



The Research Bureau

# Benchmarking Municipal Finance in Worcester 2009: Factors Affecting the City's Bond Rating

Report 09-04

July 27, 2009

## INTRODUCTION & BACKGROUND

In June 2009, Worcester issued \$11.4 million in General Obligation Bond Anticipation Notes (BANs). This is short-term debt, maturing within a year, issued to “provide new-money short-term financing for fiscal 2009 capital needs,” such as street construction and repairs, and water and sewer work. The City will pay .79% in interest on the \$11.4 million BANs. In July, Worcester will be issuing more notes to pay for the cleanup costs associated with last winter’s ice-storm damage (which may run 250% over original estimates) and other costs. In FY08, Worcester issued \$50.1 million in long-term General Obligation Bonds for governmental activities to finance building construction, infrastructure, equipment purchases, land improvements, and other capital projects. By the end of FY09, Worcester had issued a total of \$42.96 million in new long-term debt.

At the time of the issuance of the June 2009 BANs, Moody’s Investor’s Service affirmed its A3 rating on the \$596 million of long-term debt previously issued by Worcester and Standard & Poor’s affirmed its “A-/stable” rating.

Issuing debt is a vital function of municipal government. Many of what are considered core municipal services, especially those that fall within the domain of public works, are too costly to be financed as part of annual operational expenditures. To provide these services, all cities must borrow money in the form of notes and bonds, purchased by investment and insurance companies, commercial banks, and individual investors.

This report is part of The Research Bureau’s series of reports on benchmarking government performance in Worcester to determine trends over time so as to encourage operational improvements. The report will have two parts. The first part will give a brief overview of the nature of municipal bonds and the significance of bond ratings for Worcester’s financial well-being. The second will discuss factors affecting Worcester’s bond rating, a measure of the City’s fiscal strength and consequently the cost of borrowing.

### ***Municipal Bonds and Municipal Bond Ratings***

The two most common forms of debt Worcester issues are short-term BANs, which usually mature in a year (potentially as many as three), and long-term Municipal Purpose Loans. BANs, as implied by the name, are issued in anticipation of long-term loans and are “rolled over” or refinanced by the long-term issuances. Long-term debt typically matures in five to twenty years.

BANs are rated on a different, more compressed scale than long term bonds. While Worcester’s long-term loans are rated at A3 by Moody’s and A- by Standard & Poor’s, (a “low A”- see **Table 1**), Worcester’s BANs are given a “Mig 1” by Moody’s and a “SP 1+” by Standard & Poor’s, in both cases the highest out of the three ratings given for a short-term note. It is much easier for a credit ratings agency to assess an issuer’s ability to manage debt which is due in a year than debt which will come due in twenty years.

Worcester manages its debt through refinancing (issuing new notes or bonds to pay for mature ones), General Fund revenues, and fees. The two most important distinctions which characterize municipal debt issuance are the terms of maturity (long term bonds vs. short term notes) and the type of revenue source that is dedicated to pay for them. A General Obligation bond is backed by the city's "full faith and credit," meaning, effectively, the city's taxing power. With a General Obligation bond, the city essentially promises bondholders that it will levy sufficient tax revenues (within statutory limits) to make timely and complete payments to them. Revenue bonds, issued to finance municipal services for which the city charges fees to users to cover a portion of their cost (parking garages, sewers, etc.), are backed by those fees. Revenue bonds historically have had a slightly higher rate of default. Massachusetts statute prohibits municipalities from using fees generated by these services for anything other than paying for their operating costs or for financing their debt (that includes financing debt on General Obligation bonds). For example, any surplus in sewer or water fees can be used only for capital expenditures or reduction in user charges.

Massachusetts limits the amount of debt a municipality may issue. A city may borrow up to 10% of its total assessed valuation, but any amount greater than 5% requires state approval. At the end of FY08, Worcester's debt was below the 5% limit.

From the point of view of the prospective investor, municipal<sup>1</sup> bonds have two main attractions. The first is that they are tax-exempt: the interest earned by bondholders of most<sup>2</sup> municipal bonds is exempt from Federal income tax and often also state income tax.<sup>3</sup> As a result, municipal bonds tend to offer lower interest payments, and are primarily attractive to corporations or wealthier individuals in high income tax brackets. (The more an investor pays in taxes, the greater value a tax-exempt bond is to him.) The second main attraction of municipal bonds is their safety. Historically, cases of default for municipal bonds in America are extremely rare, especially for general obligation bonds.<sup>4</sup> Unlike a corporation, a city or town cannot be liquidated, and even in the direst economic circumstances, it still retains the power to raise revenues through taxation.

The American Recovery and Reinvestment Act, passed in February, better known as the "economic stimulus" bill, authorized the use of Build America Bonds by states and municipalities. This program provides all public entities with the option, in 2009 and 2010, to

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<sup>1</sup> In common parlance, "municipal bond" refers to a debt obligation issued not just by a municipality (a city or town), but any other government entity, such as a state, county, school district or public authority.

<sup>2</sup> Exceptions include bonds for public-private real estate development projects, local sports facilities and unfunded pension liabilities. The IRS does not deem these types of bonds of sufficient benefit for the general public to merit exemption from federal taxation, although they may qualify for exemptions from state taxes. (Worcester issued \$221 million in pension obligation bonds in 1999, at a rate of 6.3%.)

<sup>3</sup> Most states don't tax the income on bonds issued within their borders but do tax income from bonds issued in other states. The right of states to do so was recently upheld by the Supreme Court in *Kentucky v. Davis* (2008).

<sup>4</sup> "U.S. Municipal Ratings Transitions and Defaults, 1986-2009," Standard & Poor's, March 11, 2009; "Moody's US Municipal Bond Rating Scale," Moody's, November 2002; "The U.S. Municipal Bond Rating Scale: Mapping to the Global Rating Scale and Assigning Global Scale Ratings to Municipal Obligations," Moody's, March 2007.

offer taxable bonds, of which 35% of interest payments will be guaranteed by the Federal government. The guarantee comes either in the form of a subsidy to the issuer or tax credit to the investor, and lasts for the life of the issue. The program is intended to facilitate state and local governments' access to credit for capital projects by broadening the appeal of municipal bonds to a greater variety of investors. The tax-free status of conventional municipal bonds holds no attraction for such investors as foreign investors and pension funds, who would therefore be more attracted to taxable municipal bonds with a high yield instead of nontaxable municipal bonds with a low yield. Because the Federal government will be paying 35% of the interest, municipalities will be able to issue bonds with higher yields than US Treasury bonds (the yields of which are now at historic lows), while still being fundamentally much safer than corporate bonds. Some have raised concerns about the prudence of the Federal government guaranteeing the interest on these securities over the course of two to three decades (the life of a long-term municipal bond), in light of all the other burdensome long-term commitments it will have to fulfill during that time frame.<sup>5</sup> Defenders of the program respond by saying that the program will provide a cost-neutral form of stimulus, since providing the 35% rebate on interest will be more than compensated by the new Federal tax revenues on the income from the taxable bonds.

### ***Why Bond Ratings Are Important***

A municipal bond rating is a credit rating assigned to a municipality by an independent, third-party credit ratings agency. The rating assesses the fiscal health of a community, and thus gives potential bond purchasers an indication of the likelihood of timely repayment of principal and interest. Although every time Worcester issues notes or bonds it provides prospective investors with exhaustive information in the form of an official statement about the City's overall fiscal health, most investors will be inclined to base their investment decisions on the ratings agencies' opinion, viewing it as an independent, trustworthy, and efficient way to gauge risk.<sup>6</sup>

Like an individual's credit score, a bond rating has a direct impact on the cost of borrowing money. Lower-rated bonds require higher interest rates to attract investors to assume higher risk. Higher-rated bonds have lower interest rates because there is a lower risk of default. The money saved from having a high bond rating can be substantial. For instance, if two communities were both to borrow \$90 million to construct a new high school, and one community received an Aaa rating on its sale of long-term bonds and another a Baa1 rating, the difference in annual debt paid could amount to \$625,000 annually, or \$12.5 million over the life of a 20-year bond. In short, the lower a city's bond rating is, the more the city's taxpayers will have to pay to finance capital projects undertaken by the municipality.

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<sup>5</sup> Peter Schroeder, "Worries Persist over BAB Payments," *The Bond Buyer*, June 9, 2009. Girard Miller, "Build America Bonds Hit the Market," *Governing*, May 13, 2009.

<sup>6</sup> The credit agencies emphasize that their ratings are not meant to be taken as recommendations to buy, hold or sell any securities, but only estimates of future probabilities.

