

# Municipal Employees Retirement System State of Rhode Island

Actuarial Valuation Report  
As of June 30, 2017



December 22, 2017

Retirement Board  
40 Fountain Street, First Floor  
Providence, RI 02903-1854

Dear Members of the Board:

**Subject: Actuarial Valuation as of June 30, 2017**

This is the June 30, 2017 actuarial valuation of the Municipal Employees' Retirement System (MERS). This report describes the current actuarial condition of MERS, determines recommended employer contribution rates, and analyzes changes in these contribution rates. Separate liabilities and contribution rates are determined for each of the participating units. Valuations are prepared annually as of June 30, the last day of the plan year.

Under Rhode Island General Laws, the employer contribution rates for the units participating in MERS are certified annually by the State of Rhode Island Retirement Board. These rates are determined actuarially, based on the plan provisions in effect as of the valuation date and the actuarial assumptions and methodology adopted by the Board. Where known, we have also reflected adoption of a COLA provision even if the effective date is after the valuation date. The Board's current policy is that the contribution rates determined by a given actuarial valuation become effective two years after the valuation date. For example, the rates determined by this June 30, 2017 actuarial valuation will be applicable for the year beginning July 1, 2019 and ending June 30, 2020.

**FINANCING OBJECTIVES AND FUNDING POLICY**

The actuarial cost method and the amortization periods are set by board policy. Normal cost rate (as a percent of pay) and actuarial accrued liabilities are computed using the Entry Age Normal actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. The employer normal cost rate is the difference between the normal cost rate and the member contribution rate. The amortization rate, also determined as a level percent of pay, is the amount required to amortize the unfunded actuarial accrued liability over a closed period. The amortization rate is adjusted for the two-year deferral in contribution rates.

### **PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. The funded ratio of the average unit in MERS is 78.6%, which is a decrease from 83.0% in the prior valuation resulting primarily from the impact of the assumption changes discussed later. The funded status alone is not appropriate for assessing the need for future contributions for a given unit. The funded status is also not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.00% on the actuarial valuation of assets), it is expected that:

1. The employer normal cost as a percentage of pay will decrease to the level of the newest tier as the old tier population declines and is replaced by new tier members,
2. The amortization payment as a percentage of pay will increase through fiscal year 2024 as annual payments begin for each of the five staggered bases established in connection with the experience study after which they will remain level through fiscal year 2038, and
3. In the absence of benefit improvements, the funded ratio should increase over time, until it reaches 100%

There are currently 117 units participating in MERS, 69 covering general employees and 48 covering police and/or fire employees. Of these 117 units, 86 had their rate increase, 23 had their rate decrease, and there is 1 new unit this year. Seven units have no required contribution rate, while East Smithfield Water, East Greenwich Fire (admin), Westerly and Barrington Fire (20) have fixed dollar contributions. Of the 69 continuing general employee units, 43 had rate increases, while 43 of the 47 continuing police/fire units had rate increases. An analysis of the changes in the employer contribution rates appears on Table 5. The primary cause of the rate increases was the change in assumption effective with the June 30, 2017 valuation as well as asset losses on an actuarial value of assets basis. The actuarial value of assets returned 6.0% which is lower than the assumed rate of 7.00%.

### **BENEFIT PROVISIONS**

The benefit provisions reflected in this valuation are those which were in effect on June 30, 2017. There have been no material changes to the benefit provisions since the preceding valuation. We have also reflected the known adoption of COLA B or COLA C, even if the effective date and/or the adoption date occurred after the valuation date. The benefit provisions are summarized in Appendix B, and each unit's individual election is indicated by a code in column 4 on Table 1. Changes in elections are discussed on page 5.

#### **ASSUMPTIONS AND METHODS**

The assumptions have been updated from the last actuarial valuation based on the 2017 Actuarial Experience Investigation Study approved by the Board on May 15, 2017. Below is a summary of the changes made to the assumptions:

1. Decrease the general inflation assumption from 2.75% to 2.50%.
2. Decrease the nominal investment return assumption from 7.50% to 7.00%.
3. Decrease the general wage growth assumption from 3.25% to 3.00%.
4. Changes to salary increase assumptions:
  - a. For General MERS Employees, lower the ultimate component of the salary schedules from 3.50% to 3.25%. Slight change in step rates.
  - b. For MERS Public Safety Employees, no change to the current 4.00% ultimate component.
5. Reduce the payroll growth rate assumption from 3.25% (general) and 3.50% (police/fire) to 3.00%.
6. Decrease the assumption for the contingent post-retirement benefit adjustments to be 2.10% per year.
7. Update the post-retirement mortality tables to variants of the RP-2014 table. For the improvement scale, update to the ultimate rates of the MP-2016 projection scale.
8. For General MERS retirement rates, decrease the probability of retirement during the first year of eligibility and decrease the load at first eligibility for MERS PF.
9. Slightly modify the rates of disability for most groups based on the experience of the individual group.

The impact on contribution rates would be uniformly reflected in the contribution rates over the five year period beginning with the Fiscal Year 2020 contribution rates. The change in the normal cost will be fully reflected in the Fiscal Year 2020 contribution rates. The impact from the increase in UAAL will be spread over the five years in such a way to create approximately the same increase in contribution rate each of the five years. Each new layer will be over a maximum of 20 years with each successive layer having one less year of amortization, and each individual MERS unit will have its own schedule.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities and the calculated contribution rates.

All assumptions and methods are described in Appendix A. The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in GASB 67.

**DATA**

The System's staff supplied data for retired, active and inactive members as of June 30, 2017. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. The System's staff also supplied asset data as of June 30, 2017.

**CERTIFICATION**

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Rhode Island state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The undersigned are independent actuaries. All are Members of the American Academy of Actuaries. They all meet the Qualification Standards of the American Academy of Actuaries and they are experienced in performing valuations for large public retirement systems.

Respectfully submitted,



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## ACTUARIAL STANDARDS OF PRACTICE DISCLOSURE STATEMENTS

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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose described above. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

The valuation was based upon information furnished by the System's staff, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the System's staff.

The developed findings included in this report consider data or other information through June 30, 2017.

This is one of multiple documents comprising the actuarial report. The other document comprising the actuarial report is a PowerPoint presentation presented to the Board of Trustees following the publication of this report.

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# SECTION I

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## DISCUSSION



## Discussion (Contribution Rates)

The employer contribution rates for MERS are determined actuarially. The rates determined in this valuation become effective two years after the valuation date, in this case as of July 1, 2019.

Each rate consists of two pieces: the employer normal cost rate and the amortization rate. The normal cost and actuarial accrued liability are determined using the Entry Age actuarial cost method. The employer normal cost is the difference between (i) the normal cost rate, determined as a level percent of pay, and (ii) the member contribution rate. The unfunded actuarial accrued liability (UAAL) is amortized as a level percent of payroll over a closed period. For underfunded units, the period is 25 years as measured from June 30, 2010, or 19 years as of the current valuation date for any existing UAAL. In conjunction with the Article 21 legislation, employers were given the option to extend the amortization period for the UAAL existing as of June 30, 2014 to 25 years as measured from June 30, 2014. All new experience gains and losses for underfunded units are amortized over individual closed periods of 20 years using the process of “laddering”. Generally, overfunded plans will have an amortization rate calculated using a single base amortized over an open period of 20 years. However, the impact of the experience study was divided into separate “stagers” with the payment the first beginning in FY2020 over a 20 year period. Other stagers will begin payment in FY2021 through FY2024 with amortization periods also equal to 20 years (e.g. the FY2024 stagger will have a 20 year amortization period). The amortization rate is adjusted for the fact that the contribution rate set by this valuation is deferred for two years, and other amortization rates may apply for the next two years.

Table 1 shows the member contribution rate, the employer normal cost rate, the amortization rate and the total employer contribution rate. These rates are applicable to the fiscal year ending June 30, 2020. Table 2 compares the total employer contribution rate with those rates determined in the two prior actuarial valuations. Table 3 shows the components used to determine the employer contribution rate in dollar amounts. Finally, Table 5 shows the major components of the rate change for each unit.

## Discussion (Financial Data and Experience)

Assets for MERS are held in trust and are commingled with those of several other plans and programs—including the Employees' Retirement System of Rhode Island—for investment purposes. The State Investment Commission is responsible for setting the asset allocation policy and for investing the funds. The System's staff determines a reserve for each unit, reflecting that unit's contributions and benefit payments, and reflecting the unit's share of the earnings, determined on a market-value basis.

Table 6a shows the development of the actuarial value of assets in aggregate. The actuarial value of assets is determined by recognizing any difference between actual return and expected return (7.00% of market value) over a five-year period, 20% in each year, where gains and losses are allowed to offset each other immediately. The market value for MERS as of June 30, 2017 was \$1,480 million while the actuarial value was \$1,505 million (101.7% of market). Therefore, a cumulative total of \$25 million in actuarial loss related to the investment experience in 2016 continues to be deferred and will be recognized over the next three valuations. Recognition of this deferred loss will, all other things being equal, result in contribution rates slightly increasing over the next three years.

Table 4a shows the market and actuarial values of assets for each unit and Table 4b shows the reconciliation of the market value of assets for each unit for the fiscal year ending June 30, 2017. Table 6b shows a historical summary of the return rates. The fund earned 11.6% during the year ending June 30, 2017 on a market value basis and returned 6.0% on an actuarial value basis. The average annual return based on the market value of assets over the last ten years (July 1, 2007 – June 30, 2017) was 4.2%. This is less than the current 7.00% annual investment return assumption used. The average annual return based on the actuarial value of assets over the same period was 5.5%. The returns above are net of both investment and administrative expenses, so they may differ from other information provided by the General Treasurer's office or the investment managers and advisors.

The System's staff provided all of the financial information used in this report.

## Discussion (Member Data)

The System's staff supplied member data as of June 30, 2017. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall. Information provided for active members includes: name, identification number, sex, a code indicating whether the member was active or inactive, date of birth, service, salary, unit indicator, date of last contribution, accumulated member contributions without interest, accrued benefit multiplier as of June 30, 2017, Final Average Compensation as of June 30, 2012, and the Rhode Island Retirement Security Act Retirement Date. For retired members, data includes: name, an identification number, sex, date of birth, date of retirement, amount of benefit, the amount of adjustment after age 62 for anyone electing the Social Security option, a code indicating the option elected and the type of retiree (service retiree, disabled retiree, beneficiary), and if applicable, the joint pensioner's date of birth and sex. For the special survivor benefit provided to retired police and fire members, we have not been provided demographic information on possible spouses who will be eligible for that benefit. For this valuation, we have assumed 80% of members will be married and 10% of married members will choose option 1 or 2. The 80% was derived from analyzing two other large GRS clients with similar demographics and benefit provisions. One data set showed 84% of retirees with spousal information and the other 77%.

Table 9 shows active member statistics for each unit, and Table 10 shows statistics on retirees and beneficiaries for each unit. Tables 11 and 12 show the distribution of active members by age and service, separately for general employees and for police and fire employees. Tables 13, 14, and 15 show summaries of the total membership data for general employee units (Table 13), for police and fire units (Table 14), and for all MERS units (Table 15).

The total payroll shown on the statistical tables is the amount that was supplied by the System's staff, annualized if necessary. For the cost calculations, the pays were adjusted in accordance with the actuarial assumptions to reflect one year's salary increase.

## Discussion (Benefit Provisions)

Appendix B includes a summary of the benefit provisions for MERS. There were no material changes in the benefit provisions since the preceding valuation.

Individual units may elect certain optional provisions, including an annual benefit increase applicable to future retirees only (COLA C), the same increase applicable to both current and future retirees (COLA B). There were no other changes reflected in this valuation.

No units closed, withdrew or subdivided since the prior valuation.

There are no ancillary benefits—e.g., cost of living benefits—that are currently provided by a source independent of MERS but that might be deemed a MERS liability if continued beyond the availability of funding by the current funding source.

## Discussion (Actuarial Methods and Assumptions)

Appendix A of this report includes a summary of the actuarial assumptions and methods used in this valuation.

Costs are determined using the Entry Age Normal actuarial cost method. This method was initially adopted effective June 30, 1999 and was modified, effective June 30, 2011, to be consistent with the Act and the standards outlined in GASB Statement No. 67 exposure draft, which has now been finalized.

The method used to determine the actuarial value of assets is the five-year smoothed market method. This technique is further described in Section III of Appendix A. The development of the actuarial value of assets utilizing this method is shown in Table 6a of this report.

The assumptions have been updated from the last actuarial valuation based on the 2017 Actuarial Experience Investigation Study approved by the Board on May 15, 2017. Below is a summary of the changes made to the assumptions:

1. Decrease the general inflation assumption from 2.75% to 2.50%.
2. Decrease the nominal investment return assumption from 7.50% to 7.00%.
3. Decrease the general wage growth assumption from 3.25% to 3.00%.
4. Changes to salary increase assumptions:
  - a. For General MERS Employees, lower the ultimate component of the salary schedules from 3.50% to 3.25%. Slight change in step rates.
  - b. For MERS Public Safety Employees, no change to the current 4.00% ultimate component.
5. Reduce the payroll growth rate assumption from 3.25% (general) and 3.50% (MERS PF) to 3.00%.
6. Decrease the assumption for the contingent post-retirement benefit adjustments to be 2.10% per year.
7. Update the post-retirement mortality tables to variants of the RP-2014 table. For the improvement scale, update to the ultimate rates of the MP-2016 projection scale.
8. For General MERS retirement rates, decrease the probability of retirement during the first year of eligibility, and decrease the load at first eligibility for MERS PF.
9. Slightly modify the rates of disability for most groups based on the experience of the individual group.

The impact on contribution rates would be uniformly reflected in the contribution rates over the five year period beginning with the Fiscal Year 2020 contribution rates. The change in the normal cost will be fully reflected in the Fiscal Year 2020 contribution rates. The impact from the increase in UAAL will be spread over the five years in such a way to create approximately the same increase in contribution rate each of the five years. Each new layer will be over a maximum of 20 years and each individual MERS unit will have its own schedule.

We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ERSRI.

## Discussion (Other Observations and Comments)

- Westerly (1622/1623) has no active members, but does have retirees/beneficiaries and an inactive member covered by MERS. The actuarial value of assets is less than the actuarial liability; therefore, a special contribution will be made in next few years to amortize the unfunded liability. Based on the June 30, 2012 actuarial valuation, a fixed contribution amount of \$181,261 per year was calculated to amortize the UAAL over a 5-year period. Continued contributions of this amount will amortize the UAAL as of June 30, 2017 in a period of just over 2 years.
- East Smithfield Water (1177) has no active members but does have vested members due a deferred benefit and retirees/beneficiaries. The actuarial value of assets is less than the actuarial accrued liability resulting in an unfunded liability as of June 30, 2017. Based on this unfunded liability, a fixed contribution amount of \$29,321 was calculated to amortize the UAAL over a 5 year period beginning in FY2020.
- Scituate Police (1464) has no active members, but does have retirees/beneficiaries covered by MERS. The actuarial value of assets is larger than the actuarial liability, so no funding is required.
- Tiogue Fire and Lighting (1528) has no active members, but it has an inactive member. The unit's liability is less than the actuarial value of its assets, so no funding is required.
- Albion Fire (Admin) (1702) has no active employees but it has inactive members. Its assets exceed its liabilities, and thus there is no contribution requirement for the year ending June 30, 2020.
- Barrington Fire 20 (1005) still has one active member but contributes a fixed dollar amount for FY2020. Based on the June 30, 2016 valuation, the actuarially determined contribution is \$290,396.
- Other changes made between this valuation and July 1, 2019 such as units adopting new benefits, mergers of units, spin offs from one unit into two units, etc. will also result in revisions of contribution rates.

# SECTION II

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# Table 1

## Contribution Rates For Fiscal Year Ending June 30, 2020

Old Unit Number	New Unit Number	Unit	Code(s)	Member Rate	Employer Rate		Total
					Employer Normal Cost	Amortization Rate	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>General Employee Units</b>							
3002	1012 1019	Bristol	B	2.00%	6.57%	8.55%	15.12%
3003	1032 1033	Burrillville	C	2.00%	7.37%	(0.06%)	7.31%
3004	1052	Central Falls		1.00%	5.27%	7.85%	13.12%
3005	1082	Charlestown	C	2.00%	7.20%	0.53%	7.73%
3007	1112 1113	Cranston	B	2.00%	7.92%	2.18%	10.10%
3008	1122 1123	Cumberland		1.00%	7.24%	3.71%	10.95%
3009	1152 1153	East Greenwich	C	2.00%	7.18%	(2.67%)	4.51%
3010	1162 1163	East Providence	B	2.00%	7.08%	14.16%	21.24%
3011	1183	Exeter/West Greenwich	B	2.00%	7.91%	5.26%	13.17%
3012	1192 1193	Foster		1.00%	7.63%	4.22%	11.85%
3013	1212 1213	Glocester	C	2.00%	7.29%	3.68%	10.97%
3014	1262	Hopkinton	C	2.00%	7.09%	(3.63%)	3.46%
3015	1272 1273	Jamestown	C	2.00%	6.95%	3.36%	10.31%
3016	1282 1283	Johnston	C	2.00%	7.58%	8.98%	16.56%
3017	1302 1303	Lincoln		1.00%	8.80%	3.24%	12.04%
3019	1322 1323	Middletown	C	2.00%	6.99%	4.39%	11.38%
3021	1352 1353 1354	Newport	B	2.00%	6.74%	15.26%	22.00%
3022	1342 1343	New Shoreham	B	2.00%	6.67%	0.61%	7.28%
3023	1372 1373	North Kingstown	C	2.00%	7.26%	10.46%	17.72%
3024	1382 1383	North Providence		1.00%	6.99%	(0.83%)	6.16%
3025	1392 1393	North Smithfield	B	2.00%	6.89%	(2.04%)	4.85%
3026	1412 1413	Pawtucket	C	2.00%	6.89%	9.05%	15.94%
3027	1515	Union Fire District		1.00%	7.19%	0.51%	7.70%
3029	1452	Richmond		1.00%	7.17%	2.69%	9.86%
3030	1462 1463	Scituate	B	2.00%	7.10%	9.57%	16.67%
3031	1472 1473	Smithfield	C	2.00%	7.31%	1.24%	8.55%
3032	1492 1493	South Kingstown	B	2.00%	7.41%	4.75%	12.16%
3033	1532 1533	Tiverton	C	2.00%	7.26%	(4.29%)	2.97%
3034	1562	Warren	C	2.00%	6.05%	4.58%	10.63%
3037	1602	West Greenwich	C	2.00%	6.76%	8.39%	15.15%
3039	1632 1633	Woonsocket	B	2.00%	7.02%	3.73%	10.75%
3040	1073	Chariho School District	C	2.00%	7.09%	3.81%	10.90%
3041	1203	Foster/Glocester	B	2.00%	7.58%	3.55%	11.13%
3043	1336	Narragansett Housing	C	2.00%	7.37%	(4.19%)	3.18%
3045	1098	Coventry Lighting District	C	2.00%	5.67%	(107.00%)	0.00%
3046	1242	Hope Valley Fire	C	2.00%	4.75%	(5.69%)	0.00%
3050	1156	East Greenwich Housing	C	2.00%	8.03%	1.05%	9.08%
3051	1116	Cranston Housing	C	2.00%	7.26%	(3.45%)	3.81%
3052	1166	East Providence Housing	B	2.00%	7.75%	3.35%	11.10%
3053	1416	Pawtucket Housing	B	2.00%	6.71%	(9.51%)	0.00%
3056	1126	Cumberland Housing	C	2.00%	7.05%	0.01%	7.06%
3057	1306	Lincoln Housing	B	2.00%	5.42%	1.02%	6.44%
3059	1016	Bristol Housing		1.00%	7.09%	(8.18%)	0.00%
3065	1036	Burrillville Housing	B	2.00%	5.37%	4.34%	9.71%
3066	1386	North Providence Housing	B	2.00%	7.19%	18.90%	26.09%

# Table 1

## Contribution Rates For Fiscal Year Ending June 30, 2020

Old Unit Number	New Unit Number	Unit	Code(s)	Member Rate	Employer Rate		
					Employer Normal Cost	Amortization Rate	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3068	1227	Greenville Water	B	2.00%	6.88%	(4.83%)	2.05%
3069	1356	Newport Housing	C	2.00%	6.38%	12.86%	19.24%
3071	1566	Warren Housing	B	2.00%	5.62%	(3.13%)	2.49%
3072	1286	Johnston Housing		1.00%	6.88%	5.86%	12.74%
3077	1538	Tiverton Local 2670A	C	2.00%	6.60%	1.29%	7.89%
3078	1002 1003 1007 1009	Barrington COLA	C	2.00%	7.39%	2.70%	10.09%
3079	1096	Coventry Housing		1.00%	7.40%	0.07%	7.47%
3080	1496	South Kingstown Housing	C	2.00%	7.22%	(5.70%)	1.52%
3081	1403	N. RI Collaborative Adm. Services	C	2.00%	6.45%	5.64%	12.09%
3083	1616	West Warwick Housing	B	2.00%	5.89%	9.62%	15.51%
3084	1476	Smithfield Housing		1.00%	6.64%	(6.14%)	0.50%
3094	1478	Smithfield COLA	C	2.00%	7.24%	3.45%	10.69%
3096	1056	Central Falls Housing	C	2.00%	6.42%	7.30%	13.72%
3098	1293	Lime Rock Administrative Services		1.00%	7.17%	7.19%	14.36%
3099	1063	Central Falls Schools	C	2.00%	6.32%	1.74%	8.06%
3100	1023	Bristol/Warren Schools	B	2.00%	6.91%	7.15%	14.06%
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	2.00%	7.18%	(2.67%)	4.51%
3102	1712	Harrisville Fire District (ADMIN)	C	2.00%	7.36%	(1.67%)	5.69%
1802	1802	Pascoag Fire District (ADMIN) COLA	C	2.00%	5.17%	10.50%	15.67%
<b>General Employee Units Averages</b>				1.90%	7.14%	5.29%	12.43%
<b>Police &amp; Fire Units</b>							
4016	1285	Johnston Fire	D	9.00%	9.69%	0.91%	10.60%
4029	1454	Richmond Police	6	9.00%	8.96%	2.69%	11.65%
4031	1474	Smithfield Police	C,D	10.00%	10.34%	2.06%	12.40%
4042	1555	Valley Falls Fire	D	9.00%	9.77%	10.55%	20.32%
4047	1395 1435	North Smithfield Voluntary Fire	B,D	10.00%	11.09%	6.07%	17.16%
4050	1155	East Greenwich Fire	C,D	10.00%	10.57%	19.72%	30.29%
4054	1154	East Greenwich Police	C,D	10.00%	11.23%	19.09%	30.32%
4055	1375	North Kingstown Fire	C,D	10.00%	10.72%	21.27%	31.99%
4056	1374	North Kingstown Police	C,D	10.00%	10.43%	20.60%	31.03%
4058	1385	North Providence Fire	D	9.00%	10.31%	17.07%	27.38%
4059	1008	Barrington Fire (25)	C	10.00%	9.42%	1.05%	10.47%
4060	1004	Barrington Police	C,D	10.00%	10.55%	24.65%	35.20%
4062	1564 1565	Warren Police & Fire	C,D	10.00%	11.31%	16.50%	27.81%
4063	1494	South Kingstown Police	B,1	10.00%	10.54%	16.82%	27.36%
4076	1394	North Smithfield Police	C,D	10.00%	10.20%	13.45%	23.65%
4077	1534	Tiverton Fire	C,D	10.00%	10.73%	12.22%	22.95%
4082	1194	Foster Police	C,D	10.00%	11.63%	18.91%	30.54%
4085	1634	Woonsocket Police	C,D	10.00%	10.57%	20.66%	31.23%
4086	1084	Charlestown Police	C,D	10.00%	10.95%	20.78%	31.73%
4087	1264	Hopkinton Police	C,D,6	10.00%	10.73%	21.45%	32.18%
4088	1214	Glocester Police	C,D	10.00%	11.71%	11.78%	23.49%
4089	1604	West Greenwich Police/Rescue	C,D	10.00%	12.18%	8.86%	21.04%

