



TOWN OF BEDFORD

OTHER POSTEMPLOYMENT BENEFITS PROGRAM

ACTUARIAL VALUATION

July 1, 2014

Prepared by:

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December 18, 2014

Mr. Victor Garofalo
Finance Director, Treasurer/Collector
Town of Bedford
Town Hall, 10 Mudge Way
Bedford, MA 01730-2144

Dear Victor:

Enclosed is our report summarizing the results of an actuarial valuation of the Town of Bedford's Other Postemployment Benefits (OPEB) as of July 1, 2014. Our valuation was performed in accordance with the provisions contained in the GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45).

A summary of the valuation results is shown in Section 1. The principal results of our valuation are summarized in Section 2. The Plan Provisions and Actuarial Assumptions and Methods are shown in Sections 6 and 7, respectively. Section 8 summarizes the demographic profile of active employees and retirees.

The required disclosures under GASB 45 are presented in Section 3.

Our best estimate health care cost trend assumptions are based on recent experience and anticipated future cost increases under the Town of Bedford medical plans. Section 5 illustrates the sensitivity of actuarial accrued liability and normal cost to a one percentage increase and decrease in the health care cost trend assumption for each future year.

Our actuarial valuation is based on a discount rate of 5.5% compounded annually. To illustrate the impact on cost of fully prefunding the Town's benefit liabilities, our report also includes valuation results based on an alternative 7.5% discount rate.

We also provide 30-year forecasts of the OPEB liability under various funding scenarios as well as a 10-year forecast of the Annual OPEB Cost and the Net OPEB Obligation in Section 4.

K M S A C T U A R I E S

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Mr. Victor Garofalo
December 18, 2014
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Our calculations were based on participant census data and other information provided by the Town of Bedford and the benefit provisions of the medical plans as described in the benefit summaries. Our valuation is also based on medical plan rates provided on the Group Insurance Commission (GIC) website.

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

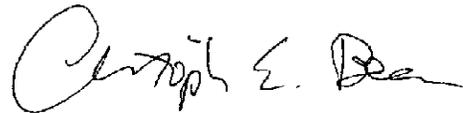
We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We appreciate this opportunity to be of service to the Town of Bedford. We are available to answer any questions with respect to our valuation.

Respectfully submitted,



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ACTUARIAL CERTIFICATION

This report presents the results of the Actuarial Valuation for the Town of Bedford Postemployment Benefits Other Than Pensions as of July 1, 2014. The report presents the accounting and financial reporting information in accordance with Statement Number 45 of the Governmental Accounting Standards Board (GASB 45).

This valuation was performed using employee data and financial information provided to us by the Town. Although we did not audit the data used in the valuation, we believe that the information is complete and reliable.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions other than those explicitly applicable to the postemployment benefit plans are consistent with those used by the Middlesex County Retirement System and Massachusetts Teachers Retirement System's actuaries for the Retirement System pension valuations.

Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques.

This report is intended for the sole use of the Town of Bedford and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

The undersigned credentialed actuaries are Members of the American Academy of Actuaries and together meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,



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Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

SECTION 1 - SUMMARY

BACKGROUND

The Town of Bedford provides postemployment medical benefits to Town retirees and their covered dependents. The Town provides benefits as follows:

- ◆ Group 1 employees hired before April 2, 2012: retire after attaining age 55 with 10 or more years of service or any age with 20 or more years of service
- ◆ Group 1 employees hired after April 1, 2012: retire after attaining age 60 with 10 or more years of service
- ◆ Group 4 employees hired before April 2, 2012: retire after attaining age 55 or any age with 20 or more years of service
- ◆ Group 4 employees hired after April 1, 2012: retire after attaining age 55

Medical coverage continues to the spouse after the death of the retiree provided the spouse makes the required contributions.

GASB 45

The Governmental Accounting Standards Board (GASB) is responsible for establishing accounting standards for governmental entities. Calculations developed in accordance with GASB standards are required when providing financial statements.

GASB believes that postemployment benefits are a form of deferred compensation whose cost should be recognized while the employee actually renders services rather than when the actual benefits are paid, many years later. Ideally under the GASB standard the entire postemployment liability is recognized by the time an active participant begins to receive postemployment benefits. GASB 45's focus is on postemployment benefits other than pensions, such as medical, dental and life insurance benefits. Unlike pensions where sponsors are pre-funding for benefits due in the future, the impact of GASB 45 will be to significantly increase cash pay-as-you-go expense.

The effective date for GASB 45 is a function of the Town's total annual revenues in the first fiscal year ending after June 15, 1999. We understand that this is your fiscal year that ended June 30, 1999, and that your related revenues were greater than \$10 million and less than \$100 million. As a result, the Town was required to comply with GASB 45 for the fiscal year ending June 30, 2009.

ACTUARIAL VALUATION

As of July 1, 2014, there are 609 active employees who may be eligible for benefits in the future and 394 retired employees, covered spouses and survivors who are currently receiving benefits. Coverage is for individuals and families or individuals and spouses depending on the coverage selected.

SECTION 1 - SUMMARY

Prior to GASB 45, the annual cost recognized was the annual premiums or benefits paid plus administrative expenses less any participant contributions paid towards the coverage. Under GASB 45, an annual cost for postemployment coverage is developed for any person who is currently receiving or who is currently actively employed and may be eligible to receive benefits in the future. In developing the GASB 45 cost for the Town of Bedford, the payment of future benefits is determined using the current schedule of premiums under the Group Insurance Commission (GIC) plans. We have used a single unadjusted premium rate applicable to both active employees and non-Medicare-eligible retirees because the Group Insurance Commission (GIC) would offer the same premium rates if only non-Medicare-eligible retirees from the Town of Bedford were covered. These premiums are increased in the future under the annual healthcare cost trend rate assumptions. The per capita costs utilized in this valuation are detailed in Section 7, Actuarial Assumptions and Methods.

SUMMARY OF PRINCIPAL RESULTS

Valuation Date	<u>July 1, 2014</u>	<u>July 1, 2012</u>
Summary of Member Data		
Active Members	609	598
Average Age	45.5	45.1
Average Service	10.0	9.6
Retired Employees and Survivors	291	267
Average Age	72.1	73.2
Covered Spouses	103	100
Discount rate	5.50%	4.00%
Normal Cost	\$1,472,169	\$2,141,719
Actuarial Accrued Liability	\$40,975,065	\$48,839,208
Assets*	\$4,083,974	\$2,961,186
Unfunded Actuarial Accrued Liability	\$36,891,091	\$45,878,022
Annual Required Contribution	\$3,137,833	\$3,817,825
Expected Benefit Payments	\$1,417,624	\$1,241,117

* Assets as of the prior valuation were recognized in the development of the July 1, 2012 Annual Required Contribution (ARC). The Trust assets were transferred to the State Retirees Benefit Trust Fund in FY2014.

