

**DANZIGER &  
MARKHOFF LLP**  
Attorneys at Law

Including the practice of  
Pension Design Services, Inc.

Joel Danziger  
Harris Markhoff  
Joshua S. Levine  
Robert B. Danziger  
Michael Markhoff  
Gregory R. Tapfar  
Andrew E. Roth  
Jay Fenster  
David P. Gesser

COUNSEL

Ira Langer, P.C.  
Irwin N. Rubin

ENROLLED ACTUARIES

William Miller  
Aileen T. Palazzo  
Edward A. Echeverria  
Timothy O'Connell  
Andrea L. Abolafia  
Steven I. Alin

August 31, 2015

**BY E-MAIL & FIRST CLASS MAIL**  
**PERSONAL & CONFIDENTIAL**

Richard N. Sarasin, City Auditor/Finance Director  
City of Fitchburg  
166 Boulder Drive  
Fitchburg, MA 01420

Re: City of Fitchburg  
Retiree Medical Actuarial Valuation under GASB #45  
For the Year Ended June 30, 2015

Dear Dick:

Enclosed are three copies (two bound and one unbound copy) of your FYE 2015 GASB #45 actuarial valuation report for your retiree medical and life program. The unbound report is to facilitate any additional copying you may need.

The GASB #45 Expense (the Annual OPEB Cost) for FYE 2015 is \$10,079,847. The projected OPEB Obligation as of June 30, 2015 is \$51,041,731.

As expected, results for FYE 2015 are significantly lower than in FYE 2013. The primary reason is due to change to the MEDEX II plan. (which alone produced a \$50M+ decrease in liability vs. expected).

Results broken down by Fund can be found on page 2A. Results based on a 7.5% interest rate for illustrative purposes can be found on page 2B. Results for FYE 2016 can be found on Page 3A.

Please give me a call if you have any questions.

Very truly yours,



Edward A. Echeverria, FSPA, MAAA, CPC, EA

EAE/lre  
Encl.

cc: Calvin D. Brooks (w/encl., by e-mail)

00952726

DANZIGER &  
MARKHOFF LLP  
Attorneys at Law

**CITY OF FITCHBURG**

**RETIREE MEDICAL ACTUARIAL  
VALUATION**

**REPORT ON COMPLIANCE WITH  
GOVERNMENT ACCOUNTING STANDARDS BOARD  
STATEMENT #45  
ACCOUNTING AND FINANCIAL REPORTING BY EMPLOYER  
FOR POSTEMPLOYMENT  
BENEFITS OTHER THAN PENSIONS  
FOR THE FISCAL YEAR ENDED JUNE 30, 2015**

**PREPARED: August 2015**

00952726

**DANZIGER &  
MARKHOFF LLP**  
Attorneys at Law

August 2015

City of Fitchburg  
166 Boulder Drive  
Fitchburg, MA 01420

Dear Sir/Madam:

This report was prepared to provide management with the accounting for the Government Accounting Standards Board Statement Number 45 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45) for the Retiree Health Valuation Under GASB #45 for the fiscal year ended June 30, 2015.

Our results and accompanying disclosures reflect plan provisions in effect for the plan year ended June 30, 2015. The Annual OPEB Cost for the City of Fitchburg is \$10,079,847.

In conducting the valuation, we relied on information supplied to us by the City of Fitchburg. This information included participant data, the terms of the written and unwritten plan, premium rates and other policies and practices of plan. We have relied on this information as accurate, and applied estimates as necessary.

The discount rate used for this year is 4.0%. As requested, select results based on 7.5% have also been included on page 2B, for illustrative purposes. The 7.5% results may not be relied upon for GASB #45 disclosure purposes; the plan is not “fully” pre-funded at this time.

To the best of our knowledge and belief, this valuation was conducted in accordance with generally accepted actuarial principles and practices and in accordance with our understanding of GASB #45 and the implementation guidelines published by the Government Accounting Standards Board. The employer may modify the presentation of these disclosures as needed. I am an Enrolled Actuary who satisfies the Qualifications Standards for Actuaries of the AAA that became effective January 1, 2008.