# Table 1

## Contribution Rates For Fiscal Year Ending June 30, 2020

Old Unit Number	New Unit Number	Unit	Code(s)	Member Rate	Employer Rate		Total
					Employer Normal Cost	Amortization Rate	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
4090	1034	Burrillville Police	C,D,6	10.00%	11.66%	10.37%	22.03%
4091	1148	Cumberland Rescue	C,D	10.00%	11.35%	(2.49%)	8.86%
4093	1635	Woonsocket Fire	C,D	10.00%	10.96%	2.96%	13.92%
4094	1015	Bristol Fire	D	9.00%	14.00%	6.46%	20.46%
4095	1135	Cumberland Hill Fire	C,D	10.00%	10.89%	21.22%	32.11%
4096	1014	Bristol Police	C,D	10.00%	10.14%	(1.04%)	9.10%
4098	1095	Coventry Fire	C,D	10.00%	10.32%	18.40%	28.72%
4099	1505	South Kingstown EMT	C,D	10.00%	11.25%	(4.41%)	6.84%
4101	1365	North Cumberland	C,D	10.00%	12.64%	14.13%	26.77%
4102	1045 1235 1525 1585	Central Coventry Fire	C,D	10.00%	10.70%	18.55%	29.25%
4103	1255	Hopkins Hill Fire	C,D	10.00%	13.25%	1.00%	14.25%
4104	1114	Cranston Police	C,D,4	10.00%	10.32%	4.79%	15.11%
4105	1115	Cranston Fire	C,D,4	10.00%	10.95%	(3.15%)	7.80%
4106	1125	Cumberland Fire	B,D	10.00%	11.10%	12.87%	23.97%
4107	1305	Lincoln Rescue	C	10.00%	10.10%	12.61%	22.71%
4108	1344	New Shoreham Police	B,D	10.00%	11.03%	10.26%	21.29%
4109	1324	Middletown Police & Fire	C,D	10.00%	9.82%	0.04%	9.86%
4110	1715	Harrisville Fire District	C,D	10.00%	11.14%	(3.86%)	7.28%
4111	1705	Albion Fire District	C	10.00%	10.73%	7.92%	18.65%
1284	1284	Johnston Police		9.00%	9.41%	(0.46%)	8.95%
1364	1364	Newport Police Dept		9.00%	9.56%	(0.69%)	8.87%
1465	1465	Smithfield Fire	C	10.00%	10.11%	(1.24%)	8.87%
1484	1484	Scituate Police Dept COLA	C,2	10.00%	9.12%	(0.27%)	8.85%
1805	1805	Pascoag Fire District COLA	C	10.00%	10.27%	14.53%	24.80%
<b>Police &amp; Fire Units Averages</b>				9.90%	10.63%	8.68%	19.31%
<b>All MERS Units Averages</b>				4.27%	8.17%	6.29%	14.46%

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan provi

5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

# Table 2

## Comparison of Employer Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Contribution Rates			Projected Payroll, Projected from Actual FY2017 Payroll			Estimated Contributions		
				June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018	For FY2020	For FY2019	For FY2018	June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<b>General Employee Units</b>												
3002	1012 1019	Bristol	B	15.12%	14.98%	14.50%	\$ 5,805,909	\$ 5,636,805	\$ 5,472,626	\$ 877,853	\$ 844,393	\$ 793,531
3003	1032 1033	Burrillville	C	7.31%	7.39%	7.40%	6,805,641	6,607,419	6,414,970	497,492	488,288	474,708
3004	1052	Central Falls		13.12%	14.36%	12.59%	2,332,948	2,264,998	2,199,027	306,083	325,254	276,858
3005	1082	Charlestown	C	7.73%	7.51%	7.36%	2,588,785	2,513,384	2,440,178	200,113	188,755	179,597
3007	1112 1113	Cranston	B	10.10%	9.53%	8.75%	26,509,852	25,737,720	24,988,078	2,677,495	2,452,805	2,186,457
3008	1122 1123	Cumberland		10.95%	11.51%	11.92%	10,168,500	9,872,330	9,584,787	1,113,451	1,136,305	1,142,507
3009	1152 1153	East Greenwich	C	4.51%	4.56%	4.43%	1,386,233	1,345,857	1,306,657	62,542	61,374	57,825
3010	1162 1163	East Providence	B	21.24%	22.13%	23.09%	20,608,216	20,007,977	19,425,220	4,377,185	4,427,765	4,485,283
3011	1183	Exeter/West Greenwich	B	13.17%	11.69%	11.64%	3,148,284	3,056,586	2,967,560	414,629	357,315	345,424
3012	1192 1193	Foster		11.85%	10.23%	11.74%	1,436,810	1,394,961	1,354,331	170,262	142,705	158,998
3013	1212 1213	Glocester	C	10.97%	10.69%	10.40%	2,783,799	2,702,718	2,623,998	305,383	288,921	272,896
3014	1262	Hopkinton	C	3.46%	2.16%	2.22%	1,927,661	1,871,516	1,817,006	66,697	40,425	40,338
3015	1272 1273	Jamestown	C	10.31%	10.43%	10.35%	4,616,925	4,482,451	4,351,894	476,005	467,520	450,421
3016	1282 1283	Johnston	C	16.56%	16.13%	15.98%	8,764,277	8,509,007	8,261,172	1,451,364	1,372,503	1,320,135
3017	1302 1303	Lincoln		12.04%	11.67%	11.96%	1,177,081	1,142,797	1,109,511	141,721	133,364	132,698
3019	1322 1323	Middletown	C	11.38%	11.25%	10.52%	5,892,254	5,720,635	5,554,014	670,538	643,571	584,282
3021	1352 1353 1354	Newport	B	22.00%	21.96%	22.74%	14,158,232	13,745,856	13,345,491	3,114,811	3,018,590	3,034,765
3022	1342 1343	New Shoreham	B	7.28%	6.50%	6.82%	2,471,468	2,399,484	2,329,596	179,923	155,966	158,878
3023	1372 1373	North Kingstown	C	17.72%	17.64%	17.08%	12,834,964	12,461,130	12,098,185	2,274,356	2,198,143	2,066,370
3024	1382 1383	North Providence		6.16%	5.91%	5.41%	7,948,279	7,716,776	7,492,015	489,614	456,061	405,318
3025	1392 1393	North Smithfield	B	4.85%	5.57%	4.58%	4,130,764	4,010,450	3,893,641	200,342	223,382	178,329
3026	1412 1413	Pawtucket	C	15.94%	15.39%	14.83%	22,361,372	21,710,070	21,077,738	3,564,403	3,341,180	3,125,829
3027	1515	Union Fire District		7.70%	7.46%	7.29%	368,665	357,927	347,502	28,387	26,701	25,333
3029	1452	Richmond		9.86%	7.78%	8.37%	1,237,619	1,201,572	1,166,575	122,029	93,482	97,642
3030	1462 1463	Scituate	B	16.67%	14.89%	14.57%	3,069,092	2,979,701	2,892,914	511,618	443,677	421,498
3031	1472 1473	Smithfield	C	8.55%	7.98%	7.21%	3,667,357	3,560,540	3,456,835	313,559	284,131	249,238
3032	1492 1493	South Kingstown	B	12.16%	11.77%	11.22%	13,944,387	13,538,240	13,143,922	1,695,637	1,593,451	1,474,748
3033	1532 1533	Tiverton	C	2.97%	2.23%	1.35%	3,703,833	3,595,954	3,491,218	110,004	80,190	47,131
3034	1562	Warren	C	10.63%	11.40%	11.38%	2,349,310	2,280,884	2,214,450	249,732	260,021	252,004
3037	1602	West Greenwich	C	15.15%	14.41%	14.88%	1,233,749	1,197,815	1,162,927	186,913	172,605	173,044
3039	1632 1633	Woonsocket	B	10.75%	10.77%	10.11%	14,094,832	13,684,303	13,285,731	1,515,194	1,473,799	1,343,187
3040	1073	Chariho School District	C	10.90%	10.49%	10.39%	6,013,790	5,838,631	5,668,574	655,503	612,472	588,965
3041	1203	Foster/Glocester	B	11.13%	10.30%	10.68%	2,193,017	2,129,142	2,067,128	244,083	219,302	220,769
3042	1528	Tiogue Fire & Lighting	C,5	0.00%	N/A	0.00%	-	-	-	-	N/A	-
3043	1336	Narragansett Housing	C	3.18%	4.00%	4.06%	202,034	196,150	190,437	6,425	7,846	7,732
3045	1098	Coventry Lighting District	C	0.00%	0.00%	0.00%	49,282	47,847	46,453	-	-	-
3046	1242	Hope Valley Fire	C	0.00%	0.00%	0.00%	157,027	152,453	148,013	-	-	-
3050	1156	East Greenwich Housing	C	9.08%	8.90%	8.95%	582,981	566,001	549,516	52,935	50,374	49,182
3051	1116	Cranston Housing	C	3.81%	4.29%	5.75%	1,201,951	1,166,943	1,132,954	45,794	50,062	65,145

## Table 2

### Comparison of Employer Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Contribution Rates			Projected Payroll, Projected from Actual FY2017 Payroll			Estimated Contributions		
				June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018	For FY2020	For FY2019	For FY2018	June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
3052	1166	East Providence Housing	B	11.10%	14.74%	11.63%	888,409	862,533	837,411	98,613	127,137	97,391
3053	1416	Pawtucket Housing	B	0.00%	0.00%	0.00%	3,156,259	3,064,329	2,975,077	-	-	-
3056	1126	Cumberland Housing	C	7.06%	7.41%	6.36%	574,882	558,138	541,882	40,587	41,358	34,464
3057	1306	Lincoln Housing	B	6.44%	6.76%	8.83%	581,458	564,523	548,080	37,446	38,162	48,395
3065	1036	Burrillville Housing	B	9.71%	7.07%	7.42%	251,011	243,700	236,602	24,373	17,230	17,556
3066	1386	North Providence Housing	B	26.09%	28.05%	28.81%	319,550	310,242	301,206	83,370	87,023	86,777
3067	1177	East Smithfield Water	C	5.01%	0.57%	0.63%	92,958	90,251	87,622	4,657	514	552
3068	1227	Greenville Water	B	2.05%	1.65%	1.93%	338,094	328,246	318,686	6,931	5,416	6,151
3069	1356	Newport Housing	C	19.24%	18.21%	16.92%	1,903,594	1,848,150	1,794,320	366,252	336,548	303,599
3071	1566	Warren Housing	B	2.49%	0.48%	3.10%	241,370	234,340	227,514	6,010	1,125	7,053
3072	1286	Johnston Housing	B	12.74%	10.72%	9.97%	493,082	478,720	464,777	62,819	51,319	46,338
3077	1538	Tiverton Local 2670A	C	7.89%	8.01%	8.16%	1,140,089	1,106,883	1,074,643	89,953	88,661	87,691
3078	1002 1003 1007 1009	Barrington COLA	C	10.09%	9.04%	8.73%	8,512,161	8,264,234	8,023,528	858,877	747,087	700,454
3079	1096	Coventry Housing	C	7.47%	6.99%	7.13%	712,494	691,742	671,594	53,223	48,353	47,885
3080	1496	South Kingstown Housing	C	1.52%	0.00%	0.18%	211,856	205,685	199,694	3,220	-	359
3081	1403	N. RI Collaborative Adm. Services	C	12.09%	11.97%	11.18%	1,060,235	1,029,354	999,373	128,182	123,214	111,730
3083	1616	West Warwick Housing	B	15.51%	15.46%	14.15%	339,376	329,492	319,895	52,637	50,939	45,265
3084	1476	Smithfield Housing	C	0.50%	0.00%	0.00%	165,242	160,429	155,756	826	-	-
3094	1478	Smithfield COLA	C	10.69%	8.82%	8.76%	4,240,173	4,116,673	3,996,770	453,275	363,091	350,117
3096	1056	Central Falls Housing	C	13.72%	11.29%	11.62%	1,122,944	1,090,237	1,058,482	154,068	123,088	122,996
3098	1293	Lime Rock Administrative Services	C	14.36%	11.76%	13.66%	108,108	104,959	101,902	15,524	12,343	13,920
3099	1063	Central Falls Schools	C	8.06%	8.02%	7.15%	4,520,574	4,388,907	4,261,075	364,358	351,990	304,667
3100	1023	Bristol/Warren Schools	B	14.06%	14.85%	15.05%	4,853,911	4,712,535	4,575,276	682,460	699,811	688,579
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	4.51%	4.56%	4.43%	6,554,735	6,363,821	6,178,467	295,727	290,206	273,425
3102	1712	Harrisville Fire District (ADMIN)	C	5.69%	4.16%	5.80%	281,700	273,495	265,529	16,029	11,377	15,401
1802	1802	Pascoag Fire District (ADMIN) COLA	C	15.67%	13.24%	N/A	60,486	58,724	N/A	9,478	7,775	N/A
<b>General Employee Units Average</b>				12.43%	12.23%	11.99%	\$ 267,135,684	\$ 259,355,033	\$ 251,743,989	\$ 33,278,971	\$ 31,756,468	\$ 30,297,828
<b>Police &amp; Fire Units</b>												
4016	1285	Johnston Fire	D	10.60%	7.64%	7.48%	\$ 4,669,256	\$ 4,533,258	\$ 4,401,221	\$ 494,941	\$ 346,341	\$ 329,212
4029	1454	Richmond Police	6	11.65%	9.28%	9.55%	852,794	827,956	803,841	99,351	76,834	76,767
4031	1474	Smithfield Police	C,D	12.40%	9.22%	7.23%	3,346,030	3,248,573	3,153,954	414,908	299,519	228,031
4042	1555	Valley Falls Fire	D	20.32%	18.64%	16.12%	777,557	754,910	732,922	157,999	140,715	118,147
4047	1395 1435	North Smithfield Voluntary Fire	B,D	17.16%	15.63%	15.67%	1,589,318	1,543,027	1,498,085	272,727	241,175	234,750
4050	1155	East Greenwich Fire	C,D	30.29%	29.97%	28.41%	2,916,359	2,831,417	2,748,949	883,365	848,576	780,976
4054	1154	East Greenwich Police	C,D	30.32%	28.87%	28.01%	2,580,609	2,505,446	2,432,472	782,441	723,322	681,336
4055	1375	North Kingstown Fire	C,D	31.99%	29.91%	28.71%	5,094,761	4,946,370	4,802,301	1,629,814	1,479,460	1,378,741
4056	1374	North Kingstown Police	C,D	31.03%	27.58%	26.57%	3,761,126	3,651,579	3,545,222	1,167,077	1,007,105	941,966

## Table 2

### Comparison of Employer Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Contribution Rates			Projected Payroll, Projected from Actual FY2017 Payroll			Estimated Contributions		
				June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018	For FY2020	For FY2019	For FY2018	June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018
				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
4058	1385	North Providence Fire	D	27.38%	25.46%	23.66%	5,979,590	5,805,427	5,636,337	1,637,212	1,478,062	1,333,558
4059	1008	Barrington Fire (25)	C	10.47%	7.92%	8.01%	1,621,920	1,574,680	1,528,815	169,815	124,715	122,458
4060	1004	Barrington Police	C,D	35.20%	34.80%	30.82%	1,781,048	1,729,173	1,678,809	626,929	601,752	517,409
4062	1564 1565	Warren Police & Fire	C,D	27.81%	21.73%	24.54%	1,818,167	1,765,211	1,713,797	505,632	383,580	420,566
4063	1494	South Kingstown Police	B,1	27.36%	22.27%	22.69%	3,588,800	3,484,272	3,382,788	981,896	775,948	767,554
4076	1394	North Smithfield Police	C,D	23.65%	21.12%	20.33%	1,810,958	1,758,212	1,707,002	428,292	371,334	347,033
4077	1534	Tiverton Fire	C,D	22.95%	21.93%	15.22%	1,971,479	1,914,058	1,858,308	452,455	419,753	282,834
4082	1194	Foster Police	C,D	30.54%	30.34%	25.44%	549,985	533,966	518,414	167,965	162,005	131,885
4085	1634	Woonsocket Police	C,D	31.23%	29.76%	26.71%	6,300,863	6,117,342	5,939,167	1,967,759	1,820,521	1,586,352
4086	1084	Charlestown Police	C,D	31.73%	27.74%	24.46%	1,492,354	1,448,888	1,406,687	473,524	401,921	344,076
4087	1264	Hopkinton Police	C,D,6	32.18%	29.47%	31.01%	1,083,106	1,051,559	1,020,931	348,543	309,894	316,591
4088	1214	Glocester Police	C,D	23.49%	20.49%	18.28%	1,199,630	1,164,690	1,130,767	281,793	238,645	206,704
4089	1604	West Greenwich Police/Rescue	C,D	21.04%	19.10%	18.59%	1,087,290	1,055,621	1,024,875	228,766	201,624	190,525
4090	1034	Burrillville Police	C,D,6	22.03%	21.32%	19.43%	1,651,723	1,603,614	1,556,907	363,875	341,890	302,507
4091	1148	Cumberland Rescue	C,D	8.86%	9.30%	7.98%	1,174,886	1,140,666	1,107,443	104,095	106,082	88,374
4093	1635	Woonsocket Fire	C,D	13.92%	11.60%	9.49%	7,487,095	7,269,024	7,057,305	1,042,203	843,207	669,739
4094	1015	Bristol Fire	D	20.46%	23.82%	15.71%	109,642	106,449	103,349	22,433	25,357	16,236
4095	1135	Cumberland Hill Fire	C,D	32.11%	29.47%	27.34%	850,357	825,589	801,543	273,050	243,301	219,142
4096	1014	Bristol Police	C,D	9.10%	6.48%	5.13%	2,943,675	2,857,937	2,774,696	267,874	185,194	142,342
4098	1095	Coventry Fire	C,D	28.72%	21.47%	20.35%	589,248	572,085	555,423	169,232	122,827	113,029
4099	1505	South Kingstown EMT	C,D	6.84%	4.97%	3.51%	875,305	849,810	825,059	59,871	42,236	28,960
4101	1365	North Cumberland	C,D	26.77%	24.21%	19.86%	746,657	724,910	703,796	199,880	175,501	139,774
4102	1045 1235 1525 1585	Central Coventry Fire	C,D	29.25%	26.78%	18.77%	1,963,382	1,906,196	1,850,676	574,289	510,479	347,372
4103	1255	Hopkins Hill Fire	C,D	14.25%	12.78%	11.99%	796,329	773,135	750,617	113,477	98,807	89,999
4104	1114	Cranston Police	C,D,4	15.11%	13.11%	11.35%	11,880,735	11,534,694	11,198,732	1,795,179	1,512,199	1,271,056
4105	1115	Cranston Fire	C,D,4	7.80%	5.58%	5.64%	14,160,701	13,748,253	13,347,819	1,104,534	767,153	752,817
4106	1125	Cumberland Fire	B,D	23.97%	23.38%	22.61%	1,067,732	1,036,633	1,006,439	255,935	242,365	227,556
4107	1305	Lincoln Rescue	C	22.71%	19.68%	17.54%	1,049,746	1,019,171	989,486	238,397	200,573	173,556
4108	1344	New Shoreham Police	B,D	21.29%	20.24%	20.11%	395,942	384,410	373,213	84,296	77,804	75,053
4109	1324	Middletown Police & Fire	C,D	9.86%	7.59%	6.50%	4,411,262	4,282,779	4,158,038	434,950	325,063	270,273
4110	1715	Harrisville Fire District	C,D	7.28%	3.94%	4.16%	395,556	384,035	372,850	28,796	15,131	15,511
4111	1705	Albion Fire District	C	18.65%	17.08%	18.39%	272,379	264,446	256,744	50,799	45,168	47,215
1284	1284	Johnston Police		8.95%	6.90%	7.30%	852,507	827,677	803,570	76,299	57,110	58,661

## Table 2

### Comparison of Employer Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Contribution Rates			Projected Payroll, Projected from Actual FY2017 Payroll			Estimated Contributions		
				June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018	For FY2020	For FY2019	For FY2018	June 30, 2017 Actuarial Valuation, for FY2020	June 30, 2016 Actuarial Valuation, for FY2019	June 30, 2015 Actuarial Valuation, for FY2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1364	1364	Newport Police Dept		8.87%	7.61%	N/A	471,382	457,652	444,323	41,812	34,827	N/A
1465	1465	Smithfield Fire	C	8.87%	7.16%	7.88%	900,583	874,352	848,886	79,882	62,604	66,892
1484	1484	Scituate Police Dept COLA	C,2	8.85%	N/A	N/A	179,214	173,994	168,926	15,860	N/A	N/A
1805	1805	Pascoag Fire District COLA	C	24.80%	19.33%	N/A	308,978	299,979	291,241	76,627	57,986	N/A
<b>Police &amp; Fire Units Average</b>				19.31%	17.20%	15.82%	\$ 111,408,018	\$ 108,163,125	\$ 105,012,742	\$ 21,646,850	\$ 18,545,663	\$ 16,453,531
<b>All MERS Units Average</b>				14.46%	13.69%	13.12%	\$ 378,543,702	\$ 367,518,158	\$ 356,756,731	\$ 54,925,821	\$ 50,302,130	\$ 46,751,359

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan provisions. 5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

7 - FY2017 Contribution Rates are based on Mediation as of June 30, 2014 with final re-amortization selection.

