

**City of Newton**  
**Retiree Benefits**  
**A Primer**

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Note: The report was updated on October 22, 2014 to improve the information on pensions. One sentence on page 5 was changed in the answer about the role of the Retirement Board. A few other changes were made in the appendices.

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## I. EXECUTIVE SUMMARY AND INTRODUCTION

On June 20, 1928, seventeen years before the statewide uniform public employee contributory retirement law was enacted, the Board of Aldermen established a pension plan for its municipal employees, the City of Newton Contributory Retirement System.<sup>1</sup> On September 4, 1951, Newton's Board of Aldermen accepted the provisions of the statewide public employee retirement pension law.<sup>2</sup> Unfortunately, the City of Newton has not set aside sufficient reserves in a trust fund to meet its pension obligations. In addition, prior to 2010, the City had not set aside *any* reserves for its obligations to retirees' healthcare insurance. The City of Newton now has a combined pension and retiree health insurance unfunded liability of \$846 million. This is the difference between the present value of what we expect to owe retirees and what we have set aside to pay them.<sup>3</sup> Current residents and future generations of the City of Newton are now faced with this dilemma.

### DEFINING THE PROBLEM

City of Newton employees, like some private industry employees, earn two types of compensation—current and deferred. Salaries and other forms of current compensation reflected in paychecks are received by employees during their employment. Deferred compensation is received after the employee retires and only when vesting and age requirements have been met.

There are two major categories of deferred compensation for City of Newton employees. First are pensions, monthly payments to a retiree from an investment fund to which both the person and the City of Newton have contributed. Notably, public employees in Massachusetts, including employees of the City of Newton, are not covered by, and therefore do not receive, Social Security benefits. The second category is non-pension post-employment benefits – retiree healthcare insurance and life insurance. These are known as “Other Post-Employment Benefits” or OPEB.<sup>4</sup>

### Pensions

Pensions for municipal retirees in Massachusetts— both eligibility and the amount —are prescribed by the Commonwealth's laws.

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<sup>1</sup> Acts, 1928, c. 355.

<sup>2</sup> M.G.L. c. 32, § 1-28

<sup>3</sup> A government entity such as the City of Newton has an obligation to pay deferred compensation benefits in the future once they have been earned. The dollar value of this is known as the *total pension and retiree health care insurance (OPEB) liability*. When the total pension and/or OPEB liability exceeds the pension or OPEB plan's net assets (referred to as the plan's “net position”) available for paying benefits, there is a *net liability*. This is often referred to as an unfunded liability. The combined unfunded liability for pension and retiree healthcare insurance benefits, \$846 million, should be used with caution. Because retiree healthcare insurance benefits are different in nature than pension benefits, adding the two together can be misleading. Retiree healthcare benefits are not guaranteed in the same way that pensions are. They are also a function of future health care costs which are uncertain. The state can also make changes to the provisions or rules regarding these benefits. Pension costs are a function of past salaries which are known and future projected salaries which are uncertain.

<sup>4</sup> This report often uses retiree healthcare insurance when referring to Other Post-Employment Benefits, a category that includes one other non-pension benefit, life insurance. Retiree healthcare insurance, however, constitutes over 99% of the costs for Other Post-Employment Benefits.

## I. Executive Summary and Introduction

State law requires cities and towns to pre-fund pension obligations for current employees. Both the City and the employees set aside money now to pay for the pension benefits later. Current state law also requires cities and towns to fully fund previous, accumulated pension obligations by 2040. The City of Newton's funding plan has mid-2037 as its target for full funding.

Newton has a \$244 million pension unfunded liability as of January 1, 2013. We have enough money in a fund to cover 52.3% of our pension obligations, assuming the future return on assets averages 7.75%.

Wide disparities exist in how well prepared comparable cities and towns are to fulfill their pension obligations. Lexington is in the best position with 78% of its pension obligations funded. At the other end of the spectrum, Arlington is more poorly funded than Newton with a 48% funding level for pensions.<sup>5</sup>

### Retiree Healthcare Insurance or OPEB

In addition to our pension obligations, Newton provides healthcare insurance to retirees. The Commonwealth prescribes the minimum percentage that a city or town must contribute towards retiree healthcare insurance and the minimum level of benefits. The City of Newton provides more than the minimum level of contributions and benefits.

In contrast to pensions, the state does not require pre-funding for retiree healthcare and life insurance benefits. The City of Newton has just begun to pre-fund these benefits. As of June 30, 2013, Newton has \$602 million (in present value) more in OPEB obligations than we have reserved to cover these retiree healthcare insurance benefits. Newton has set aside enough money to cover less than 1% of retiree healthcare insurance benefits.

Instead of pre-funding, most municipalities use a policy of pay-as-you-go for retiree healthcare insurance benefits. In other words, the city or town pays the cost of healthcare insurance benefits for retirees from current operating revenues as those benefits come due. While Newton has just begun to set aside a small amount of funding through pre-funding, the city's policy is primarily pay-as-you-go. This is problematic. Financial experts note that this policy transfers costs to future Newton tax payers, costs that are appropriately borne by the current ones. The year in which residents receive services from employees is the year the employer should set aside funds to pay for the compensation the employees will receive in their retirement. Moreover, the pay-as-you-go approach fails to take advantage of the power of compounding of investment assets that pre-funding permits.

Cities and towns that Newton uses as benchmarks have more in common when it comes to gaps in funding for retiree healthcare insurance and other non-pension benefits. In our comparison group, the majority of cities and towns have set aside little or nothing to meet these OPEB obligations. Three communities have set aside meaningful sums: Wellesley (17% funded), Needham (11% funded), and Brookline (6% funded).<sup>6</sup>

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<sup>5</sup> As discussed in the report, cities and towns calculate their unfunded liabilities using different assumptions so apple to apple comparisons can be difficult.

<sup>6</sup> The Massachusetts Taxpayers Foundation in October 2013 detailed the level of unfunded pension and retiree health care insurance obligations for the State and local governments. The Commonwealth's pension system is 75% funded, the teachers' 61% and the average of all municipalities is 57%. Both the Commonwealth's and municipal retiree healthcare insurance systems are less than 1% funded. The combined unfunded liability of the Commonwealth's and municipal pension and OPEB totals \$83 billion. (Massachusetts Taxpayers Foundation, "Crippling State and Local Retiree Liabilities," October 10, 2013.)

## I. Executive Summary and Introduction

### THE CHALLENGE FOR NEWTON

These funding gaps matter. Newton's employees, like all Massachusetts public employees, do not pay into, nor do they receive, Social Security in their retirement. Police, firefighters, and other Newton employees depend on these benefits for income and for healthcare insurance in their retirement.

The funding gaps also matter because if a greater portion of Newton's budget is needed to fund commitments to retirees that were made years ago, funds available for current services may be impacted. The challenge lies in proactively managing tax revenues, operating expenditures, capital investments and retiree benefit expenses while maintaining an Aaa credit rating.

The magnitude of the pension and retiree healthcare liabilities and the complexity of the issue as well as changes in accounting requirements led Ruthanne Fuller, with substantial input from a group of knowledgeable Newton residents, to write this primer. We used information – sometimes verbatim – from many sources. The sources range from the City of Newton, the Commonwealth of Massachusetts, professional associations, various Commissions and Centers, and credit rating agencies to articles from newspapers and magazines.

The goal is to explain the current status of the pension and retiree health insurance systems, and the underlying formulas and assumptions. Understanding the various figures and calculations can be surprisingly difficult. The cost of the benefits provided to employees – and the costs of those benefits that have been promised but not funded – is calculated using a complicated range of assumptions. The terminology that accountants use to describe pensions and retiree healthcare insurance is often hard to understand.

We hope this common fact base will allow more informed discussions going forward about our choices.

## II. THE BASICS

### A. Newton's Pension System

**What Are Pensions?** Pensions are monthly payments to a retiree as long as he or she lives (and often as long as his or her spouse lives) from an investment fund to which both the person and the City of Newton have contributed.

**What Does the Commonwealth of Massachusetts Prescribe?** Massachusetts Contributory Retirement System pension benefits are uniform across all cities and towns. In other words, pension benefits for City of Newton retirees are prescribed by the Commonwealth's laws, including benefit levels and contribution rates. Massachusetts has recently made some important changes in pension benefits for recently hired employees.<sup>7</sup> For most employees, the minimum retirement age was increased by five years to age 60; the age of eligibility for a full pension was increased for most employees to age 67; and the pension was changed to be based on the average of the highest five years of earnings, instead of three.

**What City of Newton Employees Get Pensions?** Virtually all full-time City of Newton employees – with the important exception of teachers – are required to participate in the City of Newton pension system. Teachers and certain school administrators have a separate pension system. For teachers, the Commonwealth of Massachusetts, not the City of Newton, is responsible for paying the employer portion of the pensions and for paying pension benefits. The City of Newton is responsible for paying the employer portion of non-teachers who work in the Newton Public Schools (e.g., aides, custodians, and clerical staff) and for the pensions of all other municipal employees. In Fiscal Year 2013, there were approximately 800 active non-teacher positions in the Newton Public Schools and 890 active municipal positions in Newton's pension system.

**How Many People Are in the Newton Pension System?** As of January 1, 2013, Newton's pension system included 1,616 current (active) employees and 1,162 retirees and beneficiaries.

**How Much Do Employees and the City Contribute to Pensions?** The contributions of employees toward their pension depend on when the employee started working for the City of Newton. The contribution rate has been raised repeatedly so that the rates now range from 5% to 12% of pay. In 2012, current employee contributions were \$7.1 million.

In 2012, the contributions by the City of Newton were \$11.3 million, \$8.1 million of which is to pay down the unfunded liability for benefits for current retirees and \$3.2 million is pre-funding the future benefits of current, active employees.<sup>8</sup>

**How Much Does Newton Pay Annually for Pensions?** The Newton retirement system paid \$33.4 million in pension benefits in 2012, an increase of 4.9% over the previous year.

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<sup>7</sup> Reforms were made in both 2009 and 2011. The changes in 2011 mostly impacted employees hired on or after April 2, 2012.

<sup>8</sup> The City of Newton retirement pension system operates on a calendar year while the retiree healthcare insurance plan (OPEB) operates on a fiscal year.



## II. The Basics

For a person who is 65 years old, has worked for the City for 20 years, is not a public safety officer or a veteran, and had the three highest years of salaries averaging \$60,000, the pension would amount to \$29,000 to \$30,000 a year for the rest of his or her life. If that same person had worked for 10 years, the payment would be approximately one-half or between \$14,000 to \$15,000.

Each year, the pension amount is partially adjusted for inflation, otherwise known as the cost of living (COLA), if Newton's Retirement Board votes to do so. Traditionally they have.

**What Is the Role of the Newton Retirement Board?** The Newton Retirement Board has important decision making rights. The Board decides the appropriate long-term investment rate of return to use to determine the contributions that the City of Newton needs to make in order to fund appropriately the pension plan. The Retirement Board also determines the eligibility for enhanced pensions, either through disability or higher group classification, based on strict eligibility and procedural requirements of Chapter 32 and also subject to PERAC oversight. The Board, as mentioned earlier, votes on cost of living adjustments. The Board determines how to invest the funds in the trust. These decisions determine the amount of the annual pension appropriation by the City of Newton.

**Do Newton's Retirees Get Social Security?** Public employees in Massachusetts, including employees of the City of Newton, are not covered by Social Security.

**Who Invests the Assets in Newton's Pension Fund?** Starting on July 1, 2007, the City of Newton transferred all pension system assets, except those in real estate limited partnerships, to the management of the Commonwealth of Massachusetts Pension Reserve Investment Trust (PRIT) Core Fund.

Significantly more detailed information about Newton's pensions can be found in Appendix 2.

### **B. Newton's Retiree Healthcare Insurance (OPEB) Plan**

**What are Retiree Healthcare Benefits?** Retiree healthcare insurance or Other Post-Employment Benefits (OPEB) is the portion of the cost of health insurance that the City has agreed to provide for retirees.

**Who Gets Retiree Healthcare Insurance?** City of Newton retired employees -- including teachers -- and their spouses and dependents receive subsidies for healthcare insurance and life insurance, OPEB benefits, for their lifetime.

For Newton employees, the eligibility requirements for receiving retiree healthcare insurance are the same as those for receiving a pension. Thus, virtually all full-time City of Newton employees, including teachers, are eligible if they retire while a City of Newton employee and meet vesting and age requirements. Generally, to be eligible, an employee needs to have worked for more than 20 hours per week for at least 10 years.

**What Does the Commonwealth of Massachusetts Prescribe?** Benefits for retirees -- both pensions and healthcare insurance -- are largely prescribed by the Commonwealth's laws. The Commonwealth of Massachusetts determines:

## II. The Basics

- *Who* is eligible for retirement benefits,
- What the *minimum amount of benefits* must be,
- What the *minimum amount of the healthcare premium* the municipality must pay (currently the Commonwealth requires cities and towns to pay a minimum of 50%), and
- *What changes to health care plans must be negotiated* with collective bargaining units.

**What is the Role of Unions in Retiree Healthcare Insurance?** Changes to healthcare plan design and contribution rates for retirees do not need to be negotiated via the collective bargaining process. (Changes for active employees are subject to the collective bargaining process.) This, however, is currently being challenged in the courts.

**What about Medicare?** Starting in 2009, both the Commonwealth and the City of Newton officially required people age 65 and older to go on Medicare if they were eligible. Since retirees from the City of Newton who are eligible for Medicare must enroll in the program, the City becomes the second payer.

Medicare requires retirees to pay a premium each month for Medicare Part B to cover outpatient medical insurance. The City pays 80% of the Medicare Part B premium, with the amount being capped at \$925 per year. State law only requires a 50% contribution.

Since Medicare Part B does not pay all of a covered person's medical costs, many retirees buy supplemental healthcare insurance. The City of Newton also pays 80% of any supplemental healthcare insurance. State law does not require any contribution by a municipality for supplemental insurance.

**How Many People Are in the Newton Retiree Healthcare Insurance System?** For the fiscal year ending June 30, 2013, the number of people participating in the City's health insurance plan was 5,714. (While Newton's pension system does *not* include teachers, Newton's retiree healthcare insurance system does.) There are 3,397 retirees currently receiving retiree medical insurance and another 2,317 active employees who will be eligible to receive health insurance when they retire.

**Can Changes Be Made to Retiree Healthcare Insurance Benefits?** In general, courts have been less likely to view non-pension benefits as a protected right.<sup>9</sup> As a result, many observers think these retiree healthcare insurance benefits are not guaranteed and can be changed at the state level. Retirees do not have bargaining rights, so the City of Newton has authority to change retiree healthcare insurance benefits unilaterally, as long as they meet the minimum standards set by the Commonwealth. As mentioned earlier, this is currently being challenged in the courts.

**How Does Newton Pay for Retiree Healthcare Insurance Benefits?** Currently, the City (with a small exception explained later) is not contributing to a retiree healthcare insurance reserve fund. In other words, except for a small amount of money, the City is not setting aside funds now for the later years when the employee retires. Rather, once the employee retires, both the City and the retired employee pay for the retiree health insurance costs in a pay-as-you-go manner.

Eligible retirees are required to pay a specified percentage of their healthcare insurance costs.

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<sup>9</sup> The PEW Center on the States, "A Widening Gap in Cities: Shortfalls in Funding for Pensions and Retiree Health Care," January, 2013.

## II. The Basics

**What Were the Recent Changes to Retiree Healthcare Benefits?** In Newton's most recent union negotiations, two significant health insurance plan changes were implemented in 2011. The first change was that all *active* employees must elect one of the less expensive "Advantage" plans. The second change was that all *new* municipal employees hired after July 1, 2011 and *new* school employees hired after August 31, 2011 were required to contribute either 25% (for unions constituting 88% of current employees) or 30% (for the other 12%) instead of the previous 20%. These plans and contribution rates will be in effect when these employees retire.<sup>10</sup> In addition, all early retirees and non-Medicare eligible retirees now retire out on these newer plans.

**What Does Newton Owe for Retiree Healthcare Insurance Benefits?** New accounting standards issued on OPEB by the Governmental Accounting Standards Board (GASB) in 2004 required municipalities for the first time to disclose the total amount of the actuarially determined future liabilities for retiree health insurance benefits and the amount required to be paid currently to cover these future healthcare insurance costs. The City of Newton implemented the reporting requirements in the fiscal year ending on June 30, 2008.

The expected retiree healthcare insurance benefit obligation as of June 30, 2013 for the City of Newton is \$905.7 million. When discounted by 2% (the City's expected short-term rate of return) to the present value, the full actuarial liability for such benefits stood at \$602.3 million.<sup>11</sup> With assets of approximately \$538,000 in the OPEB Trust Fund, the unfunded actuarial accrued liability was slightly less, \$601.8 million.

Significantly more detailed information about Newton's retiree healthcare insurance plans can be found in Appendix 3.

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<sup>10</sup> These contributions are towards the health insurance policies that currently cover the employees. They are not contributions that are made now and invested for future health insurance policies.

<sup>11</sup> Starting in 2008, Newton's reports show the difference between the amount needed to fund current benefits *and* eliminate the unfunded liability, known as the annual required contribution or ARC, and the pay-as-you-go appropriation for retiree health care insurance. For the year ended June 30, 2013, the liability increased by \$30.2 million for a total of \$177.7 million. The Net OPEB Obligation of \$177.7 million is the cumulative sum of differences between the City's annual costs and the amounts the City actually contributed, starting in 2008. The \$602.3 million unfunded actuarial accrued liability reflects the total unfunded status that will be amortized or spread over a thirty year period.

### III. Pre-Funded Pensions vs. “Pay-As-You-Go” Retiree Healthcare Insurance (OPEB)

There are two approaches to funding retiree benefits. One approach is to pre-fund the expected future costs by setting aside funds as employee services are rendered. The second approach, pay-as-you-go, is to pay each year only the pension or health insurance costs for the *retirees* without setting aside monies to pay the future costs related to current *employees*.

Pensions and retiree healthcare are compensation that employees earn each year, even though these benefits are *not* received until after employment has ended. A fundamental accounting principle, interperiod equity, is that the year in which residents receive services from an employee is the year the employer should set aside funds to pay for the compensation they will receive in their retirement. In other words, the cost of these *future* benefits is a part of the cost of providing public services *today*. This matches the timing of when services are received by residents with the cost of providing services and results in pre-funding of retiree benefits. Pre-funding also usually reduces the total liability by taking advantage of investment growth and the power of compounding. The City of Newton has been pre-funding pensions since 1984.<sup>12</sup> In contrast, the City of Newton does not pre-fund retiree healthcare insurance (OPEB), but instead uses the pay-as-you-go funding method. Thus, the City of Newton is financing the cost of its two major retirement benefits in two very different ways.

#### A. Pre-Funded Pensions

The City of Newton is pre-funding its pension obligations. For current employees, the City sets aside funds each year to pay their pensions in the future.

Starting in the early 1990s, state law required all cities and towns to pre-fund pensions. In accounting terms, pre-funding is an “actuarial approach.” An actuary analyzes the cost of future benefits and determines the amount of money to be set aside currently to fund them.<sup>13</sup> The City of Newton pays an amount each year into the pension plan that is expected to be sufficient, if invested now, to finance the benefits of employees after they are no longer working for the City.<sup>14</sup> The future returns on the investments and the cost of the future benefits to be paid are projections. The City of Newton began pre-funding in 1984, before being required by law to do so.

In 1984, as part of the pre-funding approach, the City of Newton Retirement Board simultaneously adopted a funding schedule and started setting aside money to pay the past, accumulated obligations by 2028 for retirees and the current employees for whom no funds had been set aside previously.<sup>15</sup> Similar

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<sup>12</sup> To be clear, Newton is currently pre-funding the pensions for almost all its *current employees*. Since the City did not pre-fund in the past, the City is also using a funding schedule to pay over a period of many years the liabilities it has incurred for current *retirees* and employees who began working for the City prior to 1984.

<sup>13</sup> An actuary is a business professional who mathematically evaluates the probability of events and quantifies the contingent outcomes. See Appendix 5 for a glossary of terms.

<sup>14</sup> Interestingly, state law also requires cities and towns to increase their pension contribution each year, even if the amount is larger than its annual required contribution.

<sup>15</sup> Prior to 1984, the City of Newton funded its pension system on a “pay-as-you-go” basis — the same way the City currently funds retiree health care insurance (OPEB). The City paid out retirement benefits as employees retired.

### III. Pre-Funded Pensions vs. “Pay-As-You-Go” Retiree Health Care Insurance (OPEB)

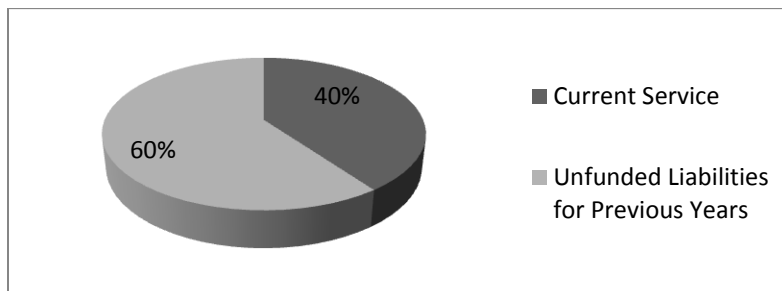
to a loan one would take out for a home, the unfunded liability is paid incrementally on a schedule extending out over several decades. The schedule is calculated to eventually bring the fund up to "full funding," when the City will have set aside enough funds to cover the unfunded pension obligations and will only have to pay the costs for current employees (i.e., in accounting terminology, the “normal costs”).

Even now, most of the payments the City makes into the pension investment fund are to cover the costs of the pensions for retirees and beneficiaries, rather than to pre-fund the future costs for current employees. In 2012, 83 percent of the total \$18.4 million City of Newton payment for pensions went to fund the previous, accumulated unfunded liability.<sup>16</sup> This \$15.2 million was paid entirely by the City of Newton. The additional \$3.2 million paid by the City was for pre-funding the “normal cost,” the cost of benefits earned by current employees that year which will be paid in the future after they retire.

Employees contribute significantly to Newton’s Contributory Retirement Pension System. While the City paid the aforementioned \$18.4 million into the pension plan in 2012, employees contributed \$7.1 million as well. In fact, of the total “normal cost” of \$10.4 million, employees paid 69% of the total. Thus, current employees are the major contributors to their pensions.

When employee and City of Newton contributions are combined, 60% of the total goes to pay for the unfunded liabilities generated prior to 1984 when the pension funding policy was pay-as-you-go.

Chart 1: Pension Contributions in 2012  
for Unfunded Liabilities from Previous Years vs. Current Service (Pre-Funding)



#### B. “Pay-As-You-Go” Retiree Healthcare Insurance (OPEB)

In contrast to pensions, Newton has not pre-funded for retiree healthcare benefits (OPEB) until recently. The City of Newton is essentially using a pay-as-you-go approach. Each year, the City pays an amount through annual appropriations equal to the benefits distributed to or claimed in that year by retirees. In FY2013, the cost to the City of the pay-as-you-go method came to \$16.3 million.

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The City did not set aside the amount of retirement benefits that employees were accruing yearly throughout their employment. Rather, it accumulated an unfunded liability.

