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Status of Local Pension Funding Fiscal Year 2012:

An Evaluation of Ten Local Government Employee Pension Funds in Cook County

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The Civic Federation is an independent, non-partisan government research organization working to maximize the quality and cost-effectiveness of government services in the Chicago region and State of Illinois.

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EXECUTIVE SUMMARY

The purpose of this report is to compile and analyze basic financial data on ten major local government employee pension funds in the Chicago area.[1] It explains common indicators of pension fund fiscal health and causes for change in the health of the local funds. This report also reviews recent pension benefit changes.

The report reviews fiscal year 2012 actuarial valuation reports and financial statements of the retirement funds for the City of Chicago (four separate funds – Municipal, Laborers', Police and Fire), Chicago Park District, Chicago Public Schools (Teachers' Fund), Cook County, Forest Preserve District of Cook County, Metropolitan Water Reclamation District (MWRD) and the Chicago Transit Authority (CTA). Fiscal year 2012 data is the most recent audited data available for all ten pension funds.

Highlights of the data compiled on the ten pension funds are summarized below.

Funded Ratios:[2] The actuarial value funded ratio of nine of the ten funds fell in FY2012.[3] All ten funds now have actuarial value funded ratios under 60%, ranging from a low of 24.4% for the Fire Fund to a high of 59.4% for the CTA Fund. The actuarial value funded ratio for the aggregate of all ten funds' assets and liabilities was 45.5% in FY2012, down from 74.5% in FY2003. Market value funded ratios were slightly higher, with an aggregate ratio of 46.3% in FY2012. The lowest market value funded ratio was the Fire Fund at 25.4%, and the highest was the CTA Fund at 59.4%.

Unfunded Liabilities: Between FY2003 and FY2012 the aggregate unfunded actuarial accrued liabilities for the ten funds increased by nearly $26.0 billion, rising from $11.4 billion to $37.3 billion. Unfunded liabilities per capita in Chicago for the ten local funds rose from $3,359 in FY2003 to $12,233 in FY2012. For the four City of Chicago pension funds alone, FY2012 unfunded liabilities were $19.8 billion, or $7,281 per capita.

Investment Income and Rate of Return: The average rate of return on pension plan assets for those funds with a January 1 to December 31 fiscal year was 13.0% in FY2012, up from 0.5% in FY2011. The average rate of return for funds using a July 1 to June 30 fiscal year was 0.8% in FY2012, down from 23.9% in FY2011. Investment income represented nearly 60.0% of all ten funds' FY2012 income.

Ratio of Active Employees to Beneficiaries: Between FY2003 and FY2012, the ratio of total active employees to beneficiaries for the ten funds combined has gradually dropped from 1.55 actives per beneficiary to 1.11, indicating that there are fewer active employees supporting more retirees. The Police, Laborers', MWRD, Forest Preserve, and CTA Funds all had more beneficiaries than actives in FY2012.

Assets and Liabilities: The ten pension funds had approximately $68.5 billion in combined pension and Other Post Employment Benefit (OPEB) accrued liabilities for FY2012.[4] Pension liabilities totaled $66.8 billion and OPEB liabilities of the funds totaled $1.7 billion. The funds' assets had an aggregate actuarial value of $31.2 billion and a market value of $31.7 billion. Total pension and OPEB liabilities of the seven governments reviewed in this report were $73.1 billion ($40.7 billion unfunded) as reported in their audited financial statements.[5]

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[1] In this report the terms "pension fund" and "pension plan" are used interchangeably.
[2] See page 11 for more information on pension fund status indicators. Also see the glossary beginning on page 68.
[3] Actuarial value of assets smoothes asset gains and losses over four or five years for all funds except the CTA, which uses market value to determine its actuarial value of assets. See page 11 for details.
[4] This report focuses only on OPEB obligations for the employees of the sponsoring government, not the fund staff. The obligation for fund staff is typically very small compared to the obligation for government employee fund members.
[5] See page 48 for details on this liability.

Employee Contributions: For all ten funds, employee contributions totaled $689.6 million in FY2012. Employees contribute at rates ranging from 8.5% to 9.125% of salary.

Employer Contributions and ARC: All funds received their statutorily required employer contributions in FY2012. However, none of the employers contributed the full actuarially calculated annual required employer contribution (ARC) in FY2012 and only one fund, the MWRD Retirement Fund, contributed more than 50% of the pension ARC.[6] In the aggregate, in order to meet the pension ARC in FY2012, employers should have contributed approximately $2.8 billion. Instead they contributed less than half that amount, $872.5 million, falling short by $1.9 billion. Employers contributed an aggregate equivalent of 11.4% of payroll to the pension funds for pension obligations. In order to meet the ARC, they should have contributed an additional 25.0% for a total of 36.4% of payroll in FY2012.

[6] See page 48 for a discussion of ARC, which is an accounting reporting requirement but not a funding requirement. However, it does represent a reasonable calculation of the amount of money the employer might contribute each year in order to cover costs attributable to the current year and to reduce unfunded liabilities.

STATUS OF LOCAL PENSION FUNDING OVERVIEW

This report analyzes basic financial data on ten major local government employee pension funds in Cook County. It is intended to provide policymakers, pension trustees, pension fund members and taxpayers with information they need to make informed decisions regarding public employee retirement benefits.

Scope of Report

This report presents broad trends for ten pension funds, often aggregating the results for all ten funds. It is designed to provide an overview of trends for these funds, not to examine the specific causes of changes in the status of individual funds. For such an analysis, readers should consult the *Actuarial Valuation* reports and *Financial Statements* of the individual funds.

Funds Included in Analysis

The City of Chicago enrolls its employees in four different pension systems:

- Municipal Employees' Annuity and Benefit Fund of Chicago
- Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago
- Firemen's Annuity and Benefit Fund of Chicago
- Policemen's Annuity and Benefit Fund of Chicago

In addition, six other local government pension funds are analyzed in this report: [7]

- County Employees' and Officers' Annuity and Benefit Fund of Cook County
- Forest Preserve District Employees' Annuity and Benefit Fund of Cook County[8]
- Metropolitan Water Reclamation District Retirement Fund
- Retirement Plan for Chicago Transit Authority Employees
- Public School Teachers' Pension and Retirement Fund of Chicago[9]
- Park Employees' & Retirement Board Employees' Annuity and Benefit Fund[10]

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[7] The term "local government" is used here broadly and includes the Chicago Transit Authority, an Illinois municipal corporation. The seven governments and ten funds analyzed in this report were created by Acts of the Illinois General Assembly.

[8] The funds of Cook County and the Forest Preserve District of Cook County are governed by the same pension board.

[9] Certified Teachers employed by the Chicago Board of Education participate in the Public School Teachers' Pension and Retirement Fund of Chicago. Most other employees of the Board of Education are enrolled in the City of Chicago's Municipal Employees' Annuity and Benefit Fund. Approximately 17,042, or 53.3%, of Municipal Fund members considered to be active by the Fund are Board of Education employees. Chicago Public Schools, *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2012*, p. 78. The Laborers' Fund also includes some Board of Education retirees and beneficiaries. Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report as of December 31, 2012*, p. 58.

[10] The fiscal year for the Public School Teachers' and Park District pension funds is July 1 - June 30. The other eight funds use a January 1 – December 31 fiscal year. Per Public Act 97-0894, the Chicago Park District pension fund's fiscal year changed to a calendar year fiscal year for FY2013, starting January 1, 2013. The fund issued a financial report for the six month fiscal year covering the July 1, 2012 to December 31, 2012 period between the end of fiscal year 2012 on June 30, 2012 and the start of fiscal year 2013 on January 1, 2013.

Public Pension Plan Type

All ten public pension plans surveyed in this report are **defined benefit pension plans**. In these ten defined benefit pension plans, employers and/or employees annually contribute to an employer-sponsored retirement fund that invests assets in order to cover future benefit payments. Upon retirement, the employee receives an annuity based upon a specific formula that considers his or her highest salary (usually based on an average of several years) and length of service – in this sense, the benefit is "defined." If the amounts contributed to the plan over the term of the employee's employment, plus accrued investment earnings, are insufficient to support all benefits (including health and survivor's benefits), the former employer is expected to pay the difference.

By contrast, in a **defined contribution plan**, the employee and/or employer contribute fixed amounts (i.e., the contribution is "defined"). The retirement benefit, whether taken as a lump sum or an annuity, is based upon the total amount contributed to the plan over the employee's tenure as well as any investment return. In general, the employer's liability ends upon the employee's retirement, apart from any ancillary health benefits. Common examples of defined contribution plans are 401(k), 403(b) and 457 plans. These designations refer to the governing sections of the federal tax code. Some public employee funds in the United States are now "hybrid" plans, offering some features of both defined benefit and defined contribution plans to employees. Some of the governments in this report may also make supplementary 457 plans available to their employees, but those plans are not included in this analysis.

Of the ten funds covered in this analysis, only the participants in the Chicago Transit Authority (CTA) pension fund also participate in the federal **Social Security** program. CTA retirees are eligible for Social Security benefits in addition to their CTA pension benefits.[11] The CTA and its employees each pay an additional 6.2% of the employee's Social Security taxable salary to the Social Security Administration.

Data Sources and Comparability Issues

Unless otherwise noted, all fund data in this report is taken from the actuarial valuations and financial statements of the funds, as listed in Appendix C on page 73. Specific page number references for revenues and expenditures are listed in Appendix B beginning on page 71. For those plans that also subsidize retiree healthcare, combined pension and healthcare results are reported.

Some funds compute their actuarial results in one way to satisfy State reporting requirements and in a second way to comply with the standards of the Governmental Accounting Standards Board (GASB). In order to maximize comparability among the funds, the Civic Federation uses the figures computed according to GASB standards with three notable exceptions:

1. The Teachers' Fund figures shown in this report are from the "Statutorily Required" actuarial valuation, which includes assets and expenses related to the retiree healthcare obligations of the fund but does not include healthcare as a long-term liability. State statute (40 ILCS 5/17-142.1) currently limits the fund's annual reimbursements to retirees for their

[11] The majority of all government employers and employees hired after March 31, 1986 each pay Medicare payroll taxes of 1.45%. See Internal Revenue Service Publication 963 at http://www.irs.gov/pub/irs-pdf/p963.pdf for further information.

healthcare expenditures to $65 million, so the fund considers this a fixed annual expenditure rather than an open-ended liability. However, GASB requires that the retiree healthcare plan be valued as an ongoing liability because there is a history of increases to this statutory maximum.[12]

2. The Cook County Fund figures shown in this report are from the actuarial valuation required by State law, which values pension and OPEB liabilities using a 7.5% discount rate rather than a lower discount rate of 4.5% for OPEB liabilities as required for GASB reporting. Cook County government does not directly subsidize OPEB. OPEB is provided entirely by the pension fund (see page 41). The pension fund pays pension and OPEB benefits from the same asset pool.[13]
3. The Forest Preserve Fund figures shown in this report are from the actuarial valuation required by State law, which values pension and OPEB liabilities using a 7.5% discount rate rather than a lower discount rate of 4.5% for OPEB liabilities as required for GASB reporting. The Forest Preserve District does not directly subsidize OPEB. OPEB is provided entirely by the pension fund (see page 41). The pension fund pays pension and OPEB benefits from the same asset pool.[14]

The sum of the pension and OPEB liabilities reported according to GASB standards is higher than the total liabilities reported in the statutorily required valuations of Teachers', Cook County and Forest Preserve Funds required pursuant to Illinois statute. The reported FY2012 OPEB liabilities according to GASB standards are $3.1 billion higher for the Teachers' Fund, $633.8 million higher for the Cook County Fund and $14.4 million higher for the Forest Preserve Fund. A total actuarial value funded ratio for pension and OPEB liabilities calculated using GASB standards is therefore lower for each fund. In the statutorily required valuations, the FY2011 ratios are 54.7% for the Teachers' Fund, 53.6% for the Cook County Fund and 56.7% for the Forest Preserve Fund.[15] Using the GASB-reported liabilities those ratios fall to 45.9%, 51.3% and 54.6%, respectively.[16]

It is also important to note that the Civic Federation reports the combined pension and retiree healthcare liabilities for the Retirement Plan for CTA employees in prior years when the plan funded those benefits. Public Act 95-708 removed the liability for retiree healthcare benefits from the CTA pension fund and FY2009 was the first year that CTA pension fund data did not include healthcare liabilities.