## Table 3

### Components Used in Determining Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Adjusted Compensation	Normal Cost (Total)	Actuarial Accrued Liability	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>General Employee Units</b>							
3002	1012 1019	Bristol	B	5,327,249	453,764	25,735,386	17,625,606
3003	1032 1033	Burrillville	C	6,220,873	575,503	29,947,602	28,472,997
3004	1052	Central Falls		2,223,431	139,826	7,541,673	4,940,039
3005	1082	Charlestown	C	2,406,416	219,035	8,087,589	7,604,531
3007	1112 1113	Cranston	B	23,981,130	2,329,441	152,515,642	137,901,451
3008	1122 1123	Cumberland		9,131,316	743,874	32,833,834	25,900,655
3009	1152 1153	East Greenwich	C	1,268,601	103,083	6,453,844	7,314,200
3010	1162 1163	East Providence	B	18,181,195	1,635,255	110,384,202	63,854,594
3011	1183	Exeter/West Greenwich	B	2,756,096	269,685	12,576,841	9,971,477
3012	1192 1193	Foster		1,241,845	106,047	4,569,620	3,664,094
3013	1212 1213	Glocester	C	2,622,926	242,339	10,738,783	8,971,352
3014	1262	Hopkinton	C	1,762,275	156,681	5,009,019	5,605,420
3015	1272 1273	Jamestown	C	4,011,598	357,930	16,458,870	13,830,503
3016	1282 1283	Johnston	C	8,007,390	758,044	45,097,509	31,836,200
3017	1302 1303	Lincoln		1,091,795	104,236	2,825,012	2,212,375
3019	1322 1323	Middletown	C	5,324,719	477,745	23,479,374	18,804,665
3021	1352 1353 1354	Newport	B	12,977,962	1,124,239	78,211,029	48,169,262
3022	1342 1343	New Shoreham	B	2,170,450	186,042	7,821,359	7,263,462
3023	1372 1373	North Kingstown	C	11,690,055	1,067,559	67,560,091	47,939,241
3024	1382 1383	North Providence		7,269,273	575,313	29,576,388	28,946,758
3025	1392 1393	North Smithfield	B	3,967,442	349,112	14,829,693	15,087,325
3026	1412 1413	Pawtucket	C	20,452,364	1,809,941	126,929,993	92,357,788
3027	1515	Union Fire District		337,380	24,943	829,509	781,347
3029	1452	Richmond		1,029,090	82,458	2,756,049	2,242,200
3030	1462 1463	Scituate	B	2,699,923	241,136	14,609,888	10,216,520
3031	1472 1473	Smithfield	C	3,409,186	316,327	13,987,837	12,627,938
3032	1492 1493	South Kingstown	B	12,748,030	1,178,259	66,795,027	55,467,060
3033	1532 1533	Tiverton	C	3,515,747	321,785	12,570,089	13,858,341
3034	1562	Warren	C	2,046,603	163,392	7,448,834	5,566,573
3036	1622 1623	Westerly		-	-	986,324	592,093
3037	1602	West Greenwich	C	1,170,181	101,692	4,555,770	2,894,614



### Table 3

#### Components Used in Determining Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Adjusted Compensation	Normal Cost (Total)	Actuarial Accrued Liability	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3039	1632 1633	Woonsocket	B	12,927,889	1,154,001	72,052,543	61,731,625
3040	1073	Chariho School District	C	5,471,324	494,243	22,959,694	19,036,481
3041	1203	Foster/Glocester	B	1,999,842	188,131	8,498,065	7,126,265
3042	1528	Tiogou Fire & Lighting	C,5	-	-	26,592	48,661
3043	1336	Narragansett Housing	C	184,890	17,669	538,003	617,283
3045	1098	Coventry Lighting District	C	45,100	3,479	613,108	1,213,535
3046	1242	Hope Valley Fire	C	148,674	9,959	438,219	503,733
3050	1156	East Greenwich Housing	C	525,518	52,493	1,548,913	1,408,521
3051	1116	Cranston Housing	C	1,012,520	86,269	5,441,254	5,710,626
3052	1166	East Providence Housing	B	792,316	77,308	3,708,039	3,041,295
3053	1416	Pawtucket Housing	B	2,921,358	249,222	11,800,278	14,811,111
3056	1126	Cumberland Housing	C	496,401	45,007	1,445,161	1,360,438
3057	1306	Lincoln Housing	B	532,788	40,310	1,924,732	1,699,104
3059	1016	Bristol Housing		442,702	35,111	1,754,715	2,150,493
3065	1036	Burrillville Housing	B	199,546	14,374	1,160,501	959,678
3066	1386	North Providence Housing	B	279,678	25,098	1,844,039	916,176
3067	1177	East Smithfield Water	C	-	-	1,123,396	1,014,776
3068	1227	Greenville Water	B	341,370	30,735	1,159,359	1,295,351
3069	1356	Newport Housing	C	1,661,015	136,634	10,289,004	6,815,423
3071	1566	Warren Housing	B	274,989	21,296	1,210,525	1,235,652
3072	1286	Johnston Housing		451,240	35,578	1,696,736	1,237,613
3077	1538	Tiverton Local 2670A	C	1,059,424	89,551	4,551,086	4,128,403
3078	1002 1003 1007 1009	Barrington COLA	C	7,691,853	714,296	39,146,695	34,481,917
3079	1096	Coventry Housing		635,435	53,410	1,339,583	1,262,933
3080	1496	South Kingstown Housing	C	188,030	17,018	317,538	456,648
3081	1403	N. RI Collaborative Adm. Services	C	934,259	79,727	3,962,458	3,021,425
3083	1616	West Warwick Housing	B	280,041	22,147	2,145,914	1,592,256
3084	1476	Smithfield Housing		151,220	11,739	412,595	525,474
3094	1478	Smithfield COLA	C	3,763,940	347,315	17,996,832	15,195,336

## Table 3

### Components Used in Determining Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Adjusted Compensation	Normal Cost (Total)	Actuarial Accrued Liability	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3096	1056	Central Falls Housing	C	1,030,592	87,394	3,442,458	2,203,390
3098	1293	Lime Rock Administrative Services		98,934	8,226	444,542	323,870
3099	1063	Central Falls Schools	C	4,034,221	335,332	16,960,892	15,188,167
3100	1023	Bristol/Warren Schools	B	4,407,892	391,226	23,241,573	17,083,297
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	5,962,351	550,825	22,967,222	23,230,937
3102	1712	Harrisville Fire District (ADMIN)	C	259,779	24,804	796,735	828,228
3103	1702	Albion Fire District (ADMIN)	C,5	-	-	98,945	145,902
3150	1159	East Greenwich Fire (ADMIN)	C	-	-	409,649	317,731
1802	1802	Pascoag Fire District (ADMIN) COLA	C	55,353	4,058	95,617	18,795
<b>General Employee Units Subtotal</b>				<b>\$ 242,305,025</b>	<b>\$ 21,668,671</b>	<b>\$ 1,233,375,445</b>	<b>\$ 986,459,230</b>
<b>Police &amp; Fire Units</b>							
4016	1285	Johnston Fire	D	4,334,529	845,900	9,122,284	8,069,765
4029	1454	Richmond Police	6	714,879	134,349	2,240,172	1,824,547
4031	1474	Smithfield Police	C,D	3,056,083	627,614	16,988,210	15,394,070
4042	1555	Valley Falls Fire	D	693,536	134,736	4,940,870	3,556,601
4047	1395 1435	North Smithfield Voluntary Fire	B,D	1,376,740	287,783	9,172,068	7,504,189
4050	1155	East Greenwich Fire	C,D	2,724,416	580,320	21,677,495	13,494,490
4054	1154	East Greenwich Police	C,D	2,361,627	513,468	22,236,996	15,014,562
4055	1375	North Kingstown Fire	C,D	4,644,769	955,442	47,769,621	32,155,376
4056	1374	North Kingstown Police	C,D	3,407,203	713,654	32,439,088	21,437,637
4058	1385	North Providence Fire	D	5,081,465	979,049	50,037,024	33,341,741
4059	1008	Barrington Fire (25)	C	1,443,455	293,026	3,503,996	3,035,895
4060	1004	Barrington Police	C,D	1,696,118	354,277	15,213,266	9,114,194
4061	1005	Barrington Fire (20)	C,D	66,114	12,828	10,055,711	6,130,861
4062	1564 1565	Warren Police & Fire	C,D	1,656,671	349,619	15,707,629	10,702,189
4063	1494	South Kingstown Police	B,1	3,186,649	666,421	32,503,344	23,491,716
4073	1464	Scituate Police	5	-	-	19,381	222,404
4076	1394	North Smithfield Police	C,D	1,700,805	348,286	13,362,950	9,695,313
4077	1534	Tiverton Fire	C,D	1,834,801	398,643	13,878,899	10,111,773

## Table 3

### Components Used in Determining Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Adjusted Compensation	Normal Cost (Total)	Actuarial Accrued Liability	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
4082	1194	Foster Police	C,D	473,766	107,343	4,257,094	2,745,751
4085	1634	Woonsocket Police	C,D	5,575,311	1,171,250	56,754,426	38,028,448
4086	1084	Charlestown Police	C,D	1,347,904	284,092	13,917,549	9,385,177
4087	1264	Hopkinton Police	C,D,6	1,008,112	217,943	8,759,128	5,504,962
4088	1214	Glocester Police	C,D	1,074,226	237,004	8,683,718	6,552,540
4089	1604	West Greenwich Police/Rescue	C,D	1,036,992	235,913	6,030,543	4,365,389
4090	1034	Burrillville Police	C,D,6	1,503,873	330,053	12,985,043	10,209,605
4091	1148	Cumberland Rescue	C,D	1,070,902	230,372	6,651,586	6,641,057
4093	1635	Woonsocket Fire	C,D	6,970,786	1,460,734	53,143,242	47,990,810
4094	1015	Bristol Fire	D	111,734	20,330	458,623	341,064
4095	1135	Cumberland Hill Fire	C,D	752,720	163,384	7,203,400	4,336,755
4096	1014	Bristol Police	C,D	2,764,259	580,100	7,547,763	7,566,753
4098	1095	Coventry Fire	C,D	534,759	112,804	5,058,412	3,197,453
4099	1505	South Kingstown EMT	C,D	839,105	189,698	3,887,231	4,158,336
4101	1365	North Cumberland	C,D	683,297	153,373	6,854,771	5,069,980
4102	1045 1235 1525 1585	Central Coventry Fire	C,D	1,672,585	356,902	15,041,266	9,214,578
4103	1255	Hopkins Hill Fire	C,D	686,424	159,146	3,124,663	2,819,090
4104	1114	Cranston Police	C,D,4	10,649,299	2,231,561	48,825,396	39,222,119
4105	1115	Cranston Fire	C,D,4	13,121,719	2,741,252	62,916,632	65,225,197
4106	1125	Cumberland Fire	B,D	1,026,548	225,426	6,656,653	4,442,257
4107	1305	Lincoln Rescue	C	864,581	179,804	5,766,546	3,736,362
4108	1344	New Shoreham Police	B,D	362,342	78,669	2,011,025	1,415,051
4109	1324	Middletown Police & Fire	C,D	4,122,052	853,468	7,828,712	7,345,422
4110	1715	Harrisville Fire District	C,D	361,989	74,234	1,475,795	1,589,622
4111	1705	Albion Fire District	C	240,710	49,119	1,366,053	964,678

## Table 3

### Components Used in Determining Contribution Rates

Old Unit Number	New Unit Number	Unit	Code(s)	Adjusted Compensation	Normal Cost (Total)	Actuarial Accrued Liability	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1284	1284	Johnston Police		842,175	163,814	684,852	671,757
1364	1364	Newport Police Dept		844,642	163,721	305,379	341,165
1465	1465	Smithfield Fire	C	936,463	198,441	1,209,217	1,273,676
1484	1484	Scituate Police Dept COLA	C,2	262,656	53,348	28,669	34,483
1805	1805	Pascoag Fire District COLA	C	298,669	62,483	740,233	191,930
		<b>Police &amp; Fire Units Subtotal</b>		<u>\$ 102,020,460</u>	<u>\$ 21,281,196</u>	<u>\$ 681,042,625</u>	<u>\$ 518,878,790</u>
		<b>All MERS Units Total</b>		\$ 344,325,485	\$ 42,949,867	\$ 1,914,418,070	\$ 1,505,338,020

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan pr 5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

## Table 4a

### Asset Values

Old Unit Number	New Unit Number	Unit	Code	Market Value of Assets	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)
<b>General Employee Units</b>					
3002	1012 1019	Bristol	B	\$ 17,332,361	\$ 17,625,606
3003	1032 1033	Burrillville	C	27,999,279	28,472,997
3004	1052	Central Falls		4,857,849	4,940,039
3005	1082	Charlestown	C	7,478,011	7,604,531
3007	1112 1113	Cranston	B	135,607,123	137,901,451
3008	1122 1123	Cumberland		25,469,734	25,900,655
3009	1152 1153	East Greenwich	C	7,192,510	7,314,200
3010	1162 1163	East Providence	B	62,792,216	63,854,594
3011	1183	Exeter/West Greenwich	B	9,805,577	9,971,477
3012	1192 1193	Foster		3,603,133	3,664,094
3013	1212 1213	Glocester	C	8,822,092	8,971,352
3014	1262	Hopkinton	C	5,512,160	5,605,420
3015	1272 1273	Jamestown	C	13,600,399	13,830,503
3016	1282 1283	Johnston	C	31,306,527	31,836,200
3017	1302 1303	Lincoln		2,175,567	2,212,375
3019	1322 1323	Middletown	C	18,491,803	18,804,665
3021	1352 1353 1354	Newport	B	47,367,848	48,169,262
3022	1342 1343	New Shoreham	B	7,142,617	7,263,462
3023	1372 1373	North Kingstown	C	47,141,654	47,939,241
3024	1382 1383	North Providence		28,465,158	28,946,758
3025	1392 1393	North Smithfield	B	14,836,310	15,087,325
3026	1412 1413	Pawtucket	C	90,821,190	92,357,788
3027	1515	Union Fire District		768,347	781,347
3029	1452	Richmond		2,204,896	2,242,200
3030	1462 1463	Scituate	B	10,046,543	10,216,520
3031	1472 1473	Smithfield	C	12,417,841	12,627,938
3032	1492 1493	South Kingstown	B	54,544,230	55,467,060
3033	1532 1533	Tiverton	C	13,627,774	13,858,341
3034	1562	Warren	C	5,473,959	5,566,573
3036	1622 1623	Westerly		582,242	592,093
3037	1602	West Greenwich	C	2,846,455	2,894,614
3039	1632 1633	Woonsocket	B	60,704,568	61,731,625
3040	1073	Chariho School District	C	18,719,763	19,036,481
3041	1203	Foster/Glocester	B	7,007,702	7,126,265
3042	1528	Tiogue Fire & Lighting	C,5	47,851	48,661
3043	1336	Narragansett Housing	C	607,013	617,283
3045	1098	Coventry Lighting District	C	1,193,345	1,213,535
3046	1242	Hope Valley Fire	C	495,352	503,733
3050	1156	East Greenwich Housing	C	1,385,087	1,408,521
3051	1116	Cranston Housing	C	5,615,616	5,710,626
3052	1166	East Providence Housing	B	2,990,696	3,041,295
3053	1416	Pawtucket Housing	B	14,564,692	14,811,111
3056	1126	Cumberland Housing	C	1,337,804	1,360,438

# Table 4a

## Asset Values

Old Unit Number	New Unit Number	Unit	Code	Market Value of Assets	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)
3057	1306	Lincoln Housing	B	1,670,835	1,699,104
3059	1016	Bristol Housing		2,114,714	2,150,493
3065	1036	Burrillville Housing	B	943,711	959,678
3066	1386	North Providence Housing	B	900,933	916,176
3067	1177	East Smithfield Water	C	997,893	1,014,776
3068	1227	Greenville Water	B	1,273,800	1,295,351
3069	1356	Newport Housing	C	6,702,032	6,815,423
3071	1566	Warren Housing	B	1,215,094	1,235,652
3072	1286	Johnston Housing		1,217,022	1,237,613
3077	1538	Tiverton Local 2670A	C	4,059,717	4,128,403
3078	1002 1003 1007 1009	Barrington COLA	C	33,908,226	34,481,917
3079	1096	Coventry Housing		1,241,921	1,262,933
3080	1496	South Kingstown Housing	C	449,051	456,648
3081	1403	N. RI Collaborative Adm. Services	C	2,971,156	3,021,425
3083	1616	West Warwick Housing	B	1,565,765	1,592,256
3084	1476	Smithfield Housing		516,731	525,474
3094	1478	Smithfield COLA	C	14,942,524	15,195,336
3096	1056	Central Falls Housing	C	2,166,731	2,203,390
3098	1293	Lime Rock Administrative Services		318,482	323,870
3099	1063	Central Falls Schools	C	14,935,475	15,188,167
3100	1023	Bristol/Warren Schools	B	16,799,075	17,083,297
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	22,844,433	23,230,937
3102	1712	Harrisville Fire District (ADMIN)	C	814,448	828,228
3103	1702	Albion Fire District (ADMIN)	C,5	143,475	145,902
3150	1159	East Greenwich Fire (ADMIN)	C	312,445	317,731
1802	1802	Pascoag Fire District (ADMIN) COLA	C	18,482	18,795
<b>General Employee Units Subtotal</b>				<b>\$ 970,047,065</b>	<b>\$ 986,459,230</b>
<b>Police &amp; Fire Units</b>					
4016	1285	Johnston Fire	D	\$ 7,935,505	\$ 8,069,765
4029	1454	Richmond Police	6	1,794,191	1,824,547
4031	1474	Smithfield Police	C,D	15,137,952	15,394,070
4042	1555	Valley Falls Fire	D	3,497,428	3,556,601
4047	1395 1435	North Smithfield Voluntary Fire	B,D	7,379,338	7,504,189
4050	1155	East Greenwich Fire	C,D	13,269,976	13,494,490
4054	1154	East Greenwich Police	C,D	14,764,758	15,014,562
4055	1375	North Kingstown Fire	C,D	31,620,393	32,155,376
4056	1374	North Kingstown Police	C,D	21,080,969	21,437,637
4058	1385	North Providence Fire	D	32,787,019	33,341,741
4059	1008	Barrington Fire (25)	C	2,985,385	3,035,895
4060	1004	Barrington Police	C,D	8,962,557	9,114,194
4061	1005	Barrington Fire (20)	C,D	6,028,859	6,130,861
4062	1564 1565	Warren Police & Fire	C,D	10,524,132	10,702,189
4063	1494	South Kingstown Police	B,1	23,100,874	23,491,716
4073	1464	Scituate Police	5	218,704	222,404

# Table 4a

## Asset Values

Old Unit Number	New Unit Number	Unit	Code	Market Value of Assets	Actuarial Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)
4076	1394	North Smithfield Police	C,D	9,534,008	9,695,313
4077	1534	Tiverton Fire	C,D	9,943,539	10,111,773
4082	1194	Foster Police	C,D	2,700,069	2,745,751
4085	1634	Woonsocket Police	C,D	37,395,752	38,028,448
4086	1084	Charlestown Police	C,D	9,229,032	9,385,177
4087	1264	Hopkinton Police	C,D,6	5,413,373	5,504,962
4088	1214	Glocester Police	C,D	6,443,522	6,552,540
4089	1604	West Greenwich Police/Rescue	C,D	4,292,760	4,365,389
4090	1034	Burrillville Police	C,D,6	10,039,743	10,209,605
4091	1148	Cumberland Rescue	C,D	6,530,567	6,641,057
4093	1635	Woonsocket Fire	C,D	47,192,365	47,990,810
4094	1015	Bristol Fire	D	335,390	341,064
4095	1135	Cumberland Hill Fire	C,D	4,264,602	4,336,755
4096	1014	Bristol Police	C,D	7,440,862	7,566,753
4098	1095	Coventry Fire	C,D	3,144,256	3,197,453
4099	1505	South Kingstown EMT	C,D	4,089,152	4,158,336
4101	1365	North Cumberland	C,D	4,985,628	5,069,980
4102	1045 1235 1525 1585	Central Coventry Fire	C,D	9,061,271	9,214,578
4103	1255	Hopkins Hill Fire	C,D	2,772,188	2,819,090
4104	1114	Cranston Police	C,D,4	38,569,563	39,222,119
4105	1115	Cranston Fire	C,D,4	64,140,016	65,225,197
4106	1125	Cumberland Fire	B,D	4,368,349	4,442,257
4107	1305	Lincoln Rescue	C	3,674,198	3,736,362
4108	1344	New Shoreham Police	B,D	1,391,508	1,415,051
4109	1324	Middletown Police & Fire	C,D	7,223,213	7,345,422
4110	1715	Harrisville Fire District	C,D	1,563,175	1,589,622
4111	1705	Albion Fire District	C	948,628	964,678
1284	1284	Johnston Police		660,581	671,757
1364	1364	Newport Police Dept		335,489	341,165
1465	1465	Smithfield Fire	C	1,252,485	1,273,676
1484	1484	Scituate Police Dept COLA	C,2	33,909	34,483
1805	1805	Pascoag Fire District COLA	C	188,737	191,930
<b>Police &amp; Fire Units Subtotal</b>				<b>\$ 510,245,970</b>	<b>\$ 518,878,790</b>
<b>All MERS Units Total</b>				<b>\$ 1,480,293,035</b>	<b>\$ 1,505,338,020</b>

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan prov 5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