<sup>16</sup> The \$18.4 million payment includes both the City of Newton and employee payments.

### III. Pre-Funded Pensions vs. “Pay-As-You-Go” Retiree Health Care Insurance (OPEB)

By state law and GASB accounting rules, the City has to report how much we should be setting aside now if we pre-funded healthcare insurance benefits. This amount, known as the “annual required contribution” or ARC, was \$49.1 million in FY2013. The ARC payment of \$49.1 million represents 15% of the City’s total annual general operating budget. The annual *required* contribution is an accounting term that defines how much a city or town would need to contribute if it wants to pay down its unfunded liability in thirty years. Some cities or towns in the United States are, by law, required to contribute the annual required contribution. In Massachusetts, the law does *not* require cities and towns to pay into a fund the annual required contribution for retiree health insurance. Thus, municipalities are allowed to underfund their benefits, thus raising the annual payment in subsequent years.

Mayor Warren and the Board of Aldermen have taken two important, albeit small, steps towards pre-funding retiree healthcare insurance.

In the spring of 2010, the City had a \$595 million actuarial accrued OPEB unfunded liability and no assets in an OPEB trust fund. For the FY2011 budget, Mayor Setti Warren recommended and the Board of Aldermen approved a transfer of \$137,000 to an OPEB Trust Fund. This represented an important, albeit quite small, first step in addressing the challenge of the retiree healthcare and life insurance liability. In FY2012, \$175,000 was transferred.

Beginning on July 1, 2012, the City also began making a contribution of 2.5% of compensation for *new* employees that participate in the City’s healthcare plan to fund partially their healthcare benefits when they retire. A contribution level of 12% of salaries/wages of *all* employees is required to cover fully the anticipated future retiree healthcare insurance costs for all employees. The far lower 2.5% contribution for only new employees is expected to be reviewed annually by the Warren administration and gradually adjusted to come closer to the actuarial required contribution (12%) to fund the normal cost for the health benefits.<sup>17</sup> The Mayor held the percentage at 2.5% for FY2014.<sup>18</sup> The budget for FY2015 increases the percentage to 3%.

The 2.5% pre-funding for new employees who started work after July 1, 2012 resulted in approximately \$225,000 being put into the OPEB Trust Fund in FY2013.<sup>19</sup> \$545,000 is projected to be added in FY2014, and approximately \$900,000 in FY15. The amount should increase by approximately \$300,000 a year as new employees join the City’s workforce. Nonetheless, it is still significantly less than the 12% that should be set aside for both current and new employees. The Mayor stated in the Proposed Budget for

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<sup>17</sup> The “normal cost” is the present value of the future benefits earned that year by current employees.

<sup>18</sup> The present value is a future amount of money that has been discounted to reflect its current value since money has interest-earning potential. Actuaries calculate the current value or cost of all benefits earned by the retired participants as well as the value of all benefits earned and expected to be earned in the coming years by the active participants (i.e., current employees) given a specified discount rate; the higher the discount rate, the lower the present value of the future cash flows; determining the appropriate discount rate is critical to properly valuing future cash flows.

<sup>19</sup> See Appendix 1 for Table 13: OPEB Trust Fund balances and projections.

### III. Pre-Funded Pensions vs. “Pay-As-You-Go” Retiree Health Care Insurance (OPEB)

FY2014 (released on April 16, 2013) that the “Administration intends to continue the policy of ‘pay as you go’ for all OPEB liabilities for current and former employees.”<sup>20</sup>

The pay-as-you-go method that Newton (like many other cities and towns) is using for OPEB is problematic. The alternative, saving early and regularly, can dramatically reduce the total liability. According to an analysis by the Commonwealth of Massachusetts, full pre-funding following the guidelines of Generally Accepted Accounting Principles for Governments reduces the liability by 45%.<sup>21</sup>

Starting in FY2007, an actuary working for the City of Newton has provided information on the financial impact of pre-funding the retiree healthcare insurance obligations. Pre-funding allows for the possibility of the funds growing through positive investment returns. Investment returns are not guaranteed and, as we have seen in the last five years, significant losses can occur. Generally, though, most financial advisors think that over the long-run, investing will lead to positive returns.

The City (more specifically, the Retirement Board) currently assumes that investment returns on our pension assets will be 7.75% over the long-term. They are currently discussing whether to lower the return assumption to 7.65%. (A discussion of the merits of a 7.75% investment return assumption follows later in the report.) Coupled with the effect of compounding, pre-funding the OPEB obligation should result in significantly lower amounts of money needed to pay for retiree healthcare insurance. In Newton’s actuarial valuation report for FY2012, the actuary determined that the annual savings for the following year alone if Newton had established a funding schedule and contributed the annual required contribution (ARC) would have been \$22.2 million. As shown in Table 18: Schedule of City of Newton Employer OPEB Contributions, Pay-As-You-Go vs. Pre-Funding in Appendix 1, the City of Newton’s independent actuary calculated cumulative savings of \$1.6 billion from 2012 to 2042.<sup>22</sup>

In the FY2013 OPEB actuarial valuation report, the actuary calculated that there is approximately a 21% impact on costs for every 1% change in the discount rate assumption. In other words, the City of Newton has a \$602.3 million actuarial accrued liability for OPEB using a 2% discount rate, as of June 30, 2013. With a 5% discount rate, the liability drops to \$584.4 million while at 7.75% it decreases to \$568.5m.

One fundamental decision for the City of Newton is whether to start pre-funding retiree healthcare insurance (OPEB) more than 2.5% or 3% of compensation of new employees. In the future, when meaningful sums are in the OPEB Trust Fund, the City will also have the important decision whether to increase the discount rate from 2%.

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<sup>20</sup> Another important step was taken in May 2013 when the Board of Aldermen approved making the OPEB Trust Fund irrevocable.

<sup>21</sup> Special Commission to Investigate and Study the Commonwealth’s Liability for Paying Retiree Health Care and Other Non-Pension Employee Benefits, “Reporting and Funding OPEB Liabilities,” July 2008.

<sup>22</sup> Please note in the table that since Newton’s retiree health insurance (OPEB) Trust Fund has so few assets relative to its liability and is not funding the ARC, the Governmental Accounting Standards Board (GASB) requires the City to use a risk free rate of return equivalent current risk-free marketplace yields, 2% currently. As the OPEB Trust Fund assets are de minimis, the return on these assets is not used. If Newton had significant funds set aside, then the discount rate would be the historical average for equity market investment returns, or the 7.75% currently used by the Retirement Board for pensions. It is unclear what level of assets triggers the change to the higher rate of return.

## **IV. THE HEALTH OF NEWTON'S PENSION AND RETIREE HEALTHCARE INSURANCE (OPEB) PLANS**

### **A. What do the Historical Numbers Tell Us?**

There are five indicators commonly used to evaluate the health of a benefit plan. These are (1) the size and growth rate of the unfunded liability, (2) the funded ratio, (3) the covered payroll ratio, (4) the comparison of the benefits and annual required contribution to the City's general operating budget, and (5) the percentage of the annual required contribution paid.

#### **1. Size and Growth Rate of the Unfunded Liability**

One way to analyze the health of Newton's pension and retiree healthcare insurance benefit programs is to compare how much we owe to retirees to what we have set aside to pay for these benefits.

Using accounting terminology, we want to compare how much we are obligated to pay for pensions and retiree health insurance (the Actuarial Accrued Liability or AAL) to what we have set aside in a trust for these payments (the Actuarial Value of Assets). If we owe more than we have set aside, we have an unfunded liability (the Unfunded Actuarial Accrued Liability or UAAL).

We have a much smaller unfunded liability for pensions, \$244 million, than for OPEB, \$602 million. For 2013, the two combined are a very significant sum, \$846 million.<sup>23</sup> Both liabilities are growing much faster than Newton's revenues.<sup>24</sup> (See Table 5: City of Newton Pension and OPEB Unfunded Liabilities in Appendix 1.)

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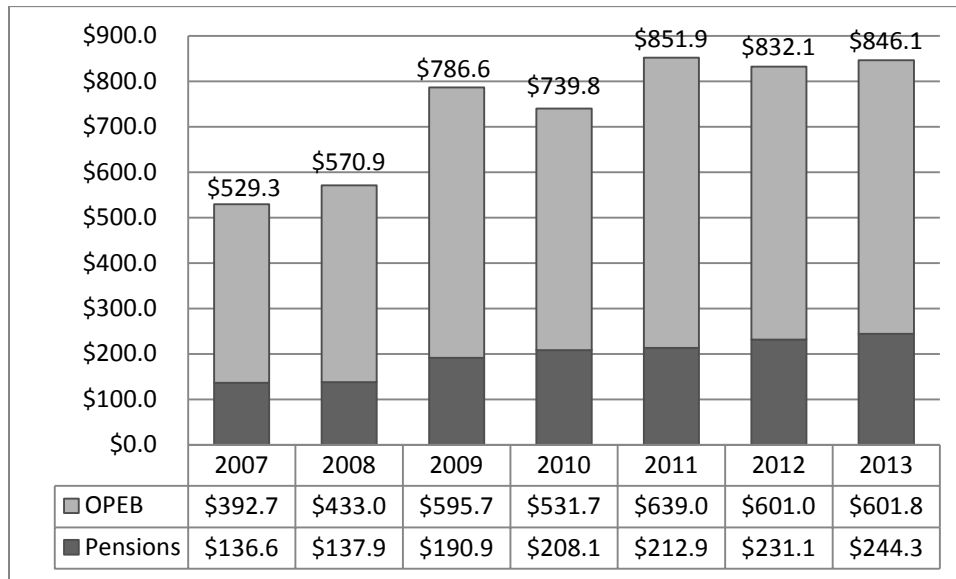
<sup>23</sup> The Annual Required Contribution or ARC is that part of the Actuarial Accrued Liability (AAL) due in the current year, plus the portion of the unfunded liability to be amortized in the current year. The cumulative sum of differences between our annual costs and the amount we actually contributed to the pension or OPEB plan is our Net Pension Obligation (NPO) or Net OPEB Obligation (NOPEBO). Since the City of Newton pays in full the annual required contribution for pensions (i.e., we pre-fund), the City does not have a Net Pension Obligation. The City of Newton does have a considerable Net OPEB Obligation. The City has never contributed the full Annual Required Contribution for OPEB. Therefore, adjustments are made to the annual required contribution (ARC) to compensate for the additional amount owed to the OPEB plan. The adjusted ARC, known as the Annual OPEB Cost, is the amount reported as the OPEB expense instead of the ARC. For the past three fiscal years, the City of Newton's Net OPEB Obligation has continued to grow substantially since the City did not make its annual required contribution. The Net OPEB Obligation now stands at \$177.7 million. The data can be found in the Table 17: City of Newton Net OPEB Obligation in Appendix 1.

<sup>24</sup> In the past thirteen years, from 2000 to 2013, the unfunded liability for pensions has grown at a compound annual growth rate of 12.3%. From 2006-07 to 2012-13, the unfunded liability for OPEB has grown at a lower compound annual growth rate of 7.4%. This incorrectly implies that the unfunded pension liability has gotten worse at a faster rate. The primary reason the unfunded pension liability has grown faster is the two significant investment return losses since 2000. (See Chart 4.) Since OPEB has almost no investment assets, it has not experienced the same fluctuation in returns but it has grown much faster in absolute dollars.



#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Chart 2: City of Newton Total Unfunded Liabilities for Pension and OPEB (millions)



Due to changes in healthcare benefits negotiated by the City of Newton in 2011, the retiree healthcare (OPEB) liability decreased by \$38 million from 2011 to 2012. Clearly, changes in benefits jointly agreed on by employees and their unions and the Administration can have a significant impact on the liability.

### 2. Funded Ratio

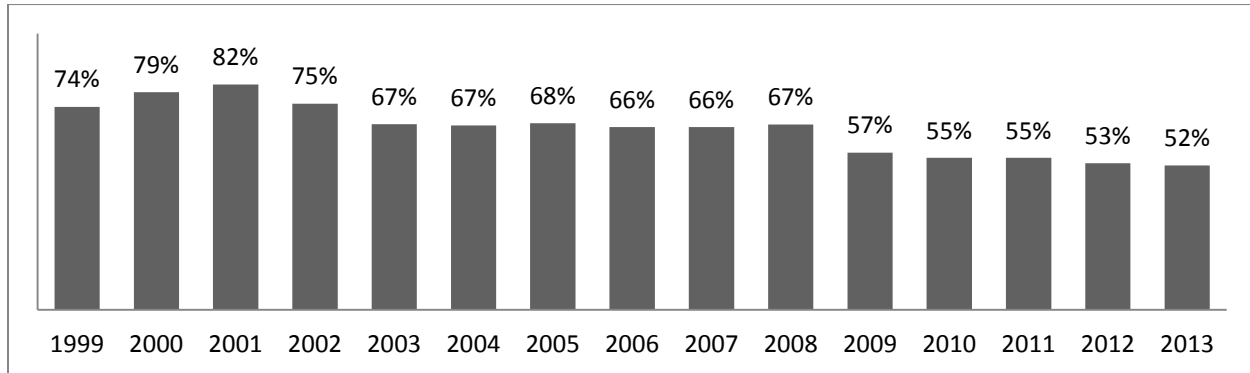
The most basic indicator of the status of a pension or retiree healthcare insurance plan is its funded ratio. The funded ratio is a comparison of the actuarial value of the assets (how much have we set aside to pay the benefits, smoothed over five years) to the unfunded liability (the present value of what we expect to pay in benefits discounted at the 7.75% projected rate of return on pension fund assets or the 2% risk-free rate of return for OPEB). The actuarial value of the assets is divided by the actuarial accrued liability to derive the funded ratio. This ratio reflects the ability of the pension or OPEB plan to finance the benefits attributable to past service of current and future retirees. A higher funded ratio is better. When a pension or retiree healthcare plan has enough assets (i.e., money) to cover all its accrued liabilities (i.e., the benefits that will have to be paid), it is 100% funded.<sup>25</sup> A funding level *under* 100% means that the fund does not have sufficient assets as of that date to cover its actuarial accrued liability.<sup>26</sup> While the target level for a pension plan should be 100%, a funded level of 80% has often been used as a standard of fiscal soundness.<sup>27</sup>

<sup>25</sup> This does not mean that further contributions are no longer required. Rather, the plan is funded at the appropriate level at the date of valuation. The City will need to continue putting aside money for the benefits that current employees are earning.

<sup>26</sup> Some people think that governments do not need to achieve 100% funding. As the Civic Federation notes, “They argue that governments, unlike private corporations, are not at risk of dissolving and, therefore, can meet their

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Chart 3: Funded Ratio of Newton’s Pension System



##### Decline in Funded Ratio:

As of January 1, 2001, Newton’s pension system was quite well funded with a funded ratio of 81.6%. It was on the path toward the full funding goal of 100%.<sup>28</sup> But, in early 2000, a correction began in the stock market. The bull market (known as the “dot-com bubble”) ended in late summer 2002. By the mid-2000s, the value of the assets in Newton’s pension fund declined significantly, and the funded ratio dropped to the 66%-67% range.<sup>29</sup>

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obligations in perpetuity.” But, the report continues, “Public pensions should be funded sufficiently to prevent the *growth* of the unfunded liability. If the unfunded liability is growing and the plan has no practical strategy for reducing it, this is cause for serious concern.” (The Civic Federation, “Status of Local Pension Funding Fiscal Year 2011,” May 21, 2013)

<sup>27</sup> The American Academy of Actuaries noted that the standard of 80% funded level has been cited in recent years to assess whether a pension plan is financially sound. However, they recommend using multiple ratios over several years to assess fiscal soundness. The measures include: (1) the size of the pension obligation compared to the financial resources of the sponsor; (2) the financial health of the plan sponsor; (3) the funding or contribution policy of the plan; and (4) the investment strategy and risk level of the plan assets. They also emphasize that pension plans should have a strategy to attain a funded status of 100% over a reasonable period of time.

(American Academy of Actuaries, “The 80% Pension Funding Standard Myth,” July, 2012) The Fitch Rating credit agency considers a funded ratio of 70% or above to be adequate and less than 60% to be weak, using a discount rate of 7% and a rolling five-year average of market value of assets. (Fitch Ratings, “Enhancing the Analysis of U.S. State and Local Government Pension Obligations, February 17, 2011) The Pension Protection Act of 2006 changed the federal laws that govern private sector pension funds to require them to meet a 100% funding target. Private sector pension plans that were less than 100% funded were required to amortize, or pay off, their unfunded liability over seven years. Private sector pension plan that are less than 80% funded are considered “at-risk,” and must make additional contributions to boost their funded ratio. (The Civic Federation, “Status of Local Pension Funding Fiscal Year 2011,” May 21, 2013)

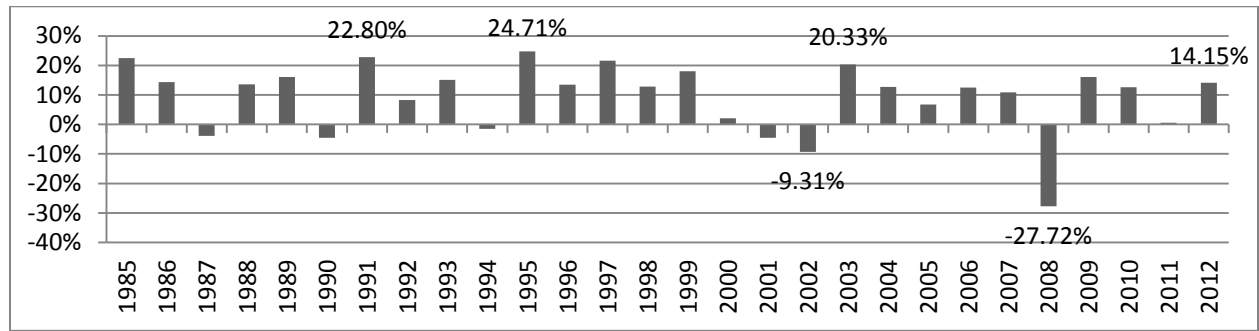
<sup>28</sup> The relatively high funded ratio came after a period of robust investment returns on the funds in Newton’s pension plan, in part driven by the internet technology bubble in the stock market.

<sup>29</sup> On January 1, 2000, the value of the assets in Newton’s pension fund was \$236 million. A year later, it had fallen to \$214 million. By January 1, 2002, it had fallen further to \$191 million.

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

In the financial collapse of 2008, the value of the assets in Newton’s pension plan dropped by another 28%, or about \$85 million, and the funded ratio fell significantly as well to 55%.<sup>30</sup> Newton was not alone. In 2009, funded ratios dropped significantly for all of the pension systems in Massachusetts.

Chart 4: City of Newton Pension System Annual Return, 1985-2012



#### Extended Funding Schedule:

In response to the dramatic decline in asset values of pension plans and the concomitant drop in funding ratios, Massachusetts changed the law so the full funding requirement was extended from 2030 to 2040. The Newton Retirement Board subsequently voted to extend the deadline for actuarial funding of the system’s liabilities from 2028 to 2038. (Subsequently, they voted to have full funding six months earlier, June, 2037.) To keep the full funding schedule at 2028 would have required an enormous increase in the pension appropriation by the City.

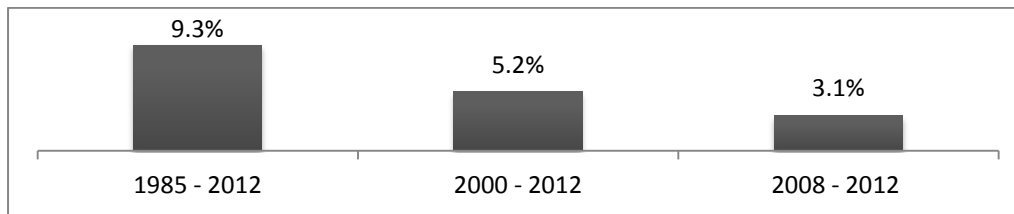
#### Low and Volatile Returns:

Neither *annual* investment returns nor *average* investment returns explain in full Newton’s current funded ratio of 52%. The average rate of investment return for Newton’s pension assets has varied. Since inception twenty-eight years ago, the average is 9.3%. From 2000 to 2012, the average return on investments for Newton was 5.2% while the funded ratio fell from 73.5% to 53.1%. For the last five years, it dropped to 3.1% due to the significant decline in 2008. (Note: The City of Newton Contributory Retirement System used an expected long-term investment return of 8% from 2006 to 2011. For 2012 and 2013, it lowered the assumption to 7.75%.) The combination of lower returns than expected and the volatility of returns partially explain Newton’s low funded ratio.

<sup>30</sup> The data for the chart can be found in Appendix 1.

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Chart 5: City of Newton Pension System Average Investment Returns



##### Catching Up After Investment Losses:

At the same time, Newton continued to pay into the pension fund the amount the actuaries recommended, the actuarial required contribution (ARC). Why did the funded ratio fall so precipitously even as the City contributed its full actuarial required contribution? The answer partly lies in the math. As noted by the Pew Center on the States, “If a pension fund’s investment return falls 4% short of its 8% assumption, it cannot simply make up that amount with a 12% return the next year. Every year that a pension system’s investments come in under the actuarial assumption, the fund has to make up that amount plus the assumed earnings on the lost amount.”<sup>31</sup> In other words, if a city experiences a 50% loss, the fund needs a 100% return just to get back to the balance before the downturn.<sup>32</sup>

The funded ratio is also low because of the decision to extend the funding schedule to 2038. If the funding deadline remained at 2028, the annual required contributions would have been substantially higher (with a significant impact on current operations) and the funded ratio would have been substantially higher.

##### Costs Higher than Contributions:

Newton’s low funded ratio for its pension plan – despite a relatively strong stock market in the last few years and the City of Newton contributing its full actuarial required contribution – highlights another fact: Newton is dependent on investment appreciation and interest from the plan’s assets to pay for benefits. Even though the City is contributing the actuarial required contribution, and even though the employees contribute their required amount, the annual costs of the retirement system are sometimes higher than the overall contributions. The previous, accumulated unfunded liability continues to keep the funded ratio low. Thus, any progress on the funded ratio and the health of the pension system seems to depend heavily on investment appreciation and interest on the investments.

The data from 2011 and 2012 in Newton’s Comprehensive Annual Financial Report (CAFR) tell the story.<sup>33</sup> In Table 6: City of Newton Pension Trust Fund, Statement of Changes in Net Assets in Appendix 1, look first at the data for the year ending 12/31/10. Contributions from the City and Newton

<sup>31</sup> Pew Center on the States, “A Widening Gap in Cities: Shortfalls in Funding for Pensions and Retiree Health Care,” January, 2013.

<sup>32</sup> Hypothetically, a fund could be at \$100 million. It experiences a 50% loss and decreases to \$50 million. To return to the \$100 million level, it needs a 100% return.

<sup>33</sup> Please note that the data in the CAFR runs on a fiscal year that ends June 30<sup>th</sup> while the funded ratios and pension return data are on calendar years that end December 31<sup>st</sup> so they do not align precisely.