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[12] Public School Teachers' Pension and Retirement Fund of Chicago, *Actuarial Valuation of Retiree Health Insurance Plan as of June 30, 2012 for GASB Statement No. 43*, p. 13.

[13] The Cook County Fund's actuary also produces separate reports on pension and OPEB liabilities as required by GASB.

[14] The Forest Preserve Fund's actuary also produces separate reports on pension and OPEB liabilities as required by GASB.

[15] Chicago Teachers' Pension Fund, *116th Comprehensive Annual Financial Report for the year ended June 30, 2012,* p. 114; County Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2012,* p. 5; County Employees' and Officers' Annuity and Benefit Fund of Cook County, Financial Statements: December 31, 2012, p. 25; Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2012,* p. 5; and Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, Financial Statements: December 31, 2012, p. 20.

[16] GASB-based actuarial value funded ratios are calculated by the Civic Federation by dividing the total reported actuarial value of assets by the sum of GASB 25 and GASB 43 reported liabilities. It should be noted that these GASB standards are reporting, not funding requirements. However, they provide a useful basis of comparison between funds. The Cook County and Forest Preserve Funds prefer the statutorily required valuation used throughout most of this report for evaluation of funding status.

Recent Pension Reforms

Chicago Municipal and Laborers' Fund Pension Reform Legislation

Public Act 98-0641, signed into law on June 9, 2014, makes changes to pension benefit levels for current retirees and employee members of two of the City of Chicago's four pension funds, the Municipal and Laborers' Funds. Its provisions are expected to go into effect January 1, 2015 if the law is not challenged in court.

The Municipal Fund was projected to run out of money within 10 to 15 years and the Laborers' Fund in 15 to 20 years if P.A. 98-0641 had not passed the General Assembly. The major provisions of the law include increases to the employer contribution and employee contribution and changes to the automatic annual increase for current retirees and Tier I employees. The plan is projected to increase the funded level of both funds to 90% by the end of 2055.

Employer Contribution

Before P.A. 98-0641 goes into effect, employer contributions for the Municipal and Laborers' funds were set at 1.25 and 1.0 times employee contributions two years prior, respectively. These multiples have not been sufficient for the actuarial needs of either fund since FY2003 for the Municipal Fund and since FY2004 for the Laborers' Fund. The employer contribution shortfalls have contributed significantly to the fall in each fund's funded ratio over the past 10 years.

Under the provisions of the new law, the multiples contributed by the City for each fund will increase gradually over five years starting in 2016 (tax year 2015) until in 2021 the city will begin to annually contribute an amount that will increase funding to 90% by the end of 2055. If the City fails to make the required contributions, the Illinois Comptroller will withhold State fund transfers to the City. This provision is similar to the intercept described below for the Police and Fire Funds that was enacted as part of Public Act 96-1495. The increase in contributions for FY2015 (payable in FY2016) is projected to be approximately $89 million.[17]

Benefit and Employee Contribution Changes

Effective January 1, 2015, the automatic annual annuity increase is reduced from the current 3% compounded to the lesser of 3% or half of the increase in CPI-U, simple interest, for current retirees and for Tier I employees hired before January 1, 2011. All current retirees and Tier I employees will skip automatic annual increases in 2017, 2019 and 2025, unless their annual annuity is less than $22,000, in which case they will receive an adjustment of at least 1% each year, including the skip years. Tier II employees hired on or after January 1, 2011 will skip increases in 2025. For all members, the first automatic annual increase after retirement is delayed by one year.

[17] City of Chicago, *Annual Financial Analysis 2014*, p. 89.

Tier I and Tier II employees increase their contributions by 0.5% per year from the current 8.5% level starting in 2015 until contributions reach 11% of salary in 2019 and remain at that level until the fund reaches 90% funded, at which point employee contributions decrease to 9.75%. Tier II employees' retirement age is reduced to 65 from 67 and to 60 from 62 for early retirement. No change is made to Tier I retirement ages.

See Appendix G for more on this pension reform act.

Chicago Park District Fund Pension Reform Legislation

Public Act 98-0622, signed into law on January 7, 2014, makes changes to pension benefit levels for current retirees and employee members of the Chicago Park District pension fund. The provisions go into effect January 1, 2015. As of publication of this report, no litigation has been filed challenging the law.[18]

Prior to the passage of P.A. 98-0622, the Park District Fund was projected to run out of funding in 2023; the reforms contained in the legislation are intended to make the fund more sustainable over the long term.[19] There are different changes to benefit levels for Tier I employees, Tier II employees and current retirees. Employer contributions will increase, as will employee contributions.

In November 2013, the Park District projected that with this pension reform legislation, the pension fund's funded ratio will reach 90% by 2049 and 100% by 2054. According to testimony by the Park District at the Illinois House of Representatives' Pension Committee hearing on November 6, 2013, the actuarial accrued liability was projected to decrease by a net of $107 million. The actuarial accrued liability was $971.8 million as of December 31, 2012. In addition to the changes described below, there are also provisions in the legislation that prohibit any benefit enhancement that does not identify a sufficient matching funding source as certified by the State Actuary, reductions to duty disability benefit levels over several years and a prohibition on the Fund subsidizing retiree benefits in the future.

Employer Contribution

Under previous law, the contribution made by the Park District from property tax and personal property replacement tax revenues was set at 1.1 times employee contributions made two years prior. Prior to FY2005, the actual employer contribution was sufficient for the actuarial needs of the fund. In FY2005 the actual employer contribution was reduced by approximately half and benefit enhancements and an early retirement incentive were also enacted. These changes increased the fund's actuarial liability by $57.2 million.[20] In FY2005 and every year thereafter, the employer multiple contribution has fallen short of the actuarial needs of the fund and has

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[18] An SEIU Local 73 newsletter dated May 2014 stated that their legal counsel has recommended the union wait to learn the decision on the constitutionality of Public Act 98-0599, the state pension reform package, which would show the legal precedent for all subsequent pension reform cases. http://seiu73.org/files/2014/05/CPD-Newsletter-4-14.pdf. According to the SEIU website, the union supported the reforms to current employee benefits, but not the changes to current retirees' benefits, which it views as unconstitutional.

[19] Park Employees' Annuity and Benefit Fund of Chicago, "Summary of New Pension Law - Public Act 98-0622," January 31, 2014. http://www.chicagoparkpension.org/Summary_of_New_Pension_Law_-_Public_Act_98-0622.pdf

[20] Chicago Park District Retirement Fund FY2004 Comprehensive Annual Financial Report, p. 47.

contributed, along with investment losses, to a decline in the funded ratio from an actuarial value funded ratio of 89.0% in FY2003 to 50.9% in FY2012.

Under P.A. 98-0622, in FY2015 the employer contribution will increase from 1.1 to 1.7 times the employee contribution made two years prior. The multiple will further increase to 2.3 in FY2017 and 2.9 in FY2019. Once the pension fund is 90% funded, the employer contribution rate will be the lesser of 2.9 times the employee contribution made two years prior or the amount needed to maintain 90% funded. The District will also be required to make supplemental contributions of $25.0 million, half of which is scheduled for FY2015 and half for FY2017, and $50.0 million in FY2019. These contributions are intended to decrease the pension fund's unfunded liability and will not decrease the employer's contribution in the respective fiscal year. Under the new law, the pension fund will have the authority to enforce annual employer contributions and supplemental employer contributions by mandamus action in the courts as of January 1, 2015.

Current Retirees

Effective January 1, 2015, the automatic annual annuity increase (sometimes called the cost of living increase or COLA) is adjusted to the lesser of ½ of the increase in CPI-U or 3% simple. This is a reduction from current 3% simple interest automatic annual increase. Additionally, all current retirees will see a suspension of the automatic annual increase in the years 2015, 2017 and 2019.

Tier I Employees

Current employees hired before January 1, 2011 will see the following changes. Early retirement will increase from 50 to 58 years for Tier 1 employees under 45 years old before January 1, 2015. After January 1, 2015, the automatic annual increases for Tier 1 employees will also change to match the retiree provisions described above. Tier 1 employee contributions will increase from 9.0% to 10.0% of salary on January 1, 2015. The rate will further increase to 11.0% on January 1, 2017 and 12% on January 1, 2019. Once the pension fund is 90% funded, the employee contribution rate will fall to 10.5% but will go back up to 12.0% if the fund falls below 90% funded.

Tier II Employees

Current employees hired on or after January 1, 2011 will see the following changes to their pension benefits, which were set pursuant to Public Act 96-0889, described below. The retirement age for full benefits decreases from 67 to 65 and early retirement age decreases from 62 to 60 as of January 1, 2015. This is a benefit enhancement. While their retirement age requirement decreased, Tier II employees will be required to make increased employee contributions on the same schedule described above for Tier I employees.

See Appendix G for more on this pension reform act.

Increases to Employee and Employer Contributions for the MWRD Retirement Fund

On August 3, 2012, Governor Quinn signed into law pension reforms for the MWRD Retirement Fund as Public Act 97-0894. The reforms increase employee and employer contributions to the District's pension fund in an effort to increase the Fund's funded ratio. It is important to note that the reforms, as described below, do not change benefits for current employees or current retirees.

Increase in Employee Pension Contributions

The legislation increases employee pension contributions for "Tier 1" members, or members hired before January 1, 2011, by 1% per year beginning on January 1 in 2013, 2014 and 2015.[21] Tier 1 employee contribution rates will remain at a total of 12.0% of salary until the funded level of the pension fund has reached 90%, at which time rates will return to the current level of 9%. Pension contributions for "Tier 2" employees, or persons hired on or after January 1, 2011, will not increase beyond the current total rate of 9% of salary because their benefits are less generous.

Increase in Tax Levy Multiple (Employer Pension Contribution)

The second part of the funding reform increases the property tax levy multiple contributed by the MWRD to an amount calculated by the actuary to be sufficient to bring the total assets of the Retirement Fund up to 90% of total actuarial liabilities of the fund by 2050. Beginning with the FY2013 tax levy, and each year thereafter, the MWRD will levy a property tax annually which will be sufficient to meet this required contribution by the Fund, but will not exceed an amount equal to the total employee contributions two years prior multiplied by 4.19.