## Table 4b

### Reconciliation of Market Assets by Unit

Old Unit Number	New Unit Number	Unit	Code (s)	Current year prior		Adjusted	Member Contributions	Employer Contributions	Service		Benefit Payments	Refunds	Net Investment Return	End of Year Account Balance
				Beginning of Year Account Balance	period adjustments	Beginning of Year Account Balance			Purchases and Others*					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
<b>General Employee Units</b>														
3002	1012 1019	Bristol	B	\$ 16,035,622	\$ (41)	\$ 16,035,581	\$ 179,150	\$ 777,795	\$ 3,225	\$ (1,486,642)	\$ -	\$ 1,823,252	\$ 17,332,361	
3003	1032 1033	Burrillville	C	26,053,428	(67)	26,053,361	200,457	505,103	(150,600)	(1,554,384)	0	2,945,342	27,999,279	
3004	1052	Central Falls	C	4,592,428	(11)	4,592,417	39,027	287,795	(53,624)	(492,682)	(26,098)	511,014	4,857,849	
3005	1082	Charlestown	C	6,666,321	(17)	6,666,304	84,753	203,506	(18)	(263,172)	0	786,638	7,478,011	
3007	1112 1113	Cranston	B	127,196,632	(326)	127,196,306	835,417	2,342,837	255,133	(9,153,105)	(134,453)	14,264,988	135,607,123	
3008	1122 1123	Cumberland	C	23,093,087	3,424	23,096,511	194,203	1,199,275	21,054	(1,685,333)	(34,860)	2,678,884	25,469,734	
3009	1152 1153	East Greenwich	C	6,874,554	(18)	6,874,536	42,978	65,206	(17)	(546,798)	0	756,605	7,192,510	
3010	1162 1163	East Providence	B	58,648,991	(151)	58,648,840	564,246	4,600,763	(426,146)	(7,160,732)	(40,088)	6,605,333	62,792,216	
3011	1183	Exeter/West Greenwich	B	8,943,259	(23)	8,943,236	73,170	353,780	(1,606)	(564,876)	(29,610)	1,031,483	9,805,577	
3012	1192 1193	Foster	C	3,310,148	(8)	3,310,140	31,290	143,230	(27,714)	(232,839)	0	379,026	3,603,133	
3013	1212 1213	Glocester	C	8,054,596	(20)	8,054,576	76,176	271,384	51,837	(558,296)	(1,612)	928,027	8,822,092	
3014	1262	Hopkinton	C	5,073,399	(13)	5,073,386	42,551	62,645	(46,929)	(199,336)	0	579,843	5,512,160	
3015	1272 1273	Jamestown	C	12,338,098	(31)	12,338,067	126,110	422,427	28,573	(745,452)	0	1,430,674	13,600,399	
3016	1282 1283	Johnston	C	29,324,045	(75)	29,323,970	233,647	1,313,489	(2,573)	(2,855,249)	0	3,293,243	31,306,527	
3017	1302 1303	Lincoln	C	1,917,338	(5)	1,917,333	10,772	129,264	(4,893)	(105,764)	0	228,855	2,175,567	
3019	1322 1323	Middletown	C	16,785,735	(43)	16,785,692	178,375	571,040	20,083	(983,516)	(25,089)	1,945,218	18,491,803	
3021	1352 1353 1354	Newport	B	43,824,274	(113)	43,824,161	471,642	3,064,589	70,103	(5,017,672)	(27,765)	4,982,790	47,367,848	
3022	1342 1343	New Shoreham	B	6,528,937	(17)	6,528,920	58,797	176,642	(17)	(370,987)	(2,095)	751,357	7,142,617	
3023	1372 1373	North Kingstown	C	43,794,413	(112)	43,794,301	337,959	2,066,476	(24,051)	(3,984,518)	(7,509)	4,958,996	47,141,654	
3024	1382 1383	North Providence	C	26,983,795	(69)	26,983,726	141,090	421,695	(120,679)	(1,925,783)	(29,241)	2,994,350	28,465,158	
3025	1392 1393	North Smithfield	B	13,699,700	(35)	13,699,665	99,685	232,064	214,436	(941,236)	(28,987)	1,560,683	14,836,310	
3026	1412 1413	Pawtucket	C	85,056,906	(218)	85,056,688	656,327	3,349,306	461,492	(8,181,854)	(74,568)	9,553,799	90,821,190	
3027	1515	Union Fire District		668,032	(2)	668,030	7,669	25,708	(2)	(13,883)	0	80,825	768,347	
3029	1452	Richmond		2,022,457	(5)	2,022,452	23,726	102,529	(48,306)	(126,996)	(450)	231,941	2,204,896	
3030	1462 1463	Scituate	B	9,742,480	(25)	9,742,455	86,079	418,948	(343,701)	(914,069)	0	1,056,831	10,046,543	
3031	1472 1473	Smithfield	C	11,703,762	(30)	11,703,732	79,890	258,086	(29)	(928,842)	(1,272)	1,306,276	12,417,841	
3032	1492 1493	South Kingstown	B	50,231,810	(129)	50,231,681	431,697	1,481,417	37,039	(3,332,739)	(42,564)	5,737,699	54,544,230	
3033	1532 1533	Tiverton	C	12,635,481	(32)	12,635,449	99,370	95,346	(42,620)	(587,778)	(5,546)	1,433,553	13,627,774	
3034	1562	Warren	C	4,951,343	(13)	4,951,330	66,363	244,089	6,273	(369,921)	0	575,825	5,473,959	
3036	1622 1623	Westerly		304,165	(1)	304,164	0	362,522	(1)	(145,691)	0	61,248	582,242	
3037	1602	West Greenwich	C	2,357,158	(6)	2,357,152	28,125	171,730	256,223	(264,418)	(1,786)	299,429	2,846,455	
3039	1632 1633	Woonsocket	B	57,096,741	(146)	57,096,595	353,190	1,513,392	125,092	(4,693,714)	(75,713)	6,385,726	60,704,568	
3040	1073	Charih School District	C	16,953,201	(44)	16,953,157	175,612	607,582	(8,430)	(963,256)	(14,099)	1,969,197	18,719,763	
3041	1203	Foster/Glocester	B	6,364,292	(16)	6,364,276	52,656	220,685	53,271	(414,614)	(5,737)	737,165	7,007,702	
3042	1528	Troque Fire & Lighting	C,5	45,306	0	45,306	0	0	0	(2,489)	0	5,034	47,851	
3043	1336	Narragansett Housing	C	536,179	(1)	536,178	3,698	9,023	(1)	(5,739)	0	63,854	607,013	
3045	1098	Coventry Lighting District	C	1,128,522	(3)	1,128,519	902	0	(3)	(61,605)	0	125,532	1,193,345	
3046	1242	Hope Valley Fire	C	574,099	(1)	574,098	2,874	1,782	(92,779)	(42,731)	0	52,108	495,352	
3050	1156	East Greenwich Housing	C	1,285,910	(4)	1,285,906	9,827	44,365	(3)	(72,454)	(28,256)	145,702	1,385,087	
3051	1116	Cranston Housing	C	5,135,200	(13)	5,135,187	47,153	77,948	(18,007)	(217,391)	0	590,726	5,615,616	
3052	1166	East Providence Housing	B	2,721,822	(7.00)	2,721,815.00	24,252	106,505	64,691	(241,169)	0	314,602	2,990,696	
3053	1416	Pawtucket Housing	B	13,425,664	(35)	13,425,629	108,759	0	(34)	(501,773)	0	1,532,111	14,564,692	
3056	1126	Cumberland Housing	C	1,226,606	(3)	1,226,603	10,519	39,087	12	(79,145)	0	140,728	1,337,804	
3057	1306	Lincoln Housing	B	1,588,356	(4)	1,588,352	10,656	35,431	(4)	(139,361)	0	175,761	1,670,835	
3059	1016	Bristol Housing	B	1,971,369	(5)	1,971,364	17,936	0	(5)	(97,035)	0	222,454	2,114,714	
3065	1036	Burrillville Housing	B	890,621	(3)	890,618	4,578	18,678	(2)	(69,433)	0	99,272	943,711	
3066	1386	North Providence Housing	B	188,340	(3)	188,337	12,952	82,106	(2)	(107,232)	0	94,772	900,933	
3067	1177	East Smithfield Water	C	925,746	(2)	925,744	3,732	2,841	(2)	(39,394)	0	104,972	997,893	





# Table 4b

## Reconciliation of Market Assets by Unit

Old Unit Number	New Unit Number	Unit	Code (s)	Beginning of Year Account Balance	Current year prior period adjustments	Adjusted Beginning of Year Account Balance	Member Contributions	Employer Contributions	Service Purchases and Others*	Benefit Payments	Refunds	Net Investment Return	End of Year Account Balance										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)										
4095	1135	Cumberland Hill Fire	C,D	3,888,352	(10)	3,888,342	77,820	223,187	(10)	(373,345)	0	448,608	4,264,602										
4096	1014	Bristol Police	C,D	6,292,880	(16)	6,292,864	267,742	135,744	(18)	(38,201)	0	782,731	7,440,862										
4098	1095	Coventry Fire	C,D	3,313,536	(9)	3,313,527	55,322	119,501	(371,676)	(303,173)	0	330,755	3,144,256										
4099	1505	South Kingstown EMT	C,D	3,661,308	(10)	3,661,298	80,103	39,491	(10)	(110,451)	(11,431)	430,152	4,089,152										
4101	1365	North Cumberland	C,D	4,516,938	(11)	4,516,927	68,331	148,480	(12)	(272,554)	0	524,456	4,985,628										
4102	1045 1235 1525 1585	Central Coventry Fire	C,D	9,094,736	(23)	9,094,713	163,557	282,880	(602,001)	(764,362)	(66,703)	953,187	9,061,271										
4103	1255	Hopkins Hill Fire	C,D	2,488,433	(7)	2,488,426	72,876	93,353	(137,873)	(36,210)	0	291,616	2,772,188										
4104	1114	Cranston Police	C,D,4	33,709,297	(86)	33,709,211	1,086,990	1,040,242	(382,589)	(941,558)	0	4,057,267	38,569,563										
4105	1115	Cranston Fire	C,D,4	55,576,909	(142)	55,576,767	1,295,819	971,858	301,710	(613,303)	(139,948)	6,747,113	64,140,016										
4106	1125	Cumberland Fire	B,D	3,780,507	(10)	3,780,497	97,713	218,680	114,847	(302,910)	0	459,522	4,368,349										
4107	1305	Lincoln Rescue	C	3,402,332	(9)	3,402,323	94,281	175,174	(190,244)	(193,838)	0	386,502	3,674,198										
4108	1344	New Shoreham Police	B,D	1,168,336	(3)	1,168,333	36,234	87,723	32,185	(79,345)	0	146,378	1,391,508										
4109	1324	Middletown Police & Fire	C,D	5,772,514	(15)	5,772,499	403,693	258,363	67,884	(39,061)	0	759,835	7,223,213										
4110	1715	Harrisville Fire District	C,D	1,343,502	(3)	1,343,499	36,201	19,043	(4)	0	0	164,436	1,563,175										
4111	1705	Albion Fire District	C	807,381	(2)	807,379	22,126	43,104	(5)	(23,765)	0	99,789	948,628										
1284	1284	Johnston Police		455,479	(1)	455,478	70,238	65,378	(2)	0	0	69,489	660,581										
1364	1364	Newport Police Dept		17,676	0	17,676	38,854	35,962	207,706	0	0	35,291	335,489										
1465	1465	Smithfield Fire	C	988,809	(3)	988,806	82,418	70,384	(3)	0	(20,873)	131,753	1,252,485										
1484	1484	Scituate Police Dept COLA	C,2	0	0	0	16,401	13,941	0	0	0	3,567	33,909										
1805	1805	Pascoag Fire District COLA	C	85,951	0	85,951	28,275	54,657	0	0	0	19,854	188,737										
<b>Police &amp; Fire Units Subtotal</b>				\$	456,492,511	\$	(1,170)	\$	456,491,341	\$	10,051,965	\$	16,855,985	\$	(700,705)	\$	(25,454,193)	\$	(672,984)	\$	53,674,561	\$	510,245,970
<b>All MERS Units Total</b>				\$	1,357,876,325	\$	3	\$	1,357,876,328	\$	17,363,904	\$	48,542,810	\$	(926,909)	\$	(96,854,057)	\$	(1,425,882)	\$	155,716,841	\$	1,480,293,035

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan provision.

5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

# Table 5

## Explanation of Rate Changes

All rates are gross: before recognizing 0% minimum contribution rate

Old Unit Number	New Unit Number	Unit	June 30, 2016 Actuarial Valuation	Source of Rate Change							2018 COLA different than Assumed	June 30, 2017 Actuarial Valuation
				Salary (Gains)/ Losses	Payroll (Gains)/ Losses	Other Non-Asset (Gains)/ Losses	Asset (Gains)/ Losses	Provision Change	Assumption Changes	COLA Suspension		
(1)	(2)	(3)	(4)	(5)	(6)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>General Employee Units</b>												
3002	1012 1019	Bristol	14.98%	0.63%	(0.91%)	(0.29%)	0.27%	0.00%	0.62%	(0.10%)	(0.08%)	15.12%
3003	1032 1033	Burrillville	7.39%	0.02%	(0.01%)	(0.95%)	0.40%	0.00%	0.56%	0.00%	(0.10%)	7.31%
3004	1052	Central Falls	14.36%	0.08%	(0.72%)	(1.29%)	0.23%	0.00%	0.47%	0.00%	0.00%	13.12%
3005	1082	Charlestown	7.51%	0.01%	(0.04%)	(0.36%)	0.18%	0.00%	0.48%	0.00%	(0.04%)	7.73%
3007	1112 1113	Cranston	9.53%	(0.11%)	(0.00%)	(0.43%)	0.53%	0.00%	0.70%	0.00%	(0.11%)	10.10%
3008	1122 1123	Cumberland	11.51%	(0.07%)	(0.19%)	(0.99%)	0.18%	0.00%	0.50%	0.00%	0.00%	10.95%
3009	1152 1153	East Greenwich	(1.05%)	(2.35%)	0.62%	0.67%	0.00%	0.00%	0.53%	0.00%	(0.04%)	(1.00%)
3010	1162 1163	East Providence	22.13%	0.00%	(1.29%)	(0.46%)	0.30%	0.00%	0.81%	(0.14%)	(0.11%)	21.24%
3011	1183	Exeter/West Greenwich	11.69%	0.31%	(0.14%)	0.40%	0.25%	0.00%	0.72%	0.00%	(0.06%)	13.17%
3012	1192 1193	Foster	10.23%	1.08%	(0.19%)	0.06%	0.21%	0.00%	0.46%	0.00%	0.00%	11.85%
3013	1212 1213	Glocester	10.69%	0.11%	(0.06%)	(0.53%)	0.25%	0.00%	0.57%	0.00%	(0.07%)	10.97%
3014	1262	Hopkinton	2.16%	0.37%	0.13%	0.11%	0.25%	0.00%	0.48%	0.00%	(0.04%)	3.46%
3015	1272 1273	Jamestown	10.43%	0.04%	(0.31%)	(0.57%)	0.22%	0.00%	0.56%	0.00%	(0.06%)	10.31%
3016	1282 1283	Johnston	16.13%	0.09%	(0.21%)	(0.32%)	0.36%	0.00%	0.71%	(0.10%)	(0.11%)	16.56%
3017	1302 1303	Lincoln	11.67%	0.28%	(0.24%)	(0.32%)	0.09%	0.00%	0.55%	0.00%	0.00%	12.04%
3019	1322 1323	Middletown	11.25%	0.22%	(0.09%)	(0.73%)	0.24%	0.00%	0.56%	0.00%	(0.07%)	11.38%
3021	1352 1353 1354	Newport	21.96%	0.18%	(0.62%)	(0.37%)	0.31%	0.00%	0.83%	(0.15%)	(0.13%)	22.00%
3022	1342 1343	New Shoreham	6.50%	0.09%	(0.00%)	(0.00%)	0.23%	0.00%	0.51%	0.00%	(0.05%)	7.28%
3023	1372 1373	North Kingstown	17.64%	0.07%	(0.45%)	(0.43%)	0.35%	0.00%	0.75%	(0.12%)	(0.10%)	17.72%
3024	1382 1383	North Providence	5.91%	0.10%	0.08%	(0.74%)	0.40%	0.00%	0.41%	0.00%	0.00%	6.16%
3025	1392 1393	North Smithfield	5.57%	(0.13%)	0.09%	(1.45%)	0.32%	0.00%	0.52%	0.00%	(0.07%)	4.85%
3026	1412 1413	Pawtucket	15.39%	0.18%	(0.31%)	(0.25%)	0.41%	0.00%	0.77%	(0.13%)	(0.12%)	15.94%
3027	1515	Union Fire District	7.46%	(0.08%)	(0.01%)	(0.07%)	0.08%	0.00%	0.32%	0.00%	0.00%	7.70%
3029	1452	Richmond	7.78%	0.22%	(0.07%)	1.37%	0.15%	0.00%	0.41%	0.00%	0.00%	9.86%
3030	1462 1463	Scituate	14.89%	0.34%	(0.15%)	0.64%	0.43%	0.00%	0.72%	(0.10%)	(0.11%)	16.67%
3031	1472 1473	Smithfield	7.98%	0.04%	(0.06%)	(0.33%)	0.36%	0.00%	0.60%	0.00%	(0.05%)	8.55%
3032	1492 1493	South Kingstown	11.77%	(0.03%)	(0.15%)	(0.35%)	0.34%	0.00%	0.66%	0.00%	(0.08%)	12.16%
3033	1532 1533	Tiverton	2.23%	(0.37%)	0.00%	0.35%	0.34%	0.00%	0.46%	0.00%	(0.05%)	2.97%
3034	1562	Warren	11.40%	0.01%	(0.66%)	(0.74%)	0.17%	0.00%	0.53%	(0.04%)	(0.04%)	10.63%
3037	1602	West Greenwich	14.41%	(0.06%)	(0.66%)	1.05%	0.01%	0.00%	0.56%	(0.08%)	(0.08%)	15.15%
3039	1632 1633	Woonsocket	10.77%	(0.14%)	(0.37%)	(0.55%)	0.45%	0.00%	0.70%	0.00%	(0.12%)	10.75%
3040	1073	Chariho School District	10.49%	(0.11%)	(0.10%)	(0.19%)	0.23%	0.00%	0.63%	0.00%	(0.05%)	10.90%
3041	1203	Foster/Glocester	10.30%	0.06%	(0.19%)	0.19%	0.24%	0.00%	0.61%	0.00%	(0.08%)	11.13%
3042	1528	Tiogue Fire & Lighting	(2.00%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	(2.00%)
3043	1336	Narragansett Housing	4.00%	0.09%	0.10%	(1.70%)	0.16%	0.00%	0.54%	0.00%	(0.01%)	3.18%
3045	1098	Coventry Lighting District	(130.27%)	0.13%	27.25%	(1.61%)	2.67%	0.00%	0.99%	0.00%	(0.49%)	(101.33%)
3046	1242	Hope Valley Fire	(2.29%)	(0.01%)	0.27%	(0.38%)	0.96%	0.00%	0.56%	0.00%	(0.06%)	(0.94%)
3050	1156	East Greenwich Housing	8.90%	(0.15%)	0.01%	(0.27%)	0.22%	0.00%	0.40%	0.00%	(0.04%)	9.08%
3051	1116	Cranston Housing	4.29%	0.12%	(0.07%)	(1.37%)	0.38%	0.00%	0.50%	0.00%	(0.04%)	3.81%
3052	1166	East Providence Housing	14.74%	(0.15%)	(0.51%)	(3.66%)	0.26%	0.00%	0.64%	(0.13%)	(0.09%)	11.10%
3053	1416	Pawtucket Housing	(4.22%)	1.03%	0.38%	(0.70%)	0.41%	0.00%	0.36%	0.00%	(0.06%)	(2.80%)

# Table 5

## Explanation of Rate Changes

All rates are gross: before recognizing 0% minimum contribution rate

Old Unit Number	New Unit Number	Unit	June 30, 2016 Actuarial Valuation	Source of Rate Change							2018 COLA different than Assumed	June 30, 2017 Actuarial Valuation
				Salary (Gains)/ Losses	Payroll (Gains)/ Losses	Other Non-Asset (Gains)/ Losses	Asset (Gains)/ Losses	Provision Change	Assumption Changes	COLA Suspension		
(1)	(2)	(3)	(4)	(5)	(6)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
3056	1126	Cumberland Housing	7.41%	0.02%	0.00%	(1.02%)	0.20%	0.00%	0.47%	0.00%	(0.02%)	7.06%
3057	1306	Lincoln Housing	6.76%	(0.04%)	(0.10%)	(0.95%)	0.33%	0.00%	0.55%	0.00%	(0.11%)	6.44%
3059	1016	Bristol Housing	(2.51%)	0.32%	0.48%	(0.21%)	0.43%	0.00%	0.40%	0.00%	0.00%	(1.09%)
3065	1036	Burrillville Housing	7.07%	(0.02%)	(0.12%)	1.81%	0.41%	0.00%	0.64%	0.00%	(0.08%)	9.71%
3066	1386	North Providence Housing	28.05%	0.63%	(2.75%)	(0.63%)	0.21%	0.00%	0.88%	(0.16%)	(0.14%)	26.09%
3068	1227	Greenville Water	1.65%	(0.40%)	0.41%	(0.25%)	0.31%	0.00%	0.37%	0.00%	(0.04%)	2.05%
3069	1356	Newport Housing	18.21%	0.22%	(0.66%)	0.62%	0.36%	0.00%	0.78%	(0.19%)	(0.11%)	19.24%
3071	1566	Warren Housing	0.48%	0.25%	(0.49%)	1.23%	0.61%	0.00%	0.57%	0.00%	(0.16%)	2.49%
3072	1286	Johnston Housing	10.72%	0.78%	(0.27%)	0.70%	0.32%	0.00%	0.49%	0.00%	0.00%	12.74%
3077	1538	Tiverton Local 2670A	8.01%	(0.20%)	(0.03%)	(0.71%)	0.33%	0.00%	0.58%	0.00%	(0.09%)	7.89%
3078	1002 1003 1007 1009	Barrington COLA	9.04%	0.25%	(0.09%)	(0.02%)	0.39%	0.00%	0.58%	0.00%	(0.07%)	10.09%
3079	1096	Coventry Housing	6.99%	(0.11%)	(0.00%)	0.06%	0.11%	0.00%	0.42%	0.00%	0.00%	7.47%
3080	1496	South Kingstown Housing	(0.19%)	(0.06%)	1.66%	(0.50%)	0.09%	0.00%	0.52%	0.00%	0.00%	1.52%
3081	1403	N. RI Collaborative Adm. Services	11.97%	0.10%	(0.09%)	(0.61%)	0.24%	0.00%	0.60%	(0.05%)	(0.07%)	12.09%
3083	1616	West Warwick Housing	15.46%	0.40%	(2.83%)	0.88%	0.68%	0.00%	1.09%	0.00%	(0.17%)	15.51%
3084	1476	Smithfield Housing	(0.58%)	(0.51%)	0.98%	0.09%	0.17%	0.00%	0.36%	0.00%	0.00%	0.50%
3094	1478	Smithfield COLA	8.82%	0.57%	(0.08%)	0.53%	0.35%	0.00%	0.56%	0.00%	(0.07%)	10.69%
3096	1056	Central Falls Housing	11.29%	1.99%	(0.94%)	0.76%	0.17%	0.00%	0.55%	(0.06%)	(0.04%)	13.72%
3098	1293	Lime Rock Administrative Services	11.76%	2.41%	(0.57%)	0.13%	0.16%	0.00%	0.47%	0.00%	0.00%	14.36%
3099	1063	Central Falls Schools	8.02%	(0.25%)	(0.09%)	(0.55%)	0.36%	0.00%	0.64%	0.00%	(0.07%)	8.06%
3100	1023	Bristol/Warren Schools	14.85%	(0.61%)	(0.13%)	(0.86%)	0.31%	0.00%	0.68%	(0.08%)	(0.10%)	14.06%
3101	1157 1158	Town of E. Greenwich-COLA-NCE	5.66%	(0.96%)	0.04%	0.18%	0.28%	0.00%	0.54%	0.00%	(0.06%)	5.68%
3102	1712	Harrisville Fire District (ADMIN)	4.16%	1.32%	0.70%	(1.28%)	0.11%	0.00%	0.69%	0.00%	(0.01%)	5.69%
1802	1802	Pascoag Fire District (ADMIN) COLA	13.24%	(0.36%)	0.03%	2.38%	(0.11%)	0.00%	0.49%	0.00%	0.00%	15.67%
<b>General Employee Units Averages</b>			12.23%	0.09%	(0.28%)	(0.48%)	0.35%	0.00%	0.65%	(0.05%)	(0.08%)	12.43%
<b>Police &amp; Fire Units</b>												
4016	1285	Johnston Fire	7.64%	0.96%	0.01%	0.26%	(0.01%)	0.00%	1.74%	0.00%	0.00%	10.60%
4029	1454	Richmond Police	9.28%	(0.24%)	(0.15%)	0.73%	0.20%	0.00%	1.83%	0.00%	0.00%	11.65%
4031	1474	Smithfield Police	9.22%	0.20%	(0.03%)	1.00%	0.23%	0.00%	1.82%	0.00%	(0.05%)	12.40%
4042	1555	Valley Falls Fire	18.64%	0.29%	(0.37%)	(0.74%)	0.44%	0.00%	2.06%	0.00%	0.00%	20.32%
4047	1395 1435	North Smithfield Voluntary Fire	15.63%	0.11%	(0.50%)	(0.35%)	0.24%	0.00%	2.14%	0.00%	(0.12%)	17.16%
4050	1155	East Greenwich Fire	29.97%	(0.18%)	(1.28%)	(0.35%)	0.01%	0.00%	2.60%	(0.34%)	(0.15%)	30.29%
4054	1154	East Greenwich Police	28.87%	(0.37%)	(0.59%)	(0.05%)	0.44%	0.00%	2.66%	(0.47%)	(0.17%)	30.32%
4055	1375	North Kingstown Fire	29.91%	1.03%	(1.93%)	0.44%	0.49%	0.00%	2.63%	(0.41%)	(0.16%)	31.99%
4056	1374	North Kingstown Police	27.58%	0.29%	(1.13%)	1.99%	0.41%	0.00%	2.50%	(0.43%)	(0.19%)	31.03%
4058	1385	North Providence Fire	25.46%	0.03%	(0.06%)	(0.91%)	0.47%	0.00%	2.39%	0.00%	0.00%	27.38%

