

# **Acton-Boxborough Regional School District**

**Actuarial Valuation and Review of Other  
Postemployment Benefits (OPEB) as of  
December 31, 2014 in accordance with  
GASB Statements No. 43 and No. 45**





116 Huntington Avenue 8th Floor Boston, MA 02116-5744  
T 617.424.7300 www.segalco.com

*July 28, 2015*

*Ms. Clare Jeannotte  
Director of Finance  
Acton-Boxborough Regional School District  
16 Charter Road  
Acton, MA 01720-2995*

*Dear Ms. Jeannotte:*

*We are pleased to submit this report on our actuarial valuation of postemployment welfare benefits as of December 31, 2014 under Governmental Accounting Standards Board (GASB) Statements Number 43 and 45. It establishes the liabilities of the postemployment welfare benefit plan in accordance with GASB Statements Number 43 and 45 for the fiscal years beginning July 1, 2014 and July 1, 2015 and summarizes the actuarial data.*


*This report is based on information received from the Acton-Boxborough Regional School District. The actuarial projections were based on the assumptions and methods described in Exhibit II and on the plan of benefits as summarized in Exhibit III.*

*We look forward to discussing this with you at your convenience.*

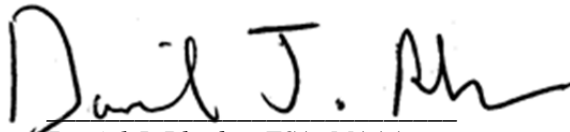
*Sincerely,*

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

*By:*

  
*Kathleen A. Riley, FSA, MAAA, EA  
Senior Vice President and Actuary*

8210176v1/10406.004

  
*Daniel J. Rhodes, FSA, MAAA  
Vice President and Consulting Actuary*

## SECTION 1

### EXECUTIVE SUMMARY

Important Information About Actuarial Valuations .....	1
Purpose .....	3
Highlights of the Valuation .....	3
Key Valuation Results .....	5
Accounting Requirements .....	6

## SECTION 2

### VALUATION RESULTS

Summary of Valuation Results.....	9
Funding Schedule .....	10
Projection of ARC .....	11
Actuarial Certification .....	12

## SECTION 3

### VALUATION DETAILS

CHART 1 Required Supplementary Information – Schedule of Employer Contributions .....	13
CHART 2 Required Supplementary Information – Schedule of Funding Progress .....	14
CHART 3 Required Supplementary Information – Net OPEB Obligation/(Asset) (NOO/NOA) .....	15
CHART 4 Summary of Required Supplementary Information .....	16

## SECTION 4

### SUPPORTING INFORMATION

EXHIBIT I Summary of Participant Data....	17
EXHIBIT II Actuarial Assumptions and Actuarial Cost Method.....	18
EXHIBIT III Summary of Plan .....	29

**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS**

An actuarial valuation is an estimate of future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

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

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinate with Medicare. If so, changes in the Medicare law or administration may change the plan’s costs without any change in the terms of the plan itself. It is important for the Acton-Boxborough Regional School District to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds, that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premium, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan’s benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved the plan’s assets, or if there are no assets, a rate of return on the assets of the employer. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which

**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results and will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Acton-Boxborough Regional School District. It includes information for compliance with accounting standards. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- Sections of this report include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience and health care cost trend, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The City should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Acton-Boxborough Regional School District upon delivery and review. The Acton-Boxborough Regional School District should notify Segal immediately of any questions or concerns about the final content.

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

**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

**PURPOSE**

This report presents the results of our actuarial valuation of the Acton-Boxborough Regional School District (the “Employer”) postemployment welfare benefit plan as of December 31, 2014. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants’ active working lifetimes. The accounting standard supplements cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

**HIGHLIGHTS OF THE VALUATION**

During the fiscal year ending June 30, 2015, we project the Acton-Boxborough Regional School District will pay benefits (net of retiree contributions) on behalf of retired employees of about \$1,034,000. This amount is less than the annual “cost” (the “Annual Required Contribution,” or ARC) of approximately \$4,011,000.

The GASB statements provide the method for selecting the investment return assumption (discount rate). If the benefits are fully funded, the discount rate should be based on the estimated long-term investment yield on the investments expected to be used to finance the payment of benefits. If financing is pay-as-you-go, the discount rate should be based on the expected yield on the assets of the employer. If the benefits are partially funded, a blended discount rate can be used that reflects the proportionate amounts of plan and employer assets expected to be used.

Based on the Acton-Boxborough Regional School District’s funding policy to contribute \$506,000 in fiscal year 2015, \$700,000 in fiscal year 2016, \$800,000 in fiscal year 2017 and \$900,000 in fiscal year 2018 and each year thereafter, we have determined a blended discount rate of 5.5%. The blending is based on a funded discount rate of 7.0% and a pay-as-you-go discount rate of 4.5%. In the prior valuation, a blended discount rate of 7.0% was used, based on a funded discount rate of 8.0% and a pay-as-you-go discount rate of 4.5%.

As of December 31, 2014, the Acton-Boxborough Regional School District has \$1,177,000 in assets that we have assumed are in a qualified OPEB Trust. The table below shows the increase in assets since the prior valuation.

<b>Reconciliation of OPEB Trust Fund</b>	
	<b>Total</b>
<b>Balance as of December 31, 2012</b>	\$239,760
Fiscal year 2014 OPEB contributions	376,000
Net investment income	<u>29,665</u>
<b>Balance as of December 31, 2013</b>	\$645,425
Fiscal year 2015 OPEB contributions	506,000
Net investment income	<u>25,945</u>
<b>Balance as of December 31, 2014</b>	\$1,177,370

**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

To determine the amortization payment on the unfunded actuarial accrued liability (UAAL), an amortization period and amortization method must be selected. We have used a 30-year open amortization of the UAAL (the maximum permitted by the GASB statements), with payments increasing at 3.5% per year. The GASB statements allow for either an open or closed amortization period. In open amortization, the period is reset to the initial value every year and the UAAL is reamortized, while under a closed amortization, the remaining period decreases and the UAAL is eventually “paid off.”