The current tax levy multiple is 2.19. The new reform will increase the annual tax levy to the lesser of 4.19 times employee contributions two years prior or the required contribution calculated by the Fund's actuary. Thus, both employees and taxpayers will have a share in improving the funded status of the MWRD Retirement Fund.

<u>Second Tier of Benefits for New Hires as of January 1, 2011: Public Acts 96-0889 and 96-1495</u>

Public Act 96-0889 creates a new tier of benefits for public employees who become members of many public pension plans on or after January 1, 2011.[22] The Act affects new members of the following funds analyzed in this report: Municipal, Laborers', Cook County, Forest Preserve, MWRD, Teachers' and Park District Funds. Over time the benefit changes included in the legislation will slowly reduce liabilities from what they would have been as new employees are hired and fewer members remain in the old benefit tier.

Public Act 96-0889 did not change employer or employee contribution rates, with the significant exception of a partial employer contribution holiday granted to Chicago Public Schools (CPS). The Act reduces CPS' required employer pension contribution for FY2011, FY2012 and FY2013 to an amount estimated to be equivalent to the employer's normal cost, thereby revising the funding standards set in Public Act 89-0015.[23] It also delays the year that the Teachers' pension fund must reach a 90% funded ratio from 2045 to 2060. See page 63 for additional discussion of the impact of P.A. 96-0889 on employer contributions to the Chicago Teachers' Pension Fund.

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[21] Public Act 096-0889 created a two-tier benefits system with lower benefits for many Illinois public employees hired on or after January 1, 2011, including members of the MWRD Retirement Fund. The new tier of benefits includes higher retirement ages, a cap on the maximum pensionable salary and lower automatic annual benefit increases. Over time these benefit changes for new hires will slowly reduce liabilities from what they would have been as new employees are hired and fewer members remain in the old benefit tier. The designation "Tier 1 employees" refers to persons hired before the effective date of Public Act 096-0889 and "Tier 2 employees" refers to persons hired on or after January 1, 2011.

[22] A "trailer bill" to correct technical problems with Public Act 96-0889 was enacted in December 2010 as Public Act 96-1490.

[23] "Normal cost" is an actuarially-calculated amount representing that portion of the present value of pension plan benefits which is allocated to a given valuation year.

Public Act 96-1495 creates a new tier of benefits for public employees who become members of many public safety pension funds on or after January 1, 2011. The Act affects new members of the Chicago Police and Chicago Fire Funds. Over time the benefit changes included in the legislation will slowly reduce liabilities from what they would have been as new employees are hired and fewer members remain in the old benefit tier.

Public Act 96-1495 also changes employer contributions. The change for the City of Chicago will be significant. The City's contribution is currently a fixed multiple of the employee contributions made two years prior: a multiple of 2.26 for the Fire Fund and 2.00 for the Police Fund (see page 53 of this report). These multiples have provided much less funding than the amount needed to adequately fund the plans for at least the last ten years (see page 58). Public Act 96-1495 requires the City in 2015 to begin making contributions sufficient to bring the funded ratio of the Police Fund and the Fire Fund to 90% by the end of 2040, using a level percentage of payroll and projected unit credit actuarial valuation method. If the City fails to make its required contributions, the Illinois Comptroller will withhold State fund transfers to the City. Prior to the enactment of Public Act 96-1495, the Fire Fund was projected to run out of assets during 2021 and the Police Fund was projected to run out of assets during 2025.[24]

See Appendix F for more on these pension reform acts.

Chicago Transit Authority Pension Reform Legislation

Major reforms of the Chicago Transit Authority (CTA) pension plan passed by the Illinois General Assembly had a significant effect on the CTA pension fund beginning in FY2007.

See Appendix E for more on the CTA pension reform act.

EVALUATING PENSION FUND STATUS

The following section describes the primary indicators of pension fund health used in this report.

Pension Fund Status Indicators

Pension fund status indicators show how well a pension fund is meeting its goal of accruing sufficient assets to cover its liabilities. Ideally, a pension fund should hold exactly enough assets to cover all of its actuarial accrued liabilities. Actuarial accrued liabilities represent liabilities for future benefit payments due to current beneficiaries, as well as liabilities for benefits earned to date by current employees. A pension fund is considered 100% funded when its asset level equals the actuarial accrued liabilities. A funding level under 100% means that a fund's current assets are less than the amount needed to meet all accrued liabilities.

Assets and liabilities are calculated using a number of actuarial assumptions. Liabilities are calculated using assumptions about such factors as future salary increases, retirement age and life expectancy. Assets can be reported by their current **market value**, which recognizes unrealized gains and losses immediately in the current year. This measure is subject to significant market

[24] Illinois Commission on Government Forecasting and Accountability, *Illinois Public Retirement Systems: A Report on the Financial Condition of the Chicago, Cook County and Illinois Municipal Retirement Fund Systems of Illinois*, November 2010, p. 46 and 108.

volatility. Under Government Accounting Standards Board (GASB) Statement No. 25, assets of public pension plans may also be reported based on their **smoothed market value**, which mitigates the effects of short-term market volatility by recognizing each year's investment gains or losses over a period of three to five years.[25] For example, one smoothing technique recognizes 20% of the difference between the expected (based on the assumed rate of return) and actual investment returns for each of the previous five years. In 2009 Public Act 96-0043 required the five State of Illinois retirement systems to switch from using current market value as their actuarial value to using a smoothed market value as their actuarial value, as do nine of the ten local funds reviewed in this report. Beginning with the 2011 valuation year, the CTA Retirement Plan Board of Trustees instructed its actuaries to use market value to determine its actuarial value of assets rather than use a smoothed market value as it had done in previous years. This decision was made after consultation with the Retirement Plan's legal counsel regarding the meaning of the term "total assets" as found in the State of Illinois statutes for the Plan (40 ILCS 5/22-101(e)(3)). Plan counsel determined that "total assets" referred to market value of assets.[26]

Public Act 96-1495 requires all the public safety pension funds it affects to reset their actuarial value at the market value as of March 30, 2011 and then to proceed with five-year asset smoothing from that time forward.

It is important to consider two critical factors when evaluating the status of pension funds. First, **the status of a pension fund is in large part a function of the actuarial methods and assumptions made**. Changes to assumptions based on demographic trends, plan experiences or the selection of a different actuarial method can produce substantially different pictures of a fund's status.

Second, because pension financing is long-term in nature, **pension fund status is best evaluated by examining multi-year trends, rather than a single year in isolation**. Negative multi-year trends are cause for concern and indicate a need for a change in funding strategy or benefit levels. A given indicator that is low, but has been stable for several years, may occasion a lesser degree of alarm than a once-healthy fund that has experienced precipitous decline in recent years.

The three common indicators used in this report and described below are funded ratio, unfunded liabilities and actual investment rate of return.

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[25] In November 1994, the Government Accounting Standards Board (GASB) issued Statement No. 25 that established new standards for the reporting of a pension fund's assets. The requirement became effective June 15, 1996. Up until that statement, most pension funds used two measurements for determining the net worth of assets, book value (recognizing investments at initial cost or amortized cost) and market value (recognizing investments at current value). In Statement No. 25, GASB states that "smoothed" market value, also referred to as the actuarial value of assets, may be used in calculations for reporting pension costs and actuarial liabilities. The smoothed market value or actuarial value of assets accounts for assets at market values by recognizing unexpected gains or losses over a period of three to five years. In August 2012, GASB revised its reporting standards with Statement No. 67 such that pension fund assets will be valued at market value for reporting purposes. GASB Statement No. 67 goes into effect for pension funds in fiscal years beginning after June 15, 2013. http://www.gasb.org/.

[26] Retirement Plan for CTA Employees, *Actuarial Valuation Report as of January 1, 2012*, Letter of Certification of Actuarial Valuation, p. 2 and p. 3 of report.

Funded Ratio

The most basic indicator of pension fund status is its ratio of assets to liabilities, or "funded ratio." Usually this ratio is expressed in terms of the actuarial value of assets, as required by GASB Statement 25. When a pension fund has enough assets to cover all its accrued liabilities, it is considered 100% funded. This does not mean that further contributions are no longer required, but rather that the plan is funded at the appropriate level on the date of valuation. A funding level under 100% means that a fund does not have sufficient assets on the date of valuation to cover its actuarial accrued liability.

The optimum situation for any pension fund is to be fully funded, with 100% of accrued liabilities covered by assets. There is no *official* industry standard or best practice for an acceptable funded ratio other than 100%.[27] The Pension Protection Act of 2006 changed the federal laws that govern private sector pension funds, requiring private plans to meet a 100% funding target, up from 90% previously required under the Employee Retirement Income Security Act (ERISA). Private sector pension plans that are less than 100% funded must amortize, or pay off, their unfunded liability over seven years. Private sector pension plans that are less than 80% funded are considered "at-risk," and must make additional contributions to boost their funded ratio.[28]

Some observers claim that there is no real need for governments to achieve 100% funding. They argue that governments, unlike private corporations, are not at risk of dissolving and, therefore, can meet their obligations in perpetuity. However, it is important to note that defined benefit pension plans are least costly when fully funded and if a plan is underfunded, it should have a plan to attain 100% funding in a reasonable period of time.

The Illinois General Assembly had previously set 90% as a target funded ratio for state pension funds, stating, "90% is now the generally-recognized norm throughout the nation for public employee retirement systems that are considered to be financially secure and funded in an appropriate and responsible manner" (40 ILCS 5/1-103.3). More recent reforms of the Chicago Municipal and Laborers' Funds, the Chicago Park District Fund and the MWRD Fund (described above) also use a 90% rather than a 100% standard, but the comprehensive pension reform package for four of the five State pension funds, Public Act 98-0599, enacted in December 2014 uses a 100% funding standard.[29]

Additional employer contributions are required for the Chicago Teachers' Fund when the ratio falls below 90% (40 ILCS 5/17-127*ff*). State statutes now require that the CTA pension fund

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[27] American Academy of Actuaries, "Issue Brief: The 80% Pension Funding Standard Myth," July 2012. http://actuary.org/files/80%25_Funding_IB_FINAL071912.pdf

[28] See the Pension Protection Act of 2006, Public Law 109-280, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_public_laws&docid=f:publ280.109.pdf . See also Deloitte, "Securing Retirement: An Overview of the Pension Protection Act of 2006," (August 3, 2006). http://www.hreonline.com/pdfs/01012007Extra_Pension_SecuringRetirement.pdf . The Worker, Retiree and Employer Recovery Act signed into law by President Bush on December 23, 2008 loosened some of these requirements by, for example, extending from 10 to 13 the number of years an "endangered" (less than 80% funded) plan is given to implement an improvement strategy. See the Worker, Retiree, and Employer Recovery Act of 2008, HR 7327, Public Law 110-458, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h7327enr.txt.pdf.

