

The Town of Smithfield

Postretirement Benefits Analysis

Actuarial Valuation Report

Fiscal Year July 1, 2015 – June 30, 2016

October 27, 2016



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Section I – Overview

The Town of Smithfield has engaged Buck Consultants to prepare a roll-forward actuarial valuation of their post-retirement benefits program as of June 30, 2016. This valuation was performed using employee census data, enrollment data, claims, premiums, participant contributions and plan provision information provided by personnel of the Town of Smithfield for the previous valuation. Buck did not audit these data, although they were reviewed for reasonability. The results of the valuation are dependent on the accuracy of the data.

Based on the foregoing, the cost results and actuarial exhibits presented in this report were determined on a consistent and objective basis in accordance with applicable Actuarial Standards of Practice and generally accepted actuarial procedures.

The purposes of the valuation are to analyze the current funded position of the Town's post-retirement benefits program, determine the level of contributions necessary to assure sound funding, and provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties. This valuation report contains information required by the Government Accounting Standards Board's Statements Nos. 43 and 45, respectively entitled "Financial Reporting for Post-employment Benefit Plans Other Than Pension Plans" and "Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions." Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of Buck. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without prior review by Buck. The attached pages should not be provided without a copy of this report in its entirety.

According to GASB principles, if the benefits are not prefunded, the rate earned by the General Asset Account of the employer must be used to select the discount rate used to measure the obligations of the plan. If the benefits had been fully pre-funded (i.e., the Town had been contributing the full ARC (Annual Required Contribution) each year), the discount rate would be based on the expected return that the qualified assets would be assumed to earn, which in turn depends upon the asset allocation of those funds. In the event of partial funding (i.e., the Town had been contributing a portion of the ARC each year to a qualified trust), a "blended" discount rate would be used. In the current valuation, a blended discount rate of 5.75% was used as of July 1, 2015 since the Town has not been contributing the full ARC in each year.

The Fiscal Year 2016 valuation results are based on a roll-forward of the Fiscal Year 2015 valuation results, and are therefore based on the same data, methods, provisions and assumptions as were used in the previous valuation except for the following:

- The discount rate was changed from 6.10% as of July 1, 2014 to 5.75% as of July 1, 2015. This blended discount rate was determined based on the value of the assets in relation to the accumulated fully funded ARC on a hypothetical basis as of July 1, 2015. This increased the liability.
- The improvement scale used to project mortality future improvement was changed from MP-2014 to MP2015 to reflect more recent data published by the Society of Actuaries. This decreased the liability.



To estimate the effect of fully prefunding the obligation, we have used an alternative discount rate of 8.0%, which implicitly assumes a relatively high proportion of equity investments. Section II provides a summary of the principal valuation results. Section IV provides a projection of funding amounts.

The July 1, 2015 Actuarial Accrued Liability (AAL) of \$26.4M is approximately the same as had been projected from the prior valuation. This is because the projection already reflected the 5.75% discount rate and the change to the mortality improvement scale only caused a tiny gain.

The results in this report do not reflect our understanding of revised rules for employer accounting for Postemployment Benefits Other than Pensions ("OPEB"). The revised rules, issued as GASB 74 and 75, are entitled "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." The new rules under GASB 74 are effective for fiscal years beginning after June 15, 2016, e.g. for FY2017 for Smithfield, but early adoption is encouraged. The new rules under GASB 75 are effective for fiscal years beginning after June 15, 2017, e.g. for FY2018 for Smithfield, but early adoption is encouraged. Calculations under the new rules are outside of the scope of this valuation.

The economic and demographic assumptions used for financial accounting purposes were chosen by the plan sponsor with our advice. We believe these assumptions are reasonable for financial accounting purposes. Given the assumptions selected, the costs and actuarial exhibits presented in this report have been prepared in accordance with the requirements of GASB 43 & 45. It should be recognized, however, that there can be significant differences between actual experience and these assumptions. Moreover, other sets of reasonable assumptions can yield materially lesser or greater results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

The results of the valuation are appropriate for the purposes noted above. As the results are sensitive to the underlying assumptions and methods, the results of calculations prepared for other purposes could differ significantly. Accordingly, these results should not be relied upon for other purposes.



The valuation was prepared under my supervision. I am an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries and have met the Qualifications Standard of the American Academy of Actuaries to render the actuarial opinions contained herein. I am available to answer questions about this report.

Respectfully Submitted,

Bring Alm

Brian Hlava, ASA, MAAA, FCA Director, Consulting Actuary

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Section II - Required Information

		Partial Prefunding	Full Prefunding	<u>Difference</u>
Discount R	ate:	5.75%	8.00%	
<u>At 7/1/2015</u> a) Market Val	ue of Assets	2,369,807	2,369,807	0
Active pa	ccrued Liability articipants participants L	15,561,646 10,843,351 26,404,997	11,442,052 9,346,438 20,788,490	4,119,594 <u>1,496,913</u> 5,616,507
c) Unfunded A	Actuarial Liability "UAL" [b - a]	24,035,190	18,418,683	5,616,507
d) Funded rat	io [a / b]	9.0%	11.4%	-2.4%
e) Annual cov	ered payroll	35,630,471	35,630,471	0
f) UAL as per	cent of covered payroll	67.46%	51.69%	N/A
For Fiscal Year	2016			
g) Normal Co	st	827,750	536,663	291,087
h) Amortizatio	n of UAL*	1,607,261	1,514,892	92,369
i) Interest to	middle of fiscal year	69,029	80,483	-11,454
j) Annual Red	quired Contribution (ARC) [= g + h + i] 2,504,040	2,132,038	372,002
k) Expected b	enefit payments**	1,369,983	1,369,983	0

* 30-year amortization, 5.75% amortization is based on a total UAL of \$24,035,190 and 8.00% amortization is based on a total UAL of \$18,418,683.

** On an expected "true cost" basis.



Section III – Valuation Information

Annual Post Retirement Premiums effective July 1, 2014

Benefits are available to employees and retirees through a number of Plans depending on the contract negotiated. The following are the annual current rates being paid by the town and by members. They are expected to increase with the valuation trend in the future.

Rates in effect from July 1, 201					
Plan	Ind	lividual	Far	nily	
Police					
Medical	\$	7,850	\$	19,808	
Dental	\$	382	\$	949	
Fire					
Medical	\$	7,903	\$	20,019	
Dental	\$	382	\$	949	
Town					
Medical	\$	7,457	\$	18,815	
Dental	\$	382	\$	919	
Classic – School					
Medical	\$	7,955	\$	20,083	
Dental	\$	388	\$	944	
HealthMate – School					
Medical	\$	6,673	\$	17,125	
Dental	\$	388	\$	944	
HealthMate 100/80 – School					
Medical	\$	6,286	\$	16,129	
Dental	\$	388	\$	944	



Section III - Valuation Information

Number of Employees included in valuations as of 6/30/2014

	Town	Police	Fire	Ice Rink	Water Fund	School	Total
Actives	54	39	54	3	2	313	465
Retired & Spouses (medical &/or dental)	4	21	16	0	0	40	81
Total	58	60	70	3	2	353	546
Average Age as of 6/30/2014							
Actives	51.0	37.8	38.9	34.1	47.4	46.3	45.2
Retired & Spouses (medical &/or dental)	59.9	51.6	53.0	n/a	n/a	60.7	56.1
Total	51.6	54.1	53.0	51.0	51.0	52.0	52.3
Accrued Liability as of 7/1/2015 @ 5.75%							
Active	1,277,814	4,039,754	6,668,395	7,968	194,885	3,372,831	15,561,646
Retired	410,037	5,239,439	3,875,584	0	0	1,318,291	10,843,351
Total	1,687,851	9,279,193	10,543,979	7,968	194,885	4,691,122	26,404,997
Annual Required Contribution for FY2016							
Normal Cost	69,497	212,754	402,111	637	7,035	135,716	827,750
Amortization of UAL	102,739	564,820	641,807	485	11,863	285,547	1,607,261
Interest to middle of fiscal year	4,883	22,043	29,593	32	536	11,942	69,029
Total ARC	177,119	799,617	1,073,511	1,154	19,434	433,205	2,504,040
Pay-as-you-go for FY2016 (PAYG)	90,789	425,858	386,513	0	54	466,770	1,369,983
Difference between ARC and PAYG	86,330	373,759	686,998	1,154	19,380	-33,565	1,134,057



Section IV – Schedule of Employer Contributions

The Government Accounting Standards Board's Statement No. 45 "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions" outlines various requirements of a funding schedule that will amortize the unfunded actuarial liability and cover normal costs. Amortization of the unfunded actuarial liability is to be based on a schedule that extends no longer than 30 years. The contribution towards the amortization of the unfunded actuarial liability may be made in level payments or in payments increasing at the same rate as salary increases.

In the amortization schedule shown for the fully prefunded case, the amortization of the unfunded accrued liability is shown in a closed, level dollar basis. This demonstrates how the liability would decrease if the 30 year amortization period closed as of 7/1/2015 and Smithfield fully funded the plan each year. In the amortization schedule shown for the non-fully prefunded case, the amortization of the unfunded accrued liability is shown on an open, level dollar basis. In both cases, the amortization period is 30 years. The normal costs are expected to increase at the same rate as the assumed ultimate health care trend rate. The contributions were computed assuming that the contribution is paid on January 1 (i.e. the middle of the fiscal year).

Paragraph 12 of GASB 45 stipulates that valuations must be performed at least biennially or triennally, depending on the number of plan members. The following projections are intended only to illustrate long-term implications of prefunding versus pay-as-you-go.



Section IV - Schedule of Employer Contributions

Fiscal Year		Amortization			
<u>Ending In</u>	Normal Cost	<u>of UAL</u>	<u>Interest</u>	ARC	<u>Pay-as-You-Go</u>
2016	827,750	1,607,261	69,029	2,504,040	1,369,983
2017	928,781	1,677,922	69,456	2,676,159	1,425,964
2018	970,576	1,737,217	72,149	2,779,942	1,490,082
2019	1,014,252	1,798,307	74,941	2,887,500	1,518,507
2020	1,059,893	1,863,784	77,901	3,001,578	1,645,924
2021	1,107,588	1,927,457	80,869	3,115,914	1,700,670
2022	1,157,429	1,994,186	83,975	3,235,590	1,733,244
2023	1,209,513	2,065,750	87,269	3,362,532	1,858,460
2024	1,263,941	2,136,424	90,603	3,490,968	2,050,526
2025	1,320,818	2,201,887	93,863	3,616,568	2,086,580
2026	1,380,255	2,272,366	97,324	3,749,945	2,125,227
2027	1,442,366	2,348,134	100,998	3,891,498	2,257,598
2028	1,507,272	2,423,446	104,734	4,035,452	2,479,914
2029	1,575,099	2,492,506	108,381	4,175,986	2,458,815
2030	1,645,978	2,571,309	112,370	4,329,657	2,602,502
2031	1,720,047	2,649,667	116,431	4,486,145	2,612,584
2032	1,797,449	2,736,629	120,811	4,654,889	2,634,776
2033	1,878,334	2,832,082	125,509	4,835,925	2,627,092
2034	1,962,859	2,938,703	130,602	5,032,164	2,605,677
2035	2,051,188	3,058,253	136,141	5,245,582	2,730,006
2036	2,143,491	3,182,028	141,899	5,467,418	2,822,328
2037	2,239,948	3,312,649	147,949	5,700,546	2,906,152
2038	2,340,746	3,451,331	154,330	5,946,407	2,984,362
2039	2,446,080	3,599,177	161,076	6,206,333	3,023,445
2040	2,556,154	3,759,584	168,283	6,484,021	2,859,207
2041	2,671,181	3,947,030	176,342	6,794,553	2,950,828
2042	2,791,384	4,146,351	184,856	7,122,591	2,888,322
2043	2,916,996	4,368,759	194,129	7,479,884	2,709,080
2044	3,048,261	4,623,605	204,417	7,876,283	2,673,174
2045	3,185,433	4,903,524	215,530	8,304,487	2,450,979
2046	3,328,777	5,222,620	227,852	8,779,249	2,328,200

Assumed Partial Prefunding Interest Rate of 5.40%*

* 1. The components of the FY2016 Annual ARC use a 5.75% discount rate.

2. Projection assumes the Town only funds at Pay-as-You-Go cost going forward. For illustrative purposes only (as partial funding discount rate may decrease over time.) The projection of normal cost assumes new entrants.



Section IV - Schedule of Employer Contributions

Assumed Full Prefunding Interest Rate of 8.00%

Fiscal Year		Amortization			
<u>Ending In</u>	Normal Cost	<u>of UAL</u>	<u>Interest</u>	ARC	<u>Pay-as-You-Go</u>
2016	536,663	1,514,892	80,483	2,132,038	1,369,983
2017	560,813	1,514,892	81,431	2,157,136	1,425,964
2018	586,050	1,514,892	82,421	2,183,363	1,490,082
2019	612,422	1,514,892	83,456	2,210,770	1,518,507
2020	639,981	1,514,892	84,537	2,239,410	1,645,924
2021	668,780	1,514,892	85,667	2,269,339	1,700,670
2022	698,875	1,514,892	86,847	2,300,614	1,733,244
2023	730,324	1,514,892	88,081	2,333,297	1,858,460
2024	763,189	1,514,892	89,370	2,367,451	2,050,526
2025	797,533	1,514,892	90,718	2,403,143	2,086,580
2026	833,422	1,514,892	92,125	2,440,439	2,125,227
2027	870,926	1,514,892	93,597	2,479,415	2,257,598
2028	910,118	1,514,892	95,134	2,520,144	2,479,914
2029	951,073	1,514,892	96,741	2,562,706	2,458,815
2030	993,871	1,514,892	98,420	2,607,183	2,602,502
2031	1,038,595	1,514,892	100,175	2,653,662	2,612,584
2032	1,085,332	1,514,892	102,008	2,702,232	2,634,776
2033	1,134,172	1,514,892	103,924	2,752,988	2,627,092
2034	1,185,210	1,514,892	105,926	2,806,028	2,605,677
2035	1,238,544	1,514,892	108,019	2,861,455	2,730,006
2036	1,294,278	1,514,892	110,205	2,919,375	2,822,328
2037	1,352,521	1,514,892	112,490	2,979,903	2,906,152
2038	1,413,384	1,514,892	114,878	3,043,154	2,984,362
2039	1,476,986	1,514,892	117,373	3,109,251	3,023,445
2040	1,543,450	1,514,892	119,980	3,178,322	2,859,207
2041	1,612,905	1,514,892	122,705	3,250,502	2,950,828
2042	1,685,486	1,514,892	125,552	3,325,930	2,888,322
2043	1,761,333	1,514,892	128,528	3,404,753	2,709,080
2044	1,840,593	1,514,892	131,637	3,487,122	2,673,174
2045	1,923,420	1,514,892	134,887	3,573,199	2,450,979
2046	2,009,974	-	78,852	2,088,826	2,328,200

Note: For demonstration purposes only.



Section V - GASB 45 Disclosure Requirements

GASB 45 DISCLOSURE REQUIREMENTS

A. Annual OPEB Cost and Net OPEB Obligations	07/01/2013 - <u>06/30/2014</u>	07/01/2014 - <u>06/30/2015</u>	07/01/2015 - <u>06/30/2016</u>	07/01/2016 - <u>06/30/2017**</u>
1. Annual Required Contribution (ARC)	2,339,552	2,355,918	2,504,040	2,676,159
Interest on net OPEB Obligation	270,176	270,064	305,798	345,703
3. Adjustment to ARC	<u>(325,221)</u>	<u>(325,086)</u>	<u>(376,085)</u>	<u>(435,632)</u>
Annual OPEB Cost (Expense)	2,284,507	2,300,896	2,433,753	2,586,230
Contribution made (assumed middle of year)*	<u>2,286,345</u>	<u>1,409,946</u>	<u>1,350,079</u>	1,425,964
Increase in OPEB Obligation	(1,838)	890,950	1,083,674	1,160,266
Net OPEB Obligation - beginning of year	<u>4,429,119</u>	<u>4,427,280</u>	<u>5,318,230</u>	<u>6,401,904</u>
Net OPEB Obligation - end of year	4,427,280	5,318,230	6,401,904	7,562,170

The annual OPEB Cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal years ending 2013 - 2016 are as follows:

Fiscal Year <u>Ending</u>	Annual OPEB <u>Cost</u>	Percentage of Annual OPEB Cost <u>Contributed</u>	Net OPEB <u>Obligation</u>	Covered <u>Payroll</u>	AOC as Percentage of Covered <u>Payroll</u>
06/29/2013	2,208,815	118.1%	4,429,119	34,537,775	6.40%
06/30/2014	2,284,507	100.1%	4,427,280	34,258,672	6.67%
06/30/2015	2,300,896	61.3%	5,318,230	35,630,471	6.46%
06/30/2016	2,433,753	55.5%	6,401,904	35,630,471**	6.83%
06/30/2017**	2,586,230	55.1%	7,562,170	35,630,471**	7.26%

B. Funded Status and Funding Progress

	(a)	(b) Actuarial	(b) - (a)	(a) / (b)	(c)	[(b)-(a)]/(c) UAL as
Actuarial	Actuarial	Accrued	Unfunded			Percentage
Valuation	Value of	Liability	AAL	Funded	Covered	of Covered
Date	Assets	<u>(AAL)</u>	<u>(UAL)</u>	Ratio	Payroll	Payroll
07/01/10	0	26,748,967	26,748,967	0.00%	32,276,437	82.87%
07/01/11	0	31,168,449	31,168,449	0.00%	32,311,568	96.46%
07/01/12	0	33,727,292	33,727,292	0.00%	33,209,399	101.56%
07/01/13	977,467	24,768,046	23,790,579	3.95%	34,537,775**	68.88%
07/01/14	2,085,228	24,467,167	22,381,939	8.52%	34,258,672	65.33%
07/01/15	2,369,807	26,404,997	24,035,190	8.97%	35,630,471	67.46%
07/01/16	2,519,734	28,509,459	25,989,725	8.84%	35,630,471**	72.94%

C. Methods and Assumptions used for 7/1/2016 AAL and FY2017 ARC

* Contribution made reflects actual benefit payments for FY2016, including the FYE2016 asset balance as benefit payments ** Estimated.



Schedule A – Actuarial Assumptions and Methods Town of Smithfield, All Groups

Return on Assets as of July 1	, 2015: Fully prefund: 8.0% per year, net of investment expenses Unfunded: 3.5% per year Partially Funded: 5.75% per year based on the percent funded as of July 1, 2015
Discount Rate:	5.75% as of July 1, 2015; 5.40% as of July 1, 2016
Actuarial Cost Method:	Projected Unit Credit attributed to first eligibility.
Assets:	Market value is used.

Medical Care Inflation:

Fiscal Year	Inflation Rate
2016	7.0%
2017	6.5%
2018	6.0%
2019	5.5%
2020	5.0%
2021 & after	4.5%

 Note: For school retirees hired before June 20, 1989, who do not meet 60/20 or 28 years of service with at least 15 with Smithfield, the Town's portion of the cost of retiree benefits are frozen at retirement and not increased for post-retirement inflation.

The initial trend rates were established based on the health care marketplace as a whole including information from recent trend surveys. The trend rates are based on the "core" trend components (i.e., medical inflation, utilization and intensity of services) but exclude the impact of the aging of the covered population and other noncore components of trend (e.g., profit margins typically included in an insurer's trend assumptions). It is assumed that over the long-term, health care costs ultimately will be constrained by the public's ability and willingness to pay the higher cost of health care services. This assumption implies that the ultimate trend rate should be related to the nominal per capita GDP. Therefore, ultimate trend is assumed to be comprised of (i) real growth in per capita GDP, (ii) long-term growth attributable to technology innovations, and (iii) assumed long-term inflation rate. These are the same trends that were used in the recent CIRS retiree health valuation.

Amortization period: For the fully prefunded scenario, 30-year level-dollar payments, closed basis (assuming the amortization period closes as of this valuation). For the non-fully prefunded scenario, 30-year level dollar, open basis. Amortization is performed on the plan as a



whole and may not be appropriate on a component basis for funding purposes.

- Participation: For non-School non-union employees hired after December 31, 1988, 50% for all future retirees. For all other non-School employees, 100% for all future retirees. For School employees, 100% for future retirees expecting to receive full subsidy and 85% for future retirees without full subsidy. Future School retirees are expected to elect same medical plan coverage as their current active medical plan.
- Marital status: 80% of male employees and 60% of female employees are assumed to have a covered spouse at retirement. Wives are assumed to be three years younger than their husbands.



Schedule A – Actuarial Assumptions and Methods Town of Smithfield, All Groups

Medical Plan Costs:

Because the plans are experience rated and limited claims information was available, the assumed per capita costs are based on reported premiums as shown in Section III. The costs were adjusted to age 65 and then adjusted to agespecific rates using the age-based morbidity factors discussed further below. These costs are assumed to include any associated administrative expenses.

	Individual @ Age 65
	FY2015
Police	\$15,178
Fire	\$15,281
Town	\$14,418
School - Deductible (Co-Ins 100/80)	\$10,886
School - Standard	\$11,557
School - Classic	\$13,777

Dental Plan Benefits: Per capita costs based on the premiums as shown in Section III were projected using a 4% trend. No age-based morbidity was applied. All future retirees are assumed to elect post-retirement dental coverage.

Age-based Morbidity: Per capita costs are adjusted to reflect expected cost increases related to age. The increase in the net incurred claims was based on the 2014 aging tables published by the SOA and are assumed to be:

Age	Annual Increase Retiree
29 and below	0.0%
30-49	varies, between 1.0 and 3.5%
50-64	varies, between 4.0 and 4.7%
65-79	varies, between -2.0 and 2.1%
80 and over	0.0%

 Note: Age-based morbidity is applied to the gross medical claims but not to retiree contributions nor to the gross dental claims.



Schedule A – Actuarial Assumptions and Methods General Employees

Separations from Active Service

Withdrawal and retirements rates below are based on eligibility under the pension plan, which includes the changes under the Rhode Island pension reform. For those individuals affected by the reform, dates of retirement eligibility were provided by the Town.

Withdrawal Rates:	For teachers, withdrawal rates are based on the Teachers termination rate table published in the 2010 ERS Experience Study ¹ .
	For non-teacher general employees, withdrawal rates are based on the General Employees' termination rate table published in the 2010 MERS Experience Study ² .
Retirement Rates:	For employees who become eligible for OPEB benefits prior to becoming eligible for pension (i.e., age 60 with at least 10 years of service or with at least 28 years of service for teachers, and age 58 with at least 10 years of service or at least 30 years of service for non-teacher general employees), retirement rates are assumed to follow the respective withdrawal rate tables described above.
Disability Rates:	For teachers, accidental and ordinary disability rates are based on the Teachers retirement rate table published in the 2010 ERS Experience Study.
	For non-teacher general employees, accidental and ordinary disability rates are based on the General Employees' disability rate table published in the 2010 MERS Experience Study.
	Ordinary disability rates were assumed to continue for members eligible for retirement.
Mortality Rates:	RP-2014 scaled to base year 2006, projecting mortality improvements generationally using MP-2015, to reflect the Society of Actuaries' new mortality rate study.

¹ Employees' Retirement System of Rhode Island: Actuarial Experience Study for the Six-Year Period Ending June 30, 2010. May 23, 2011, <u>https://www.ersri.org/public/actuarialValuations/ExpStudyRpt2010.pdf</u>
² Employees' Retirement System of Rhode Island: Actuarial Experience Study for the Six-Year Period Ending

June 30, 2010, Supplement Covering The Municipal Employees' Retirement System. May 23, 2011, https://www.ersri.org/public/actuarialValuations/ExpStudyRpt2010_MERS_Supplement.pdf



Schedule A – Actuarial Assumptions and Methods Police and Fire

Separations From Active Service

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Withdrawal Rates:	For police and fire, withdrawal rates are based on the General Employees' termination rate table published in the 2010 MERS Experience Study ³ .
Retirement Rates:	For police and fire with at least 20 years of service, retirement rates are based on the General Employees' retirement rate table published in the 2010 MERS Experience Study. For police and fire retiring prior to meeting the above eligibility criteria, retirement rates are assumed to follow the withdrawal rate table for administrators described above.
Disability Rates:	For police and fire, accidental and ordinary disability rates are based on the General Employees' disability rate table published in the 2010 MERS Experience Study. Ordinary disability rates were assumed to continue for members eligible for retirement.
Mortality Rates:	RP-2014 scaled to base year 2006, projecting mortality improvements generationally using MP-2015, to reflect the Society of Actuaries' new mortality rate study.

³ <u>Employees' Retirement System of Rhode Island: Actuarial Experience Study for the Six-Year Period Ending</u> June 30, 2010, Supplement Covering The Municipal Employees' Retirement System. May 23, 2011, https://www.ersri.org/public/actuarialValuations/ExpStudyRpt2010_MERS_Supplement.pdf



Schedule B - Plan Provisions

For purposes of this valuation, active employees are assumed to keep their current coverage level (family or individual) after they retire, with any spouse coverage assumed to continue until age 65.

Pre/Post-65 Coverage

Retiree Medical only to age 65.

Retirement Eligibility

Group	Eligibility
Town (except Police and Fire)	
Service Retirement	Age 58 with 20 years of service
Disability Retirement	No service requirement
Police and Fire	
Service Retirement	20 years of service
Disability Retirement	No service requirement
School	
Hired before 6/20/1989	Age 60 with 15 years of service
Hired on or after 6/20/1989	Age 60 with 20 years of service; or 28 years of service to service with at least 15 years with Smithfield

Cost-Sharing

Group	Contribution Structure
Town	
Non-Union hired after	
12/31/1988	Participants contribute 100%.
Other Town employees	Participants are non-contributory
Police and Fire	Participants are non-contributory
School	
Hired before 6/20/1989	If either (1) age 60 with 20 years of service; or (2) 28 years of service with at least 15 years with Smithfield, participant is non contributory. Otherwise (i.e., 60/15 but not 60/20, or service < 28), plan contribution is frozen at the date of retirement.
Hired on or after 6/20/1989 but before 7/1/1992	If 28 years of service with at least 15 years with Smithfield, participant is non contributory Otherwise (i.e., 60/20 and service < 28), 50% contribution
Hired on or after 7/1/1992	Plan contributes a maximum of \$5,000 annually



Schedule C – Consideration of Health Care Reform

Summary of Effects of Selected Provisions

Removal of Lifetime Maximum: This does not apply since the current medical plans have no lifetime maximums. Note that this valuation reflects a \$5,000 annual maximum for school retirees with either 28 years of service or 60 years of age and 20 years of service. We have been advised by the client that these benefits constitute a Retiree Only plan, and so are not subject to restrictions on annual maximums under the Patient Protection and Affordable Care Act.