#### IV. The Health of Newton's Pension and Retiree Health Care Insurance (OPEB) Plans

employees were \$22.8 million. Also, investment and interest returns were robust and added another \$28.7 million so total additions (with a few other miscellaneous items) were \$51.6 million. Deductions (for retirement benefits, refunds, transfers and administrative expenses) were \$32.8 million. Total deductions were larger than the City and employee contributions but with the investment and interest returns, the total additions (\$51.6 million) were larger than total deductions (\$32.8 million) and thus net assets *increased* by \$18.8 million. Notably, the growth in net assets (\$18.8 million) was still lower than the deductions (\$32.8 million) so the assets did not grow sufficiently and the funded ratio *declined*.

Look next at the data for the following year ending 12/31/11. This is an even more problematic year. Even though contributions from the City and employees grew (\$24.1 million), so did the expenses or deductions for pensions (\$34.4 million). But, the fair value of the investments was negative and interest dropped slightly. As a result, the net assets in the plan *declined* by \$8 million. Thus, the funded ratio of the pension plan *declined* again.

The data shows that Newton's pension system is significantly affected whenever the actual investment return is lower than the expected return since the City relies on investment earnings to pay 30% of retirees' pension benefits.

##### Smoothing:

Another reason that funding levels continued to decline in recent years even though pension plan investments began to gain value is because of "smoothing." Most pension funds, including Newton's, average out investment returns over multiple years. This approach both softens the impact of a bad year and reduces the gains in a good year, as reported in financial statements. It also means the losses in one year continue to affect Newton for the following four years since we use five years for smoothing. For more on this topic, see Appendix 8.

In contrast to pensions, the funded ratio for Newton's retiree health and life insurance (OPEB) is less than 1% (0.09% to be exact as of June 30, 2013). As discussed earlier, the City of Newton is essentially using a pay-as-you-go funding method for retiree healthcare insurance rather than pre-funding its future obligations. Like most cities and towns, the City of Newton is a long ways away from a healthy funded ratio for OPEB. (See Table 7: City of Newton OPEB Funded Ratio in Appendix 1.)

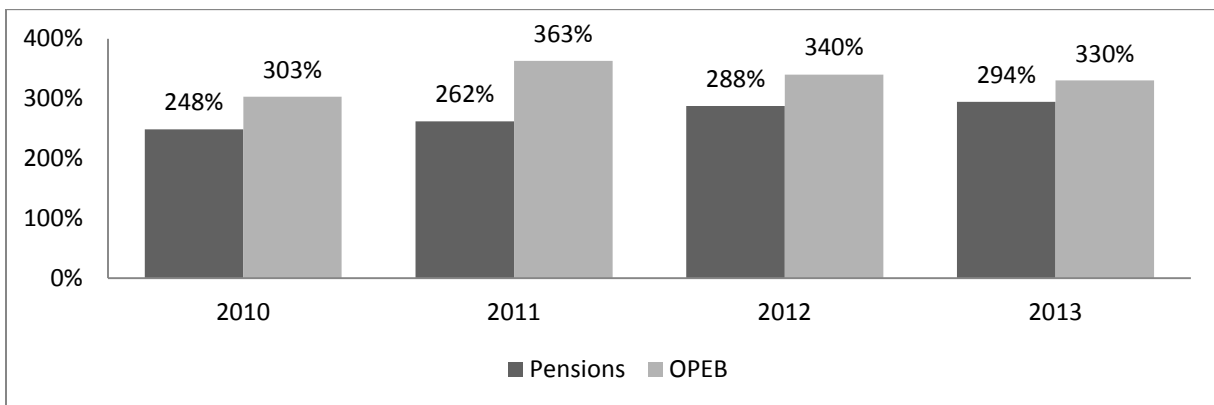
### **3. Covered Payroll Ratio**

The covered payroll ratio is another useful indicator of the health of a benefit plan. This ratio is complementary to the funded ratio. The covered payroll ratio is the unfunded liability divided by the covered payroll (the combined payroll of the active employees covered by the plan). This ratio gives a sense of the magnitude of the unfunded liability. For example, the covered payroll ratio for the City of Newton for pensions is 294% and 340% for retiree healthcare insurance (OPEB). Thus, to catch up with our obligations, the City of Newton would need to contribute an amount equivalent to 294% percent of our annual payroll for pensions and 340% for OPEB. A lower covered payroll ratio is better. There does not appear to be a generally accepted "target" for this ratio.

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

The covered payroll ratio also indicates a City’s ability to make progress in reducing its unfunded liability. A gradual decrease in the unfunded liability as a percent of covered payroll over time would indicate that a reasonable funding strategy is being pursued. If the unfunded liability continues to increase as a percentage of covered payroll, then either a new funding strategy and/or a reduction in the level of benefits granted may need to be considered.<sup>34</sup> The City of Newton’s pension covered payroll ratio increased from 171% in 2004 to 294% in 2013. We only have four years of data for the OPEB covered payroll ratio; it rose from 303% in 2010 to 363% in 2011 but is down to 330% in 2013. See Table 8: City of Newton Pension and OPEB Funded and Covered Payroll Ratios in Appendix 1 for the data.

Chart 6: Pension and OPEB Covered Payroll Ratios, 2010-2013



#### 4. Paying the Annual Required Contribution

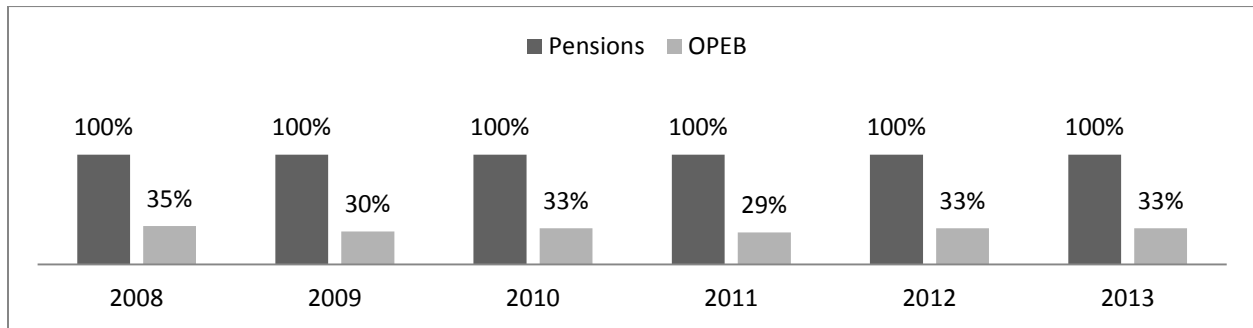
Many experts also look at another indicator to determine the health of a pension or retiree healthcare insurance plan: the extent to which the city or town is paying the annual contribution their actuaries have calculated to meet their pension or OPEB obligations, generally over 30 years. A general standard of health is a city should pay 90% of its annual required contribution (ARC).<sup>35</sup> The City of Newton has consistently paid 100% of the ARC for its pension plan. The City of Newton has never paid 100% of the ARC for retiree healthcare insurance (OPEB), averaging 33% over the past six years. (The way the ARC is calculated includes payments for pay-as-you-go benefits; this explains how the City of Newton has a 33% average for its OPEB ARC.) See Table 9: Percent of ARC Paid in Appendix 1 for the data.

<sup>34</sup> The Civic Federation, “Status of Local Pension Funding Fiscal Year 2011,” May 21, 2013.

<sup>35</sup> Pew Center for the States, “A Widening Gap in Cities: Shortfalls in Funding for Pensions and Retiree Health Care,” January, 2013.

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Chart 7: Percent of Annual Required Contribution (ARC) Paid, 2008-2013



#### 5. Comparing Newton’s Expenditures on Benefits and the Annual Required Contributions to Newton’s General Operating Budget

Another way of assessing the status of Newton’s retiree benefits plans is to compare how much the City of Newton (1) has been putting towards pensions and retiree health and life insurance and (2) how much we should have been putting towards them and then comparing these amounts to the City’s overall general operating budget.

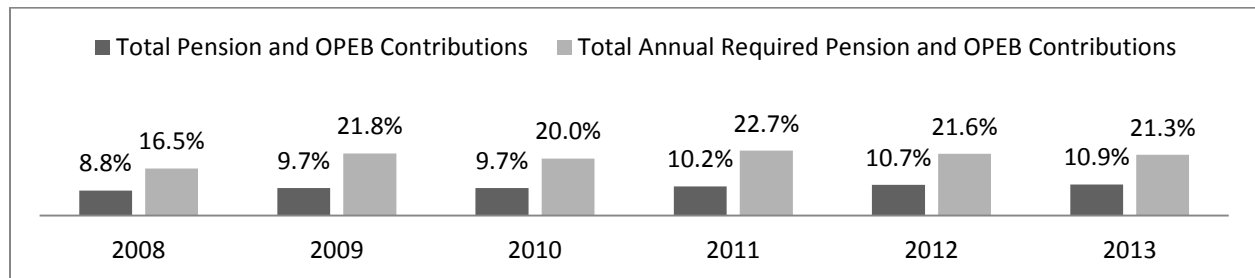
For the most recent year, the City of Newton put the full annual required contribution of \$18.4 million into the pension plan. This represents 5.8% of the City of Newton’s General Operating Fund.<sup>36</sup> The City also paid \$16.3 million for retiree health and life insurance benefits. So, altogether, \$34.7 million goes toward retiree benefits. This represents 10.9% of the City’s General Operating Fund.

But the City of Newton is not contributing the full annual required contribution towards retiree healthcare insurance. If we had been, the total cost would have had to increase to \$67.5 million. That would double the expenditures and would represent 21.3% of the General Operating Fund. To do this would require increasing taxes or decreasing other expenditures. The City of Newton needs to determine what should and can realistically be set aside and over what time period. See Table 10: City of Newton Contributions to the Pension and OPEB Plans, Actual and Annual Required Contribution in Appendix 1.

<sup>36</sup> The credit rating agency, Fitch Ratings, is concerned if pensions require more than 10% of the issuer’s operating budget.

#### IV. The Health of Newton's Pension and Retiree Health Care Insurance (OPEB) Plans

Chart 8: Pensions and OPEB: Current Contributions and Full Annual Required Contributions (ARC) as a Percentage of General Operating Fund, 2008 - 2013



#### B. What Do the Projections Tell Us?

The City of Newton's actuary annually makes a projection about the future contributions that both the City of Newton and employees need to make for both the pension and the retiree healthcare insurance benefit programs. The actuary first projects the future cash outflows for pensions and retiree healthcare insurance benefits. Then those future cash flows are discounted to their actuarial present value. Finally, those actuarial present value costs are allocated over a period that approximates the anticipated years of an average worker's employment with the City of Newton.

Such projections are inherently uncertain and depend on many, many assumptions. Future contingent events cannot be known with certainty. If any assumptions are incorrect, then even an employer like the City of Newton making the full, actuarially recommended payments in its pension plan, may come up short.

For the pension forecast, assumptions are made about the number of employees, length of employment, total payroll, salary increases, employee contribution rates, funding schedule, life expectancy, retirement dates, disability experience, withdrawal rates and investment returns. Similarly, for the post-retirement employee benefits valuation, assumptions are made about the future employee attrition rates, retirements, interest rates, returns on investments and medical cost inflation.

As the actuary warns, it is possible that the actual future pension and OPEB liability of the City will differ, perhaps materially, from the projections. Changes in state law or union contracts could also impact projections significantly.

More detailed information about the assumptions for life expectancy, investment returns, wages and medical costs can be found in Appendices 1, 4 and 9.



#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

The actuary calculates the City’s required contributions to the pension plan for the next thirty-two years and for the retiree health insurance plan for the next twenty-nine, both based on full funding schedules.<sup>37</sup>

##### **1. Pension Projections**

The City of Newton employer pension contribution is expected to increase during the next 24 years until the unfunded liabilities are completely paid off in June, 2037 or 2038. At that point, only the “normal cost” (the present value of the future benefits earned that year by the current employees) will remain. The total FY2013 pension contribution represents 22.1% of payroll. This decreases to 18.3% in the year the unfunded liabilities are fully paid off, leaving only a “normal cost” of 2.0% thereafter. The decrease in the contribution as a percentage of payroll is a result of the increase in employee contributions. While there is a projected increase of 8.7% in employee contributions next year, after that the annual percent increases are generally between 3% to 3.9%. This is in line with the projected increases in property tax revenues.

##### **2. Retiree Healthcare Insurance (OPEB) Projections**

The projection of City of Newton contributions for retiree healthcare insurance is done for both the normal cost and the annual required contribution.<sup>38</sup> (The City of Newton, as discussed earlier, currently does not pay the full annual required contribution for OPEB but instead only the normal cost.) The projection shows annual percent increases in the normal cost generally between 4.8% to 5.1% and in the annual required contribution of 5.0% to 5.6%. These annual percentage increases are higher than the projected increases in property tax revenues.

##### **3. Combined Pension and Retiree Healthcare Insurance (OPEB) Projections**

The projections for the combination of the annual required contribution for pensions and retiree healthcare insurance (OPEB) benefits reveal the financial challenge that the City of Newton faces. If the City’s revenues increase at the historical rate of 3.5%, the retiree benefits will consume an increasingly large proportion of total City funds. In 2014, the benefits (if fully funded) would require 21% of total revenues. By 2037, this increases to 29%. Once the unfunded liabilities from the pension are fully funded, the percentage begins to drop, but it is still at the 26% level in 2043. See Table 11: Projections for City of Newton Pension Expenditures and Table 12: Projections for City of Newton Retiree Healthcare Insurance (OPEB) Expenditures in Appendix 1.

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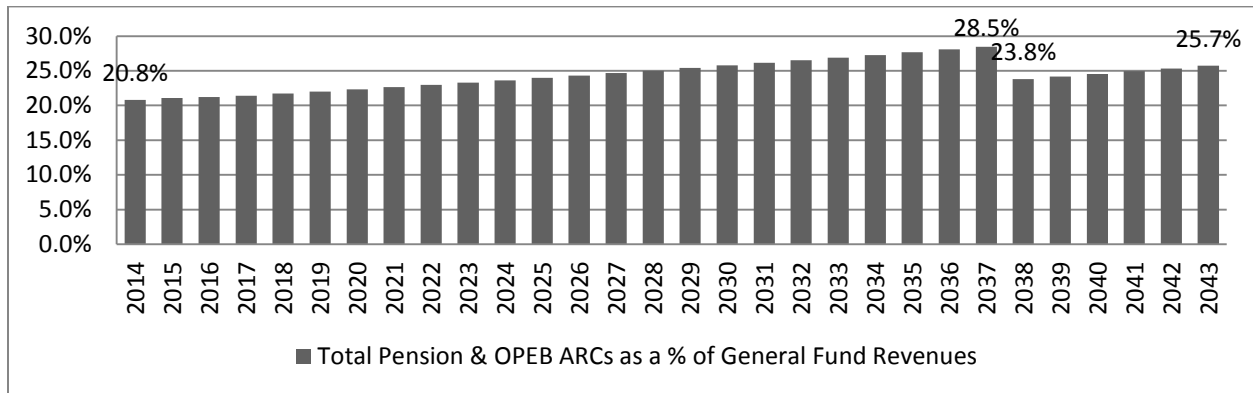
<sup>37</sup> For pensions, the actuary uses the adopted schedule of full funding by 2038. It also is based on an “open group” method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2034 as members contributing base percentages 5%, 7% and 8% are replaced by new members whose base contribution is 9%.

<sup>38</sup> The normal cost is the present value of the future benefits earned that year by *current* (active) employees.

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

The reality may be even more daunting than what is seen in Chart 9. The assumptions behind Chart 9 include the City of Newton paying 100% of the OPEB annual required contribution (ARC); we haven’t been doing that and do not have a funding plan to do so. As described elsewhere, by delaying when we pay the full ARC, the amount increases substantially. Thus, the percentage of the general fund revenues devoted to retiree benefits will be higher than what is depicted in Chart 9 unless and until the City takes further action.

Chart 9: Total Pension and OPEB Annual Required Contribution Projections as a Percent of General Fund Revenues, 2014 – 2043



In the most recent Five Year Financial Forecast for FY2015 – FY2019, the Administration provided projections for additions to the OPEB Trust Fund. From FY2014 on, the Administration is planning on adding approximately an additional \$300,000 over the prior year. With a compound annual growth rate of 51%, this level of funding has a dramatic effect on the balance in the OPEB Trust Fund. But, while growing rapidly, the balance is still only \$8.3 million in FY2019. See Table 13: OPEB Trust Fund Projections in Appendix 1.

When looking at the data in Chart 9, it is important to remember to separate the liability of what we owe to current retirees from that of what we will owe our current employees. As discussed earlier in the report, the majority of the liability is related to what we owe to those who have already retired.

### C. How Does Newton’s Situation Compare to Other Cities and Towns?

#### 1. Pensions

Comparative data on pensions is readily available from both the Public Employee Retirement Administration Commission (PERAC) and the Pioneer Institute. The Pioneer Institute recently took the pension data for Massachusetts cities and towns from 1985 to 2012 available at PERAC and put it in a

#### IV. The Health of Newton's Pension and Retiree Health Care Insurance (OPEB) Plans

database.<sup>39</sup> The pension data for Newton at the PERAC and Pioneer Institute websites does not track precisely with the data from City of Newton sources, but it is very close.

When the Citizen Advisory Group (CAG) did its analysis of Newton's financial situation in 2009, it did a significant amount of benchmarking work. For this primer, we used two of the benchmarking groups that the CAG identified. The CAG had a group of demographically similar communities in Massachusetts which it labeled the "Massachusetts Core Benchmarking Communities."<sup>40</sup> This core group with two additions -- Quincy and Waltham, which help reflect Newton's geographic size and physical complexity -- made up the "Public Safety Benchmarking Communities."

Four types of comparisons are particularly useful for pensions as shown in Table 1: Comparative Pension Data. First, one can compare full funding deadlines. Newton extended its deadline from 2030 to mid-2037. Most other communities in our benchmarking group did not. These communities will have an advantage as earlier funding translates into a lower level of contributions overall. Second, one can compare assumed rates of return. The lower the assumption, the more conservative the funding schedule and the more likely that the expected returns will be achieved. Newton, along with four other communities, has one of the lowest assumed rates of return, 7.75%. Arlington is the only community using a lower rate, 7.5%.<sup>41</sup> Third, one can compare funded ratios. How close is a community to meeting its funding goal? Newton has one of the lower funded ratios. A higher ratio is better.<sup>42</sup> Finally, one can also compare average retiree benefits.<sup>43</sup> Newton has one of the higher average retiree benefit levels. There is an important caveat to these comparisons. The assumptions underlying these ratios make an enormous difference in the numbers. It is not clear that the municipalities use the same assumptions.<sup>44</sup>

The Pioneer Institute went further and gave "grades" to each community based on three criteria as shown in Table 2: Comparative Assessment of Pension Systems. The funded ratio is the first criterion. A better grade is given for a higher ratio, indicating that the assets in the fund are sufficient to cover the

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<sup>39</sup> Go to [masspensions.com](http://masspensions.com).

<sup>40</sup> The cities and towns reflected the essential characteristics of Newton, including population, population density, median household income, commercial tax assessment as a percentage of the total tax assessment, percentage of individuals below the poverty level, public school students as a percentage of the total population, and use of services from the Massachusetts Water Resources Authority (MWRA).

<sup>41</sup> According to the 2012 PERAC Annual Report, in 2003, about half of the retirement systems in Massachusetts used an investment return assumption above 8%. In 2012, there were only twelve such systems and none used an assumption above 8.25%. In 2003, only three systems used an investment return assumption below 8%. In 2012, there were 25 such systems.

<sup>42</sup> As the Pew study on "A Widening Gap in Cities" notes, in comparing funding levels, it can be difficult to determine if the funding levels of different plans are using the same assumptions. Projected investment earnings or expected life span of retirees may vary from city to city as can accounting methods.

<sup>43</sup> Higher average retiree benefits may be the result of either higher wages or employees with longer average service, or both.

<sup>44</sup> Another useful comparison is the unfunded pension liability as a percent of revenues. A lower percentage is better. Newton's ratio for FY2012 is 71.12% with a ranking of 6 out of 8. While we don't have the data for all the comparison communities, here are the available ratios: Newton, 71.12%; Arlington, 75.31%; Belmont, 65.17%; Brookline, 82.17%; Lexington, 19.65%; Natick, 43.39%; Needham, 26.16%; Wellesley, 29.73%. (First SouthWest, "Credit Comparison with Massachusetts Aaa/AAA Rated Communities," September, 2013.)

#### IV. The Health of Newton's Pension and Retiree Health Care Insurance (OPEB) Plans

pensions of present and future retirees. The second is the one year actual investment return compared to the assumed return. A better grade is given when the plan meets its assumed return. The focus on only one year may be a limitation of this criterion. The third is the funding deadline. The sooner a city or town is fully funded is better. The Pioneer Institute also gives a composite grade. Newton received an F, an A, and an F on the individual criteria with a composite grade of D. Only two communities in our benchmarking group received a D with the rest receiving a higher grade.

Another useful benchmarking technique is to compare how cities and towns have structured their funding schedule for pensions as shown in Table 3: Amortization Percentage Increase, Type of Funding Schedule & Pension Funding Deadline. Many of us are familiar with mortgages in which we pay for a home over twenty or thirty years, usually with *level* payments. For pension liabilities, the Commonwealth allows those cities and towns with funding deadlines beyond 2030 to keep payments level or to increase them over time.<sup>45</sup> If the payments increase, city and town Retirement Boards, working with Mayors and Boards of Selectmen and town managers as well as PERAC, decide by what percentage. The amortization of unfunded liabilities is restricted to a maximum of 4%. Level payments or a lower percentage increase is better as it results in lower overall appropriations in total over the funding life. Notably, though, a lower percentage results in higher appropriations in the short term.

When the percentage increase in the amortization schedule is considered along with the year the plan is fully funded (and the assumed rate of return), one can compare how aggressively a city or town is addressing its pension liability. Newton has a relatively low percentage amortization increase of 3.75%, but a relatively long schedule of 2038 for full funding.<sup>46</sup>

There are three different forms of "increasing" amortization funding schedules. An "increasing" percentage means only the amortization of the past service liability is increasing; the normal costs for current employees are not. This is the best funding structure for increasing payment schedules as it is the most conservative, meaning the retirement system is paying more, sooner rather than later. Newton uses this "increasing" schedule with a 3.75% payment increase. Belmont, Needham, Quincy and Waltham use this schedule as well. Those marked "Total Increasing" indicate the percentage increase is applied to the total annual cost (i.e., normal cost plus the amortized unfunded liability). Arlington, Brookline and Framingham use "Total Increasing" schedules. Those marked "Increasing Phase-In" are a hybrid form allowed if the first year increase in total cost would otherwise have been greater than 8%. The percentage represents the ultimate percent increase in the amortization payment after the phase-in period of 8%. Lexington, Natick and Wellesley use "Increasing Phase-In" schedules.<sup>47</sup>

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<sup>45</sup> For retirement systems that kept the 2030 funding schedule, payments can be no less than 95% of the prior year payment.

<sup>46</sup> Newton has a relatively low assumed rate of return compared to other cities and towns. The assumed rate of return is higher than the actual returns in the last few years.

<sup>47</sup> Twenty-two of the 106 contributory pension systems use a phase-in approach and the number of years before the amortization begins varies. Eleven systems use the "total increasing" schedule.

IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Table 1: Comparative Pension Data

	Funding Deadline (Year)	Funding Deadline Rank	Assumed Rate of Return	Assumed Rate of Return Rank	Funded Ratio	Funded Ratio Rank	Average Retiree Benefit	Average Retiree Benefit Rank
<b>CORE MASSACHUSETTS BENCHMARKING COMMUNITIES</b>								
<b>Newton</b>	<b>2038</b>	<b>9/9</b>	<b>7.75%</b>	<b>1 lower, 4 the same,</b>	<b>53.1%</b>	<b>7/9</b>	<b>\$24,600</b>	<b>7/9</b>
Arlington	2032		7.50%		48.4%		\$25,500	
Belmont	2027		7.75%	<b>3 higher</b>	51.3%		\$24,400	
Brookline	2030		7.75%		55.8%		\$27,500	
Framingham	2030		8.00%		67.3%		\$22,200	
Lexington	2030		7.75%		78.3%		\$21,400	
Natick	2030		8.00%		64.0%		\$22,500	
Needham	2030		8.00%		72.9%		\$20,200	
Wellesley	2030		7.75%		75.8%		\$22,600	
<b>PUBLIC SAFETY BENCHMARKING COMMUNITIES</b>								
<b>Newton</b>	<b>2038</b>	<b>10/11</b>	<b>7.75%</b>	<b>1 lower, 4 the same,</b>	<b>53.1%</b>	<b>8/11</b>	<b>\$24,600</b>	<b>7/11</b>
Arlington	2032		7.50%		48.4%		\$25,500	
Belmont	2027		7.75%	<b>5 higher</b>	51.3%		\$24,400	
Brookline	2030		7.75%		55.8%		\$27,500	
Framingham	2030		8.00%		67.3%		\$22,200	
Lexington	2030		7.75%		78.3%		\$21,400	
Natick	2030		8.00%		64.0%		\$22,500	
Needham	2030		8.00%		72.9%		\$20,200	
Quincy	2040		8.00%		47.6%		\$25,300	
Waltham	2031		8.25%		55.8%		\$25,400	
Wellesley	2030		7.75%		75.8%		\$22,600	

Source: Pioneer Institute, MassPensions, July 2013.

IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Table 2: Comparative Assessment of Pension Systems

	Funded Ratio (1)	Investment Returns (2)	Funding Deadline (3)	Composite Grade
<b>CORE MASSACHUSETTS BENCHMARKING COMMUNITIES</b>				
<b>Newton</b>	<b>F</b>	<b>A</b>	<b>F</b>	<b>D</b>
Arlington	F	A	D	C
Belmont	F	A	C	C
Brookline	F	A	D	C
Framingham	F	A	D	C
Lexington	C	A	D	B
Natick	F	A	D	C
Needham	C	A	D	B
Wellesley	C	A	D	B
<b>PUBLIC SAFETY BENCHMARKING COMMUNITIES</b>				
<b>Newton</b>	<b>F</b>	<b>A</b>	<b>F</b>	<b>D</b>
Arlington	F	A	D	C
Belmont	F	A	C	C
Brookline	F	A	D	C
Framingham	F	A	D	C
Lexington	C	A	D	B
Natick	F	A	D	C
Needham	C	A	D	B
Quincy	F	A	F	D
Waltham	F	A	D	C
Wellesley	C	A	D	B

Source: Pioneer Institute, MassPensions. July 2013.

(1) The level whereby pension fund assets are sufficient to cover promises to present and future retirees

(2) The ability of the Retirement Board to meet its actuarially assumed return (AAR) in the past year. Boards get an A if investment returns exceed their AAR and are penalized by a letter grade for each 100 basis points of underperformance.

(3) The year in which the System will be fully funded according to its funding schedule; An A is given if full funding is projected within 5 years; systems are penalized by a letter grade for each five years of extending the schedule beyond that.

IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

Table 3: Amortization Percentage Increase, Type of Funding Schedule & Pension Funding Deadline

	Amortization Percentage <u>Increase</u>	Amortization Percentage Increase <u>Rank</u>	Type of Funding Schedule <u>Schedule</u>	Type of Funding Schedule Rating	Funding Deadline <u>(Year)</u>	Funding Deadline <u>Rank</u>
<b>CORE MASSACHUSETTS BENCHMARKING COMMUNITIES</b>						
<b>Newton</b>	<b>3.75%</b>	<b>1/9</b>	<b>Increasing</b>	<b>Best</b>	<b>2038</b>	<b>9/9</b>
Arlington	6.00%		Total Increasing		2032	
Belmont	4.50%		Increasing	Best	2027	
Brookline	5.90%		Total Increasing		2030	
Framingham	5.00%		Total Increasing		2030	
Lexington	4.50%		Increasing Phase-In		2030	
Natick	4.00%		Increasing Phase-In		2030	
Needham	4.50%		Increasing	Best	2030	
Wellesley	4.50%		Increasing Phase-In		2030	
<b>PUBLIC SAFETY BENCHMARKING COMMUNITIES</b>						
<b>Newton</b>	<b>3.75%</b>	<b>1/11</b>	<b>Increasing</b>	<b>Best</b>	<b>2038</b>	<b>10/11</b>
Arlington	6.00%		Total Increasing		2032	
Belmont	4.50%		Increasing	Best	2027	
Brookline	5.90%		Total Increasing		2030	
Framingham	5.00%		Total Increasing		2030	
Lexington	4.50%		Increasing Phase-In		2030	
Natick	4.00%		Increasing Phase-In		2030	
Needham	4.50%		Increasing	Best	2030	
Quincy	3.91%		Increasing	Best	2040	
Waltham	4.00%		Increasing	Best	2031	
Wellesley	4.50%		Increasing Phase-In		2030	

Source: PERAC 2012 Annual Report

While not directly comparable to Newton, the statistics for the City of Boston are interesting. Its January 1, 2012 pension actuarial valuation shows \$1.5 billion in unfunded liabilities with a funded ratio of 70.6%, an investment return assumption of 7.75%, and a funding deadline of 2025.

## 2. Retiree Healthcare Insurance (OPEB) Benefits

There is no central database for Massachusetts municipal retiree healthcare insurance (OPEB) benefits. But, each city and town has an annual financial report and most of that data are available. In addition, all municipalities periodically have an actuarial valuation of their Other Post-Employment Benefits. Newton does this valuation annually. Most other cities and towns have them done every two or three years. While Newton posts its annual valuations on its website, requests had to be made to most of the other municipalities for their most recent OPEB actuarial valuations.

#### IV. The Health of Newton’s Pension and Retiree Health Care Insurance (OPEB) Plans

A few cities and towns comparable to Newton have made meaningful investments in OPEB trusts. Wellesley and Needham pay at least 100% of their annual required contribution (ARC) and have funded ratios of 16.7% and 10.9% respectively. In FY2012, Brookline paid 72% of its ARC and had a funded ratio of 6.3% with \$12.8 million in its OPEB Fund. Brookline, however, is using a high discount rate, 7.25%. When looking at comparable municipalities, Newton is not one of the leaders in funding retiree healthcare insurance benefits.<sup>48</sup> At the same time, like Newton, quite a few comparable cities and towns have put few resources into retiree healthcare insurance plans.<sup>49</sup> (While not in the benchmarking group, Wayland stands out as having \$10.2 million in assets in its OPEB Fund and a funded ratio of 26.5% as of January 1, 2013.)<sup>50</sup>

Table 4: Comparative OPEB Data

	Actuarial Value of Assets (millions)			Funded Ratio			Covered Payroll Ratio			Percent of ARC Paid			Discount Rate		
	2011	2012	Rank	2011	2012	Rank	2011	2012	Rank	2011	2012	Rank	2011	2012	Rank
<b>Newton</b>		<b>\$0.3</b>	<b>6/11</b>		<b>0.05%</b>	<b>7/11</b>		<b>340.0%</b>	<b>7/9</b>		<b>33.4%</b>	<b>9/11</b>		<b>2.00%</b>	<b>1/11</b>
Arlington		\$4.3			2.45%			301.1%			54.3%			4.20%	
Belmont		\$1.3			0.67%			441.9%			44.2%			4.50%	
Brookline		\$12.8			6.30%			166.8%			71.6%			7.25%	
Framingham		\$0.0			0.00%			313.0%			42.3%			4.00%	
Lexington	\$2.0			0.65%			na			28.8%			2.5%		
Natick		\$0.0			0.00%			234.9%			32.2%			4.00%	
Needham	\$6.4			10.9%			86.6%			113.0%			8.0%		
Quincy		\$0.0			0.00%			na			42.7%			3.50%	
Waltham		\$0.1			0.02%			794.9%			55.4%			4.00%	
Wellesley		\$21.3			16.7%			132.5%			105.5%			7.50%	

Sources: The most recent Actuarial Valuations and Annual Financial Reports.

<sup>48</sup> As stated earlier, the way the ARC is calculated includes payments of pay-as-you-go benefits; this explains the 33.4% of ARC paid for Newton.

<sup>49</sup> As noted earlier in the report, the funded ratio is a comparison of the actuarial value of the assets to the unfunded liability. (The actuarial value of the assets is divided by the actuarial accrued liability to derive the funded ratio.) This ratio reflects the ability of the pension or OPEB plan to finance the benefits attributable to past service of current and future retirees. A higher funded ratio is better. The covered payroll ratio is the unfunded liability divided by the covered payroll (the combined payroll of the active employees covered by the plan). This ratio gives a sense of the magnitude of the unfunded liability. To catch up with our obligations, the City of Newton would need to contribute an amount equivalent to 340% for OPEB. A lower covered payroll ratio is better.

<sup>50</sup> Another useful comparison is the unfunded OPEB liability as a percent of General Revenues. A lower percentage is better. Newton’s ratio is 185.02% with a ranking of 7 out of 8. While we do not have the data for all the comparison communities, here are the available ratios: Newton, 185.02%; Arlington, 128.12%; Belmont, 200.22%; Brookline, 88.63%; Lexington, 177.98%; Natick, 97.19%; Needham, 41.63%; and, Wellesley, 79.05%. (First SouthWest, “Credit Comparison with Massachusetts Aaa/AAA Rated Communities,” September, 2013.)



#### IV. The Health of Newton's Pension and Retiree Health Care Insurance (OPEB) Plans

While not directly comparable to Newton, the statistics for Boston are interesting. Its June 30, 2011 OPEB actuarial valuation shows \$3.1 billion in unfunded liabilities with a funded ratio of 0.7%. The City's plan under Mayor Menino was to fully fund the pension liability by 2025. Then, these significant annual contributions would be directed to the OPEB trust.

### 3. Overall Health

Credit rating agencies evaluate the credit worthiness of cities and towns whenever the municipality issues bonds. It is an evaluation of the city or town's ability to pay back the debt.

The City of Newton is considered financially strong according to the credit rating agency Moody's Investors Services. In April 2013, the City again received the highest municipal rating of Aaa from Moody's.

While Moody's report noted the "city's improving financial position, conservative forecasting in five-year operating and capital plans and implementation of comprehensive financial policies," the credit agency listed as one of the City's challenges its "high liabilities for OPEB and pension." To quote from the report,

The city contributes to the Newton Contributory Retirement System, a multi-employer cost-sharing plan. The plan was 53.1% funded as of January 1, 2012. The city is required to fully fund its Annual Required Contribution (ARC), which was \$16 million in 2012, representing 4.8% of expenditures. The plan assumes a 7.75% rate of return with a 26 year amortization, and should the rate of return be adjusted downward in the next actuarial valuation, the City's contribution could be increased significantly.

Also, the city currently contributes to its OPEB liability on a pay-as-you-go basis. The city contributed 35% of its Annual OPEB cost in Fiscal Year 2012 representing \$16.6 million, and the city has established an OPEB trust with a current balance of \$430,000. The total Unfunded Actuarially Accrued Liability (UAAL) for OPEB is \$601 million, as of June 30, 2012.

The city's total fixed costs in Fiscal Year 2012, including pension, OPEB, and debt service represented \$48.8 million or 14.7% of expenditures.

Moody's also listed as one of the factors that could make Newton's rating go down, "failure to improve funding status for long-term liabilities over the medium term."

When Moody's gives the City of Newton its highest credit rating, the rating impacts the City's cost of borrowing. As one of the most creditworthy issuers, the City of Newton borrows at a lower cost. Less creditworthy cities and towns have to pay higher rates of interest.

All of Newton's benchmark communities hold the highest rating from credit rating agencies except for Framingham (AA2), Quincy (AA3) and Waltham (AA1).

## **V. CONCLUSION: MOVING FORWARD**

Pension and retiree healthcare insurance systems must be simultaneously secure for retirees and sustainable for taxpayers. The current funding levels and the projections for the City of Newton's pension and retiree healthcare insurance systems indicate that, like those of many other municipalities, they will not be providing sufficiently either security of benefits for employees or financial sustainability for taxpayers.

Funding for pensions and retiree healthcare insurance is done in the context of Newton's other priorities. Newton continues to need to increase spending on capital infrastructure, including school buildings, roads and sidewalks, and water, sewer and storm water systems. Enrollment in the Newton Public Schools continues to grow, creating the need to invest in additional teachers and space. Many services need to be bolstered, including those for senior citizens. The Rainy Day Stabilization Fund has grown substantially but still requires additional funding.

We may be tempted to postpone decisions about retirement benefits. But, the unfunded liabilities for pensions and retiree healthcare costs are already uncomfortably high. The liabilities will continue to rise if we do not set aside enough money ahead of time to pay for these future obligations.

The City of Newton has options. Most likely, there will be no one, single solution. We expect instead a multi-pronged, multi-decade solution. Over these decades and their unknown economic cycles, we will have to find the right balance between expenditures on City services and pre-funding/paying retiree benefits, taxes, and benefit levels. We look forward to the discussion on what approaches to take to ensure security and sustainability for the City of Newton's retiree benefit system.

## APPENDICES

## Appendix 1. Tables

Table 5: City of Newton Pension and OPEB Unfunded Liabilities  
(millions)

Pensions				Retiree Healthcare Insurance (OPEB)				Total Unfunded Liability: Pension & OPEB
Year (as of January 1st)	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Fiscal Year (as of June 30th)	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	
2000	\$256.1	\$201.8	\$54.3	na	na	na	na	na
2001	\$268.7	\$219.1	\$49.6	na	na	na	na	na
2002	\$306.1	\$228.2	\$77.9	na	na	na	na	na
2003	\$338.2	\$227.1	\$111.0	na	na	na	na	na
2004	\$350.7	\$233.9	\$116.8	na	na	na	na	na
2005	\$361.1	\$244.3	\$116.8	na	na	na	na	na
2006	\$382.7	\$254.4	\$129.3	na	na	na	na	na
2007	\$402.3	\$265.7	\$136.6	2006-07	\$392.7	\$0.0	\$392.7	\$529.3
2008	\$419.0	\$281.1	\$137.9	2007-08	\$433.0	\$0.0	\$433.0	\$570.9
2009	\$443.0	\$252.1	\$190.9	2008-09	\$595.7	\$0.0	\$595.7	\$786.6
2010	\$462.1	\$254.0	\$208.1	2009-10	\$531.7	\$0.0	\$531.7	\$739.8
2011	\$473.1	\$260.2	\$212.9	2010-11	\$639.1	\$0.1	\$639.0	\$851.9
2012	\$493.2	\$262.1	\$231.1	2011-12	\$601.3	\$0.3	\$601.0	\$832.1
2013	\$512.4	268.1	\$244.3	2012-13	\$602.3	\$0.5	\$601.8	\$846.1

Note: The City of Newton was only required to provide financial information on the retiree health and life insurance (OPEB) plan starting in 2007. There is no financial information prior to that year.

Table 6: City of Newton Pension Trust Fund  
Statement of Changes in Net Assets  
(millions)

	<u>As of</u> <u>12/31/10</u>	<u>As of</u> <u>12/31/11</u>
ADDITIONS		
Contributions:		
Employer	\$15.1	\$16.3
Plan member	\$7.7	\$7.7
Other	<u>\$0.0</u>	<u>\$0.0</u>
Total contributions	\$22.8	\$24.1
Net investment income:		
Net appreciation/(depreciation) in fair value of investments	\$21.0	-\$5.7
Interest	<u>\$7.6</u>	<u>\$7.5</u>
Total investment income (loss)	\$28.7	\$1.7
Less investment expense	<u>-\$1.1</u>	<u>-\$1.2</u>
Net investment income (loss)	\$27.6	\$0.5
Intergovernmental	\$0.3	\$1.1
Transfers from other systems	<u>\$1.0</u>	<u>\$0.8</u>
TOTAL ADDITIONS	\$51.6	\$26.4
DEDUCTIONS		
Retirement benefits	\$30.2	\$31.9
Refunds of contributions & transfers to other systems	\$2.3	\$2.3
Administration expense	<u>\$0.3</u>	<u>\$0.3</u>
TOTAL DEDUCTIONS	\$32.8	\$34.4
CHANGE IN NET ASSETS	\$18.8	-\$8.0
NET ASSETS AT BEGINNING OF YEAR	\$222.6	\$241.4
NET ASSETS AT END OF YEAR	\$241.4	\$233.3

Source: City of Newton Comprehensive Annual Financial Reports

Note: Amounts are rounded

Appendix 1. Tables

Table 7: City of Newton, OPEB Funded Ratio, 2007-2013

Fiscal Year (as of June 30th)	Funded Ratio
2006-07	0.00%
2007-08	0.00%
2008-09	0.00%
2009-10	0.00%
2010-11	0.02%
2011-12	0.05%
2012-13	0.09%

Source: OPEB Actuarial Valuations

Table 8: City of Newton Pension and OPEB Funded and Covered Payroll Ratios, 2004 – 2013

Pensions			OPEB		
Year (as of January 1st)	Funded Ratio	Covered Payroll Ratio	Fiscal Year (as of June 30th)	Funded Ratio	Covered Payroll Ratio
2004	66.7%	171.0%	2003-04	na	na
2005	67.6%	168.0%	2004-05	na	na
2006	66.2%	181.4%	2005-06	na	na
2007	66.1%	184.0%	2006-07	0.00%	na
2008	67.1%	174.1%	2007-08	0.00%	na
2009	56.9%	232.8%	2008-09	0.00%	na
2010	55.0%	248.2%	2009-10	0.00%	303%
2011	55.0%	261.7%	2010-11	0.00%	363%
2012	53.1%	287.7%	2011-12	0.05%	340%
2013	52.3%	294.4%	2012-13	0.09%	330%

Source: Actuarial Valuations

Appendix 1. Tables

Table 9: Percent of Annual Required Contribution (ARC) Paid, 2008 - 2013

Year	Pensions	OPEB
2008	100%	35%
2009	100%	30%
2010	100%	33%
2011	100%	29%
2012	100%	33%
2013	100%	33%

Note: The way the ARC is calculated includes pay-as-you-go contributions.

Table 10: City of Newton Contributions to the Pension and OPEB Plans, Actual and Annual Required Contribution

Pension				OPEB			
Year (as of January 1st)	City of Newton Pension Contributions	Annual Required Contributions to Pension System (millions)	Percentage of Annual Required Contribution Contributed	Fiscal Year (as of June 30th)	Post Retirement Health & Life Insurance Contributions (OPEB) (millions)	Annual Required Contributions to OPEB (millions)*	Percentage of Annual Required Contribution Contributed
2008	\$11.6	\$11.6	100.0%	2007-08	\$13.4	\$35.4	37.9%
2009	\$12.7	\$12.7	100.0%	2008-09	\$14.1	\$47.6	29.6%
2010	\$13.4	\$13.4	100.0%	2009-10	\$14.8	\$44.8	33.0%
2011	\$14.8	\$14.8	100.0%	2010-11	\$15.3	\$52.2	29.3%
2012	\$16.1	\$16.1	100.0%	2011-12	\$16.6	\$49.8	33.3%
2013	\$18.4	\$18.4	100.0%	2012-13	\$16.3	\$49.1	33.2%

\* Unfunded discount rate used. 4% in FY2007-08, 3.75% in FY2008-09, and 2% for other years.

Appendix 1. Tables

Table 11: Projections for City of Newton Pension Expenditures

Calendar Year Ending	Normal Cost - City of Newton Contributions for Current Employees (millions)	Amortization Payment - City of Newton Contributions to Amortize Accrued Liability (millions)	Annual Required Contribution - City of Newton Total Contributions (millions)	% Increase Annually of Annual Required Contribution	City of Newton Total Cost as a % of Covered Payroll	Funded Ratio (%)
2014	\$3.4	\$15.0	\$18.4	8.7%	22.2%	52.3
2015	\$3.4	\$16.5	\$20.0	3.5%	23.1%	53.0
2016	\$3.5	\$17.2	\$20.7	2.9%	22.8%	53.8
2017	\$3.6	\$17.8	\$21.3	3.8%	22.5%	54.6
2018	\$3.6	\$18.5	\$22.1	3.2%	22.4%	55.4
2019	\$3.7	\$19.2	\$22.8	3.5%	22.1%	56.3
2020	\$3.7	\$19.9	\$23.6	3.4%	21.8%	57.3
2021	\$3.8	\$20.6	\$24.4	3.3%	21.6%	58.4
2022	\$3.8	\$21.4	\$25.2	3.6%	21.4%	59.7
2023	\$3.9	\$22.2	\$26.1	3.4%	21.2%	61.0
2024	\$3.9	\$23.0	\$27.0	3.3%	20.9%	62.5
2025	\$4.0	\$23.9	\$27.9	3.2%	20.7%	64.2
2026	\$4.0	\$24.8	\$28.8	3.5%	20.5%	66.1
2027	\$4.0	\$25.7	\$29.8	3.0%	20.3%	68.1
2028	\$4.1	\$26.7	\$30.7	3.6%	20.0%	70.3
2029	\$4.1	\$27.7	\$31.8	3.1%	19.8%	72.6
2030	\$4.1	\$28.7	\$32.8	3.4%	19.5%	75.2
2031	\$4.1	\$29.8	\$33.9	3.2%	19.3%	77.9
2032	\$4.1	\$30.9	\$35.0	3.4%	19.1%	80.7
2033	\$4.1	\$32.0	\$36.2	3.3%	18.9%	83.7
2034	\$4.1	\$33.3	\$37.4	3.7%	18.7%	86.8
2035	\$4.3	\$34.5	\$38.8	3.9%	18.6%	90.0
2036	\$4.5	\$35.8	\$40.3	3.7%	18.4%	93.3
2037	\$4.7	\$37.2	\$41.8	-88.3%	18.3%	96.7
2038	\$4.9	\$0.0	\$4.9	4.1%	2.1%	100.0
2039	\$5.1	\$0.0	\$5.1	3.9%	2.0%	100.0
2040	\$5.3	\$0.0	\$5.3	5.7%	2.0%	100.0
2041	\$5.6	\$0.0	\$5.6	3.6%	2.1%	100.0
2042	\$5.8	\$0.0	\$5.8	5.2%	2.0%	100.0
2043	\$6.1	\$0.0	\$6.1	3.3%	2.1%	100.0
2044	\$6.3	\$0.0	\$6.3	4.8%	2.0%	100.0
2045	\$6.6	\$0.0	\$6.6	-100.0%	2.0%	100.0

Source: City of Newton Actuarial Valuation Report Contributory Retirement System, January 1, 2013.

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Table 12: Projections for City of Newton Retiree Healthcare Insurance (OPEB) Expenditures

Fiscal Year Ending in	Normal Cost - City of Newton Contributions for Current Employees (millions)	Amortization Payment - City of Newton Contributions to Amortize Accrued Liability (millions)	Annual Required Contribution - City of Newton Total Contributions (millions)	% Increase Annually of Normal Cost	% Increase Annually of Annual Required Contribution
2013	\$18.8	\$30.2	\$49.1		
2014	\$19.8	\$30.7	\$50.5	5.3%	2.9%
2015	\$20.8	\$31.5	\$52.3	5.1%	3.6%
2016	\$21.8	\$32.7	\$54.5	4.8%	4.2%
2017	\$22.9	\$34.3	\$57.2	5.0%	5.0%
2018	\$24.0	\$36.4	\$60.4	4.8%	5.6%
2019	\$25.2	\$38.5	\$63.8	5.0%	5.6%
2020	\$26.5	\$40.8	\$67.3	5.2%	5.5%
2021	\$27.8	\$43.2	\$71.0	4.9%	5.5%
2022	\$29.2	\$45.7	\$75.0	5.0%	5.6%
2023	\$30.7	\$48.4	\$79.1	5.1%	5.5%
2024	\$32.2	\$51.2	\$83.4	4.9%	5.4%
2025	\$33.8	\$54.2	\$88.0	5.0%	5.5%
2026	\$35.5	\$57.3	\$92.8	5.0%	5.5%
2027	\$37.3	\$60.6	\$97.9	5.1%	5.5%
2028	\$39.1	\$64.2	\$103.3	4.8%	5.5%
2029	\$41.1	\$67.9	\$109.1	5.1%	5.6%
2030	\$43.2	\$71.9	\$115.1	5.1%	5.5%
2031	\$45.3	\$76.1	\$121.4	4.9%	5.5%
2032	\$47.6	\$80.5	\$128.0	5.1%	5.4%
2033	\$50.0	\$85.0	\$135.0	5.0%	5.5%
2034	\$52.5	\$89.8	\$142.3	5.0%	5.4%
2035	\$55.1	\$94.8	\$149.9	5.0%	5.3%
2036	\$57.8	\$100.0	\$157.9	4.9%	5.3%
2037	\$60.7	\$105.5	\$166.2	5.0%	5.3%
2038	\$63.8	\$111.1	\$174.9	5.1%	5.2%
2039	\$67.0	\$117.1	\$184.0	5.0%	5.2%
2040	\$70.3	\$123.2	\$193.5	4.9%	5.2%
2041	\$73.8	\$129.6	\$203.4	5.0%	5.1%
2042	\$77.5	\$136.3	\$213.9	5.0%	5.2%
2043	\$81.40	\$143.40	\$224.80	5.0%	5.1%

Source: City of Newton OPEB Actuarial Valuation Report, June 30, 2013.



Appendix 1. Tables

Table 13: OPEB Trust Fund Projections

	FY11 Actual	FY12 Actual	FY13 Actual	FY14 Budget	FY15 Forecast	FY16 Forecast	FY17 Forecast	FY18 Forecast	FY 19 Forecast
Annual Appropriation	\$137,000	\$175,000	\$197,838	\$545,000	\$845,000	\$1,145,000	\$1,445,000	\$1,745,000	\$2,045,000
Increase Over Prior Fiscal Year		\$38,000	\$22,838	\$347,162	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
OPEB Trust Fund Balance	\$137,000	\$312,000	\$509,838	\$1,054,838	\$1,899,838	\$3,044,838	\$4,489,838	\$6,234,838	\$8,279,838

Source: City of Newton Mayor's Office, November 2013

Table 14: Projected Medical Cost Trends

	2012 Forecast	2013 Forecast
2013	1.53%	1.57%
2014	3.05%	2.67%
2015	4.6%	3.76%
2016	6.1%	4.86%
2017	6.1%	5.96%
2018	6.0%	5.93%
2019	6.0%	5.91%
2020	6.0%	5.89%
2025	5.8%	5.78%
2030	6.0%	5.81%
2040	5.3%	5.19%
2050	5.0%	5.00%
2060	4.9%	4.83%
2070	4.8%	4.35%
2080	4.4%	4.35%
2085+	4.2%	na

Source: OPEB Actuarial Valuations, 2012 and 2013

Appendix 1. Tables

Table 15: Annual Returns, City of Newton Pension System and Massachusetts Pension Reserves Investment Trust (PRIT) Fund

Year	Newton Return	PRIT Return
1985	22.47%	22.76
1986	14.33%	19.94
1987	<b>-3.83%</b>	3.25
1988	13.60%	13.43
1989	16.02%	17.9
1990	<b>-4.57%</b>	-2.27
1991	22.80%	14.69
1992	8.23%	4.77
1993	15.08%	16.31
1994	<b>-1.46%</b>	0.41
1995	24.71%	24.13
1996	13.52%	16.85
1997	21.62%	18.43
1998	12.81%	14.84
1999	18.03%	23.25
2000	2.11%	-1.20
2001	<b>-4.51%</b>	-5.33
2002	<b>-9.31%</b>	-8.98
2003	20.33%	26.42
2004	12.66%	14.44
2005	6.70%	12.72
2006	12.53%	16.72
2007	10.91%	11.90
2008	<b>-27.72%</b>	-29.50
2009	16.03%	17.55
2010	12.59%	13.55
2011	0.58%	0.18
2012	14.15%	13.87

Average of all 28 years      9.3%      10.4%  
 Average of last 10 years      7.9%      9.8%  
 Average of last 5 years      3.1%      3.1%

Note: Effective July 1, 2007, Newton's pension system assets, except those in two real estate limited partnerships, were transferred for management to PRIT.

Appendix 1. Tables

Table 16: City of Newton Pension Participants

	<u>Actives</u>	<u>Retirees and Beneficiaries</u>	<u>Inactives</u>	<u>Disabled</u>	<u>Total</u>	<u>Actives as a Percent of Total</u>
2013	1616	1162	547	156	3481	46.4%
2012	1610	1164	561	155	3490	46.1%
2011	1669	1156	574	156	3555	46.9%
2010	1759	1146	533	153	3591	49.0%
2009	1740	1134	562	147	3583	48.6%
2008	1764	1143	591	149	3647	48.4%
2007	1682	1143	598	156	3579	47.0%
2006	1666	1163	561	154	3544	47.0%
2005	1759	1134	523	148	3564	49.4%

Table 17: City of Newton Net OPEB Obligation  
(millions)

	<u>FY 2009-10</u>	<u>FY 2010-11</u>	<u>FY 2011-12</u>
Net OPEB Obligation - beginning of year	\$54.9	\$83.5	\$118.1
Annual OPEB Cost	\$43.4	\$49.9	\$46.4
Contributions during the year	\$14.8	\$15.3	\$16.6
Net OPEB Obligation - end of year	\$83.5	\$118.1	\$147.9

Note: Unfunded discount rate of 2%

Table 18: Schedule of City of Newton  
Employer OPEB Contributions, Pay-As-You-Go vs. Pre-Funding

Fiscal Year Ending in	Total City of Newton Annual Required Contribution (ARC)		
	Pay-As-You-Go (2% discount rate) (millions)	Pre-Funding (7.75% discount rate) (millions)	Annual Savings from Pre-Funding (2) - (3) (millions)
2012	\$49.8	\$27.6	\$22.2
2013	\$50.8	\$27.9	\$22.9
2014	\$52.4	\$28.5	\$23.9
2015	\$54.4	\$29.4	\$25.0
2016	\$57.0	\$30.8	\$26.2
2017	\$60.2	\$32.6	\$27.6
2018	\$63.6	\$34.5	\$29.1
2019	\$67.1	\$36.6	\$30.5
2020	\$70.9	\$38.7	\$32.2
2021	\$74.8	\$40.9	\$33.9
2022	\$78.9	\$43.3	\$35.6
2023	\$83.3	\$45.8	\$37.5
2024	\$87.9	\$48.4	\$39.5
2025	\$92.7	\$51.2	\$41.5
2026	\$97.8	\$54.1	\$43.7
2027	\$103.3	\$57.3	\$46.0
2028	\$109.1	\$60.6	\$48.5
2029	\$115.2	\$64.2	\$51.0
2030	\$121.7	\$67.9	\$53.8
2031	\$128.5	\$71.9	\$56.6
2032	\$135.6	\$76.0	\$59.6
2033	\$143.2	\$80.4	\$62.8
2034	\$151.1	\$85.1	\$66.0
2035	\$159.5	\$89.8	\$69.7
2036	\$168.3	\$95.1	\$73.2
2037	\$177.3	\$100.3	\$77.0
2038	\$186.7	\$105.8	\$80.9
2039	\$196.6	\$111.4	\$85.2
2040	\$206.8	\$117.4	\$89.4
2041	\$217.6	\$123.6	\$94.0
2042	\$228.9	\$130.0	\$98.9
Cumulative Savings	\$1,583.9		

Source: Actuarial Valuation 2012

Appendix 1. Tables

Table 19: City of Newton Contributions to the Pension and OPEB Plans,  
Actual and Required, as a Percent of the General Fund

Fiscal Year (as of June 30th)	Total Annual Required			2008	Total Pension and OPEB Contributions	Total Annual Required Pension and OPEB Contributions
	Total Pension and OPEB Contributions (millions)	Pension and OPEB Contributions (millions)	General Fund (millions)			
2007-08	\$25.0	\$47.0	\$285.1	2008	8.8%	16.5%
2008-09	\$26.8	\$60.3	\$277.0	2009	9.7%	21.8%
2009-10	\$28.2	\$58.2	\$291.2	2010	9.7%	20.0%
2010-11	\$30.1	\$67.0	\$295.2	2011	10.2%	22.7%
2011-12	\$32.7	\$65.9	\$304.9	2012	10.7%	21.6%
2012-13	\$34.7	\$67.5	\$317.6	2013	10.9%	21.3%

## Appendix 2. Pension Basics

### A. HOW DOES NEWTON'S PENSION SYSTEM WORK?

#### 1. Who Gets a Pension?

Massachusetts Contributory Retirement System pension benefits are uniform across all cities and towns. In other words, pension benefits for retirees are prescribed by the Commonwealth's laws. The Commonwealth of Massachusetts (Chapter 32 and 32 B of Massachusetts General Law) determines:

- *Who* is eligible for retirement benefits, and
- *What* the benefits must be
- *How much* employees and employers must contribute

Chapter 32 of the Massachusetts General Laws establishes benefits, contribution requirements, and an accounting and funds structure for all systems, including Newton's.

As a result, the City of Newton has almost no discretion in its pension benefits and is very limited in the changes it can make.

Virtually all full-time City of Newton employees – with the important exception of teachers – are *required* to participate in the City of Newton pension system. Only employees who work less than 20 hours per week or earn less than \$5,000 per year are not eligible.<sup>51</sup> The City of Newton and the employee both contribute a certain percentage of the employee's annual salary toward his or her pension. The amount of both the City's and the employee's contribution depends on a number of factors: the "group" or classification of workers the employee belongs to, when the employee was hired and entered the system, and the amount of the employee's salary.

Employee Groups: The Commonwealth's and Newton's retirement system is defined by four different classes of employees.

- Group 1: General employees and elected officials
- Group 2: Employees in specified hazardous duty positions
- Group 3: State police officers (no City of Newton employees are in this group)
- Group 4: Fire fighters, police officers, and some correction officers

Teachers: Teachers have a separate pension system. The Commonwealth of Massachusetts, *not* the City of Newton, is responsible for paying the employer portion of pensions for teachers, certain administrative personnel and other professional employees of the Newton Public School department into the Massachusetts Teachers' Retirement System (MTRS). The Commonwealth also pays the pension benefits. For the fiscal year ended June 30, 2013, the Commonwealth of Massachusetts paid \$32 million

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<sup>51</sup> Employees who are provisional, seasonal, temporary or intermittent and are regularly employed a minimum of 20 hours per week for a period of six consecutive months and earn a minimum of \$5,000 per year must become members of the system at the conclusion of the six-month period. Membership in the pension system is optional for elected officials. The policies governing creditable service can be found in the Retirement section of the City of Newton website under "Membership Eligibility." The City of Newton Retirement Board can promulgate regulations that require an employee to work more than the statutory minimum of 20 hours per week to become a member of the retirement system.

## Appendix 2. Pension Basics

in pension benefits on behalf of the City of Newton participants. To repeat, the City of Newton does not contribute to this pension plan, and, as a result, Newton taxpayers are not directly responsible for teachers' pensions. Newton's teachers contribute a percentage of their annual salary to the Massachusetts Teachers' Retirement System (MTRS) based on the date of hire.

Before January 1, 1975	5%
1/1/1975 - 12/31/1978	7%
1/1/1979 - 12/31/1983	7% plus 2% on earnings over \$30,000/year
1/1/1984 - 6/30/1996	8% plus 2% on earnings over \$30,000/year
7/1/1996 - 4/1/2012	9% plus 2% on earnings over \$30,000/year
4/2/2012	11%

The Massachusetts Teachers' Retirement System is a contributory retirement system governed by the Commonwealth's retirement law, Chapter 32 of the Massachusetts General Laws. The MTRS, which is the largest of the Commonwealth's 106 contributory retirement systems, provides retirement, disability and survivor benefits to Massachusetts teachers, administrators and their families. The MTRS is a defined benefit retirement plan. (See Section 9: What Does it Mean that Newton Has a Defined Benefits Pension Plan? for a full explanation.) Teachers comprise the largest number of employees in the City of Newton. In FY2013, there were 1025 teachers.

Municipal Employees and Non-Teachers in the Newton Public Schools: The City of Newton is responsible for paying the employer portion of pensions of non-teachers who work in the Newton Public Schools -- including custodians, cafeteria workers, teacher aides, and clerical staff -- and for pensions for all other municipal employees. In FY2013, there were 800 non-teachers working in the Newton Public Schools (the largest group being 430 teacher aides) and 890 municipal employees.

Vesting and Eligibility: Employees must meet certain conditions pertaining to how long they have worked for the City (known as length of creditable service) and age in order to be eligible for a pension. These are known as vesting and eligibility requirements. To become vested, an employee needs to have completed at least 10 years of service. In order to receive the pension, the employee must also meet the eligibility requirements: either complete 20 years of service or be 55 years old with at least 10 years of service. For employees who became a member on or after April 1, 2012, the age increases from 55 to age 60 with the same 10 years of service. Normal retirement age for most employees with an unreduced pension benefit occurs at age 65. For certain public safety positions, normal retirement is at age 55. Early retirement is available with 20 years of service with a reduced benefit. Retirement is no longer mandatory at age 70 for general employees; public safety employees do have mandatory retirement at age 65.

### **2. How Many People Are Participating in Newton's Pension System?**

The participants in the City of Newton pension retirement system as of January 1, 2013 include:

## Appendix 2. Pension Basics

1,616	Actives <sup>52</sup>
1,162	Retirees and Beneficiaries
547	Inactives <sup>53</sup>
<u>156</u>	<u>Disabled</u>
3,481	Total

Notably, active employees as a percent of the total have remained quite stable between 2005 and 2013, ranging from 46% to 49%. In other communities, there are fewer active employees and a growing number of retirees and beneficiaries.<sup>54</sup>

**3. How Much Do Employees Contribute?** The contributions of employees toward their pensions depend on when the employee started working for the City of Newton (known as the date of entry). The later the employee entered the pension system, the higher the contribution rate. The contribution rate for new hires has been raised repeatedly so that contribution rates within the system now range from 5% to 12% of pay, depending on the date of hire.

<u>Date of Hire</u>	<u>Contribution Rate to Pensions</u>
Pre-1945	0%
1945-74	5%
1975-78	7%
1979-83	7% + 2 % on portion of salary over \$30,000
1984-96	8% + 2 % on portion of salary over \$30,000
1996-present	9% + 2 % on portion of salary over \$30,000
Teachers who elected "Retirement Plus"	11%
Teachers hired after 7/1/01	11%
State police hired after 7/1/96	12% + 2% on portion of salary over \$30,000

For the future cost of benefits earned by *current* employees, employees have paid 69% of the total and the City paid the other 31%. In other words, Newton's *current* employees contribute significantly to the Contributory Retirement Pension System.)

<sup>52</sup> An active member of the pension plan is making contributions and accumulating assets. In other words, he or she is a current employee.

<sup>53</sup> An inactive member of the pension plan is a person who no longer works for the City, and thus no longer contributes to the retirement system, but has left their contributions in the system. Of the 547 inactive members, only 27 are vested and could receive a future retirement benefit. The remaining 540 inactive members are non-pension benefit eligible and are only entitled to a refund of their retirement account.

<sup>54</sup> The data is in Table 16 in Appendix 1.



**4. How Much Does the City of Newton Contribute?**

As shown in Appendix 1, Table 10: City of Newton Contributions to the Pension and OPEB Plans, Actual and Annual Required, the City of Newton’s contributions have increased from \$11.6 million in 2008 to \$18.4 million in 2013. (The OPEB contributions are the pay-as-you-go contributions.)<sup>55</sup>

**5. How Much Are the Pensions?** (Note: In accounting terminology, the amount of the pension is known as the Retirement Allowance.) An employee’s pension provides a maximum of 80% of his or her salary upon retirement. The salary amount is calculated using a three-year average of the employee’s highest consecutive annual salaries. This is then multiplied by a factor that accounts for the age at retirement, group classification, and years of service. The retirement allowance is paid in monthly payments until the retiree dies. The employee is also offered a few options that adjust the monthly payments in order to provide benefits to the employee’s survivors and other beneficiaries.<sup>56</sup>

For a person who is 65 years old, worked for 20 years, is not a public safety officer or a veteran, and had the three highest years of salaries averaging \$60,000, the employee would receive \$29,000 to \$30,000 a year for the rest of their life. If that same person had worked for 10 years, the payment would be half or approximately between \$14,000 to \$15,000.

Average employee salaries and average retiree pension benefits are reported in financial statements.<sup>57</sup>

Table 20: Average Employee Salaries and Retiree Benefits

	Average Employee Salary	Average Retiree Pension Benefit	Average Retiree Pension Benefit as a % of Average Employee Salary
<b>Newton</b>	<b>\$49,000</b>	<b>\$24,600</b>	<b>50.2</b>
Arlington	\$42,300	\$25,500	60.3
Belmont	\$45,500	\$24,400	53.6
Brookline	\$49,500	\$27,500	55.6
Framingham	\$48,400	\$22,200	45.9
Lexington	\$49,300	\$21,400	43.4
Natick	\$49,400	\$22,500	45.5
Needham	\$45,000	\$20,200	44.9
Wellesley	\$50,700	\$22,600	44.6

Source: Pioneer Institute, MassPensions, July 2013.

Boston.com ran an article a few years ago that listed the top fifty Newton pensions. It listed six former employees with annual pensions over \$100,000, ranging from \$102,300 to \$110,660. Seven people

<sup>55</sup> The City of Newton retirement pension system operates on a calendar year while the retiree healthcare insurance plan operates on a fiscal year.

<sup>56</sup> A pension calculator is available at <http://www.mass.gov/treasury/retirement/retirementestimator/estimate.html>

<sup>57</sup> The average age at retirement and average length of service impacts average retiree pension benefits. Unfortunately, this data is not easily accessible.

## Appendix 2. Pension Basics

received pensions between \$90,000 and \$99,999. Thirteen people received pensions between \$80,000 and \$89,999. Eighteen people fell between \$71,440 and \$79,999.<sup>58</sup> Thirty-five of the fifty people had worked in the Newton Public Schools.

Technically, the retirement allowance consists of two parts – an annuity and a pension. The contributions by an employee that are deducted from the salary are deposited in the employee’s annuity savings fund by the City of Newton Retirement Board. The interest that accrues on these contributions is credited to the employee’s individual account. The annuity is based on the total amount in the employee’s annuity savings account on the date of the employee’s retirement. The pension is the difference between the total retirement allowance or benefit specified by law and the annuity.

Each year, the retirement allowance may be partially adjusted for inflation, otherwise known as the cost of living (COLA) adjustment. The Newton Retirement Board determines the retiree COLA annually pursuant to MGL Chapter 32. This adjustment is calculated only on the first \$12,000 of the retirement allowance, with a maximum of up to 3% or \$360 per year. Because it is not calculated on the total retirement allowance, the purchasing power of the allowance erodes over time if some or most of it does not keep pace with the rise in the cost of living.<sup>59</sup> The Commonwealth also allows for a local option of an additional increase in the \$12,000 COLA base in increments of \$1,000. In other words, the Mayor and the Board of Aldermen can vote to increase the \$12,000 base. The \$12,000 base to which the cost of living adjustment is applied has not been increased at the State level since the late 1990s. Nor has the Mayor and the Board of Aldermen increased it at the local level.

A retiree is limited in the amount of income he or she receives from a pension only if the retiree re-employs in the *public* sector, i.e., in the services of the Commonwealth or any of its counties, cities, towns, districts or authorities. Otherwise, the retiree can be employed and continue to receive the pension from the City of Newton. (A retiree can waive his or her pension or retirement allowance and the limitations on working for a Massachusetts government body would not apply.)<sup>60</sup>

In total, the City of Newton paid \$33.4 million in pension benefits in 2012. From 2007 to 2012, pension benefits have grown at a compound annual growth rate of 4.9%.

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<sup>58</sup> Boston.com, “Top 50 Newton Municipal Pensions.”

<sup>59</sup> The national Consumer Price Index increased annually starting in 2008 by 3.8% (2008), -0.4% (2009), 1.6% (2010), 3.2% (2011), and 2.1% (2012). (U.S. Department of Labor, Bureau of Labor Statistics, “Consumer Price Index, All Urban Consumers, U.S. City Average,” August, 2013) For data specifically on Boston for the last few years, go to [www.bls.gov/ro1/cpibos.pdf](http://www.bls.gov/ro1/cpibos.pdf).

<sup>60</sup> On April 2, 2012, the Massachusetts legislature imposed the following new restrictions for non-disability retirees:

(1) Retired non-disability employees may not work more than 960 hours per calendar year in the MA public sector; AND (2) Retired non-disability employees may not exceed MA public sector earnings based on the following (per calendar year):

Salary would be earning if still working LESS annual gross pension PLUS \$15,000\* = amount of allowable earnings

\*The additional \$15,000 is included in the above formula after the employee has been retired for a 12-month period (retired after 4/1/2011).

NOTE: All Massachusetts public sector earnings received beyond either of the above limitations are refundable in full to the City or Town where employment is based.

Table 21: City of Newton Pension Benefits (millions)

<u>Fiscal Year Ending</u>	
2007	\$26.3
2008	\$27.5
2009	\$29.1
2010	\$30.2
2011	\$31.9
2012	\$33.4

**6. What About Disability Benefits?**

Newton’s Contributory Retirement System includes disability benefits for those who become disabled while in the performance of City duties (accidental disability) and those who become disabled in other circumstances (ordinary disability). As of January 1, 2013, there were 156 disabled people receiving benefits from the City of Newton pension system.