[29] For more on P.A. 98-0599, see http://www.civicfed.org/iifs/blog/actuarial-reports-show-illinois-savings-pension-reform-law.

maintain a minimum 60% funded ratio through 2039 and reach 90% funded by 2059 as part of recent pension reform legislation (40 ILCS 5/22-101e3-4). The statute requires that the CTA Fund receive sufficient employer and employee contributions to stay above 90% funded after 2059. Public Act 96-1495 will also require most public safety pension funds in Illinois to make contributions sufficient to reach 90% funded by 2041, although not all public safety pension funds will be held to such a target.[30]

Unfunded Actuarial Accrued Liabilities

Unfunded actuarial accrued liabilities (UAAL) are those accrued liabilities not covered by actuarial assets. Unfunded liability is calculated by subtracting the actuarial value of assets from the actuarial accrued liability of a fund.

One of the functions of this indicator is to measure a fund's ability to bring assets in line with liabilities. Healthy funds are ones that are able to reduce their unfunded liabilities over time; substantial and sustained increases in unfunded liabilities are cause for concern.

It can be useful to measure an unfunded liability as a percentage of payroll covered by the plan (see page 27 of this report). This measurement expresses the unfunded liability in terms of current personnel expenditures and demonstrates the relative size of the unfunded liability. One of the functions of this indicator is to measure a fund's ability to manage or make progress in reducing its unfunded liability. A gradual decrease in the unfunded liability as a percent of covered payroll over time would indicate that a reasonable funding strategy is being pursued. If the unfunded liability continues to increase as a percentage of covered payroll, then a new funding strategy and a reduction in the level of benefits granted by the fund may need to be considered.

Investment Rate of Return

A pension fund invests the contributions of employers and employees in order to generate additional revenue over an extended period of time. Investment income provides the majority of revenue for an employee's pension over the course of a typical career. The fund's actuarial assumptions should be aligned with its investment policies in order to achieve appropriate risk and yield levels for the plan's portfolio. Funds' investment policies are validated by achieving their annualized risk adjusted rate of return on investments over time. The funds are required to report their assets at fair market value so investment income includes unrealized appreciation or depreciation over the time periods reflected. Because of this, investment income can show large fluctuations from year to year. Low or negative investment income usually causes a significant drop in pension fund assets, although this effect may be smoothed over time depending on the actuarial method of calculating assets.

The local funds reviewed in this report assume an average annual rate of return between 7.5% and 8.5% on their pension investments for actuarial purposes (see page 42). The assumed rate of return utilized by funds is compared to the actual annualized rate of return earned by the funds over time (usually 10 years). Four of the five State of Illinois pension funds reduced their

[30] A funded ratio based on a smoothed actuarial value of assets does not represent the percentage of liabilities that could be covered by assets if those assets were sold at their current market value During a period of substantial investment gains or losses, a smoothed actuarial funded ratio does not reflect the true level of assets held by the fund.

expected rates of return in 2011 and the fifth reduced its expected rate of return in 2012. Three of the five funds reduced their expected rates of return again in 2014.[31] Among local funds, three reduced their expected rates of return for FY2012: the Police, Municipal and Laborers'. The Park District Fund lowered its rate of return for the six month period ended December 31, 2012.[32] Rates of return for similarly structured pension funds can also be compared to each other over time or to specific market indices and benchmarks.

The assumed investment rate of return plays an important role in the calculation of actuarial liabilities. It is used to discount the present value of projected future benefit payments.[33] The discount rate has an inverse relationship to actuarial liabilities, such that a higher discount rate will result in lower liabilities. A higher assumed rate of return may be desirable because it minimizes liabilities, but it should remain realistic. The CTA pension fund's actuaries warned in years past that the 9.0% assumed rate of return negotiated in collective bargaining was on the verge of being indefensibly high. As of January 1, 2011 the CTA's discount rate was reduced to 8.5% in response to a call for more reasonable actuarial valuation assumptions.[34]

The appropriate discount rate to use for public pension funds has been a subject of considerable debate in recent years. The Governmental Accounting Standards Board issued new pension accounting standards in 2012 that will require a blended discount rate for financial reporting that will likely be lower than the rate currently used by many funds in this report, increasing reported liabilities.[35] Moody's Investors Service also recently announced a new approach to assessing government pension assets and liabilities that will be used as part of its methodology for assigning governments credit ratings. The new approach discounts liabilities using a long-term bond index rate.[36]

[31] See "State Pension Liabilities Rise Due to Lower Expected Investment Returns," http://www.civicfed.org/iifs/blog. Civic Federation, November 5, 2010. The rate of return for the State Employees' Retirement System and the State Universities Retirement System of Illinois was reduced to 7.75% from 8.5%. The rate of return was reduced to 7.0% from 8.0% for the Judges' Retirement System and the General Assembly Retirement System. The rate of return for the Teachers' Retirement Systems was reduced from 8.5% to 8.0% in September 2012. See "Update: TRS Reduces Assumed Rate of Investment Return," www.civicfed.org/iifs/blog. Civic Federation, September 21, 2012. See also "Teachers' Retirement System Changes Will Affect Pension Savings," http://www.civicfed.org/civic-federation/blog/teachers%E2%80%99-retirement-system-changes-will-affect-pension-savings. In April and June 2014, SERS and SURS reduced their rates to 7.25% and TRS to 7.5%.

[32] See "Local Government Pension Funds Lower their Expected Investment Rates of Return for FY2012," http://www.civicfed.org/civic-federation/blog/local-government-pension-funds-lower-their-expected-investment-rates-return-fy, October 9, 2013. The rate of return for the Police Fund was reduced to 7.75% from 8.0% and the Municipal, Laborers' and Park Funds all lowered their rates to 7.5% from 8.0%. The Teachers' Fund lowered its expected rate of return for the 2013 fiscal year.

[33] The investment rate of return is also used to calculate the "smoothed" value of assets (see page 11).

[34] See IL P.A. 94-839 and Retirement Plan for CTA Employees, *Actuarial Valuation as of January 1, 2011*, p. 2.

[35] Read about post-employment benefit accounting and financial reporting at www.gasb.org.

[36] Moody's Investors Service, Cross Sector Rating Methodology: Adjustments to US State and Local Government Reported Pension Data, April 17, 2013.

Causes of Pension Funding Status Change

The following are four major factors that influence a pension plan's funding status.

Sustained Investment Losses or Gains

When rates of return are positive, investment income usually represents the majority of a fund's total income for a mature pension plan that has been in existence for a while. Employee and employer contribution amounts are relatively stable from year to year but investment income can fluctuate widely. Multi-year investment gains or losses that deviate substantially from the assumed rate of return have a major impact on fund assets.

The strong investment market of the late 1990s produced several years of significant gains for pension funds. Likewise, the market decline of 2000-2002 created significant losses for the funds and the steep decline in equity markets beginning in 2008 resulted in negative returns for all ten funds analyzed in this report. The funds with January 1 to December 31 fiscal years all experienced positive returns for 2009, and all ten funds experienced positive returns for 2010. In 2011 eight of the ten funds in this report had low or negative rates of return in comparison to their assumptions, followed by high returns in FY2012 for eight of the ten funds. The effects of these gains and losses are felt for several years beyond their market occurrence due to the actuarial smoothing of assets for the funds that use smoothing.

Employer and Employee Contributions

Changes in employer or employee contributions can have a significant impact on the funded status of a defined benefit plan. Specifically, stable but consistently inadequate contributions like those in place for many of the funds studied in this report are very detrimental.

Employee contributions are typically fixed at a certain percentage of pay (around 9% for the funds included in this report—see section starting page 50). Employer contributions may be tied to an actuarial estimate of what is needed or may be a fixed rate. As described on page 53, in FY2012 the employer contribution to the CTA pension fund was actuarially-related, but the other nine local funds in this report all have fixed contribution rates based on the employee contributions two years prior or in the case of the Teachers', the contribution was fixed via statute because of a partial pension holiday.

As discussed earlier, increases to employee and employer contributions for the MWRD Fund were approved in August 2012 and to contributions for the Park District Fund and Municipal and Laborers' Funds in January and June 2014. Members of these four funds will see their contributions increase by several percentage points of salary on a staggered basis over several years. For the MWRD, Tier 1 employee contribution rates will increase to 12.0% of salary by 2015; for the Park District, Tier I and Tier II employee contributions increase to 12% of salary by 2019; for the Municipal and Laborers' employees, Tier I and Tier II employee contributions increase to 11% of salary by 2019. MWRD employer contributions via the tax levy multiple will rise from the current 2.19 to the lesser of 4.19 times employee contributions two years prior or the annual required contribution calculated by the Fund's actuary. This increase in funding is intended to raise the MWRD's level of funding to 90% by 2050. Both the Park District and Municipal and Laborers' reforms put the increase in employer funding on a multi-year "ramp," meaning that there will not be an immediate increase to actuarially-based funding, but instead the employer will gradually increase its contribution over five years and then make actuarially-based contributions thereafter until 90% funding is reached by 2049 or 2054, respectively.

Chronic shortfalls in employer contributions are a very serious drag on the health of many pension funds. GASB Statements 25 and 27 require that public pension plans calculate an annual required contribution (ARC) that must be reported in the financial statements of the plan and the government employer. The ARC is equal to the sum of (1) the employer's "normal cost" of retirement benefits earned by employees in the current year; and (2) the amount needed to amortize any existing unfunded accrued liability over a period of not more than 30 years.[37] Although GASB does not require funding at the level of the ARC, it does require that plans report on how their actual contribution levels compare to the ARC.[38] As described beginning on page 53, nine of the ten pension funds in this report made employer contributions equal to less than half the ARC in FY2012. The state statutes governing those pension funds whose employer contributions are set as a multiple of the employee contribution made two years prior do not include a self-adjusting mechanism to change those multiples when they fail to meet the ARC. For example, the City of Chicago contribution multiple for its Police Fund has not increased since 1982, when it was raised from 1.97 to 2.00 times the employee contribution made two years prior.[39] In 1999 the Municipal Fund contribution multiple was reduced from 1.69 to 1.25 and has not been raised again despite the fact that the actuarial value funded ratio has fallen below 50%.[40]

In contrast to funding regimes in place in FY2012 for the Chicago-area public pension funds covered in this report, the Illinois Municipal Retirement Fund (IMRF) requires employer funding at a level consistent with the ARC.[41] The property taxes levied by these governments for pension purposes fluctuate according to the actuarial needs of the pension plans, not according to a fixed multiple of employee contributions. While funding at the ARC is more fiscally responsible, it may require employer contributions that are more volatile and/or larger than a simple funding multiple. However, failure to fund at least at the ARC effectively pushes the costs of today's government services onto tomorrow's taxpayers. Employer funding of public pension plans should be sufficient to keep the promises made to today's employees for their future retirement in order to ensure intergenerational equity for taxpayers.