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

SECTION 1 - SUMMARY

ACTUARIAL ASSUMPTIONS

The most important assumption for GASB 45 is the discount rate, which is used to discount future benefits to current age. GASB 45 requires that the discount rate accurately reflects the rate of return on assets dedicated to paying the retiree medical benefits. This means that a traditional pay-as-you-go system, which pays benefits from the Town's annual budget and not a dedicated trust, must use a discount rate close to the rate of return on cash. Full pre-funding by use of a dedicated trust with a mixture of stocks and bonds can employ a higher discount rate that accurately reflects the expected return on trust assets dedicated to pay retiree medical benefits. For the Town of Bedford, we selected a 5.5% discount rate to reflect the partial pre-funding of future payments. The blended rate is based on a funded discount rate of 7.5% and a pay-as-you-go discount rate of 4%.

CHANGES

Some assumptions used in this valuation have changed from those used in the July 1, 2012 valuation and are detailed in Section 7. The major assumption changes are summarized below:

- ◆ the discount rate for GASB 45 disclosure was increased from 4% to 5.5% to reflect the partial pre-funding of future payments.
- ◆ the mortality table was changed from the RP-2000 Mortality Table projected to 2012 using Scale AA to the RP-2000 Mortality Table projected to 2014 using Scale AA.
- ◆ Disability rates were incorporated into this valuation to be consistent with the rates currently used by the Middlesex County and Massachusetts Teachers Retirement Systems.
- ◆ Retirement and turnover rates for Teachers were updated to reflect the rates currently used by the Massachusetts Teachers Retirement System.
- ◆ Medical insurance participation rates were updated to more closely reflect actual retiree participation.

RESULTS

We have provided results based on a discount rate of 5.5%. As shown in Table 4.4 of Section 4, the Annual OPEB Cost for the fiscal year ending June 30, 2015 under GASB 45 is \$3,247,113 and the estimated Annual OPEB Cost for the fiscal year ending June 30, 2016 under GASB 45 is \$3,509,577.

The accumulated Net OPEB Obligation as of June 30, 2015 is \$17,669,923 and the estimated Net OPEB Obligation as of June 30, 2016 is \$19,089,100.

The Actuarial Accrued Liability (AAL) as of July 1, 2014 is \$40,975,065. The AAL by status breakdown is shown below:

Actives:	\$23,653,193
Retirees, Beneficiaries and Surviving Spouses:	17,321,872
Total:	\$40,975,065

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

SECTION 1 - SUMMARY

ACTUARIAL GAIN/LOSS ANALYSIS

In performing the actuarial valuation, various assumptions are made regarding future premium rates, mortality, retirement, disability and turnover rates as well as investment returns. A comparison of the results of the current valuation and the prior valuation is made to determine how closely actual experience relates to expected. Below is the development of the estimated Actuarial Gain or Loss for the current 2-year period:

	<u>July 1, 2012</u>	<u>July 1, 2013</u>
Actuarial Accrued Liability, beginning of year	\$48,839,208	\$51,754,468
Normal Cost	2,141,719	2,227,388
Expected Benefit Payments	1,241,117	1,368,455
Interest	2,014,658	2,132,173
Expected Actuarial Accrued Liability, end of year	\$51,754,468	\$54,745,574
Actual Actuarial Accrued Liability		\$40,975,065
(Gain)/Loss		(\$13,770,509)

The actuarial gain of \$13,770,509 was mostly comprised of the following:

◆ loss as a result of demographic experience and assumption changes	5,360,492
◆ gain as a result of premium rates that were less than expected from the previous valuation	(6,987,344)
◆ loss as a result of the valuation of the excise tax imposed by the Patient Protection and Affordable Care Act, effective 2018	350,885
◆ gain as a result of increasing the discount rate from 4% to 5.5%	(12,494,542)
◆ Total (Gain)/Loss	(13,770,509)

REIMBURSEMENT FOR HEALTHCARE PREMIUM CONTRIBUTIONS

Whenever the service of a retired employee is attributable to service in more than one Massachusetts governmental unit and the retired employee receives a healthcare premium contribution, Section 9A1/2 of M.G.L. Section 32B provides for reimbursement by other governmental units for the portion of healthcare premium contributions that corresponds to the percentage of the retiree's creditable service that is attributable for each governmental unit. The other governmental units shall be charged based on the Town of Bedford's contribution rate or the contribution rate of the first employer, whichever is lower.

For purposes of this valuation, we have not taken into account any prior service rendered at other Massachusetts entities for current or future retirees for the Town of Bedford nor have we taken into account any service rendered by former Town of Bedford employees currently working at or retired from other Massachusetts entities that may notify the Town of Bedford of reimbursement due for former Town of Bedford employees.

SECTION 2 - PRINCIPAL VALUATION RESULTS

Section 20 of Massachusetts General Laws (M.G.L.) Chapter 32B allows municipal entities to establish a liability trust fund for purposes of accumulating assets to prefund retiree benefits other than pensions (OPEB). Plan assets segregated and restricted in an OPEB trust must be dedicated to providing plan benefits to retirees and beneficiaries in accordance with the terms of the plan and must be legally protected from creditors of the employer. Further, employer contributions to the trust must be irrevocable.

Section 20 further ensures that municipal entities have access to the Commonwealth's investment trust, the State Retiree Benefits Trust Fund (SRBTF), for purposes of investing OPEB funds. The Town of Bedford has adopted Section 20 of M.G.L. Chapter 32B and has established an OPEB trust for purposes of investing OPEB funds.

The Actuarial Value of Plan Assets is equal to the market value. The asset activity during the 2-year period July 1, 2013 through June 30, 2014 follows:

TABLE 2.1 - OPEB TRUST ASSETS

Market Value of Assets		
Fiscal Year Ending	<u>6/30/2014</u>	<u>6/30/2013</u>
Assets as of Beginning of Year	\$0	\$0
Contributions Receivable	\$0	\$0
Assets as of Beginning of Year	\$0	\$0
Employer Contributions		
Paid Premiums*	\$1,240,143	\$1,293,282
OPEB Trust Deposits**	3,765,038	0
Total Employer Contributions	\$5,005,181	\$1,293,282
Benefits Paid	(1,240,143)	(\$1,293,282)
Expenses	(14,555)	0
Investment Earnings	333,491	0
Assets as of End of Year	\$4,083,974	\$0

* Paid premiums for the fiscal years ending June 30, 2014 and June 30, 2013 were provided by the Town of Bedford.