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties. The accidental disability amount is 72% of annual salary plus \$729.84 per year for each child plus an additional annuity based upon accumulated member contributions with credited interest.

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service and be less than age 55. The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55. If the member was a veteran, the benefit is 50% of the member's final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the participant is over age 55, he or she will receive not less than the superannuation (i.e., pension) allowance to which he or she is entitled.

**7. What is the Role of the City of Newton Retirement Board?** The Newton Retirement System is one of 105 contributory retirement systems for public employees in Massachusetts. A Retirement Board governs each system. The Newton Retirement Board has five members. There are two elected members (who must be members-in-service and retirees of the Newton Retirement System), a Mayoral appointee, the Comptroller (a member ex-officio), and a fifth person appointed by the other four members.

The Newton Retirement Contributory Pension System, which administers the pensions, is staffed by two people.

## Appendix 2. Pension Basics

The Newton Retirement Board has two particularly important decision making responsibilities. First, the Board decides the appropriate long-term investment rate of return to use to evaluate the contributions the City of Newton needs to make in order to fund appropriately the pension plan. Second, the Retirement Board determines the eligibility for enhanced pensions, either through disability or higher group classification, based on strict eligibility and procedural requirements of Chapter 32 and also subject to PERAC oversight. Enhanced pensions can result in higher costs and longer payouts. Similarly, the Retirement Board assigns members to specific groups based on the statutory requirement of MBL Ch. 32. Under Ch. 32, the assignment of group classification is dictated by the employee's job title/job duties. The City, not the Retirement Board, determines job titles/job duties.

At the state level, the Public Employee Retirement Administration Commission (PERAC) was created to oversee, guide, monitor, and regulate the Massachusetts Public Pension Systems, including Newton's. PERAC's mission statement includes, "The stewardship of the Trust Funds for the sole purpose of providing the benefits guaranteed to the public employees qualifying under the plans is the fulfillment of the obligation of the people of the Commonwealth to those who have dedicated their professional careers to the service of the people of the Commonwealth."

**8. How Are the Funds in Newton's Pension Plan Invested?** Effective July 1, 2007, the City of Newton transferred all pension system assets, except those in two real estate limited partnerships, to the management of the Commonwealth of Massachusetts Pension Reserve Investment Trust (PRIT) Core Fund. Late in 2012, the Retirement Board liquidated one of the two real estate investments for \$9.6 million.

As of January 1, 2013, Newton's Contributory Retirement Pension System had assets of \$268 million. The PRIT Core Fund is managed by professionals. PRIT's long-term asset allocation as of July 2013 was:

Table 22: PRIT Core Fund Long-Term Asset Allocation

Global Equity	43%
Core Fixed Income	13%
Value-Added Fixed Income	10%
Private Equity	10%
Real Estate	10%
Timber/Natural Resources	4%
<u>Hedge Funds (Net of fees)</u>	<u>10%</u>
TOTAL CORE	100%

Note: The investment returns for the City of Newton Contributory Retirement Pension System and for PRIM can be found in Appendix 1.

## 9. What Does it Mean that Newton Has a Defined Benefits Pension Plan?

By state law, all Massachusetts municipalities have to offer a defined benefit plan. A defined benefit plan specifies the amount of benefits to be provided to the employees when they retire in their pensions and healthcare insurance. It is "defined" in the sense that the benefit is known in advance. In

contrast, defined contribution plans stipulate only the amounts to be contributed by an employer to a plan member's account each year of active employment and do *not* specify the amount of benefits employees will receive at the end of their employment. In a defined benefit plan, the employer (i.e., the City of Newton) bears the investment risk. In other words, if sufficient funds have not been accumulated in the plan to pay for the pensions when an employee retires, then the City of Newton must pay the difference; the retiree is not obligated to pay additional contributions. Conversely, if the returns on the investments are higher than expected and there are surpluses in the plan then the City alone benefits. The employer also bears longevity risk after retirement and some of the inflation risk. In defined contribution plans, employers bear little or no risk; employees bear the risk that investment returns will be insufficient to provide them with adequate retirement benefits. Employees also bear the longevity and inflation risk after retirement. Many private sector employers have shifted from defined benefit to defined contribution plans.

### **10. Do Retirees from the City of Newton Receive Social Security?**

Social Security in the United States is a federal retirement benefits program. In the Social Security system, employers and employees both make contributions of 6.2% of salaries and wages into the retirement system.<sup>61</sup> Throughout a worker's career, the Social Security Administration keeps track of his or her earnings. The amount of the monthly benefit to which the worker is entitled upon retirement depends upon that earnings record and upon the age at which the retiree chooses to begin receiving benefits.<sup>62</sup>

Public employees in Massachusetts, including employees for the City of Newton, are *not* covered by Social Security.<sup>63</sup> Neither the City nor City employees contribute to or receive Social Security. Rather, both the City of Newton and City employees make substantial contributions to their own separate retirement benefits system.

### **B. What Key Changes Have Been Made in State Laws Regarding Pensions?**

Massachusetts made some important changes in pensions in both 2009<sup>64</sup> and 2011. The changes in 2011 mostly affected employees hired on or after April 2, 2012. The minimum retirement age for most public

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<sup>61</sup> The maximum earning subject to the payroll tax is \$113,700 in 2013.

<sup>62</sup> Notably, the U.S. Social Security is a pay-as-you-go plan, rather than a pre-funded plan, hence the concerns about its long-term health. While not formally pre-funded, in the 1980s contribution rates were raised to build up a balance in the trust fund to ensure benefits would be funded.

<sup>63</sup> Some states have public service employees in the Social Security system. Massachusetts has historically opposed Social Security coverage of its public employees. While coverage would eliminate some gaps in insurance protection, Massachusetts government officials have argued that the increased costs to the Commonwealth of joining Social Security would exceed the benefits received. This discrepancy arises because the Social Security system has legacy costs associated with providing benefits to early generations of retirees in excess of what could be financed by their own contributions. That is, while Massachusetts employers and employees would each be required to pay 6.2 percent of payroll to Social Security, only three quarters of that amount would pay for benefits; at least one quarter would go to cover Social Security's legacy costs (i.e., their unfunded liabilities).

<sup>64</sup> The 2009 pension reforms focused on pension abuses. They included (1) eliminating the ability of elected officials to get a full year's credit for as little as one day of service in that year; (2) eliminated the ability of elected

employees at the state and municipal level was increased from 55 to 60. The age of eligibility for a full pension was also increased from 65 to 67 for non-Group 4 (i.e., non police and fire) employees.<sup>65</sup> An employee's pension benefit was changed to be based on their highest five years of earnings, instead of their highest three years. The bill also included "anti-spiking" provisions. For example, an employee who moves into a position with a higher pension at the end of his or her career must be in that position for at least one year in order to qualify for the higher pension.<sup>66</sup>

### **C. What are the Key Changes in Accounting Requirements for Pensions?**

The Governmental Accounting Standards Board (GASB) establishes the standards for state and local governmental accounting and financial reporting. In June 2012, the GASB approved a pair of related Statements, No. 67 and No. 68, which made substantial changes to the accounting and financial reporting of pensions by state and local governments and pension plans. GASB's reforms were intended to improve accounting and financial reporting. More specifically, the changes were intended to provide decision-useful information, support assessments of accountability and interperiod equity, and create additional transparency. The new Statements relate to *accounting and financial reporting* issues only—how pension costs and obligations are measured and reported in audited external financial reports. The Statements do not address how governments approach pension plan *funding*—a government's policy regarding how much money it will contribute to its pension plan each year.

With the new GASB statements, the City of Newton will be required, starting in FY2015, to report the long-term obligation for pension benefits, i.e., the net pension liability, in its "government-wide," or full,

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officials with 20 years of public service to collect early, enhanced pensions if they lose an election or leave office voluntarily; (3) eliminated "out of grade" accidental disability pensions; (4) based normal, superannuation pensions on an employee's highest five years' average salary; (5) calculated accidental disability pensions on the most recent salary which the employee was receiving at the time of his permanently disabling job related injury; (6) limited the definition of "regular compensation" upon which the pension is calculated to wages and salary; (7) eliminated the ability for employees to claim creditable years of service for unpaid positions and required an employee to be paid at least \$5,000 a year in order for the position to count as creditable service; and (8) no longer allowed someone to "retire," begin to collect his or her pension, and then be rehired by the government as an independent contractor.

<sup>65</sup> The Commonwealth's retirement system is defined by four different classes of employees.

Group 1: Officials and general employees

Group 2: Employees with job titles presumably reflecting hazardous duties

Group 3: State police officers

Group 4: Fire fighters, police officers, and some correction officers

<sup>66</sup> The Massachusetts pension reforms did not include a discussion of moving from a defined benefit to defined contribution plan. Rhode Island was the first state in the nation to implement a hybrid plan. According to Commonwealth Magazine, "most state employees will pay 3.5% of their salary into a defined benefit plan and 5% into a defined contribution 401(k)-like vehicle to which the state will contribute another 1%. The state will continue to be responsible for the pension owed under the defined benefit plan, but the employee will be responsible for overseeing his or her own investments in the 401(k)-style account." Gabrielle Gurley, "Rhode Island Red," Commonwealth Magazine, Fall, 2012.

## Appendix 2. Pension Basics

accrual-based financial statements, a section of the Comprehensive Annual Financial Report (CAFR).<sup>67</sup> The pension plan's net position available for paying benefits is to be measured using the same valuation methods that are used by the pension plan for purposes of preparing its financial statements, including measuring investments at fair value.

This is an important change that will more clearly depict the City of Newton's financial position. Newton's financial status will be clearer because the pension liability will be placed on equal footing with the City's other long-term obligations. While this information will give the appearance that the City is financially weaker than it was previously, the financial reality of the City's situation will not have changed. The financial situation will just be more obvious.

The new GASB statements also potentially impact the discount rate for some municipalities. Importantly, the discount rate for Newton is not expected to change. Newton can continue to use a discount rate based on its projected long-term investment returns via PRIT.

To discount projected pension benefit payments to a present value, governments assume a discount rate. The new GASB standard makes it clear that a discount rate of the long-term expected rate of return on the investments should be applied only to available pension plan assets that are expected to be invested using a strategy to achieve that return. Newton is investing its assets with a long-term investment strategy (via PRIM) that is expected to have a long-term rate of return in the 7.75% - 8% range. (More on whether that assumption is still sound is in Appendix 4, Interest Rates, Rates of Return, Discount Rates, Investment Return and Wage Growth Assumptions and Appendix 9, Critical Assumptions in the Projections.)

In addition, the new GASB standards state that a discount rate of the long-term expected rate of return on equity investments can be used to the extent that a pension plan's net position and projected contributions associated with current active and inactive employees, including retirees, is expected to fully cover projected benefit payments for those individuals. Newton's projections show that its plan will fully fund the benefits by 2037. The GASB standards note that if there comes a point in the projections when plan net position and contributions related to active and inactive employees is no longer projected to be greater than or equal to projected benefit payments related to those employees and administrative expenses, then from that point forward a government would be required to discount the projected benefit payments using a lower discount rate, the municipal borrowing rate – a tax-exempt, high-quality 20-year general obligation bond index rate.

Since the City of Newton is fully funding its annual required contribution, has significant assets in its plan, has invested its assets via PRIM in a mix of investments with a projected long-term return of 8%, and is projected to have sufficient funds to pay its pension benefits, the City can continue to use the long-term expected rate of return on the investments.

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<sup>67</sup> The CAFR also includes "government fund" statements (only short-term accruals) which are not affected by GASB 67 and 68.

## **Appendix 3. Retiree Healthcare Insurance (OPEB) Basics**

### **A. Who Gets Retiree Healthcare Insurance (OPEB)?**

Retiree healthcare insurance or Other Post-Employment Benefits (OPEB) is a promise to pay a certain portion of the cost of health insurance after employees retire for the rest of their lifetime (and, per Massachusetts law, their spouses' lifetime).

City of Newton retired employees -- including teachers -- and their spouses and dependents receive healthcare insurance and life insurance, OPEB benefits, after meeting certain eligibility requirements, a vesting period and minimum retirement age.

For Newton employees, the eligibility requirements for receiving retiree healthcare insurance are the same as those for receiving a pension. Thus, virtually all full-time City of Newton employees, including teachers, are eligible if they retire while a City of Newton employee. Generally, to be eligible, an employee needs to have worked for more than 20 hours per week for at least 10 years. There are also age requirements for receiving an unreduced benefit.<sup>68</sup>

Only municipal employees who work 20 hours per week are eligible. In other words, part-time employees do not qualify.

Spouses retain lifetime coverage upon the death of a retiree.

### **B. What Are the Retiree Healthcare Insurance (OPEB) Benefits?**

Qualifying City of Newton retired employees and their spouses receive subsidies for healthcare insurance and life insurance. These are lifetime benefits for both the employee and the spouse of the employee.

Life insurance is optional. For life insurance, the City of Newton offers a flat \$5,000 benefit. Approximately 23% of retirees (1,681 elect coverage while 4,029 do not) elect to pay the associated premiums for life insurance coverage. Retirees and the City of Newton split the cost so each pay 50% of the premium.

Life insurance benefits provided by the City of Newton are fully insured. In other words, the City purchases commercial insurance, rather than self-insuring.

A dental plan is available to retirees but it is not subsidized by the City.

#### **1. What is the Role of the Commonwealth vs. Role of the City of Newton for retiree healthcare insurance (OPEB)?**

Eligibility – both for pensions and healthcare insurance – is largely prescribed by the Commonwealth's laws. The Commonwealth of Massachusetts (Chapter 32 and 32 B of Massachusetts General Law)

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<sup>68</sup> If an employee chooses to retire before age 65, they are eligible for reduced benefits.



### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

establishes eligibility for benefits, minimum employer contribution requirements, and an accounting and funds structure for all systems, including:

- *Who* is eligible for retirement benefits,
- What the *minimum amount of benefits* must be,
- What the *minimum amount of the health care premium* the municipality must pay (currently the Commonwealth requires cities and towns to pay 50%), and
- *What changes to health care plans must be negotiated* with collective bargaining units.

While the City of Newton is very limited in the changes it can make to pension benefits, Massachusetts allows somewhat more flexibility to cities and towns on decisions regarding retiree health insurance (OPEB) benefits. For example, cities and towns negotiate with unions to determine the percent of the health insurance premium that the employer pays for active employees. Currently, the City of Newton pays 70% to 75% of the premium. This is true for current employees and retirees. (As noted above, the minimum amount of the healthcare premium that the municipality must pay under Commonwealth laws is 50%.) Changes to healthcare plan design and contribution rates for retirees do not need to be negotiated via the collective bargaining process.

#### **2. What Key Changes are Proposed in State Laws Regarding Retiree Healthcare Insurance (OPEB)?**

The Commonwealth is currently in the process of considering changes in postemployment healthcare benefits. The Governor is calling for a series of reforms that would change the current structure of these benefits. Patrick is recommending changes in eligibility. An increase of five years in the retirement age and ten years of service is recommended in order for employees to qualify for health insurance upon retirement. Group 1 employees (the vast majority of government workers), for example, would have to be at least 60 years old with 20 years of service to qualify. In order to protect career employees and employees close to retirement, the recommendations include grandfathering and phase-in provisions. The Governor's bill also includes a three-year moratorium on changing municipal retiree contribution rates. After the moratorium, communities would be able to change contribution rates, but not for those who have already retired; their rates would be permanently frozen at the levels they were at the time of retirement.

In response to the proposed legislation, the Massachusetts Municipal Association (MMA), a non-partisan association that advocates for cities and towns, passed a resolution in early 2014 with eight key ideas. To ensure sustainable municipal and school services and sufficient funding for OPEB costs while at the same time providing fair access to quality health care for retired career local government employees, the MMA recommended legislation with provisions that: (1) Increase the minimum age at which former employees become eligible for retiree healthcare benefits by 5 years; (2) Increase the minimum years of service from 10 to 20; (3) Prorate healthcare benefits based on years of service after 20 years with a maximum benefit after 30 years; (4) Exempt already-retired employees from new eligibility and proration requirements; (5) Reduce the impact of the new rules for career employees nearing retirement balanced by the need to control growth in the unfunded OPEB liability within the next 10 years; (6) Retain for cities and towns their authority to make contribution rate changes for all current and future retirees and to control implementation schedules; (7) Do not impose any unfunded

### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

mandates by increasing benefits to individuals who do not currently receive them or by requiring higher municipal contribution rates; and (8) Continue to allow pro-rating of part-time service based on the number of hours worked to determine eligibility for retiree health benefits.<sup>69</sup>

#### **3. What Is the Role of Unions and Collective Bargaining with Respect to Retiree Healthcare Insurance?**

In Massachusetts, city and town employees – other than managerial and confidential employees – are entitled to join unions and to bargain collectively on wages, hours, and other terms and conditions of employment.

The City of Newton has seventeen unions -- seven school and ten non-school. Collective bargaining agreements cannot exceed three years. The current contracts expire on June 30, 2014 with the exception of the Teachers' contract which expires two months later, on August 30, 2014.

For the fiscal year ending June 30, 2012, the City of Newton employed approximately 2,519 full time employees. Of these, 1,202 were employed by the Newton Public Schools. Approximately 2,219 full time employees are represented by the seventeen unions (88% of all full time employees).

As stated earlier, the Commonwealth's laws specify what changes to retirement benefits must be negotiated with collective bargaining units. Specifically, changes to healthcare plan design and contribution rates for *current* employees must be accomplished through the collective bargaining process. As a result of the last contract negotiations in 2011, the City instituted annual deductibles and increased the co-pays for health insurance for current employees. Changes were also made to the amount of the premium that the City would pay. The City pays between 70% and 80% of the premium, depending on the union and the date of hire. (See below for more information on these changes.) The contracts were designed to keep the total annual increase in salaries/wages and healthcare benefits to not more than 2.5% per year for Fiscal Years 2012, 2013 and 2014. Once these employees retire, these contribution rates will carry over into their retirement years. But, changes to healthcare design and contribution rates for retirees do not need to be negotiated via the collective bargaining process.

#### **4. What is the Role of Medicare?**

Health insurance for retirees—whether they retired from the public or private sector -- is heavily influenced and subsidized by the federal government through Medicare. Starting in 2009, both the Commonwealth and the City of Newton officially required people age 65 and older to go on Medicare if they are eligible.<sup>70</sup> Since retirees from the City of Newton who are eligible for Medicare must enroll in

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<sup>69</sup> Source: Massachusetts Municipal Association, "Resolutions," *TheBeacon*, January, 2014.

<sup>70</sup> In 2009, the City of Newton adopted Massachusetts General Law (M.G.L.) c32B section 18 which requires all eligible Municipal retirees to enroll in Medicare. This law requires all retirees who are eligible for Medicare Part A (Hospital Insurance) to also enroll in Medicare Part B (Outpatient Medical Insurance). Since December 2009, the City has notified retirees that they are required to enroll in Medicare or provide proof in the form of a letter from the local Social Security Office indicating that they have not paid into Medicare for the required ten years and therefore are not eligible.

### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

the program, the City becomes the second payer.<sup>71</sup> As a result, the per person health insurance costs for the City of Newton for retirees on Medicare is significantly less than the per person health insurance costs for the City for current employees.<sup>72</sup> For a retiree who is on Medicare, the cost to the City is \$4,767 while for a retiree who is too young to qualify for Medicare, the cost to the City is \$19,548.

Medicare requires retirees to pay a premium each month for Medicare Part B to cover outpatient medical insurance. The City pays 80% of the Medicare Part B premium, with the amount being capped at \$925 per year. This flat amount of \$925 does not increase when the Medicare Part B premium increases.

When the City of Newton adopted M.G.L. c32B section 18 in 2009, the statute also allowed the City to enroll retirees in health insurance plans that supplement Medicare coverage, reducing coverage costs for both the City and the retiree. Since Medicare Part B does not pay all of a covered person's medical costs, many retirees buy supplemental healthcare insurance. The City of Newton also pays 80% of any supplemental healthcare insurance. The City is *not* required to pay this 80% for supplemental healthcare insurance but has agreed to do so. The Commonwealth of Massachusetts only requires cities and towns to pay 50% of the Medicare Part B premium.

Under the Commonwealth's retiree health insurance laws, retirees not eligible for Medicare, or too young for Medicare, receive health insurance benefits as though they were current, active employees.

The City of Newton is a single-employer health insurance plan. In other words, we have our own health insurance plans. In contrast, other cities and towns have joined a cost-sharing multiple-employer plan that the Commonwealth of Massachusetts offers called the Group Insurance Commission (GIC).

For health insurance, active employees have a choice among the Harvard Pilgrim, Tufts-EPO and Tufts-POS Preferred Advantage plans while retirees not on Medicare can access these 3 "Legacy" plans as well as the "Advantage" plans. Most retirees on Medicare are in the Tufts Medicare Complement Plan.<sup>73</sup>

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<sup>71</sup> If a person is on Medicare and also has other health insurance, each type of coverage is a "payer." When there is more than one payer, coordination of benefits rules decide which pays first. Medicare is the "primary payer" and pays up to the limits of its coverage first. Medicare then sends the rest of the bill to the "secondary payer" to pay any remaining amount. The City of Newton is the secondary payer. The secondary payer only pays up to the limits of its coverage.

<sup>72</sup> For example, the monthly cost for a Tufts individual plan for a current employee ranges from \$125 to \$185 while a similar one for a retiree on Medicare ranges from \$45 to \$83.

<sup>73</sup> The City has several wellness programs in place that can help employees. As wellness improves, the absolute cost of health care is also reduced. The City continues to look for more opportunities to improve wellness. Recently, the City launched a new health and wellness initiative, Wellcoin. Beginning May 30, 2013, Newton became the first Model City for Wellcoin, Inc. Users who register for the free Wellcoin website or mobile apps can earn Wellcoins – a virtual currency – for undertaking a wide range of healthy activities. The company, in turn, partners with local businesses and, in Newton's case, municipal departments, to offer opportunities to both earn Wellcoins and redeem them for rewards.

### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

Both the Legacy and Advantage plans are self insured. (Self insured means that the City of Newton pays all the underlying costs.) Tufts Medicare Preferred and Medicare HMO Blue are fully insured. (Fully insured means that the City buys commercial insurance to pay for these costs.)

#### C. How Many People Are Participating in Newton’s Retiree Healthcare Insurance (OPEB) Plan?

The number of people generating a health insurance liability was 5,556 as of August 20, 2012. (While Newton’s pension system does *not* include teachers, Newton’s retiree healthcare insurance (OPEB) system does; as a result, there are more people in Newton’s retiree health insurance (OPEB) system.) There are 3,397 retirees currently receiving retiree medical insurance and another 2,367 active employees who will be eligible to receive health insurance when they retire.

Table 23: Participants in Newton’s Retiree Healthcare Insurance (OPEB) Program

Active Employees	
General	1,995
Uniformed	<u>322</u>
	2,317*
Retirees	
Under 65 years of age & Pre-Medicare	301
Age 65+, not on Medicare	164
Age 65+, on Medicare	<u>2,932</u>
	3,397
Total	5,714

\*Note: Approximately 100% elect to continue post-retirement medical insurance benefits and pay the associated premiums) while 4,029 have *not* elected life insurance (i.e., approximately 23% elect to have life insurance benefits and pay the associated premiums).