Temporary reductions in employer contributions, sometimes referred to as "pension holidays," can have a significant negative effect on the fiscal health of a pension fund. For example, Public Act 93-0654 allowed the Chicago Park District to reduce its employer contribution by $5 million in each of calendar years 2004 and 2005, although the District was not required to reduce its property tax levy equivalently. This created a 50% reduction in the employer contributions for the Park District fund in FY2005 and FY2006 and contributed to an

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[37] See Civic Federation, "Pension Fund Actuarially Required Contributions (ARC): A Civic Federation Issue Brief," February 14, 2007, http://www.civicfed.org/articles/civicfed_241.pdf.
[38] GASB sets accounting standards and has no authority over funding levels.
[39] Starting with the 2015 tax levy, employer contributions will be actuarially-determined. Policemen's Annuity and Benefit Fund of Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*, p. 8.
[40] 40 ILCS 5/8-173. The difference between the 1.69 multiple and the 1.25 multiple is equivalent to approximately $50 million each year.
[41] Before FY2011, downstate firefighter funds and downstate police funds required employer funding at a level consistent with the ARC. After the enactment of P.A. 96-1495, the funded ratio goal was decreased from 100% to 90%. Illinois Commission on Government Forecasting and Accountability, *Fiscal Analysis of the Downstate Police & Downstate Fire Pension Funds in Illinois*, 2012 Edition, p. i-ii and 3-4.

increase in the unfunded liabilities related to shortfalls in employer contributions of $20 million.[42] In FY2012 the Teachers' fund was two years into a three-year partial pension holiday, pursuant to Public Act 96-0889. That act allowed Chicago Public Schools to reduce its employer contribution to a level estimated to be equivalent to the normal cost of the pension benefit for FY2011, FY2012 and FY2013. The reduction to contributions in increased unfunded liabilities by $393.9 million in FY2011 and by $532.4 million in FY2012.[43]

Benefit Enhancements

Enhancements to retirement benefits can take various forms, such as an increase in the annuity formula, reduction in total years of service required for maximum annuity or a reduction in retirement age for maximum annuity. Specific early retirement initiatives designed to encourage older employees to retire early can also be considered benefit enhancements, although they are typically available only for a limited time and sometimes require additional employer or employee contributions.

Benefit enhancements increase the promised payments that will be made to beneficiaries either in the form of pension annuities or other post retirement benefits and therefore increase a pension fund's liabilities. Sometimes those enhancements are granted in exchange for short-term employee concessions on salaries or health insurance. Offering benefit enhancements may be an attractive option to employers, since achieving immediate short-term savings on other employee costs often appears to be a more pressing need than controlling longer-term pension liabilities. Benefit enhancements are part of the overall economic package offered by employers to employees and may be negotiated either inside the scope of collective bargaining or outside of it.

For all of the funds analyzed in this report, plan changes that may or may not have been negotiated by labor and management must also be passed by the Illinois General Assembly and codified in state statute.[44] Labor and management are also free to lobby the General Assembly for changes independently.

For example, Public Act 94-0719, effective January 1, 2005, doubled the automatic annual benefit cost of living increase for Chicago Police retirees born between 1950 and 1954 from 1.5% to 3.0%. Fund actuaries estimate that this change increased the plan's actuarial liability by $139.6 million in FY2005.[45] Retroactive pay increases also affect pension costs because higher salaries generate higher annuities. For example, retroactive pay increases awarded to Chicago firefighters created an actuarial loss of $105.5 million in FY2006.[46]

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[42] Park Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation as of June 30, 2006*, p. 12 and Park Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation as of June 30, 2005*, p. 12.
[43] Public School Teachers' Pension and Retirement Fund of Chicago, *Actuarial Valuation as of June 30, 2011*, p. 12, *Statutorily Required Funding as of June 30, 2012*, p. 15. See page 63 for additional information about the partial pension holiday.
[44] For the CTA, pension plan changes were made exclusively through the collective bargaining process until the passage of Public Act 95-0708 that codified CTA pension benefits in state statute.
[45] Policemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2005*, p. 9 and 15.
[46] Firemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2006*, p. 7.

The Constitution of the State of Illinois states that once granted, pension benefit enhancements may not be diminished.[47] However, there are many legal interpretations of this provision with regard to whether there are any changes that can be made.[48]

Even vested pension benefits may be placed in jeopardy if a municipality files for bankruptcy. At the point when a municipality receives approval to enter into a bankruptcy proceeding, employees and retirees become creditors of the municipality. Employees and retirees may receive unsecured creditor status during this process, which may limit their ability to fully recover salary and benefit amounts previously agreed to or conferred upon them. While not an intentional or agreed-upon reduction of benefits, the reality of this situation may be a reduction of pension benefits for municipal employees and retirees.

Changes to Actuarial Assumptions and Methods

Actuarial assumptions and methods can change for various reasons, including demographic trends, analysis of recent plan experiences or new industry standards such as GASB requirements. It is considered standard practice for actuaries to review and reassess assumptions, such as mortality rates and salary levels, every five years. There are a number of acceptable methods for computing a plan's assets, liabilities and funding requirements. It is important to recognize that a change from one method to another can produce a significant change in a fund's assets, liabilities or funding requirements.

For example, in FY2004 the Cook County and Cook County Forest Preserve District pension plans changed actuaries. The actuary used a different method for smoothing asset values than did the previous actuary.[49] The actuary also analyzed the fund experience from 2000-2003 and subsequently made two significant assumption changes: (1) the discount rate assumption was changed from 8.0% to 7.5% per year; and (2) the salary increase assumption was changed from 5.5% to 5.0% per year.[50] The fund actuary estimated that using the old methods and assumptions, the Cook County FY2004 funded ratio would have been 69.5% rather than 70.9%. Similarly, the Forest Preserve FY2004 funded ratio would have been 73.1% rather than 76.0%.[51]

In FY2005 the Cook County and Forest Preserve plans' actuary revised the methods used to calculate actuarial liabilities in order to more accurately model the liabilities of the Funds. These changes resulted in a decrease of $729.6 million in unfunded liabilities for Cook County and a

[47] In Illinois, pension benefits granted to public employees are guaranteed by the State Constitution. *Constitution of the State of Illinois, Article XIII Section 5.* Only six other states have specific constitutional provisions that protect public pension benefits to differing degrees. National Conference on Public Employee Retirement Systems, State Constitutional Protections for Public Sector Retirement Benefits, http://www.ncpers.org/Files/News/03152007RetireBenefitProtections.pdf.

[48] For a collection of legal opinions on the Illinois pension clause, see the Illinois Senate Democrats' website, http://www.senatedem.ilga.gov/index.php/component/content/article/108-public-information-brochures/1517-pension-debate (last visited on April 26, 2013).

[49] The previous actuary used a five-year smoothed average ratio of market to book value while the new actuary used a five-year smoothing of unexpected investment gains or losses (market value only), a more common method. County Employees' and Officers' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2003*, p. 69 and County Employees' and Officers' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2004*, p. 7-8.

[50] County Employees' and Officers' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2004*, p. 10.

[51] Estimates provided by Sandor Goldstein via e-mail to the Civic Federation, January 24, 2008.

decrease of $34.4 million in unfunded liabilities for the Forest Preserve.[52] Without these changes, the FY2005 Cook County funded ratio would have been 70.3% rather than 75.8% and the Forest Preserve ratio would have been 75.0% rather than 86.9%.

In another example, the actuary for the Fire Fund began using new assumptions in FY2011 following an experience study for the period January 2003 through December 2010. The plan changed from 1983 mortality tables to 2000 mortality tables and also changed its assumptions for rates of disability, retirement, termination and withdrawal. For instance, the updated retirement rate tables differentiate between employees hired before and employees hired after January 1, 2011, whereas under previous assumptions, all employees were grouped together in one rate of retirement table. These changes resulted in an increase of $47.8 million in actuarial liabilities for the Fire Fund.[53]

LOCAL PENSION FUND STATUS INDICATORS

The following section analyzes FY2012 data from ten local pension funds using the primary indicators of pension fund health: funded ratios, unfunded liabilities and investment rates of return.

Funded Ratios

This report uses two measurements of the pension plans' funded ratios: the actuarial value of assets measurement and the market value of assets measurement.

The actuarial value of assets measurement presents a ratio of assets to liabilities that accounts for assets by recognizing unexpected gains and losses over a period of three to five years (see Appendix A for an explanation of actuarial value of assets). The market value of assets measurement presents the ratio of assets to liabilities by recognizing investments only at current market value. The market value of assets funded ratio represents the percentage of liabilities that could be covered by assets if those assets were sold at their current market value. It is important to note that the major investment losses experienced by most funds in FY2008 and very low investment rates of return in FY2011 are not fully reflected in the actuarial value of assets.

As discussed earlier, beginning with the 2011 valuation year, the CTA pension fund adopted a new policy to use market value for determining its actuarial value of assets. The other nine pension funds in this report use a smoothed market value to determine actuarial value of assets.

Actuarial Value of Assets

The actuarial funded ratio of nine of the ten funds declined in FY2012. The CTA fund experienced a 0.2 percentage point increase in its funded ratio, but it is important to note that for the CTA fund, the actuarial value is the market value and therefore has already accounted for prior years' market losses and gains that funds that use smoothing have not yet fully

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[52] County Employees' and Officers' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2005,* p. 13-14, and Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2005,* p. 13-14. The change was a correction to the actuary's computer model. Information provided by Sandor Goldstein, March 20, 2009.

[53] Firemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2011*, p. 2, 7, 12 and 42-45.

incorporated. All ten funds are now less than 60% funded. The largest percentage point declines were in the Laborers', Municipal and Park District Funds. The decline in funded ratio for the Laborers' and Municipal fund was mostly due to a change in the actuarial assumptions of each, most significantly a reduction in the expected rate of return on investment to 7.5% from 8.0% following actuarial experience studies.[54] The decline in the Park District fund was due primarily to ongoing smoothing of FY2008 and FY2009 investment losses.[55]

The lowest actuarial value funded ratios for FY2012 are those of the Fire and Police pension funds at 24.4% and 30.8%, respectively. The Commission to Strengthen Chicago's Pension Funds projected in April 2010 that the Fire and Police Funds would run out of money in approximately ten years barring any major changes to benefits or contributions.[56] A similar projection had been made for the CTA Fund prior to the passage of reform legislation (see Appendix E). An additional note of concern with respect to the Police Fund is that a large number of active employees are nearing retirement age, which will result in lower employee contributions and more benefit payments.[57]
As of FY2012, the Laborers' Fund no longer had the highest actuarial value funded ratio. Instead, the CTA Fund at 59.4% funded was highest, followed by the Forest Preserve Fund at 56.7% and then the Laborer's Fund at 55.4%. The Laborers' Fund dipped below 100% funded for the first time in FY2004 and the employer contribution had previously been waived when the plan was over 100% funded.[58]