Moody's ratings of investment-grade bonds rank from a high of Aaa to a low of Baa3 (see **Table 1**). Any bonds ranked below Baa3 are considered "not investment grade," or "junk bonds," and therefore, highly speculative.

The independence of the credit ratings agencies has long been questioned due to the fact that issuers, not investors, pay these agencies for their analysis. In the wake of the current financial crisis, their independence and trustworthiness have drawn increased scrutiny.<sup>7</sup> Many of the riskiest mortgage-backed securities (better known as "toxic assets") on which financial firms suffered deep losses were very highly rated, initially, by the credit ratings agencies. Because so many of these new securities were being packaged, rated and issued during the recent boom, the profit margins of the ratings agencies soared before the collapse. The credit ratings agencies were taking in large fees from financial firms to rate securities that proved in retrospect far too complex or simply too new to judge their risk adequately.<sup>8</sup>

<b>Moody's</b>	<b>Standard &amp; Poor's</b>
Aaa	AAA
Aa1	AA+
Aa2	AA
Aa3	AA-
A1	A+
A2	A
A3	A-
Baa1	BBB+
Baa2	BBB
Baa3	BBB-

Although the credit ratings agencies have by no means been absolved for their role in the current financial crisis, and charges about conflict of interest will continue to be a matter of concern, these issues are somewhat less of a concern in the case of municipalities like Worcester. There is much less risk of a conflict of interest between a ratings agency and Worcester than with large issuers of securities like Citigroup, since the City pays the three agencies together a modest sum of \$35,000 annually for their analysis. Moreover, municipal bonds are about as far from an "exotic" security as can be found. There is thus less of a danger that ratings agencies, which have been evaluating the safety of municipal bonds for decades, lack the capacity to understand their risk.

Many believe that, unlike the case of structured finance products, credit ratings agencies rate municipalities too critically. Public officials at all levels of government charge that the agencies apply a double standard in the way that they rate corporate bonds and municipal bonds. Their argument is that, in light of their historically very low rate of default and municipalities' taxing power, neither of which any private corporations can match, most municipalities deserve to be rated higher.<sup>9</sup> A wholesale upgrade of state and local governments would free them from the need to pay insurance premiums to enhance their unjustifiably low credit ratings.<sup>10</sup> Since the

<sup>7</sup> Rick Brooks, "Raters Sued by Calpers Over Losses," *Wall Street Journal*, July 15, 2009.

<sup>8</sup> Roger Lowenstein, "Triple-A Failure," *New York Times*, April 27, 2008; David Evans and Caroline Salas, "The Ratings Trap," *Bloomberg Markets*, June 2009.

<sup>9</sup> If Worcester were rated on a scale similar to that of corporations, its "A3" would likely become an "Aa1." (see "A Higher Grade," accompanying chart to Julie Creswell and Vikas Bajaj, "States and Cities Start Rebellious on Bond Ratings," *New York Times*, March 3, 2008.)

<sup>10</sup> Technically speaking, Worcester, like many other municipalities, "borrows" a higher credit rating for its long term debt by purchasing bond insurance from a highly-rated private insurance company. Worcester's bonds therefore

cost of borrowing is a function of a credit rating, state and local taxpayers stand to save enormous sums from such an upgrade. Legislation has been filed at the Federal level that would essentially require credit ratings agencies to do away with this double standard. This has even been proposed as an indirect form of Federal assistance to states and municipalities, as a way to lower their cost of borrowing as they struggle to balance their budgets in a time of fiscal crisis.

Credit ratings agencies defend their analysis by saying that disclosure standards are stricter in the private than in the public sector. Corporations who issue securities are required to file quarterly earnings reports with the SEC, whereas municipalities only publish an annual financial report, and usually not until several months after the end of their fiscal year. Additionally, the agencies say that the rigor they have applied to rating municipal debt has been a cause of strong management and fiscal discipline amongst state and local financial officers, and has therefore been a contributing factor in the historically low rate of municipal bond defaults. Finally, they argue that now is not the time to weaken credit standards.<sup>11</sup> In April 2009, for the first time, Moody's assigned a negative outlook to the U.S. local government sector. The agency says that this outlook expresses its expectation for the fundamental credit conditions in the sector over the next 12 to 18 months.<sup>12</sup>

### **Worcester's Bond Rating**

Worcester has had an A3 rating since 2002 (**Table 2**).

Of the 254 municipalities in Massachusetts rated by Moody's, 192 (76%) have higher ratings than Worcester, 37 have the same rating, and only 24 have lower ratings. Standard & Poor's rates 138: 112 (81%) are more highly rated than Worcester and 11 are lower. The most highly ranked or "triple-AAA" municipalities in the Commonwealth tend to be small, wealthy suburbs with high property values and a primarily residential tax base (**Table 3**). Only three, Cambridge, Newton, and Brookline, have a population above 31,000. Cambridge is the only Aaa community where residential property constitutes less than 87% of the total assessed value.

<b>1986</b>	Baa1	<b>1998</b>	Baa1
<b>1987</b>	Baa1	<b>1999</b>	Baa1
<b>1988</b>	Baa1	<b>2000</b>	Baa1
<b>1989</b>	Baa1	<b>2001</b>	Baa1
<b>1990</b>	Baa1	<b>2002</b>	A3
<b>1991</b>	Baa1	<b>2003</b>	A3
<b>1992</b>	Baa1	<b>2004</b>	A3
<b>1993</b>	Baa1	<b>2005</b>	A3
<b>1994</b>	Baa1	<b>2006</b>	A3
<b>1995</b>	Baa1	<b>2007</b>	A3
<b>1996</b>	Baa1	<b>2008</b>	A3
<b>1997</b>	Baa1	<b>2009</b>	A3
<i>Source: Massachusetts Department of Revenue (DOR)</i>			

carry the private insurance company's higher credit rating. Of course, just as with auto insurance and credit cards, the bond insurer charges a higher premium to insure riskier communities with low credit ratings.

<sup>11</sup> "A Comment on the Current Market Dialogue Regarding Municipal Bond Ratings," National Federation of Municipal Analysts, May 2008. Moody's, incidentally, openly admits that it uses separate ratings scales for municipal and corporate bonds (see "Mapping of Moody's U.S. Municipal Bond Rating Scale to Moody's Corporate Rating Scale and Assignment of Corporate Equivalent Ratings to Municipal Obligations," Moody's, June 2006). But critics say that, since the same ratings are used (A1, A2, A3, etc.), this is confusing and exaggerates the risk of default in the eyes of most investors.

<sup>12</sup> "Moody's Assigns Negative Outlook to U.S. Local Government Sector," Moody's Investor Service, April 2009. In the first quarter of 2009, Standard & Poor's downgraded 327 municipal issues, more than all of 2008 (264). (Jane Bryant Quinn, "Muni Downgrades Add Risk, Prize to Bond Game," *Bloomberg*, July 1, 2009.)

<b>Table 3: AAA rated communities in Massachusetts (Moody's)</b>		
<b>Municipality</b>	<b>Residential %</b>	<b>Population</b>
Belmont	94%	23,356
Brookline	91%	54,809
Cambridge	61%	101,388
Concord	91%	16,840
Dover	97%	5,627
Hingham	87%	22,394
Lexington	87%	30,332
Newton	90%	83,271
Wayland	95%	13,017
Wellesley	87%	26,985
Weston	96%	11,698
Winchester	94%	21,137

Source: DOR

<b>Table 4: Bond Ratings of Older Industrial Cities in Massachusetts</b>	
Leominster	A1
Brockton	A2
Chicopee	A2
Lowell	A3
New Bedford	A3
Pittsfield	A3
Taunton	A3
<b>Worcester</b>	<b>A3</b>
Fall River	Baa1
Fitchburg	Baa1
Haverhill	Baa1
Holyoke	Baa1
Lynn	Baa1
Springfield	Baa2
Lawrence	Baa3

Source: DOR

As **Table 4** shows, Worcester’s A3 falls within the standard range of ratings for most other older industrial cities in the Commonwealth.

Massachusetts’ Aa2 credit rating was recently reaffirmed in May 2009. In general, states are rated more highly than municipalities. Out of the 50 states, only three have ratings of A1 or below, and none as low as Worcester’s A3 (although California’s A2 is presently at risk of a downgrade.)