As of June 30, 2013

Newton currently has 164 retirees who are age 65+ but are not on Medicare. Employees who were hired on or after April 1, 1986 were required to pay 1.45% Medicare tax. However, those employed before that date were not and are therefore are not eligible for Medicare. Through attrition, the number of Medicare-ineligible retirees is slowly decreasing each year.<sup>74</sup>

#### D. Can Changes Be Made to Retiree Healthcare Insurance (OPEB) Benefits?

In general, many courts consider pension benefits to be a protected right.<sup>75</sup> In contrast, courts have been less likely to view non-pension benefits as a protected right.<sup>76</sup> As a result, many think these retiree healthcare insurance (OPEB) benefits are not guaranteed and are possible to change at the state level. In

<sup>74</sup> From FY2012 to FY2013, the number of retirees 65+ not on Medicare declined by three people.

<sup>75</sup> Recent events in Detroit may be changing the idea that pensions are guaranteed when a city goes into bankruptcy.

<sup>76</sup> The PEW Center on the States, “A Widening Gap in Cities: Shortfalls in Funding for Pensions and Retiree Health Care,” January, 2013.

### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

other words, the State legislature can elect to reduce or discontinue offering these benefits. The City of Newton, working with the various unions, explicitly has the right to make plan changes for current employees. Retirees do not have bargaining rights so the City of Newton has authority to change retiree healthcare insurance (OPEB) benefits unilaterally as long as the benefits meet the minimum standards set by the Commonwealth.

#### **E. How Much Do Employees Contribute to Retiree Healthcare Insurance (OPEB)?**

For Newton's current employees, the retiree healthcare insurance (OPEB) benefit operates quite differently than the pension benefit. With pensions, both the City of Newton and the employee contribute to the pension plan while the employee is working for the City. Together, they are pre-funding the account. Obviously, there are no pension benefits received during the working years. Once the employee retires, the assets from the plan pay for the pension.

In contrast, both the City of Newton and the employee pay for health insurance that covers the employee while the employee is working. But, neither the City (with a small exception noted earlier) nor the employee contributes to a retiree healthcare insurance plan to set aside funds for the later years when the employee retires. Rather, once the employee retires, both the City and the retired employee pay for the costs of the retiree health insurance in a pay-as-you-go manner. The City of Newton pays for its contributions almost exclusively as an appropriation as part of its annual budget. There are no investment earnings or assets set aside to pay for retiree healthcare insurance (OPEB).

Eligible retirees are required to contribute a specified percentage of their healthcare insurance costs.

Due to Newton's most recent union negotiations, two significant health insurance plan changes were implemented in 2011. The first change was that all active employees must elect one of the less expensive "Advantage" plans. This change reduces what the City's cost will be when these employees retire. The second change is that all active municipal employees hired after July 1, 2011 and school employees hired after August 31, 2011 contribute either 25% (for unions constituting 88% of actives) or 30% (for the other 12%) instead of the previous 20%. This further reduces what the City's cost will be when these employees retire as these same percentages are expected to carry over into the retirement years.

#### **F. How Are the OPEB Funds Invested?**

In the spring of 2010, the City had a \$595 million actuarial accrued OPEB unfunded liability and no assets in an OPEB trust fund. Mayor Setti Warren recommended and the Board of Aldermen approved for the Fiscal Year 2012 budget a transfer to an OPEB Trust Fund of \$137,000. This represented an important, albeit quite small, first step in addressing the challenge of the retiree healthcare and life insurance liability. In the FY2012, an additional \$175,000 was transferred.

Beginning on July 1, 2012, the City also began making a contribution of 2.5% of compensation for *new* employees that participate in the City's healthcare plan to fund partially their healthcare benefits when they retire. To cover fully the anticipated cost, 12% of salaries/wages should be set aside for *all* employees to fund their future retiree healthcare insurance costs. The 2.5% contribution level is

### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

expected to be reviewed annually by the Warren administration and gradually adjusted to come closer to the actuarial required contribution (12%) to fund the normal cost for the health benefits. (The “normal cost” is the present value of the future benefits earned that year by current employees.) The Mayor held the percentage at 2.5% for FY2014. The budget for FY2015 increases the percentage to 3%.

The 2.5% pre-funding for new employees who started work after July 1, 2012 resulted in \$226,000 being put into the OPEB Trust Fund in FY2013. \$500,000 is projected to be added in FY2014. The amount should increase significantly as new employees join the City’s workforce. The Mayor stated in the Proposed Budget for FY2014 (released on April 16, 2013) that the “Administration intends to continue the policy of ‘pay as you go’ for all OPEB liabilities for current and former employees.”

The balance in Newton’s OPEB Trust Fund as of June 30<sup>th</sup> in each year was:

June 30, 2011	\$137,295
June 30, 2012	\$312,973
June 30, 2013	\$538,537

In May 2013, the Board of Aldermen approved making the OPEB Trust Fund irrevocable.

The OPEB Trust agreement establishes a five-member Board of Trustees made up of the Mayor or his/her designee, the Comptroller, the Chief Financial Officer, a member of the Board of Aldermen, and a registered voter of the City of Newton appointed by the Mayor. It also designates the Treasurer as the custodian of the OPEB Trust Fund. A vote by the Board of Aldermen directed the Treasurer to invest the funds in the State Retiree Benefits Trust Fund (SRBTF). This fund is managed by the Commonwealth’s Health Care Security Trust (HCST) Board of Trustees. In August 2011, the HCST Board voted to assign full investment management of the SRBTF assets to the nine-member Pension Reserves Investment Management (PRIM) Board. Thus, professional managers will invest the funds in a diversified portfolio.

#### **G. What Are the Key Changes in Accounting Requirements for Retiree Health Insurance (OPEB)?**

New accounting standards (43 and 45) issued on OPEB by the Government Accounting Standards Board (GASB) in 2004 required municipalities for the first time to disclose the total amount of the actuarially determined future liabilities for retiree health benefits and the amount required to be paid currently to cover these future healthcare and life insurance costs. In addition, GASB recommended, but did not require, that the annual required contribution be funded each year. In other words, the Board did not require pre-funding the payment of these costs as the liability for such costs accrues.

The City of Newton implemented the reporting requirements in the fiscal year ending on June 30, 2008. Starting in 2008, Newton’s reports show the difference between the annual required contribution (ARC) and the pay-as-you-go appropriation for retiree healthcare insurance, i.e., other post-employment benefits (OPEB). For 2008, the City of Newton recorded a \$22 million liability in the government wide financial statements, representing the cumulative difference between the annual required contribution (ARC) and the pay-as-you-go appropriation for retiree health insurance benefits (OPEB). For the year ended June 30, 2009, 2010, 2011, and 2012, the net OPEB liability stood at \$54.9 million, \$83.5 million, \$118.1 million, \$147.9 million respectively, assuming a 2% discount rate (more on discount rates in

### Appendix 3. Retiree Healthcare Insurance (OPEB) Basics

Appendix 4: Interest Rates, Rates of Return, Discount Rates, Investment Return and Wage Growth Assumption in Pension Plans). For the year ended June 30, 2013, the liability increased another \$29.8 million for a total of \$177.7 million and the full actuarial liability for such benefits stood at \$602.3 million, again assuming a 2% discount rate. With assets of \$538,537 in the OPEB Trust Fund, the unfunded actuarial accrued liability was slightly less, \$601.7 million.

#### **Appendix 4. Interest Rates, Rates of Return, Discount Rates, Investment Return and Wage Growth Assumptions in Pension Plans**

This material is drawn almost verbatim from the Massachusetts Budget and Policy Center report, “Demystifying the State Pension System,” March 2011.

Historical trends show that average investment returns had been at or above 8.25% over the past several decades. In the 25 years leading up to 2009, the average return was 9.7%. Some have argued that the economy has fundamentally changed and that investment returns in the upcoming decades will not reflect historical trends. Others reject the idea that there have been fundamental changes that will lead to dramatically lower investment returns in coming years. The Special Commission to Study the Massachusetts Contributory Retirement Systems reported that an 8% investment return assumption represents the expected return on the portfolio of assets used to help finance pensions. The 8% rate can also be thought of as the expected cost for the government bodies to provide benefits.<sup>77</sup> But even if the returns in the upcoming few years are not expected to be 8.25%, and if the rate should be lowered (PERAC suggests that over time an investment return assumption between 7% to 7.75% may become the standard), the change, according to PERAC, should not occur at once. Instead, the rate should be lowered incrementally over a number of years to gradually increase the pension funds’ yearly obligation.

In regard to the second question, the broader issue is whether policy should be built on the best estimates of the likely rate of return, or on what the returns would be if government bodies made only very conservative estimates. Under current accounting procedures, Massachusetts and other states assume expected returns in their pension fund (currently an 8.0% investment return assumption) at essentially the midpoint of likely returns, recognizing that assuming the high end of likely returns would be very risky and that assuming the low end could inappropriately divert resources from other critical needs and productive uses.<sup>78</sup> Furthermore, the Massachusetts pension system can achieve high rates of return because it is a very large and diversified fund that can invest for the long term. Because the Massachusetts pension fund does not face the risk of being liquidated at a particular moment in time, it can invest to receive the highest long term returns rather than accepting lower returns to achieve greater short term stability—as individual investors often must. Ultimately, this benefits both the government bodies and the employees—the returns that government employees and teachers get result in a stronger pension benefit than they would have likely received individually.

A report published by the Center for Retirement Research at Boston College examined the effects of different discount rates on state budget contributions (see below). The analysis showed that when a lower investment return assumption is used, in this example 5% (the “risk-less” return on U.S. Treasury Bonds at the time), the state’s annual required contribution (ARC) for pensions increases from 4.6% of the state budget to 7.6% of the state budget. These figures are projections for the years between 2014 and 2043, but the estimate using an 8 percent rate is close to the current state contribution (4.3% of the

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<sup>77</sup> Special Commission to Study the Massachusetts Contributory Retirement System, “Final Report,” October 7, 2009, pg. 31.

<sup>78</sup> The investment return assumption was revised from 8.25% to 8.0% in the most recent PERAC valuation.



Appendix 4. Interest Rates, Rates of Return, Discount Rates, Investment Return and Wage Growth Assumptions in Pension Plans

state budget). If the current state contribution were to increase to 7.6% of the state budget, that would equal a \$1.1 billion, or 77%, increase in the state appropriation.

Table 24: Effect of Discount Rate Changes on Massachusetts State Pension Contributions

<u>Discount Rate</u>	<u>Contribution as a % of State Budget</u>
5.0%	7.6%
8.0%	4.6%

Wage Growth Assumptions:

State costs could also decline if wage growth is slower than anticipated. Though unemployment remains high, the stock market has been growing. In future years, it is possible that the stock market will continue to do well, even though wage growth may be slow. Because pensions are calculated on employee incomes—i.e., if employee wages rise, so do their pension benefits— slower wage growth will lead to lower pension costs. Even if we assume that investment returns will be low in future years, if wage growth is slower as well, the effects could offset.

The Special Commission to Study the Massachusetts Contributory Retirement Systems also provided an analysis of how the contribution-to-cost ratio would change if these two variables—the investment return assumption and wage growth—change. If we take as an example 5% wage growth over the period that a worker is in the system and use an 8% investment return assumption, the amount that workers contribute would cover about 100 percent of the normal cost of pension benefits. If we change the investment return assumption to 4 percent, the portion of the cost that workers' contributions cover would reduce to only about one-third of the cost. This is because a lower investment return assumption would increase the costs of the pension system. Similarly, if we assume that wage growth will be slower than 5 percent—say, 3% —then the ratio of workers' contributions to cost would increase because costs would decrease. At the 8% rate with 3% wage growth, workers' contributions would cover more than the cost of the pension benefits by 50%.

Changing the investment return assumption creates a range of possibilities—some with higher costs for the state and some with lower. Using a middle of the road option does not under- or over-estimate the likely outcome and also ensures that the state is not contributing more than is likely to be necessary. Lowering the discount rate would lead to significant reductions in other state spending, which could be more harmful to the economy as a whole, particularly in the current fiscal context. The current assumptions used to calculate the costs of the pension system should be examined to assure that they are accurate. The most reasonable route for the state would not be to assume returns at either the low or high end of the range of possibilities, but rather to use the best available information and base policy and funding decisions on the most likely outcome.

## Appendix 5. Glossary of Terms

**ACTIVE PARTICIPANTS:** Current employees; a member of a pension plan who is currently accruing benefits and/or paying contributions into the plan.

**ACTUARIAL ACCRUED LIABILITIES (AAL):** The estimated value of all benefits (pensions or OPEB) attributed to the service already completed by both the active employees (i.e., current employees) and the current retirees; the calculated value of a pension or OPEB fund's financial liabilities including current and future benefit payments and expenses.

**ACTUARIAL VALUATION:** A review of the adequacy of a retirement or OPEB plan's financing arrangement at a particular point in time. This valuation may serve as a basis for determining the amount of funding needed to provide benefits to employees and retirees covered by a defined benefit plan. The actuarial valuation is dependent on actuarial assumptions. It calculates the cost of benefits currently being earned, benefits due for past service, and benefits anticipated to be earned in the future. The City of Newton's pension and OPEB plans must undergo an actuarial valuation annually.

**ACTUARIAL VALUE OF ASSETS:** The estimated value of the cash, investments, and other property held by a pension or OPEB plan for the future payment of benefits. These can be reported based on their smoothed or market value. (See the definition of smoothed value of assets.)

**ACTUARY:** A business professional who mathematically evaluates the probability of events and quantifies the contingent outcomes.

**AMORTIZATION:** Paying off of a debt in regular installments over a period of time.

**AMORTIZATION PAYMENTS:** A periodic payment.

**AMORTIZATION PERIOD:** The funding period; the length of time required to eliminate a pension or OPEB plan's unfunded liability based on current contributions from employers and active members. The Commonwealth of Massachusetts requires that the funding period for a public retirement pension system must not exceed 2040, twenty-seven years from now; there is no requirement by the Commonwealth of Massachusetts for a funding period for retiree healthcare insurance funds (OPEB).

**ANNUAL OPEB COST:** The annual required contribution (ARC) for an Other Postemployment (OPEB) Plan adjusted for the existence of a net OPEB obligation.

**ANNUAL PENSION COST:** The annual required contribution (ARC) for a pension plan adjusted for the existence of a net pension obligation.

**ANNUAL REQUIRED CONTRIBUTION (ARC):** An actuarially determined amount that is expected, if contributed to a pension or OPEB plan, to be sufficient to fully fund benefit payments as they come due. It is not a required amount in the sense of being required by law. Rather, it is required to meet a full funding status in the future. The ARC is the sum of (1) the employer's normal cost of retirement benefits earned by employees in the current year (see the definition of normal cost below) and (2) the amount

## Appendix 5. Glossary of Terms

needed to amortize the existing unfunded accrued liability over a period of not more than thirty years. (In Newton, it is fully amortized by 2037.)

**ASSETS:** Resources (cash, investments, other properties) controlled by a government that can be used to provide services or payments; usually stocks, bonds and other investments that have been segregated in a trust and restricted to provide pension or OPEB benefits. Plan assets include amounts contributed by the employer and by employees for a contributory plan and amounts earned from investing the contributions, less benefits paid.

**COVERED PAYROLL:** The combined payroll of the active employees covered by the pension or OPEB plan.

**COVERED PAYROLL RATIO:** The unfunded liability divided by the covered payroll.

**CREDITABLE SERVICE:** The period of time that an employee is receiving compensation and for which the public employer is making contributions towards benefits.

**DEFINED BENEFIT PLANS:** Pension plans in which a government promises a specified monthly benefit on retirement; both employers and employees usually contribute to investments intended to cover future benefit payments. But the amount of the benefit is not subject to the amount of contributions or the plan's actual financial earnings on those contributions. In other words, if the amounts contributed to the plan over the term of the employee's employment (plus the accrued earnings on investments) are insufficient to pay the benefits, the former employer is required to pay the difference.

**DEFINED CONTRIBUTION PLANS:** A retirement plan providing benefits equal to the combined employer and employee contributions plus interest and minus administrative expenses; provides pension benefits in return for services rendered, provides an individual account for each participant, and specifies how contributions to the individual's account are to be determined, instead of specifying the amount of benefits the individual is to receive. A participant's benefits depend solely on the amount contributed to the pension plan and the investment performance of the pension plan. Once the employee retires, the employer has no further liability to the employee's plan.

**DISCOUNT RATE:** The rate at which liabilities (e.g., pension liabilities) are discounted to arrive at the present value of obligations (e.g., pension obligations). Under current GASB standards, this is the assumed long-term investment rate of return on plan assets. The discount rate is used in actuarial calculations to discount to the present value the cost of projected future benefits (liabilities). The discount rate has an inverse relationship to actuarial liabilities – a higher discount rate results in lower liabilities. For example, if a pension plan expects to owe \$1 million in pension benefits 30 years from now, a 5% discount rate assumption results in a present value of that liability of \$231,377. An 8% discount rate assumption results in a much lower present value of that liability, \$99,377.

**FUNDED RATIO:** The ratio of assets to liabilities. This ratio reflects the ability of a pension or OPEB plan to finance the benefits attributable to past service of current and future retirees; it is calculated as follows:  $\text{ACTUARIAL VALUE OF ASSETS} / \text{ACTUARIAL ACCRUED LIABILITIES}$ . When a plan has enough assets to cover all its accrued liabilities, it is 100% funded.

## Appendix 5. Glossary of Terms

**GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB):** An independent organization with the mission of establishing and improving standards of accounting and financial reporting for U.S. state and local government.

**INACTIVE PENSION PLAN MEMBER:** A Plan member who has terminated employment and left his or her contributions on deposit in the pension plan to take the pension at a later date.

**LIABILITIES:** Amounts a government is obligated to pay to persons and groups outside the government.

**MARKET VALUE OF ASSETS:** Assets report by their market value, recognizing unrealized gains and losses immediately in the current year. Market values can produce significant fluctuation year-to-year. This measure reflects the volatility in the market.

**NET OPEB OBLIGATION:** The *cumulative* difference between actuarially determined contributions to an Other Postemployment Benefits (OPEB) plan and a government's actual contributions; it is reported as a liability in the "government wide" (i.e., full, accrual-based) financial statements. In the City of Newton, the government-wide, full accrual-based financial statements are part of the Comprehensive Annual Financial Report (CAFR) which is issued in January each year.

**NET PENSION OBLIGATION:** The *cumulative* difference between actuarially determined contributions to a pension plan and a government's actual contributions; it is reported as a liability in accrual-based financial statements. In the City of Newton, the accrual-based financial statement is called the Comprehensive Annual Financial Report (CAFR) which is issued in January each year.

**NORMAL COST:** The present value of the future benefits earned that year by current (active) employees.

**OPEB:** other post-employment benefits; retirement benefits other than pensions, most notably retiree health insurance and retiree life insurance.

**PAY-AS-YOU-GO FUNDING:** An employer managed retirement plan that uses the employer's current income to fund pension or OPEB payments as they become necessary.

**PENSION:** A retirement benefit fund; an accumulation of regular deductions from one's wage or salary while employed and similar regular contributions from the employer, usually administered by an independent entity.

**PENSION FUND:** A fund to account to hold resources held in trust for members and beneficiaries of employee benefit plans.

**PLAN DESIGN:** Attributes of a health plan including deductibles and co-payments for doctor and emergency room visits, hospital stays, and prescription drugs.

**PRE-FUNDING:** An advance funded pension or OPEB plan where an employer sets aside funds systematically and in advance to cover any pension or OPEB plan expenses such as payment to retirees and their beneficiaries; when employers offer a pension or OPEB plan, they can plan for the anticipated

## Appendix 5. Glossary of Terms

financial obligations of the pension plan and set aside a certain amount of money on a regular basis - and invest the money ideally to grow the fund.

**PRESENT VALUE OF FUTURE BENEFITS:** A future amount of money that has been discounted to reflect its current value since money has interest-earning potential. Actuaries calculate the current value or cost of all benefits earned by the retired participants as well as the value of all benefits earned and expected to be earned in the coming years the active participants (i.e., current employees) given a specified discount rate; the higher the discount rate, the lower the present value of the future cash flows; determining the appropriate discount rate is the key to properly valuing future cash flows.

**SMOOTHED VALUE OF ASSETS:** Asset values are smoothed by being averaged over multiple years to reflect more accurately long-term investment returns.

**SUPERANNUATION:** A retirement benefit fund, an accumulation of regular deductions from one's wage or salary while employed and similar regular contributions from the employer, usually administered by an independent entity; a pension. Superannuation can also mean the process of being retired upon reaching a certain age and meeting other requirements, including length of creditable service.

**UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL):** The portion of the ACTUARIAL ACCRUED LIABILITY (AAL) of a pension or OPEB plan that is not covered by (or that exceeds) the plan's ACTUARIAL VALUE OF ASSETS; it is calculated as follows: the ACTUARIAL ACCRUED LIABILITY (AAL) - ACTUARIAL VALUE OF ASSETS at the end of the prior year = UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL). In layman's terms, this is the UNFUNDED LIABILITY (see below). The unfunded liability is usually amortized (i.e., paid for or spread over) over a period of up to thirty years.

**UNFUNDED LIABILITY:** The current liabilities that are not covered by actuarial assets. The present value of a pension or OPEB fund's future benefits (payable to the pension or OPEB plan's participants) and fund administration expenses when the actuarial value of plan assets is taken into consideration. It is calculated by subtracting the actuarial value of assets from the actuarial accrued liability of a fund. In layman's terms, this is the amount of money that is needed to pay the benefits for which no funds have been set aside.

**VESTING:** The process by which an employee with a qualified retirement pension plan becomes entitled to the benefits, even if he/she no longer works for the City providing the retirement plan. Vesting occurs after an employee has worked at the City for a certain number of years; once vesting occurs, the benefits of the pension plan cannot be revoked. Any money the employee contributes from his/her own paycheck is always 100% his /hers, i.e., employee contributions are always 100 percent vested. But City matching funds vest over time – in Newton after ten to twenty years. Once fully vested, the employee can take the entire City match with him/her if he/she parts ways with the job in the City.

## Appendix 6. Sources

This document borrows generously from many of the following sources.

### I. Government Sources

#### A. City of Newton

Actuarial Valuation Studies: An actuary analyzes both the pension system (officially known as the City of Newton Contributory Retirement System) and the retiree healthcare insurance (OPEB) plan (officially known as the City of Newton Other Than Pension Post-Retirement Employee Benefits (OPEB)) annually. The pension plan is on a calendar year so the reports are dated January 1<sup>st</sup> but they are issued in July. The OPEB plan is on a fiscal year so they are dated June 30<sup>th</sup> and they are issued in August. These valuation analyses can be found at the City of Newton website ([www.newtonma.gov](http://www.newtonma.gov)) under the Comptroller tab. Look for the tab on the left that says, "Actuarial Valuation Studies."

Annual Financial Reports: The Comptroller prepares this report using a budgetary basis of accounting. It includes information on both a fiscal year and calendar year basis and is issued in September.

Comprehensive Annual Financial Reports: The Comptroller prepares a comprehensive annual financial report that includes useful information on both pensions and OPEB. It covers a fiscal year that ends June 30<sup>th</sup> and is issued in December. These can be found at the City of Newton website ([www.newtonma.gov](http://www.newtonma.gov)) under the Comptroller tab. Look for the tab on the left that says, "Audited CAFRs."