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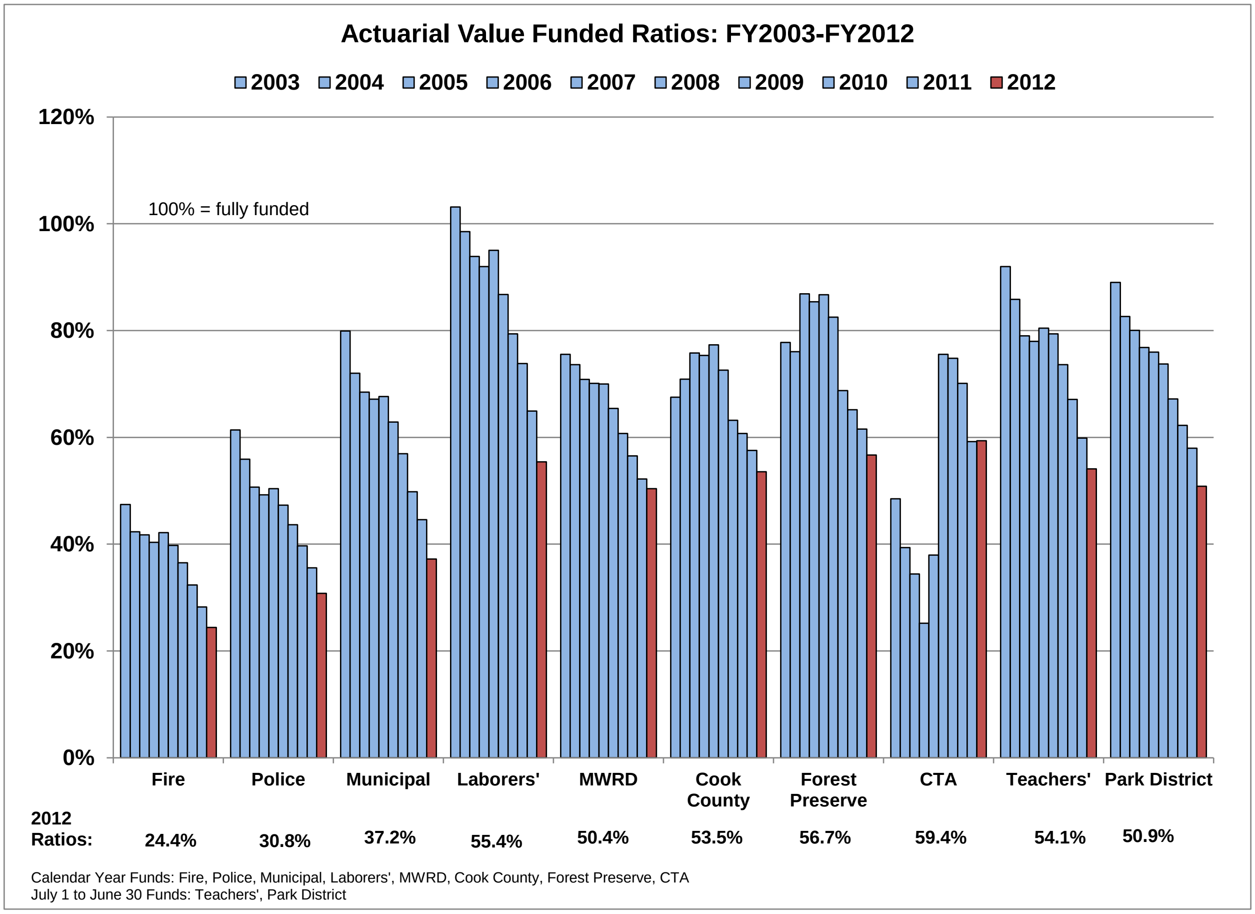
[54] See page 17 for more information on how actuarial assumptions affect the funded status of a pension fund.
[55] Park Employees' Annuity and Benefit Fund, *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2012*, p. 4.
[56] City of Chicago, Commission to Strengthen Chicago's Pension Funds, April 30, 2010, p. 22. Enacted in December 2010, Public Act 96-1495 creates a new tier of benefits for public employees who become members of these public safety pension funds on or after January 1, 2011. P.A. 96-1495 also requires the City of Chicago in 2015 to begin making contributions sufficient to bring the funded ratio of the Police Fund and the Fire Fund to 90% by the end of 2040, using a level percentage of payroll and projected unit credit actuarial valuation method. See Appendix F for more information on P.A. 96-1495.
[57] Policemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation for the year ending December 31, 2012*, p. 3 and 8.
[58] Pursuant to Public Act 93-0654, the City of Chicago is not required to make employer contributions unless the funded ratio *excluding early retirement initiative liabilities* drops below 100%. The City was required to resume making contributions to the Laborers' fund in FY2007 (see Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2005*, p. 6).

It is important to consider actuarial funded ratios over time. The following chart illustrates the ten funds' actuarial standings since FY2003. The actuarial value funded ratio for the aggregate of all ten funds' assets and liabilities was 45.5% in FY2012, down from 74.5% in in FY2003.



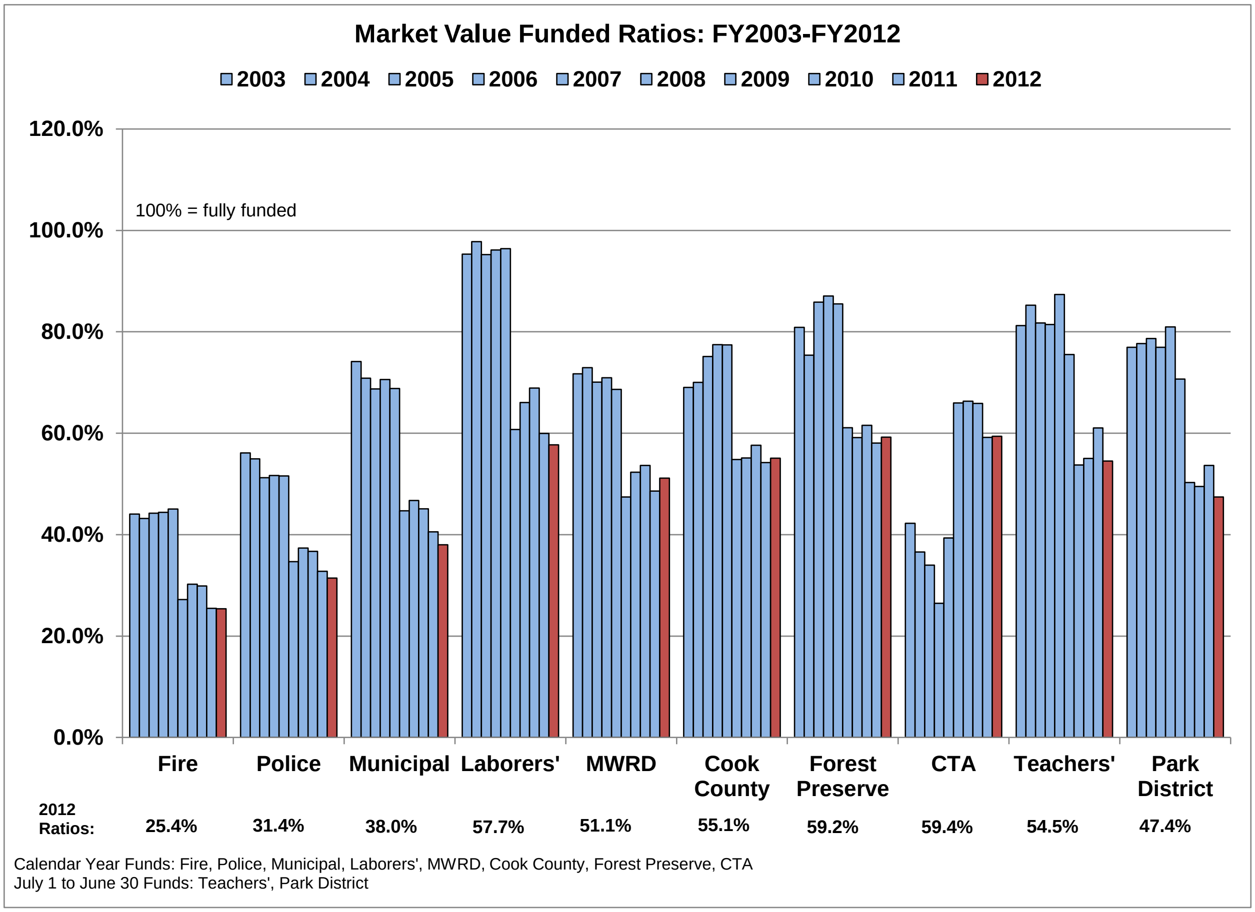
Market Value of Assets

It is also useful to evaluate the pension plans' market value funded ratios over time. The following table illustrates the fluctuations in the market value funded ratios since 2003. Market value funded ratios are more volatile than the actuarial funded ratios due to the smoothing effect that may be used in determining actuarial value (see Appendix A beginning on page 68). However, market value funded ratios represent how much money is actually available as of the valuation date to cover actuarial accrued liabilities.

For six of the ten funds, the FY2012 market value funded ratio was lower than the FY2011 market value ratio. Of those six, the two funds with a July-June fiscal year—the Teachers' and Park District funds—saw their market value funded ratios decline mostly due to investment losses in the latter half of their 2011. Despite high investment returns in calendar year 2012, the market value funded ratios for the four City of Chicago funds declined below the previous year. For the Police, Municipal and Laborers' funds this was because of a change to actuarial assumptions that increased the actuarial liability for those funds. The Fire fund's market value funded ratio was nearly flat, with a decline of 0.1% from the previous year because growth of plan assets was offset by the liquidation of assets to pay benefits and growth in liabilities due to insufficient employer contributions.[59]

The market value funded ratios for the Fire and Police Funds were only 25.4% and 31.4%, respectively. The highest market value funded ratio was the CTA Fund at 59.4%. Six of the funds were in the 50-60% range, while four fell below that standard. The market value funded ratio for the aggregate of all ten funds' assets and liabilities was 46.3% in FY2012, down from 69.0% in FY2003.

[59] Firemen's Annuity and Benefit Fund of Chicago, *Comprehensive Annual Financial Report for the year ending December 31, 2012*, p. 4a.

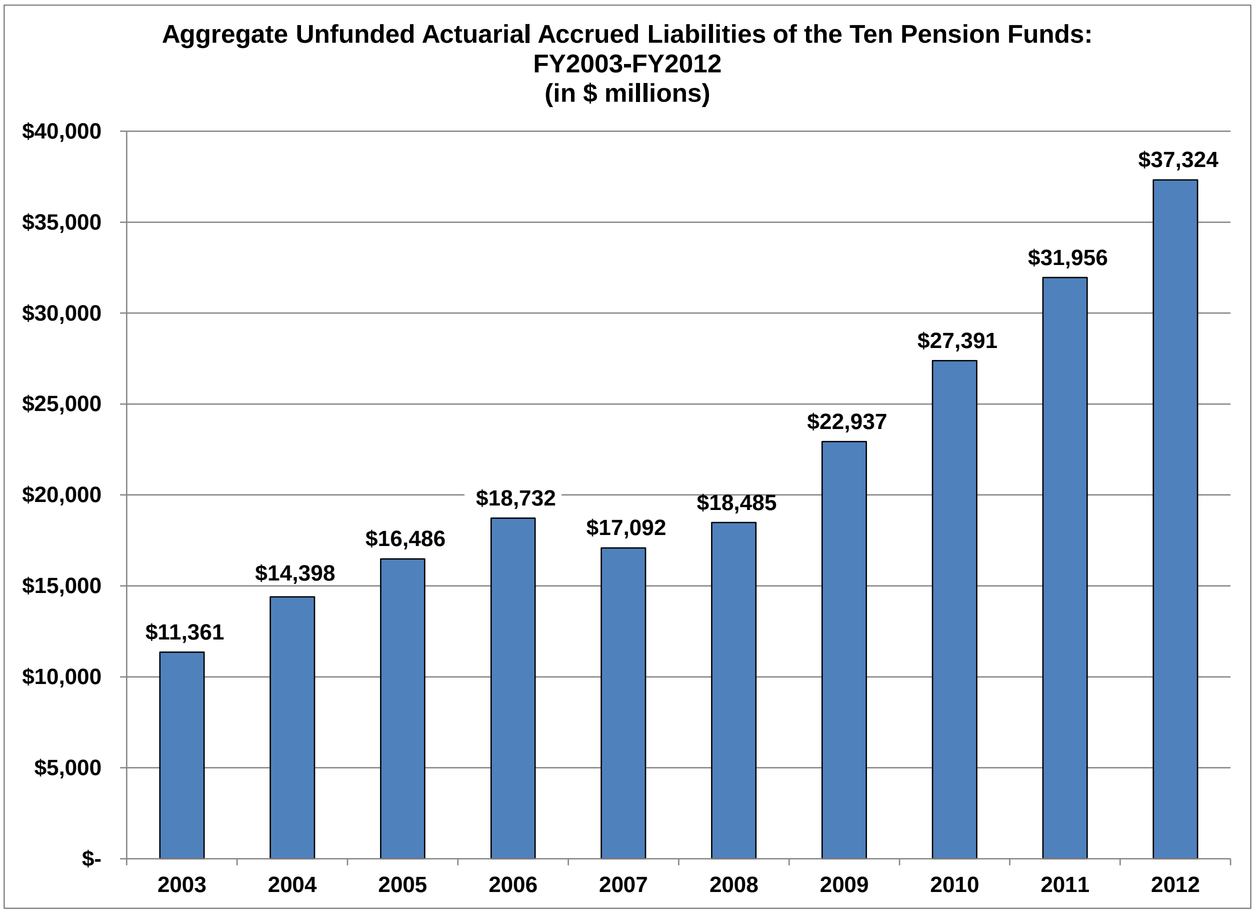

Market Value Funded Ratios: FY2003-FY2012
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
100% = fully funded
Fire
Police
Municipal
Laborers'
MWRD
Cook County
Forest Preserve
CTA
Teachers'
Park District
2012 Ratios:
25.4%
31.4%
38.0%
57.7%
51.1%
55.1%
59.2%
59.4%
54.5%
47.4%
Calendar Year Funds: Fire, Police, Municipal, Laborers', MWRD, Cook County, Forest Preserve, CTA
July 1 to June 30 Funds: Teachers', Park District

Unfunded Actuarial Accrued Liabilities

The difference between assets and accrued liabilities is known as the unfunded liability. The unfunded actuarial accrued liability (UAAL) is calculated by subtracting the actuarial value of the assets from the actuarial accrued liability (AAL) of each fund.

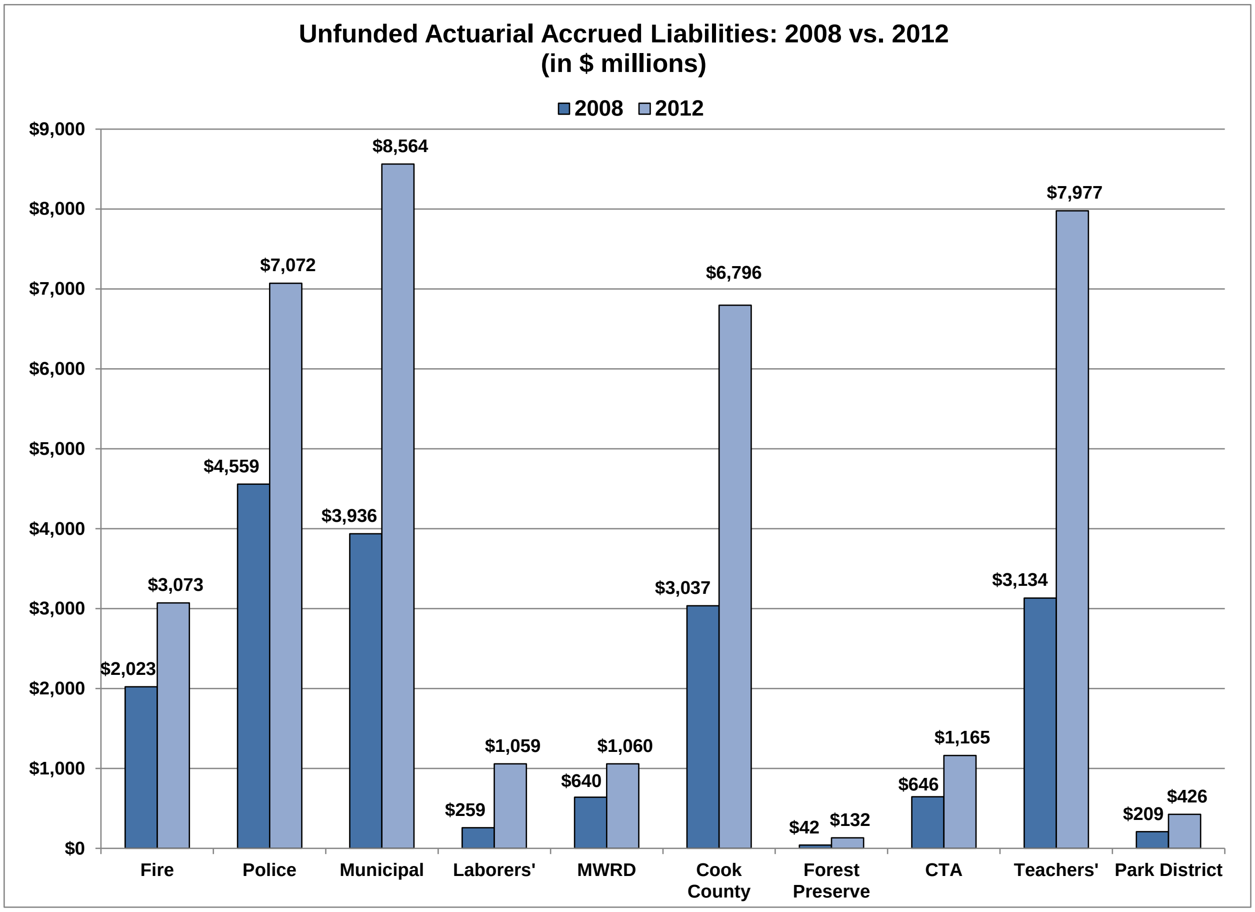
One of the functions of this indicator is to measure a fund's ability to bring assets in line with liabilities. Healthy funds are ones that are able to reduce their unfunded liabilities over time while substantial and sustained increases in liabilities are a cause for concern.

The aggregate unfunded liability of the ten pension funds has increased rapidly in recent years, as shown in the following chart. The aggregate unfunded liability grew from $11.4 billion in FY2003 to $37.3 billion in FY2012, an increase of nearly $26.0 billion, or 228.5%, over ten years. In FY2007 the aggregate UAAL fell by $1.6 billion due in part to strong investment returns, but it rose again by $20.2 billion over the following five years.



The following graph shows the five-year trend in UAAL for each fund. The largest FY2012 unfunded liability is in the Municipal Fund at $8.6 billion, which represents an increase of 117.6%, or $4.6 billion, over FY2008. The Teachers' and Police Funds follow closely with unfunded liabilities of nearly $8.0 billion and $7.1 billion, respectively, in FY2012.

The highest rate of increase in unfunded liabilities was in the Laborers' Fund, which had $259.0 million in unfunded liabilities in FY2008 and nearly $1.1 billion in FY2012. This is an increase of 308.9%. The large increase in unfunded liabilities for both the Laborers' and Municipal fund is due in part to a change in the actuarial assumptions of each, most significantly a reduction in the expected rate of return on investment to 7.5% from 8.0% following actuarial experience studies.

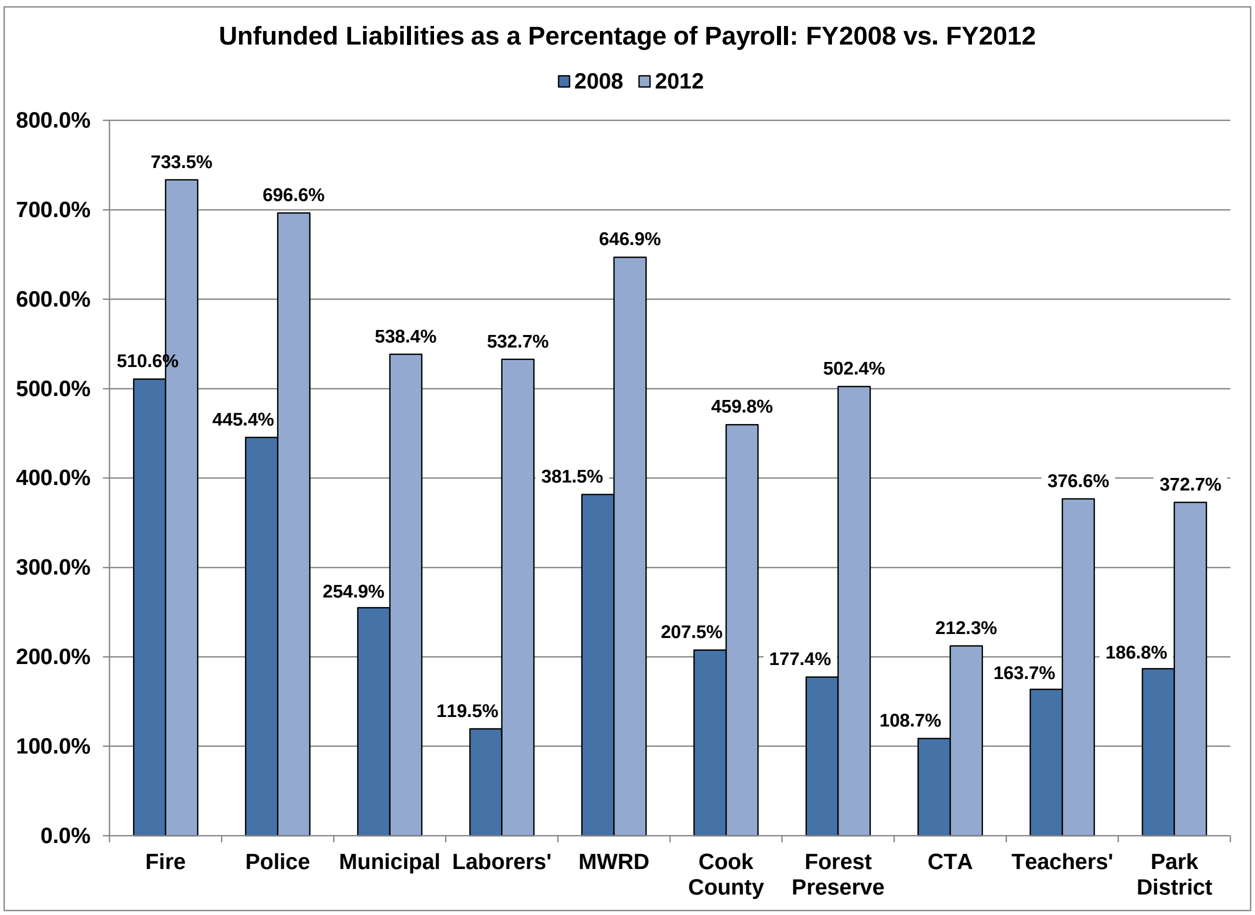


Unfunded Accrued Actuarial Liabilities as a Percentage of Payroll

Another indicator of funding progress is a fund's UAAL expressed as a percentage of covered payroll. This measurement demonstrates the relative size of the unfunded liability by expressing it in terms of current personnel expenditures.