# Table 5

## Explanation of Rate Changes

All rates are gross: before recognizing 0% minimum contribution rate

Old Unit Number	New Unit Number	Unit	June 30, 2016 Actuarial Valuation	Source of Rate Change						2018 COLA different than Assumed	June 30, 2017 Actuarial Valuation	
				Salary (Gains)/ Losses	Payroll (Gains)/ Losses	Other Non-Asset (Gains)/ Losses	Asset (Gains)/ Losses	Provision Change	Assumption Changes			COLA Suspension
4059	1008	Barrington Fire (25)	7.92%	0.28%	(0.07%)	0.11%	(0.00%)	0.00%	2.26%	0.00%	(0.02%)	10.47%
4060	1004	Barrington Police	34.80%	(0.78%)	(1.95%)	0.51%	0.35%	0.00%	2.72%	(0.31%)	(0.14%)	35.20%
4062	1564 1565	Warren Police & Fire	21.73%	(0.05%)	(0.59%)	4.48%	0.37%	0.00%	2.27%	(0.27%)	(0.13%)	27.81%
4063	1494	South Kingstown Police	22.27%	0.07%	(0.30%)	3.19%	0.55%	0.00%	2.21%	(0.44%)	(0.19%)	27.36%
4076	1394	North Smithfield Police	21.12%	(0.26%)	(0.17%)	0.77%	0.45%	0.00%	2.26%	(0.35%)	(0.17%)	23.65%
4077	1534	Tiverton Fire	21.93%	0.11%	(1.34%)	(0.16%)	0.51%	0.00%	2.32%	(0.28%)	(0.14%)	22.95%
4082	1194	Foster Police	30.34%	(0.06%)	(1.92%)	(0.52%)	0.43%	0.00%	2.92%	(0.41%)	(0.24%)	30.54%
4085	1634	Woonsocket Police	29.76%	(0.44%)	(1.13%)	0.73%	0.46%	0.00%	2.57%	(0.49%)	(0.23%)	31.23%
4086	1084	Charlestown Police	27.74%	(0.57%)	0.55%	1.56%	0.45%	0.00%	2.54%	(0.40%)	(0.14%)	31.73%
4087	1264	Hopkinton Police	29.47%	0.07%	(0.69%)	0.82%	0.63%	0.00%	2.58%	(0.50%)	(0.20%)	32.18%
4088	1214	Glocester Police	20.49%	(0.19%)	(0.45%)	1.27%	0.34%	0.00%	2.35%	(0.18%)	(0.14%)	23.49%
4089	1604	West Greenwich Police/Rescue	19.10%	0.05%	(0.59%)	0.24%	0.17%	0.00%	2.40%	(0.22%)	(0.11%)	21.04%
4090	1034	Burrillville Police	21.32%	0.72%	(0.91%)	(1.84%)	0.45%	0.00%	2.44%	0.00%	(0.15%)	22.03%
4091	1148	Cumberland Rescue	9.30%	(1.62%)	0.01%	(1.00%)	0.30%	0.00%	1.97%	0.00%	(0.10%)	8.86%
4093	1635	Woonsocket Fire	11.60%	(0.28%)	0.04%	0.24%	0.40%	0.00%	2.01%	0.00%	(0.10%)	13.92%
4094	1015	Bristol Fire	23.82%	1.65%	(3.16%)	(4.51%)	0.13%	0.00%	2.53%	0.00%	0.00%	20.46%
4095	1135	Cumberland Hill Fire	29.47%	0.19%	(0.86%)	1.01%	0.40%	0.00%	2.57%	(0.45%)	(0.22%)	32.11%
4096	1014	Bristol Police	6.48%	0.58%	0.27%	0.05%	0.05%	0.00%	1.70%	0.00%	(0.03%)	9.10%
4098	1095	Coventry Fire	21.47%	1.78%	2.71%	(0.09%)	1.11%	0.00%	2.22%	(0.44%)	(0.05%)	28.72%
4099	1505	South Kingstown EMT	4.97%	(0.27%)	0.12%	(0.06%)	0.30%	0.00%	1.85%	0.00%	(0.07%)	6.84%
4101	1365	North Cumberland	24.21%	0.35%	(0.55%)	0.09%	0.49%	0.00%	2.57%	(0.28%)	(0.11%)	26.77%
4102	045 1235 1525 1585	Central Coventry Fire	26.78%	1.07%	(0.12%)	(1.22%)	0.75%	0.00%	2.49%	(0.36%)	(0.14%)	29.25%
4103	1255	Hopkins Hill Fire	12.78%	(0.25%)	(0.06%)	(0.60%)	0.23%	0.00%	2.17%	0.00%	(0.02%)	14.25%
4104	1114	Cranston Police	13.11%	(0.61%)	(0.16%)	0.74%	0.14%	0.00%	1.93%	0.00%	(0.04%)	15.11%
4105	1115	Cranston Fire	5.58%	(0.32%)	0.22%	0.39%	0.17%	0.00%	1.80%	0.00%	(0.04%)	7.80%
4106	1125	Cumberland Fire	23.38%	0.33%	(2.24%)	0.30%	0.15%	0.00%	2.44%	(0.27%)	(0.12%)	23.97%
4107	1305	Lincoln Rescue	19.68%	(0.46%)	(0.11%)	0.80%	0.32%	0.00%	2.68%	(0.13%)	(0.08%)	22.71%
4108	1344	New Shoreham Police	20.24%	0.03%	(1.95%)	0.75%	0.05%	0.00%	2.56%	(0.27%)	(0.11%)	21.29%
4109	1324	Middletown Police & Fire	7.59%	0.33%	0.04%	0.12%	(0.04%)	0.00%	1.83%	0.00%	(0.01%)	9.86%
4110	1715	Harrisville Fire District	3.94%	(0.11%)	0.21%	1.40%	0.12%	0.00%	1.75%	0.00%	(0.03%)	7.28%
4111	1705	Albion Fire District	17.08%	0.18%	(0.45%)	(0.70%)	0.08%	0.00%	2.59%	(0.05%)	(0.08%)	18.65%
1284	1284	Johnston Police	6.90%	(0.21%)	0.02%	0.24%	(0.10%)	0.00%	2.09%	0.00%	0.00%	8.95%
1364	1364	Newport Police Dept	7.61%	(0.05%)	(0.20%)	(0.17%)	(0.50%)	0.00%	2.18%	0.00%	0.00%	8.87%
1465	1465	Smithfield Fire	7.16%	0.04%	0.20%	(0.34%)	(0.05%)	0.00%	1.88%	0.00%	(0.02%)	8.87%
1805	1805	Pascoag Fire District COLA	19.33%	(1.75%)	0.02%	5.00%	(0.21%)	0.00%	2.43%	0.00%	(0.03%)	24.80%
		<b>Police &amp; Fire Units Averages</b>	17.20%	0.06%	(0.37%)	0.21%	0.28%	0.00%	2.17%	(0.15%)	(0.09%)	19.31%
		<b>All MERS Units Averages</b>	13.69%	0.02%	(0.31%)	(0.19%)	0.33%	0.00%	1.10%	(0.08%)	(0.09%)	14.46%

Units with no active members are excluded from this exhibit

## Table 6a

### Development of Actuarial Value of Assets (All Units in Aggregate)

	Year Ending June 30, 2017						
1. Market value of assets at beginning of year (prior to adjustments)	\$ 1,357,876,325						
Adjustments	3						
Market value of assets at beginning of year (after adjustments)	\$ 1,357,876,328						
2. Net new investments							
a. Contributions	\$ 64,979,805						
b. Benefits and refunds paid	(98,279,939)						
c. Subtotal	(33,300,134)						
3. Market value of assets at end of year	\$ 1,480,293,035						
4. Net earnings (3-1-2) (includes misc revenues)	\$ 155,716,844						
5. Assumed investment return rate for fiscal year	7.00%						
6. Expected return	\$ 93,885,838						
7. Excess return (4-6)	\$ 61,831,006						
8. Development of amounts to be recognized as of June 30, 2017:							
Remaining Deferrals							
Fiscal Year End	of Excess (Shortfall)	of Investment	Offsetting of	Net Deferrals	Years	Recognized for	Remaining after
	Income*	Gains/(Losses)	Remaining	Remaining	this valuation	this valuation	
	(1)	(2)	(3) = (1) + (2)	(4)	(5) = (3) / (4)	(6) = (3) - (5)	
2013	\$ 0	\$ 0	\$ 0	1	\$ 0	\$ 0	
2014	0	0	0	2	0	0	
2015	(12,264,340)	12,264,340	0	3	0	0	
2016	(82,959,979)	49,566,666	(33,393,313)	4	(8,348,328)	(25,044,985)	
2017	61,831,006	(61,831,006)	0	5	0	0	
Total	\$ (33,393,313)	\$ 0	\$ (33,393,313)		\$ (8,348,328)	\$ (25,044,985)	
9. Actuarial value of assets as of June 30, 2017 (Item 3 - Item 8)	\$ 1,505,338,020						
10. Ratio of actuarial value to market value							101.7%

## Table 6b

### History of Investment Return Rates

Year Ending June 30 of (1)	Market (2)	Actuarial (3)
1997	19.1%	19.1%
1998	16.1%	16.5%
1999	10.1%	14.7%
2000	9.1%	8.8%
2001	-11.0%	4.9%
2002	-8.4%	0.9%
2003	2.5%	-0.7%
2004	19.2%	0.7%
2005	11.4%	2.3%
2006	11.7%	7.7%
2007	18.3%	12.9%
2008	-5.8%	10.5%
2009	-19.8%	2.4%
2010	13.7%	1.1%
2011	19.5%	2.7%
2012	1.5%	4.7%
2013	11.0%	6.3%
2014	14.8%	8.4%
2015	2.2%	7.5%
2016	0.0%	5.6%
2017	11.6%	6.0%
Average Returns:		
Last 5 Years	7.8%	6.8%
Last 10 Years	4.2%	5.5%
Since 1997	6.4%	6.7%

# Table 7

## Schedule of Funding Progress

Old Unit Number	New Unit Number	Unit	Code (s)	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (5) - (4)	Funded Ratio (4)/(5)	Annual Covered Payroll	UAAL as % of Payroll (7)/(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>General Employee Units</b>									
3002	1012 1019	Bristol	B	17,625,606	25,735,386	8,109,780	68.5%	5,327,249	152.2%
3003	1032 1033	Burrillville	C	28,472,997	29,947,602	1,474,605	95.1%	6,220,873	23.7%
3004	1052	Central Falls		4,940,039	7,541,673	2,601,634	65.5%	2,223,431	117.0%
3005	1082	Charlestown	C	7,604,531	8,087,589	483,058	94.0%	2,406,416	20.1%
3007	1112 1113	Cranston	B	137,901,451	152,515,642	14,614,191	90.4%	23,981,130	60.9%
3008	1122 1123	Cumberland		25,900,655	32,833,834	6,933,179	78.9%	9,131,316	75.9%
3009	1152 1153	East Greenwich	C	7,314,200	6,453,844	(860,356)	113.3%	1,268,601	(67.8%)
3010	1162 1163	East Providence	B	63,854,594	110,384,202	46,529,608	57.8%	18,181,195	255.9%
3011	1183	Exeter/West Greenwich	B	9,971,477	12,576,841	2,605,364	79.3%	2,756,096	94.5%
3012	1192 1193	Foster		3,664,094	4,569,620	905,526	80.2%	1,241,845	72.9%
3013	1212 1213	Glocester	C	8,971,352	10,738,783	1,767,431	83.5%	2,622,926	67.4%
3014	1262	Hopkinton	C	5,605,420	5,009,019	(596,401)	111.9%	1,762,275	(33.8%)
3015	1272 1273	Jamestown	C	13,830,503	16,458,870	2,628,367	84.0%	4,011,598	65.5%
3016	1282 1283	Johnston	C	31,836,200	45,097,509	13,261,309	70.6%	8,007,390	165.6%
3017	1302 1303	Lincoln		2,212,375	2,825,012	612,637	78.3%	1,091,795	56.1%
3019	1322 1323	Middletown	C	18,804,665	23,479,374	4,674,709	80.1%	5,324,719	87.8%
3021	1352 1353 1354	Newport	B	48,169,262	78,211,029	30,041,767	61.6%	12,977,962	231.5%
3022	1342 1343	New Shoreham	B	7,263,462	7,821,359	557,897	92.9%	2,170,450	25.7%
3023	1372 1373	North Kingstown	C	47,939,241	67,560,091	19,620,850	71.0%	11,690,055	167.8%
3024	1382 1383	North Providence		28,946,758	29,576,388	629,630	97.9%	7,269,273	8.7%
3025	1392 1393	North Smithfield	B	15,087,325	14,829,693	(257,632)	101.7%	3,967,442	(6.5%)
3026	1412 1413	Pawtucket	C	92,357,788	126,929,993	34,572,205	72.8%	20,452,364	169.0%
3027	1515	Union Fire District		781,347	829,509	48,162	94.2%	337,380	14.3%
3029	1452	Richmond		2,242,200	2,756,049	513,849	81.4%	1,029,090	49.9%
3030	1462 1463	Scituate	B	10,216,520	14,609,888	4,393,368	69.9%	2,699,923	162.7%
3031	1472 1473	Smithfield	C	12,627,938	13,987,837	1,359,899	90.3%	3,409,186	39.9%
3032	1492 1493	South Kingstown	B	55,467,060	66,795,027	11,327,967	83.0%	12,748,030	88.9%
3033	1532 1533	Tiverton	C	13,858,341	12,570,089	(1,288,252)	110.2%	3,515,747	(36.6%)
3034	1562	Warren	C	5,566,573	7,448,834	1,882,261	74.7%	2,046,603	92.0%
3036	1622 1623	Westerly		592,093	986,324	394,231	60.0%	0	-
3037	1602	West Greenwich	C	2,894,614	4,555,770	1,661,156	63.5%	1,170,181	142.0%
3039	1632 1633	Woonsocket	B	61,731,625	72,052,543	10,320,918	85.7%	12,927,889	79.8%
3040	1073	Chariho School District	C	19,036,481	22,959,694	3,923,213	82.9%	5,471,324	71.7%



## Table 7

### Schedule of Funding Progress

Old Unit Number	New Unit Number	Unit	Code (s)	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (5)		Annual Covered Payroll	UAAL as % of Payroll (7)/(9)
						- (4)	Funded Ratio (4)/(5)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
3041	1203	Foster/Glocester	B	7,126,265	8,498,065	1,371,800	83.9%	1,999,842	68.6%
3042	1528	Tiogue Fire & Lighting	C,5	48,661	26,592	(22,069)	183.0%	0	-
3043	1336	Narragansett Housing	C	617,283	538,003	(79,280)	114.7%	184,890	(42.9%)
3045	1098	Coventry Lighting District	C	1,213,535	613,108	(600,427)	197.9%	45,100	(1331.3%)
3046	1242	Hope Valley Fire	C	503,733	438,219	(65,514)	114.9%	148,674	(44.1%)
3050	1156	East Greenwich Housing	C	1,408,521	1,548,913	140,392	90.9%	525,518	26.7%
3051	1116	Cranston Housing	C	5,710,626	5,441,254	(269,372)	105.0%	1,012,520	(26.6%)
3052	1166	East Providence Housing	B	3,041,295	3,708,039	666,744	82.0%	792,316	84.2%
3053	1416	Pawtucket Housing	B	14,811,111	11,800,278	(3,010,833)	125.5%	2,921,358	(103.1%)
3056	1126	Cumberland Housing	C	1,360,438	1,445,161	84,723	94.1%	496,401	17.1%
3057	1306	Lincoln Housing	B	1,699,104	1,924,732	225,628	88.3%	532,788	42.3%
3059	1016	Bristol Housing		2,150,493	1,754,715	(395,778)	122.6%	442,702	(89.4%)
3065	1036	Burrillville Housing	B	959,678	1,160,501	200,823	82.7%	199,546	100.6%
3066	1386	North Providence Housing	B	916,176	1,844,039	927,863	49.7%	279,678	331.8%
3067	1177	East Smithfield Water	C	1,014,776	1,123,396	108,620	90.3%	0	-
3068	1227	Greenville Water	B	1,295,351	1,159,359	(135,992)	111.7%	341,370	(39.8%)
3069	1356	Newport Housing	C	6,815,423	10,289,004	3,473,581	66.2%	1,661,015	209.1%
3071	1566	Warren Housing	B	1,235,652	1,210,525	(25,127)	102.1%	274,989	(9.1%)
3072	1286	Johnston Housing		1,237,613	1,696,736	459,123	72.9%	451,240	101.7%
3077	1538	Tiverton Local 2670A	C	4,128,403	4,551,086	422,683	90.7%	1,059,424	39.9%
3078	1002 1003 1007 1009	Barrington COLA	C	34,481,917	39,146,695	4,664,778	88.1%	7,691,853	60.6%
3079	1096	Coventry Housing		1,262,933	1,339,583	76,650	94.3%	635,435	12.1%
3080	1496	South Kingstown Housing	C	456,648	317,538	(139,110)	143.8%	188,030	(74.0%)
3081	1403	N. RI Collaborative Adm. Services	C	3,021,425	3,962,458	941,033	76.3%	934,259	100.7%
3083	1616	West Warwick Housing	B	1,592,256	2,145,914	553,658	74.2%	280,041	197.7%
3084	1476	Smithfield Housing		525,474	412,595	(112,879)	127.4%	151,220	(74.6%)
3094	1478	Smithfield COLA	C	15,195,336	17,996,832	2,801,496	84.4%	3,763,940	74.4%
3096	1056	Central Falls Housing	C	2,203,390	3,442,458	1,239,068	64.0%	1,030,592	120.2%
3098	1293	Lime Rock Administrative Services		323,870	444,542	120,672	72.9%	98,934	122.0%
3099	1063	Central Falls Schools	C	15,188,167	16,960,892	1,772,725	89.5%	4,034,221	43.9%
3100	1023	Bristol/Warren Schools	B	17,083,297	23,241,573	6,158,276	73.5%	4,407,892	139.7%
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	23,230,937	22,967,222	(263,715)	101.1%	5,962,351	(4.4%)
3102	1712	Harrisville Fire District (ADMIN)	C	828,228	796,735	(31,493)	104.0%	259,779	(12.1%)
3103	1702	Albion Fire District (ADMIN)	C,5	145,902	98,945	(46,957)	147.5%	0	-

## Table 7

### Schedule of Funding Progress

Old Unit Number (1)	New Unit Number (2)	Unit (3)	Code (s) (4)	Actuarial Value of Assets (AVA) (5)	Actuarial Accrued Liability (AAL) (6)	Unfunded Actuarial Accrued Liability (UAAL) (5) - (4) (7)	Funded Ratio (4)/(5) (8)	Annual Covered Payroll (9)	UAAL as % of Payroll (7)/(9) (10)
3150	1159	East Greenwich Fire (ADMIN)	C	317,731	409,649	91,918	77.6%	0	-
1802	1802	Pascoag Fire District (ADMIN) COLA	C	18,795	95,617	76,822	19.7%	55,353	138.8%
<b>General Employee Units Subtotal</b>				<u>\$ 986,459,230</u>	<u>\$ 1,233,285,889</u>	<u>\$ 246,826,659</u>	80.0%	<u>\$ 242,305,025</u>	101.9%
<b>Police &amp; Fire Units</b>									
4016	1285	Johnston Fire	D	8,069,765	9,122,284	1,052,519	88.5%	4,334,529	24.3%
4029	1454	Richmond Police	6	1,824,547	2,240,172	415,625	81.4%	714,879	58.1%
4031	1474	Smithfield Police	C,D	15,394,070	16,988,210	1,594,140	90.6%	3,056,083	52.2%
4042	1555	Valley Falls Fire	D	3,556,601	4,940,870	1,384,269	72.0%	693,536	199.6%
4047	1395 1435	North Smithfield Voluntary Fire	B,D	7,504,189	9,172,068	1,667,879	81.8%	1,376,740	121.1%
4050	1155	East Greenwich Fire	C,D	13,494,490	21,677,495	8,183,005	62.3%	2,724,416	300.4%
4054	1154	East Greenwich Police	C,D	15,014,562	22,236,996	7,222,434	67.5%	2,361,627	305.8%
4055	1375	North Kingstown Fire	C,D	32,155,376	47,769,621	15,614,245	67.3%	4,644,769	336.2%
4056	1374	North Kingstown Police	C,D	21,437,637	32,439,088	11,001,451	66.1%	3,407,203	322.9%
4058	1385	North Providence Fire	D	33,341,741	50,037,024	16,695,283	66.6%	5,081,465	328.6%
4059	1008	Barrington Fire (25)	C	3,035,895	3,503,996	468,101	86.6%	1,443,455	32.4%
4060	1004	Barrington Police	C,D	9,114,194	15,213,266	6,099,072	59.9%	1,696,118	359.6%
4061	1005	Barrington Fire (20)	C,D	6,130,861	10,055,711	3,924,850	61.0%	66,114	5936.5%
4062	1564 1565	Warren Police & Fire	C,D	10,702,189	15,707,629	5,005,440	68.1%	1,656,671	302.1%
4063	1494	South Kingstown Police	B,1	23,491,716	32,503,344	9,011,628	72.3%	3,186,649	282.8%
4073	1464	Scituate Police	5	222,404	19,381	(203,023)	1147.5%	0	-
4076	1394	North Smithfield Police	C,D	9,695,313	13,362,950	3,667,637	72.6%	1,700,805	215.6%
4077	1534	Tiverton Fire	C,D	10,111,773	13,878,899	3,767,126	72.9%	1,834,801	205.3%
4082	1194	Foster Police	C,D	2,745,751	4,257,094	1,511,343	64.5%	473,766	319.0%
4085	1634	Woonsocket Police	C,D	38,028,448	56,754,426	18,725,978	67.0%	5,575,311	335.9%
4086	1084	Charlestown Police	C,D	9,385,177	13,917,549	4,532,372	67.4%	1,347,904	336.3%
4087	1264	Hopkinton Police	C,D,6	5,504,962	8,759,128	3,254,166	62.8%	1,008,112	322.8%
4088	1214	Glocester Police	C,D	6,552,540	8,683,718	2,131,178	75.5%	1,074,226	198.4%
4089	1604	West Greenwich Police/Rescue	C,D	4,365,389	6,030,543	1,665,154	72.4%	1,036,992	160.6%
4090	1034	Burrillville Police	C,D,6	10,209,605	12,985,043	2,775,438	78.6%	1,503,873	184.6%

# Table 7

## Schedule of Funding Progress

Old Unit Number	New Unit Number	Unit	Code (s)	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (5) - (4)	Funded Ratio (4)/(5)	Annual Covered Payroll	UAAL as % of Payroll (7)/(9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
4091	1148	Cumberland Rescue	C,D	6,641,057	6,651,586	10,529	99.8%	1,070,902	1.0%
4093	1635	Woonsocket Fire	C,D	47,990,810	53,143,242	5,152,432	90.3%	6,970,786	73.9%
4094	1015	Bristol Fire	D	341,064	458,623	117,559	74.4%	111,734	105.2%
4095	1135	Cumberland Hill Fire	C,D	4,336,755	7,203,400	2,866,645	60.2%	752,720	380.8%
4096	1014	Bristol Police	C,D	7,566,753	7,547,763	(18,990)	100.3%	2,764,259	(0.7%)
4098	1095	Coventry Fire	C,D	3,197,453	5,058,412	1,860,959	63.2%	534,759	348.0%
4099	1505	South Kingstown EMT	C,D	4,158,336	3,887,231	(271,105)	107.0%	839,105	(32.3%)
4101	1365	North Cumberland	C,D	5,069,980	6,854,771	1,784,791	74.0%	683,297	261.2%
4102	1045 1235 1525 1585	Central Coventry Fire	C,D	9,214,578	15,041,266	5,826,688	61.3%	1,672,585	348.4%
4103	1255	Hopkins Hill Fire	C,D	2,819,090	3,124,663	305,573	90.2%	686,424	44.5%
4104	1114	Cranston Police	C,D,4	39,222,119	48,825,396	9,603,277	80.3%	10,649,299	90.2%
4105	1115	Cranston Fire	C,D,4	65,225,197	62,916,632	(2,308,565)	103.7%	13,121,719	(17.6%)
4106	1125	Cumberland Fire	B,D	4,442,257	6,656,653	2,214,396	66.7%	1,026,548	215.7%
4107	1305	Lincoln Rescue	C	3,736,362	5,766,546	2,030,184	64.8%	864,581	234.8%
4108	1344	New Shoreham Police	B,D	1,415,051	2,011,025	595,974	70.4%	362,342	164.5%
4109	1324	Middletown Police & Fire	C,D	7,345,422	7,828,712	483,290	93.8%	4,122,052	11.7%
4110	1715	Harrisville Fire District	C,D	1,589,622	1,475,795	(113,827)	107.7%	361,989	(31.4%)
4111	1705	Albion Fire District	C	964,678	1,366,053	401,375	70.6%	240,710	166.7%
1284	1284	Johnston Police		671,757	684,852	13,095	98.1%	842,175	1.6%
1364	1364	Newport Police Dept		341,165	305,379	(35,786)	111.7%	844,642	(4.2%)
1465	1465	Smithfield Fire	C	1,273,676	1,209,217	(64,459)	105.3%	936,463	(6.9%)
1484	1484	Scituate Police Dept COLA	C,2	34,483	28,669	(5,814)	120.3%	262,656	(2.2%)
1805	1805	Pascoag Fire District COLA	C	191,930	740,233	548,303	25.9%	298,669	183.6%
<b>Police &amp; Fire Units Subtotal</b>				<b>\$ 518,878,790</b>	<b>\$ 681,046,753</b>	<b>\$ 162,167,963</b>	<b>76.2%</b>	<b>\$ 102,020,460</b>	<b>159.0%</b>
<b>All MERS Units Total</b>				<b>1,505,338,020</b>	<b>1,914,332,642</b>	<b>408,994,622</b>	<b>78.6%</b>	<b>344,325,485</b>	<b>118.8%</b>

B - Municipality has adopted COLA Plan B

D - Municipality has adopted the "20-year" optional Police & Fire Plan

C - Municipality has adopted COLA Plan C

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan provision.

5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.



## Table 8

### Distribution of Assets at Market Value (Percentage of Total Investments)

Item	June 30, 2017
(1)	(2)
US Equity	20.6%
International Developed Equity	15.9%
EM Equity	3.5%
Private Equity	11.3%
Non-Core RE	2.2%
OPP Private Credit	1.5%
HY Infrastructure	1.0%
REITS	1.0%
Liquid Credit	2.8%
Private Credit	3.2%
Treasury Duration	4.0%
Systematic Trend	4.0%
Core RE	3.6%
Private Infrastructure	2.4%
TIPs	1.0%
Nat' Resources	1.0%
IG Fixed Income	11.5%
Absolute Return	6.5%
Cash	3.0%
Total investments	100.0%

# Table 9

## Active Member Statistics

Old Unit Number	New Unit Number	Unit	Code(s)	Active Employees as of June 30, 2017			Active Employees as of June 30, 2016				
				Number	Average Age	Average Service	Average Salary	Number	Average Age	Average Service	Average Salary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>General Employee Units</b>											
3002	1012 1019	Bristol	B	100	49.4	14.2	\$ 53,272	97	49.1	14.5	\$49,875
3003	1032 1033	Burrillville	C	142	53.1	13.0	43,809	141	53.0	13.3	42,789
3004	1052	Central Falls		48	43.9	9.2	46,321	42	43.8	9.7	47,757
3005	1082	Charlestown	C	46	52.4	14.1	52,313	46	51.2	13.2	50,293
3007	1112 1113	Cranston	B	658	54.0	14.1	36,445	660	54.2	14.6	36,057
3008	1122 1123	Cumberland		236	52.4	13.1	38,692	233	52.6	13.1	37,164
3009	1152 1153	East Greenwich	C	16	50.9	14.5	79,288	15	50.9	14.5	73,534
3010	1162 1163	East Providence	B	436	50.7	11.7	41,700	396	51.3	12.6	44,600
3011	1183	Exeter/West Greenwich	B	70	53.3	11.5	39,373	67	53.9	13.3	38,869
3012	1192 1193	Foster		36	54.7	11.4	34,496	36	55.9	12.6	31,749
3013	1212 1213	Glocester	C	65	53.9	11.7	40,353	63	53.6	12.3	38,181
3014	1262	Hopkinton	C	36	52.2	11.1	48,952	36	52.3	10.8	46,767
3015	1272 1273	Jamestown	C	82	52.3	13.0	48,922	83	52.0	12.8	46,933
3016	1282 1283	Johnston	C	228	52.6	13.0	35,120	221	52.2	12.9	34,284
3017	1302 1303	Lincoln		16	57.5	14.6	68,237	16	55.7	13.9	64,641
3019	1322 1323	Middletown	C	116	52.1	14.1	45,903	118	51.5	13.7	44,300
3021	1352 1353 1354	Newport	B	279	49.8	11.8	46,516	274	50.1	12.2	44,903
3022	1342 1343	New Shoreham	B	52	49.2	9.6	41,739	54	48.0	8.5	41,144
3023	1372 1373	North Kingstown	C	313	51.8	11.2	37,348	309	51.9	11.7	36,559
3024	1382 1383	North Providence		217	51.5	11.4	33,499	209	51.7	11.7	31,907
3025	1392 1393	North Smithfield	B	103	51.7	9.3	38,519	93	51.8	10.1	37,633
3026	1412 1413	Pawtucket	C	488	50.8	13.4	41,911	497	50.6	13.4	39,752
3027	1515	Union Fire District		7	58.4	14.9	48,197	7	57.6	13.9	46,867
3029	1452	Richmond		26	49.8	9.8	39,580	27	51.1	9.6	39,406
3030	1462 1463	Scituate	B	78	51.3	10.7	34,614	84	51.6	11.2	33,116
3031	1472 1473	Smithfield	C	85	53.9	11.2	40,108	84	54.1	11.8	38,537
3032	1492 1493	South Kingstown	B	303	52.4	13.7	42,073	303	52.8	14.0	40,822
3033	1532 1533	Tiverton	C	92	53.5	10.8	38,215	93	52.5	10.6	37,404
3034	1562	Warren	C	42	48.5	13.4	48,729	42	48.4	13.7	46,600
3036	1622 1623	Westerly		---	---	---	---	---	---	---	---
3037	1602	West Greenwich	C	24	49.6	10.9	48,758	23	49.6	10.2	45,305
3039	1632 1633	Woonsocket	B	377	50.6	11.4	34,291	360	50.7	11.7	33,327
3040	1073	Chariho School District	C	161	52.0	13.2	33,983	160	51.0	12.7	33,515
3041	1203	Foster/Glocester	B	53	53.4	11.8	37,733	53	52.3	12.0	34,369
3043	1336	Narragansett Housing	C	4	54.7	18.3	46,223	4	53.7	17.3	44,625
3045	1098	Coventry Lighting District	C	1	50.3	2.4	45,100	1	49.3	1.4	35,992
3046	1242	Hope Valley Fire	C	3	41.7	6.6	49,558	3	49.0	11.9	46,155
3050	1156	East Greenwich Housing	C	9	55.2	9.1	58,391	9	54.4	9.0	58,053
3051	1116	Cranston Housing	C	19	51.4	10.8	53,291	18	58.7	16.8	56,330
3052	1166	East Providence Housing	B	14	54.0	11.7	56,594	14	54.3	11.7	55,253
3053	1416	Pawtucket Housing	B	46	50.5	13.5	63,508	47	51.0	13.7	56,085
3056	1126	Cumberland Housing	C	10	53.1	9.6	49,640	11	54.0	10.4	48,683
3057	1306	Lincoln Housing	B	12	48.0	6.1	44,399	12	47.0	5.5	42,165

# Table 9

## Active Member Statistics

Old Unit Number	New Unit Number	Unit	Code(s)	Active Employees as of June 30, 2017				Active Employees as of June 30, 2016			
				Number	Average Age	Average Service	Average Salary	Number	Average Age	Average Service	Average Salary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
3059	1016	Bristol Housing		8	51.6	16.3	55,338	8	50.6	15.3	51,816
3065	1036	Burrillville Housing	B	4	46.3	5.3	49,887	4	46.7	12.3	51,208
3066	1386	North Providence Housing	B	6	52.2	8.6	46,613	6	58.8	11.5	44,106
3067	1177	East Smithfield Water	C	---	---	---	---	3	58.0	15.7	52,208
3068	1227	Greenville Water	B	5	52.2	14.3	68,274	4	56.8	16.7	71,685
3069	1356	Newport Housing	C	32	49.9	12.0	51,907	32	50.9	12.1	51,533
3071	1566	Warren Housing	B	6	52.0	4.5	45,832	5	50.6	5.4	39,367
3072	1286	Johnston Housing		8	49.3	12.7	56,405	8	48.3	11.7	50,795
3077	1538	Tiverton Local 2670A	C	26	49.7	12.7	40,747	25	49.7	12.2	39,572
3078	02 1003 1007 1C	Barrington COLA	C	166	53.9	13.4	46,336	167	53.9	13.8	44,127
3079	1096	Coventry Housing		14	54.8	11.8	45,388	15	53.9	10.4	43,290
3080	1496	South Kingstown Housing	C	4	52.9	7.4	47,008	4	51.9	6.3	45,237
3081	1403	N. RI Collaborative Adm. Services	C	33	50.4	9.1	28,311	35	51.3	9.7	27,756
3083	1616	West Warwick Housing	B	6	49.3	5.0	46,674	7	46.5	3.7	43,402
3084	1476	Smithfield Housing		3	50.7	12.9	50,407	3	49.7	11.8	46,329
3094	1478	Smithfield COLA	C	66	52.1	15.5	57,029	68	52.0	15.2	53,402
3096	1056	Central Falls Housing	C	21	49.1	10.2	49,076	20	48.6	9.6	41,399
3098	1293	Lime Rock Administrative Services		2	57.8	17.6	49,467	2	56.8	16.6	43,935
3099	1063	Central Falls Schools	C	125	47.8	9.8	32,274	120	49.4	10.6	31,786
3100	1023	Bristol/Warren Schools	B	118	51.9	12.0	37,355	113	52.3	12.6	36,932
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	173	53.3	12.3	34,464	168	53.3	12.3	34,713
3102	1712	Harrisville Fire District (ADMIN)	C	4	54.2	19.4	64,945	3	54.6	20.2	60,297
3103	1702	Albion Fire District (ADMIN)	C,5	---	---	---	---	---	---	---	---
3150	1159	East Greenwich Fire (ADMIN)	C	---	---	---	---	---	---	---	---
1802	1802	Pascoag Fire District (ADMIN) COLA	C	1	45.7	16.5	55,353	1	44.7	1.0	53,228
<b>All General Employee Units</b>				<b>5,980</b>	<b>51.8</b>	<b>12.4</b>	<b>\$ 40,519</b>	<b>5,882</b>	<b>51.9</b>	<b>12.7</b>	<b>\$39,492</b>
<b>Police &amp; Fire Units</b>											
4016	1285	Johnston Fire	D	70	38.3	8.8	\$ 61,922	67	37.7	8.1	\$55,697
4029	1454	Richmond Police	6	12	38.4	11.5	59,573	13	37.3	10.8	57,856
4031	1474	Smithfield Police	C,D	41	40.2	15.1	74,539	41	39.5	14.5	71,502
4042	1555	Valley Falls Fire	D	11	38.7	12.8	63,049	12	36.7	11.1	59,273
4047	1395 1435	North Smithfield Voluntary Fire	B,D	22	40.6	13.1	62,579	23	40.6	12.7	59,367
4050	1155	East Greenwich Fire	C,D	39	42.3	12.1	69,857	37	40.6	11.1	67,984
4054	1154	East Greenwich Police	C,D	34	44.1	12.8	69,460	34	43.1	11.8	67,502
4055	1375	North Kingstown Fire	C,D	65	42.5	15.0	71,458	67	41.9	14.6	65,828
4056	1374	North Kingstown Police	C,D	45	40.5	13.8	75,716	43	40.2	13.7	72,761
4058	1385	North Providence Fire	D	81	41.6	15.0	62,734	91	39.9	13.5	59,004
4059	1008	Barrington Fire (25)	C	22	35.9	9.2	65,612	23	34.3	7.9	61,029
4060	1004	Barrington Police	C,D	25	39.9	13.9	67,845	22	41.0	14.8	68,437
4061	1005	Barrington Fire (20)	C,D	1	51.0	29.9	66,114	1	50.0	28.9	65,095
4062	1564 1565	Warren Police & Fire	C,D	24	45.5	18.6	69,028	23	45.6	18.4	67,542
4063	1494	South Kingstown Police	B,1	50	39.1	12.1	63,733	51	39.9	12.4	62,611

# Table 9

## Active Member Statistics

Old Unit Number	New Unit Number	Unit	Code(s)	Active Employees as of June 30, 2017			Active Employees as of June 30, 2016				
				Number	Average Age	Average Service	Average Salary	Number	Average Age	Average Service	Average Salary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
4076	1394	North Smithfield Police	C,D	26	35.5	9.4	65,416	27	35.9	10.3	63,607
4077	1534	Tiverton Fire	C,D	29	40.0	10.3	63,269	28	39.7	10.6	60,812
4082	1194	Foster Police	C,D	8	40.9	6.7	59,221	9	38.2	5.2	51,022
4085	1634	Woonsocket Police	C,D	86	39.7	12.5	64,829	91	37.8	11.3	60,334
4086	1084	Charlestown Police	C,D	19	41.9	16.8	70,942	20	41.9	16.1	70,651
4087	1264	Hopkinton Police	C,D,6	15	38.6	9.1	67,207	15	38.6	9.2	63,950
4088	1214	Glocester Police	C,D	16	44.5	14.4	67,139	16	45.1	14.7	65,838
4089	1604	West Greenwich Police/Rescue	C,D	16	46.6	12.3	64,812	15	47.2	12.1	62,409
4090	1034	Burrillville Police	C,D,6	23	40.9	12.8	65,386	23	41.0	13.1	61,824
4091	1148	Cumberland Rescue	C,D	18	44.8	16.0	59,495	18	43.8	15.3	60,862
4093	1635	Woonsocket Fire	C,D	109	41.5	15.5	63,952	106	41.6	16.0	64,661
4094	1015	Bristol Fire	D	2	52.4	8.6	55,867	1	59.5	15.5	54,222
4095	1135	Cumberland Hill Fire	C,D	12	40.6	12.3	62,727	13	40.5	11.7	59,233
4096	1014	Bristol Police	C,D	39	36.9	10.3	70,878	38	36.4	9.8	65,799
4098	1095	Coventry Fire	C,D	8	37.9	10.0	66,845	8	37.9	11.2	60,089
4099	1505	South Kingstown EMT	C,D	18	38.8	6.7	46,617	17	38.9	9.1	49,595
4101	1365	North Cumberland	C,D	11	49.8	18.3	62,118	11	48.8	17.3	59,237
4102	45 1235 1525 15	Central Coventry Fire	C,D	29	40.8	11.3	57,675	31	42.1	12.3	56,319
4103	1255	Hopkins Hill Fire	C,D	12	52.0	14.7	57,202	12	50.5	14.1	60,095
4104	1114	Cranston Police	C,D,4	144	39.7	12.7	73,953	141	39.3	12.5	74,076
4105	1115	Cranston Fire	C,D,4	168	44.4	15.7	78,105	158	44.5	15.8	76,837
4106	1125	Cumberland Fire	B,D	17	42.1	10.8	60,385	15	44.5	12.5	57,547
4107	1305	Lincoln Rescue	C	16	40.0	11.8	54,036	17	41.2	13.2	56,183
4108	1344	New Shoreham Police	B,D	6	47.6	10.5	60,390	5	47.6	9.7	60,418
4109	1324	Middletown Police & Fire	C,D	61	34.4	7.7	67,575	58	34.2	7.1	63,162
4110	1715	Harrisville Fire District	C,D	6	41.8	13.3	60,332	6	40.8	12.3	58,005
4111	1705	Albion Fire District	C	4	49.7	18.6	60,178	4	48.7	17.6	59,053
1284	1284	Johnston Police		15	35.3	4.7	56,145	13	33.1	4.3	55,609
1364	1364	Newport Police Dept		17	29.7	1.8	49,685	6	29.3	0.4	49,950
1465	1465	Smithfield Fire	C	18	30.9	4.3	52,026	15	30.8	4.5	50,797
1484	1484	Scituate Police Dept COLA	C,2	5	25.9	0.7	52,531	---	---	---	---
1805	1805	Pascoag Fire District COLA	C	6	43.0	11.1	49,778	6	45.2	1.1	49,122
<b>All Police &amp; Fire Units</b>				1,521	40.6	12.7	\$ 67,075	1,491	40.3	12.5	\$64,946
<b>All MERS Units</b>				7,501	49.5	12.5	\$ 45,904	7,373	49.6	12.7	\$44,639

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan provision.

5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

# Table 10

## Retired Member Statistics

Old Unit Number	New Unit Number	Unit	Code(s)	Retirees and Beneficiaries As of June 30, 2017			Retirees and Beneficiaries As of June 30, 2016		
				Number	Average Age	Average Monthly Benefit	Number	Average Age	Average Monthly Benefit
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>General Employee Units</b>									
3001	1002 1003	Barrington		---	---	---	---	---	---
3002	1012 1019	Bristol	B	78	76.0	\$ 1,550	79	76.2	\$1,496
3003	1032 1033	Burrillville	C	106	73.7	1,208	102	73.5	1,199
3004	1052	Central Falls		33	73.0	1,149	34	72.0	1,198
3005	1082	Charlestown	C	13	74.1	1,656	13	73.1	1,647
3007	1112 1113	Cranston	B	596	74.1	1,240	588	74.0	1,231
3008	1122 1123	Cumberland		162	75.8	815	164	75.8	817
3009	1152 1153	East Greenwich	C	53	81.7	775	57	81.4	761
3010	1162 1163	East Providence	B	382	73.0	1,532	382	73.4	1,509
3011	1183	Exeter/West Greenwich	B	38	69.9	1,335	34	70.5	1,150
3012	1192 1193	Foster		26	73.6	772	22	72.9	751
3013	1212 1213	Glocester	C	41	72.8	1,109	40	72.4	1,084
3014	1262	Hopkinton	C	16	73.4	1,034	16	73.6	1,099
3015	1272 1273	Jamestown	C	45	70.7	1,403	40	70.3	1,397
3016	1282 1283	Johnston	C	207	74.2	1,111	203	74.1	1,114
3017	1302 1303	Lincoln		6	74.2	1,427	6	73.2	1,427
3019	1322 1323	Middletown	C	50	68.5	1,667	48	67.6	1,632
3021	1352 1353 1354	Newport	B	255	72.0	1,602	253	72.2	1,586
3022	1342 1343	New Shoreham	B	27	74.0	1,147	25	73.7	1,105
3023	1372 1373	North Kingstown	C	247	73.2	1,343	238	72.9	1,318
3024	1382 1383	North Providence		183	74.6	827	183	74.0	836
3025	1392 1393	North Smithfield	B	73	76.8	1,020	72	76.5	1,004
3026	1412 1413	Pawtucket	C	504	73.9	1,304	506	73.9	1,307
3027	1515	Union Fire District		1	67.9	1115.3	1	66.9	1115.3
3029	1452	Richmond		16	75.2	632	13	76.4	691
3030	1462 1463	Scituate	B	60	75.6	1,234	59	74.7	1,228
3031	1472 1473	Smithfield	C	77	76.8	970	78	77.6	912
3032	1492 1493	South Kingstown	B	203	71.9	1,361	191	71.5	1,353
3033	1532 1533	Tiverton	C	49	75.4	993	47	75.1	944
3034	1562	Warren	C	31	78.9	967	31	79.6	962
3036	1622 1623	Westerly		8	85.2	1,476	8	84.2	1,476
3037	1602	West Greenwich	C	15	71.5	1,335	16	70.9	1,337
3039	1632 1633	Woonsocket	B	342	75.2	1,106	345	75.2	1,103
3040	1073	Chariho School District	C	65	71.4	1,166	66	70.7	1,183
3041	1203	Foster/Glocester	B	33	73.6	1,014	31	73.3	990
3042	1528	Tiogue Fire & Lighting	C,5	1	69.3	167.0	1	68.3	165.8
3043	1336	Narragansett Housing	C	---	---	---	1	80.8	437
3045	1098	Coventry Lighting District	C	2	76.3	2,530	2	75.3	2,522
3046	1242	Hope Valley Fire	C	1	81.8	3519.3	1	80.8	3519.3
3050	1156	East Greenwich Housing	C	2	70.4	2,991	2	69.4	2,977
3051	1116	Cranston Housing	C	18	74.2	1,211	13	76.4	1,119
3052	1166	East Providence Housing	B	12	77.3	1,685	12	77.1	1,728
3053	1416	Pawtucket Housing	B	25	74.0	1,719	25	73.8	1,601
3056	1126	Cumberland Housing	C	4	81.6	1,612	4	80.6	1,606
3057	1306	Lincoln Housing	B	8	69.9	1,387	8	68.9	1,360



# Table 10

## Retired Member Statistics

Old Unit Number	New Unit Number	Unit	Code(s)	Retirees and Beneficiaries As of June 30, 2017			Retirees and Beneficiaries As of June 30, 2016		
				Number	Average Age	Average Monthly Benefit	Number	Average Age	Average Monthly Benefit
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
3059	1016	Bristol Housing		7	76.6	1,013	7	75.6	1,013
3065	1036	Burrillville Housing	B	3	70.2	2,394	2	73.1	2,469
3066	1386	North Providence Housing	B	6	73.9	1,553	5	73.2	1,683
3067	1177	East Smithfield Water	C	3	77.2	1,057	3	76.2	1,048
3068	1227	Greenville Water	B	1	71.3	3,124	1	70.3	3,108
3069	1356	Newport Housing	C	31	70.3	1,855	29	70.5	1,850
3071	1566	Warren Housing	B	5	74.0	1,813	5	73.0	1,802
3072	1286	Johnston Housing		7	80.2	1,442	7	79.3	1,401
3077	1538	Tiverton Local 2670A	C	17	72.8	1,173	18	71.7	1,136
3078	02 1003 1007 10	Barrington COLA	C	126	75.5	1,383	126	75.9	1,285
3079	1096	Coventry Housing		6	80.2	630	7	80.8	577
3080	1496	South Kingstown Housing	C	---	---	---	---	---	---
3081	1403	N. RI Collaborative Adm. Services	C	15	69.7	908	15	68.7	901
3083	1616	West Warwick Housing	B	8	74.4	1,731	8	73.4	1,725
3084	1476	Smithfield Housing		---	---	---	---	---	---
3094	1478	Smithfield COLA	C	37	70.3	1,684	34	70.1	1,681
3096	1056	Central Falls Housing	C	12	75.4	1,280	12	74.4	1,279
3098	1293	Lime Rock Administrative Services		1	65.0	1211.8	1	64.0	1211.8
3099	1063	Central Falls Schools	C	70	70.9	1,013	63	70.9	1,002
3100	1023	Bristol/Warren Schools	B	114	71.9	1,044	109	71.4	1,027
3101	1157 1158	Town of E. Greenwich-COLA-NCE	C	51	70.0	1,567	47	69.0	1,621
3102	1712	Harrisville Fire District (ADMIN)	C	---	---	---	---	---	---
3103	1702	Albion Fire District (ADMIN)	C,5	1	59.9	789.5	1	58.9	789.5
3150	1159	East Greenwich Fire (ADMIN)	C	1	68.1	1784.1	1	67.1	1771.0
1802	1802	Pascoag Fire District (ADMIN) COLA	C	---	---	---	---	---	---
<b>All General Employee Units</b>				<b>4,636</b>	<b>73.8</b>	<b>1,254</b>	<b>4,561</b>	<b>73.7</b>	<b>\$ 1,239</b>
<b>Police and Fire Units</b>									
4016	1285	Johnston Fire	D	3	51.4	\$ 3,268	3	50.4	\$3,268
4029	1454	Richmond Police	6	1	56.8	2,199	1	55.8	2,199
4031	1474	Smithfield Police	C,D	9	51.4	2,779	6	47.0	3,406
4042	1555	Valley Falls Fire	D	9	59.8	2,298	9	58.8	2,298
4046		Lime Rock Fire	#N/A	---	---	---	---	---	---
4047	1395 1435	North Smithfield Voluntary Fire	B,D	11	63.6	2,604	10	62.4	2,477
4050	1155	East Greenwich Fire	C,D	33	62.5	2,579	33	61.5	2,574
4054	1154	East Greenwich Police	C,D	31	63.5	3,019	32	62.5	2,961
4055	1375	North Kingstown Fire	C,D	71	66.3	2,748	70	65.8	2,689
4056	1374	North Kingstown Police	C,D	41	60.4	2,941	40	59.9	2,954
4057	1235	Harris Fire Department	C	---	---	---	---	---	---
4058	1385	North Providence Fire	D	84	59.3	2,525	82	58.4	2,589
4059	1008	Barrington Fire (25)	C	1	71.0	4,564	1	70.0	4,544
4060	1004	Barrington Police	C,D	26	67.6	2,322	27	67.4	2,241
4061	1005	Barrington Fire (20)	C,D	32	70.3	2,095	32	69.3	2,094
4062	1564 1565	Warren Police & Fire	C,D	22	67.5	2,368	21	66.6	2,436
4063	1494	South Kingstown Police	B,1	51	64.6	2,901	48	63.9	2,795