### **Worcester’s Bond Rating and the City Manager’s Five-Point Financial Plan**

Stabilizing the City’s bond rating is a cornerstone of the City Manager’s “Five-Point Financial Plan,” adopted by the City Council on November 24, 2006 (see **Table 5**). The Plan calls for the creation of a Bond Rating Stabilization Fund made up of deposits from debt service reimbursements Worcester receives from the Massachusetts School Building Authority and a new policy that places 50% of any net Free Cash (year end surpluses) generated by the City in any given year into this fund. These two actions are designed to increase the amount of City reserves available to address economic and budgetary fluctuations that the City may face over the long term. The Plan also calls for creating a North High Capital Improvement Fund that will be used to finance the construction of a new high school without increasing Worcester’s property taxes to finance this \$72 million project. The positive impact of this plan on the City’s long term financial stability has been regularly cited by all three ratings agencies in their credit reports for Worcester.<sup>13</sup> Other financial and debt plans are intended to improve Worcester’s financial performance and management practices so as to strengthen the City’s fiscal and operational health.

<sup>13</sup> Standard & Poor’s lists something like a Five-Point Plan as one of its “Top 10 Characteristics of Highly Rated Credits in U.S. Public Finance.” (“Top 10 Characteristics of Highly Rated Credits in U.S. Public Finance,” Standard & Poor’s, June 2008.)

**Table 5: Worcester's Five-Point Financial Plan**

(1) Five-year forecasting and long-term planning of City finances and projects
(2) Strengthening of reserves, including creation of Bond Rating Stabilization Fund
(3) Quarterly financial reporting
(4) \$15 million cap on borrowing (can be adjusted for inflation) <sup>14</sup>
(5) Capital Improvement Plan to achieve debt service stability in budget

## Factors That Contribute to a Community's Bond Rating

The remainder of this report will look at the factors that ratings agencies take into consideration when determining municipal bond ratings. Generally speaking, they fall into two categories: measures of competence in fiscal management on the part of municipal officials and measures of the local community's underlying economic strength.

It is necessary to understand how Worcester performs in these various areas to see what may cause the City's rating to change positively or negatively. The following section examines seven key indicators of financial health that influence a municipality's bond rating.

In what follows, no attempt has been made to rank the various indicators relative to one another, since the three different credit ratings agencies which rate Worcester's debt, Moody's, Standard & Poor's and Fitch's, weight the indicators slightly different. Fitch places more emphasis on economic indicators, Moody's on municipal finance data and Standard & Poor's on competence in fiscal management. (Standard & Poor's actually has an independent scale by which it rates management, separate from the various quantifiable fiscal and economic indicators.<sup>15</sup>

Worcester's management team currently receives a "good" rating, the second-highest.) But all three agencies consider all of the following indicators significant.

### Fiscal Management Indicator 1: General Fund Balance

**Definition:** The General Fund is used to pay for most of municipal government's financial activities. Worcester's revenues are generated primarily from local taxes, state aid, interest income, and fees and charges such as motor vehicle excise fees, parking fines, and fees for birth certificates. General Fund expenditures cover the major services municipal government provides, including public safety, public education, public works, plus employee fringe benefits and debt service payments. In addition to funding these regular operational expenses, municipalities also set some revenues aside as reserves: this amount is known as the General Fund Balance. For

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<sup>14</sup> This refers to how much new long-term debt the city adds per year that is backed by General Fund revenues. The cap does not apply to borrowing for enterprise account activities which have self supporting revenue streams. In order to balance the FY10 budget, the City Manager reduced the cap on borrowing from \$17.8 million to \$15 million, so as to save on annual interest costs.

<sup>15</sup> "Public Finance Criteria: Financial Management Assessment," Standard & Poor's, June 2006.

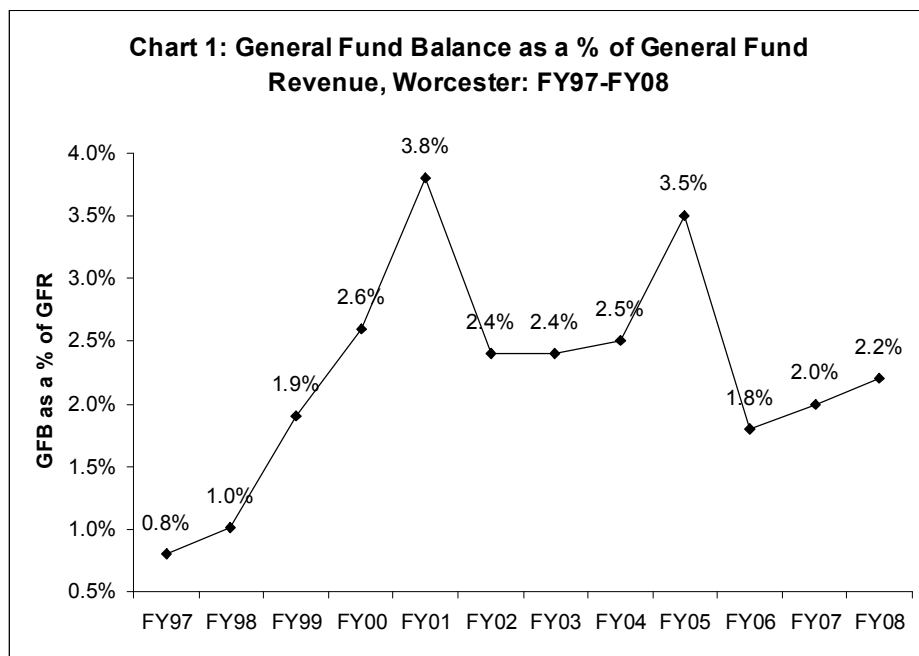


accounting purposes, the General Fund Balance includes a reserved or designated portion, which has been set aside for a specific purpose, and an unreserved or undesignated portion, which is available for any expenditure necessary.

**Significance:** Sometimes referred to in municipal accounting as a “rainy day fund,” the General Fund Balance can be a source of supplemental funding during an economic downturn, or can be used to cover unexpected revenue shortfalls or unanticipated expenditures. (Worcester drew down \$7 million of its reserves between FY05 and FY06, to pay for higher-than-anticipated costs for snow removal, police overtime, and employee retirement and health benefits.) From a credit ratings agency’s perspective, having a healthy reserve level reduces a community’s current and future risk of default. The strength of the “rainy day fund” is measured by the ratio of the General Fund Balance to General Fund revenues. Ratings agencies use this ratio to compare the reserve levels of communities of different sizes. The larger the General Fund Balance as a percent of total revenues, the more flexibility a community has to address unexpected consequences of economic cycles. However, the size of the reserves should not be so large that residents think their tax bill exceeds the level of services provided.

Because the status of the General Fund Balance is the primary indicator monitored by the credit ratings agencies in their reports, it is the first factor mentioned by the City Manager in his “Five-Point Plan.”<sup>16</sup>

**Findings:** At the end of FY08, Worcester’s ratio was 2.2% (see **Chart 1**<sup>17</sup>).



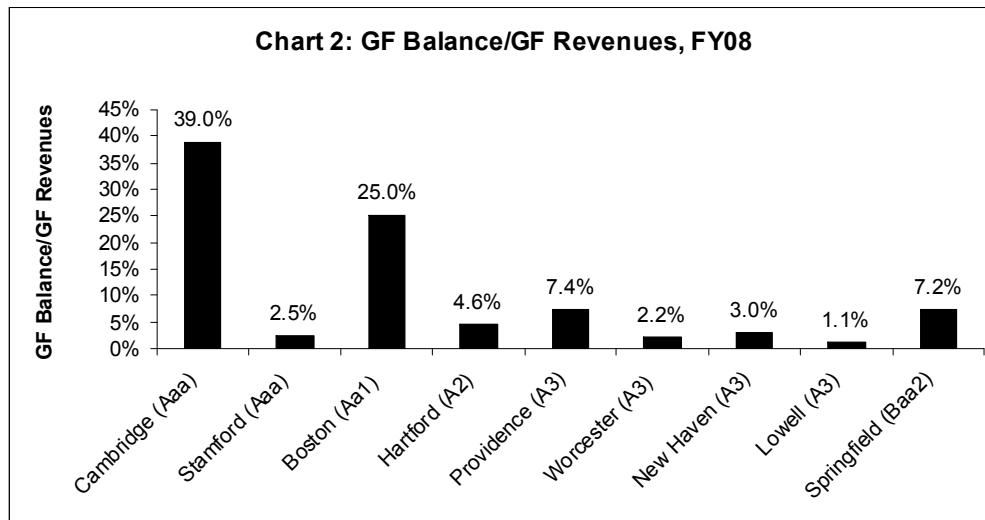
<sup>16</sup> “Five-Point Financial Plan,” p. 3.

<sup>17</sup> Unless otherwise noted, all data in this report are drawn from Worcester’s and the other various cities’ FY08 Comprehensive Annual Financial Reports, and prepared by The Research Bureau.

The ratings agencies consider a 5-10% ratio as appropriate to cover any unexpected financial situation. In other words, for Worcester to have what is considered a healthy level of reserves, it would need to maintain over \$27 million in reserves. As of the end of FY08, the City had a balance of \$11.9 million.