Very truly yours,



Edward A. Echeverria, FSPA, MAAA, CPC, EA  
Senior Actuary

# TABLE OF CONTENTS

	<u>PAGE</u>
EXECUTIVE SUMMARY OF RESULTS.....	1
RESULTS AND DISCLOSURES.....	2
CONSIDERATIONS.....	7
SUMMARY OF PLAN PROVISIONS.....	9
ACTUARIAL BASIS.....	12

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**EXECUTIVE SUMMARY OF RESULTS**

Valuation Date January 1, 2015

Number of Plan Members:

Active Participants	790 (of which, 400+ are married)
Retired Participants	<u>892</u>
Total	1,682
Average Age of Actives	47 yrs.
Average Credited Service of Actives	13 yrs.
Current Covered Payroll	\$ 66,401,700
Market Value of Plan Assets	\$ -0-
Unfunded Accrued Liability	\$129,059,833
Annual Required Contribution (ARC)	\$ 10,320,951
OPEB Cost for the Year	\$ 10,079,847

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**RESULTS AND DISCLOSURES**

<b><u>VALUATION RESULTS - (Cost to City)</u></b>	<b>(EPBO) Projected <u>Benefits</u></b>	<b>(APBO) Proj. Unit Credit Accrued <u>Liability</u></b>
1. Actuarial present values as of January 1, 2015:		
(a) Actives	\$110,036,498	\$ 58,809,837
(b) Retirees & Beneficiaries	<u>\$ 70,249,996</u>	<u>\$ 70,249,996</u>
(c) Total	\$180,286,494	\$129,059,833
2. Accrued liability as of January 1, 2015	\$129,059,833	
3. Actuarial value of assets, January 1, 2015	\$ -0-	
4. Unfunded accrued liability, January 1, 2015	\$129,059,833	
5. Normal cost discounted to July 1, 2014	\$ 4,087,085	
6. Amortization of unfunded accrued liability (level percentage of payroll/closed, 24 years remain)	\$ 5,836,906	
7. Interest (rounded) on Normal Cost (\$163,484) and Amortization (\$233,476)	\$ 396,960	
8. Annual Required Contribution (ARC) (5+6+7)	\$ 10,320,951	

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**RESULTS AND DISCLOSURES**  
**RESULTS BY FUND (4%)**

	<u>Airport</u>	<u>Water</u>	<u>Wastewater</u>	<u>School</u>	<u>All Other</u>	<u>Total</u>
<u>FYE 6/30/2015</u>						
Accrued Liability (Jan. 1)	231,185	1,849,689	2,668,474	60,582,057	63,728,428	129,059,833
Normal Cost (disc. to July 1)	16,368	71,613	168,468	2,501,818	1,328,818	4,087,085
Annual Required Contribution	21,706	159,153	268,250	5,660,863	4,210,979	10,320,951
Annual OPEB Cost FYE 2015	20,574	153,302	261,808	5,513,166	4,130,997	10,079,847
OPEB Oblig., June 30, 2015	233,096	1,200,750	1,415,204	31,167,567	17,025,114	51,041,731
<u>FYE 6/30/2016</u>						
Annual Required Contribution	31,844	185,741	341,494	6,224,377	4,148,590	10,932,046
Annual OPEB Cost FYE 2016	30,226	177,447	331,793	6,010,492	4,032,770	10,582,728
OPEB Oblig., June 30, 2016	259,143	1,302,663	1,663,998	34,449,334	18,534,298	56,209,436



CITY OF FITCHBURG  
RETIREE HEALTH VALUATION UNDER GASB #45

RESULTS AND DISCLOSURES  
COMPARISON OF 4.0% VS. 7.5% DISCOUNT RATE  
FYE 6/30/2015

	<u>4.00%</u>	<u>7.50%</u>
Accrued Liability (Jan 1)	129,059,833	82,270,083
Assets (subt.)	0	0
Unfunded Accrued Liability	129,059,833	82,270,083
Normal Cost	4,087,085	2,015,952
Amortization of UAL	5,836,906	4,634,307
Interest to end of year	396,960	498,769
Annual Required Contribution	10,320,951	7,149,028

