

CITY OF NEWTON

**OTHER THAN PENSION
POST-RETIREMENT EMPLOYEE BENEFITS (OPEB) VALUATION
AS OF JUNE 30, 2011**

**REVISED
SEPTEMBER 16, 2011**

FINANCIAL RISK ANALYSTS



September 16, 2011

Sent Via Email

Mr. David C. Wilkinson
Comptroller
City of Newton
Commonwealth Avenue and Walnut St.
Newton Centre, MA 02159

Dear David:

Enclosed please find our report regarding the indicated other than pension post-retirement benefit (OPEB) liabilities as of June 30, 2011 for the City. The liability calculation is in accordance with Governmental Accounting Standards Board Statement 45 (GASB-45).

This report has been revised from our initial report sent August 25, 2011 to show actual paid contributions during the year as opposed to the estimates shown in our previous report. We have added the payroll information you provided and calculated the ratio of Unfunded AAL to Payroll. We also have included the small amount funded toward the liability as of June 30, 2011 (Actuarial Value of Assets). No other changes were made.

It has been a pleasure being of service to you again on this project. If after reviewing this report you have any questions please do not hesitate to call.

Sincerely,

Robert Van Epps, FCAS, MAAA
Principal

John D. Stiefel, FSA, MAAA
Associated Consultant

CITY OF NEWTON

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INTRODUCTION

Financial Risk Analysts, LLC has been retained by the City of Newton (the City) to provide an actuarial valuation of the City's retiree medical and life insurance post-retirement benefits program for the fiscal year ending June 30, 2011. The City initially complied with GASB-45 for the fiscal year July 1, 2007 to June 30, 2008.

Medical and life insurance are the two most common types of other (than pension) post-retirement employee benefits (OPEB) provided by an employer to retirees and their beneficiaries.

The City presently provides life and health insurance benefits for active and retired employees and their covered dependents. The City has reported to us 2,135 active employees, 342 pre-Medicare retirees, 3,035 Medicare retirees and 149 over age 65 non-Medicare retirees who have elected health insurance.

Health insurance benefits provided to active employees and the Tufts Medicare Complement Plan for Medicare retirees are self insured while other health insurance benefits provided to Medicare retirees are fully insured. Life insurance benefits provided by the City are fully insured. For health insurance, active employees and retirees not on Medicare have a choice among the Harvard, Tufts-EPO and Tufts-POS plans. Most retirees on Medicare are in the Tufts Medicare Complement Plan. For life insurance, the only option is a flat \$5,000 benefit which does not reduce at retirement. As required by Massachusetts law, retirees not on Medicare have the same benefit options as active employees.

A detailed description of the City's census, benefit, and premium information is presented on Exhibits 7, 8, and 9.

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CONDITIONS AND LIMITATIONS

DATA

Within this report we used data and other information provided to us by the City. This data consisted of the following:

- Census Information - the demographics of the active, pre-Medicare retiree and Medicare retiree population covered for medical and life insurance benefits as of the date of the most recent pension valuation. For active employees, date of hire was also included.
- Benefit Information - a description of the different health and life insurance plans available to participants.
- Funding Information – a description of how the life and health insurance plans are funded including the contributions required from employees and retirees.
- Premium Rates – the premium rates for the various plans and the percentage of each premium rate that the City pays.
- Life Insurance In-Force Information – a summary of the life insurance schedules for actives and retirees and the participant contributions required.
- Requirements for Retirement – the age/service requirements for retirement with an unreduced pension benefit and the amount of benefit reduction for early retirement.
- Probabilities of Retirement – the probability that a general or uniformed employee eligible to retire will actually retire.
- Retirement Election Rates - The percentage of active participants who opt to continue their life and health insurance benefits (and pay the associated premiums) at retirement.

Although the data supplied were reviewed for purposes of reasonability, we have not independently audited or verified this information and we assume it to be accurate and complete. The results of our analysis will be contingent upon the reliability of the information supplied to us and such reliability is the responsibility of the City. Should the City become aware of any significant discrepancies in the data reported to us, we should be notified of such discrepancies and this report will be amended, if necessary.

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UNCERTAINTY

Actuarial projections, by their nature, are estimates of future contingent events, which cannot be known with certainty. The City's ultimate liability for medical and life insurance benefits will be subject to events that have yet to occur such as the future employee attrition rate, retirements, and particularly interest rates and medical cost inflation.

While we believe the results presented in this report are reasonable and reflect the use of accepted actuarial principles and standards of practice, it is possible that the actual future OPEB liability of the City will differ, perhaps materially, from what we have projected herein. Nothing in this report should be construed as a warranty or guarantee as to the adequacy of the liability estimates contained herein.

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DISTRIBUTION AND USE

This report is provided solely for the use of the City of Newton in evaluating its OPEB liability for the fiscal year July 1, 2010 through June 30, 2011. A copy of this report may also be provided to the City's auditor with the proviso that the report is copied in its entirety and that each party receiving a copy of this report agrees to not distribute the report to any other third party.

We request that the City inform us of distribution of this report to parties other than those referenced above.

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REQUIRED DISCLOSURES

Required Information for the Fiscal Year July 1, 2010 through June 30, 2011

As displayed on Exhibits 1.1 and 1.2, the tables below present a summary of the results of our analysis. To derive values reflecting partial funding, linear interpolation between the full funding (7.75% discount rate) and pay-as-you-go funding (2.00% discount rate) values may be used. The 2.00% discount rate was selected by the City for purposes of discounting an unfunded liability. The 2.00% rate is a meant to approximate a risk free rate of return based on current risk-free marketplace yields.