To be considered a fully funded plan, the “contribution in relation to the ARC” must equal the ARC. For example, if the ARC is \$3,370,000, and the employer pays benefits to retirees of \$1,034,000, then an additional contribution of the difference, or approximately \$2,336,000 will need to be added to an OPEB trust fund during the fiscal year ending June 30, 2015.

Page 10 shows a funding schedule using the 7.0% funding assumption and a 30-year closed amortization. This is an illustration of how assets and liabilities would increase if the School District were to fund the “additional funding” amount shown on the schedule. Page 11 is a similar illustration of how the partially funded liabilities and the ARC will change over time.

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the Employer may be eligible to receive for plan years beginning in 2006.

Employer decisions regarding plan design, cost sharing between the Employer and its retirees, actuarial cost method, amortization techniques, and integration with Medicare are just some of the decisions that affect the magnitude of OPEB obligations. We are available to assist you with any investigation of such options you may wish to undertake.

This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 other than the excise tax on high cost health plans beginning in 2018 (reflected in this valuation) and those previously adopted as of the valuation date.

**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**KEY VALUATION RESULTS**

- The **unfunded actuarial accrued liability (UAAL)** as of December 31, 2014 is \$40,270,000. Going forward, net unfunded plan obligations will be expected to change due to normal plan operations, which consist of continuing accruals for active members, plus interest on the unfunded actuarial accrued liability, less contributions. Future valuations will analyze the difference between actual and expected unfunded actuarial accrued liabilities.
  - As of December 31, 2014 the ratio of assets to the AAL (the funded ratio) is 2.8%.
- The **Annual Required Contribution (ARC)** for fiscal year 2015 is \$4,011,000. The ARC is expected to remain relatively level as a percentage of payroll, as long as the ARC is fully funded each year. If the ARC is not fully funded, it may be expected to increase as a percentage of payroll over time.

Plan obligations of \$41,447,000 as of December 31, 2014 represent an increase of \$17,981,000 from \$23,166,000 as shown in the December 31, 2012 valuation.

Plan obligations had been expected to increase \$2,563,000 due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total obligation, less expected benefit payments. The increase was the net effect of the following:

- An **actuarial experience loss** increased obligations by \$9,776,000. This was the net result of gains and losses due to demographic changes and the addition of the Town of Acton and Town of Boxborough public school employees.

- **Valuation assumption changes** increased obligations by \$5,943,000. This was the net result of an *increase* in obligations due to 1) the change in the discount rate from 7.0% to 5.5%, 2) revising the future trend on per capita health costs, 3) changes in the demographic assumptions as described in Exhibit II of Section 4 and 4) revising the excise tax on high cost health plans beginning in 2018, and partially offset by a *decrease* in obligations due to 5) valuation year per capita health costs not increasing as much as projected and 6) changes in the enrollment assumption for current and future retirees. The excise tax in this valuation resulted in a 1.56% increase in the actuarial accrued liability and a 2.32% increase in the normal cost. The complete set of assumptions is shown in Exhibit II.



**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

**ACCOUNTING REQUIREMENTS**

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under these statements, all state and local governmental entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements.

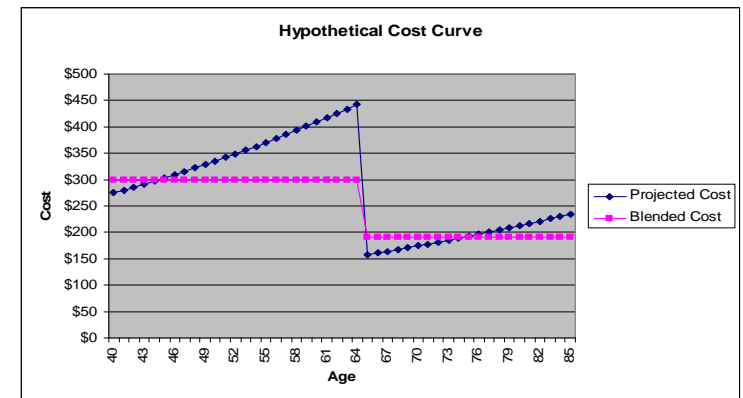
The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. These benefits, referred to as OPEB, are typically financed on a pay-as-you-go basis. The new standard introduces an accrual-basis accounting requirement; thereby recognizing the employer cost of postemployment benefits over an employee’s career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the net OPEB obligation (NOO). In addition, required supplementary information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan.

The benefits valued in this report are limited to those described in Exhibit III of Section 4.

The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.