It should be mentioned that Worcester does have \$12 million in untapped tax levy, which could be considered another type of reserve. The City would not need to request a Proposition 2 ½ override to access these funds; a majority vote of the City Council would suffice to support the increase. All the ratings agencies are aware of the existence of this extra financial cushion and note it favorably. Moody's indicates that tapping into this unused levy capacity would not hurt Worcester's rating, and might even strengthen it, as it would increase recurring revenue sources.

For the 10 cities highlighted in **Chart 2**, the General Fund Balance to General Fund revenue ratio in FY08 ranged from a low of 1.1% to a high of 39%. In FY08, Worcester and Lowell, both with the bond rating A3, had the lowest ratio of all the cities. Boston had the highest balance overall, at \$553.1 million, but the Aaa-rated Cambridge had the highest ratio of reserves to revenues of the cities surveyed, at 39%. The City of Springfield's relatively respectable level of reserves (despite its low bond rating of Baa2) is due mainly to Springfield's access to a state trust fund that was put in place after the establishment of the Springfield Finance Control Board to try to restore financial stability in that city. In 2005, Springfield was given access to \$52 million, which must be repaid (without interest) by FY12.



## **Fiscal Management Indicator 2: Debt Service**

**Definition:** Municipalities incur debt when they borrow money to pay for capital projects. Debt service is usually stated in annual terms and based on a specific repayment schedule which includes the principal and interest that needs to be paid on any bonds issued by the municipality.

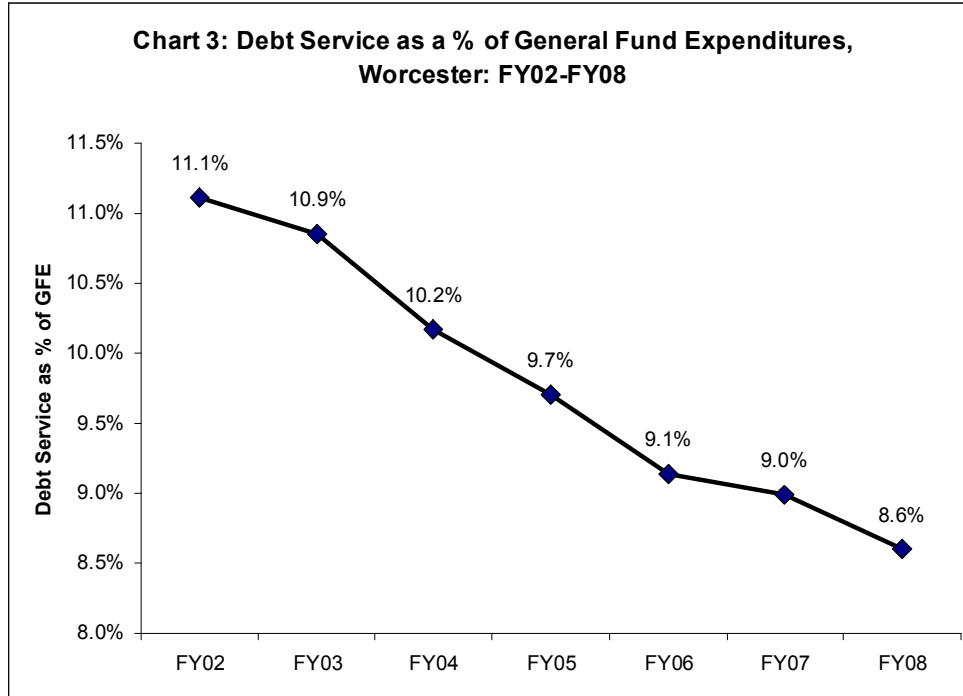
**Significance:** The ratio of annual debt service payments to General Fund expenditures measures the debt obligations of the city and is an indicator of the degree of flexibility that a city has with other expenditures. A community's debt burden profile provides insight into whether the community is overextended and is unable to finance future capital needs.

According to the ratings agencies, an appropriate guideline for the ratio of debt service to total expenditures is around 5-10% over a consistent period of time. If this metric is higher it suggests that future discretionary revenues are being consumed by debt payments on past projects and insufficient funds may be currently available for city services such as public education and public safety.<sup>18</sup> Alternatively, a declining debt service ratio suggests that the community is managing its capital investments wisely and has discretionary dollars that can be used to improve services, increase its reserve, or lower its tax bills.

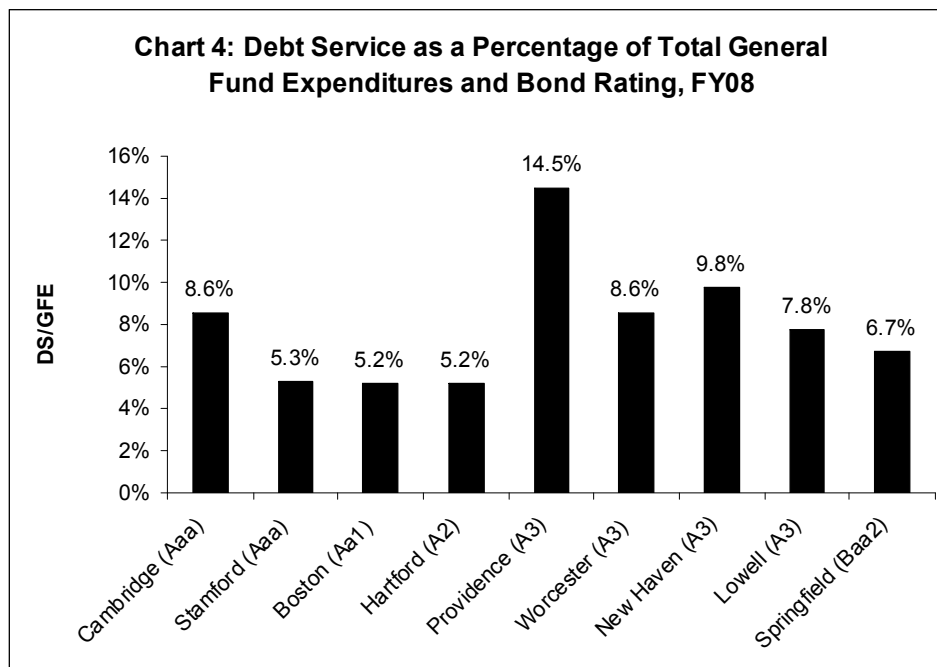
**Findings:** As shown in **Chart 3**, during the past five years, the proportion of debt service to expenditures in the City of Worcester has declined, from about 11% in FY02 to 8.6% in FY08.

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<sup>18</sup> In an especially noteworthy instance of this, the Massachusetts Turnpike Authority still owes \$2.2 billion in debt on the Big Dig. Servicing this debt costs more than \$100 million a year, and the Authority does not expect to pay off all the bonds related to the project until 2039 (Sean Murphy, "Big Dig's Red Ink Engulfs State," *Boston Globe*, July 17, 2008). According to a recent report by the American Legislative Exchange Council, Massachusetts devotes a higher share of tax revenues towards debt service (13.3%) than any other state in the nation. (Arthur Laffer, Stephen Moore, Jonathan Williams, "Rich States, Poor States: The ALEC-Laffer State Economic Competitiveness Index, Second Edition," 2009, American Legislative Council.)



Worcester's declining debt service ratio is a product of the tax levy bonding caps that the City administration and City Council approved during this period. These measures have had a positive impact on the City's debt service expenditures. With the new caps in place under the Five-Point Financial Plan, the City can be expected to continue to live within its financial means. However, as shown in **Chart 4**, in FY08, out of the cities measured, only New Haven and Providence had a higher percentage of their budgets devoted to debt service than Worcester.



It is important to note that the \$221 million in pension obligation bonds Worcester issued in 1999 constitutes almost a third of Worcester’s long-term debt obligation. As will be discussed shortly, a city’s pension obligation is regarded as a “soft” debt obligation as opposed to “hard” debt service on bonds. By issuing the pension obligation bonds, Worcester essentially changed a soft debt obligation into a hard one. Had Worcester not issued the bonds, the ratio shown in **Chart 4** would be significantly lower relative to the other cities, none of which have issued pension obligation bonds.

Worcester’s debt per capita is \$2,220; Standard & Poor’s considers Worcester’s debt burden to be “moderate.”

### **Fiscal Management Indicator 3: Pension System Funding**

**Definition:** The City of Worcester offers a contributory defined-benefit pension plan, which provides qualified employees with a certain benefit upon retirement. The benefit amount is based on an employee’s age at retirement, years of service, and highest salary earned. Worcester guarantees the size of the pension benefit and must ensure that funding is available to make the promised payments once they are due.