We present the 2009 and 2010 results along side of the 2011 results as required by GASB-45. Separate tables are provided for results using an unfunded discount rate (2.00%) and a fully funded discount rate (7.75%).

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City of Newton GASB-45 Required Disclosures			
	Unfunded Discount Rate		
	<u>FY 2008-09</u>	<u>FY 2009-10</u>	<u>FY 2010-11</u>
	2.00%	2.00%	2.00%
A. Expected Post Retirement Benefit Obligation	\$956,315,374	\$895,271,377	\$1,007,933,551
B. Funded Status			
1. Actuarial Accrued Liability (AAL)			
Active Employees	\$247,015,973	\$232,188,128	\$280,553,245
Retirees	\$348,656,080	\$299,486,423	\$358,557,048
Total	\$595,672,053	\$531,674,551	\$639,110,293
2. Actuarial Value of Assets	\$0	\$0	\$137,295
3. Unfunded Actuarial Accrued Liability (1) - (2)	\$595,672,053	\$531,674,551	\$638,972,998
4. Funded Ratio (2)/(3)	0%	0%	0%
5. Annual Covered Payroll (to be Filled in by the City)	\$174,021,433	\$175,729,105	\$176,190,563
6. Ratio of Unfunded AAL to Covered Payroll (3)/(5)	342%	303%	363%
C. Annual Required Contribution (ARC)			
1. Normal Cost (Service Cost)	\$20,839,131	\$20,351,759	\$21,921,755
2. Amortization of Unfunded Accrued Liability	\$26,734,203	\$24,493,346	\$30,259,420
3. Annual Required Contribution (ARC) (1) + (2)	\$47,573,333	\$44,845,104	\$52,181,175
	\$0		
D. Annual OPEB Cost			
1. ARC	\$47,573,333	\$44,845,104	\$52,181,175
2. Interest on Net OPEB Obligation	\$440,213	\$1,120,340	\$1,669,996
3. Adjustment to ARC	\$987,854	\$2,580,607	\$3,953,395
4. Annual OPEB Cost (1) + (2) - (3)	\$47,025,692	\$43,384,837	\$49,897,776
E. Net OPEB Obligation Estimates			
1. Net OPEB Obligation - beginning of year	\$22,010,637	\$54,894,373	\$83,499,791
2. Annual OPEB Cost	\$47,025,692	\$43,384,837	\$49,897,776
3. Actual Contributions during the year	\$14,141,956	\$14,779,419	\$15,307,809
4. Net OPEB Obligation - end of year (1)+(2)-(3)	\$54,894,373	\$83,499,791	\$118,089,758

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City of Newton GASB-45 Required Disclosures			
	Funded Discount Rate		
	<u>FY 2008-09</u>	<u>FY 2009-10</u>	<u>FY 2010-11</u>
	7.75%	7.75%	7.75%
A. Expected Post Retirement Benefit Obligation	\$330,045,424	\$288,991,375	\$349,452,645
B. Funded Status			
1. Actuarial Accrued Liability (AAL)			
Active Employees	\$71,600,658	\$61,644,327	\$74,374,599
Retirees	\$195,963,217	\$171,336,316	\$215,243,920
Total	\$267,563,876	\$232,980,643	\$289,618,519
2. Actuarial Value of Assets	\$0	\$0	\$137,295
3. Unfunded Actuarial Accrued Liability (1) - (2)	\$267,563,876	\$232,980,643	\$289,481,224
4. Funded Ratio (2)/(3)	0%	0%	0%
5. Annual Covered Payroll (to be Filled in by the City)	\$174,021,433	\$175,729,105	\$176,190,563
6. Ratio of Unfunded AAL to Covered Payroll (3)/(5)	342%	133%	164%
C. Annual Required Contribution (ARC)			
1. Normal Cost (Service Cost)	\$4,852,219	\$4,311,040	\$4,808,387
2. Amortization of Unfunded Accrued Liability	\$21,740,270	\$19,122,466	\$24,034,057
3. Annual Required Contribution (ARC) (1) + (2)	\$26,592,488	\$23,433,506	\$28,842,445
D. Annual OPEB Cost			
1. ARC	\$26,592,488	\$23,433,506	\$28,842,445
2. Interest on Net OPEB Obligation	\$939,125	\$1,907,632	\$2,569,592
3. Adjustment to ARC	\$984,598	\$2,020,305	\$2,751,460
4. Annual OPEB Cost (1) + (2) - (3)	\$26,547,015	\$23,320,833	\$28,660,576
E. Net OPEB Obligation Estimates			
1. Net OPEB Obligation - beginning of year	\$12,117,740	\$24,614,606	\$33,156,020
2. Annual OPEB Cost	\$26,547,015	\$23,320,833	\$28,660,576
3. Actual Contributions during the year	\$14,141,956	\$14,779,419	\$15,307,809
4. Net OPEB Obligation - end of year (1)+(2)-(3)	\$24,614,606	\$33,156,020	\$46,508,787

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The following is an explanation of the above:

Expected Post-Retirement Benefit Obligation (EPBO) – This is the present value of the future post-retirement life and health insurance benefits for all currently retired employees and active employees eligible for those benefits. For active employees, the EPBO includes the full present value of benefits even though some employees have not yet fully earned or vested in those benefits. The government needs to be aware of this liability but does not need to disclose or recognize it on any of its financial statements.