** Transfer made to the State Retirees Benefits Trust Fund in FY2014.

SECTION 2 - PRINCIPAL VALUATION RESULTS

The Actuarial Accrued Liability is the portion of the Actuarial Present Value of Future Benefits which is allocated to all periods prior to a valuation year and therefore is not provided for by future Normal Costs. Below is the Actuarial Accrued Liability assuming a discount rate of 5.5%, a blended rate for partial prefunding, and 7.5%, the rate of return on a dedicated trust if the Town were to fully pre-fund benefits:

TABLE 2.2 - ACTUARIAL ACCRUED LIABILITY

	<u>Partial Pre-Funding</u>	<u>Full Pre-Funding</u>
Discount Rate	5.5%	7.5%
Current Active Employees		
Pre-Medicare Gross Benefit	\$7,755,087	\$5,988,875
Pre-Medicare Participant Contributions	2,456,804	1,902,329
Net Pre-Medicare Benefit	\$5,298,283	\$4,086,546
Post - Medicare Gross Benefit	\$31,085,364	\$19,956,992
Post - Medicare Participant Contributions	12,730,454	8,209,040
Net Post - Medicare Benefit	\$18,354,910	\$11,747,952
Total Current Active Employees	\$23,653,193	\$15,834,498
Current Retirees		
Pre-Medicare Gross Benefit	\$2,122,431	\$2,017,206
Pre-Medicare Participant Contributions	620,563	589,502
Net Pre-Medicare Benefit	\$1,501,868	\$1,427,704
Post - Medicare Gross Benefit	\$27,156,773	\$22,423,496
Post - Medicare Participant Contributions	11,336,769	9,365,153
Net Post - Medicare Benefit	\$15,820,004	\$13,058,343
Total Current Retirees	\$17,321,872	\$14,486,047
Total Actuarial Accrued Liability (AAL)	\$40,975,065	\$30,320,545

SECTION 2 - PRINCIPAL VALUATION RESULTS

The Normal Cost is the portion of the Actuarial Present Value of Future Benefits which is attributed to services rendered by active employees in the current year. Below is the Normal Cost assuming a discount rate of 5.5%, a blended rate for partial prefunding, and 7.5%, the rate of return on a dedicated trust if the Town were to fully pre-fund benefits:

TABLE 2.3 - NORMAL COST

	Partial Pre-Funding	Full Pre-Funding
Discount Rate	5.5%	7.5%
Current Active Employees		
Pre-Medicare Gross Benefit	\$506,134	\$354,781
Pre-Medicare Participant Contributions	158,277	111,432
Net Pre-Medicare Benefit	\$347,857	\$243,349
Post - Medicare Gross Benefit	\$1,884,429	\$1,067,394
Post - Medicare Participant Contributions	760,117	432,952
Net Post - Medicare Benefit	\$1,124,312	\$634,442
Total Current Active Employees	\$1,472,169	\$877,791
Current Retirees		
Pre-Medicare Gross Benefit	\$0	\$0
Pre-Medicare Participant Contributions	0	0
Net Pre-Medicare Benefit	\$0	\$0
Post - Medicare Gross Benefit	\$0	\$0
Post - Medicare Participant Contributions	0	0
Net Post - Medicare Benefit	\$0	\$0
Total Current Retirees	\$0	\$0
Total Normal Cost (NC)	\$1,472,169	\$877,791

SECTION 2 - PRINCIPAL VALUATION RESULTS

Under GASB 45, the Annual Required Contribution (ARC) of the employer equals the Normal Cost plus a provision for amortizing the Unfunded Actuarial Accrued Liability. We have assumed increasing dollar amortization over the maximum acceptable amortization period of 30 years. For the period beginning July 1, 2014, the ARC, calculated under the parameters of this actuarial valuation, would be:

TABLE 2.4 - ANNUAL REQUIRED CONTRIBUTION and ANNUAL OPEB COST

	<u>Partial Pre-Funding</u>	<u>Full Pre-Funding</u>
Discount Rate	5.5%	7.5%
1. Normal Cost	\$1,472,169	\$877,791
2. Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$40,975,065	\$30,320,545
b. Actuarial Value of Plan Assets	\$4,083,974	\$4,083,974
c. Unfunded Actuarial Accrued Liability	\$36,891,091	\$26,236,571
3. Amortization of Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability	\$36,891,091	\$26,236,571
b. Amortization Period in years	30	30
c. Factor Increasing Rate	4.0%	4.0%
d. Amortization Factor	24.56	19.34
e. Amortization Amount (3.a. / 3.d.)	\$1,502,080	\$1,356,596
4. Interest on 1. and 3.e.	\$163,584	\$167,579
5. Annual Required Contribution (1. + 3.e. + 4.)	\$3,137,833	\$2,401,966
6. Net OPEB Obligation, beginning of year	\$16,392,012	Not Applicable
7. Interest on Net OPEB Obligation at 4.00%	\$655,680	Not Applicable
8. Adjustment to Annual Required Contribution at 4.00%	(\$546,400)	Not Applicable
9. Annual OPEB Cost (5. + 7. + 8.)	\$3,247,113	Not Applicable

SECTION 3 - GASB 45 ACCOUNTING DISCLOSURE

GASB 45 requires disclosure of the annual OPEB cost, the Net OPEB Obligation and the Schedule of Funding Progress. In addition, information about the Actuarial Methods and Assumptions used in the valuation and a summary of the Substantive Plan Provisions are disclosed, which are provided in Section 6 and Section 7, respectively.

Annual OPEB Cost and Net OPEB Obligation*			
Fiscal Year Ending	6/30/2015	6/30/2014	6/30/2013
Discount rate	5.50%	4.00%	4.00%
Annual Required Contribution	\$3,137,833	\$4,004,730	\$3,817,825
Interest on Net OPEB Obligation	655,680	693,164	586,188
Adjustment to annual required contribution	(546,400)	(577,637)	(488,490)
Annual OPEB Cost	\$3,247,113	\$4,120,257	\$3,915,523
Expected Benefit Payments	(1,417,624)	(1,240,143)	(1,293,283)
Employer contributions to OPEB Trust	(551,578)	(3,765,038)	-
Total employer contributions	(1,969,202)	(5,005,181)	(1,293,283)
Change in Net OPEB Obligation	\$1,277,911	(\$884,924)	\$2,622,240
Net OPEB Obligation, beginning of year	\$16,392,012	\$17,276,936	\$14,654,696
Net OPEB Obligation, end of year	\$17,669,923	\$16,392,012	\$17,276,936

* 6/30/2014 and 6/30/2013 entries based on information provided in the Town's audited financial statements.