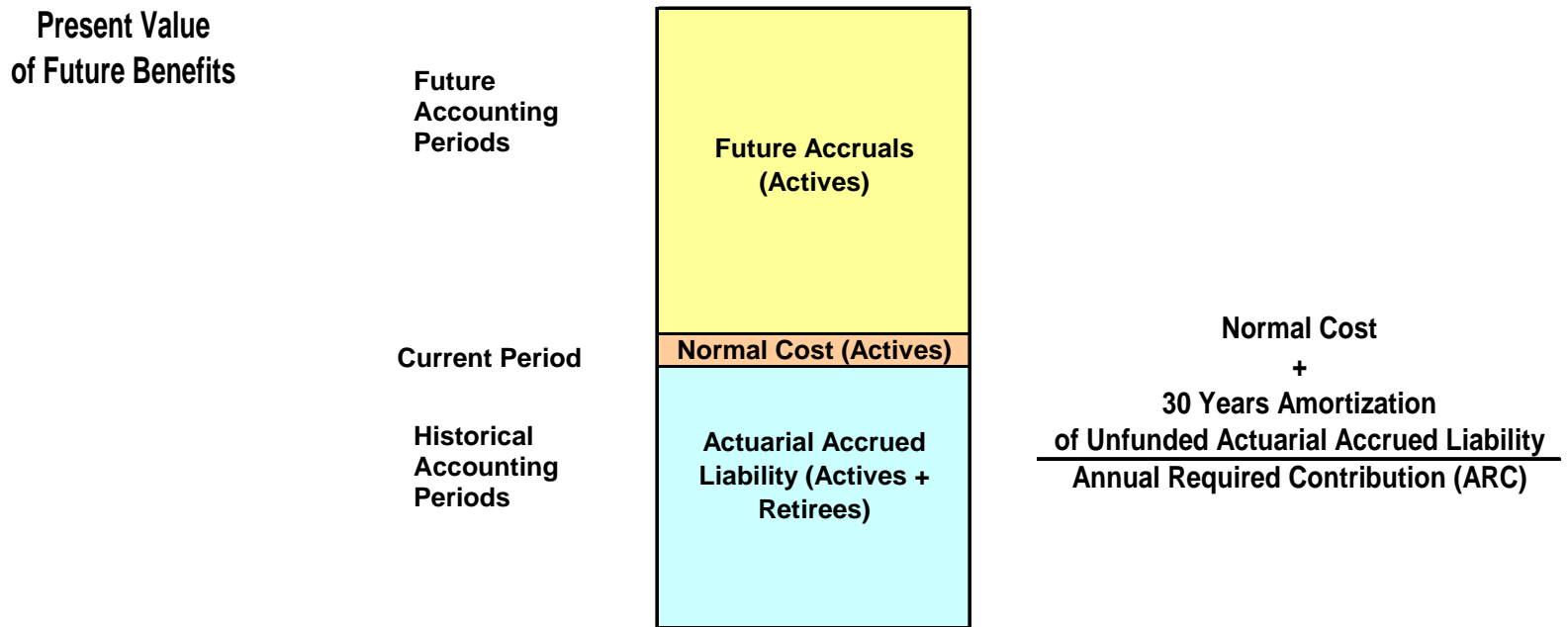
**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods.

The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

### GASB 43/45 Measurement



$$\text{Net OPEB Obligation} = \text{ARC}_1 + \text{ARC}_2 + \text{ARC}_3 + \dots - \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \dots$$

**SECTION 1: Executive Summary for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

Actuarial computations under GASB statements are for purposes of fulfilling certain welfare plan accounting requirements. The calculations shown in this report have been made on a basis consistent with our understanding of GASB. Determinations for purposes other than meeting the financial accounting requirements of GASB may differ significantly from the results reported here.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits does not incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

**SECTION 2: Valuation Results for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

**SUMMARY OF VALUATION RESULTS  
ALL DEPARTMENTS**

*The key results for the current year are shown on a funded basis and a partially funded basis.*

	<b>Funded (7.0% interest rate)</b>	<b>Partially Funded (5.5% interest rate)</b>
<b>Actuarial Accrued Liability by Participant Category</b>		
1. Current retirees, beneficiaries and dependents	\$11,872,461	\$13,788,679
2. Current active employees	<u>21,546,928</u>	<u>27,658,492</u>
3. Total as of December 31, 2014: (1) + (2)	\$33,419,389	\$41,447,171
4. Actuarial value of assets as of December 31, 2014	<u>1,177,370</u>	<u>1,177,370</u>
5. Unfunded actuarial accrued liability (UAAL) as of December 31, 2014	\$32,242,019	\$40,269,801
<b>Annual Required Contribution for Fiscal Year Ending June 30, 2015</b>		
6. Normal Cost as of December 31, 2014	\$1,699,334	\$2,263,015
7. 30-year increasing amortization (3.5% per year) of the UAAL as of December 31, 2014	<u>1,670,647</u>	<u>1,747,596</u>
8. Total Annual Required Contribution (ARC): (6) + (7)	\$3,369,981	\$4,010,611
9. Projected benefit payments	1,034,417	1,034,417