Official Bond Statements: These are succinct summaries of the pension and OPEB plans in the official bond statements.

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## **Appendix 7. Information About the Approach to OPEB by Other Massachusetts Cities and Towns**

### **A. Arlington**

In the "Report on Examination of Basic Financial Statements, Fiscal Year Ended June 30, 2012," the Town of Arlington writes:

In 2006, the Arlington Town Meeting formed the Other Postemployment Benefits Committee. The committee's charge was to make recommendations on the potential funding mechanisms for the postemployment medical benefits unfunded liability as required in Statement No. 45 of the Governmental Accounting Standards Board, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45).

The Town began partially funding this liability in an internally created healthcare trust fund established by Chapter 12 of the Acts of 1998. Upon the implementation of GASB 45, the Town transferred the balance of the healthcare trust fund, as well as all new appropriations for the same purpose, into a newly created Other Postemployment Benefits (OPEB) Trust Fund, as established by Chapter 161 of the Acts of 2005, which is under the supervision and management of the Town's contributory retirement board. The Town Treasurer is the custodian of the OPEB Trust Fund.

The Town began capturing revenues to fund the OPEB liability in 1997. At that time, the Town established a policy of appropriating the difference between the non-contributory pension appropriation and \$500,000 to the OPEB fund. The Town has subsequently appropriated Medicare Part D reimbursements, as well as certain increases in the share of retiree HMO contributions to be transferred to this fund.

An actuarial study determined that Arlington's total Actuarial Accrued Liability as of January 1, 2011, at a 4.45% partially funded discount rate, totaled \$162 million. As of June 30, 2012, the Town has recognized a liability for other postemployment benefits totaling \$23.6 million. The increase in the liability is based on the difference between the Annual Required Contribution (ARC) of \$14.6 million and the Town's actual contribution of \$7.9 million which was made through a combination of benefit payments and pre-fundings to the OPEB Trust Fund in the amounts of \$7.4 million and \$500,000, respectively. The assets set aside in trust for future benefits amounted to \$4.5 million at fiscal year-end.

The Town of Arlington is serious about addressing this liability within its financial ability and the OPEB Committee will continue to monitor this liability and explore possible additional funding sources.

### **B. Belmont**

In the "Report on Examination of Basic Financial Statements, Fiscal Year Ended June 30, 2012," the Town of Belmont writes:

- This is the fourth year since the Town implemented GASB Statement #45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. At year end, the postemployment benefit (OPEB) liability totaled \$44 million.
- To offset the impact of OPEB liability, the Town established an Other Postemployment Benefits Trust Fund (Trust) to account for funds set aside to help meet future post-retirement benefit costs for

## Appendix 7. Information About the Approach to OPEB by Other Massachusetts Cities and Towns

retirees. During fiscal 2012 the Town transferred \$105 thousand to the Trust bringing the balance to \$1.3 million.

The Town currently finances its other postemployment benefits (OPEB) on a pay-as-you-go basis, but has established an Other Postemployment Benefit Trust fund to accumulate assets to help mitigate the costs of these benefits. As of the most recent actuarial report dated July 1, 2010, the Town had contributed approximately \$1 million to the fund. As a result, the funded ratio (actuarial value of assets expressed as a percentage of the actuarial accrued liability) is .55%. In accordance with Governmental Accounting Standards, the Town has recorded its OPEB cost equal to the actuarial determined annual required contribution (ARC) which includes the normal cost of providing benefits for the year and a component for the amortization of the total unfunded actuarial accrued liability of the plan.

### C. Brookline

In the "Report on Examination of Basic Financial Statements, Fiscal Year Ended June 30, 2012," the Town of Brookline writes:

- The Town has developed an OPEB funding plan that results in the Town reaching its Annual Required Contribution (ARC) in approximately five years and being fully funded in approximately 22 years.
- Free Cash continues to be used according to the Town's Free Cash Policy, which states that this volatile source of revenue shall be used for reserves, fund balance protection, capital projects, and augmenting employee-benefit funds (e.g., pensions, OPEB's).
- The Town of Brookline is legally and contractually obligated to pay for the retiree healthcare cost of past, present and future Town / School retirees who have worked a minimum of 10 years for the Town. The calendar year 2010 Biennial Actuary Analysis estimated the present value of this obligation to be \$323 million (at a discount rate of 5.5%). At June 30, 2012, the Town has a balance of \$12.8 million of assets in a fiduciary-managed trust fund that is designed to be the source of funding to satisfy the obligation. GAAP requires that the unfunded liability be recognized in the basic financial statements. Beyond the trust fund, the Statement of Net Assets at June 30, 2012 includes a liability of \$37.9 million for a portion of the unfunded post-employment benefits; none of the Town's assets as of that date are dedicated to the satisfaction of that liability. The recognized amount of the liability will continue to grow, and be reduced as assets are contributed to the trust fund. Future funding of the retiree healthcare obligation represents the Town's largest financial challenge.
- The Town established an Other Post-Employment Benefits (OPEB) Taskforce to address this challenge. It made several recommendations to the Board of Selectmen, which, if implemented, could reduce the OPEB liability. In addition, the Committee made several recommendations regarding the development of a long-term funding strategy over a 30 year period.
- The Town has adopted some of the funding recommendations, including an annual and escalating appropriation in the Financial Plan, which would generate \$116.5 million over a thirty year period. The current strategy increases the annual funding commitment each year until, in approximately FY2018 of the plan, the Town reaches the annual funding requirement (ARC). In

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the remaining years, annual contributions will exceed the ARC, so that the Town would reach full funding by approximately FY2034.

- In addition, the Town has begun allocating retiree healthcare costs to all enterprise, revolving, grant, and special funds of the Town and School Departments. It is anticipated that this policy could generate an additional \$28.95 million of funding for the OPEB liability. This plan could result in increased fees charged to the users. Finally, the Town will have the opportunity to determine whether it should use the budgetary capacity currently allocated to the unfunded pension liability when that obligation is fully funded in 2030. In the area of cost containment, the Town and Unions reached an agreement to enter the State's Government Insurance Commission (GIC) to provide medical insurance coverage for current working and retired employees and their eligible dependents.
- As a result of these decisions, the unfunded OPEB liability has been reduced from \$323.2 million to \$207.9 million.
- Funding Policy - Contribution requirements are also negotiated between the Town and union representatives. The required contribution is based on a pay-as-you-go financing requirement. For 2012, the Town contributes 78% of the cost of current-year premiums for healthcare for eligible retired plan members and their spouses and 75% of current-year premiums for life insurance for eligible plan members. For Fiscal Year 2012, the Town contributed \$11.7 million to the plan.

### D. Needham

In the Official Bond Statement of June 18, 2013 and the 2012 Needham Annual Town Report, the Town of Needham wrote:

- For the last five years, the Town has been appropriating at least 100% of its Annual Required Cost (ARC) to the OPEB fund and pays the annual healthcare costs from the fund.
- The following table sets forth the trend in OPEB contributions.

<u>Fiscal Year</u>	<u>OPEB Contribution</u>
2010	\$3.4
2011	\$3.6
2012	\$3.9
2013	\$4.5
2014*	\$4.7

\*2014: Budgeted

- Savings in the group health insurance programs generated savings of more than \$632,000 in FY2012. The Town transferred \$500,000 of this savings to the Town's OPEB fund as advance payment on the unfunded liability. This additional funding above the annual required

## Appendix 7. Information About the Approach to OPEB by Other Massachusetts Cities and Towns

contribution (ARC) increased the OPEB funded ratio and is expected to result in substantial savings over time to OPEB liability.

ARC	\$3.9
Contributions Made	\$4.4

### E. Wellesley

In the Comprehensive Annual Financial Report for FY2012, Wellesley writes:

- Health insurance costs and the liability for postemployment health care benefits for certain retirees and their dependents (OPEB) are key considerations in the TWFP (Town-Wide Financial Plan). The Town has undertaken a number of proactive steps over the last five years to reduce current costs and amortize the OPEB liability in the TWFP. Today the Town's funded status remains at the very top compared with other communities in the Commonwealth. The balance in this fund increased 23% in Fiscal Year 2012.
- A significant portion of property taxes relates to excluded debt and a capital exclusion to fund the OPEB liability.
- *Funding Policy* – Contribution requirements are also negotiated between the Town and union representatives. Retired plan members and beneficiaries currently receiving benefits are required to contribute between 17.7% and 50% of the cost of benefits provided depending on the plan they choose. The Town is required to contribute the balance of the current premiums and may contribute additional amounts to pre-fund benefits. The Town contributed \$10,163,000 during Fiscal Year 2012 towards these benefits including the pre-funding amount discussed below. Administrative costs of the Plan are assumed to be included in the fully insured premium rates.
- The Commonwealth of Massachusetts passed special legislation that has allowed the Town to establish the Postemployment Benefit Trust Fund and to enable the Town to raise taxes necessary to begin pre-funding its OPEB liabilities. During Fiscal Year 2012, the Town pre-funded future OPEB liabilities in the amount of \$3,450,000.

At the Massachusetts Department of Revenue, Division of Local Services, Technical Assistance Section, there is a write-up on Other Post-employment Benefits (OPEB) that includes the following about Wellesley:

Wellesley became aware of the OPEB issue in the mid-nineties. Some of the volunteers on various town boards who worked in the private sector had just dealt with the requirements of FASB 106, the private-sector equivalent of GASB 45, and brought it to the attention of town leaders. Knowing that prudent fiscal management involves knowledge of OPEB, town financial officials had an actuarial study performed to discover the outstanding liability. Currently, with an annual budget of about \$75 million (\$9 million on health care), the results of their last study had their OPEB liability at \$77 million – to fund the constantly increasing liability would cost at least an additional \$3 million a year for the next 30 years.

## Appendix 7. Information About the Approach to OPEB by Other Massachusetts Cities and Towns

Once it became clear that the outstanding liability was huge, the town began to think about ways in which to reduce the liability and to begin to fund it. To fund it, they established a Group Insurance Liability Fund through special legislation (Chapter 88 of the Acts of 2004). The fund is to be managed by the town's contributory retirement board in a similar way to their pension trust, specifically guided by the "prudent investor rule," which allows more investing flexibility than typical government funds. As of yet, they have been unable to appropriate money into the fund, but the mechanism is in place. They have also begun to think creatively about how their current employment practices affect their future liability, for if they gain control of current costs, it will offset the future costs. To this end, they have made the following changes:

- Early retirement adds unnecessarily to benefit costs, for the town continues to pay benefits for retirees in addition to incurring benefit costs for any new hire. Therefore, they have decided to think very seriously about any future early retirement package before they offer it.
- As part of the constant examination of rates for services provided by the municipality, they have changed the enterprise fund rate structure to include the cost of benefits for all current and retired employees of that municipal service.
- Town officials are weighing the adoption of Chapter 32B Section 18.
- Wellesley does not compensate any of its elected officials, thus making those positions ineligible to receive health benefits. The one exception is the town clerk, who works full-time in town hall.
- Management will carefully examine all requests for position changes to make sure that changes aren't made that move previously non-benefited jobs into benefit eligible status.

## **Appendix 8. Smoothing: Market Value of Assets vs. Actuarial Smoothed Value of Assets**

Newton's pension plan (like most) has reported its funded status using assets that are valued by being smoothed over a five-year period. In other words, investment returns (positive or negative) are smoothed out by being averaged over multiple years to reflect more accurately long-term returns, rather than being presented with the more volatile, individual annual market returns. This smoothing means that asset losses from 2008 are still depressing funded ratios today. Conversely, the full value of gains experienced in subsequent years will not be fully recognized until future years.

The market value of assets in Newton's Pension Fund is different than the smoothed value. This is simply the current value of the stocks and bonds and other assets in the City of Newton pension fund.

The market value can fluctuate significantly in the short term as the markets have volatile swings. If the market value of the assets were used each year to determine the necessary contributions by the City and the employees, the ARC would be more volatile.

Pensions (and retiree healthcare insurance (OPEB) benefits) are long-term transactions. Assets are being set aside today to pay for benefits well in the future. While there may be significant changes in asset value in the short run, over the long run the change in asset value tends to be smoother and steadier. As a result, for financial reporting purposes, gains or losses in pension and OPEB plan assets are "smoothed" or averaged over several years. In the case of the City of Newton, the averaging is done over five years. This results in an actuarial value of assets that is more stable over time than market value. In the long run, the actuarial value of assets is intended to reflect the market value.

As of January 1, 2013, the actuarial value of the assets in the pension plan was \$268.1 million. The market value was \$13.9 million dollars lower, \$254.2 million. A year earlier, January 1, 2012, the difference between the two values was considerably larger. The actuarial value was \$262.1 million, \$28.8 million higher than the market value of \$233.3 million.

Fitch Ratings notes that the smoothing methodology typically results in actuarial values that are below market values in times of strong returns and above market values following investment losses. FitchRatings recently reaffirmed that it will continue to evaluate a public pension plan's funded ratio over the less volatile rolling five-year average of market value.<sup>79</sup>

Some actuaries are arguing that the smoothing technique leads to underfunding contributions. The Governmental Accounting Standards Board (GASB) voted to value plan assets at market rather than allowing plan administrators to continue the practice of smoothing asset valuations on the basis of returns over a number of years (in Newton's case, five years). Valuing pension plan assets at current market prices will align public retirement funds with private sector pension plans. However, for financial reporting purposes, the new GASB 67 standard partially retains asset smoothing by requiring governments to recognize asset gains or losses relative to assumptions over rolling five year periods. This will dampen volatility across economic cycles.

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<sup>79</sup> Fitch Ratings, "Enhancing the Analysis of U.S. State and Local Government Pension Obligations," February 17, 2011.

## Appendix 9. Critical Assumptions in the Projections

### A. Investment Return

As the Massachusetts Budget and Policy Center points out, one critical factor in determining the value of pension and OPEB funds and how much money we need to set aside is the likely return on investments.<sup>80</sup> As mentioned previously, the Massachusetts public employee pension and OPEB systems are funded by a combination of employee contributions, employer (i.e., City of Newton) funding, and investment returns.

The investment return assumption provides an estimate for how much the pension or OPEB fund's assets will grow in the future—how much will be earned on investments—and thus affects the amount that the City should contribute toward paying the unfunded liability and for employee's future pensions. The City's contribution to the pension fund is inversely related to the investment return assumption: if the returns are assumed to be high then the contribution would be smaller, but if the returns are assumed to be low, then the City contribution would be higher. The percent by which the investments are expected to grow is the "investment return assumption," which is often also called the "discount rate."<sup>81</sup>

The City of Newton's pension and OPEB assets are invested by the Massachusetts Pension Reserves Investment Board (PRIM). The City of Newton's Retirement Board pays close attention to PRIM's investment return assumption.<sup>82</sup>

Until quite recently, the investment return assumption made by PERAC for the Commonwealth's pension fund has been 8.25 percent.<sup>83</sup> It was recently lowered to 8%. One question that has been discussed is whether future returns will mirror past trends—i.e., will we continue to see about 8 percent growth in the decades to come? And secondly, should the City use PRIM's forecasted rate of return to calculate unfunded liabilities and annual contributions or a lower estimate? Many economists claim an 8% discount rate is high given a maturing domestic economy and current equity market uncertainties.<sup>84</sup>

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<sup>80</sup> This section and the following one on Wage Assumptions comes almost verbatim from the Massachusetts Budget and Policy Center report, "Demystifying the State Pension System," March, 2011.

<sup>81</sup> An important distinction between these two terms is that the investment return assumption is the long-term rate, while the discount rate is short-term. The discount rate is used to calculate the present value of the payments the City of Newton expects to make over the life of the plans. However, these two terms are often used interchangeably to refer to the investment return assumption. In other words, strictly speaking, the discount rate is not equal to the investment return assumption, although it is under GASB rules. Most economists believe that the discount rate should reflect the risk profile of the underlying liabilities. In the case of municipalities, this implies a discount rate equal to the riskless rate of return, rather than the projected long-term rate of return on assets.

<sup>82</sup> An OPEB Trust Fund Board is in the process of being appointed.

<sup>83</sup> Technically, PRIM does not make investment return assumptions. Rather, PRIM adjusts its asset mix to earn the assumed rate. The 8.25% assumption was set in statue in the 1990s and applied by the PERAC actuary. The PERAC actuary reduced the recommended rate to 8.0% for the January 1, 2013 valuation. The state actuary believes the rate of return assumption should be reduced further over time.

<sup>84</sup> National Association of State Budget Officers, "GASB Enacts Pension Accounting Reforms Regarding the Use of Discount Rates," July 20, 2012.

## Appendix 9. Critical Assumptions in the Projections

The credit rating agency, FitchRatings, has decided to use a 7% investment return assumption when evaluating a public pension plan.<sup>85</sup>

In 2011, the Newton Retirement Board lowered the long-term expected rate of return from 8% to 7.75%. This decision was made in part due to the low average annual return that the City has experienced in the last five years of 3.1% in the pension fund.

Notably, changes in the discount rate or investment return do not fundamentally change the amount of promised benefits. As the National Association of State Budget Officers notes, \$1 promised is still \$1 promised. “The real difference will be that a greater portion of that dollar will likely need to come from employer and employee contributions rather than projected investment returns.”<sup>86</sup>

Table 25: City of Newton Market Rate of Return vs.  
Expected Long-term Investment Return  
Contributory Retirement Pension System

	<u>Actual Market Rate of Return</u>	<u>Expected Long-Term Investment Return</u>
2003	20.33%	8.00%
2004	12.66%	8.00%
2005	6.70%	8.00%
2006	12.53%	8.00%
2007	10.91%	8.00%
2008	-27.72%	8.00%
2009	16.03%	8.00%
2010	12.59%	8.00%
2011	0.58%	7.75%
2012	14.15%	7.75%
	Average Market Rate of Return in last 28 years: 9.3%	
	Average Market Rate of Return in last 10 years: 7.9%	
	Average Market Rate of Return in last 5 years: 3.1%	

For a full discussion of these questions, see Appendix 4: Interest Rates, Rates of Return, Discount Rates, Investment Return and Wage Growth Assumptions in Pension Plans which is drawn largely from the Massachusetts Budget and Policy Center report, “Demystifying the State Pension System.”

<sup>85</sup> Fitch Ratings, “Enhancing the Analysis of U.S. State and Local Government Pension Obligations,” February 17, 2011.

<sup>86</sup> National Association of State Budget Officers, “GASB Enacts Pension Accounting Reforms Regarding the Use of Discount Rates,” July 20, 2012.



### B. Age at Retirement

The health insurance costs for a pre-age 65 retiree is substantially higher than those for a Medicare eligible retiree so the assumption about age at retirement is important. Coupled with longer life expectancies, age at retirement influences costs significantly. The actuary does an analysis of the age employees have retired historically and uses that for the projections. The August 20, 2013 OPEB valuation uses the following assumptions:

Table 26: Age at Retirement Assumptions

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

Source: City of Newton OPEB Valuation, FY2012

### C. Life Expectancy

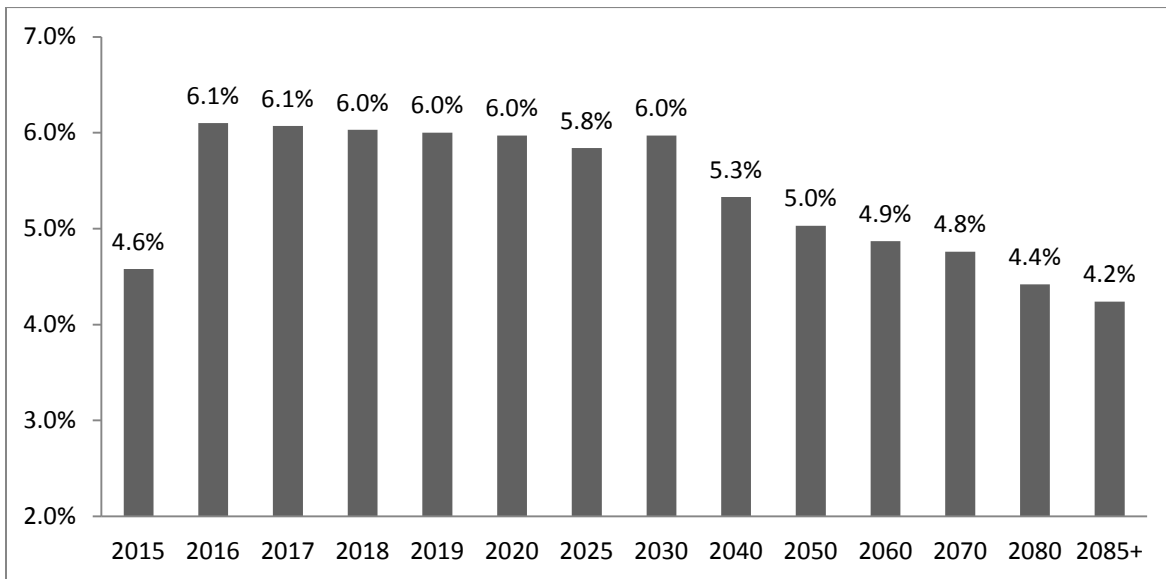
Putting a value on a pension or a retiree healthcare liability is tricky, in part, because the calculation has to take into account how long retirees are likely to live. Americans are living longer than previous generations did. When public pension systems were first established, people could typically look forward to only a few years of life in retirement if they were lucky enough to reach pension age. By 2010, life expectancy for those who reached age 65 averaged nearly 17 years for men (i.e., age 82) and 21 years for women (i.e., age 86) in the United States. The impressive increase in life expectancy in the course of the last century should surely be celebrated. Nevertheless, longer lives for retirees pose challenges for pension systems. As people live longer, they receive more pension checks despite having made the same amount of payments into the fund. It is challenging to sort out how the additional costs from longer lives should be divided between taxpayers (i.e., the City of Newton taxpayers), contributors (the employees), current retirees and future retirees.

The City of Newton is currently facing the financial implications of changes in life-expectancy projections. Increasing life expectancy translates directly into the need to increase the amount of money set aside for pensions and retiree healthcare. Slight changes in assumptions about life expectancy have large financial impacts.

### D. Medical Costs

Calculating future retiree health insurance (OPEB) costs also depends on assumptions about medical cost increases. As medical costs increase, employees and the City of Newton taxpayers cost for retiree health insurance increase. According to the August 20, 2012 actuarial study done by Financial Risk Analysts, the medical trend cost increase assumptions for the City of Newton are shown below.<sup>87</sup>

Chart 10: Projected Medical Cost Increases



### E. Wages

Calculating future pension costs also depends on assumptions about salary increases for City of Newton employees. If salaries increase, employees have to increase their contributions. At the same time, as salaries increase, then the employees' final five-year average salary will increase and so will pension costs for the City. In the January 1, 2011, 2012, and 2013 actuarial valuations of the City of Newton Contributory Retirement Pension System, the assumption used was that the total payroll of the system was expected to increase 4.5% per year. (In the January 2010 actuarial valuation, the assumption was 4.0% while in January 2009 it was 4.5%)

<sup>87</sup> The data from this chart can be found in Appendix 9.