Actuarial Accrued Liability (AAL) – This is also known as the Accumulated Post-Retirement Benefit Obligation (APBO) or the Transition Obligation. This is that portion of the EPBO that has been accrued to date. For existing retirees and active employees who have fully earned their benefit, the AAL equals the EPBO. Upon implementation of GASB-45, the AAL is the transition obligation (current liability) that must be recognized on the government's balance sheet if the government chooses immediate recognition. Alternatively, the government can choose to amortize the current APBO. GASB-45 permits amortization over a period of from 10 to 30 years.

Plan Assets – The amount of assets held in trust to fund the plan (if the plan is being funded).

Unfunded Actuarial Accrued Liability – The excess of the AAL over the plan assets.

Normal Cost – Also known as the Service Cost. This is the portion of the EPBO for active employees attributable to employee service during the year.

Amortization of Unfunded Accrued Liability – This is the annual amortization of the AAL (Transition Obligation) if the Government chooses to amortize the AAL. If the government chooses to amortize the AAL, the amortization cost should be booked as a current year expense. We used an initial 30 year period for purposes of amortizing the AAL. This is the maximum period of time allowed under GASB. GASB allows amortization on an open, closed or level %

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of payroll basis. We selected the closed basis; i.e. the amortization period declines 1 year every year. Therefore the period is 27 years for the fiscal year beginning June 30, 2011.

Annual Required Contribution (ARC) – This is the total amount that should be booked as a current year expense. During the initial year of implementation of GASB-45, ARC is equal to the sum of the Normal Cost (Service Cost) and Amortization of Actuarial Accrued Liability (Transition Obligation). GASB-45 recommends, but does not require, that the ARC actually be contributed (funded) each year.

Net OPEB Obligation – Beginning of Year – This is last year's Net OPEB Obligation – End of Year Estimate.

Interest of Net OPEB Obligation – This is interest, at the assumed interest rate, on the Net OPEB Obligation – Beginning of Year.

Adjustment to ARC – This is the Net OPEB Obligation – Beginning of Year divided by the amortization factor.

Annual OPEB Cost – This is the ARC + Interest on Net OPEB Obligation - Adjustment to the ARC

Expected Contributions During the Year – This is the amount of OPEB payments the Government made for retiree OPEB during the just-completed fiscal year.

Net OPEB Obligation – End of Year Estimate – This is the Net OPEB Obligation – Beginning of Year + Annual OPEB Cost - the Expected Contributions during the Year.

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ANALYSIS

Assumptions

1. **Interest discount rate** - 2.00% per year, net of expenses, for an unfunded plan. 7.75% per year, net of expenses, if funded. GASB-45 requires that the selection of an interest discount rate be based on the expected long term rate of return on the (General Fund) assets expected to be available to pay the benefits when due. We note that a level 1% increase in assumed interest rate will decrease the City's liability by about 15%.
2. **Trend-** Medical Costs are assumed to increase each year according to the following schedule:

<u>Year</u>	<u>Medical Trend</u>
2011	10.87%
2012	9.80%
2013	8.73%
2013	7.67%
2015	6.60%
2016	6.58%
2017	6.56%
2018	6.54%
2020	6.50%
2025	6.30%
2030	6.10%
2040	5.40%
2050	5.10%
2060	4.90%
2070	4.80%
2080	4.50%
2085+	4.20%

The above trend rates were developed using the baseline projection of the SOA Long-Run Medical Cost Trend Model. The short-term (first 4 years) trend rates were based on the fact that the City's recent rate increase averaged 10.87% for retirees. The long-term (after 4 years) trend rates were based on the following assumptions:

Rate of Inflation 2.9%
Rate of Growth in Real Income / GDP per capita 1.7%
Income Multiplier for Health Spending 1.40
Extra Trend due to Technology and other factors 1.2%
Health Share of GDP Resistance Point 25.0%
Year for Limiting Cost Growth to GDP Growth 2075

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The Society of Actuaries' (SOA's) Long-Run Medical Cost Trend Model and its baseline projection are based on an econometric analysis of historical US medical expenditures and the judgments of experts in the field. The long-run baseline projection and input variables have been developed under the guidance of an SOA Project Oversight Group. The above schedule represents a reasonable medical trend projection for the current plan provisions and demographics of the City's Retiree Welfare Benefits Plan, and no changes to these baseline assumptions are necessary.

3. **Amortization Period**-Thirty years (initial), 27 years (remaining). 30 years is the maximum period permitted by GASB-45. GASB-45 permits amortization payments to increase at a rate not to exceed projected salary growth. We assumed level amortization payments, which we think are more realistic for budgeting purposes.
4. **Retirement Eligibility**-As prescribed by the terms of the City's Retirement System.
5. **Marital Status**-Active participants are assumed to keep their current marital status upon retirement.
6. **Turnover**-Representative values of assumed annual turnover rates for general and uniformed employees are as follows.

Age Group	General Employees	Uniformed Employees
<20	15.00%	1.50%
20-24	13.13%	1.50%
25-29	10.12%	1.50%
30-34	8.33%	1.46%
35-39	6.78%	1.22%
40-44	5.96%	0.28%
45-49	5.13%	0.03%
50-54	3.23%	0.03%
55-59	2.45%	0.00%
60-64	2.07%	0.00%
65-69	1.94%	0.00%
70-74	1.22%	0.00%
75+	0.00%	0.00%

7. **Mortality**-Mortality assumptions are used to project the expected number of employees who will be receiving future benefits. We used mortality rates based on the Society of Actuaries Group Life 1985-1989 mortality table.