*Note: Assumes payment in the middle of the fiscal year.*

**SECTION 2: Valuation Results for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

**FUNDING SCHEDULE**

**30 Years Closed (7.0% discount rate)**

<b>Fiscal Year Ended June 30</b>	<b>(1) Projected Benefit Payments</b>	<b>(2) Normal Cost</b>	<b>(3) Amortization of UAAL</b>	<b>(4) Total Funding Requirement (2) + (3)</b>	<b>(5) Additional Funding (4) - (1)</b>	<b>(6) Assets at Mid-Year</b>	<b>(7) AAL at Mid-Year</b>	<b>(8) UAAL at Mid-Year (7) - (6)</b>
2015	\$1,034,417	\$1,699,334	\$1,670,647	\$3,369,981	\$2,335,564	\$1,177,370	\$33,419,389	\$32,242,019
2016	1,222,223	1,784,301	1,729,120	3,513,421	2,291,198	3,758,839	36,470,207	32,711,368
2017	1,506,294	1,873,516	1,789,639	3,663,155	2,156,861	6,473,540	39,624,545	33,151,005
2018	1,768,752	1,967,192	1,852,276	3,819,468	2,050,716	9,234,529	42,791,191	33,556,662
2019	1,985,854	2,065,552	1,917,106	3,982,658	1,996,804	12,075,212	45,998,905	33,923,693
2020	2,202,637	2,168,830	1,984,205	4,153,035	1,950,398	15,057,057	49,304,105	34,247,048
2021	2,456,344	2,277,272	2,053,652	4,330,924	1,874,580	18,197,977	52,719,219	34,521,242
2022	2,663,213	2,391,136	2,125,530	4,516,666	1,853,453	21,477,636	56,217,957	34,740,321
2023	2,844,124	2,510,693	2,199,924	4,710,617	1,866,493	24,964,265	59,862,092	34,897,827
2024	3,054,650	2,636,228	2,276,921	4,913,149	1,858,499	28,708,911	63,695,667	34,986,756
2025	3,235,303	2,768,039	2,356,613	5,124,652	1,889,349	32,707,129	67,706,652	34,999,523
2026	3,397,068	2,906,441	2,439,094	5,345,535	1,948,467	37,018,231	71,946,145	34,927,914
2027	3,566,921	3,051,763	2,524,462	5,576,225	2,009,304	41,694,367	76,457,404	34,763,037
2028	3,745,267	3,204,351	2,612,818	5,817,169	2,071,902	46,762,928	81,258,203	34,495,275
2029	3,932,531	3,364,569	2,704,267	6,068,836	2,136,305	52,253,268	86,367,497	34,114,229
2030	4,129,157	3,532,797	2,798,916	6,331,713	2,202,556	58,196,843	91,805,502	33,608,659
2031	4,335,615	3,709,437	2,896,878	6,606,315	2,270,700	64,627,357	97,593,782	32,966,425
2032	4,552,396	3,894,909	2,998,269	6,893,178	2,340,782	71,580,921	103,755,336	32,174,415
2033	4,780,016	4,089,654	3,103,208	7,192,862	2,412,846	79,096,222	110,314,698	31,218,476
2034	5,019,017	4,294,137	3,211,820	7,505,957	2,486,940	87,214,703	117,298,040	30,083,337
2035	5,269,967	4,508,844	3,324,234	7,833,078	2,563,111	95,980,758	124,733,281	28,752,523
2036	5,533,466	4,734,286	3,440,582	8,174,868	2,641,402	105,441,940	132,650,209	27,208,269
2037	5,810,139	4,971,000	3,561,002	8,532,002	2,721,863	115,649,176	141,080,601	25,431,425
2038	6,100,646	5,219,550	3,685,637	8,905,187	2,804,541	126,657,012	150,058,364	23,401,352
2039	6,405,678	5,480,528	3,814,634	9,295,162	2,889,484	138,523,862	159,619,677	21,095,815
2040	6,725,962	5,754,554	3,948,146	9,702,700	2,976,738	151,312,280	169,803,144	18,490,864
2041	7,062,260	6,042,282	4,086,331	10,128,613	3,066,353	165,089,249	180,649,958	15,560,709
2042	7,415,373	6,344,396	4,229,353	10,573,749	3,158,376	179,926,494	192,204,079	12,277,585
2043	7,786,142	6,661,616	4,377,380	11,038,996	3,252,854	195,900,811	204,512,419	8,611,608
2044	8,175,449	6,994,697	4,530,588	11,525,285	3,349,836	213,094,422	217,625,046	4,530,588
2045	8,584,222	7,344,432	--	7,344,432	--	231,595,356	231,595,356	--

*Notes: Assumes payment in the middle of the fiscal year.  
Amortization payments calculated to increase 3.5% per year.*

**SECTION 2: Valuation Results for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

**PROJECTION OF ARC**

**30 Years Open (5.5% discount rate)**

<b>Fiscal Year Ended June 30</b>	<b>(1) Projected Benefit Payments</b>	<b>(2) Normal Cost</b>	<b>(3) Amortization of UAAL</b>	<b>(4) ARC (3) + (2)</b>	<b>(5) Additional Funding</b>	<b>(6) Assets at Mid-Year</b>	<b>(7) AAL at Mid-Year</b>	<b>(8) UAAL at Mid-Year (7) – (6)</b>
2015	\$1,034,417	\$2,263,015	\$1,747,596	\$4,010,611	\$506,000	\$1,177,370	\$41,447,171	\$40,269,801
2016	1,222,223	2,376,166	1,875,701	4,251,867	700,000	1,801,206	45,022,936	43,221,730
2017	1,506,294	2,494,974	1,998,020	4,492,994	800,000	2,676,290	48,716,607	46,040,317
2018	1,768,752	2,619,723	2,114,286	4,734,009	900,000	3,719,630	52,439,078	48,719,448
2019	1,985,854	2,750,709	2,225,320	4,976,029	900,000	4,943,004	56,221,002	51,277,998
2020	2,202,637	2,888,244	2,337,722	5,225,966	900,000	6,252,014	60,120,079	53,868,065
2021	2,456,344	3,032,656	2,451,825	5,484,481	900,000	7,652,655	64,149,999	56,497,344
2022	2,663,213	3,184,289	2,566,288	5,750,577	900,000	9,151,341	68,286,258	59,134,917
2023	2,844,124	3,343,503	2,683,543	6,027,046	900,000	10,754,935	72,591,737	61,836,802
2024	3,054,650	3,510,678	2,805,208	6,315,886	900,000	12,470,780	77,111,127	64,640,347
2025	3,235,303	3,686,212	2,930,464	6,616,676	900,000	14,306,735	81,833,349	67,526,614
2026	3,397,068	3,870,523	3,061,180	6,931,703	900,000	16,271,206	86,809,892	70,538,686
2027	3,566,921	4,064,049	3,198,838	7,262,887	900,000	18,373,190	92,083,931	73,710,741
2028	3,745,267	4,267,251	3,343,783	7,611,034	900,000	20,622,313	97,673,017	77,050,704
2029	3,932,531	4,480,614	3,496,374	7,976,988	900,000	23,028,875	103,595,726	80,566,851
2030	4,129,157	4,704,645	3,656,985	8,361,630	900,000	25,603,896	109,871,718	84,267,822
2031	4,335,615	4,939,877	3,826,009	8,765,886	900,000	28,359,169	116,521,802	88,162,633
2032	4,552,396	5,186,871	4,003,853	9,190,724	900,000	31,307,311	123,567,998	92,260,687
2033	4,780,016	5,446,215	4,190,943	9,637,158	900,000	34,461,823	131,033,609	96,571,786
2034	5,019,017	5,718,526	4,387,721	10,106,247	900,000	37,837,151	138,943,297	101,106,146
2035	5,269,967	6,004,452	4,594,650	10,599,102	900,000	41,448,752	147,323,160	105,874,408
2036	5,533,466	6,304,675	4,812,211	11,116,886	900,000	45,313,165	156,200,815	110,887,650
2037	5,810,139	6,619,909	5,040,903	11,660,812	900,000	49,448,087	165,605,485	116,157,398
2038	6,100,646	6,950,904	5,281,247	12,232,151	900,000	53,872,453	175,568,094	121,695,641
2039	6,405,678	7,298,449	5,533,784	12,832,233	900,000	58,606,525	186,121,361	127,514,836
2040	6,725,962	7,663,371	5,799,075	13,462,446	900,000	63,671,982	197,299,909	133,627,927
2041	7,062,260	8,046,540	6,077,703	14,124,243	900,000	69,092,021	209,140,370	140,048,349
2042	7,415,373	8,448,867	6,370,273	14,819,140	900,000	74,891,462	221,681,506	146,790,044
2043	7,786,142	8,871,310	6,677,413	15,548,723	900,000	81,096,864	234,964,325	153,867,461
2044	8,175,449	9,314,876	6,999,772	16,314,648	900,000	87,736,644	249,032,215	161,295,571

Notes: Assumes payment in the middle of the fiscal year.  
Amortization payments calculated to increase 3.5% per year.