Plan History				
Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation	
6/30/2015	3,247,113	60.6%	17,669,923	
6/30/2014	4,120,257	121.5%	16,392,012	
6/30/2013	3,915,523	33.0%	17,276,936	

Schedule of Funding Progress						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) / c)
7/1/2014	4,083,974	40,975,065	36,891,091	9.97%	40,752,389	90.5%
7/1/2012	0	48,839,208	48,839,208	0.00%	38,413,036	127.1%
7/1/2010	0	71,292,434	71,292,434	0.00%	37,108,987	192.1%
7/1/2008	0	61,170,521	61,170,521	0.00%	32,019,829	191.0%

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

SECTION 4 - FORECASTS

OVERVIEW

In Section 4, we have provided 30-year forecasts of the annual funding requirements, accrued liability, assets and unfunded actuarial accrued liability under various funding scenarios. The entries in Tables 4.1 and 4.2 are based on the assumptions stated below:

- ◆ Expected Benefit Payments are developed in the actuarial valuation and are based on the assumptions detailed in Section 7.
- ◆ Normal Cost with interest is assumed to increase annually by 4%.
- ◆ Assets are assumed to grow annually at the selected discount rate plus OPEB Trust Contributions made at the end of each fiscal year.
- ◆ Actuarial Accrued Liability (AAL), end of year, equals AAL, beginning of year, plus Normal Cost less Expected Benefit Payments plus interest on these items.
- ◆ Unfunded Actuarial Accrued Liability (UAAL) equals the AAL less Assets.
- ◆ the Annual Required Contribution (ARC) is the sum of the Normal Cost, the Amortization Amount and Interest.

Table 4.1 is based on funding the Expected Benefit Payments plus a contribution to the OPEB Trust of \$551,578 for FY2015, increasing by 2½% per year thereafter.

- ◆ The assumed discount rate is 5.5%.
- ◆ Amortization Amount is the amount necessary to amortize the Unfunded Actuarial Accrued Liability over 30 years at a discount rate of 5.5% on an open amortization basis. The open amortization period is 30 years, recalculated at each valuation.

Table 4.2 is based on fully funding the Annual Required Contribution (ARC) each year.

- ◆ The assumed discount rate is 7.5%.
- ◆ Amortization Amount is the amount necessary to amortize the Unfunded Actuarial Accrued Liability over 30 years at a discount rate of 7.5% on a closed amortization basis. The closed amortization period is 30 years at year one declining to zero after 30 years. This method fully funds the UAL at the end of 30 years.
- ◆ Assumes OPEB Trust Contributions equal to the excess of the ARC over the Expected Benefit Payments.

SECTION 4 - FORECASTS

TABLE 4.1 - FUNDING PAY-AS-YOU-GO PLUS ANNUAL OPEB TRUST CONTRIBUTION PER FUNDING POLICY

FYE June 30	(1) Normal Cost	(2) Actuarial Accrued Liability	(3) Expected Benefit Payments	(4) Actuarial Value of Assets	(5) Unfunded Actuarial Accrued Liability (2) - (4)	(6) Amortization Amount	(7) Interest	(8) ARC (1) + (6) + (7)	(9) OPEB Trust Contributions
2015	1,472,169	40,975,065	1,417,624	4,083,974	36,891,091	1,502,080	163,584	3,137,833	551,578
2016	1,531,056	43,325,745	1,525,033	4,860,171	38,465,574	1,566,188	170,348	3,267,592	565,367
2017	1,592,298	45,757,515	1,613,775	5,692,848	40,064,667	1,631,298	177,298	3,400,894	579,502
2018	1,655,990	48,296,493	1,702,153	6,585,456	41,711,037	1,698,332	184,488	3,538,810	593,989
2019	1,722,230	50,951,534	1,798,385	7,541,645	43,409,889	1,767,504	191,935	3,681,669	608,839
2020	1,791,119	53,723,642	1,876,150	8,565,274	45,158,368	1,838,696	199,640	3,829,455	624,060
2021	1,862,764	56,641,019	1,962,242	9,660,424	46,980,595	1,912,891	207,661	3,983,316	639,661
2022	1,937,275	59,706,010	2,059,502	10,831,409	48,874,601	1,990,008	216,001	4,143,284	655,653
2023	2,014,766	62,918,285	2,197,108	12,082,789	50,835,496	2,069,849	224,654	4,309,269	672,044
2024	2,095,357	66,247,649	2,332,511	13,419,387	52,828,262	2,150,988	233,549	4,479,894	688,845
2025	2,179,171	69,706,075	2,469,614	14,846,299	54,859,776	2,233,704	242,708	4,655,583	706,066
2026	2,266,338	73,302,315	2,625,493	16,368,912	56,933,403	2,318,135	252,146	4,836,619	723,718
2027	2,356,992	77,028,201	2,745,661	17,992,920	59,035,281	2,403,717	261,839	5,022,548	741,811
2028	2,451,272	80,931,223	2,877,721	19,724,342	61,206,881	2,492,137	271,887	5,215,296	760,356
2029	2,549,323	85,012,733	3,024,568	21,569,537	63,443,196	2,583,192	282,288	5,414,803	779,365
2030	2,651,296	89,271,339	3,173,714	23,535,227	65,736,112	2,676,552	293,032	5,620,880	798,849
2031	2,757,348	93,718,557	3,331,671	25,628,514	68,090,043	2,772,396	304,136	5,833,880	818,821
2032	2,867,642	98,360,014	3,475,416	27,856,903	70,503,111	2,870,648	315,606	6,053,896	839,291
2033	2,982,348	103,225,466	3,621,634	30,228,324	72,997,142	2,972,196	327,500	6,282,044	860,273
2034	3,101,642	108,329,348	3,773,561	32,751,155	75,578,193	3,077,288	339,841	6,518,771	881,780
2035	3,225,708	113,683,749	3,893,922	35,434,249	78,249,500	3,186,055	352,647	6,764,410	903,825
2036	3,354,736	119,339,906	3,982,670	38,286,957	81,052,949	3,300,202	366,022	7,020,960	926,420
2037	3,488,925	125,352,120	4,090,439	41,319,160	84,032,960	3,421,537	380,075	7,290,537	949,581
2038	3,628,482	131,725,882	4,196,334	44,541,295	87,184,587	3,549,861	394,809	7,573,152	973,320
2039	3,773,621	138,488,665	4,299,752	47,964,387	90,524,278	3,685,842	410,270	7,869,733	997,653
2040	3,924,566	145,670,299	4,433,664	51,600,082	94,070,217	3,830,221	426,513	8,181,300	1,022,595
2041	4,081,549	153,268,625	4,570,935	55,460,681	97,807,944	3,982,408	443,518	8,507,475	1,048,160
2042	4,244,811	161,309,480	4,695,004	59,559,178	101,750,302	4,142,928	461,326	8,849,065	1,074,364
2043	4,414,603	169,837,388	4,795,629	63,909,296	105,928,092	4,313,033	480,020	9,207,656	1,101,223
2044	4,591,187	178,910,107	4,859,756	68,525,530	110,384,577	4,494,486	499,712	9,585,385	1,128,753

30 years open, 5.5% discount rate.