Prior to 1987, cities in Massachusetts funded their public pension systems on a pay-as-you-go basis, paying only what was necessary to cover for the current year’s retiree costs. Over the decades, as public employment expanded, more and more retirees were added to the rolls, and retroactive increases in benefits were granted by elected officials, the system began to show strain. To address this issue, the state Legislature enacted a law in 1987 requiring all public

pension systems in the Commonwealth to be funded on a pre-funded, instead of pay-as-you-go basis, and to amortize their unfunded liability by 2028.

**Significance:** Municipalities have an obligation to fund their pension systems by making annual contributions that are then invested long term to meet their obligations to current and future retirees. A pension obligation is viewed by municipal finance officials as a fixed cost or “soft” debt obligation. Debt service on bonds is a “hard” obligation. During times of fiscal crisis, such as now, public pension systems are often granted some form of leniency or temporary relief in their payment schedule. While credit ratings agencies do not encourage suspending or reducing annual pension contributions, they consider them much less of a credit threat than reducing payments on a municipality’s bonded debt.

**Table 6: Pension System Funding and Bond Ratings**

	Average Contribution to ARC over last five years	Funded Ratio
Cambridge (Aaa)	100.0%	92.0%
Stamford (Aaa)	98.8%	110.6%
Boston (Aa1)	100.0%	66.5%
Hartford (A2)	101.2%	100.1%
Worcester (A3)	101.2%	85.0%
New Haven (A3)	100.0%	60.6%
Lowell (A3)	100.0%	58.8%
Providence (A3)	94.9%	38.6%
Springfield (Baa2)	100.0%	42.4%

Even prior to 2008’s market collapse, in which most public pension funds lost 25-30% of their value, relatively few public systems in Massachusetts and across the nation were fully funded, including those of some triple-AAA rated communities. Pension plans for private corporations are very strictly regulated and are required to pay off their unfunded liabilities within less than ten years, but the typical amortization period is much longer for

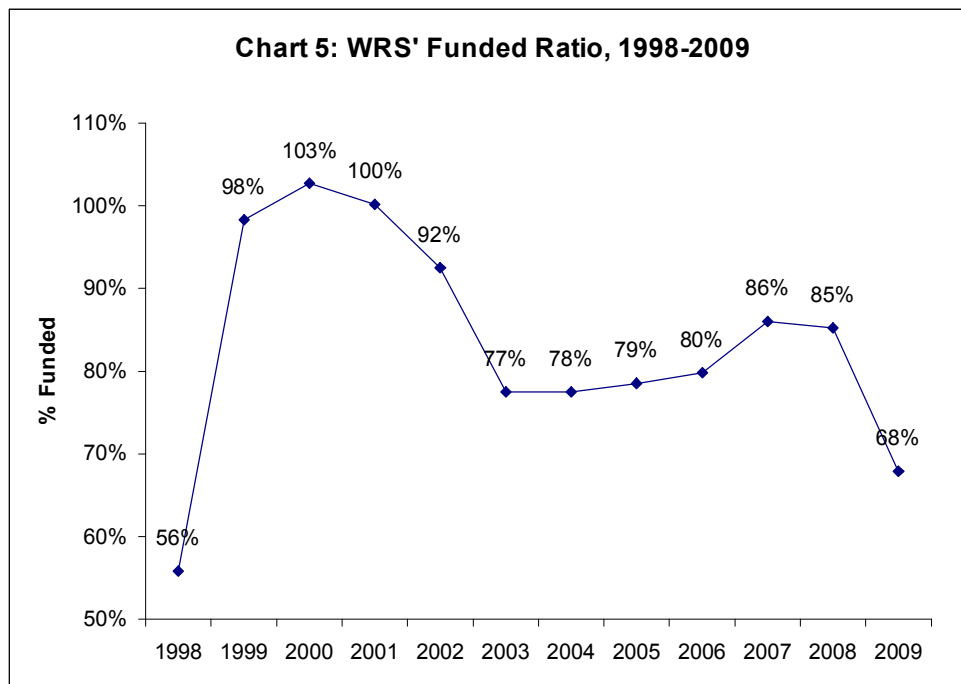
public systems. Most experts tend to emphasize for public pension systems that the sponsoring state or municipality should have an actuarially-approved plan in place to pay off its unfunded liability, that it adhere to the plan, and that the system be at least 80% funded.<sup>19</sup>

**Findings:** A public pension plan’s Actuarially Required Contribution (ARC) is the amount which an independent actuary has determined it needs to contribute in order to amortize its unfunded liability by the expected date. In all of the last ten years, Worcester has paid 100% of its ARC, and its funded ratio was relatively high compared to other communities (**Table 6**). This is partly due to Worcester’s pension obligation bonds. Again, none of the other cities examined have issued pension obligation bonds.

The ratios shown in **Table 6** do not reflect the experience of 2008’s market crisis, since they are based on the most recent actuarial valuation, from either 2007 or the beginning of 2008. As **Chart 5** shows, WRS experienced major setbacks in its funded ratio in 2008, like all other public

<sup>19</sup> Alicia Munnell, et al, “The Miracle of Funding by State and Local Pension Systems,” Center for Retirement Research at Boston College, April 2008; “State and Local Government Retiree Benefits: Current Funded Status of Pension and Health Benefits,” United States Government Accountability Office, January 2008.

pension systems, as a result of the market crash.<sup>20</sup> The City is managing these setbacks as responsibly as it can. For instance, in the FY10 budget, the City contributed over 100% of its ARC.<sup>21</sup> It remains to be seen how seriously credit ratings agencies will weigh this less-than-desirable level of the unfunded liability.



### Fiscal Management Indicator 4: Other Post-Employment Benefits

**Definition:** Other Post-Employment Benefits (OPEB) refers to retirement benefits offered to public employees other than pensions such as life insurance, dental and vision care and, most important, health insurance. Unlike pensions, health benefits in Massachusetts (including plan design and contribution rates) are not determined by state law, but are set either through collective bargaining or by the municipality. In the case of Worcester, 25% of retirement contributions to the health plan are paid by retirees through pension deductions and the City pays the rest. MGL 32B Section 19 allows for municipalities to adopt coalition bargaining for health benefits including retirees. In Worcester, health benefits for retirees are not currently set by coalition bargaining and are uniform for all retirees.

<sup>20</sup> WRS' 2009 figure is based on estimates by system administrators.

<sup>21</sup> In addition to doing an actuarial valuation every year (many cities do one every two, and some only every three), the Worcester Retirement Board also does a mid year "checkup," before requesting its budgetary contribution from the City. Due to the huge losses that WRS sustained between 12/31/07, which the most recent valuation was based on, and January, when the checkup was performed, the decision was taken not to simply ignore the experience of 2008, even though the City could have done so and stayed within its actuarial funding requirements. As a result, the City contributed above 100% of its ARC in its FY10 budget.

**Significance:** The cost of funding retiree health care has attracted great attention from credit ratings agencies for a few reasons. First, the Government Accounting Standards Board's (GASB) Statements 43 and 45, "Financial Reporting for Post-employment Benefits other than Pension Plans" and "Accounting and Financial Reporting by Employers for Post-employment Benefits Other than Pensions," published in 2004 and effective as of FY08, require states and localities to disclose the most recent actuarial estimate of their OPEB liabilities in their audits. Second, health care costs have skyrocketed over the past 20 years, far exceeding inflation and often increasing by 10% or more annually. Third, life expectancy has risen. Longer lives mean more years that states and municipalities must fund health benefits for their retirees. In short, municipalities are now faced with paying increasingly expensive health benefits to retirees who are living longer lives. These facts cannot be ignored on a municipality's balance sheet.

The collective OPEB liability for all states and municipalities nationwide has been estimated to be as high as \$1.5 trillion.<sup>22</sup> Few communities across the nation have begun to put aside any assets to meet these liabilities. Most municipalities continue to fund OPEB on a pay-as-you-go basis, meaning that they appropriate enough each year to cover current benefits for current retirees only. From the perspective of credit ratings agencies, this may mean, in the long term, less funding available for reserves, and therefore less ability to address financial crises.

MGL ch. 32B, s. 18 allows municipalities in the Commonwealth to require all retired employees 65 or older eligible for Medicare to enroll in the Federally-subsidized Medicare plans. At the urging of the City Manager, Worcester's City Council adopted Section 18 in 2007. According to the most recent estimation of the City's OPEB liability, this will save over \$100 million over the long term in retiree health care liability by having the Federal government rather than the City pay for most of the health insurance.

