The State of City Pension Plans 2013

A Deep Dive Into Shortfalls and Surpluses

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Key Takeaways

- Pension funded levels and UAAL vary widely among cities.
- More than 30% of selected cities fall below Morningstar's fiscally sound threshold of a 70% funded ratio.
- UAAL per capita is a major indicator, as it represents how much each resident would need to pay to fund the liability and can vary compared with funded ratio.
- Annual contributions should be analyzed as a percentage of the ARC as well as the percentage of total spending.
- Average contributions equal 12% of general fund spending levels.
- Ongoing municipal bankruptcy proceedings may have wide-ranging impacts on government pension plans.
- Upcoming GASB requirements will change pension standards and accounting significantly.

Municipal pension liabilities have gained prominence in recent years, representing a significant financial challenge to governments. Morningstar continues to address this issue through its ongoing pension research.

We previously concentrated on state pension plans, as they constitute many of the nation's largest plans and often cover local governments along with the state and its related entities. However, the nation's largest cities often maintain their own pension plans, separate from those administered by the states. Therefore, in order to bring further clarity to the pension burden facing these entities, we have analyzed the pension plans and liabilities for the 25 most populous U.S. cities.

We believe the pension plans for these cities are of particular importance. The selected cities tend to administer their own pension plans, in which they are either the sole or majority employer. Overall, 22 of the largest 25 cities have the majority of their pension liabilities tied to single employer, agent multiple-employer, or cost-sharing multi-employer (CSME) plans in which the city is the majority participant. This means that the pension liability will have to be funded either solely or mainly by the city. Large cities also tend to have greater autonomy in terms of pension benefits and, in many cases, funding decisions.

Funding these plans can be a substantial burden to these governments, often accounting for a larger portion of annual spending than debt service. In rare cases, this has even led to municipalities filing for bankruptcy.

We also focus on the most populous 25 cities because of their role in the economy and the municipal bond market. These cities are economic centers regionally, and in some cases, nationally. They are also large issuers of debt, with more than $132 billion of outstanding direct debt. As pensions continue to be a key driver of city credit quality, the fiscal health of pension plans for these 25 cities will be critical in the overall credit quality for a significant portion of the market.

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Overview

While some cities are adequately managing their aggregate pension liabilities, many municipal pension systems are coming under duress. The fiscal solvency and management of these plans vary greatly, according to two key drivers of Morningstar's pension analysis: the funded ratio and the unfunded actuarial accrued liability (UAAL, or unfunded liability) per capita. The funded ratio, which is calculated by dividing the pension plan's assets by its liabilities, serves as a good measure of the plan's ability to meet its obligations. In addition, Morningstar would like to highlight the UAAL per capita, which in our opinion is a useful metric not commonly applied to current pension analysis. Similar to the debt per capita calculation in municipal credit analysis, the UAAL per capita represents the amount each person in the city would need to pay to fully fund this liability.

For the funded ratio and UAAL calculations, we looked at all defined-benefit plans in which the city contributes that are either single employer, agent multi-employer, or cost-sharing multi-employer plans in which the city is the majority participant. Indianapolis, Columbus, and Charlotte have been excluded from the funded ratio and UAAL portion of this analysis because the majority of their annual pension contributions are to state CSME plans. We do note that other cities have a portion of their pension liabilities included under CSME plans, although to a lesser extent. All cities and plans are included in the contributions portion of analysis.

In aggregate, the cities' pensions are 66.4% funded, with an unfunded liability of $3,776 per capita. However, the median ratios are markedly better, at 76.0% and $1,556 unfunded liability per capita. Some of the largest cities, most notably New York City and Chicago, are poorly funded, with large unfunded liabilities, skewing the overall data. For comparison, Morningstar's most recent data, found in our recent report, State of the State Pension Plans 2013, shows state pension plans currently have an aggregate funded level of 72.6%, with a UAAL per capita of roughly $2,600.

Funded percentages and UAAL per capita vary dramatically among the cities. Three cities have funded levels of more than 90%, and eight have UAAL per capita of less than $1,000. Washington, D.C., is the strongest among the selected cities, with its pension plans funded at over 100%, leading to a negative unfunded liability. Seven cities have funded ratios of at least 80%, which is considered to be strong by Morningstar and recommended by the Government Finance Officers Association. On the other side of the spectrum, seven cities fall below Morningstar's fiscally sound threshold of a 70% funded ratio.

Long-Term Liabilities

The cities featured in this analysis have more than $125 billion in unfunded liabilities, which is slightly less than their amount of direct debt outstanding. This is important because pensions are considered under the debt and long-term liabilities analysis of a credit, which accounts for one of Morningstar's four

pillars that drive the assessment for all sectors under U.S. public finance. By including the unfunded pension liability when looking at total long-term liabilities for these governments, the burden for many increases dramatically.

However, we would like to point out that pensions are considered to be a "soft liability." Unlike bond payments, which are considered to be hard liabilities with set payment schedules, future pension liabilities can be affected by many variables, including investment returns, future funding decisions, retirement and death rates, as well as pension reforms. In short, pension liabilities and funded ratios are estimates based on a set of assumptions that can vary widely among plans, and the debate as to what the "right" assumptions are is far from over.

Annual Budgetary Pressures

When looking at a city's annual pension contributions, we want to focus on a few areas: Are they fully funding the annually required contribution, or ARC; is the contribution escalating rapidly; and is the pension cost pressuring the government's financial profile?

Annual contributions in relation to the ARC is an essential factor in pension analysis, as it is the level of annual funding necessary for projected assets to meet projected liabilities over time. All else equal, failure to pay the full ARC, especially on a perennial basis, leads to a higher unfunded liability the city will need to manage. Only slightly greater than half of the top 25 cities funded the full ARC for fiscal 2012, which we find to be a troubling trend and potential red flag.

While contributions as a percentage of the ARC is important in determining a pension plan's long-term fiscal health, the entity's current fiscal position also may be affected by its contributions. In the wake of the recent recession, local governments are balancing funding basic services and employee benefits in a constrained revenue environment. Investment losses during the recession have often forced localities to increase their annual pension spending significantly in order to keep pace with expanding liabilities. In some cases, this has become a notable budgetary pressure, limiting the city's overall financial flexibility.

For this report, we compared city pension contributions to overall spending, including expenditures and transfers out, in each city's general fund. As the general fund serves as the major operating fund for each city, it allows an apples-to-apples comparison. However, a portion of pension contributions are paid out of other funds to varying degrees. When possible, we included only pension costs that could be attributed to governmental funds, excluding contributions from enterprise funds.

For fiscal 2012, pension contributions accounted for an average of 12% of general fund spending among the nation's largest cities. Much like other aspects of pension analysis, there is a wide range among cities for budgetary pressure stemming from pensions. Annual pension contributions account for less than

10% of spending for nine cities, led by Memphis, Tenn., and Washington, D.C., at 3.1% and 3.8%, respectively. San Jose, Calif., and San Diego each made fiscal 2012 pension contributions equal to at least 20% of general fund spending, with San Jose's contributions equal to an exceptionally high 29.7%.

Annual pension contributions for cities can be influenced by a number of factors. Washington, D.C.'s low percentage of spending can be tied back to the system's high funded levels. However, in other circumstances, annual pension contributions are not determined by actuarially determined contribution rates but by legal statutes or political decisions. Philadelphia's pension contributions in recent years have been below the annual required contribution level, weakening the already-below-average funded levels. The city deferred $150 million of pension payments in fiscal 2010 and $80 million in fiscal 2011, in accordance with Pennsylvania's Act 44. These deferrals are required to be paid back by fiscal 2014. Employer contributions for fiscal 2012 accounted for 77% of the annual pension cost, yet still were equal to a high 15.5% of spending. Chicago contributed an amount equal to 14.2% of general fund spending for fiscal 2012 despite having a funded ratio of only 35%. The city annually contributes its legally required amount, as determined by state statute. Unfortunately, this is well below the actuarially determined annual required contribution, which has contributed to the city's low funded level.

While San Diego and San Jose are experiencing a greater degree of fiscal constraint currently because of high pension contributions, they are each contributing the full ARC. While their current funding decisions may lead to budgetary pressure now, it will likely put them in a better position in future years than if they had not funded the ARC. Each city has also passed pension reforms recently, as discussed later in the report. Of greater concern is a city like Philadelphia, which has the trifecta of not fully funding the ARC coupled with a low funded ratio and a reasonably high portion of the budget consisting of pension payments.

Pension Reform

Much like what we've seen with states, many local governments have also implemented some level of pension reforms in recent years to lessen their liabilities. The majority of these changes have been mandated increases or implementation of employee contributions, adjusted formula calculations, and extended vesting periods. Changes typically apply to new hires but may also apply to current employees. Pension benefits are generally protected by the contract clause under the U.S. Constitution. Forty-eight states have additional protections in their provided under their respective state constitutions[1], which can vary between protecting benefits expected at the time of employment to applying only to benefits accrued before the passage of pension reforms. These provisions can have a substantial impact on an entity's ability to pass pension reforms.

Some cities have been proactive, historically enacting moderate reforms periodically. Most notably, New York City has implemented multiple rounds of pension reforms through the creation of additional tiers.

1 Munnell, Alicia et al. Legal Constraints on Changes in State and Local Pensions. Center for Retirement Research at Boston College. August 2012.

Members are assigned to one of six tiers based on date of enrollment and service designation. The latest tier, tier 6, was created in 2012 for employees who establish membership on or after April 1, 2012.

Other cities, such as San Jose and San Diego, have attempted reforms less frequently but have made more significant changes. In San Jose, Measure B was approved in June 2012. The plan allowed current employees to switch to a lower pension benefit or to make greater contributions to the current plan. New employees would automatically be enrolled in the new lower-cost plan. Implementing the reforms has been delayed because of an ongoing lawsuit by the city's unions, which claim the initiative impairs the workers' rights as protected by the California Constitution as well as the unions' collective bargaining agreements. San Diego voters approved pension reform initiative Proposition B through a June 2012 referendum. New employees would be enrolled in a defined-contribution pension plan, with the exception of police officers. Additionally, the city charter would be revised to eliminate a provision requiring a majority vote of city employees in order for retirement benefits to be modified. Much like in San Jose, the initiative is being challenged in court by several of the city's labor organizations as well as the California Public Employment Relations Board. However, unlike in San Jose, the San Diego Superior Court has ruled that the city can begin to implement the pension reforms while the case is litigated. The city has come to an interim agreement on the defined-contribution plan with its labor unions that has been approved by City Council. Final details of the plan will depend on the resolution of this litigation.

Potential Effects of Municipal Bankruptcies

Municipal bankruptcies, while still quite rare for local governments, have been in the news in the past few years as local governments such as Jefferson County, Ala., and the cities of Stockton and San Bernardino, Calif., and Detroit have filed for Chapter 9 bankruptcy protection. Of the municipal bankruptcy filings, Morningstar believes the cases of San Bernardino and Detroit especially may have significant impacts on their pension plans as well as on pension liabilities on a national level.

Detroit offers pension benefits through two single-employer plans. As part of the bankruptcy proceedings, the city's emergency manager has proposed a plan that would exchange roughly $11 billion of the city's $19 billion in debt and liabilities for $2 billion of limited-recourse notes on a pro rata basis. Included in the $11 billion to be exchanged is the manager's estimated $3.5 billion of unfunded pension liabilities. Pension beneficiaries are challenging this plan as being unconstitutional. In Michigan, pension benefits are protected by the state constitution, which states that these pension benefits represent contractual obligations that are not allowed to be impaired or diminished. By offering retirees pennies on the dollar for their pension benefits, this seems to be a clear case of impairment. It remains unclear how this state constitutional protection will be viewed in a federal bankruptcy court, however. The big question here—and what could have far-reaching effects on pension plans across the nation—is whether a federal judge can override a state constitution during the bankruptcy process.

For employees of San Bernardino, pension benefits are provided through California Public Employees' Retirement System, or CalPERS, a cost-sharing multiple-employer plan. San Bernardino has missed approximately $13 million of its required contributions to the plan since it declared bankruptcy, which it may not make up and would therefore be considered an impairment to CalPERS. Similar to Detroit, California pensions are also protected by the state constitution and statute. According to the National Conference on Public Employee Retirement Systems, California case law has found that "a public employee's pension constitutes an element of compensation, and a vested contractual right to pension benefits accrues upon acceptance of employment. Such a pension right may not be destroyed, once vested, without impairing a contractual obligation of the employing public entity."[2] San Bernardino is the only city to have ever halted payments to the fund. Stockton, which is also undergoing bankruptcy proceedings, has continued to make timely and full payments to CalPERS during the process. CalPERS has filed an objection to San Bernardino's bankruptcy filing, which is currently being litigated.

2 National Conference on Public Employee Retirement Systems. *State Constitutional Protections for Public Sector Retirement Benefits.* 2007.

The bankruptcies of Detroit and San Bernardino have potentially far-reaching implications on how pension liabilities and state protection of benefits are viewed in bankruptcy proceedings. If they are successful in trimming these liabilities, other entities that cannot afford to support operations, debt payments, and retiree costs at the same time may look to emulate their actions.

Red Flags

The upside for investors is that, with the exception of sweeping plan changes, the fiscal health of pension plans tends to shift gradually over time. Pressured plans can often be identified years before substantial stress is placed on the applicable government. Investors should look for red flags that indicate the solvency of a pension plan is deteriorating. Potential red flags include a substantial unfunded pension liability, a low and/or declining funded ratio, a high UAAL per capita, annual contributions less than the ARC, rapid increases in annual contributions, and pension costs accounting for a significant portion of general government spending.

What to Watch For

On a national level, upcoming regulatory changes are expected to shake up pension reporting and accounting dramatically. The Governmental Accounting Standards Board (GASB), which establishes government accounting standards, approved new accounting and reporting standards for state and local government pension plans in June 2012, with the goal of improving the accounting and financial reporting for affected plans. GASB standards are nonbinding, but compliance is required to receive a clean audit. The new pension standards become effective in fiscal years beginning after June 15, 2013, and for employers in fiscal years beginning after June 15, 2014. While it will be a few years until all applicable governments fully incorporate these standards, some states are likely to move toward early adoption and compliance.

Overall, the new standards aim to focus pension disclosure on liabilities as opposed to the annual required contribution. For defined-benefit plans, disclosure of the ARC will no longer be required. Instead, annual change in the net pension liability (NPL) will serve as the primary pension expense reported. Analysts will need to judge movement of the NPL to determine whether an entity is making adequate contributions to the plan.

Defined-benefit plans will be required to report the NPL on their balance sheets. In many cases, this will cause a drastic change in the balance sheet presentation, particularly in terms of total liabilities. This number is expected to be relatively volatile, as asset smoothing won't be allowed for accounting purposes. The NPL will be measured at market value, with annual changes immediately recognized. Despite its expected volatility, the implementation of the NPL will allow investors and constituents to gain a clearer picture of actual projected liabilities.

Cost-sharing multiemployer plan participants will record a liability and expense equal to their proportionate share of the total plan liability and expenses, allowing analysts to accurately incorporate pension liabilities into analysis of credits that participate in a CSME plan. This is particularly important for cities that may not be able to identify their pension liability under the current accounting system.

Additionally, the GASB regulations change allowable accounting methods, which will create a disconnect between pension funding and accounting while leading to greater volatility for pension accounting. The impending change expected to have the greatest impact will be the prohibition on using smoothing methods for accounting, although it will still be allowed for funding purposes. The discount rate of liabilities will change for accounting purposes but will remain unchanged for funding calculations. For accounting purposes, the allowable assumed discount rate will depend on whether the plan's net position is projected to be sufficient to pay benefits of current employees and retirees. If that condition is met, the regular discount rate may be used. An index rate on tax-exempt 20-year municipal bonds rated AA or higher will be used to the extent that projected assets are not anticipated to meet projected liabilities.

Morningstar contends that this additional pension disclosure, especially the disclosure of individual government liabilities, will be positive for the municipal market as a whole. However, the change in accounting standards is expected to lower the overall funded levels. A recent report by the Center for Retirement Research at Boston College indicates that the aggregate funded level for the sampled 126 large pension plans across the country would decline from 73% to a low 60%[3] as a result of the new accounting methodology. This decline in funding, coupled with the emphasis on the NPL, is likely to increase the debate regarding pension benefits and their impact on governments.

3 Munnell, Alicia et al. Legal Constraints on Changes in State and Local Pensions. Center for Retirement Research at Boston College. August 2012.

Parting Thoughts

Morningstar believes pensions will play an integral role in determining a city's fiscal health and overall credit quality.

The fiscal health of city pension plans varies drastically, and we expect this differentiation to continue. The main driver of long-term pension health for each city will, in our opinion, be driven by its management practices. Entities that fully fund their ARC, actively seek to manage pension liabilities, and periodically review their actuarial assumptions and investment portfolio are likely to maintain adequate pension funded levels in the long run. Governments' treatment of pension funding and benefits in times of positive market returns and overall economic growth will also be a key indicator of whether plans will experience significant stress in future recessions.

Please see the attached appendixes, which discuss our methodology for the research, include a glossary of terms, and provide the data used for our analysis.

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Methodology

Data for this analysis was gathered from publicly available government comprehensive annual financial reports (CAFRs), pension plan CAFRs, and actuarial valuations. The most recent available data was used from the available sources. Since pension data reported in city CAFRs is often dated, current actuarial reports were used, when available. In certain instances, phone calls were made to specific cities and/or plans to clarify data.

Aggregate data for funded ratios, liability, and UAAL per capita was compiled for defined-benefit plans, or those that have a defined-benefit component, to which the city contributes and/or is legally liable for benefits. While most plans have a new actuarial valuation on an annual basis, some plans are revalued every two years. For cities that had a combination of plans that were revalued annually and biannually, the biannual plan data points were held constant from the year prior in nonvaluation years.

Glossary

Actuarial Accrued Liability (AAL)
The present value of future benefits earned by employees to date.

Actuarial Cost Method
The actuarial cost method is the process used by the actuary to allocate the projected liabilities of the plan to prior years (the actuarial accrued liability), the current year (the normal cost), and future years.

Actuarial Value of Assets (AVA)
The actuarial value of the plan's assets. This amount incorporates investment gains and losses dependent upon the asset valuation method.

Agent Multiple-Employer Plan
In agent multiemployer plans, assets are pooled but legally restricted to pay pension obligations of their specific employer

Annual Required Contribution (ARC)
The ARC is determined by the actuary during the valuation of the plan and equals the amount that would need to be paid during the current fiscal year to fund benefits earned in that year (the normal cost) plus a portion of any unfunded liability from past years.

Asset Valuation Method
The actuarial value of the plan recognizes gains and losses in the market value of plan assets dependent on the asset valuation method.

Cost Sharing Multiple Employer Plan (CSME)
In CSME plans, the participating employers pool their obligations and assets. Assets of the plan can be used to pay pension obligations of any participating employer.

Defined Benefit Plan (DB)
For defined-benefit (DB) plans, pension payments operate as an annuity, with each employee entitled to a specific annual payment based on a benefit formula. These formulas generally incorporate years of service, salary, and a multiplier variable. Specific benefit formulas vary among plans and often within plans, dependent on an employee's start date and/or employee classification (public safety, general, management, and so on). Defined-benefit payments can either be constant for the life of the payment, adjusted annually for cost of living, or adjusted occasionally for cost of living increases as seen fit by the overseeing party. The government is responsible for funding this liability no matter what return it achieves on its investments.

Defined Contribution Plan (DC)
Defined-contribution plans are similar to 401ks found in the private sector. The government is obligated to contribute a certain amount annually until retirement, while the actual benefit is subject to market returns. The government has no liability to make up for investment losses.

Entry Age Normal Actuarial Cost Method
This allocates the cost of benefits from the time an employee is hired (the entry age) to the date of expected retirement either as a level dollar amount or as a percentage of payroll.

Funded Ratio
The percentage of the AAL that is currently funded through the AVA. This is calculated by dividing AVA by the UAAL.

Market Value Method of Asset Valuation
Under the market value method, plans recognize the full amount of actual gains or losses at the end of each fiscal year.

Net Pension Liability (NPL)
The NPL is the total pension liability (actuarially determined present value of future benefits that are due to work already completed by plan participants) less the plan net position (plan assets set aside in a trust or restricted for benefit payments).

Smoothing Method of Asset Valuation
Smoothing incorporates any deviation between expected returns and actual results over a period of years. Assuming a five-year smoothing period, which is common, 20% of any variation between expected and actual results for a given year would be incorporated into the AVA for each of the next five years.

Unfunded Actuarial Accrued Liability
The difference between the AVA and the AAL.

Aggregate Pension Data by City

	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	Annual Pension Contributions as % of Spending	Net Outstanding Direct Debt $000s
New York NY	105,268,700	175,116,000	69,847,300	60.1	8,472	7,529,600	11.3	77,318,459
Los Angeles CA	24,186,873	31,424,873	7,238,000	77.0	1,895	630,133	14.3	3,242,870
Chicago IL	10,531,448	29,883,531	19,352,083	35.2	7,149	440,120	14.2	7,939,682
Houston TX	9,269,200	11,836,600	2,567,400	78.3	1,196	225,704	11.7	3,513,299
Philadelphia PA	4,716,793	9,799,852	5,083,059	48.1	3,308	539,500	15.5	4,132,800
Phoenix AZ	3,784,429	6,207,954	2,423,525	61.0	1,649	196,220	19.3	2,321,945
San Antonio TX	3,362,269	3,700,138	337,869	90.9	248	98,560	10.6	1,940,298
San Diego CA	4,739,399	6,917,175	2,177,776	68.5	1,642	232,847	20.0	606,573
Dallas TX	6,317,000	7,997,000	1,680,000	79.0	1,373	132,892	13.5	1,600,107
San Jose CA	4,474,381	5,966,234	1,491,853	75.0	1,542	208,091	29.7	1,284,371
Austin TX	2,996,159	4,285,202	1,289,043	69.9	1,571	116,208	16.2	1,017,966
Jacksonville FL	2,727,437	4,868,158	2,140,721	56.0	2,586	149,564	15.8	2,477,974
Indianapolis IN	NA	NA	NA	NA	NA	33,603	5.6	1,108,060

	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	Annual Pension Contributions as % of Spending	Net Outstanding Direct Debt $000s
San Francisco CA	17,056,308	19,385,914	2,329,606	88.0	2,866	434,685	13.8	2,347,922
Columbus OH	NA	NA	NA	NA	NA	127,006	17.4	1,113,822
Fort Worth TX	1,869,700	2,617,900	748,200	71.4	986	65,573	11.9	857,228
Charlotte NC	NA	NA	NA	NA	NA	32,697	6.1	1,332,703
Detroit MI	6,885,056	7,528,810	643,754	91.4	911	68,075	5.5	2,546,251
El Paso TX	1,639,281	2,128,857	489,576	77.0	736	29,234	6.8	873,776
Memphis TN	1,867,934	2,509,930	206,479	73.8	317	20,107	3.1	1,286,229
Boston MA	4,592,675	7,382,907	2,790,232	62.2	4,465	123,600	5.0	1,143,608
Seattle WA	1,968,923	3,109,369	1,140,446	79.6	1,837	82,220	8.3	911,961
Denver CO	1,946,844	2,386,530	439,686	81.6	709	62,621	6.8	1,370,763
Washington DC	5,390,479	5,137,525	–252,954	104.9	–409	239,419	3.8	8,128,799
Nashville TN	2,260,720	2,794,556	533,836	80.9	876	115,157	14.1	2,045,529
Aggregate	**227,852,008**	**352,985,014**	**125,133,007**	**64.6**	**3,776**	**11,933,436**	**12.0**	**132,462,994**

Individual Pension Plan Data by City

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
New York NY					**105,268,700**	**175,116,000**	**69,847,300**	**60.1**	**8,472**	**7,529,600**	**11.3**
New York City Employees' Retirement System	06/2010 (Lag)	Administrator/ Contributor	Defined Benefit	CSME	40,433,300	62,935,300	22,502,000	64.2		1,668,000	
New York City Teachers' Retirement System	06/2010 (Lag)	Administrator/ Contributor	Defined Benefit	CSME	32,477,500	55,138,400	22,660,900	58.9		1,320,400	
New York Board of Education Retirement System-Qualified Pension Plan	06/2010 (Lag)	Administrator/ Contributor	Defined Benefit	CSME	2,056,500	3,558,300	1,501,800	57.8		1,205,600	
New York Police Pension Fund	06/2010 (Lag)	Administrator/ Contributor	Defined Benefit	Single Employer	22,908,700	38,134,400	15,225,700	60.1		2,358,700	
New York Fire Department Pension Fund	06/2010 (Lag)	Administrator/ Contributor	Defined Benefit	Single Employer	7,392,700	15,349,600	7,956,900	48.2		976,900	
Los Angeles CA					**24,186,873**	**31,424,873**	**7,238,000**	**77.0**	**1,895**	**630,133**	**14.3**
Fire and Police Pension Plan	06/2012	Administrator/ Contributor	Defined Benefit	Single Employer	14,251,914	17,030,914	2,779,000	83.7		321,593	
Los Angeles City Employees' Retirement Plan	06/2012	Administrator/ Contributor	Defined Benefit	Single Employer	9,934,959	14,393,959	4,459,000	69.0		308,540	
Water and Power Employees' Retirement[1]	06/2012	Administrator/ Contributor	Defined Benefit	Single Employer	7,573,886	9,692,603	2,118,717	78.1		326,200	

1 WPE plan not included in city totals as it supports enterprise workers

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Chicago IL					**10,531,448**	**29,883,531**	**19,352,083**	**35.2**	**7,149**	**440,120**	**14.2**
Municipal Employees' Plan	12/2012	Administrator/ Contributor	Defined Benefit	Single Employer	5,073,320	13,475,377	8,402,057	37.6		148,859	
Laborers' and Retirement Board Employees' Plan	12/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,315,914	2,336,189	1,020,275	56.3		11,853	
Policemen's Plan	12/2012	Administrator/ Contributor	Defined Benefit	Single Employer	3,148,930	10,051,827	6,902,897	31.3		197,886	
Firemen's Annuity and Benefit Funds of Chicago	12/2012	Administrator/ Contributor	Defined Benefit	Single Employer	993,284	4,020,138	3,026,854	24.7		81,522	
Houston TX					**9,269,200**	**11,836,600**	**2,567,400**	**78.3**	**1,196**	**225,704**	**11.7**
Houston Firefighters' Pension System	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	3,222,300	3,558,200	335,900	90.6		61,204	
Houston Municipal Pension System	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	2,328,800	3,790,300	1,461,500	61.4		98,500	
Houston Police Officers' Pension System	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	3,718,100	4,488,100	770,000	82.8		66,000	
Philadelphia PA					**4,716,793**	**9,799,852**	**5,083,059**	**48.1**	**3,308**	**539,500**	**15.5**
Municipal Pension Plan	07/2012	Administrator/ Contributor	Defined Benefit	Single Employer	4,716,793	9,799,852	5,083,059	48.1		539,500	

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Phoenix AZ					**3,784,429**	**6,207,954**	**2,423,525**	**61.0**	**1,649**	**196,220**	**19.3**
City of Phoenix Employees' Retirement Plan	06/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,827,528	2,939,374	1,111,846	62.2		106,483	
Arizona Public Safety Personnel Retirement System	06/2012	Contributor	Defined Benefit	Agent Multi-Employer	1,956,901	3,268,580	1,311,679	59.9		89,567	
Elected Officials' Retirement Plan of Arizona	06/2012	Contributor	Defined Benefit	CSME	356,346	610,229	253,883	58.4		170	
San Antonio TX					**3,362,269**	**3,700,138**	**337,869**	**90.9**	**248**	**98,560**	**10.6**
Fire and Police Pension Plan	10/2011	Administrator/ Contributor	Defined Benefit	Single Employer	2,330,520	2,573,262	242,742	90.6		70,389	
Texas Municipal Retirement System	12/2011	Contributor	Non-traditional Hybrid Defined Benefit	Agent Multi-Employer	1,031,749	1,126,876	95,127	91.6		28,171	
San Diego CA					**4,739,399**	**6,917,175**	**2,177,776**	**68.5**	**1,642**	**232,847**	**20.0**
San Diego City Employees' Retirement System	06/2011	Administrator/ Contributor	Defined Benefit	Single Employer	4,739,399	6,917,175	2,177,776	68.5		232,828	
Supplemental Pension Savings Plan	NA		Defined Contribution	Single Employer	NA	NA	NA	NA		19.1	
401a	NA		Defined Contribution	Single Employer	NA	NA	NA	NA		0.2	
401k	NA		Defined Contribution	Single Employer	NA	NA	NA	NA		0	

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Dallas TX					**6,317,000**	**7,997,000**	**1,680,000**	**79.0**	**1,373**	**132,892**	**13.5**
Employees' Retirement Fund	12/2011	Administrator/ Contributor	Defined Benefit	Single Employer	2,917,000	3,392,000	475,000	86.0		28,917	
Dallas Police and Fire Pension System	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	3,379,000	4,569,000	1,190,000	74.0		102,431	
Supplemental Police and Fire Pension Plan	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	21,000	36,000	15,000	58.3		1,544	
San Jose CA					**4,474,381**	**5,966,234**	**1,491,853**	**75.0**	**1,542**	**208,091**	**29.7**
Police and Fire Department Retirement Plan	06/2011	Administrator/ Contributor	Defined Benefit	Single Employer	2,685,721	3,196,007	510,286	84.0		121,009	
Federated City Employees' Retirement System	06/2011	Administrator/ Contributor	Defined Benefit	Single Employer	1,788,660	2,770,227	981,567	64.6		87,082	
Austin TX					**2,996,159**	**4,285,202**	**1,289,043**	**69.9**	**1,571**	**116,208**	**16.2**
City of Austin Employees' Retirement and Pension Fund	12/2011	Administrator/ Contributor	Defined Benefit	Single Employer	1,790,900	2,723,800	932,900	65.8		72,772	
City of Austin Police Officers' Retirement and Pension Fund	12/2011	Administrator/ Contributor	Defined Benefit	Single Employer	553,702	815,259	261,557	67.9		27,809	
Fire Fighters' Relief and Retirement Fund of Austin, Texas	12/2011	Administrator/ Contributor	Defined Benefit	Single Employer	651,557	746,143	94,586	87.3		15,627	

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Jacksonville FL					**2,727,437**	**4,868,158**	**2,140,721**	**56.0**	**2,586**	**149,564**	**15.8**
City of Jacksonville Retirement System	09/2011	Administrator/ Contributor	Defined Benefit and Defined Contribution	CSME	1,685,196	2,440,960	755,764	69.0		58,965	
Police and Fire Pension Plan	10/2011	Administrator/ Contributor	Defined Benefit	Single Employer	1,042,241	2,427,198	1,384,957	42.9		90,278	
Florida Retirement System[2]	07/2012	Contributor	Defined Benefit and Defined Contribution	CSME		148,049,596	20,157,815	86.4		321	
Indianapolis IN					**NA**	**NA**	**NA**	**NA**	**NA**	**33,603**	**5.6%**
Police and Firefighters' Statutory Plan[3]	NA	Contributor	Defined Benefit	CSME	NA	NA	NA	NA		30,593	
Police and Firefighters' Pre-1977 Plans	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	0	NA	NA	NA		NA	
Public Employees' Retirement Fund of Indiana	06/2012	Contributor	Defined Benefit	Agent Multi-Employer	66,005	135,810	69,805	48.6		3,010	
San Francisco CA					**17,056,308**	**19,385,914**	**2,329,606**	**88.0**	**2,866**	**434,685**	**13.8**
Employees' Retirement System	07/2011	Administrator/ Contributor	Defined Benefit	CSME	16,313,120	18,598,728	2,285,608	87.7		410,797	
CalPERS Public Safety	06/2010	Contributor	Defined Benefit	Agent Multi-Employer	743,188	787,186	43,998	94.4		23,888	

2 Not included in city totals as less than 1% of city employees are members
3 Not included in city totals for liability as it is a state plan covering multiple entities

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Columbus OH					**NA**	**NA**	**NA**	**NA**	**NA**	**127,006**	**17.4**
Ohio Police and Fire Pension Fund	12/2011	Contributor	Defined Benefit and Defined Contribution	CSME	65,436,000	84,530,000	19,094,000	77.4		72,608	
Ohio Public Employees Retirement System	01/2012	Contributor	Defined Benefit	CSME	10,308,959	16,346,699	6,037,740	63.1		54,398	
Fort Worth TX					**1,869,700**	**2,617,900**	**748,200**	**71.4**	**986**	**65,573**	**11.9**
Employees' Retirement Plan of the City of Fort Worth	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,869,700	2,617,900	748,200	71.4		65,573	
Charlotte NC					**NA**	**NA**	**NA**	**NA**	**NA**	**32,697**	**6.13**
North Carolina Local Governmental Employees' Retirement System[4]	12/2011	Contributor	Defined Benefit	CSME	19,326,359	19,373,800	47,440	99.8		21,400	
Charlotte Firfighters' Retirement System	07/2012	Administrator/ Contributor	Defined Benefit	Single Employer	367,183	431,942	64,759	85.0		7,720	
Law Enforcement Officers' Seperatation Allowance	12/2011	Administrator/ Contributor	Defined Benefit	Single Employer	0	58,552	58,552	0.0		3,577	
Detroit MI					**6,885,056**	**7,528,810**	**643,754**	**91.4**	**911**	**68,075**	**5.5**
General Retirement System[5]	06/2010	Administrator/ Contributor	Defined Benefit	Single Employer	3,080,296	3,720,167	639,871	82.8		18,315	
Police and Fire Retirement System	06/2010	Administrator/ Contributor	Defined Benefit	Single Employer	3,804,760	3,808,643	3,883	99.9		49,760	

4 Not included in city totals for liability as it is a state plan covering multiple entities
5 Total city contribution to GRS for fiscal 2012 was higher at $64.1 million although the difference is paid by enterprise systems and not included for this analysis.

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
El Paso TX					**1,639,281**	**2,128,857**	**489,576**	**77.0**	**736**	**29,234**	**6.8**
City Employees' Pension Fund	08/2012	Administrator/ Contributor	Defined Benefit	Single Employer	581,725	788,204	206,479	73.8		19,078	
Firemen and Policemen's Pension Funds	08/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,057,556	1,340,653	283,097	78.9		10,156	
Memphis TN					**1,867,934**	**2,509,930**	**206,479**	**73.8**	**317**	**20,107**	**3.1**
City of Memphis Retirement System	07/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,867,934	2,509,930	206,479	73.8		20,107	
Boston MA					**4,592,675**	**7,382,907**	**2,790,232**	**62.2**	**4,465**	**123,600**	**5.0**
State-Boston Retirement System	01/2011	Administrator/ Contributor	Defined Benefit	CSME	4,592,675	7,382,907	2,790,232	62.2		123,600	
Seattle WA					**1,968,923**	**3,109,369**	**1,140,446**	**79.6**	**1,837**	**82,220**	**8.3**
Seattle City Employees' Retirement System	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,954,300	2,859,300	905,000	68.3		50,301	
Firemen's Pension Fund	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	10,877	138,611	127,734	7.8		8,262	
Police Relief and Pension Fund	01/2012	Administrator/ Contributor	Defined Benefit	Single Employer	3,746	111,458	107,712	3.4		11,195	
Law Enforcement Officers' and Fire Fighters' Retirement System Plan 1[6]	06/2011	Contributor	Defined Benefit	CSME	5,565,000	4,135,000	–1,430,000	134.6		10	
Law Enforcement Officers' and Fire Fighters' Retirement System Plan 2[7]	06/2011	Contributor	Defined Benefit	CSME	6,621,000	5,576,000	–1,045,000	118.7		12,452	

6, 7 Not included in city totals for liability as it is a state plan covering multiple entities

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Denver CO					**1,946,844**	**2,386,530**	**439,686**	**81.6**	**709**	**62,621**	**6.8**
Denver Employees Retirement Plan	01/2012	Administrator/ Contributor	Defined Benefit	CSME	1,946,844	2,386,530	439,686	81.6		47,176	
State of Colorado-Fire and Police Pension Plan	01/2012	Contributor	Defined Benefit	CSME	NA	NA	NA	NA		15,445	
Washington DC					**5,390,479**	**5,137,525**	**–252,954**	**104.9**	**–409**	**239,419**	**3.8**
Civil Service Retirement System	NA	Contributor	Defined Benefit	CSME	NA	NA	NA	NA		12,319	
Social Security	NA	Contributor	Defined Benefit	CSME	NA	NA	NA	NA		66,261	
Policemen and Firemen's Retirement Program	10/2012	Administrator/ Contributor	Defined Benefit	Single Employer	3,804,853	3,456,977	–347,876	110.1		116,644	
Teachers' Retirement Program	10/2012	Administrator/ Contributor	Defined Benefit	Single Employer	1,585,626	1,680,548	94,922	94.4		0	
Defined Contribution Pension Plan	NA	Administrator/ Contributor	Defined Contribution	Single Employer	NA	NA	NA	NA		44,195	
Nashville TN					**2,260,720**	**2,794,556**	**533,836**	**80.9**	**876**	**115,157**	**14.1**
Metropolitan Employees Benefit Trust (Metro Plan)	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	2,188,868	2,468,971	280,103	88.7		81,637	
Closed City Plan Fund	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	7,275	55,674	48,399	13.1		7,966	
Davidson County Employees' Retirement Fund (County Plan)	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	1,557	11,786	10,230	13.2		1,724	
Teachers' Retirement Plan Fund (Metro Education)	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	53,321	207,805	154,484	25.7		17,472	

Plans	Most Recent Actuarial Valuation	City Role	Benefit Type	Plan Structure	Actuarial Assets $000s	Actuarial Accrued Liability $000s	UAAL $000s	Funded Ratio %	UAAL Per Capita	City Contributions (2012)	% City Spending
Teachers' Retirement Plan Fund (Metro Education)	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	53,321	207,805	154,484	25.7		17,472	
Teachers' Civil Service and Pension Fund (City Education)	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	3,769	17,809	14,040	21.2		2,132	
Employees' Pension and Insurance Fund (County Education)	07/2011	Administrator/ Contributor	Defined Benefit	Single Employer	5,930	32,510	26,580	18.2		4,227	