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8. **Disability**-Disability assumptions are used to project the number of people who will retire early due to disability. The possibility of disability was accounted for by assuming average retirement ages that were 1 year younger than were observed by the City (see (10) below)
9. **Requirements for Retirement**-The City has informed us it requires attainment of age 65 for general employees to retire with an unreduced pension benefit. For uniformed employees this age is 55. Early retirement is available with twenty years of service with a reduced benefit. Retirement is no longer mandatory at age 70 for general employees and age 65 for uniformed employees.
10. **Age at Retirement**-Representative assumed average retirement ages are shown below. These values are consistent with the requirements for retirement stated above, the input provided by the City and the adjustment for disability retirements (see (8) above).

<u>Age</u>	<u>General Employees</u>	<u>Uniformed Employees</u>
45	63	58
50	63	59
55	64	61
60	66	64
62	67	65
65	69	65
69	72	69
70	72	70

11. **Retirement Election Rates**-The City provided us data for each group showing total retirees and how many retirees have elected to continue post-retirement benefits and pay the associated premiums. That data showed that retirement election rates have been as follows.

All Employees

Health Insurance	100%
Life Insurance	52%

12. **Plan Changes**-The City has informed us there are no significant changes in eligibility, plan provisions or required contributions for health or life insurance benefits that have been announced to employees for future plan years. We assumed the current benefits will remain in effect for all future years.
13. **Expenses**- We did not make an explicit assumption for expenses because our assumed interest discount rates are net of expenses.

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Methodology

We used the Projected Unit Credit actuarial cost method to perform our estimate of the OPEB liability. The following is a summary of the steps employed in our analysis.

1. Determine current annual subsidy for life and health insurance for the pre-Medicare retirees, Medicare retirees and retirees over age 65 not on Medicare. We used the most recently available census data, current premiums, participant contribution requirements and age-sex adjustment factors to make these calculations.

2. Calculate the EPBO. This is the present value of future subsidies for life and health insurance for the actives, pre-Medicare retirees, retirees over 65 not on Medicare and Medicare retirees. Separate calculations were required for active general and active uniformed employees.

3. Calculate the AAL from the EPBO and the active employee age and service information from the census.

4. Calculate the other GASB-45 required disclosures.

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SCHEDULES OF EMPLOYER CONTRIBUTIONS

The schedules below are based on the normal cost and amortization of the unfunded actuarial accrued liability calculated for the fiscal year ending June 30, 2011, future normal costs increasing at 5.0% per year and future amortization payments increasing at the assumed future healthcare trend rates.

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Schedule of Employer Contributions 2.00% Discount Rate						
Fiscal Year Ending in		Normal Cost		Amortization Payment		Total City ARC
2011		\$21,921,755		\$30,259,420		\$52,181,175
2012		\$23,017,842		\$33,548,054		\$56,565,897
2013		\$24,168,734		\$36,836,133		\$61,004,867
2014		\$25,377,171		\$40,053,425		\$65,430,596
2015		\$26,646,030		\$43,124,335		\$69,770,365
2016		\$27,978,331		\$45,970,541		\$73,948,872
2017		\$29,377,248		\$48,995,403		\$78,372,650
2018		\$30,846,110		\$52,209,501		\$83,055,611
2019		\$32,388,416		\$55,624,002		\$88,012,418
2020		\$34,007,836		\$59,250,687		\$93,258,524
2021		\$35,708,228		\$63,101,982		\$98,810,210
2022		\$37,493,640		\$67,178,370		\$104,672,010
2023		\$39,368,322		\$71,491,221		\$110,859,543
2024		\$41,336,738		\$76,052,361		\$117,389,099
2025		\$43,403,575		\$80,874,081		\$124,277,656
2026		\$45,573,753		\$85,969,148		\$131,542,901
2027		\$47,852,441		\$91,350,817		\$139,203,258
2028		\$50,245,063		\$97,032,837		\$147,277,901
2029		\$52,757,316		\$103,029,467		\$155,786,783
2030		\$55,395,182		\$109,355,476		\$164,750,658
2031		\$58,164,941		\$116,026,160		\$174,191,101
2032		\$61,073,188		\$123,022,538		\$184,095,726
2033		\$64,126,848		\$130,354,681		\$194,481,528
2034		\$67,333,190		\$138,032,572		\$205,365,762
2035		\$70,699,850		\$146,066,067		\$216,765,917
2036		\$74,234,842		\$154,464,866		\$228,699,708
2037		\$77,946,584		\$163,238,470		\$241,185,055
2038		\$81,843,913		\$172,396,149		\$254,240,062
2039		\$85,936,109		\$181,946,895		\$267,883,004
2040		\$90,232,914		\$191,899,390		\$282,132,305
2041		\$94,744,560		\$202,261,958		\$297,006,518