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

SECTION 4 - FORECASTS

TABLE 4.2 - FUND THE ANNUAL REQUIRED CONTRIBUTION

FYE June 30	(1) Normal Cost	(2) Actuarial Accrued Liability	(3) Expected Benefit Payments	(4) Actuarial Value of Assets	(5) Unfunded Actuarial Accrued Liability (2) - (4)	(6) Amortization Amount	(7) Interest	(8) ARC (1) + (6) + (7)	(9) OPEB Trust Contributions
2015	877,791	30,320,545	1,417,624	4,083,974	26,236,571	1,356,895	167,601	2,402,287	551,578
2016	912,903	32,068,387	1,525,033	4,889,650	27,178,737	1,434,021	176,019	2,522,943	997,910
2017	949,419	33,873,699	1,613,775	6,198,129	27,675,570	1,491,382	183,060	2,623,861	1,010,086
2018	987,396	35,761,654	1,702,153	7,613,652	28,148,002	1,551,038	190,383	2,728,817	1,026,664
2019	1,026,892	37,740,399	1,798,385	9,148,663	28,591,736	1,613,079	197,998	2,837,969	1,039,584
2020	1,067,968	39,810,233	1,876,150	10,808,176	29,002,057	1,677,602	205,918	2,951,488	1,075,338
2021	1,110,687	41,998,832	1,962,242	12,625,043	29,373,789	1,744,706	214,154	3,069,547	1,107,305
2022	1,155,114	44,308,237	2,059,502	14,606,972	29,701,265	1,814,495	222,721	3,192,330	1,132,828
2023	1,201,319	46,737,765	2,197,108	16,759,488	29,978,277	1,887,075	231,630	3,320,024	1,122,916
2024	1,249,372	49,256,505	2,332,511	19,058,464	30,198,041	1,962,557	240,895	3,452,824	1,120,313
2025	1,299,347	51,875,419	2,469,614	21,522,274	30,353,145	2,041,060	250,531	3,590,938	1,121,324
2026	1,351,321	54,602,323	2,625,493	24,166,832	30,435,491	2,122,702	260,552	3,734,575	1,109,082
2027	1,405,374	57,427,998	2,745,661	26,991,750	30,436,248	2,207,610	270,974	3,883,958	1,138,297
2028	1,461,589	60,399,113	2,877,721	30,053,327	30,345,786	2,295,915	281,813	4,039,317	1,161,596
2029	1,520,053	63,516,570	3,024,568	33,362,959	30,153,611	2,387,751	293,085	4,200,889	1,176,321
2030	1,580,855	66,778,431	3,173,714	36,930,131	29,848,300	2,483,261	304,809	4,368,925	1,195,211
2031	1,644,089	70,195,656	3,331,671	40,778,239	29,417,417	2,582,592	317,001	4,543,682	1,212,011
2032	1,709,853	73,773,376	3,475,416	44,925,939	28,847,437	2,685,895	329,681	4,725,429	1,250,013
2033	1,778,247	77,541,083	3,621,634	49,417,425	28,123,658	2,793,331	342,868	4,914,446	1,292,812
2034	1,849,377	81,513,290	3,773,561	54,283,188	27,230,102	2,905,064	356,583	5,111,024	1,337,463
2035	1,923,352	85,702,356	3,893,922	59,552,940	26,149,416	3,021,267	370,846	5,315,465	1,421,543
2036	2,000,286	90,160,332	3,982,670	65,297,571	24,862,761	3,142,118	385,680	5,528,084	1,545,414
2037	2,080,297	94,943,344	4,090,439	71,593,653	23,349,691	3,267,803	401,108	5,749,208	1,658,769
2038	2,163,509	100,059,357	4,196,334	78,471,328	21,588,029	3,398,515	417,152	5,979,176	1,782,842
2039	2,250,049	105,538,729	4,299,752	85,985,002	19,553,727	3,534,455	433,838	6,218,342	1,918,590
2040	2,340,051	111,414,859	4,433,664	94,194,141	17,220,718	3,675,833	451,191	6,467,075	2,033,411
2041	2,433,653	117,689,608	4,570,935	103,128,856	14,560,752	3,822,867	469,239	6,725,759	2,154,824
2042	2,530,999	124,393,259	4,695,004	112,850,033	11,543,226	3,975,781	488,009	6,994,789	2,299,785
2043	2,632,239	131,575,694	4,795,629	123,440,691	8,135,003	4,134,812	507,529	7,274,580	2,478,951
2044	2,737,529	139,301,313	4,859,756	135,001,109	4,300,204	4,300,204	527,830	7,565,563	2,705,807
2045	2,847,030	147,653,053	4,912,171	147,653,053	-	-	213,527	3,060,557	-

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

30 years closed, 7.5% discount rate.

SECTION 4 - FORECASTS

TABLE 4.4 - ANNUAL OPEB COST and NET OPEB OBLIGATION

FYE June 30	ARC	Interest on Net OPEB Obligation	ARC Adjustment	Amortization Factor	Annual OPEB Cost	Employer Contributions	Change in Net OPEB Obligation	Net OPEB Obligation Balance
								16,392,012
2015	3,137,833	655,680	(546,400)	30.00	3,247,113	1,969,202	1,277,911	17,669,923
2016	3,267,592	971,846	(729,861)	24.21	3,509,577	2,090,400	1,419,177	19,089,100
2017	3,400,894	1,049,900	(788,480)	24.21	3,662,314	2,193,277	1,469,037	20,558,137
2018	3,538,810	1,130,698	(849,159)	24.21	3,820,349	2,296,142	1,524,207	22,082,344
2019	3,681,669	1,214,529	(912,117)	24.21	3,984,081	2,407,224	1,576,857	23,659,201
2020	3,829,455	1,301,256	(977,249)	24.21	4,153,462	2,500,210	1,653,252	25,312,453
2021	3,983,316	1,392,185	(1,045,537)	24.21	4,329,964	2,601,903	1,728,061	27,040,514
2022	4,143,284	1,487,228	(1,116,915)	24.21	4,513,597	2,715,155	1,798,442	28,838,956
2023	4,309,269	1,586,143	(1,191,200)	24.21	4,704,212	2,869,152	1,835,060	30,674,015
2024	4,479,894	1,687,071	(1,266,998)	24.21	4,899,967	3,021,356	1,878,611	32,552,626

Notes:

1. ARC and Employer Contributions are from 30-Year Forecast of Annual Required Contributions (Table 4.1).
2. Interest on Net OPEB Obligation is computed on the prior year Net OPEB Obligation Balance.
3. ARC Adjustment is the prior year Net OPEB Obligation Balance amortized over 30 years.
4. OPEB Cost is the ARC plus Interest on Net OPEB Obligation less ARC Adjustment.
5. Change in Net OPEB Obligation is the difference between the OPEB Cost and Employer Contributions.
6. Net OPEB Obligation is the prior year Net OPEB Obligation Balance plus Change in Net OPEB Obligation.
7. Year one Interest on Net OPEB Obligation and ARC Adjustment computed at prior discount rate of 4%.
8. Subsequent years' Interest on Net OPEB Obligation and ARC Adjustment computed at current discount rate of 5.5%.