Ten Year Projections of Pay-as-you-go funding (4%) and Annual Required Contribution (7.5%)\*

<u>Fiscal year ended 6/30</u>	<u>PAYGO 4%</u>	<u>ARC 7.5%</u>
2015	5,170,000	7,149,000
2016	5,420,000	7,473,000
2017	5,700,000	7,815,000
2018	5,990,000	8,176,000
2019	6,300,000	8,556,000
2020	6,620,000	8,957,000
2021	6,960,000	9,380,000
2022	7,320,000	9,827,000
2023	7,620,000	10,300,000
2024	7,940,000	10,799,000

\*Note: Since the plan has not been pre-funded to date, 7.5% is too high an interest rate to satisfy the GASB #45 requirements at this time. Nevertheless, we have provided 7.5% projections above for ten years, for illustrative purposes only.

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**RESULTS AND DISCLOSURES**

**DEVELOPMENT OF THE OPEB COST**  
**FOR THE YEAR ENDED JUNE 30, 2015**

Actual contribution information is included below.

<u>Contribution rates:</u> Plan Members	Varies by employee class (See Summary of Plan Provisions)
City:	Actuarially determined, equals the balance not paid by plan members
Annual required contribution (ARC)	\$ 10,320,951
Interest on net OPEB obligation	1,845,298
Adjustment to annual required contribution (-)	2,086,402
Annual OPEB cost	\$ 10,079,847
Contributions made*	\$ 5,170,559
Increase in net OPEB obligation	\$ 4,909,288
Net OPEB obligation-beginning of year	\$ <u>46,132,443</u>
Net OPEB obligation-end of year	\$ <u>51,041,731</u>

\* Includes health premiums, life insurance premiums and implicit subsidy.

CITY OF FITCHBURG  
RETIREE HEALTH VALUATION UNDER GASB #45

RESULTS AND DISCLOSURES

DEVELOPMENT OF THE OPEB COST  
FOR THE YEAR ENDED JUNE 30, 2016

Actual contribution information is included below.

<u>Contribution rates:</u> Plan Members	Varies by employee class (See Summary of Plan Provisions)
City:	Actuarially determined, equals the balance not paid by plan members
Annual required contribution (ARC)	\$ 10,932,046
Interest on net OPEB obligation	1,988,446
Adjustment to annual required contribution (-)	2,337,764
Annual OPEB cost	\$ 10,582,728
Contributions made*	\$ 5,415,023
Increase in net OPEB obligation	\$ 5,167,705
Net OPEB obligation-beginning of year	\$ <u>51,041,731</u>
Net OPEB obligation-end of year	\$ <u>56,209,436</u>

\* Includes health premiums, life insurance premiums and implicit subsidy.

CITY OF FITCHBURG  
RETIREE HEALTH VALUATION UNDER GASB #45

RESULTS AND DISCLOSURES

DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITY  
AND FUNDED RATIO (actual)

Actuarial accrued liability (a)	\$ 129,059,833
Actuarial value of plan assets (b)	\$ 0
Unfunded actuarial accrued liability (a - b)	\$ 129,059,833
Funded ratio (b / a)	0.0%
Covered payroll (c)	\$ 66,401,700
Unfunded actuarial accrued liability as percentage of covered payroll [(a - b) / c]	194%