**SECTION 2: Valuation Results for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

July 28, 2015

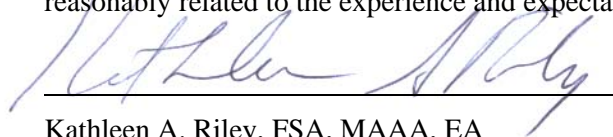
**ACTUARIAL CERTIFICATION**

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. has conducted an actuarial valuation of certain benefit obligations of the Acton-Boxborough Regional School District other postemployment benefit programs as of December 31, 2014, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Number 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

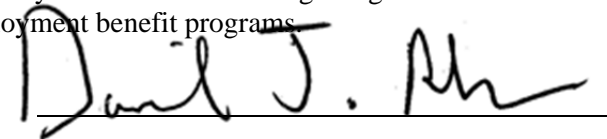
The actuarial valuation is based on the plan of benefits verified by the Acton-Boxborough Regional School District and on participant and premium data provided by the Acton-Boxborough Regional School District or from vendors employed by the Acton-Boxborough Regional School District. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination or adequacy of funding an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements Number 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the Acton-Boxborough Regional School District are reasonably related to the experience and expectations of the postemployment benefit programs.



Kathleen A. Riley, FSA, MAAA, EA  
Senior Vice President and Actuary



Daniel J. Rhodes, FSA, MAAA  
Vice President and Consulting Actuary

**SECTION 3: Valuation Details for the Acton-Boxborough Regional School District December 31, 2014 Measurement Under GASB 43 and 45**

---

**CHART 1  
Required Supplementary Information – Schedule of Employer Contributions**

<b>Fiscal Year Ended June 30,</b>	<b>Annual OPEB Costs</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2009	\$3,167,861	\$702,922	22.2%
2010	3,352,547	760,325	22.7%
2011	3,442,190	967,205	28.1%
2012	3,652,064	1,119,128	30.6%
2013	2,259,441	1,146,252	50.7%
2014	2,405,932	1,411,007	58.6%
2015	4,151,855	1,540,417	37.1%
2016	4,423,411	1,922,223	43.5%

*Notes: 2016 information assumes there will be no plan changes that need to be reflected.  
2015 and 2016 information reflects funding contributions of \$506,000 and \$700,000, respectively.*



**SECTION 3: Valuation Details for the Acton-Boxborough Regional School District December 31, 2014 Measurement Under GASB 43 and 45**

---

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

---

**CHART 2**  
**Required Supplementary Information – Schedule of Funding Progress**

---

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded AAL (UAAL) (b) - (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)]</b>
12/31/2007	\$0	\$35,757,233	\$35,757,233	0.00%	N/A	N/A
12/31/2010	0	43,598,441	43,598,441	0.00%	N/A	N/A
12/31/2012	239,760	23,165,854	22,926,094	1.03%	N/A	N/A
12/31/2014	1,177,370	41,447,171	40,269,801	2.84%	N/A	N/A

---

*\* Enter covered payroll for missing years,*

**SECTION 3: Valuation Details for the Acton-Boxborough Regional School District December 31, 2014 Measurement Under GASB 43 and 45**

**CHART 3  
Required Supplementary Information – Net OPEB Obligation/(Asset) (NOO/NOA)**

<b>Fiscal Year Ended June 30,</b>	<b>Annual Required Contribution (a)</b>	<b>Interest on Existing NOO (b)</b>	<b>ARC Adjustment (c)</b>	<b>Annual OPEB Cost (a) + (b) + (c) (d)</b>	<b>Actual Contribution Amount (e)</b>	<b>Net Increase in NOO (d) - (e) (f)</b>	<b>NOO as of Following Date (g)</b>
2009	\$3,167,861	\$0	\$0	\$3,167,861	\$702,922	\$2,464,939	\$2,464,939
2010	3,352,547	0	0	3,352,547	760,325	2,592,222	5,057,161
2011	3,407,741	227,572	(193,123)	3,442,190	967,205	2,474,985	7,532,146
2012	3,600,755	338,947	(287,638)	3,652,064	1,119,128	2,532,936	10,065,082
2013	2,076,416	704,556	(521,531)	2,259,441	1,146,252	1,113,189	11,178,271
2014	2,202,664	782,479	(579,211)	2,405,932	1,411,007	994,925	12,173,196
2015	4,010,611	669,526	(528,282)	4,151,855	1,540,417	2,611,438	14,784,634
2016	4,251,867	813,155	(641,611)	4,423,411	1,922,223	2,501,188	17,285,822

*Notes: 2016 information assumes there will be no plan changes that need to be reflected.  
2015 and 2016 information reflects funding contributions of \$506,000 and \$700,000, respectively.*

**SECTION 3: Valuation Details for the Acton-Boxborough Regional School District December 31, 2014 Measurement Under GASB 43 and 45**

---

**CHART 4  
Summary of Required Supplementary Information**

---

<b>Valuation date</b>	December 31, 2014
<b>Actuarial cost method</b>	Projected Unit Credit
<b>Amortization method</b>	Payments increasing at 3.5%
<b>Remaining amortization period</b>	30 years open
<b>Asset valuation method</b>	Market value
<b>Actuarial assumptions:</b>	
Discount rate	5.5%
Inflation rate	3.5%
Non-Medicare medical/drug cost trend rate	8.0% decreasing by 0.5% for 6 years to an ultimate level of 5.0% per year
Medicare medical/drug cost trend rate	10.0% decreasing by 0.5% for 10 years to an ultimate level of 5.0% per year
<b>Plan membership:</b>	
Current retirees, beneficiaries, and dependents	289
Current active participants	<u>589</u>
Total	878

---

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

*This exhibit summarizes the participant data used for the current and prior valuations.*

*The December 31, 2014 valuation was based on census data as of January 1, 2015. The December 31, 2012 valuation was based on census data as of January 1, 2013.*

**EXHIBIT I  
Summary of Participant Data**

	<b>January 1, 2015</b>	<b>January 1, 2013</b>
<b>Active employees covered for medical benefits*</b>		
Number of employees		
Male	142	108
Female	<u>447</u>	<u>227</u>
Total	589	335
Average age	48.9	48.5
Average service	11.0	11.1
<b>Retired employees, spouses and beneficiaries covered for medical benefits</b>		
Number of individuals	289	256
Average age	72.7	72.3

*\* Active participants as of January 1, 2015 include Town of Acton and Town of Boxborough public school employees.*

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**EXHIBIT II  
Actuarial Assumptions and Actuarial Cost Method**

---

**Data:** Detailed census data, premium rates, and summary plan descriptions for postemployment welfare benefits were provided by the Acton-Boxborough Regional School District.

**Actuarial Cost Method:** Projected Unit Credit – For active employees, benefits are allocated from date of hire to assumed retirement age.

---

**Per Capita Cost Development:** Per capita costs were based on the fully insured premium rates effective July 1, 2015. Premiums were combined by taking a weighted average based on the number of participants in each plan, and were then trended to the midpoint of the valuation year at assumed trend rates. For plans that are not community rated, actuarial factors were applied to the premium to estimate individual retiree and spouse costs by age and by gender.

---

**Measurement Date:** December 31, 2014

**Discount Rate:** 5.5% partially funded (based on a funded discount rate of 7.0% and a pay-as-you-go discount rate of 4.5%) and 7.0% funded (previously, 7.0% partially funded and 8.0% funded)

**OPEB Trust Asset Return:** 7.0%

---

**Mortality Rates:**

*Pre-Retirement (Non-Teachers)* RP-2000 Employee Mortality Table projected 22 years with Scale AA (previously, RP-2000 Employee Mortality Table projected 13 years with Scale AA)

*Healthy (Non-Teachers)* RP-2000 Healthy Annuitant Mortality Table projected 22 years with Scale AA (previously, RP-2000 Healthy Annuitant Mortality Table projected 13 years with Scale AA)

*Disabled (Non-Teachers)* RP-2000 Healthy Annuitant Mortality Table set forward 3 years projected 17 years with Scale AA (previously, RP-2000 Healthy Annuitant Mortality Table set forward 2 years)

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

<i>Pre-Retirement (Teachers)</i>	RP-2000 Combined Healthy White Collar Mortality Table projected 22 years with Scale AA (previously, RP-2000 Employee Mortality Table projected 10 years with Scale AA)
<i>Healthy (Teachers)</i>	RP-2000 Healthy Annuitant with Large Benefit Amount Adjustment Mortality Table projected 17 years with Scale AA (previously, RP-2000 Healthy Annuitant Mortality Table projected 10 years with Scale AA)
<i>Disabled (Teachers)</i>	RP-2000 Healthy Annuitant with Large Benefit Amount Adjustment Mortality Table projected 7 years with Scale AA (gender distinct) set forward 3 years for males (previously, RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males)

The mortality assumptions were determined to contain provisions appropriate to reflect future mortality improvements. As noted on page 27, a review of the demographic assumptions is beyond the scope of this assignment.

---

**Termination Rates before Retirement:**

**Group 1 (excluding Teachers) - Rate per year (%)**

Age	Mortality					Disability
	Current		Previously			
	Male	Female	Male	Female		
20	0.02	0.01	0.03	0.02	0.02	
25	0.03	0.02	0.03	0.02	0.02	
30	0.04	0.02	0.04	0.02	0.03	
35	0.07	0.03	0.07	0.04	0.06	
40	0.09	0.05	0.10	0.06	0.10	
45	0.11	0.08	0.13	0.10	0.15	
50	0.14	0.11	0.18	0.14	0.19	
55	0.20	0.21	0.24	0.23	0.24	
60	0.34	0.35	0.40	0.37	0.28	

*Note: 55% of the rates shown represent accidental disability and death.*

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

<b>Teachers - Rate per year (%)</b>						
<b>Mortality</b>						
<b>Age</b>	<b>Current</b>		<b>Previously</b>		<b>Disability</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Current</b>	<b>Previously</b>
20	0.02	0.01	0.03	0.02	0.00	0.00
25	0.03	0.02	0.03	0.02	0.01	0.01
30	0.03	0.02	0.04	0.02	0.01	0.01
35	0.05	0.04	0.07	0.04	0.01	0.01
40	0.07	0.05	0.10	0.06	0.01	0.01
45	0.10	0.07	0.13	0.10	0.03	0.03
50	0.13	0.10	0.18	0.14	0.05	0.05
55	0.22	0.22	0.25	0.23	0.07	0.08
60	0.39	0.42	0.42	0.37	0.07	0.10

*Notes: 35% of the rates shown represent accidental disability.  
55% of the death rates shown represent accidental death.*

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**Withdrawal Rates:**

<b>Years of Service</b>	<b>Rate per year (%)</b>	<b>Group 1</b>
0		15.0
1		12.0
2		10.0
3		9.0
4		8.0
5		7.6
6		7.5
7		6.7
8		6.3
9		5.9
10		5.4
11		5.0
12		4.6
13		4.1
14		3.7
15		3.3
16 – 20		2.0
21 – 29		1.0
30+		0.0