SECTION 5 - SENSITIVITY TO HEALTH CARE COST TREND RATE

Below we illustrate the sensitivity of Actuarial Accrued Liability to a one percentage increase and decrease in health care cost trend assumption for each future year:

TABLE 5.1 - ACTUARIAL ACCRUED LIABILITY

	<u>Assumed Trend</u>	<u>Trend +1%</u>	<u>Trend -1%</u>
Discount Rate	5.5%	5.5%	5.5%
Current Active Employees			
Pre-Medicare Gross Benefit	\$7,755,087	\$8,862,086	\$6,819,202
Pre-Medicare Participant Contributions	2,456,804	2,804,696	2,162,446
Net Pre-Medicare Benefit	\$5,298,283	\$6,057,390	\$4,656,756
Post - Medicare Gross Benefit	\$31,085,364	\$39,427,528	\$24,794,023
Post - Medicare Participant Contributions	12,730,454	16,112,247	10,174,138
Net Post - Medicare Benefit	\$18,354,910	\$23,315,281	\$14,619,885
Total Current Active Employees	\$23,653,193	\$29,372,671	\$19,276,641
Current Retirees			
Pre-Medicare Gross Benefit	\$2,122,431	\$2,168,182	\$2,078,206
Pre-Medicare Participant Contributions	620,563	634,127	607,472
Net Pre-Medicare Benefit	\$1,501,868	\$1,534,055	\$1,470,734
Post - Medicare Gross Benefit	\$27,156,773	\$29,999,894	\$24,702,731
Post - Medicare Participant Contributions	11,336,769	12,521,166	10,314,129
Net Post - Medicare Benefit	\$15,820,004	\$17,478,728	\$14,388,602
Total Current Retirees	\$17,321,872	\$19,012,783	\$15,859,336
Total Actuarial Accrued Liability (AAL)	\$40,975,065	\$48,385,454	\$35,135,977

SECTION 5 - SENSITIVITY TO HEALTH CARE COST TREND RATE

Below we illustrate the sensitivity of Normal Cost to a one percentage increase and decrease in health care cost trend assumption for each future year:

TABLE 5.2 - NORMAL COST

	<u>Assumed Trend</u>	<u>Trend +1%</u>	<u>Trend -1%</u>
Discount Rate	5.5%	5.5%	5.5%
Current Active Employees			
Pre-Medicare Gross Benefit	\$506,134	\$607,206	\$423,783
Pre-Medicare Participant Contributions	158,277	189,624	132,711
Net Pre-Medicare Benefit	\$347,857	\$417,582	\$291,072
Post - Medicare Gross Benefit	\$1,884,429	\$2,545,539	\$1,410,458
Post - Medicare Participant Contributions	760,117	1,024,290	570,228
Net Post - Medicare Benefit	\$1,124,312	\$1,521,249	\$840,230
Total Current Active Employees	\$1,472,169	\$1,938,831	\$1,131,302
Current Retirees			
Pre-Medicare Gross Benefit	\$0	\$0	\$0
Pre-Medicare Participant Contributions	0	0	0
Net Pre-Medicare Benefit	\$0	\$0	\$0
Post - Medicare Gross Benefit	\$0	\$0	\$0
Post - Medicare Participant Contributions	0	0	0
Net Post - Medicare Benefit	\$0	\$0	\$0
Total Current Retirees	\$0	\$0	\$0
Total Normal Cost	\$1,472,169	\$1,938,831	\$1,131,302

SECTION 6 - PLAN PROVISIONS

- Eligibility:**
- Group 1 employees hired before April 2, 2012: retire after attaining age 55 with 10 or more years of service or any age with 20 or more years of service
- Group 1 employees hired after April 1, 2012: retire after attaining age 60 with 10 or more years of service
- Group 4 employees hired before April 2, 2012: retire after attaining age 55 or any age with 20 or more years of service
- Group 4 employees hired after April 1, 2012: retire after attaining age 55

Medical Premium Rates: The total monthly costs by plan are shown below:

<u>Non-Medicare Plans - July 1, 2014</u>	<u>Individual</u>	<u>Family</u>
Fallon Direct	\$483.21	\$1,159.70
Harvard Pilgrim Independence	\$686.12	\$1,674.20
Harvard Pilgrim Primary Choice	\$548.89	\$1,339.36
Tufts Navigator	\$619.87	\$1,497.60
Tufts Spirit	\$500.37	\$1,206.01
UniCare Basic w/ CIC	\$936.24	\$2,185.22
UniCare Basic w/o CIC	\$893.83	\$2,086.85
UniCare Community Choice	\$456.68	\$1,095.99
UniCare PLUS	\$656.90	\$1,567.69
 <u>Medicare Plans - July 1, 2014</u>		
Harvard Pilgrim Medicare Enhance	\$394.79	
Tufts Medicare Complement	\$348.39	
Tufts Medicare Preferred	\$266.56	
UniCare OME w/ CIC	\$379.45	

Participant Contributions: Retired employees contribute 17% and 39% of the total medical premium rates for individual and family coverage, respectively, for all plans offered except the UniCare State Indemnity Plan Basic and all plans offered to retirees and spouses with Medicare. For these plans, retired employees contribute 50%.

Medicare Part B Premium: The Town reimburses retirees and spouses for 50% of Medicare Part B premium. The 2014 Medicare Part B monthly premium is \$104.90.

Medicare Penalty: The Town reimburses retirees for the late enrollment Medicare penalty for six retirees as provided in the data.

SECTION 6 - PLAN PROVISIONS

Continuation of Coverage to Spouse After Death of Retiree: Surviving spouse may continue coverage for lifetime by paying required medical premium rates.

Life Insurance Benefit: Retirees are eligible for a \$5,000 life insurance benefit.

Life Insurance Premium: The total monthly cost is \$4.18.

Life Insurance Contributions: Retirees contribute 50% of the premium for life insurance coverage.

PPACA Excise Tax: The Patient Protection and Affordable Care Act (PPACA) applies a 40% excise tax to the cost of plan benefits in excess of statutory thresholds beginning in 2018. The 2018 thresholds are assumed to be \$10,200 for individual and \$27,500 for family coverage and increase by CPI in future years. The annual limits are increased by \$1,650 for individual and \$3,450 for family coverage for retirees not eligible for Medicare benefits.

SECTION 7 - ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date: July 1, 2014

Discount Rates: 5.50% partial pre-funding. Previously, 4% pay-as-you-go.
7.50% full pre-funding.

Amortization Method: Increasing at 4% over 30 years on an open amortization period for partial pre-funding.
Increasing at 4% over 30 years on a closed amortization period for full pre-funding.

Health Care Cost Trend Rates:

Year	Current	Prior
1	7.50%	9.00%
2	6.75%	8.25%
3	6.00%	7.50%
4	5.25%	6.75%
5	5.00%	6.00%
6	5.00%	5.25%
Ultimate	5.00%	5.00%

CPI: 3% per year.

Medicare Part B Trend: 6% per year.

Mortality Table: RP-2000 Mortality Table, projected to 2014, using Scale AA.

