	-$823,168	$923,508	$6,033,939							
Plan fiduciary net position - beginning	47,752,905	46,829,397	40,795,458							
Plan fiduciary net position - ending (b)	$46,929,737	$47,752,905	$46,829,397							
Net pension liability – ending: (a)-(b)	$42,431,731	$36,909,406	$31,500,612							
Plan's fiduciary net position as a percentage of the total pension liability	52.52%	56.40%	59.78%	(Historical information prior to implementation of GASB 67/68 is not required)						
Covered-employee payroll*	$8,073,529	$7,969,261	$7,837,400							
Net pension liability as a percentage of covered-employee payroll	525.57%	463.15%	401.93%							

* *Net pensionable earnings used in the funding valuation report.*

Notes to Schedule:

Changes in Assumptions:

The following changes were effective July 1, 2015:

- The mortality assumption for non-disabled participants was changed from the RP-2000 Combined Healthy Mortality Table projected generationally using Scale AA to the RP-2014 Employee and Healthy Annuitant Mortality Tables with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006.
- The mortality assumption for disabled participants was changed from the RP-2000 Disabled Retiree Mortality Assumption to the RP-2014 Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally using Scale SSA-2014 2D from 2006 and set forward 5 years.

Changes in Plan Provisions:

The following changes in plan provisions were effective July 1, 2016:

- For Fire, the COLA for employees who retire under Accidental Disability was changed from 3% compounding commencing on the January 1st immediately following the participant's retirement to 3% non-compounding commencing on the January 1st immediately following the participant's retirement, the accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service and the employee contribution rate was changed from 4.0% of base pay to 4.0% of gross annual earnings inclusive of base salary, longevity, EMT bonus and holiday pay.
- For Town Non-Management, the employee contribution rate decreased from 6.0% to 5.0% effective July 1, 2016, the accrual rate for service on or after July 1, 2016 was increased from 1% per year of credited service to 2% per year of credited service, and effective July 1, 2016 for employees retiring at or after age 60 with at least 25 years of credited service, the COLA is 1.7% commencing on the earlier of age 65 or the second anniversary of retirement for participants retiring on or after July 1, 2016.

EXHIBIT 3
Schedule of Contributions – Last Ten Years

	Year End June 30,									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially determined contribution	$3,623,290	$3,948,654	$3,677,200							
Contributions in relation to the actuarially determined contribution	3,623,290	4,054,721	2,792,576							
Contribution deficiency (excess)	$0	-$106,067	$884,624							
Covered-employee payroll	$8,073,529	$7,969,261	$7,837,400							
Contributions as a percentage of covered-employee payroll	44.88%	50.88%	35.63%	(Historical information prior to implementation of GASB 67/68 is not required)						

EXHIBIT 4
Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions

A. Pension expense for the year ended June 30, 2016

Service cost	$1,252,788
Interest	5,652,355
Contributions – employee	-347,245
Projected earnings on pension plan investments	-3,208,894
Administrative expenses	45,000
Recognized portion of current-period difference between expected and actual experience	204,979
Recognized portion of current-period difference between projected and actual earnings on pension plan investments	720,919
Recognized portion of current year period assumption change	0
Recognized portion of current year period plan change	1,122,120
Recognition of deferred outflows of resources	1,295,705
Recognition of deferred inflows of resources	0
Pension expense for fiscal year ended June 30, 2016	$6,737,727

B. Deferred outflows/inflows of resources related to pensions

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$1,557,695	$0
Changes of assumptions	1,406,309	0
Net difference between projected and actual earnings on pension plan investments	4,626,700	0
Total	$7,590,704	$0

C. Projected recognition of deferred outflows/(inflows)

Year Ended June 30,	Recognition
2017	$2,221,603
2018	2,221,603
2019	2,221,599
2020	925,899
Thereafter	0

EXHIBIT 5
Notes to Required Supplementary Information

Valuation date	Actuarial determined contribution for fiscal 2016 was determined with the July 1, 2014 actuarial valuation.
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level dollar closed
Remaining amortization period	26 years from July 1, 2014
Asset valuation method	Market value of assets as reported by the Town less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected return on a market value basis, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial assumptions:	
Investment rate of return	6.75%, net of pension plan investment expenses, including inflation
Discount rate	6.75%
Inflation rate	2.75%
Projected salary increases	3.5% per year
Cost of living adjustments	Cost-of-living increases for pensioners whose COLAs were based on 50% of the percentage salary increase received the previous July 1 by the active bargaining unit from which the employee retired or whose COLAs were based on the annual CPI adjustment are assumed to be 2% annually. Cost-of-living increases for all other pensioners were provided by the Town.
Plan membership:	
Retired employees and beneficiaries receiving benefits	144
Inactive employees entitled to a return of their employee contributions	4
Inactive employees with a vested right to a deferred or immediate benefit	7
Active employees	164
Total	319

Appendix A
Glossary

Definitions of certain terms *as they are used in Statement 68;* the terms may have different meanings in other contexts.

Active employees:	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual contributions:	Cash contributions recognized as additions to a pension plan's fiduciary net position.
Actuarial present value of projected benefit payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial valuation date:	The date as of which an actuarial valuation is performed.
Actuarially determined contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad hoc cost-of-living adjustments (ad hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad hoc postemployment benefit changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Agent employer:	An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.

Agent multiple-employer defined benefit pension plan (agent pension plan):	A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.
Allocated insurance contract:	A contract with an insurance company under which related payments to the insurance company are currently used to purchase immediate or deferred annuities for individual employees. Also may be referred to as an annuity contract.
Automatic cost-of-living adjustments (automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic postemployment benefit changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Closed period:	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Collective deferred outflows of resources and deferred inflows of resources related to pensions:	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective net pension liability.
Collective net pension liability:	The net pension liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

Collective pension expense:	Pension expense arising from certain changes in the collective net pension liability.
Contributions:	Additions to a pension plan's fiduciary net position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-living adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-sharing employer:	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
Cost-sharing multiple-employer defined benefit pension plan (cost-sharing pension plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-employee payroll:	The payroll of employees that are provided with pensions through the pension plan.
Deferred retirement option program (DROP):	A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.
Defined benefit pension plans:	Pension plans that are used to provide defined benefit pensions.

Defined benefit pensions: Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)

Defined contribution pension plans: Pension plans that are used to provide defined contribution pensions.

Defined contribution pensions: Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.

Discount rate: The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension plan's fiduciary net position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Entry age actuarial cost method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *normal cost.* The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the *actuarial accrued liability.*
Inactive employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement period:	The period between the prior and the current measurement dates.
Multiple-employer defined benefit pension plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net pension liability:	The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.
Nonemployer contributing entities:	Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement 68, employees are not considered nonemployer contributing entities.
Other postemployment benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.

Plan members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment:	The period after employment.
Postemployment benefit changes:	Adjustments to the pension of an inactive employee.
Postemployment healthcare benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected benefit payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public employee retirement system:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real rate of return:	The rate of return on an investment after adjustment to eliminate inflation.
Service costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single employer:	An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.
Single-employer defined benefit pension plan (single-employer pension plan):	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Special funding situations:	Circumstances in which a nonemployer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists: The amount of contributions for which the nonemployer entity legally is responsible is *not* dependent upon one or more events or circumstances unrelated to the pensions. The nonemployer entity is the only entity with a legal obligation to make contributions directly to a pension plan.

Termination benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total pension liability:	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement.