



The Research Bureau

Benchmarking Municipal Finance in Worcester 2008: Factors Affecting the City's Bond Rating

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INTRODUCTION & BACKGROUND

In September 2008, the City of Worcester issued a \$42.96 million General Obligation Municipal Purpose Loan to meet its financial needs. Standard and Poor's upgraded the bond rating from previous "A-/Negative" to "A-/Stable." Moody's and Fitch affirmed their previous A3 and A ratings, respectively, but both of them noted the improvements the City has made during the past year. The rating assigned is one factor used by investors to determine the interest rate the City will pay on these short-term notes which will then be converted into long-term General Obligation bonds supported by the tax dollars paid by Worcester residents.

Municipal Bond Ratings

A municipal bond rating is a credit rating assigned by an independent third-party rating agency. These third-party ratings assess the fiscal health of a community, and thus give potential bond investors an indication of the likelihood of timely repayment of principal and interest. The higher the rating assigned by the rating agency, the less likely the community is to default on its debt payments. Moody's bond ratings rank from a high of Aaa to a low of Baa3 (see **Table 1**), and any bonds below a rank of Baa3 are considered "not investment grade," or "junk bonds," and therefore, highly speculative. (Standard and Poor's ratings scale is shown in **Table 2**. Fitch's ratings scale is the same as Standard and Poor's.)

Table 1: Moody's Bond Rating Scale

(ordered from high to low)

Aaa

Aa1

Aa2

Aa3

A1

A2

A3

Baa1

Baa2

Baa3

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 on payments. Although municipal bonds usually pay out a lower yield than other types of bonds, investors are interested in them because the interest earned is generally exempt from Federal taxation, thereby offsetting the lower yield.

Why Bond Ratings Are Important

The bond rating that a municipality receives from a rating agency is important for several reasons. First, it assesses the overall economic, operational, and financial strength of a community. Second, it has a direct impact on the cost of borrowing money to finance capital improvement projects. The money saved from having a high bond rating could be substantial given the amount of bonds issued by a community. For instance, if two communities were to request a bond sale of \$90 million to construct a new high school, and one community received an Aaa rating and another a Baa rating, the difference in debt paid could amount to \$200,000 annually, or \$4 million over the life of a 20-year bond. Therefore, a decrease in a city's bond rating translates into the city's taxpayers having to pay more to finance the projects undertaken by the municipality. The City of Worcester is expected to begin several large capital projects

(CitySquare, North High School, and the DCU Special District Financing Zone) that will require nearly \$200 million in new borrowing for these three specific projects. Worcester’s bond rating will determine the City’s interest payments going forward, and how much it will cost taxpayers to repay this debt.

Table 2: Standard and Poor’s Ratings Scale

Investment-Grade	Speculative-Grade
AAA → Strongest	BB+ } Least Speculative
AA+ } Very Strong	BB } Least Speculative
AA } Very Strong	BB- } Least Speculative
A+ } Strong	B+ } Speculative
A } Strong	B } Speculative
A- } Strong	B- } Speculative
BBB+ } Adequate	CCC } Highly Speculative
BBB } Adequate	CC } Highly Speculative
BBB- } Adequate	C } Highly Speculative
	D → In Default

Credit Rating Positions

On September 9, 2008, the three rating agencies issued updated reports to the \$42.96 million bond issuance. Standard and Poor’s Rating Services has revised its outlook on the “A-” standard long-term rating to stable from negative based on “an estimated general fund surplus for fiscal 2008, coupled with a balanced fiscal 2009 budget, that indicate the city has achieved structural budget stability.” Standard and Poor’s stated that the upgraded rating reflects the City’s local economy, diverse and expanding property tax base, and recent adoption of strengthened financial policies by the city council.¹

At the same time, two other agencies – Fitch Ratings and Moody’s Investor Service – have affirmed their previous long-term bond ratings for the City. Fitch has maintained its previous “A” bond rating for Worcester, saying “prudent financial management” has contributed to the City’s “historically stable financial performance and helped it maintain adequate reserve levels over the past several fiscal years.”²

¹ Standard & Poor’s, *Worcester, Massachusetts*, September 9, 2008, <http://www.standardandpoors.com>.

² Fitch Ratings, *Worcester, Massachusetts*, September 9, 2008. <http://www.fitchratings.com>.

Moody's affirmed an "A3" bond rating for Worcester. Moody's expected "Worcester's financial position to stabilize in the medium term because expenditure controls and a more conservative budget approach has brought the city's operating budget closer to structural balance."³

In all three cases, the rating agencies indicated that government financial operations will impact the city's financial position and determine whether Worcester can maintain or enhance its current low A bond rating.

Factors That Contribute to a Community's Bond Rating

Rating agencies consider different factors when determining municipal bond ratings. The most often cited factors in bond rating reports include: the strength of the local economy, current and future year municipal finances, local management policies and practices, and manageable debt levels. It is necessary to understand how Worcester performs in these areas to see what may cause the City's rating to change positively or negatively. The City's twenty-five year history of sound financial management due, in no small measure, to leadership in the budgeting, auditing, treasury and assessing departments, has had a positive impact on the City's bond rating.

Comparing the City of Worcester to similar New England cities may also shed light on the relative weight each of the other factors – current and future year municipal finances, strength of the local economy, and municipal debt structure – has in determining a city's bond rating and the effect each factor may have over time. The following section examines six key indicators of financial health that influence a city's bond rating.

Management Practices and Policies

Management of municipal finances is a critical factor in determining a city's bond rating. Worcester has a long history of good financial management under the four city managers who have served under council-manager government. After the passage of Proposition 2 ½ in 1980, City Manager McGrath made the necessary cuts in municipal government services to comply with reduced property tax revenues under the new formula. During the recession of the early 90's, City Manger Mulford cut expenditures and voters approved of a Proposition 2 ½ override for public education. The Hoover administration was able to provide services while keeping property taxes \$12 million under the City's levy limit. City Manager O'Brien has been able to save millions of dollars to maintain services by redesigning municipal employee premium payments and co-payments for health insurance to more closely approximate those typically found in the private sector. He has also instituted a five-point financial plan to stabilize the City's financial situation.

The rating agencies have been and will continue to be particularly interested in Worcester's adherence to its first-ever *Five-Point Financial Plan* (The Plan), adopted by the City Council on November 24, 2006, and effective July 1st, 2007 (see **Table 3**). Fitch has reiterated its approval of the plan: "A key rating driver is Worcester's adherence to its Five Point Plan for improving

³ Moody's, *Worcester, Massachusetts*, September 9, 2008, <http://www.moodys.com>.

reserve levels.”⁴ Moody's and Standard & Poor's also indicated that the City's commitment to The Plan will stabilize its financial situation.

The five-year financial forecasting and monthly updates to the City Council have had a positive impact on how long-term decisions are being made by the City. Other financial and debt plans will serve to improve Worcester's financial performance and demonstrate to the rating agencies the strengths of the City's management practices and how these measures will — over the long term — improve the City's fiscal and operational health.

Table 3: 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) \$16.85 million cap on borrowing (can be adjusted for inflation)
(5) Capital Improvement Plan to achieve debt service stability in budget

⁴ Fitch Ratings, *Worcester, Massachusetts*, September 9, 2008. <http://www.fitchratings.com>.

Indicator 1: General Fund Balance (GFB)

Definition: The General Fund is used to account for most of City government's financial activities. Revenues are generated primarily from local taxes, state aid, and fees and charges such as motor vehicle excise fees, interest income, parking fines, and birth certificates. General Fund expenditures constitute the major services municipal government provides including public safety, public education, public works, plus employee fringe benefits and debt service payments. The General Fund Balance is the difference between the Fund's current assets and liabilities. An increase or decrease in that balance is dependent on whether the City's revenues exceed or fall short of its expenses in any given year. For 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. When comparing with other cities, the General Fund is expressed as the end-of-fiscal-year balance as a percent of total General Fund revenue.

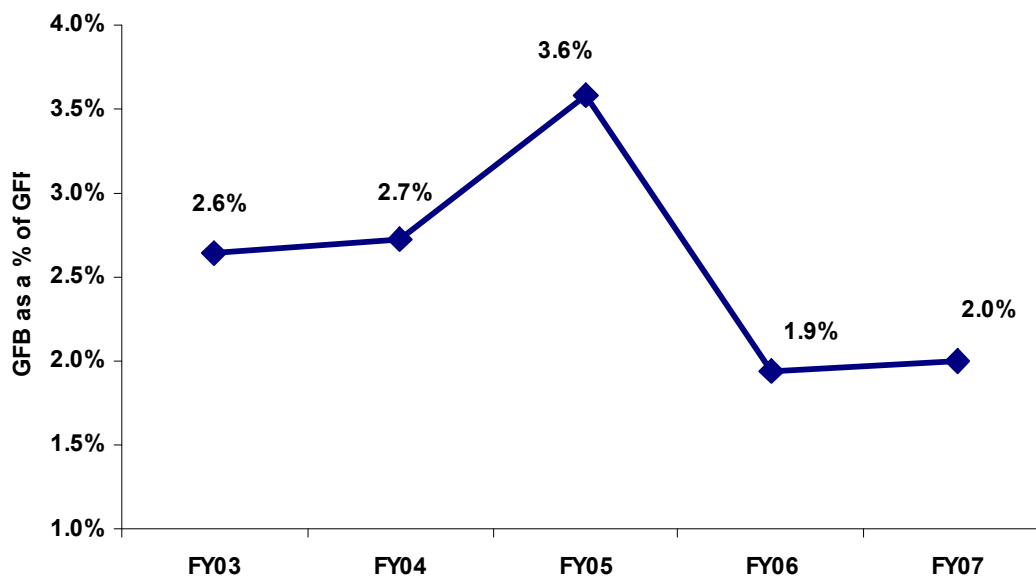
Significance: Sometimes referred to in municipal accounting as a "rainy day fund," the General Fund Balance or other available sources of revenue can be a source of supplemental revenue during an economic downturn, or these funds may cover unexpected revenue shortfalls or unanticipated expenditures. A sizable "rainy day fund" provides a community with some degree of financial flexibility to handle these issues if they arise. From a bond rating agency's perspective, having a healthy reserve level reduces a community's current and future risk of defaulting on payments of bonds it issued. The strength of the "rainy day fund" is measured by the ratio of the available reserves to General Fund revenues. This metric is a key indicator of the financial strength of a municipality.⁵

It must be understood that differences in General Fund reserves across municipalities may be due, in part, to accounting practices, and also to state and local policies, which may set a prescribed level of reserves. These variations are clearly analyzed by the rating agencies in determining a community's credit quality. Nevertheless, the larger the reserves as a percent of total revenues, the more flexibility a community has to address unexpected consequences of economic cycles. At the end of FY07, Worcester's ratio was 2.0% (see **Figure 1**). According to the rating agencies, a more acceptable ratio for Worcester's low A rating would be about 5%. Stabilization funds, another form of cash reserves, are also considered by the rating agencies in determining a community's bond rating.⁶

⁵ Lipnick, L.; Rattner, Y.; Ebrahim, L. (1999). "The Determinants of Municipal Credit Quality". *Government Finance Review*, December 1999, pp. 35-41.

⁶ Stabilization funds are designed to accumulate monies for capital and other future spending purposes, and municipalities can establish one or more of these funds for different purposes.

Figure 1: General Fund Balance as a % of General Fund Revenue, Worcester: FY03-FY07



Considerations: The rating agencies consider a 5-10% ratio as more appropriate to cover any unexpected financial situation. In other words, for Worcester to have what is considered a healthy Undesignated Fund Balance (unreserved), it would need to maintain about \$25 million in its GFB. However, as of the end of FY07, the City had a balance of just \$10 million. A shortfall of expected revenue or unexpected costs may require a community to use its reserves to balance its budget, which causes a significant drawdown on its reserves. With sufficient reserves in place, a community would be able to address these economic fluctuations. However the size of the reserves should not be so large that residents think their tax bill exceeds the level of services provided.

Findings: For the 8 cities highlighted in **Figure 2.1, 2.2, and 2.3**, the GFB to General Fund revenue ratio in FY07 ranged from a low of 2.0% to a high of 34.6%. In FY07, Worcester, with the bond rating A3 by Moody's, A-/Negative by Standard & Poor's, and A by Fitch, respectively, had the lowest ratio of GFB to General Fund revenue of the cities, at 2%. The City of Boston, with a bond rating of Aa1 by Moody's, AA+ by Standard and Poor's, and AA by Fitch, had the largest reserves, with over \$700 million, or more than 30% of its total General Fund revenue. The City of Springfield, with the lowest bond rating (Baa3 by Moody's and BBB/Stable by Standard & Poor's) of the cities included, also had a high fund balance at \$73 million, or 13.7% of revenue. However, this 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, the City of Springfield was given access to \$52 million, which must be repaid (with no interest) by FY12.

Figure 2.1: General Fund Balance as a % of General Fund Revenues and Moody's Bond Rating, 2007

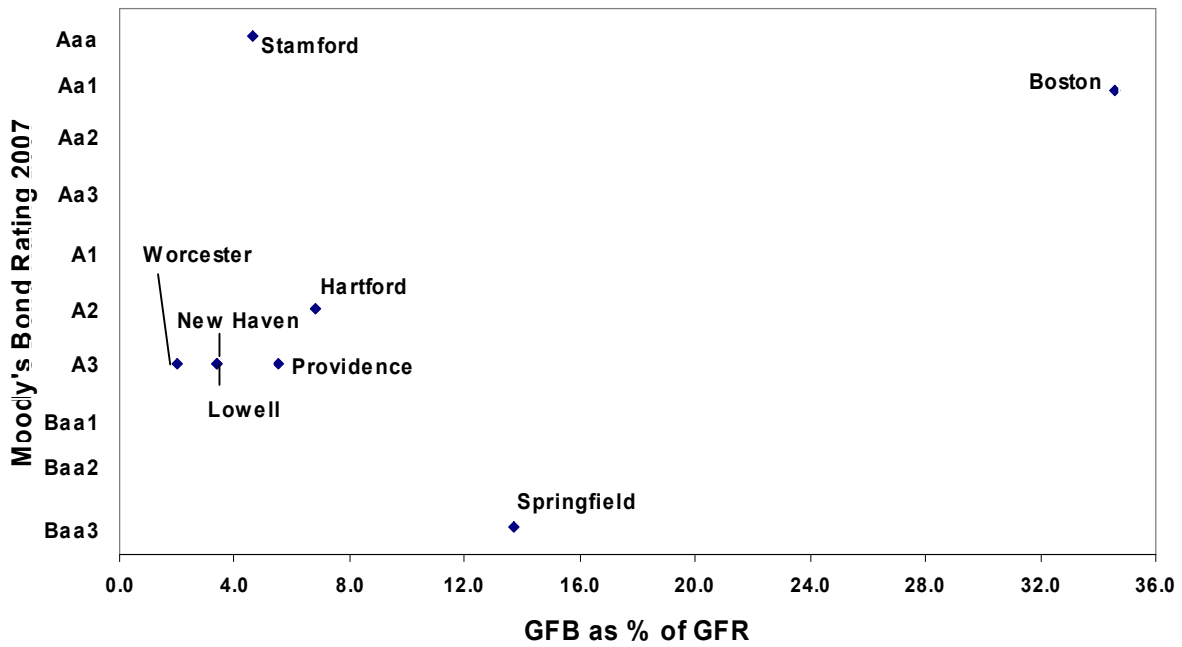


Figure 2.2: General Fund Balance as a % of General Fund Revenues and Standard & Poor's Bond Rating, 2007

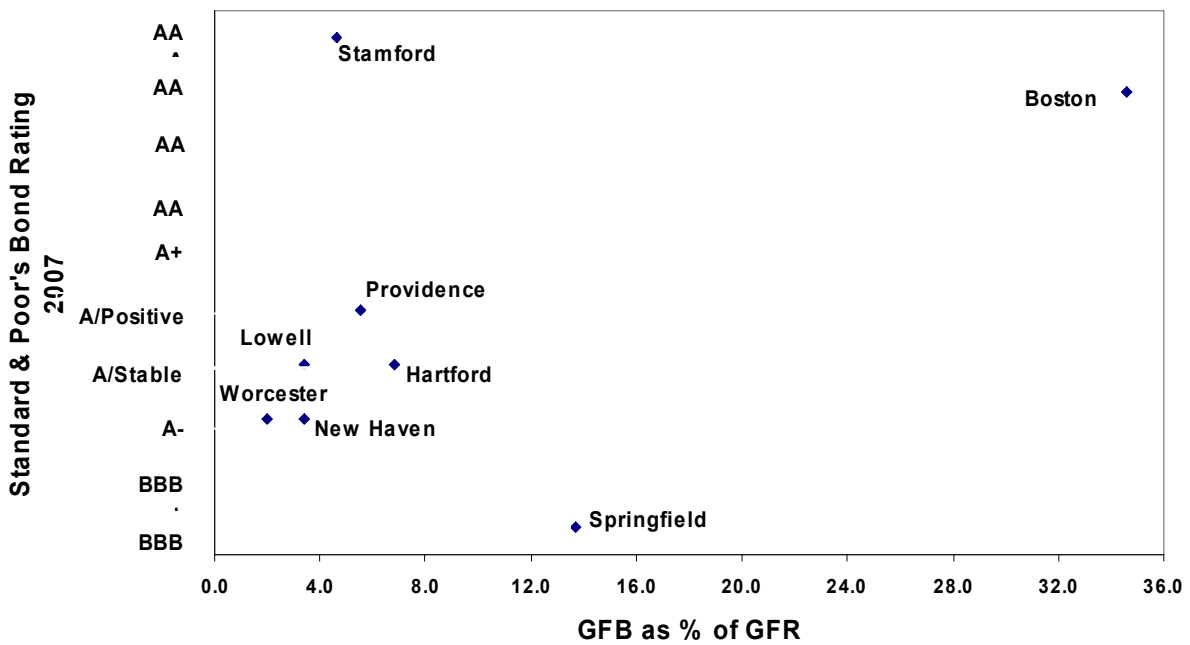
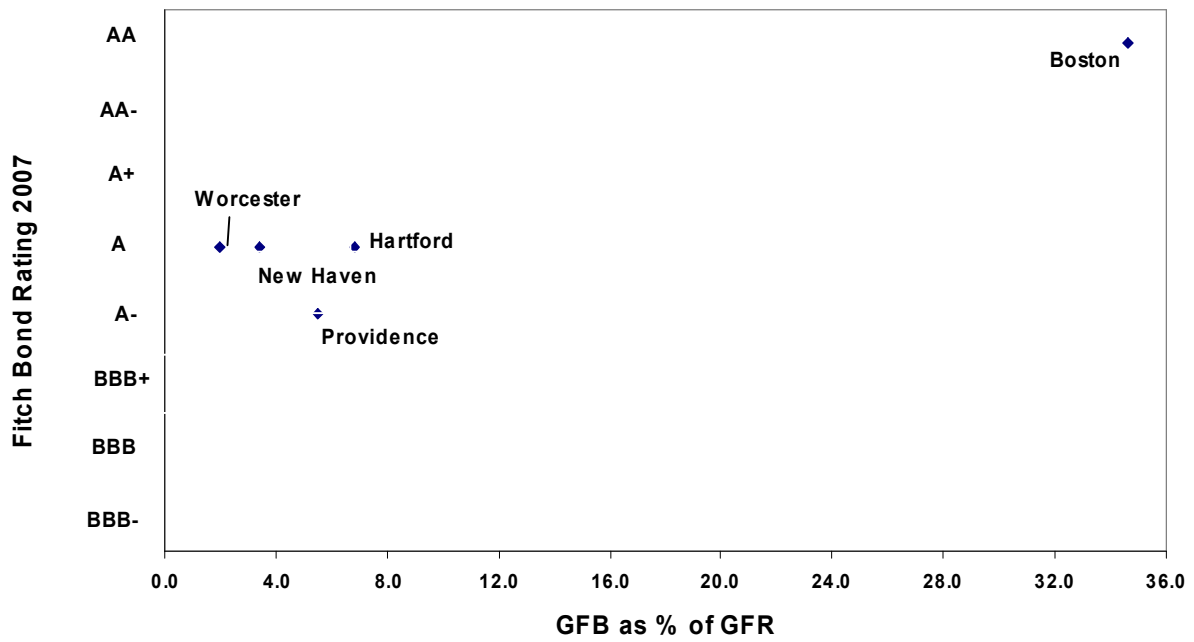


Figure 2.3: General Fund Balance as a % of General Fund Revenues and Fitch Bond Rating, 2007



Note: New Bedford is not rated by Standard and Poor's. Springfield, New Bedford, Fall River, Lowell, Stamford, CT are not rated by Fitch.

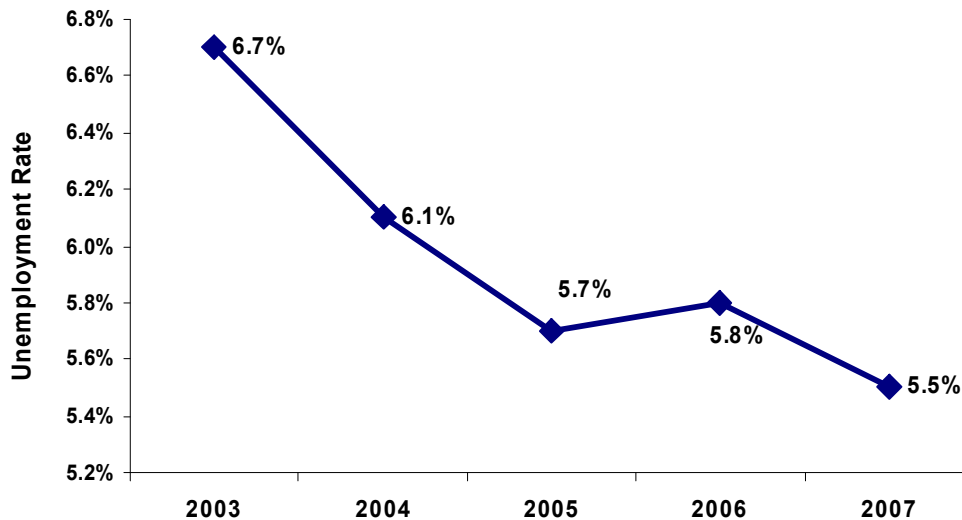
Indicator 2: Unemployment Rate

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. Over time, the unemployment rate can reveal a city's ability to retain and expand employment opportunities and endure changes within the local or regional economy.⁷ Unemployment is an indicator of a community's stability, and therefore, a measure of its ability to repay bonds. 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 reduces the likelihood of defaults on bonds.

Considerations: A high unemployment rate in a city may reflect fewer employment opportunities, either due to the flight of industries/businesses or the failure of the city to attract new industries and businesses. 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.

Figure 3: Worcester's Unemployment Rate, 2003-07

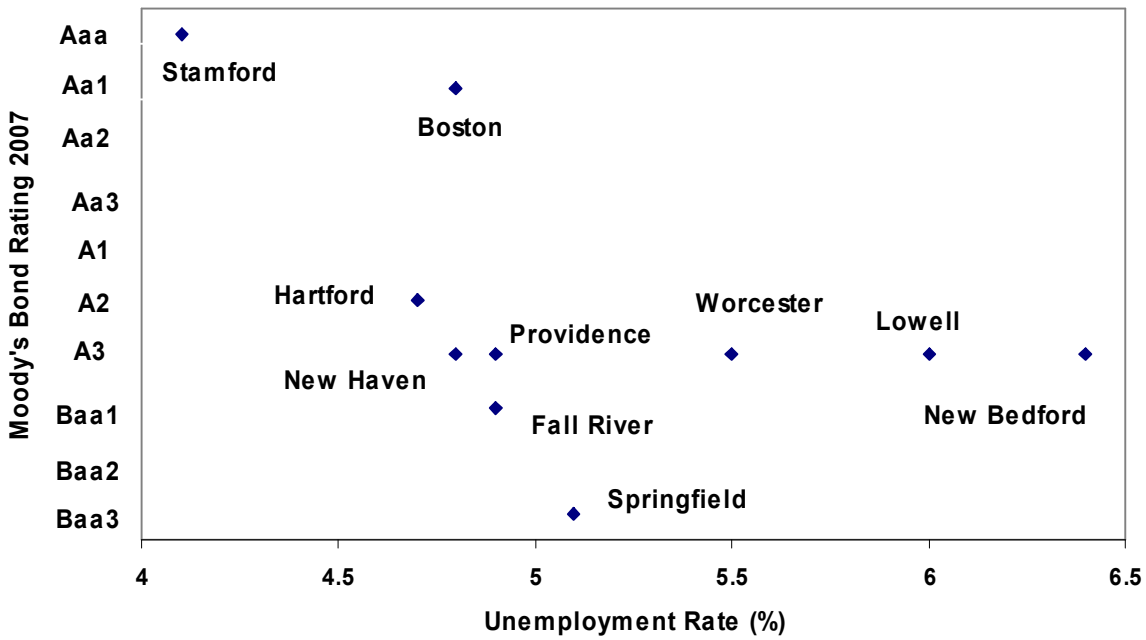


Findings: Worcester's unemployment rate has decreased for the past three years and is moving in the right direction (see **Figure 3**). Based on the 10 cities examined, however, there is not an exact relationship between the unemployment rate and bond rating. The City of Stamford had

⁷ Lipnick, L.; Rattner, Y.; Ebrahim, L. (1999), "The Determinants of Municipal Credit Quality." *Government Finance Review*, December 1999, pp. 35-41.

both the lowest unemployment rate in 2007 (4.1%), and also the highest municipal bond rating as determined by Moody's (Aaa). On the other hand, New Haven, Providence, Worcester, Lowell, and New Bedford whose bond ratings are all A3 by Moody's, have unemployment rates varying from 4.8% to 6.5% (see **Figure 4**).

Figure 4: Unemployment Rate and Moody's Bond Rating, 2007



Indicator 3: Per Capita Income

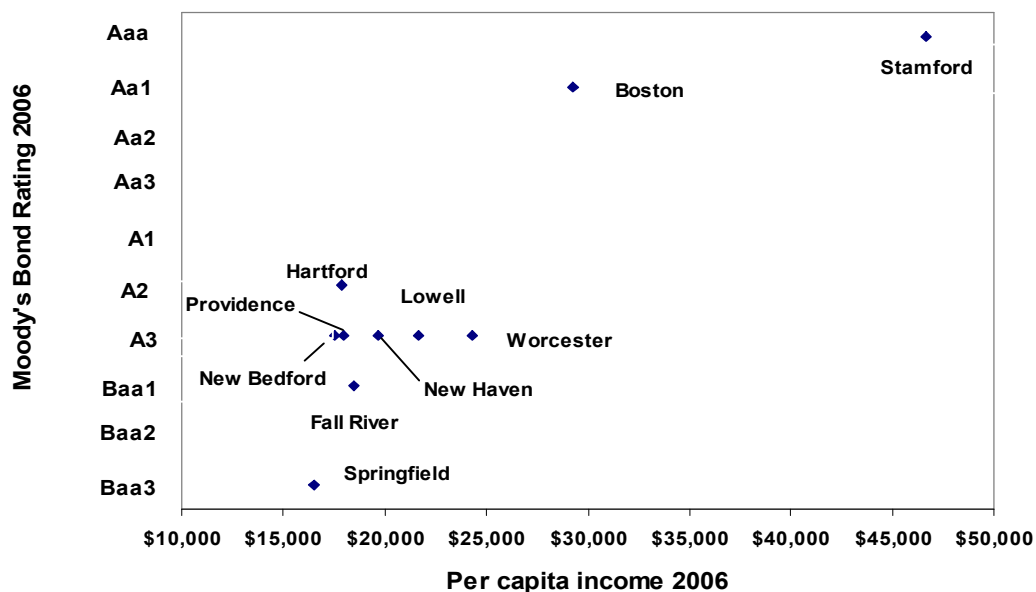
Definition: Per capita income is the total personal income of a group of people, divided by the total population of that group.

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. A city's wealth is important because it is an indicator of a city's ability to pay for municipal services and support the repayment of the bonds a community issued.

Considerations: 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 10 New England cities shown in **Figure 5**, it appears that per capita income is an important factor when rating municipal bonds. The two cities with the highest bond ratings, Stamford and Boston, also had the highest per capita incomes, at \$46,648 and \$29,243, respectively. The cities of Worcester, Providence, New Bedford, and New Haven all had bond ratings of A3 by Moody's in 2006, and their respective per capita incomes were similar, ranging from \$17,503 to \$24,328. The City of Springfield, with the lowest bond rating of Baa3 by Moody's, had the lowest per capita income of the cities included (\$16,507). Worcester's per capita income grew by \$2,084, or 8.57%, during the past year.

Figure 5: Per Capita Income and Moody's Bond Rating, 2006



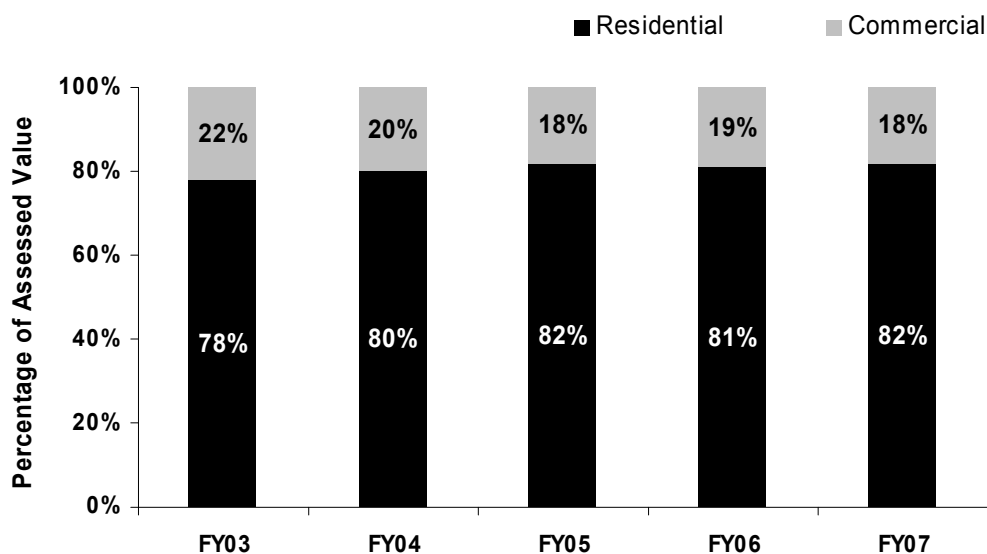
Indicator 4: Tax Base

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 value of existing properties and also because of new construction. The distribution of the tax base can also be evaluated, that is, the percentage of total assessed property that is residential versus commercial/industrial.

Significance: Local governments are highly reliant on the real estate tax base for revenue used to develop budgets that fund municipal services and programs. Yearly property tax increases are limited by Proposition 2 ½ to 2.5% of the value of the tax base and to a 2.5% increase each year plus the value of new construction. Proposition 2 ½ also provides protection against declining values. The property tax levy cannot go below the previous year's levy. This provides stability in budgeting which is viewed favorably by the ratings agencies.

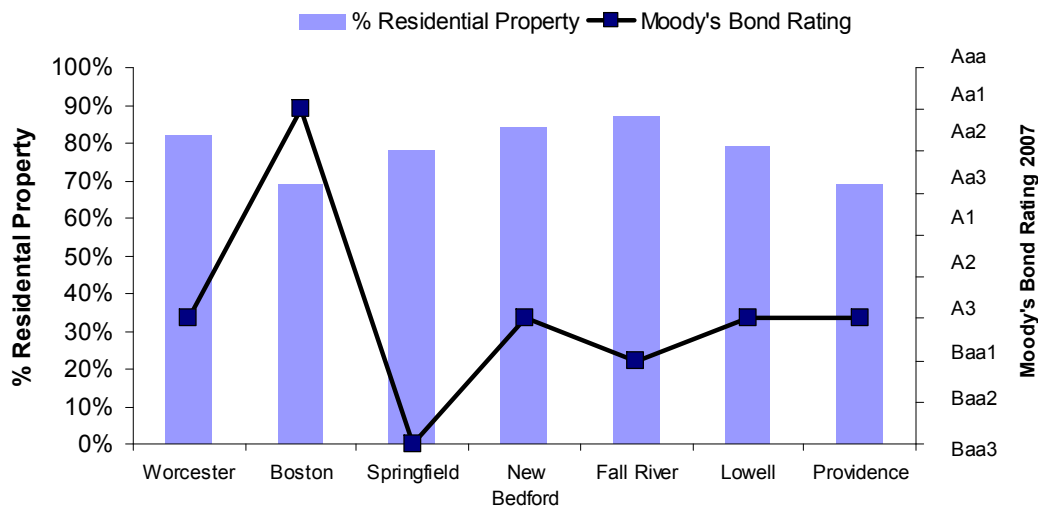
Considerations: Changes in the composition of property may be disruptive to a city; if over time, the percentage of property that is commercial/industrial decreases, residential property owners will bear more of the burden of local taxation, and may see increasing tax bills. Also, a declining commercial and industrial tax base may mean a decrease in the number of jobs available in a city. A tax base that is made up primarily of one property type causes the community to be somewhat vulnerable to any changes that may occur in that specific property type. 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 its bond holders.

Figure 6: Worcester's Tax Base Distribution, FY03-FY07



Findings: Worcester saw large gains in its total assessed value over the past five-year period, from \$7.6 billion to \$12.6 billion (a 65% increase). The percentage of residential property as a total of assessed property in Worcester increased over the five-year period, while the percentage of commercial/industrial property declined (see **Figures 6 and 7**). A strong commercial and industrial sector in a city is clearly a sign of both employment and tax base strength, both of which should improve a community's standing with the rating agencies. Conversely, with an over-concentration of one industry, or one employer, the risk profile of a community is greater. The tax base profile is weighed heavily by bond rating agencies.

Figure 7: Residential Property as % of Total Assessed Value and Moody's Bond Rating, 2007



Note: FY07 tax base data for the cities of Connecticut – Hartford, New Haven, and Stamford, will be available after May 1, 2009.

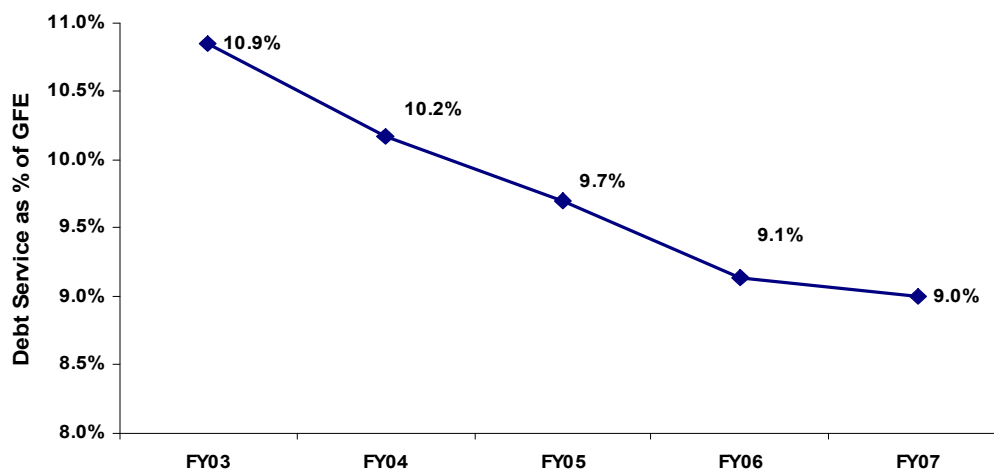
Indicator 5: Debt Service

Definition: Municipalities incur debt when they borrow money to pay for capital projects. Debt service, which is generally referred to as carrying charge, is the repayment schedule on these loans, generally paid over the short-term (less than five years), or long-term (from five to twenty years). The carrying charge 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 carrying charge 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.⁸ Furthermore, a community's debt burden profile provides insight into whether the community is overextended and is unable to finance future capital needs, or is under-investing in the maintenance and upkeep of the community's infrastructure.⁹

Considerations: According to the rating agencies, an appropriate guideline for the ratio of carrying charge 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 and less money is available for city services such as public education and public safety. Alternatively, a declining debt service ratio may indicate that the community is managing its capital investments wisely and can use discretionary dollars to improve services, increase its reserve, or lower its tax bill.

Figure 8: Debt Service as a % of General Fund Expenditures, Worcester: FY03-FY07

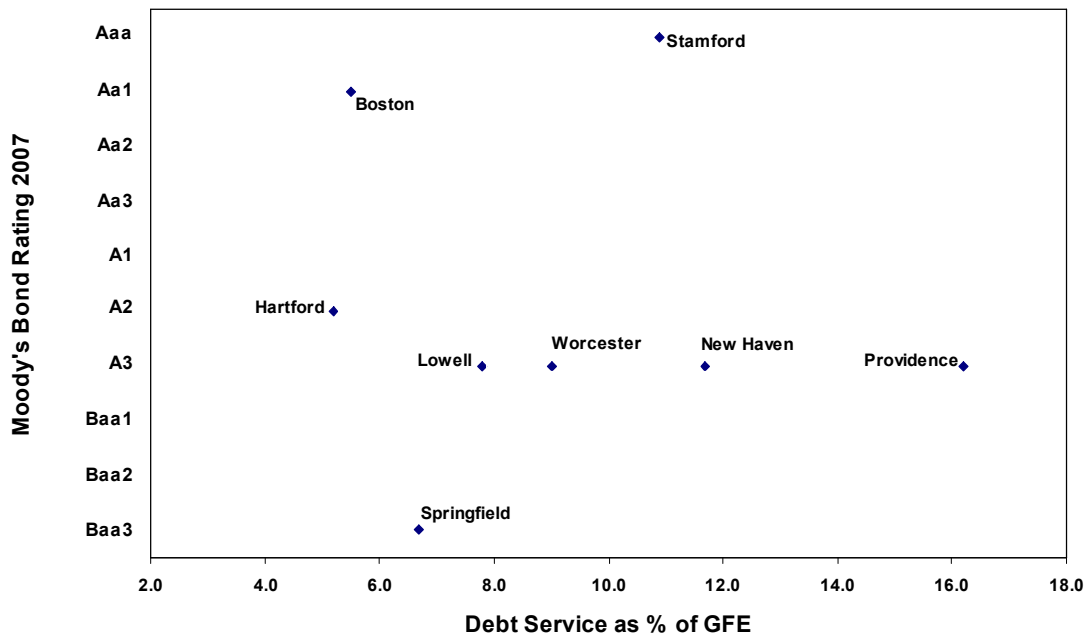


⁸ Galgano, T. (2001), *Financial management/Improving municipal debt efficiency*. American City & County, August 2001. <http://www.americancityandcounty.com>.

⁹ Worcester's debt service includes an annual payment of \$16.6 million on a 30-year pension obligation bond which terminates in 2028.

Findings: As shown in **Figure 8**, during the past five-year period, the proportion of carrying charge to expenditures in the City of Worcester declined, from about 11% in FY02 to around 9% in FY07. As shown in **Figure 9**, in FY07, the City of New Haven and Providence (similarly rated to Worcester at A3 by Moody's) were cities in the group that had a larger proportion of their budgets spent on debt service (11.7% and 16.2% respectively). Worcester's declining carrying charge ratio is a product of the tax levy bonding caps the City Administration and City Council approved during this period. These measures have had a positive impact on the City's carrying charge expenditures. With the new caps in place under the Five-Point Financial Plan, the City expects to continue to live within its financial means.

Figure 9: Debt Service as a Percentage of Total General Fund Expenditures and Moody's Bond Rating, 2007



Note: Data on debt service for New Bedford and Fall River are not available.

Indicator 6: Employee Pension Payments

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.) Employers guarantee the size of the pension benefit, and must make sure that the funding is available to make the promised payments once they are due.

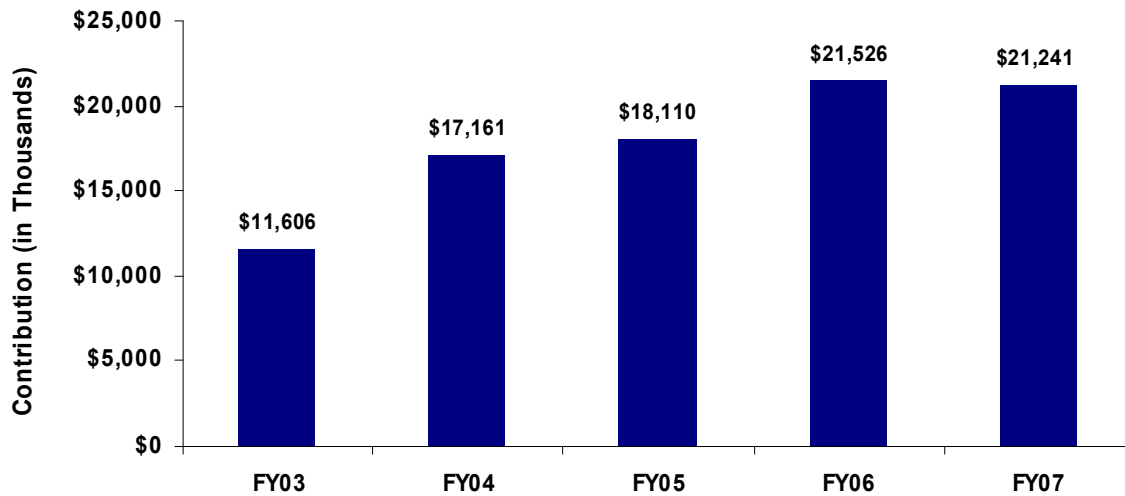
Historically, retirement contributions to public pension systems were made on a pay-as-you-go basis, paying only what was necessary to provide for the current year's retiree costs. However, this method of payment did not "fund" the system (accumulating assets to pay for each member's benefits during active service). To address this issue, MGL Chapter 32 was amended (Chapter 697 of the Acts of 1987) requiring each public retirement system to provide for its normal cost and to eliminate the unfunded pension liability by 2028.¹⁰

Significance: Municipalities have an obligation to properly fund their pension systems to match the retirement plans' obligations with plan assets that can be invested long term to meet both its current and future obligations to retirees and active employees. In the event that the pension system is not properly funded, communities may have to use a significant amount of their discretionary resources to maintain their pension system. A pension system that is largely unfunded, or does not have good earnings in investments over the long term to meet its long term benchmarks, will negatively impact the bond rating. Conversely, if the pension system is overfunded, those balances could be used for reserves to address unexpected financial consequences a community may experience.

Considerations: A city that manages its retirement system well will have, over time, a fully-funded retirement system, where its plan assets meet its plan liabilities. In most cases municipal governments grapple with largely unfunded pension systems requiring periodic contributions that quickly absorb any discretionary revenues available to the community. These obligations are borne by the taxpayer, who ultimately is paying for this municipal employee benefit. The size of the payments and their duration is dependent upon the amount by which the system is unfunded (determined in most cases by retirement actuaries). Payments into the pension system by the community can be viewed as fixed costs, or another form of a "soft" debt obligation that erodes a community's ability to provide quality municipal services while still making its payments to its bond holders.

¹⁰ Additional information can be found on the Massachusetts Department of Revenue's website, <http://www.mass.gov/dor>.

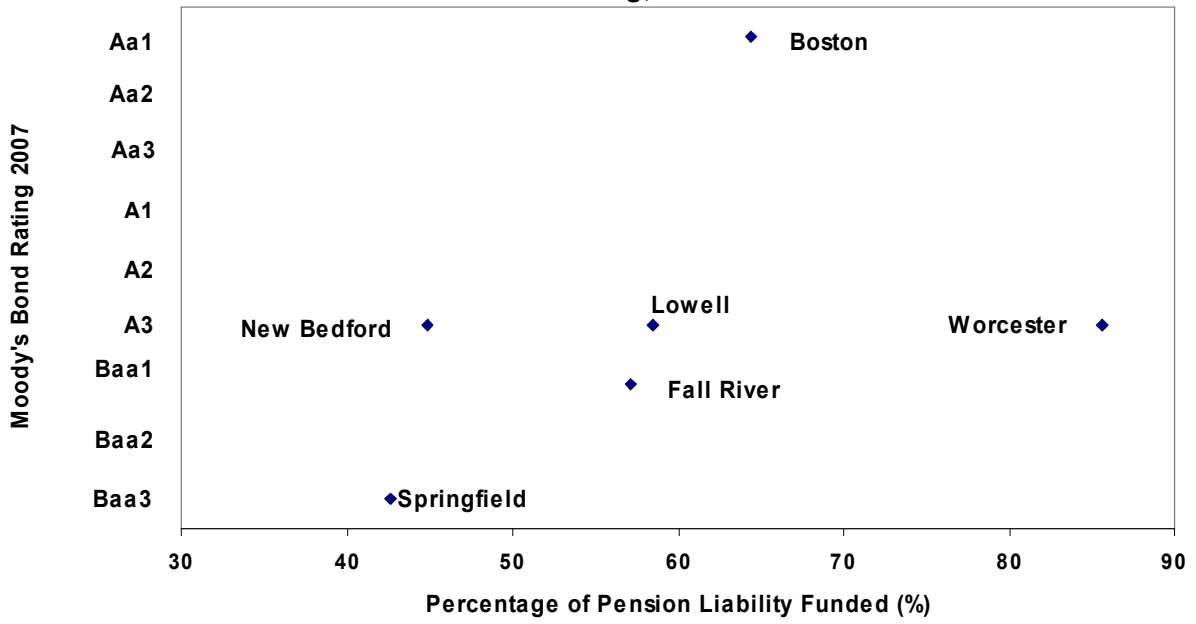
Figure 10: Worcester's Contributions to its Pension Fund, FY03-FY07



Findings: As shown in **Figure 10**, in FY07, Worcester contributed more than \$21 million to its pension system. The contribution has almost doubled since FY03. This increase was the result largely of two early retirement incentives adopted in 2001 and 2003 which total more than a \$2 million additional municipal obligation. The City also adopted pension enhancements (Section 90 a, c, d, and e of the Massachusetts General Laws) for those who have retired on an accidental disability pension or with 25 years of service. For these enhancements, the City is assessed an additional \$1.1 million each year. The additional obligations incurred by the City were local options recommended by the City Manager and approved by the City Council.

Since FY02, Worcester has managed to contribute 100% of its required contribution each year. As of January 2008, Worcester's pension system was about 85.3% funded, down from 85.6% in 2007 due to a change in state assessments. As indicated in **Figure 11**, Worcester has a much higher percentage of its pension liability funded than other cities in Massachusetts. The City's better position is partly the result of the pension obligation bond issued in 1998. In the long run, the higher funded ratio should contribute to improving the City's bond rating.

Figure 11: Percentage of Pension Liability Funded and Moody's Bond Rating, 2007



CONCLUSIONS

Rating agencies evaluate many factors when determining a municipality's bond rating, including the local economy, stability of the community's workforce, diversification or concentration of a community's tax base, local finances and debt management, and fiscal management policies and practices. While the City does not have influence over the local economy, it does control its borrowing, reserves, pension liabilities, and overall financial management. Based on the analysis performed by the independent, third-party bond rating agencies, Worcester's thin reserve levels and above average debt continue to pose a threat to its current A3 bond rating. However, the City's history of sound financial management has helped its bond rating. Standard and Poor's projected a \$1.9 million general fund surplus for fiscal 2008 and a \$1.5 million increase in stabilization fund balance.¹¹ With strict adherence to Worcester's Five-Point Financial Plan as adopted by the Worcester City Council, the rating agencies have indicated that the City is poised to maintain its fiscal health, and therefore, maintain, or even raise, its bond rating in the long term. Following this plan should be viewed as a long-term investment in Worcester's future.

¹¹ Standard & Poor's, *Worcester, Massachusetts*, September 9, 2008, <http://www.standardandpoors.com>.