Turnover Rates: *Non-Teachers:*

Groups 1 and 2		Group 4	
Service	Rate	Service	Rate
0	15.00%	0-10	1.50%
1	12.00%	11+	0.00%
2	10.00%		
3	9.00%		
4	8.00%		
5-9	7.60%		
10-14	5.40%		
15-19	3.30%		
20-24	2.00%		
25-29	1.00%		
30+	0.00%		

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014

SECTION 7 - ACTUARIAL ASSUMPTIONS AND METHODS

Turnover Rates (continued): *Teachers:*

<u>Age</u>	<u>Service</u>					
	0		5		10+	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
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%

Disability Rates: *Non-Teachers:*

<u>Groups 1 and 2</u>		<u>Group 4</u>	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	0.01%	20	0.10%
30	0.03%	30	0.30%
40	0.10%	40	0.30%
50	0.19%	50	1.25%

Teachers:

<u>Age</u>	<u>Rate</u>
20	0.004%
30	0.006%
40	0.010%
50	0.050%
60	0.100%

SECTION 7 - ACTUARIAL ASSUMPTIONS AND METHODS

Retirement Rates:

Non-Teachers:

<u>Age</u>	Groups 1 and 2		Group 4
	Male	Female	All
45-49	0.00%	0.00%	1.00%
50-54	0.00%	0.00%	2.00%
55-59	2.00%	5.50%	15.00%
60-61	12.00%	5.00%	20.00%
62-64	30.00%	15.00%	25.00%
65-68	40.00%	15.00%	100.00%
69	50.00%	20.00%	
70	100.00%	100.00%	

Teachers:

<u>Age</u>	Years of Service			
	Less than 20		20+	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	0.0%	0.0%	2.0%	1.0%
51	0.0%	0.0%	2.0%	1.0%
52	0.0%	0.0%	2.0%	1.5%
53	0.0%	0.0%	2.0%	2.0%
54	0.0%	0.0%	3.0%	2.0%
55	3.5%	3.5%	3.0%	4.0%
56	3.5%	3.5%	3.5%	4.0%
57	5.0%	3.5%	4.0%	4.0%
58	5.5%	5.0%	5.0%	6.0%
59	6.0%	6.5%	6.0%	8.0%
60	7.5%	8.5%	15.0%	15.0%
61	12.0%	10.0%	25.0%	20.0%
62	14.0%	12.0%	30.0%	20.0%
63	14.0%	12.0%	30.0%	25.0%
64	14.0%	20.0%	30.0%	30.0%
65	30.0%	30.0%	30.0%	40.0%
66-69	30.0%	30.0%	25.0%	30.0%
70	100.0%	100.0%	100.0%	100.0%

SECTION 7 - ACTUARIAL ASSUMPTIONS AND METHODS

Medical Plan Participation: 80% of eligible retirees will elect to participate. Previously, 75%.

Life Insurance Participation: 60% of eligible retirees will elect to participate.

Dependent Status: Male spouses are assumed to be three years older and female spouses are assumed to be three years younger than the retired employee.

50% of employees are assumed to retire with a covered spouse.

For current retirees, the actual census information provided is used.

Medical Per Capita Costs: Annual per capita costs for the fiscal year beginning July 1, 2014 are as follows:

<u>Age</u>	<u>Medicare-Eligible</u>	<u>Not Medicare-Eligible</u>
Under 65	\$8,614	\$8,614
65 and Over	\$4,487	\$8,614

Retiree Contributions: Annual average per capita participant contributions for the fiscal year beginning July 1, 2014 are as follows:

<u>Age</u>	<u>Medicare-Eligible</u>	<u>Not Medicare-Eligible</u>
Under 65	\$2,756	\$2,756
65 and Over	\$2,244	\$2,756

Excise Tax: For purposes of estimating the excise tax, per capita plan costs are developed for individual and family coverage for both Medicare and non-Medicare members. These plan costs are compared to the thresholds stipulated in the Patient Protection and Affordable Care Act (PPACA). Beginning in 2018, a 40% excise tax is applied on the excess of the plan costs over the thresholds, which increase annually by CPI.

Actuarial Cost Method: Projected Unit Credit. The costs of each employee's postemployment benefits are allocated on a pro rata basis from the employee's date of hire to the date the employee is fully eligible for benefits.

Employee Data: Employee and retiree data were submitted by the Town. We made reasonable adjustments for missing or invalid data.

SECTION 8 - PLAN MEMBER INFORMATION

TABLE 8.1 - ACTIVE EMPLOYEES BY AGE and YEARS OF SERVICE AS OF JULY 1, 2014

Age	Years of Service									Total	Percent
	<u>0 to 4</u>	<u>5 to 9</u>	<u>10 to 14</u>	<u>15 to 19</u>	<u>20 to 24</u>	<u>25 to 29</u>	<u>30 to 34</u>	<u>35 to 39</u>	<u>40 & up</u>		
Under 25	12	1	0	0	0	0	0	0	0	13	2%
25 to 29	59	8	0	0	0	0	0	0	0	67	11%
30 to 34	30	34	4	0	0	0	0	0	0	68	11%
35 to 39	23	19	21	2	0	0	0	0	0	65	11%
40 to 44	26	12	22	18	0	0	0	0	0	78	13%
45 to 49	24	16	17	11	4	7	0	0	0	79	13%
50 to 54	13	25	18	14	6	12	1	2	0	91	15%
55 to 59	11	15	14	10	5	5	3	0	0	63	10%
60 to 64	7	7	20	12	5	5	1	0	2	59	10%
65 to 69	2	2	2	4	4	1	1	3	0	19	3%
70 & up	1	0	4	1	1	0	0	0	0	7	1%
Total	208	139	122	72	25	30	6	5	2	609	
Percent	34%	23%	20%	12%	4%	5%	1%	1%	0%		100%
	Average Age:		45.5		Average Service:		10.0				

SECTION 8 - PLAN MEMBER INFORMATION

TABLE 8.2 - RETIRED EMPLOYEES, COVERED SPOUSES and SURVIVORS AS OF JULY 1, 2014

Age	Fallon Direct	Harvard Pilgrim Independence	Tufts Navigator	Tufts Spirit	UniCare Basic w/ CIC	UniCare Community Choice	UniCare PLUS	Harvard Pilgrim Medicare Enhance	Tufts Medicare Complement	Tufts Medicare Preferred	UniCare OME w/ CIC	Life Only	Total
Under 40	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0	0	0	0	0
50 to 54	0	0	1	0	0	0	0	0	0	0	0	0	1
55 to 59	1	0	7	1	0	0	3	0	0	0	0	0	12
60 to 64	0	2	27	4	3	1	3	2	0	0	4	0	46
65 to 69	0	1	1	1	1	0	0	7	4	5	29	32	81
70 to 74	0	0	2	0	3	0	0	5	2	2	39	0	53
75 to 79	1	1	0	0	1	0	0	5	3	3	26	0	40
80 to 84	0	0	1	0	0	0	0	2	2	0	20	0	25
85 to 89	0	0	0	1	0	0	0	2	3	0	18	0	24
90+	0	0	0	0	0	0	0	1	1	0	7	0	9
Total	2	4	39	7	8	1	6	24	15	10	143	32	291
Covered Spouses	1	0	16	3	1	1	0	11	4	3	63		103

SECTION 9 - GASB 45 GLOSSARY OF TERMS

Actuarial Accrued Liability – The portion of the Actuarial Present Value of future benefits which is allocated to all periods prior to a valuation year and therefore is not provided by future Normal Costs.