**Findings:** None of the communities examined in this report have begun to pre-fund their OPEB liability. The only communities in the Commonwealth which have begun to do so are wealthy suburbs such as Arlington and Wellesley which, at the time, had to seek special authority from the state. Only very recently did the state Legislature extend the right to establish an independent OPEB trust fund to all municipalities.<sup>23</sup>

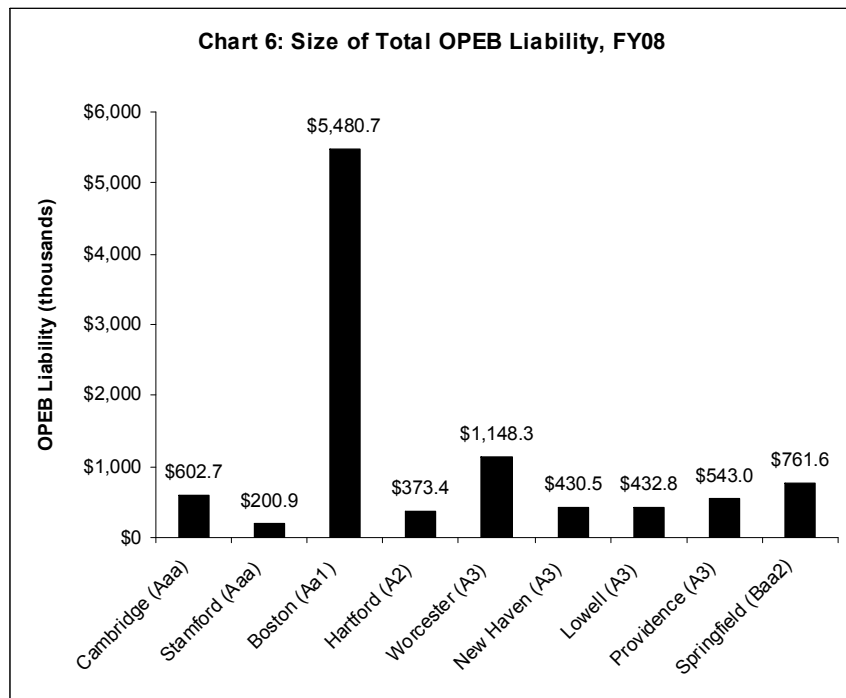
**Chart 6** compares the size of the communities' OPEB obligations.

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<sup>22</sup> David Zion and Amit Varshney, "You Dropped a Bomb on Me, GASB: Uncovering the \$1.5 Trillion in Hidden OPEB Liabilities for State and Local Governments," Credit Suisse, March 2007; "State and Local Government Retiree Benefits: Current Funded Status of Pension and Health Benefits," United States Government Accountability Office, January 2008.

<sup>23</sup> Chapter 479 of the Acts of 2008, "An Act Providing for the Establishment of Other Post Employment Benefits Liability Trust Funds in Municipalities and Certain Other Governmental Units."





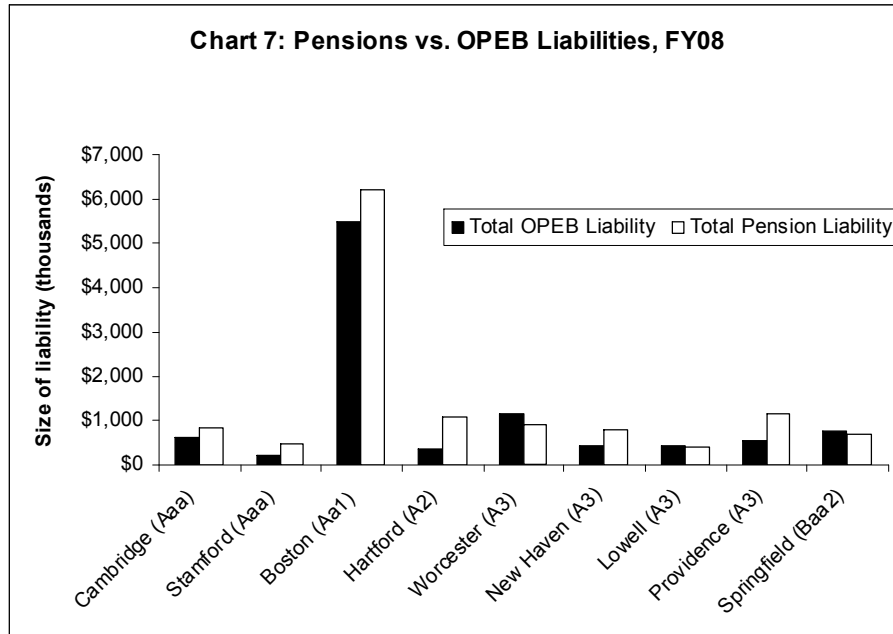
It is very important to emphasize when comparing these figures that they are *not* precisely comparable because, in calculating their OPEB liabilities, the respective cities and their actuaries did not use the same set of actuarial assumptions. The estimated size of an OPEB liability is a function of the size of the community (how many current and future retirees it has), the relative generosity of the benefits granted to retirees,<sup>24</sup> and also the actuarial methods being used to estimate the liability. The most important actuarial assumption is the “discount rate” that is assumed.<sup>25</sup> The size of an OPEB liability can change drastically depending on whether or not it is estimated on a pre-funded or pay-as-you-go basis. On a pre-funded basis, the liability is much lower because the city is estimating how much it owes, discounted by how much it assumes it would gain by investing the money. Although none of the cities are actually pre-funding their obligations, some estimate the size of their liability as if they were. Worcester estimates its liability using a fairly conservative discount rate (4%), which exaggerates the size of its liability relative to some other cities. Discount rates among the cities surveyed here ranged from 3.5%

<sup>24</sup> Not all local governments provide health benefits to retirees. In a survey of 7,500 local governments published in November 2008 by the National Conference on Public Employee Retirement Systems, 50% of larger local governments (defined as 25,000+) granted post-retirement health care. The survey reported that the smaller the government jurisdiction, the less likely it was to provide post-retirement health care (“Health and OPEB Funding Strategies: 2008 National Survey of Local Governments,” Cobalt Community Research, November 2008). Also, many states and localities, like Worcester, have begun to scale back retiree health benefits as a direct result of GASB 43 and 45.

<sup>25</sup> Others are amortization method (level or increasing payments) and the cost of health care. Some of the cities’ actuarial valuations date back to 2006.

(Lowell and Springfield) to 8.5% (Providence). On a pre-funded basis, Worcester's obligation could shrink from \$1.15 billion to as low as \$606 million.<sup>26</sup>

Regardless of the actuarial method employed and how well the various cities look relative to one another, in all cases, these liabilities are enormous. As **Chart 7** shows, in most cases, the size of the total OPEB liability approaches that of the pension liability. If health insurance costs continue to rise as aggressively as they have in recent years, the OPEB liability could exceed the pension liability in years to come.<sup>27</sup>

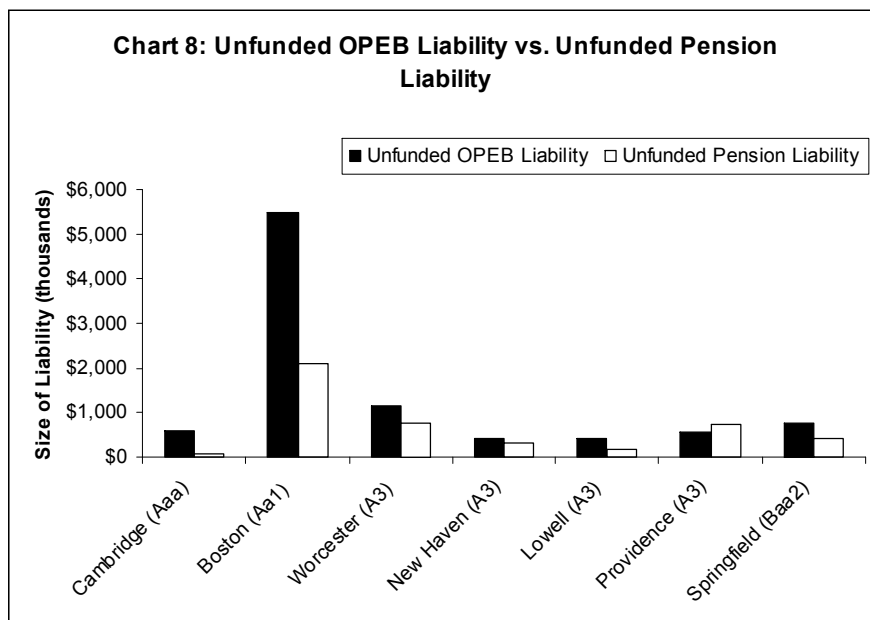


The gap between pension funding and OPEB funding is made clearer in **Chart 8**, which compares the discrepancy between the unfunded OPEB liability, which is the same as the total liability, and the unfunded pension liability, which is significantly less, since all these cities have been funding their pension liability for twenty years or more. All the cities but Providence (whose pension plan has a very low funded ratio) estimate that they owe more on health benefits than pensions. (Hartford and Stamford were left out because their pension plans were over-funded as of the most recent actuarial valuation.) Although ratings agencies consider OPEB liabilities a “soft” obligation like pensions, since their funding schedule is more flexible than debt service, **Chart 8** helps to explain why credit ratings agencies have begun to raise such serious concerns about OPEB liabilities.<sup>28</sup>

<sup>26</sup> Worcester's OPEB ARC in FY08 was \$66 million on a pre-funded basis, and \$111 million on a pay-as-you-go basis, both far in excess of the \$21 million the City appropriated to cover current retirees' health care in FY08.