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**RESULTS AND DISCLOSURES**

**DEVELOPMENT OF OPEB COST AND OPEB OBLIGATION**  
**FOR THE LAST THREE YEARS (actual)**

<b><u>Year</u></b> <b><u>Ended</u></b>	<b><u>Annual</u></b> <b><u>OPEB Cost</u></b>	<b><u>Percentage of</u></b> <b><u>OPEB Cost</u></b> <b><u>Contributed</u></b>	<b><u>Net OPEB</u></b> <b><u>Obligation</u></b>
6/30/2011	\$13,498,415	49%	\$22,941,686
6/30/2012	\$14,287,830	46%	\$30,593,907
6/30/2013	\$13,785,776	45%	\$38,120,472
6/30/2014	\$14,559,002	45%	\$46,132,443
6/30/2015	\$10,079,847	51.3%	\$51,041,731

*Pre-FYE 2014 entries were provided from FYE 2014 OPEB note.*

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**RESULTS AND DISCLOSURES**

**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF FUNDING PROGRESS (actual)**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) Unit Credit (b)</b>	<b>Unfunded AAL (UAAL) (b - a)</b>	<b>Funded Ratio (a / b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll [(b - a) / c]</b>
1/1/2011	\$0	\$183.13M	\$183.13M	0.0%	\$55.766M	325.4%
1/1/2013	\$0	\$179.05M	\$179.05M	0.0%	\$56.141M	318.9%
1/1/2015	\$0	\$129.06M	\$129.06M	0.0%	\$66.40M	194.4%

*Pre-FYE 2014 entries were provided from FYE 2014 OPEB note.*

CITY OF FITCHBURG  
RETIREE HEALTH VALUATION UNDER GASB #45

CONSIDERATIONS

NEW STATEMENT

Government Accounting Standards Board Statement No. 45 (GASB #45) was first applied by the City of Fitchburg beginning with the fiscal year ended June 30, 2009. GASB #45 establishes standards for the measurement, recognition and display of the expense and liabilities of your retiree medical program (Other Post-Employment Benefits; "OPEB"). As a result, reporting of expense and liabilities will no longer be done under the "pay-as-you-go" approach. Instead of expensing the current year premiums paid, a per capita claims cost will be determined, which will be used to determine a "normal cost", an "actuarial accrued liability", and ultimately the Annual Required Contribution (ARC). The ARC is not "required" to be contributed each year, but in your case, will accumulate as a liability on the City's financial statements (called the "OPEB Obligation") to the extent that the ARC exceeds the amount of premiums paid in a year. To date, the City has chosen not to pre-fund retiree medical and other OPEB benefits in a Trust. To pre-fund, would permit the use of a higher discount rate (to reflect higher returns from an equity/bond mix of a Trust, rather than short term returns of the City's funds), which would reduce liabilities.

PLAN DESIGN

We received detailed employee and dependent data, information on the plans, past and current employer practices, and medical premium cost data.

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**CONSIDERATIONS**

For FYE 2015, there are 892 retirees plus dependents who are receiving employer subsidized benefits. We reflected known retirements and terminations in our database through December 31, 2014. Where data was missing or inaccurate, we assumed reasonable estimates. In all, we valued 790 active employees plus dependents.

Retiree medical coverage is provided primarily through various Blue Cross Blue Shield plans, and MEDEX II.

Future retirees are assumed to be covered by this existing arrangement as outlined in the materials forwarded by the City. Those provisions, as they relate to employer liability, can be found in the Summary of Plan Provisions section of this report.

**ASSUMPTIONS/RECOGNITION**

To establish the per capita claims cost of medical benefits for your group, we used current premium rates provided by the City as the starting point for our calculations. We then employed a health care trend rate that begins at 9.0% for the first year, decreases by 0.5% per year through year 8 to 5.5% thereafter. This assumption needs to be reviewed periodically. The health care trend rate is a major contributor to widening the gap between pay-as-you-go recognition and GASB #45 recognition. Adjustments were also required to be made to recognize differences between the average age of the 'full' population and the average age of a 'retiree only' population (to develop "age adjusted" current premium rates/equivalents).



CITY OF FITCHBURG  
RETIREE HEALTH VALUATION UNDER GASB #45

SUMMARY OF PLAN PROVISIONS

The following is a summary of the current major provisions of the retiree medical program.