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 pension 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 Present Value of Future Benefits – The present value of the cost to finance all benefits payable in the future, discounted to reflect the probability of payment and the time value of money.

Actuarial Valuation – the determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values for an OPEB plan.

Actuarial Value of Assets – The value of plan assets used in an actuarial valuation. The Actuarial Value of Assets may reflect smoothing techniques intended to dampen year-to-year fluctuations in the market value of assets.

Annual OPEB Cost - The accrual basis annual cost for the OPEB plan sponsored by the employer. In the year of implementation of GASB 45, the Annual OPEB Cost equals the ARC. In subsequent years, if an employer has a Net OPEB Obligation, Annual OPEB Cost equals the ARC plus one year's interest on the Net OPEB Obligation plus an adjustment to the ARC.

Annual Required Contribution (ARC) – Includes the employer's Normal Cost and a provision for amortizing the Unfunded Actuarial Accrued Liability.

Explicit Subsidy – The difference between (a) the blended rates based on combined active and retired member experience and (b) actual cash contributions made by the employer.

Funded Ratio – The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

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

Implicit Subsidy – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group and (b) the blended rates based on combined active and retired member experience.

SECTION 9 - GASB 45 GLOSSARY OF TERMS

Net OPEB Obligation – The cumulative excess since adoption of GASB 45 of Annual OPEB Cost over the employer's contributions to the plan.

Normal Cost – The portion of the Actuarial Present Value of Future Benefits which is allocated to a valuation year.

OPEB – Other Postemployment Benefits including medical, dental, vision, hearing and life insurance benefits.

Plan Assets – Investments segregated and restricted in a trust or similar arrangement under which:

- employer contributions to the trust are irrevocable,
- assets are dedicated to providing plan benefits to retirees and beneficiaries in accordance with the terms of the plan, and
- assets are legally protected from creditors.

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.

Present Value of Future Benefits – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Projected Unit Credit Actuarial Cost Method – A method under which the projected benefits of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. Projected Unit Credit is one of the actuarial cost methods allowed and most often used for developing liabilities under GASB 45.

Substantive Plan – The terms of an OPEB plan as understood by the employer and plan members.

Unfunded Actuarial Accrued Liability – The excess of Actuarial Accrued Liability over the Actuarial Value of Assets.

SECTION 10 - RESULTS BY SUBGROUP

Subgroup	<u>Town</u>	<u>School (MRS)</u>	<u>School (MTRB)</u>	<u>Total</u>
Summary of Member Data				
Active Members	182	151	276	609
Average Age	46.5	49.8	42.5	45.5
Average Service	12.3	9.0	9.0	10.0
Retired Members and Survivors	132	30	129	291
Average Age	72.3	71.8	72.0	72.1
Actuarial Accrued Liability - July 1, 2014				
Active Employees	9,096,958	5,174,602	9,381,633	23,653,193
Retired Employees and Survivors	6,507,650	1,822,085	8,992,137	17,321,872
Total	15,604,608	6,996,687	18,373,770	40,975,065
Actuarial Value of Plan Assets - July 1, 2014	1,555,307	697,358	1,831,309	4,083,974
Unfunded Actuarial Accrued Liability	14,049,301	6,299,329	16,542,461	36,891,091
Annual Required Contribution (ARC) for FYE 2015				
Normal Cost	448,239	324,261	699,669	1,472,169
Amortization of UAL	572,040	256,487	673,553	1,502,080
Interest	56,115	31,941	75,528	163,584
Total	1,076,394	612,689	1,448,750	3,137,833
Annual OPEB Cost for FYE 2015				
Annual Required Contribution	1,076,394	612,689	1,448,750	3,137,833
Interest on Net OPEB Obligation	224,923	128,027	302,730	655,680
Adjustment to annual required contribution	(187,436)	(106,689)	(252,275)	(546,400)
Annual OPEB cost	1,113,881	634,027	1,499,205	3,247,113
Expected Benefit Payments	(546,086)	(171,676)	(699,862)	(1,417,624)
OPEB Trust contributions	(189,212)	(107,700)	(254,666)	(551,578)
Employer contributions	(735,298)	(279,376)	(954,528)	(1,969,202)
Change in Net OPEB Obligation	378,583	354,651	544,677	1,277,911
Net OPEB Obligation, beginning of year	5,623,073	3,200,682	7,568,257	16,392,012
Net OPEB Obligation, end of year	6,001,656	3,555,333	8,112,934	17,669,923
Town of Bedford Postemployment Benefits Other Than Pensions Actuarial Valuation as of July 1, 2014				

SECTION 10 - RESULTS BY SUBGROUP

Subgroup	<u>Town</u>	<u>School (MRS)</u>	<u>School (MTRB)</u>	<u>Total</u>
Actuarial Accrued Liability - July 1, 2015				
Total	16,374,851	7,547,266	19,403,628	43,325,745
Actuarial Value of Plan Assets - July 1, 2015	1,836,889	846,633	2,176,649	4,860,171
Unfunded Actuarial Accrued Liability	14,537,962	6,700,633	17,226,979	38,465,574
Annual Required Contribution (ARC) for FYE 2016				
Normal Cost	466,169	337,231	727,656	1,531,056
Amortization of UAL	591,937	272,827	701,424	1,566,188
Interest	58,196	33,553	78,599	170,348
Total	1,116,302	643,611	1,507,679	3,267,592
Annual OPEB Cost for FYE 2016				
Annual Required Contribution	1,116,302	643,611	1,507,679	3,267,592
Interest on Net OPEB Obligation	330,091	195,543	446,212	971,846
Adjustment to annual required contribution	(247,900)	(146,854)	(335,107)	(729,861)
Annual OPEB cost	1,198,493	692,300	1,618,784	3,509,577
Expected Employer premiums	(596,079)	(192,524)	(736,430)	(1,525,033)
OPEB Trust contributions	(213,679)	(351,688)	0	(565,367)
Employer contributions	(809,758)	(544,212)	(736,430)	(2,090,400)
Change in Net OPEB Obligation	388,735	148,088	882,354	1,419,177
Net OPEB Obligation, beginning of year	6,001,656	3,555,333	8,112,934	17,669,923
Net OPEB Obligation, end of year	6,390,391	3,703,421	8,995,288	19,089,100

Town of Bedford Postemployment Benefits Other Than Pensions
Actuarial Valuation as of July 1, 2014