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Schedule of Employer Contributions 7.75% Discount Rate						
Fiscal Year Ending in		Normal Cost		Amortization Payment		Total City ARC
2011		\$4,808,387		\$24,034,057		\$28,842,445
2012		\$5,048,807		\$26,646,111		\$31,694,917
2013		\$5,301,247		\$29,257,723		\$34,558,970
2014		\$5,566,310		\$31,813,112		\$37,379,421
2015		\$5,844,625		\$34,252,234		\$40,096,859
2016		\$6,136,856		\$36,512,881		\$42,649,737
2017		\$6,443,699		\$38,915,429		\$45,359,128
2018		\$6,765,884		\$41,468,281		\$48,234,165
2019		\$7,104,178		\$44,180,306		\$51,284,484
2020		\$7,459,387		\$47,060,862		\$54,520,249
2021		\$7,832,356		\$50,119,818		\$57,952,175
2022		\$8,223,974		\$53,357,559		\$61,581,533
2023		\$8,635,173		\$56,783,114		\$65,418,287
2024		\$9,066,932		\$60,405,876		\$69,472,808
2025		\$9,520,278		\$64,235,609		\$73,755,887
2026		\$9,996,292		\$68,282,452		\$78,278,745
2027		\$10,496,107		\$72,556,934		\$83,053,041
2028		\$11,020,912		\$77,069,975		\$88,090,887
2029		\$11,571,958		\$81,832,900		\$93,404,857
2030		\$12,150,556		\$86,857,440		\$99,007,995
2031		\$12,758,083		\$92,155,744		\$104,913,827
2032		\$13,395,988		\$97,712,735		\$111,108,722
2033		\$14,065,787		\$103,536,414		\$117,602,201
2034		\$14,769,076		\$109,634,709		\$124,403,785
2035		\$15,507,530		\$116,015,449		\$131,522,979
2036		\$16,282,907		\$122,686,337		\$138,969,244
2037		\$17,097,052		\$129,654,921		\$146,751,973
2038		\$17,951,905		\$136,928,562		\$154,880,467
2039		\$18,849,500		\$144,514,404		\$163,363,904
2040		\$19,791,975		\$152,419,342		\$172,211,317
2041		\$20,781,573		\$160,649,987		\$181,431,560

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GASB 45 DETERMINATION

REQUIRED DISCLOSURES-SUMMARY
 2.00% Interest

	<u>Active</u>	<u>Retired</u>	<u>Total</u>
A. Expected Post-Retirement Benefit Obligation	\$649,376,503	\$358,557,048	\$1,007,933,551
B. Actuarial Accrued Liability (AAL)	\$280,553,245	\$358,557,048	\$639,110,293
C. Plan Assets			\$137,295
D. Unfunded Actuarial Accrued Liability			\$638,972,998
E. Service Cost (Normal Cost)	\$21,921,755	\$0	\$21,921,755
F. Amortization of unfunded accrued liability	\$13,283,120	\$16,976,300	\$30,259,420
G. Annual Required Contribution (ARC)	\$35,204,874	\$16,976,300	\$52,181,175
H. Unamortized Portion of AAL	\$267,270,126	\$341,580,747	\$608,850,873
I. Expected Benefit (Premium) Payments	n/a	\$15,307,809	\$15,307,809

A-B. Exhibit 2.1

C. Since plan is not funded, current assets = 0.

D. B - C

E-H. Exhibit 2.1

I. These are the City's share of the annual retiree life and health insurance premiums.

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GASB 45 DETERMINATION

REQUIRED DISCLOSURES-SUMMARY
 7.75% Interest

	<u>Active</u>	<u>Retired</u>	<u>Total</u>
A. Expected Post-Retirement Benefit Obligation	\$134,208,725	\$215,243,920	\$349,452,645
B. Actuarial Accrued Liability (AAL)	\$74,374,599	\$215,243,920	\$289,618,519
C. Plan Assets			\$137,295
D. Unfunded Actuarial Accrued Liability			\$289,481,224
E. Service Cost (Normal Cost)	\$4,808,387	\$0	\$4,808,387
F. Amortization of unfunded accrued liability	\$6,171,993	\$17,862,064	\$24,034,057
G. Annual Required Contribution (ARC)	\$10,980,380	\$17,862,064	\$28,842,445
H. Unamortized Portion of AAL	\$68,202,607	\$197,381,855	\$265,584,462
I. Expected Benefit (Premium) Payments	n/a	\$15,307,809	\$15,307,809

A-B. Exhibit 2.2

C. Since plan is not funded, current assets = 0.

D. B - C

E-H. Exhibit 2.2

I. These are the City's share of the annual retiree life and health insurance premiums.

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 2.1

REQUIRED DISCLOSURES-DETAIL

2.00% Interest

	Active Employees			Retirees			Total
	General (1)	Uniformed (2)	Total (3)=(1)+(2)	Pre- Medicare (4)	Age 65+ Not on MC (5)	Medicare (6)	Total (7)=(3)+(4)+(5)+(6)
A. Number of Members Generating a Liability (Medical)	1,758	333	2,091	342	149	3,035	5,617
B. Expected Post Retirement Benefit Obligation							
Medical/Rx/Vision	\$388,806,903	\$258,276,290	\$647,083,193	\$125,788,052	\$58,863,625	\$172,639,106	\$1,004,373,976
Dental	\$0	\$0	\$0	\$0	Incl in PMR	Incl in PMR	\$0
Life	\$1,377,960	\$915,350	\$2,293,310	\$445,802	\$208,617	\$611,846	\$3,559,575
Total	\$390,184,863	\$259,191,640	\$649,376,503	\$126,233,854	\$59,072,242	\$173,250,952	\$1,007,933,551
C. Actuarial Accrued Liability	\$181,033,185	\$99,520,061	\$280,553,245	\$126,233,854	\$59,072,242	\$173,250,952	\$639,110,293
D. Service Cost (Normal Cost)	\$13,719,498	\$8,202,256.45	\$21,921,755	\$0	\$0	\$0	\$21,921,755
E. Amortization Factor	21.12	21.12	21.12	21.12	21.12	21.12	21.12
F. Amortization of Actuarial Accrued Liability	\$8,571,227	\$4,711,893	\$13,283,120	\$5,976,689	\$2,796,844	\$8,202,768	\$30,259,420
G. Annual Required Contribution	\$22,290,725	\$12,914,149	\$35,204,874	\$5,976,689	\$2,796,844	\$8,202,768	\$52,181,175
H. Unamortized Portion of Actuarial Accrued Liability	\$172,461,958	\$94,808,168	\$267,270,126	\$120,257,165	\$56,275,398	\$165,048,184	\$608,850,873