Medicare Advantage Plans - Effective 1/1/2011: The law provides for reductions to the amounts that would be provided to Medicare Advantage plans starting in 2011. This does not apply since none of the current plans are Medicare Advantage plans.

Expansion of Child Coverage to Age 26: Since few retirees cover children on retiree health plans, this provision will likely have a relatively small effect on the gross benefit cost. We have not reflected the impact of any cost increase due to the expansion of coverage.

Public Exchanges – Starting 1/1/2014: Since 2014, the health care exchanges (marketplaces) have made available health insurance to non-Medicare retirees with the possibility of federal income based subsidies. These alternative options could result in reduced participation in the Town's plans. Potential reduced participation due to the availability of this alternative coverage was considered when setting the participation assumption.

Excise Tax on High-Cost Employer Health Plans (aka Cadillac Tax) - Effective 1/1/2020: The excise tax is not reflected since we have ruled it to be non-material due to its minor impact on the liabilities (less than 0.1% of AAL).

Other: We have not identified any other specific provision of health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.



Schedule D – Glossary of Terms

Actuarial accrued liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of OPEB benefits and expenses which is not provided for by future Normal Costs and therefore is the value of benefits already earned.

Actuarial assumptions

Assumptions as to the occurrence of future events affecting OPEB costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided OPEB benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

Actuarial cost method

A procedure for determining the Actuarial Present Value of OPEB benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarial experience gain or 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, as determined in accordance with a particular Actuarial Cost Method.

Amortization (of unfunded actuarial accrued liability)

That portion of the OPEB plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability.

Annual OPEB cost

An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.

Annual required contributions of the employer (ARC)

The employer's periodic expense to a defined benefit OPEB plan, calculated in accordance with the parameters. It is the value of the cash contributions for a funded plan and the value of the expense entry in the profit and loss section of the financial statements.

Closed amortization period (closed basis)

A specific number of years that is counted from one date and, therefore, declines to zero with the passage of time. For example, if the amortization period initially is thirty years on a closed basis, twenty-nine years remain after the first year, twenty-eight years after the second year, and so forth. In contrast, an open amortization period (open basis) is one that begins again or is recalculated at each actuarial valuation date. Within a maximum number of years specified by law or policy (for example, thirty years), the period may increase, decrease, or remain stable.

Covered payroll

Annual compensation paid to active employees covered by an OPEB plan. If employees also are covered by a pension plan, the covered payroll should include all elements included in compensation on which contributions to the pension plan are based. For example, if pension contributions are calculated on base pay including overtime, covered payroll includes overtime compensation.



Defined benefit OPEB plan

An OPEB plan having terms that specify the benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

Funded ratio

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Funding policy

The program for the amounts and timing of contributions to be made by plan members, employer(s), and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by an OPEB plan.

Healthcare cost trend rate

The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

Investment return assumption (discount rate)

The rate used to adjust a series of future payments to reflect the time value of money.

Level dollar amortization method

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

Level percentage of projected payroll amortization method

Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases due to inflation; in dollars adjusted for inflation, the payments can be expected to remain level.

Net OPEB obligation

The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt. It will be included as a balance sheet entry on the financial statements.

Normal cost

That portion of the Actuarial Present Value of OPEB benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. It is the value of benefits to be accrued in the valuation year by active employees.

OPEB-related debt

All long-term liabilities of an employer to an OPEB plan, the payment of which is not included in the annual required contributions of a sole or agent employer (ARC) or the actuarially determined required contributions of a cost-sharing employer. Payments generally are made in accordance with installment contracts that usually include interest. Examples include contractually deferred contributions and amounts assessed to an employer upon joining a multiple-employer plan.



Other postemployment benefits

Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-as-you-go

A method of financing an OPEB plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

Required supplementary information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.