# Table 10

## Retired Member Statistics

Old Unit Number	New Unit Number	Unit	Code(s)	Retirees and Beneficiaries As of June 30, 2017			Retirees and Beneficiaries As of June 30, 2016		
				Number	Average Age	Average Monthly Benefit	Number	Average Age	Average Monthly Benefit
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
4073	1464	Scituate Police	5	1	86.6	301	1	85.6	301
4076	1394	North Smithfield Police	C,D	21	60.9	2,686	19	61.4	2,679
4077	1534	Tiverton Fire	C,D	27	63.2	2,163	27	62.4	2,191
4082	1194	Foster Police	C,D	9	61.6	2,280	9	60.6	2,276
4085	1634	Woonsocket Police	C,D	75	52.8	2,859	75	51.8	2,843
4086	1084	Charlestown Police	C,D	16	59.6	3,044	15	59.0	3,021
4087	1264	Hopkinton Police	C,D,6	14	57.2	2,827	14	56.2	2,820
4088	1214	Glocester Police	C,D	14	62.7	2,037	13	62.9	1,900
4089	1604	West Greenwich Police/Rescue	C,D	6	59.1	2,926	6	58.1	2,917
4090	1034	Burrillville Police	C,D,6	18	61.8	2,630	18	62.5	2,619
4091	1148	Cumberland Rescue	C,D	6	56.0	1,911	6	55.0	1,900
4092	1585	Washington Fire	D	---	---	---	---	---	---
4093	1635	Woonsocket Fire	C,D	40	53.2	3,138	37	52.0	3,006
4094	1015	Bristol Fire	D	2	66.7	723	2	65.7	723
4095	1135	Cumberland Hill Fire	C,D	11	60.9	2,793	11	59.9	2,782
4096	1014	Bristol Police	C,D	1	52.4	3,155	1	51.4	3,139
4098	1095	Coventry Fire	C,D	10	57.6	2,495	10	56.6	2,493
4099	1505	South Kingstown EMT	C,D	5	48.3	2,394	3	46.4	2,489
4100	1525	Tiogue Fire	---	---	---	---	---	---	---
4101	1365	North Cumberland	C,D	12	57.3	1,868	11	57.2	2,033
4102	45 1235 1525 15	Central Coventry Fire	C,D	25	57.6	2,507	25	56.6	2,498
4103	1255	Hopkins Hill Fire	C,D	2	55.3	1,488	2	54.3	1,488
4104	1114	Cranston Police	C,D,4	22	50.3	4,007	19	50.4	3,836
4105	1115	Cranston Fire	C,D,4	17	52.9	3,328	14	52.2	3,272
4106	1125	Cumberland Fire	B,D	9	65.2	2,919	8	65.4	2,936
4107	1305	Lincoln Rescue	C	9	58.5	2,234	8	55.7	1,928
4108	1344	New Shoreham Police	B,D	2	56.2	3,264	2	55.2	3,264
4109	1324	Middletown Police & Fire	C,D	1	37.7	3,213	1	36.7	3,213
4110	1715	Harrisville Fire District	C,D	---	---	---	---	---	---
4111	1705	Albion Fire District	C	1	75.1	1,939	1	74.1	1,939
1284	1284	Johnston Police	---	---	---	---	---	---	---
1364	1364	Newport Police Dept	---	---	---	---	---	---	---
1465	1465	Smithfield Fire	C	---	---	---	---	---	---
1484	1484	Scituate Police Dept COLA	C,2	---	---	---	---	---	---
1805	1805	Pascoag Fire District COLA	C	---	---	---	---	---	---
<b>All Police &amp; Fire Units</b>				<b>801</b>	<b>60.4</b>	<b>\$ 2,692</b>	<b>773</b>	<b>59.8</b>	<b>\$2,664</b>
<b>All MERS Units</b>				<b>5,437</b>	<b>71.8</b>	<b>\$ 1,466</b>	<b>5,334</b>	<b>71.7</b>	<b>\$1,446</b>

B - Municipality has adopted COLA Plan B

C - Municipality has adopted COLA Plan C

D - Municipality has adopted the "20-year" optional Police & Fire Plan

1 - S.Kingstown Police have a unique plan that provides 2.0% of salary for service prior to July 1, 1993, and 2.5% of salary for service on or after July 1, 1993.

2 - New unit since prior valuation.

3 - Closed unit.

4 - Historically, Cranston Fire and Police are contributing 10% due to special plan provision.

5 - This unit has no active members.

6 - Historically, Special plan provisions apply to this unit.

## Table 11

### Distribution of Active Members by Age and by Years of Service (General Employees) As of June 30, 2017

Attained Age	Years of Credited Service												Total Count & Avg. Comp.
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	36 \$29,411	23 \$30,104	7 \$31,129	2 \$29,261	2 \$36,849	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	70 \$30,018
25-29	56 \$28,198	53 \$32,136	29 \$41,031	27 \$37,975	13 \$39,531	24 \$39,048	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	202 \$34,399
30-34	72 \$30,109	48 \$33,967	33 \$38,376	23 \$37,515	18 \$46,897	53 \$41,372	27 \$41,358	1 \$48,525	0 \$0	0 \$0	0 \$0	0 \$0	275 \$36,835
35-39	73 \$30,101	52 \$29,224	41 \$32,316	29 \$45,494	20 \$43,232	75 \$43,190	76 \$46,983	28 \$46,807	0 \$0	0 \$0	0 \$0	0 \$0	394 \$38,951
40-44	60 \$27,547	39 \$30,018	46 \$28,149	25 \$41,480	22 \$43,451	69 \$44,495	60 \$47,449	56 \$51,507	13 \$46,520	0 \$0	0 \$0	0 \$0	390 \$39,788
45-49	86 \$26,652	53 \$31,694	56 \$33,286	39 \$35,536	24 \$37,589	142 \$40,086	135 \$45,796	115 \$46,611	49 \$51,284	44 \$51,926	0 \$0	0 \$0	743 \$40,587
50-54	65 \$31,158	63 \$34,350	53 \$30,599	41 \$30,946	35 \$39,350	172 \$38,035	211 \$40,896	207 \$43,752	86 \$56,582	123 \$53,397	30 \$55,402	2 \$53,743	1,088 \$42,177
55-59	59 \$35,493	56 \$31,876	43 \$35,506	41 \$35,981	37 \$37,679	150 \$37,725	259 \$39,135	322 \$40,527	166 \$45,095	129 \$46,271	38 \$61,626	15 \$54,956	1,315 \$40,867
60-64	27 \$35,049	25 \$32,678	22 \$34,381	26 \$39,976	19 \$42,378	106 \$41,656	170 \$39,150	263 \$39,719	149 \$42,816	123 \$44,851	41 \$54,017	17 \$55,363	988 \$41,431
65-69	11 \$48,942	6 \$39,539	4 \$41,337	15 \$39,092	14 \$34,365	55 \$37,776	77 \$40,256	117 \$38,344	95 \$39,340	76 \$45,162	23 \$58,070	22 \$62,059	515 \$41,830
70 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
<b>Total</b>	<b>545</b> \$30,371	<b>418</b> \$32,056	<b>334</b> \$33,618	<b>268</b> \$37,532	<b>204</b> \$40,255	<b>846</b> \$39,983	<b>1,015</b> \$41,613	<b>1,109</b> \$42,058	<b>558</b> \$45,854	<b>495</b> \$48,021	<b>132</b> \$57,228	<b>56</b> \$57,827	<b>5,980</b> \$40,519

## Table 12

### Distribution of Active Members by Age and by Years of Service (Police & Fire) As of June 30, 2017

Attained Age	Years of Credited Service												Total
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	
Under 25	23 \$47,046	10 \$48,987	7 \$52,480	2 \$50,882	1 \$61,339	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	43 \$48,893
25-29	36 \$48,138	39 \$50,218	36 \$54,423	17 \$57,245	30 \$60,872	43 \$62,998	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	201 \$55,517
30-34	23 \$47,721	14 \$49,698	13 \$55,981	13 \$57,728	25 \$59,992	120 \$66,004	30 \$67,874	1 \$68,640	0 \$0	0 \$0	0 \$0	0 \$0	239 \$61,911
35-39	3 \$56,397	5 \$51,077	3 \$52,877	6 \$54,982	12 \$64,149	54 \$65,456	118 \$68,925	28 \$69,864	0 \$0	0 \$0	0 \$0	0 \$0	229 \$66,842
40-44	5 \$49,302	1 \$51,008	2 \$54,405	1 \$57,040	1 \$55,731	30 \$63,387	76 \$70,428	83 \$71,711	22 \$75,613	0 \$0	0 \$0	0 \$0	221 \$69,632
45-49	3 \$43,250	2 \$54,725	1 \$53,523	0 \$0	5 \$67,398	18 \$60,484	54 \$67,177	97 \$71,903	59 \$78,469	23 \$78,093	2 \$78,571	0 \$0	264 \$71,604
50-54	1 \$75,485	0 \$0	0 \$0	4 \$58,678	1 \$59,646	14 \$69,828	22 \$67,784	33 \$70,655	56 \$78,168	59 \$78,755	12 \$84,872	0 \$0	202 \$75,311
55-59	0 \$0	0 \$0	0 \$0	0 \$0	3 \$82,444	6 \$71,081	6 \$69,575	13 \$65,884	24 \$74,270	33 \$77,253	12 \$78,231	0 \$0	97 \$74,416
60-64	1 \$89,754	0 \$0	0 \$0	0 \$0	0 \$0	3 \$66,982	2 \$74,346	4 \$68,522	4 \$85,124	2 \$71,818	2 \$93,361	1 \$71,595	19 \$76,628
65-69	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	2 \$72,206	1 \$83,014	0 \$0	1 \$79,529	2 \$84,719	6 \$79,399
70 & Over	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0
<b>Total</b>	<b>95</b> \$48,666	<b>71</b> \$50,141	<b>62</b> \$54,440	<b>43</b> \$56,908	<b>78</b> \$62,266	<b>288</b> \$65,137	<b>308</b> \$68,853	<b>261</b> \$71,104	<b>166</b> \$77,570	<b>117</b> \$78,083	<b>29</b> \$82,091	<b>3</b> \$80,344	<b>1,521</b> \$67,075

## Table 13

### Membership Data (General Employee Units)

	<u>June 30, 2017</u> (1)	<u>June 30, 2016</u> (2)
1. Active members		
a. Number	5,980	5,882
b. Number vested	4,211	4,354
c. Total payroll supplied by ERSRI	\$242,305,025	\$232,291,647
d. Average salary	\$40,519	\$39,492
e. Average age	51.8	51.9
f. Average service	12.4	12.7
2. Inactive members		
a. Number	2,849	2,870
3. Service retirees		
a. Number	3,899	3,847
b. Total annual benefits	\$61,322,988	\$59,729,380
c. Average annual benefit	\$15,728	\$15,526
d. Average age	74.0	74.0
4. Disabled retirees		
a. Number	256	255
b. Total annual benefits	\$3,840,258	\$3,808,032
c. Average annual benefit	\$15,001	\$14,933
d. Average age	65.9	65.6
5. Beneficiaries and spouses		
a. Number	481	459
b. Total annual benefits	\$4,588,901	\$4,283,722
c. Average annual benefit	\$9,540	\$9,333
d. Average age	76.5	76.5

## Table 14

### Membership Data (Police & Fire Units)

	June 30, 2017 (1)	June 30, 2016 (2)
1. Active members		
a. Number	1,521	1,491
b. Number vested	1,172	1,138
c. Total payroll supplied by ERSRI	\$102,020,460	\$96,834,672
d. Average salary	\$67,075	\$64,946
e. Average age	40.6	40.3
f. Average service	12.7	12.5
2. Inactive members		
a. Number	206	178
3. Service retirees		
a. Number	521	512
b. Total annual benefits	\$18,677,580	\$18,138,980
c. Average annual benefit	\$35,849	\$35,428
d. Average age	60.9	60.3
4. Disabled retirees		
a. Number	152	141
b. Total annual benefits	\$5,465,028	\$4,975,608
c. Average annual benefit	\$35,954	\$35,288
d. Average age	55.0	54.7
5. Beneficiaries and spouses		
a. Number	128	120
b. Total annual benefits	\$1,737,241	\$1,595,299
c. Average annual benefit	\$13,572	\$13,294
d. Average age	64.8	63.7

## Table 15

### Membership Data (All MERS Units)

	<u>June 30, 2017</u> (1)	<u>June 30, 2016</u> (2)
1. Active members		
a. Number	7,501	7,373
b. Number vested	5,383	5,492
c. Total payroll supplied by ERSRI	\$344,325,485	\$329,126,319
d. Average salary	\$45,904	\$44,639
e. Average age	49.5	49.6
f. Average service	12.5	12.7
2. Inactive members		
a. Number	3,055	3,048
3. Service retirees		
a. Number	4,420	4,359
b. Total annual benefits	\$80,000,568	\$77,868,360
c. Average annual benefit	\$18,100	\$17,864
d. Average age	72.5	72.3
4. Disabled retirees		
a. Number	408	396
b. Total annual benefits	\$9,305,286	\$8,783,640
c. Average annual benefit	\$22,807	\$22,181
d. Average age	61.8	61.7
5. Beneficiaries and spouses		
a. Number	609	579
b. Total annual benefits	\$6,326,142	\$5,879,021
c. Average annual benefit	\$10,388	\$10,154
d. Average age	74.0	73.8

**APPENDIX 1**

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**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**



# APPENDIX 1

## Summary of Actuarial Methods and Assumptions

### I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

### II. Actuarial Cost Method

The actuarial valuation uses the Entry Age actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

The employer normal cost rate is the total normal cost rate, less the member contribution rate. The total normal cost rate is the level percentage-of-pay contribution which would theoretically pay for all benefits if it had been made each year from the inception of the plan and if there had never been any changes of benefits, any changes of assumptions or methods, or any experience gains or losses. The normal costs are determined on an individual basis.

The actuarial accrued liability is the difference between the actuarial present value of all future benefits and the actuarial present value of future normal costs. It is the amount to which the normal costs would have accumulated under the assumptions described in the preceding paragraph. The unfunded actuarial accrued liability (UAAL) is the difference between the actuarial accrued liability and the actuarial value of assets.

The amortization contribution rate is the level percentage of payroll required to reduce the UAAL to zero over the remaining amortization period. The employer contribution rate determined by this valuation will not be effective until two years after the valuation date. The determination of the contribution rate reflects this deferral. The amortization payment for the applicable fiscal year is first determined based on the individual amortization bases. The covered payroll is projected forward for two years, and we then determine the amortization rate by dividing the amortization payment by the projected payroll. Contributions are assumed to be made monthly throughout the year.

For underfunded units, the amortization period is 25 years as measured from June 30, 2010, or 19 years as of the current valuation date for the existing UAAL. In conjunction with the Article 21 legislation, employers were given the option to reset the amortization period for the UAAL existing as of June 30, 2014 to 25 years from June 30, 2014. All new gains and losses each year will be amortized over individual 20 year periods. At any time that a unit is in an overfunded status, the amortization schedule will be a rolling 20 year amortization of any surplus.

## APPENDIX 1 (Continued)

### III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses. The actuarial value is calculated in the aggregate for all units combined, and then it is allocated to each unit in proportion to that unit's market value.

### IV. Actuarial Assumptions

#### A. Economic Assumptions

1. Investment return: 7.00% per year, compounded annually, composed of an assumed 2.50% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.
2. Salary increase rate: For general employees, the sum of (i) a 3.25% wage inflation assumption (composed of a 2.50% price inflation assumption and a 0.75% additional general increase), and (ii) a service-related component as shown below:

General Employees		
Years of Service	Service-Related Component	Total Increase
1	4.00%	7.25%
2	3.00	6.25
3	2.75	6.00
4	2.50	5.75
5	2.25	5.50
6	2.00	5.25
7	1.25	4.50
8	0.75	4.00
9-10	0.50	3.75
11-15	0.25	3.50
16 or more	0.00	3.25

## APPENDIX 1 (Continued)

For police/fire employees, the sum of (i) a 4.00% wage inflation assumption (composed of a 2.50% price inflation assumption and a 1.50% additional general increase), and (ii) a service-related component as shown below:

Police/Fire Employees		
Years of Service	Service-Related Component	Total Increase
1	10.00%	14.00%
2	9.00	13.00
3	7.00	11.00
4	4.00	8.00
5	2.50	6.50
6	3.00	7.00
7	0.50	4.50
8	0.50	4.50
9 or more	0.00	4.00

Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period year following the valuation date is equal to the reported pay for the prior year, increased by the salary increase assumption. For employees with less than one year of service, the reported rate of pay is used rather than the fiscal year salary paid.

3. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.00% for MERS General Employees and MERS P&F per year. This increase rate is solely due to the effect of wage inflation on salaries, with no allowance for future membership growth.
4. Post-retirement Benefit Increase: Post-retirement benefit increases are assumed to be 2.10%, per annum for all units. The actual COLA will be determined based on the plan's four-year average investment rate of return minus 5.25% and will range from zero to 4.0%. It is known that the COLA for calendar years 2017 and 2018 will be 0.74% and 1.51% respectively, and this has been reflected in the valuation.

## APPENDIX 1 (Continued)

### B. Demographic Assumptions

#### 1. Post-retirement mortality rates:

- a. Male employees: RP-2014 Combined Healthy for Males with Blue Collar adjustments, projected with Scale Ultimate MP16.
- b. Female employees: RP-2014 Combined Healthy for Females, projected with Scale Ultimate MP16.
- c. Disabled males – RP-2014 Disabled Retiree Table for males, projected with Scale Ultimate MP16.
- d. Disabled females – RP-2014 Disabled Retiree Table for males, projected with Scale Ultimate MP16.

#### 2. Pre-retirement mortality (combined ordinary and duty):

- a. Male employees: RP-2014 Employee table for Males.
- b. Female employees: RP-2014 Employee table for Females..

Sample rates are shown below:

Number of Deaths per 100		
Age	Males	Females
25	0.05	0.02
30	0.05	0.02
35	0.05	0.03
40	0.06	0.04
45	0.10	0.07
50	0.17	0.11
55	0.28	0.17
60	0.47	0.24
65	0.83	0.37
70	1.39	0.63

## APPENDIX 1 (Continued)

3. Disability rates: Sample rates per 1,000 active members are shown below. Ordinary disability rates are not applied to members eligible for unreduced retirement.

Age	Number of Disabilities per 1,000					
	General Employees, Ordinary, Males	General Employees, Accidental, Males	General Employees, Ordinary, Females	General Employees, Accidental, Females	Police & Fire, Ordinary, Males and Females	Police & Fire, Accidental, Males and Females
25	0.45	0.14	0.23	0.05	0.26	1.70
30	0.55	0.17	0.28	0.06	0.33	2.20
35	0.75	0.23	0.38	0.08	0.44	2.90
40	1.10	0.33	0.55	0.11	0.66	4.40
45	1.80	0.54	0.90	0.18	1.08	7.20
50	3.05	0.92	1.53	0.31	1.82	12.10
55	5.05	1.52	2.53	0.51	1.82	12.10
60	7.05	2.12	3.53	0.71	1.82	12.10
65	11.55	3.47	5.78	1.16	1.82	12.10

## APPENDIX 1 (Continued)

4. Termination rates (for causes other than death, disability, or retirement) are a function of the member's service. Termination rates are not applied to members eligible for retirement. Rates are shown below:

Service	General Employees, Males & Females	Police & Fire, Males & Females
1	0.175000	0.100000
2	0.118774	0.047300
3	0.101396	0.036903
4	0.086148	0.030821
5	0.072887	0.026506
6	0.061471	0.023158
7	0.051757	0.020424
8	0.043604	0.018111
9	0.036868	0.016108
10	0.031408	0.014342
11	0.027082	0.012761
12	0.023746	0.011332
13	0.021259	0.010026
14	0.019479	0.008826
15	0.018263	0.007714
16	0.017470	0.006679
17	0.016956	0.005711
18	0.016579	0.004802
19	0.016198	0.003944
20	0.015669	0.000000
21	0.014851	0.000000
22	0.013602	0.000000
23	0.011778	0.000000
24	0.009239	0.000000
25	0.005841	0.000000

## APPENDIX 1 (Continued)

### 5. Retirement rates (unreduced):

For MERS General Employees: a flat 20% per year retirement probability for members eligible for unreduced retirement. A 35% retirement probability at first eligibility will be only applied if they have reached age 65 or with at least 25 years of service.

For MERS P&F: Unisex, service based rates are used for police and fire. Rates depend on whether the unit had elected the optional 20-year retirement provisions. All members are assumed to retire upon reaching age 65 with at least ten years of service. Because of the enactment of the RIRSA in 2011, the retirement assumption was modified for members not eligible for retirement by July 1, 2012. Members who would have been assumed to retire at an earlier age under the rules in effect before the enactment of the provision changes are assumed to retire when first eligible for an unreduced benefit. This demand is recognized by adding a 5% probability for every year the member has been deferred.

Police and Fire		
Service	Units with the Optional 20-year retirement election	Units without the Optional 20-year retirement election
20	12.0%	
21	10.0%	
22	10.0%	
23	10.0%	
24	12.0%	
25	14.0%	50.0%
26	16.0%	16.0%
27	18.0%	18.0%
28	20.0%	20.0%
29	20.0%	20.0%
30+	35.0%	35.0%

100% of members eligible to retire as of June 30, 2012 are assumed to retire once they reach 35 years of service. All members not eligible to retire as of June 30, 2012 are assumed retire at SSNRA, if eligible.

For members with 10 or more years of contributory service on June 30, 2012 and that reach their original retirement date within three years of June 30, 2012, 5% are assumed to retire upon first attainment of their original retirement date and receive their benefits accrued as of June 30, 2012.