- A. Exhibit 9
- B. Exhibit 4. Dental EPBO = \$0 because there is only 1 retiree dental plan and retirees pay the full cost.
Life EPBO = ratio of Life premium to Medical premium x Medical EPBO
- C. For retired lives AAL = EPBO. For active lives AAL = EPBO x C from Exhibit 3
- D. For retired lives Service Cost = 0. For active lives Service Cost = EPBO X D from Exhibit 3
- E. Amortization factor = present value at 2.00% interest of a 27-year annuity due
- F. C/E
- G. D + F
- H. C - F

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 2.2

REQUIRED DISCLOSURES-DETAIL

7.75% Interest

	Active Employees			Retirees			Total
	General (1)	Uniformed (2)	Total (3)=(1)+(2)	Pre- Medicare (4)	Age 65+ Not on MC (5)	Medicare (6)	Total (7)=(3)+(4)+(5)+(6)
A. Number of Members Generating a Liability (Medical)	1,758	333	2,091	342	149	3,035	5,617
B. Expected Post Retirement Benefit Obligation							
Medical/Rx/Vision	\$104,746,639	\$28,988,120	\$133,734,759	\$62,008,704	\$34,996,556	\$117,478,514	\$348,218,533
Dental	\$0	\$0	\$0	\$0	Incl in PMR	Incl in PMR	\$0
Life	\$371,230	\$102,736	\$473,966	\$219,763	\$124,030	\$416,352	\$1,234,112
Total	\$105,117,869	\$29,090,856	\$134,208,725	\$62,228,467	\$35,120,587	\$117,894,866	\$349,452,645
C. Actuarial Accrued Liability	\$59,350,298	\$15,024,301	\$74,374,599	\$62,228,467	\$35,120,587	\$117,894,866	\$289,618,519
D. Service Cost (Normal Cost)	\$3,889,040	\$919,347	\$4,808,387	\$0	\$0	\$0	\$4,808,387
E. Amortization Factor	12.05	12.05	12.05	12.05	12.05	12.05	12.05
F. Amortization of Actuarial Accrued Liability	\$4,925,198	\$1,246,795	\$6,171,993	\$5,164,043	\$2,914,490	\$9,783,532	\$24,034,057
G. Annual Required Contribution	\$8,814,238	\$2,166,142	\$10,980,380	\$5,164,043	\$2,914,490	\$9,783,532	\$28,842,445
H. Unamortized Portion of Actuarial Accrued Liability	\$54,425,101	\$13,777,506	\$68,202,607	\$57,064,424	\$32,206,097	\$108,111,335	\$265,584,462

- A. Exhibit 9
- B. Exhibit 4. Dental EPBO = \$0 because there is only 1 retiree dental plan and retirees pay the full cost.
Life EPBO = ratio of Life premium to Medical premium x Medical EPBO
- C. For retired lives AAL = EPBO. For active lives AAL = EPBO x C from Exhibit 3
- D. For retired lives Service Cost = 0. For active lives Service Cost = EPBO X D from Exhibit 3
- E. Amortization factor = present value at 7.75% interest of a 27-year annuity due
- F. C/E
- G. D + F
- H. C - F

CITY OF NEWTON
GASB 45 DETERMINATION

ACTIVE EMPLOYEE ACCRUED BENEFITS
 2.00% Interest

	Active Employees	
	<u>General</u> (1)	<u>Uniform</u> (2)
A. Average Projected Service at Retirement = Attribution Period	29.7	30.9
B. Weighted Average Service to Date	13.8	11.9
C. Weighted Average Percent of Retirement Benefits Accrued to Date	46.4%	38.4%
D. Percent of OPEB Accrued in Fiscal Year 2008	3.5%	3.2%

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- A. Calculated from the census data
 B. Calculated from the census data
 C. B/A
 D. Calculated from the census data

CITY OF NEWTON
GASB 45 DETERMINATION

ACTIVE EMPLOYEE ACCRUED BENEFITS
 7.75% Interest

	Active Employees	
	<u>General</u> (1)	<u>Uniform</u> (2)
A. Average Projected Service at Retirement = Attribution Period	29.7	30.9
B. Weighted Average Service to Date	16.8	16.0
C. Weighted Average Percent of Retirement Benefits Accrued to Date	56.5%	51.6%
D. Percent of OPEB Accrued in Fiscal Year 2008	3.7%	3.2%

-
- A. Calculated from the census data
 B. Calculated from the census data
 C. B/A
 D. Calculated from the census data

CITY OF NEWTON
GASB 45 DETERMINATION

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - MEDICAL/Rx
 2.00% interest

	<u>Active Employees</u>		<u>Retirees</u>			<u>Total</u> (6)
	(1)	(2)	(3)	(4)	(5)	
	<u>General</u>	<u>Uniformed</u>	<u>Pre-Medicare</u>	<u>Age 65+ Not on MC</u>	<u>Medicare</u>	
A. Number of Contracts	1,758	333	342	149	3,035	5,617
B. Annual Subsidy per Contract	n/a	n/a	\$18,506	\$20,374	\$4,510	
C. PV of Future Subsidies for All Employees	\$384,957,329	\$255,719,099	\$124,542,626	\$58,280,817	\$169,939,709	\$993,439,580
D. Percent Expected to Elect Medical at Retirement	100%	100%	100%	100%	100%	
E. Expenses	0%	0%	0%	0%	0%	0%
F. Adjustment to Account for Survivor Benefits	101%	101%	101%	101%	101%	101%
G. PV of Medicare Part B Late Enrollment Penalties					\$1,000,000	
H. Expected Post-Retirement Benefit Obligation	\$388,806,903	\$258,276,290	\$125,788,052	\$58,863,625	\$172,639,106	\$1,004,373,976
I. EPBO per Contract	\$221,164	\$775,604	\$367,801	\$395,058	\$56,883	\$178,810

-
- A. Exhibit 9
 B. Exhibit 5
 C. Calculated from B and the age and sex of each contractholder.
 D. Calculation only considered participants who actually elected medical.
 E. Expenses are 0% because the assumed interest rate is net of expenses.
 F. Survivors can continue coverage and pay the same 20% their deceased spouse paid.
 Also, retirees and survivors can resume coverage any time even if they decline it initially.
 G. Assumes an annual cost of \$20,000 per year.
 H. $C \times D \times (1 + E) \times F + H$
 I. H / A

CITY OF NEWTON
GASB 45 DETERMINATION

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - MEDICAL/Rx
 7.75% interest

	<u>Active Employees</u>		<u>Retirees</u>			<u>Total</u> (6)
	(1)	(2)	(3)	(4)	(5)	
	<u>General</u>	<u>Uniformed</u>	<u>Pre-Medicare</u>	<u>Age 65+ Not on MC</u>	<u>Medicare</u>	
A. Number of Contracts	1,758	333	342	149	3,035	5,617
B. Annual Subsidy per Contract	n/a	n/a	\$18,506	\$20,374	\$4,510	
C. PV of Future Subsidies for All Employees	\$103,709,544	\$28,701,109	\$61,394,756	\$34,650,056	\$116,059,851	\$344,515,315
D. Percent Expected to Elect Medical at Retirement	100%	100%	100%	100%	100%	
E. Expenses	0%	0%	0%	0%	0%	0%
F. Adjustment to Account for Survivor Benefits	101%	101%	101%	101%	101%	101%
G. PV of Medicare Part B Late Enrollment Penalties					\$258,065	
H. Expected Post-Retirement Benefit Obligation	\$104,746,639	\$28,988,120	\$62,008,704	\$34,996,556	\$117,478,514	\$348,218,533
I. EPBO per Contract	\$59,583	\$87,051	\$181,312	\$234,876	\$38,708	\$61,994

-
- A. Exhibit 9
 B. Exhibit 5
 C. Calculated from B and the age and sex of each contractholder.
 D. Calculation only considered participants who actually elected medical.
 E. Expenses are 0% because the assumed interest rate is net of expenses.
 F. Survivors can continue coverage and pay the same 20% their deceased spouse paid.
 Also, retirees and survivors can resume coverage any time even if they decline it initially.
 G. Assumes an annual cost of \$20,000 per year.
 H. $C \times D \times (1 + E) \times F + H$
 I. H / A

CITY OF NEWTON
GASB 45 DETERMINATION

CURRENT ANNUAL SUBSIDY - MEDICAL/Rx

	<u>Active</u> (1)	<u>Pre-Med. Retirees</u> (2)	<u>Retirees >65 Not on Medicare</u> (3)	<u>Medicare Retirees 65+</u> (4)
A. Average Annual Premium per Contract excluding Med Part B	n/a	\$14,347	\$9,476	\$4,481
B. Actual Annual Cost per Contract excluding Med Part B	n/a	\$21,375	\$22,269	\$4,481
C. Annual Medicare Part B Premium per Contract paid by the City (flat amount)	n/a	n/a	\$0	\$925.44
D. Blended Annual ASO/Stop Loss Premium paid by the City	n/a	\$0	\$0	\$0
E. Total Actual Annual Cost per Contract	n/a	\$21,375	\$22,269	\$5,406
F. Annual Member Contributions per Contract	n/a	\$2,869	\$1,895	\$896
G. Current Annual Subsidy per Contract	n/a	\$18,506	\$20,374	\$4,510

-
- A. Exhibit 6
- B. For PMR, equal to A times an age-sex factor to account for the "implicit subsidy". This factor is 1.49
 For retirees > 65 not on Medicare, equal to an age-sex factor to account for no Medicare. This is 2.35
- C. The City reimburses its retirees and their spouses \$925.44 a year for the Medicare Part B premium. This is a flat amount that does not increase when the Medicare Part B premium increases. Previously the City reimbursed 80% of the Medicare Part B premium.
- D. Since the City's insurance contracts are fully insured, the stop loss costs are included in the premium rates.
- E. B + C + D
- F. Exhibit 6
- G. E - F

CITY OF NEWTON
GASB 45 DETERMINATION

MEMBER CONTRIBUTIONS

	<u>Medical/Rx</u>	<u>Life Insurance</u>
<u>Pre-Medicare Retirees - < 65</u>		
Average Monthly Premium per Contract	\$ 1,195.55	\$9.45
Average Annual Premium per Contract	\$14,346.57	\$113.40
Percent Paid By Members	20.00%	50.00%
Current Annual Amount Members Pay	\$2,869.31	\$56.70
<u>Retirees >65 Not on Medicare</u>		
Average Monthly Premium per Contract	\$ 789.69	\$9.45
Average Annual Premium per Contract	\$9,476.31	\$113.40
Percent Paid By Members	20.00%	50.00%
Current Annual Amount Members Pay	\$1,895.26	\$56.70
<u>Medicare Retirees</u>		
Average Monthly Premium per Contract	\$ 373.41	\$9.45
Average Annual Premium per Contract	\$4,480.95	\$113.40
Percent Paid By Members	20.00%	50.00%
Current Annual Amount Members Pay	\$896.19	\$56.70

Monthly costs calculated from census and premium rates.
Percent paid by members from Exhibit 7

CITY OF NEWTON
GASB 45 DETERMINATION

Exhibit 7

FUNDING INFORMATION

<u>Actives</u>		
Medical		Employees pay 20% of blended cost of actives and retirees not on Medicare. Harvard Pilgrim, Tufts EPO and Tufts POS are self-insured. Pooling protection is included in the specified premium rates.
Drugs		Included with Medical
Dental		Actives pay <100% of the cost of the coverage.
Life Insurance		Fully insured. Current 100% monthly premium rate is \$9.45 per month for \$5,000 of coverage. Members pay 50% of the total premium - so they pay \$4.72 per month.
<u>Retirees Not on Medicare</u>		
Medical		Retirees and their spouses pay 20% of blended cost of actives and retirees not on Medicare.
Drugs		Same as for Actives
Dental		For the only plan available, retirees have to pay 100% of the cost of the coverage.
Life Insurance		Retirees pay 50% of the premium.
<u>Retirees on Medicare</u>		
Medical		Plans designed for these participants are fully insured. When eligible for Medicare, retiree is transferred to a Medicare Supplement plan. Tufts Medicare Complement plan is self insured. Tufts Medicare Preferred, and Medicare HMO Blue are fully insured. Retirees and their spouses pay 20% of the cost.
Drugs and Vision		Since plan is fully insured, stop loss coverage is included in the insurance rates.
Drugs		Same as for Actives
Dental		For the only plan available, retirees have to pay 100% of the cost of the coverage.
Life Insurance		Retirees pay 50% of the premium.

Data provided by the City of Newton

CITY OF NEWTON
GASB 45 DETERMINATION

BENEFIT INFORMATION

<u>Actives</u>		
Medical		Choice of Harvard Pilgrim, Tufts EPO and Tufts POS Rates depend on choice of coverage The City only offers Individual and Family plans.
Drugs and Vision		Included if Medical Elected (Drug Copays per Medical Plan Elected Apply)
Dental		Several plans are available.
Life Insurance		All life insurance benefits are a flat \$5,000 with no reduction at retirement.
<u>Retirees Not on Medicare</u>		
Medical		Same Choices as for Actives Survivors from family contracts can continue coverage until they die. They may also re-enter the plan after initially declining coverage.
Drugs and Vision		Same Choices as for Actives
Dental		Only 1 plan is available. It is not subsidized by the City, so the City has no GASB-45 liability for dental benefits.
Life Insurance		Flat \$5,000
<u>Retirees on Medicare</u>		
Medical		Most participants have elected the Tufts Medicare Complement Plan (Medicare Supplement). A minority have elected Tufts Medicare Preferred, and HMO Blue. The City reimburses a flat \$925.44 of the Medicare Part B premium for retirees and their spouses. Surviving spouse can continue coverage on the same terms as the deceased retiree, per Massachusetts law. Survivors from family contracts can continue coverage until they die. They may also re-enter the plan after initially declining coverage. The City has adopted Section 18 of MGL Chapter 32B. Effective July 1, 2010, the City is responsible to reimburse 100% of the penalties paid by retirees for enrolling late in Medicare B. We are still gathering information to determine how much this will cost. Our best estimate is about \$20,000.
Drugs and Vision		Same Choices as for Actives Drug Plan Not Eliminated When Medicare Part D Took Effect
Dental		Only 1 plan is available. It is not subsidized by the City, so the City has no GASB-45 liability for dental benefits.
Life Insurance		Flat \$5,000

Data provided by the City of Newton

CITY OF NEWTON
GASB 45 DETERMINATION

CENSUS INFORMATION

	<u>General</u> (1)	<u>Uniformed</u> (2)	<u>Elected No Coverage</u> (3)	<u>Total</u> (4)
<u>Actives - Medical</u>				
Number of Contracts	1758	333	44	2,135
Average Age	46	43		46
Average Service Years	12	16		
<u>Pre-Medicare Retirees - Medical/Under 65</u>				
Number of Contracts	342	Incl in Gen	Incl Above	342
Average Age	60			
<u>Retirees > 65 Not on Medicare</u>				
Number of Contracts	149	Incl in Gen	Incl Above	149
Average Age	73			
<u>Medicare Retirees - Medical</u>				
Number of Contracts	3,035	Incl in Gen	Incl Above	3,035
Average Age	78			
<u>Life Insurance</u>				
Number of Contracts - Actives	969	Incl in Gen	1122	2,091
Number of Contracts - Retirees	996	Incl in Gen	703	1,699
Number Electing Life Insurance - Total	1965	Incl in Gen	1825	3,790
Percent of New Retirees Electing Medical				100%
Percent Under-65 Retirees Keeping Medical at Age 65				100%
Percent of New Retirees Electing Life Insurance				52%

Data provided by the City of Newton

The City has noted that the declination rate for retiree medical insurance is negligible.