**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

Age	Teachers - Rate per year (%)					
	0 Years of Service		5 Years of Service		10+ Years of Service	
	Male	Female	Male	Female	Male	Female
20	13.0	10.0	5.5	7.0	1.5	5.0
30	15.0	15.0	5.4	8.8	1.5	4.5
40	13.3	10.5	5.2	5.0	1.7	2.2
50	16.2	9.8	7.0	5.0	2.3	2.0

Previously,

Age	Teachers - Rate per year (%)					
	0 - 4 Years of Service		5 - 9 Years of Service		10+ Years of Service	
	Male	Female	Male	Female	Male	Female
20	12.0	10.0	4.5	9.0	1.0	5.0
30	11.4	12.0	4.5	9.0	1.0	5.0
40	9.7	11.0	5.4	6.5	1.7	2.9
50	10.0	8.2	4.8	4.2	2.2	2.1

**Retirement Rates:**

Age	Rate per year (%)	
	Group 1 (excluding Teachers)	
	Male	Female
45 - 49	--	--
50 - 54	--	--
55 - 59	2.0	5.5
60 - 61	12.0	5.0
62 - 64	30.0	15.0
65 - 68	40.0	15.0
69	50.0	20.0
70	100.0	100.0

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

Age	Teachers - Rate per year (%)					
	Years of Service					
	Less than 20		20 – 29		30 or more	
	Male	Female	Male	Female	Male	Female
50 - 52	--	--	1.0	1.0	2.0	1.5
53	--	--	1.5	1.0	2.0	1.5
54	--	--	2.5	1.0	2.0	2.0
55	5.0	3.0	3.0	3.0	6.0	5.0
56	5.0	3.0	6.0	5.0	20.0	15.0
57	5.0	4.0	10.0	8.0	40.0	35.0
58	5.0	8.0	15.0	10.0	50.0	35.0
59	10.0	8.0	20.0	15.0	50.0	35.0
60	10.0	10.0	25.0	20.0	40.0	35.0
61	20.0	12.0	30.0	25.0	40.0	35.0
62	20.0	12.0	35.0	30.0	35.0	35.0
63	25.0	15.0	40.0	30.0	35.0	35.0
64	25.0	20.0	40.0	30.0	35.0	35.0
65	25.0	25.0	40.0	40.0	35.0	35.0
66	30.0	25.0	30.0	30.0	40.0	35.0
67	30.0	30.0	30.0	30.0	40.0	30.0
68	30.0	30.0	30.0	30.0	40.0	30.0
69	30.0	30.0	30.0	30.0	40.0	30.0
70	100.0	100.0	100.0	100.0	100.0	100.0

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

Previously,

Age	Teachers - Rate per year (%)					
	Years of Service					
	Less than 20		20 – 29		30 or more	
	Male	Female	Male	Female	Male	Female
50 – 53	0.0	0.0	1.0	1.5	2.0	2.0
54	0.0	0.0	1.0	1.5	2.0	2.0
55	3.0	2.0	3.0	3.0	6.0	6.0
56	8.0	2.0	5.0	3.0	20.0	15.0
57	15.0	8.0	8.0	7.0	35.0	30.0
58	15.0	10.0	10.0	7.0	50.0	35.0
59	20.0	15.0	20.0	11.0	50.0	35.0
60	15.0	20.0	20.0	16.0	50.0	35.0
61	30.0	20.0	25.0	20.0	50.0	35.0
62	20.0	25.0	30.0	30.0	40.0	40.0
63	30.0	24.0	30.0	30.0	40.0	35.0
64	40.0	20.0	30.0	30.0	40.0	35.0
65	40.0	30.0	40.0	30.0	50.0	35.0
66	40.0	30.0	30.0	30.0	50.0	35.0
67	40.0	30.0	30.0	30.0	50.0	30.0
68	40.0	30.0	30.0	30.0	50.0	30.0
69	40.0	30.0	30.0	30.0	50.0	30.0
70	100.0	100.0	100.0	100.0	100.0	100.0

**Dependents:**

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives and 65% were assumed to have an eligible spouse who also opts for health coverage at that time.

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

**Per Capita Health Costs:**

Calendar year 2015 medical and prescription drug claims costs are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Age	Non-Medicare Plans				Medicare Plans			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
45	\$8,947	\$11,224	\$5,550	\$8,378	N/A	N/A	N/A	N/A
50	10,619	12,095	7,417	9,712	N/A	N/A	N/A	N/A
55	12,611	13,020	9,925	11,241	N/A	N/A	N/A	N/A
60	14,977	14,034	13,287	13,038	N/A	N/A	N/A	N/A
65	17,787	15,119	17,787	15,119	\$3,150	\$2,678	\$3,150	\$2,678
70	20,615	16,293	20,615	16,293	3,651	2,885	3,651	2,885
75	22,216	17,538	22,216	17,538	3,934	3,106	3,934	3,106
80	23,924	18,908	23,924	18,908	4,237	3,348	4,237	3,348

**Medicare Advantage Plan:** \$3,144

**Weighted Average Annual Retiree  
Contribution Amount (50% of premium):**

*Non-Medicare Plan:* \$5,666  
*Medicare Supplement:* \$1,682  
*Medicare Advantage:* \$1,572

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**Health Care Cost Trend Rates:** Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year’s cost to yield the next year’s projected cost.

<b>Year Ending December 31</b>	<b>Non-Medicare Medical/Drug</b>	<b>Medicare Medical/Drug</b>
2015	8.0%	10.0%
2016	7.5%	9.5%
2017	7.0%	9.0%
2018	6.5%	8.5%
2019	6.0%	8.0%
2020	5.5%	7.5%
2021	5.0%	7.0%
2022	5.0%	6.5%
2023	5.0%	6.0%
2024	5.0%	5.5%
2025 & later	5.0%	5.0%

**Retiree Contribution Increase Rate:** Retiree contributions are expected to increase with medical trend.

**Participation and Coverage Election:** 100% of active employees with coverage are assumed to elect retiree coverage.  
100% of retirees over age 65 are assumed to remain with their current medical plan for life.  
For future retirees hired before 1986 and current retirees under age 65, 80% are assumed to be eligible for Medicare and are assumed to enroll in a Medicare Supplement plan upon reaching age 65, 15% are assumed to be eligible for Medicare and enroll in a Medicare Advantage plan and 5% are assumed to be ineligible for Medicare and to remain enrolled in a non-Medicare plan. (Previously, 77.5% in a Medicare Supplement plan, 15% in a Medicare Advantage plan and 7.5% in a non-Medicare plan.)