<sup>27</sup> Because OPEB estimates depend on conjectures about the future cost of health care, they are expected to be more volatile than estimates of pension liabilities.

<sup>28</sup> “OPEB liabilities may be of greater future budget concern than pension liabilities, even when pension liabilities are larger. Cities already generally include in their budgets their annual pension cost on an actuarial basis. However, most cities have yet to carve the true actuarial cost of OPEB out of their budgets, and by postponing true



## Economic Indicator 1: Unemployment Rate

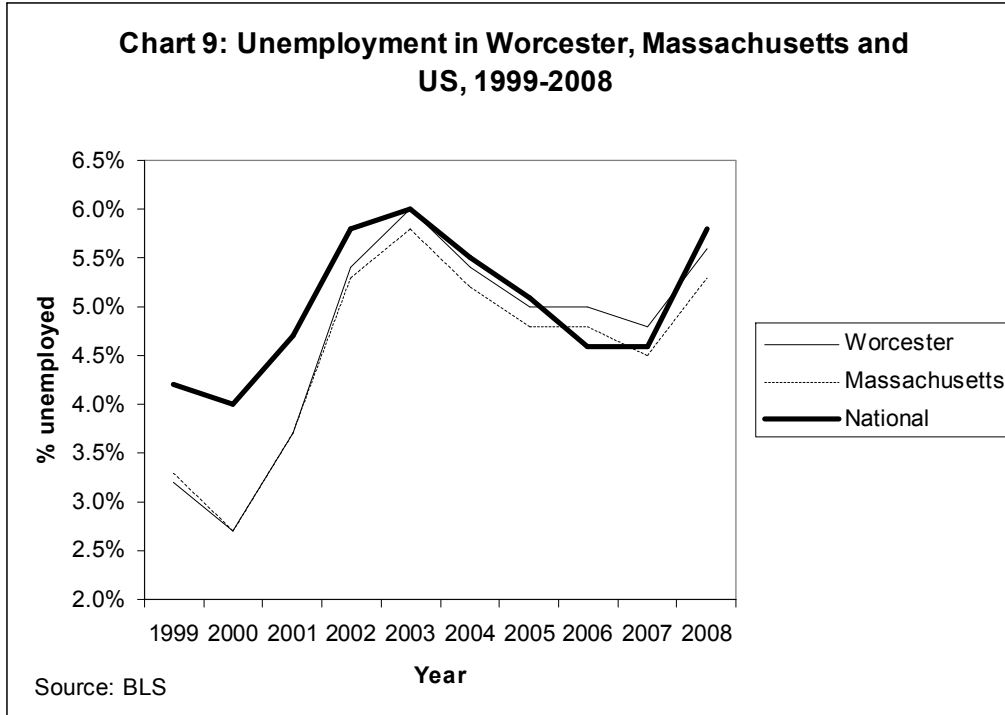
**Definition:** The unemployment rate represents the number of unemployed residents per 100 persons in the labor force. Unemployed individuals are those persons age 16 and older who are not employed, but are able, available, and actively seeking work.

**Significance:** Unemployment rates are a key indicator of the health of the local economy. A high unemployment rate in a city may reflect a lack of sufficient employment opportunities, due to the departure of established businesses and/or the failure to attract new ones. A low unemployment rate signifies a strong economic base in a city, and it is this economic base, or tax base, that in turn is responsible for paying off the bonds issued by a municipality. Having a stable economy and a well-diversified workforce reduces a community’s exposure to economic cycles that can cause contraction and expansion of jobs, and thereby reduce the likelihood of defaults on bonds.

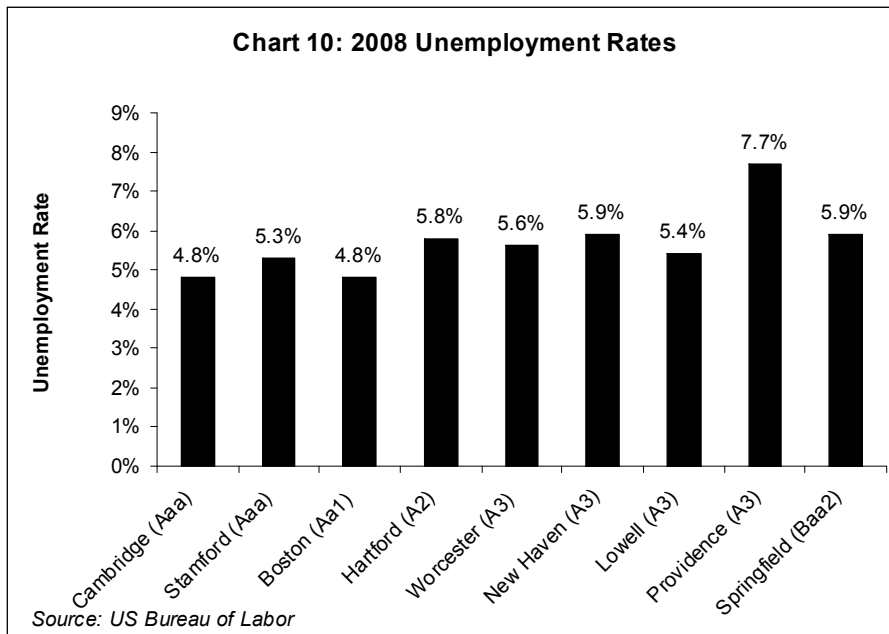
**Findings:** As **Chart 9** shows, Worcester’s unemployment rate since 2002 has remained consistently higher than that of the Commonwealth’s, but remained below national averages throughout the past decade with the exception of 2006 and 2007. In all economic indicators such as unemployment rates, credit ratings agencies are interested not only in trends over time, but also how the statistics compare to averages elsewhere.

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annual funding leave themselves open to a progressively greater [liability].” “Largest U.S. Cities Show Mixed Progress in Meeting their OPEB Liabilities,” Standard & Poor’s, March 12, 2009.



Worcester's unemployment rate in 2008 was higher than four of the cities surveyed and lower than the four others (see **Chart 10**).<sup>29</sup>



<sup>29</sup> The data in Chart 10 represent each community's average unemployment rate over the course of 2008. (Source: Bureau of Labor Statistics, <http://www.bls.gov/data/>.)

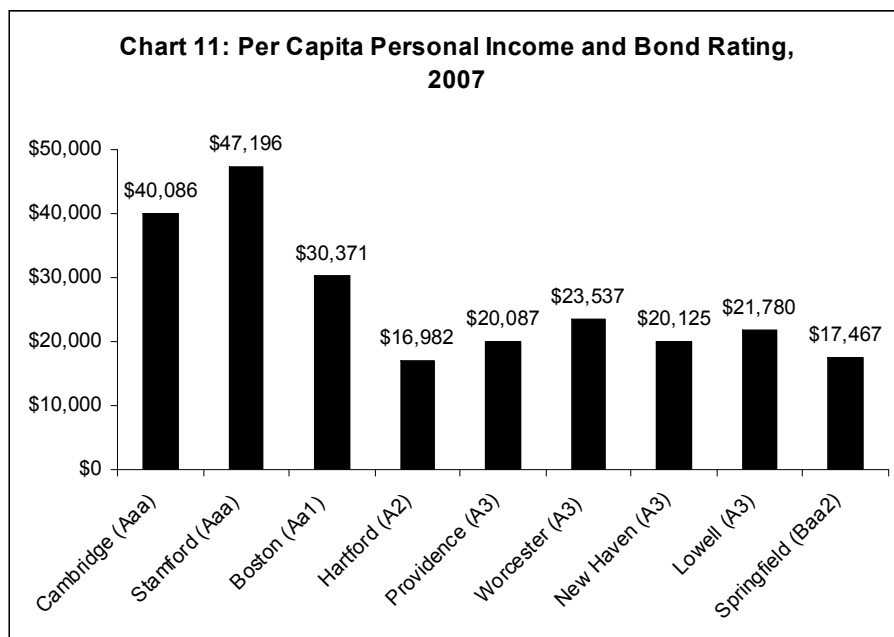
According to the most recent statistics put out by the Bureau of Labor, as of May 2009, Worcester’s rate is 8.6%, the state rate is 8%, and the national rate is 9.1%.<sup>30</sup> It remains to be seen what impact this substantial increase will have on Worcester’s bond rating going forward.

## Economic Indicator 2: Per Capita Income

**Definition:** Per capita income is the total personal income of a group of people, divided by the total population of that group.

**Significance:** Per capita income is a measure of a city’s wealth and economic well-being. It can be used to compare wealth among other groups, or in this case, among cities. Declining or lower per capita income can signal weakening economic opportunity and business vitality, factors which are directly related to economic growth. A decline in economic growth can negatively affect a municipality’s tax base, and therefore reduce its ability to support municipal debt.

**Findings:** When examining the nine New England cities shown in **Chart 11**, it appears that per capita income is an important factor (directly or indirectly) when rating municipal bonds. The three cities with the highest bond ratings, Stamford, Cambridge, and Boston, also had the highest per capita incomes, at \$47,196, \$40,086 and \$30,371, respectively.



Both Standard & Poor’s and Moody’s consider Worcester’s current per capita income levels at 71% of the statewide median, and 86% of the national median, to be one of its weakest economic

<sup>30</sup> The Massachusetts Executive Office of Labor and Workforce Development puts Massachusetts’ rate for June 2009 at 8.6% and Worcester’s at 9.8%.

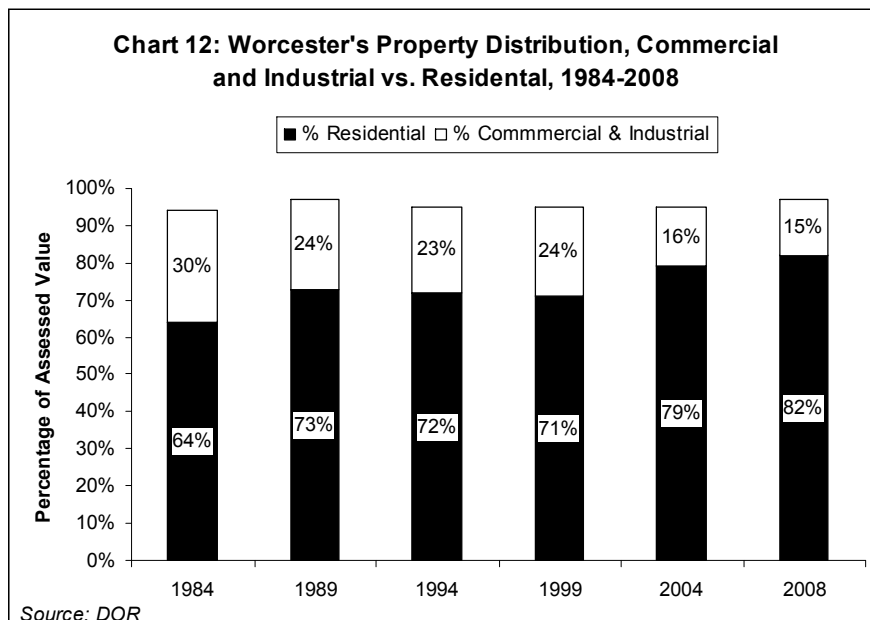
features. However, both note that these figures are slightly skewed by the fact that college students make up 17% of Worcester's population.

### Economic Indicator 3: Tax Base

**Definition:** The tax base is the total assessed value of property within a city that is subject to local taxation. The tax base changes from year to year due to changes in the value of existing properties and because of new construction.

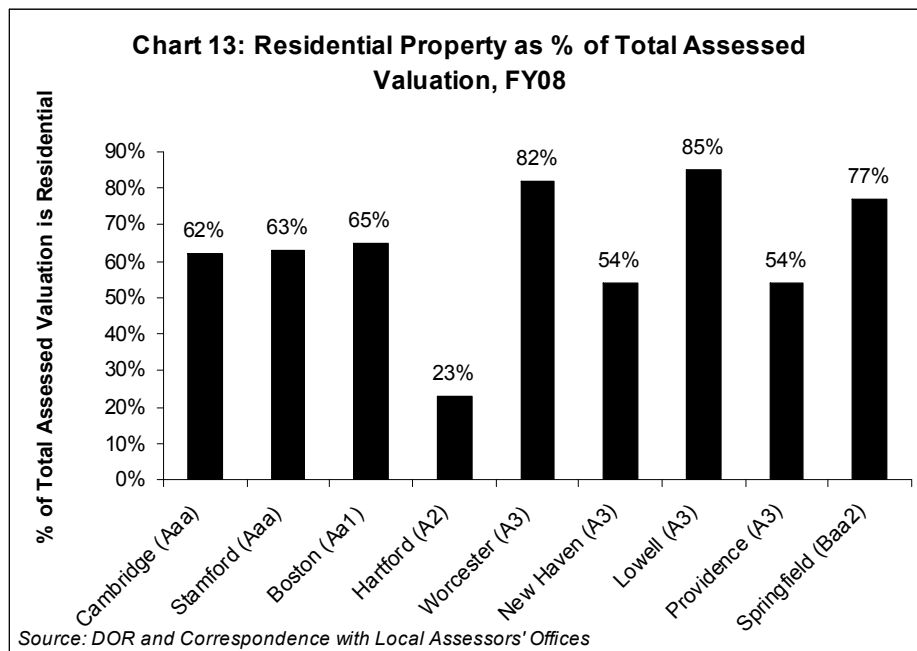
**Significance:** Local governments are highly reliant on the real estate tax base for revenue used to develop budgets that fund municipal services and programs. Trends in the composition of the property tax base have a major influence on a city's fiscal well-being. If, over time, the percentage of property that is commercial/industrial decreases, residential property owners will bear more of the burden of local taxation, and may see increasing tax bills. Also, a declining commercial and industrial tax base may lead to a decrease in the number of jobs available in a city. Given the cyclical nature of the economy, over-reliance on one type of property or business cluster will challenge the ability of municipal government to provide services to its community while meeting its obligations to repay bond holders.

**Findings:** Although Worcester's property values have grown steadily over the decades, it has seen a significant shift in its property tax base distribution. As **Chart 12** illustrates, a much greater proportion of the City's total assessed valuation is made up of residential properties now than in 1984.



The reason why the values in **Chart 12** do not add up to 100% exactly is that Personal Property Tax revenues have not been included. Forms of “personal property” subject to taxation by municipalities include heavy machinery, equipment used in laundry cleaning, air conditioning equipment, and wires and pipes used by private businesses.

**Chart 13** shows how Worcester’s current property tax distribution compares with that of other cities in New England.



Worcester, Lowell, and Springfield stand out for their high ratio of residential property to commercial/industrial value. This means that they have fewer resources than other cities to provide municipal services, and a greater portion of the tax burden is borne by homeowners than in other cities surveyed. To address these problems, Worcester should take steps to decrease the further erosion of its commercial/industrial tax base, such as phasing in a single tax rate.

Although Worcester has lost many businesses over the years, Standard & Poor’s notes favorably its “diversifying local economy, which continues to shift to the service sector from manufacturing to a service-based economy, and benefits from the presence of 10 colleges and universities and a strong health care sector.”<sup>31</sup> Standard & Poor’s also says that Worcester’s property tax base exhibits “low” taxpayer concentration, because the ten leading taxpayers account for only 8% of the total assessed value.

<sup>31</sup> “Worcester, Massachusetts; General Obligation Note,” Standard & Poor’s, June 4, 2009.

## **CONCLUSION: WORCESTER'S BOND RATING AND THE FINANCIAL CRISIS**

The strength of a city's bond rating is based on its competence in fiscal management (management team's policies and practices, the ratio of its revenues to reserves, its debt ratio, its pension liabilities) and its underlying economic strength (unemployment rate, average income). Credit ratings agencies continue to express concern about Worcester's thin reserve levels. However, with strict adherence to the City Manager's Five-Point Financial Plan, the ratings agencies have indicated (in the most recent credit rating reports they have issued), that they expect the City's current credit rating to remain stable in coming years.

A lower bond rating will cost Worcester taxpayers more money in the long term because it will increase the cost of borrowing money, it may deter private businesses from investing in the City because of the long-term financial uncertainty of their investment, and it will require more discretionary funds be put into future annual debt payments. These negative consequences are avoidable if the City Council and Administration adhere to the City's Five-Point Financial Plan both in the short term and long term. These actions should be viewed as long-term investments in Worcester's future.