1. MEDICAL BENEFITS

The Plan is a fully insured plan. Current medical retiree premium rates provided to us by the City include:

- |                               |   |
|-------------------------------|---|
| a) Pre-age 65 Individual MED: | Ranges from \$614 to \$1,144 per month.   |
| b) Pre-age 65 Family MED:     | Ranges from \$1,623 to \$3,085 per month. |
| c) Post-age 65 MED:           | Ranges from \$226 to \$266 per month.     |

Adjustments to these premium rates to reflect the difference between the active/retiree group (for which the current premium rates were based on) and the retiree-only group, were required, in accordance with ASOP 6. The retiree and the spouse are covered under the program. For City of Fitchburg, these adjustments were required for the Pre-Medicare liabilities.

2. MEDICARE PART B PREMIUMS – None.

3. LIFE INSURANCE – Generally, the City pays 75% toward \$10,000 of coverage for Municipal employees.

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**SUMMARY OF PLAN PROVISIONS**

4. **ELIGIBILITY:**

Generally, an employee may retire after the earlier of (i) age 55 with at least 10 years of service, and (ii) 20 years of service. (For post-4/1/2012 hires, new rules apply (i.e., age 60 & 10).

5. **CITY SUBSIDY:**

The City will generally 70% toward medical coverage (75% toward Network Blue plan, 50% for surviving spouses) for both individual and dependent coverage. The City will generally pay 75% toward \$10,000 life insurance coverage.

CITY OF FITCHBURG  
RETIREE HEALTH VALUATION UNDER GASB #45

SUMMARY OF PLAN PROVISIONS

6. FUNDING POLICY:

The employer's funding policy is to contribute the current annual premium (net of employee contributions) for all retired participants (i.e., pay-as-you-go).



**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**ACTUARIAL BASIS**

7. Retirement\*:

The following table illustrates the retirement rates:

A) NON-Police/Fire/Teachers  
 (10 years of service required  
 at retirement)

<u>Retirement Age</u>	<u>Retirement Rates</u>
50-54	1.0%
55	2.0%
56-57	3.0%
58	5.0%
59	7.0%
60	12.0%
61	20.0%
62	30.0%
63	25.0%
64	22.0%
65	100.0%

B) Teachers  
 (10 years of service required  
 at retirement)

<u>Retirement Age</u>	<u>Retirement Rates</u>
50-54	1.0%
55	3.0%
56	4.0%
57	7.0%
58	9.0%
59	15.0%
60	18.0%
61	22.0%
62	30.0%
63	30.0%
64	30.0%
65	100.0%

\*Rates are somewhat different for employees hired on or after 4/2/2012.

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**ACTUARIAL BASIS**

7. Retirement:

The following table illustrates the retirement rates:

C) Police/Fire  
(10 years of service required  
at retirement)

<u>Retirement Age (Svc)</u>	<u>Retirement Rates</u>
45-49	1.0%
50-52	2.0%
53	5.0%
55	8.0%
55	15.0%
56-58	10.0%
59	15.0%
60-61	20.0%
62-63	25.0%
64	30.0%
65	100.0%

**CITY OF FITCHBURG**  
**RETIREE HEALTH VALUATION UNDER GASB #45**

**ACTUARIAL BASIS**

8. Health Care Cost  
Trend Rate:

The following table illustrates the assumed health care trend rate for each future year:

<u>Year</u>	<u>(Medical) Assumed Increase</u>
1	9.0%
2	8.5%
3	8.0%
4	7.5%
5	7.0%
6	6.5%
7	6.0%
8+	5.5%

9. Marital - Actives:

Wife is assumed to be same age as the husband.  
70% of males and 50% of females are assumed  
married.

10. Participation Rate:

Medical: 90%, Life Ins.: 80%

11. Inflation Rate:

3.0% per annum.

**ASSET VALUATION METHOD:** Market value.

**AMORTIZATION BASIS:**

Level percentage of payroll, Closed, over 30 years.  
(24 years remaining as of 1/1/2015)