## APPENDIX 1 (Continued)

6. Reduced retirement rates: No early retirements are assumed for police and fire. Rates for general employees are based on the years from Retirement Eligibility for unreduced benefits, as shown below:

Years from Normal Retirement Age	Ret. Rate
5	2%
4	2%
3	2%
2	3%
1	4%

C. Other Assumptions:

1. Valuation payroll (used for determining the amortization contribution rate): Prior aggregate fiscal year payroll projected forward one year using the overall payroll growth rate.
2. Percent married: 80% of employees are assumed to be married.
3. For the special post-retirement police and fire survivor benefit, we have assumed 80% of members will have a spouse at the time of retirement and 10% of those members would choose option 1 or option 2.
4. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
5. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity. The spousal annuity death benefit for vested married participants is valued using optional form conversion factors based on a unisex mortality table.
6. For active death benefits, the liability is initially calculated based on the ordinary death benefit provisions, and then a 7.5% load is applied to account for duty related benefits.
7. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
8. Recovery from disability: None assumed.
9. Remarriage: It is assumed that no surviving spouse will remarry and there will be no children's benefit.



## APPENDIX 1 (Continued)

### C. Other Assumptions:

10. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.
11. Investment and administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.
12. Inactive members: Liabilities for inactive members are approximated as a multiple of their member contribution account balances. For nonvested inactive members, the multiple is 1.0. For vested inactive members, the multiple is 8.0 for members with 25 or more years of service, 3.0 for vested inactive members age 45 or older with less than 25 years of service, and 1.0 for other vested inactive members younger than age 45.
13. Decrement timing: For all members, decrements are assumed to occur at the middle of the year.
14. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
15. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
16. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
17. Benefit Service: All members are assumed to accrue one year of eligibility service each year.
18. All calculations were performed without regard to the compensation limit in IRC Section 401(a)(17) and the benefit limit under IRC Section 415.

## APPENDIX 1 (Continued)

### D. Participant Data

Participant data was supplied on electronic files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included name, identification number, sex, a code indicating whether the member was active or inactive, date of birth, service, salary, unit indicator, date of last contribution, accumulated member contributions without interest, accrued benefit multiplier as of Valuation Date, Final Average Compensation as of June 30, 2012, and the Rhode Island Retirement Security Act Retirement Date. For retired members and beneficiaries, the data included date of birth, sex, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date. This salary was adjusted by the salary increase rate for one year. However, for members with less than one year of service, the current rate of salary was used. This salary was adjusted by the salary increase rate for one year.

In defining who was an active member, members with a date of last contribution in the final quarter of the fiscal year were considered active. Otherwise, the member was defined as inactive.

Beneficiary data for police and fire employees was completed, based on the Age Difference stated above, if the information was not originally supplied on the electronic files.

To correct for incomplete and inconsistent data, we first attempted to pull data from prior valuation files and then made general assumptions to complete the rest. These had no material impact on the results presented.

For members who transferred during the prior fiscal year adjustments were made for certain data records as needed. The active record for a member who transferred into a MERS unit was compared to the prior active record to test for reasonability of service and account balances relative to the prior year's active record and adjusted if needed. The inactive record for any member who transferred out of a MERS unit was deleted when calculating the inactive liability.

## **APPENDIX 2**

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### **SUMMARY OF BENEFIT PROVISIONS**

## APPENDIX 2

### Summary of Benefit Provisions

1. Authority: The Municipal Employees' Retirement System (MERS) covers employees of certain participating Rhode Island municipalities and other local governmental units, such as housing authorities, water districts, etc. Benefits are described in Rhode Island General Laws, Title 45, Chapters 19, 19.1, 21, 21.1, 21.2, and 21.3.
2. Plan Year: A twelve-month period ending June 30th.
3. Administration: MERS is administered by the State of Rhode Island Retirement Board. However, the State Investment Commission is responsible for the investment of the trust assets, including the establishment of the asset allocation policy.
4. Type of Plan: MERS is a qualified governmental defined benefit retirement plan. Separate contribution rates are determined for each participating governmental unit. For Governmental Accounting Standards Board purposes, it is an agent multiple-employer plan.
5. Eligibility: General employees, police officers and firefighters employed by electing municipalities participate in MERS. Teachers and administrators are covered by the separate Employees' Retirement System of Rhode Island, but other school employees may be covered by MERS. Eligible employees become members at their date of employment. Anyone employed by a municipality at the time the municipality joins MERS may elect not to be covered. Elected officials may opt to be covered by MERS. Employees covered under another plan maintained by the municipality may not become members of MERS. Police officers and/or firefighters may be designated as such by the municipality, in which case the special contribution and benefit provisions described below will apply to them, or they may be designated as general employees with no special benefits. Members designated as police officers and/or firefighters are treated as belonging to a unit separate from the general employees, with separate contribution rates applicable.
6. Employee Contributions: Effective July 1, 2012, General employees contribute 1.00% of their salary per year, and police officers and firefighters contribute 7.00%. General MERS active members with 20 years of service as of June 30, 2012 will contribute 8.25% beginning July 1, 2015. Also, beginning July 1, 2015, MERS Police and Fire active members will contribute 9.00%. In addition, if the municipality has elected one of the optional cost-of-living provisions, an additional member contribution of 1.00% of salary is required. The municipality, at its election, may choose to "pick up" the members' contributions for its employees under the provisions of Internal Revenue Code (IRC) Section 414(h).
7. Salary: Salary includes the member's base earnings plus any payments under a regular longevity or incentive plan. Salary excludes overtime, unused sick and vacation leave, severance pay, and other extraordinary compensation. Certain amounts that are excluded from taxable wages, such as amounts sheltered under a Section 125 plan or amounts picked up by the employer under IRC Section 414(h), are not excluded from salary.

## APPENDIX 2 (Continued)

8. Employer Contributions: Each participating unit's contribution rate is determined actuarially. Contributions determined in a given actuarial valuation go into effect two years after the actuarial valuation.
9. Service: Employees receive credit for service while a member. In addition, a member may purchase credit for certain periods by making an additional contribution to purchase the additional service. Special rules and limits govern the purchase of additional service and the contribution required.
10. Final Average Compensation (FAC): Prior to July 1, 2012 and for general employee members eligible to retire as of June 30, 2012, the average was based on the member's highest three consecutive annual salaries. Effective July 1, 2012, the average was based on the member's highest five consecutive annual salaries. Once a member retires or is terminated, the applicable FAC will be the greater of the member's highest three year FAC as of July 1, 2012 or the five year FAC as of the retirement/termination date. Monthly benefits are based on one-twelfth of this amount.
11. Retirement
  - a. General employees: Eligibility
    - (i) Members with less than five years of contributory service as of June 30, 2012 and members hired on or after that date are eligible for retirement on or after their Social Security normal retirement age.
    - (ii) Members who had at least five years of contributory service as of June 30, 2012 will be eligible for retirement at an individually determined age. This age is the result of interpolating between the member's prior Retirement Date, described in Section (e) below, and the retirement age applicable to members hired after June 30, 2012 in (a) above. The interpolation is based on service as of June 30, 2012 divided by projected service at the member's prior Retirement Date. The minimum retirement age is 59.
    - (iii) Members with 10 or more years of contributory service on June 30, 2012 may choose to retire at their prior Retirement Date if they continue to work and contribute until that date. If option is elected, the retirement benefit will be calculated using the benefits accrued as of June 30, 2012, i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction.
    - (iv) Effective July 1, 2015, members will be eligible to retire with full benefits at the earlier of their current RIRSA date described in sections (a) – (c) above or upon the attainment of age 65 with 30 years of service, age 64 with 31 years of service, age 63 with 32 years of service, or age 62 with 33 years of service.
    - (v) A member who is within five years of reaching their retirement eligibility date, as described in this section, and has 20 or more years of service, may elect to retire at any time with an actuarially reduced benefit.

## APPENDIX 2 (Continued)

(vi) Prior to July 1, 2012, members were eligible for retirement on or after age 58 if they had credit for 10 or more years of service, or at any age if they had credit for at least 30 years of service. Members eligible to retire before July 1, 2012 were not impacted by the changes to retirement eligibility above.

b. General employees: Monthly Benefit

2.00% of the member's monthly FAC for each year of service prior to July 1, 2012 and 1.00% of the member's monthly FAC for each year of service from July 1, 2012 through June 30, 2105. 1.0% per year for all service after June 30, 2015 unless the member had 20 or more years of service as of June 30, 2012 in which case the benefit accrual is 2.0% per year for service after June 30, 2015. The benefit cannot exceed 75% of the member's monthly FAC

c. Police and Fire employees: Eligibility

- (i) Members are eligible to retire when they are at least 50 years old and have a minimum of 25 years of contributing service or if they have 27 years of contributing service at any age. Members with less than 25 years of contributing service are eligible for retirement on or after their Social Security normal retirement age.
- (ii) Members who, as of June 30, 2012, had at least 10 years of contributing service, had attained age 45, and had a prior Retirement Date (described in Section (e)) before age 52 may retire at age 52.
- (iii) Active members on June 30, 2012 may choose to retire at their prior Retirement Date if they continue to work and contribute until that date. If option is elected, the retirement benefit will be calculated using the benefits accrued as of June 30, 2012, i.e., the member will accumulate no additional defined benefits after this date, but the benefit will be paid without any actuarial reduction.
- (iv) A member who is within five years of reaching their retirement eligibility date, as described in this section, and has 20 or more years of service, may elect to retire at any time with an actuarially reduced benefit.
- (v) Prior to July 1, 2012, members designated as police officers or firefighters were eligible for retirement at or after age 55 with credit for at least 10 years of service or at any age with credit for 25 or more years of service. Members were also eligible to retire and receive a reduced benefit if they are at least age 50 and have at least 20 years of service. If the municipality elected to adopt the 20-year retirement provisions for police officers and/or firefighters, then such a member was eligible to retire at any age with 20 or more years of service. Members eligible to retire before July 1, 2012 were not impacted by the changes to retirement eligibility above.

## APPENDIX 2 (Continued)

- d. Police and Fire employees: Monthly Benefit
  - (i) 2.00% of the member's monthly FAC for each year of service, up to 37.5 years (75% of FAC maximum)
  - (ii) If the optional 20-year retirement provisions were adopted by the municipality prior to July 1, 2012: 2.50% of the member's monthly FAC for each year of service prior to July 1, 2012 and 2.00% of the member's monthly FAC for each year of service after July 1, 2012. The benefit cannot exceed 75% of the member's monthly FAC.
  - (iii) Active members (including future hires), members who retire after July 1, 2015 and after attaining age 57 with 30 years of service will have a benefit equal to the greater of their current benefit described in (a) and (b) above and one calculated based on a 2.25% multiplier for all years of service.
- e. Payment Form: Benefits are paid as a monthly life annuity. Optional forms of payment are available; see item 16. Below.
- f. Death Benefit
  - (i) a. After retirement, death benefits are based on the form of annuity elected. If no option is elected, i.e., if payments are made as a life annuity, there is a minimum death benefit equal to the sum of the member's contributions without interest, less the sum of the monthly benefit payments made before the member's death. In addition, a lump-sum death benefit is payable upon the death of any retired member, regardless of option elected. This lump sum is equal to a percentage of the lump-sum death benefit that was available to the member at the time of retirement. The percentage is 100% in the first year of retirement, 75% in the second year, 50% in the third year, and 25% in the fourth and subsequent years of retirement. However, in no event will the lump sum death benefit be less than \$4,000.
  - (ii) Special Police/Fire Death Benefit: A member that does not elect an optional form of payment at retirement will be eligible the active member death benefit, which is an annuity of 30% of the member's salary that will be paid to the member's spouse upon death, for life or until remarriage. Children's benefits may also be payable.

## APPENDIX 2 (Continued)

### 12. Disability Retirement

- a. **Eligibility:** A member is eligible for a disability retirement provided he/she has credit for at least five years of service or if the disability is work-related. Members are not eligible for an ordinary disability benefit if they are eligible for unreduced retirement.
- b. **Ordinary Disability Benefit:** The benefit payable under the retirement formula, using FAC and service at the time of disability, but not less than 10 years of service.
- c. **Occupational Disability Benefit:** An annual annuity equal to two-thirds of salary at the time of disability.
- d. **Payment Form:** The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump-sum to the member's beneficiary. All alternative forms of payment except for the Social Security Option are permitted in the case of disability retirement.

### 13. Deferred Termination Benefit

- a. **Eligibility:** A member with at least ten years of service is vested. Effective July 1, 2012, a member with at least 5 years of service is vested. A vested member who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.
- b. **Monthly Benefit:** The monthly benefit is based on the retirement formula described above. Both FAC and service are determined at the time the member leaves active employment. Benefits may commence at Social Security normal retirement age provided that the member has met the requirements for a retirement benefit.
- c. **Payment Form:** The same as for Retirement above.
- d. **Death Benefit before retirement:** A member who dies after leaving active service but before retiring is entitled to receive a benefit as described below in Item 15.
- e. **Death Benefit after Retirement:** The same as for Retirement above.

### 14. Withdrawal (Refund) Benefit

- a. **Eligibility:** All members leaving covered employment with less than ten years (5 years, effective July 1, 2012) of service are eligible. Optionally, vested members (described in Item 13, above) may withdraw their accumulated contributions in lieu of the deferred benefits otherwise due.



## APPENDIX 2 (Continued)

- b. Benefit: The member who withdraws receives a lump-sum payment equal to the sum of his/her employee contributions. No interest is credited on these contributions.

### 15. Death Benefit of Active or Inactive Members

- a. Eligibility: Death must have occurred while an active member or while an inactive, non-retired member. The basic benefit plus the lump-sum benefit are paid on behalf of an active, general employee, and the special police/fire benefit and the lump-sum benefit are paid on behalf of an active police officer or firefighter. If the death was due to accidental, duty-related causes, the accidental death benefit is paid regardless of whether the employee is a general employee, a police officer, or a firefighter. Inactive members receive a refund of their accumulated contributions without interest.
- b. Basic Benefit: Upon the death of a non-vested member, or upon the death of a vested, inactive member, or upon the death of an active, unmarried member, a refund of the member's contributions (without interest) is paid. Upon the death of a vested, married, active member, the spouse may elect (i) the refund benefit described above, or (ii) a life annuity paid to the spouse or beneficiary. The amount of the annuity is equal to the amount which would have been paid had the member retired at the time of his death and elected the Joint and 100% Survivor option. If the member was not eligible for retirement, the annuity benefit is reduced 9% per year from the date at which the member would have been eligible had he or she remained in service.
- c. Lump-sum Benefit: \$800 per year of service, with a maximum benefit of \$16,000 and a minimum of \$4,000. This benefit is only available to active members.
- d. Special Police/Fire Death Benefit: In lieu of the basic benefit above, if a police officer or firefighter dies while an active member, an annuity of 30% of the member's salary will be paid to the member's spouse, for life or until remarriage. Children's benefits may also be payable.
- e. Accidental Duty-related Death Benefit: If a member dies as the result of an accident while in the course of his or her duties, in lieu of the above benefits the member's spouse may elect to receive (i) a refund of all contributions made (including interest), and (ii) an annual life annuity equal to 50% of the member's salary at the time of death. The annuity benefit stops when the spouse remarries or dies, although it may be continued to any children under age 18 or to any dependent parents.

## APPENDIX 2 (Continued)

16. Optional Forms of Payment: In addition to a life annuity, MERS offers members these optional forms of payment on an actuarially equivalent basis:
- a. Option 1 (Joint and 100% Survivor) - A life annuity payable while either the participant or his beneficiary is alive.
  - b. Option 2 (Joint and 50% Survivor) - A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50% of this amount if the member predeceases the beneficiary.
  - c. Social Security Option – An annuity paid at one amount prior to age 62, and at a reduced amount after age 62, designed to provide a level total income when combined with the member's age 62 Social Security benefit. Benefits cease upon the member's death.

Actuarial equivalence is based on tables adopted by the Employees' Retirement Board.

17. Post-retirement Benefit Increase: For members who retire after June 30, 2012: members will be eligible to receive cost of living increases at the later of the member's third anniversary of retirement and the month following their SSNRA (age 55 for members designated as police officers and/or firefighters). When a municipality elects coverage, it may elect either COLA C (covering only current and future active members and excluding members already retired) or COLA B (covering current retired members as well as current and future active members).
- a. The COLA will be suspended for any unit whose funding level is less than 80%; however, an interim COLA may be granted in four-year intervals while the COLA is suspended. The first interim COLA may begin January 1, 2018.
  - b. Effective July 1, 2015, the COLA is determined based on 50% of the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%, plus 50% of the lesser of 3.0% or last year's CPI-U increase for a total maximum increase of 3.50%. Previously, it was the plan's five-year average investment rate of return less 5.5% limited to a range of 0.0% to 4.0%.
  - c. The COLA will be limited to the first \$25,000 of the member's annual pension benefit. For retirees and beneficiaries who retired on or before July 1, 2015, years in which a COLA is payable based on the every fourth year provision described in (i) above will be limited to the first \$30,000. These limits will be indexed annually to increase in the same manner as COLAs, with the known values of \$25,000 for 2013, \$25,000 for 2014, \$25,168 for 2015, \$25,855 for 2016, and \$26,098 for 2017.

## APPENDIX 2 (Continued)

18. Special Provisions Applying to Specific Units: Prior to July 1, 2012, some units had specific provisions that apply only to that unit. The transition rules outlined in Item 11, above, apply to these units in a similar manner.

The following summarizes those provisions:

- a. Rhode Island General Law §45-21.2-22.1 contains special provisions that apply to employees of Burrillville Police, but only if adopted by the Town of Burrillville. The Town adopted these provisions effective July 1, 2006. Under these special provisions, the retirement benefit for a member with 20 or more years of service is improved. The new formula is  $60.00\% \times \text{Final Average Compensation (FAC)}$ , plus  $1.50\% \times \text{FAC} \times \text{Years of Service in Excess of 20}$ , with a maximum benefit equal to 75% of FAC. In addition to this benefit change, the member contribution rate increased from 9.00% to 10.20%.
- b. Rhode Island General Law § 45-21.2-6.1, § 45-21.2-5(5), and § 45-21.2-14(d) contain special provisions that apply to members of the South Kingstown police department. Under these special provisions, the member receives a retirement allowance which is a life annuity terminable at the death of the annuitant, and is an amount equal to the sum of two and one-half percent (2.5%) of final compensation multiplied by the years of service accrued after July 1, 1993 and two percent (2%) of final compensation multiplied by the years of service accrued prior to July 1, 1993. The annual retirement allowance in no event shall exceed seventy-five percent (75%) of final compensation. The member contribution rate is 8.00%, plus 1.00% for the adoption of the optional COLA, for a total of 9.00%.
- c. Rhode Island General Law § 45-21.2-5 (9) contains special provisions that apply to members of the Hopkinton police department. Under these special provisions, the final compensation for benefit computation is based on the members' highest year of earnings. In addition, the members shall receive a three percent (3%) escalation of their pension payment compounded each year on January 1st following the year of retirement and continuing on an annual basis on that date. The member contribution rate is 9.00%. Compensation for benefit purposes includes base, longevity, and holiday pay.
- d. Rhode Island General Law § 45-21.2-5 (7) and § 45-21.2-14 contain special provisions that apply to members of the Cranston fire department hired after July 1, 1995 or with less than 5 years of service at that date. Under these special provisions, the final compensation for benefit computation is based on the members' highest year of earnings. In addition, the members shall receive a three percent (3%) escalation of their pension payment compounded each year on January 1st following the year of retirement and continuing on an annual basis on that date. The member contribution rate is 10.00%. Compensation for benefit purposes includes base, longevity, and holiday pay.

## APPENDIX 2 (Continued)

- e. Rhode Island General Law §§ 45-21.2-5 (8) and § 45-21.2-14 contain special provisions that apply to members of the Cranston police department hired after July 1, 1995 or with less than 5 years of service at that date. Under these special provisions, the final compensation for benefit computation is based on the members' highest year of earnings. In addition, the members shall receive a three percent (3%) escalation of their pension payment compounded each year on January 1st following the year of retirement and continuing on an annual basis on that date. The member contribution rate is 10.00%. Compensation for benefit purposes includes base, longevity, and holiday pay.
  
- f. Rhode Island General Law §§ 45-21.2-6.3 contains special provisions that apply to employees of Richmond Police. The Town adopted these provisions on April 3, 2008, effective July 1, 2008. Under these special provisions, members are eligible to retire after attaining 22 years of service. The retirement benefit for a member with 22 or more years of service was improved to 50.00% x Final Average Compensation (FAC), plus 2.2727% x FAC x Years of Service in Excess of 22, with a maximum benefit equal to 75% of FAC.

## **GLOSSARY**

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### **DEFINITION OF ACTUARIAL TERMS**

## GLOSSARY

1. Actuarial Accrued Liability (AAL) - That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Plan Benefits which is not provided for by future Normal Costs. It is equal to the Actuarial Present Value of Future Plan Benefits minus the actuarial present value of future Normal Costs.
2. Actuarial Assumptions - Assumptions as to future experience under the Plan. These include assumptions about the occurrence of future events affecting costs or liabilities, such as:
  - mortality, withdrawal, disablement, and retirement;
  - future increases in salary;
  - future rates of investment earnings and future investment and administrative expenses;
  - characteristics of members not specified in the data, such as marital status;
  - characteristics of future members;
  - future elections made by members; and
  - other relevant items.
3. Actuarial Cost Method or Funding Method - A procedure for allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability. These items are used to determine the ARC.
4. Actuarial Gain or Actuarial Loss - A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the Plan's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
5. Actuarially Equivalent - Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

## GLOSSARY (Continued)

6. Actuarial Present Value (APV) - The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
  - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.),
  - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
  - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.
7. Actuarial Present Value of Future Plan Benefits - The Actuarial Present Value of those benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members either entitled to a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.
8. Actuarial Valuation - The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB 25, such as the funded ratio and the ARC.
9. Actuarial Value of Assets or Valuation Assets - The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly actuaries use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ARC.
10. Actuarially Determined - Values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

## GLOSSARY (Continued)

11. Amortization Method - A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
12. Amortization Payment - That portion of the pension plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
13. Annual Required Contribution (ARC) - The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB 25. The ARC consists of the Employer Normal Cost and the Amortization Payment.
14. Closed Amortization Period - A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.
15. Decrements: Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.
16. Defined Benefit Plan: An employer-sponsored retirement benefit that provides workers, upon attainment of designated age and service thresholds, with a monthly benefit based on the employee's salary and length of service. The value of a benefit from a defined benefit plan is generally not affected by the return on the assets that are invested to fund the benefit.
17. Defined Contribution Plan: An employer-sponsored retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, and the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
18. Employer Normal Cost: The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.
19. Experience Study: A periodic review and analysis of the actual experience of the Plan which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.



## GLOSSARY (Continued)

20. **Funded Ratio:** The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA, although GASB 25 reporting requires the use of the AVA.
21. **Funding Period or Amortization Period:** The term “Funding Period” is used in two ways. In the first sense, it is the period used in calculating the Amortization Payment as a component of the ARC. This funding period is chosen by the Board of Trustees. In the second sense, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.
22. **GASB:** Governmental Accounting Standards Board.
23. **GASB 67 and GASB 68:** Governmental Accounting Standards Board Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 68 sets the rules for the systems themselves.
24. **Normal Cost:** That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits which are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability or retirement.
25. **Open Amortization Period:** An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
26. **Unfunded Actuarial Accrued Liability:** The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.
27. **Valuation Date or Actuarial Valuation Date:** The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.