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

For future retirees hired in 1986 or later, 82.5% are assumed to enroll in a Medicare Supplement plan upon reaching age 65 and 17.5% are assumed to enroll in a Medicare Advantage plan.

100% of future retirees with medical coverage are assumed to have life insurance coverage.

- Plan Design:** Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.
- Administrative Expenses:** Administrative expenses for self-insured plans were based on current vendor contractual rates and fees. Administrative expenses for insured plans were assumed to be included in the fully insured premium rates.
- Missing Participant Data:** A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.
- Health Care Reform Assumption:** This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 other than the excise tax on high cost health plans beginning in 2018 (reflected with this valuation) and those previously adopted as of the valuation date. The revision of the excise tax in this valuation increased the actuarial accrued liability by 1.56% and increased the normal cost by 2.32% (previously, 1.50% for actuarial accrued liability and 3.0% for normal cost).
- Demographic Assumptions:** The demographic assumptions used in this valuation are the same as used in the Middlesex County Retirement System Actuarial Valuation and Review as of January 1, 2014, dated February 26, 2015 completed by Segal Consulting and the Massachusetts Teachers' Retirement System Actuarial Valuation Report as of January 1, 2014, dated September 12, 2014. A review of the demographic assumptions is beyond the scope of this assignment, however, we have no reason to doubt the reasonableness of the assumptions.

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**Assumption Changes  
since Prior Valuation:**

The per capita health costs were updated to reflect current experience.

The demographic assumptions were changed to match the assumptions used in the Middlesex County Retirement System Actuarial Valuation and Review as of January 1, 2014, dated February 26, 2015 completed by Segal Consulting and the Massachusetts Teachers' Retirement System Actuarial Valuation Report as of January 1, 2014 dated September 12, 2014.

The excise tax on high cost health plans beginning in 2018 was revised with this valuation.

The medical trend assumption was revised.

The enrollment assumption for current and future retirees was updated to reflect recent experience.

The funded discount rate was lowered from 8.0% to 7.0% and the partially funded discount rate was lowered from 7.0% to 5.5%.

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**EXHIBIT III  
Summary of Plan**

---

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

---

**Eligibility:** Retired and receiving a pension from the Middlesex County Retirement System or the Massachusetts Teachers' Retirement System.

*Members hired before  
April 2, 2012*

**Group 1 (including Teachers):**

- Retirees with at least 10 years of creditable service are eligible at age 55;
- Retirees with at least 20 years of creditable service are eligible at any age.

*Members hired on or  
after April 2, 2012*

**Group 1 (including Teachers):**

- Retirees with at least 10 years of creditable service are eligible at age 60.

**Disability:** Accidental (job-related) Disability has no age or service requirement. Ordinary (non-job related) Disability has no age requirement but requires 10 years of creditable service.

**Pre-Retirement Death:** Surviving spouses of members who die in active service on Accidental (job-related) Death are eligible at any age. Surviving spouses of members who die in active service on Ordinary (non-job related) Death are eligible after two years of service.

**Post-Retirement Death:** Surviving spouse is eligible.

---

**Benefit Types:** Medical and prescription drug benefits are provided to all eligible retirees through plans offered by Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan. The Acton-Boxborough Regional School District also pays 50% of the retiree life insurance premium. (Dental coverage is offered by it is 100% retiree paid and therefore has no impact on this valuation.)

**Duration of Coverage:** Lifetime.



**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

**Dependent Benefits:** Medical and Prescription Drugs.  
**Dependent Coverage:** Benefits are payable to a spouse for their lifetime, regardless of when the retirees dies.  
**MGL Chapter 32B, Section 18:** Adopted  
**Retiree Contributions:** Premium rates and retiree contributions as of July 1, 2015 are summarized below:

	Subscribers			Monthly Premium (eff. 7/1/2015)	Town cost	Retiree cost
	Active	Retiree	Total			
<b><u>Non-Medicare Plans*</u></b>						
BCBS Blue Care Elect PPO						
Individual	0	5	5	\$1,424.00	\$712.00	\$712.00
Family	1	0	1	\$3,412.00	\$1,706.00	\$1,706.00
BCBS Master Health Plus						
Individual	1	2	3	\$1,684.00	\$842.00	\$842.00
Family	0	0	0	\$4,044.00	\$2,022.00	\$2,022.00
BCBS Network Blue HMO						
Individual	103	16	119	\$824.00	\$412.00	\$412.00
Family	209	7	216	\$1,980.00	\$990.00	\$990.00
HP HealthCare						
Individual	68	3	71	\$824.00	\$412.00	\$412.00
Family	207	1	208	\$1,980.00	\$990.00	\$990.00
<b><u>Non-Medicare Total</u></b>	589	34	623			

**SECTION 4: Supporting Information for the Acton-Boxborough Regional School District December 31, 2014  
Measurement Under GASB 43 and 45**

---

	Subscribers			Monthly Premium (eff. 7/1/2015)	Town cost	Retiree cost
	Active	Retiree	Total			
<b><u>Medicare Supplement Plans</u></b>						
Medex II + Blue Medicare Rx	N/A	116	116	\$382.86	\$191.43	\$191.43
<b><u>Medicare Advantage Plans</u></b>						
Tufts Preferred**	N/A	26	26	\$226.00	\$113.00	\$113.00
<b><u>Retiree Total***</u></b>		176				

\* There are 5 retirees over the age of 65 in non-Medicare plans.

\*\* Rates are as of January 1, 2015.

\*\*\* In addition, there are 113 spouses of retirees covered under an individual or family policy.

**Retiree Life:** \$5,000

---

**Plan Changes**

**Since the Prior Valuation:** There were no plan changes since the prior valuation.

8210176v1/10406.004