An indication of a reasonable funding strategy is a gradual decrease in unfunded liabilities as a percentage of covered payroll over time. If the opposite is true and unfunded liabilities continue to increase as a percentage of covered payroll, then a new funding strategy and a reduction in the level of benefits granted by the fund may need to be considered. Otherwise, pension obligations may crowd out spending on core government services.

Every fund experienced a significant increase in unfunded liabilities as a percentage of payroll over the last five years. The Fire Fund has the highest unfunded liabilities as a percentage of payroll, at 733.5% in FY2012, followed by the Police Fund at 696.6%. The Laborers' Fund experienced the largest growth in its unfunded liabilities as a percentage of payroll, increasing by 413.2 percentage points. The Forest Preserve Fund experienced the next largest growth of 325.0 percentage points over the five-year period. The aggregate UAAL of the ten funds combined is equal to 486.4% of their combined payroll in FY2012, up from 247.9% in FY2008.



Unfunded Accrued Actuarial Liabilities Per Capita in Chicago

Calculating the unfunded liability per capita offers another sense of scale for unfunded liabilities. The following table shows that the UAAL per capita for the four City of Chicago pension funds was $1,890 in FY2003. The total for all ten local pension funds was $3,359 per resident of Chicago. Including the five State-sponsored pension funds for which Chicago residents also pay taxes (including income taxes), the FY2003 unfunded liability per capita in Chicago was $6,175.

The highest per capita unfunded liability in FY2003 among the local funds was for the Police Fund at $887 per resident of Chicago. The Laborers' Fund was over 100% funded in FY2003 so it showed negative unfunded liabilities per capita. The downstate Teachers' Retirement System, which Chicago taxpayers support in addition to the Chicago Teachers' Fund, had the highest unfunded liabilities per capita at $1,882.

State and Local Pension Funds Unfunded Liabilities Per Capita: FY2003
Total Unfunded Liability Per Capita in the City of Chicago

Fund	Unfunded Actuarial Accrued Liability	Population	Unfunded Liability Per Capita	Funded Ratio
Chicago Fire[1]	$ 1,323,260,340	2,866,361	$ 462	47.4%
Chicago Police[1]	$ 2,541,737,660	2,866,361	$ 887	61.4%
Chicago Municipal[1]	$ 1,604,537,599	2,866,361	$ 560	79.9%
Chicago Laborers'[1]	$ (51,233,134)	2,866,361	$ (18)	103.1%
Subtotal Four City Funds	**$ 5,418,302,465**		**$ 1,890**	
MWRD[1]	$ 371,348,053	5,330,484	$ 70	75.5%
Cook County[1]	$ 2,851,768,562	5,330,484	$ 535	67.5%
Forest Preserve[1]	$ 48,612,932	5,330,484	$ 9	77.8%
CTA[2]	$ 1,677,581,021	3,300,000	$ 508	48.5%
Chicago Teachers'[1]	$ 916,773,666	2,866,361	$ 320	92.0%
Chicago Park District[1]	$ 76,999,269	2,866,361	$ 27	89.0%
Subtotal Ten Local Funds	**$ 11,361,385,968**		**$ 3,359**	
Downstate Teachers' (TRS)[3]	$ 23,808,609,000	12,653,544	1,882	49.3%
State University Employees (SURS)[3]	$ 831,050,000	12,653,544	66	53.9%
State Employees (SERS)[3]	$ 10,091,868,623	12,653,544	798	42.6%
Judges[3]	$ 746,178,405	12,653,544	59	30.7%
General Assembly[3]	$ 146,833,765	12,653,544	12	25.3%
Subtotal Five State Funds	**$ 35,624,539,793**		**2,815**	
Total All Local and State Funds	**$ 46,985,925,761**		**$ 6,175**	

Note: Includes all major public pension funds for which Chicago residents pay taxes.

[1] Supported by local property taxes (indirectly for Chicago Teachers' Fund)

[2] Supported by local sales taxes, real estate transfer tax and fares

[3] Supported by state sales taxes, income taxes and other general revenues

Source: FY2003 financial statements of the pension funds.

Source for population: U.S. Census Bureau estimates for all funds except the CTA which is a CTA budget book estimate.

The next table shows that by FY2012, the UAAL per capita for the four City of Chicago pension funds had grown to $7,281. This is nearly four times the amount of UAAL per capita for these same four pension funds in FY2003. The total for all ten local pension funds was $12,233 per resident of Chicago, and the grand total including statewide funds was $19,579. Among the local funds, the Municipal Fund had the highest unfunded liability per capita at $3,155, although the Fire, Police, Cook County and Chicago Teachers' Funds also exceeded $1,000 per capita. The downstate Teachers' Retirement System had the highest unfunded liability per capita at $4,045 in FY2012.

State and Local Pension Funds Unfunded Liabilities Per Capita: FY2012
Total Unfunded Liability Per Capita in the City of Chicago

Fund	Unfunded Actuarial Accrued Liability	Population	Unfunded Liability Per Capita	Funded Ratio
Chicago Fire[1]	$ 3,073,060,070	2,714,856	$ 1,132	24.4%
Chicago Police[1]	$ 7,071,708,739	2,714,856	$ 2,605	30.8%
Chicago Municipal[1]	$ 8,564,139,771	2,714,856	$ 3,155	37.2%
Chicago Laborers'[1]	$ 1,058,929,034	2,714,856	$ 390	55.4%
Subtotal Four City Funds	**$ 19,767,837,614**		**$ 7,281**	
MWRD[1]	$ 1,059,768,059	5,231,321	$ 203	50.4%
Cook County[1]	$ 6,796,368,029	5,231,321	$ 1,299	53.5%
Forest Preserve[1]	$ 131,884,046	5,231,321	$ 25	56.7%
CTA[2]	$ 1,164,547,429	3,530,000	$ 330	59.4%
Chicago Teachers'[1]	$ 7,977,458,739	2,714,856	$ 2,938	54.1%
Chicago Park District[1]	$ 425,678,559	2,714,856	$ 157	50.9%
Subtotal Ten Local Funds	**$ 37,323,542,475**		**$ 12,233**	
Downstate Teachers' (TRS)[3]	$ 52,079,548,000	12,875,255	4,045	42.1%
State University Employees (SURS)[3]	$ 19,220,300,000	12,875,255	1,493	42.1%
State Employees (SERS)[3]	$ 21,613,921,865	12,875,255	1,679	34.7%
Judges[3]	$ 1,420,495,797	12,875,255	110	29.7%
General Assembly[3]	$ 247,379,182	12,875,255	19	18.5%
Subtotal Five State Funds	**$ 94,581,644,844**		**7,346**	
Total All Local and State Funds	**$ 131,905,187,319**		**$ 19,579**	

Note: Includes all major public pension funds for which Chicago residents pay taxes.

[1] Supported by local property taxes (indirectly for Chicago Teachers' Fund)

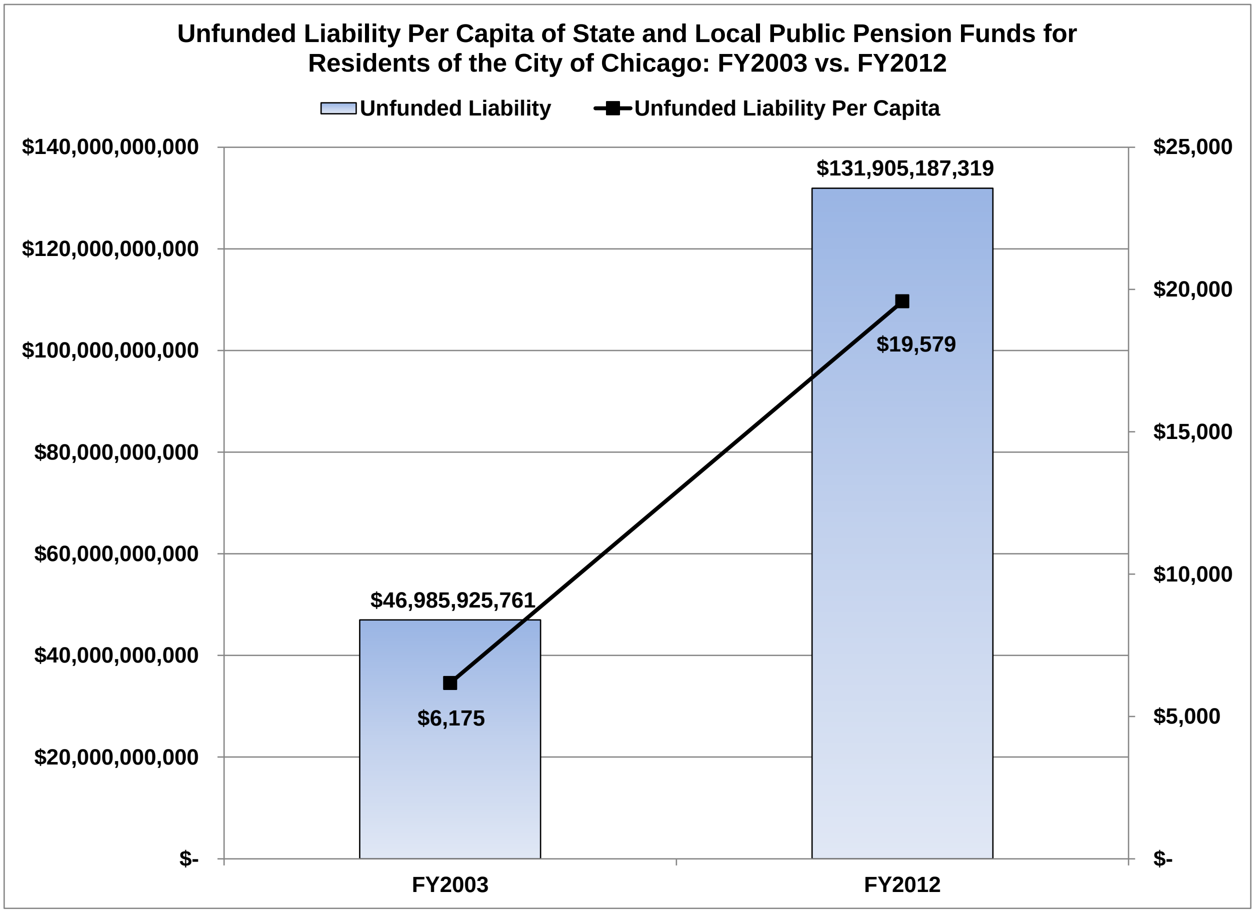
[2] Supported by local sales taxes, real estate transfer tax and fares

[3] Supported by state sales taxes, income taxes and other general revenues

Source: FY2012 financial statements of the pension funds.

Source for population: U.S. Census Bureau estimates for all funds except the CTA which is a CTA budget book estimate.

The following graph illustrates the $84.9 billion increase in the ten local funds' unfunded liabilities between FY2003 and FY2012, alongside the $13,405 increase in unfunded liabilities per capita.



Investment Rate of Return[60]

In FY2012 nine of the ten pension funds had positive rates of return; the Teachers' Fund experienced a flat rate of 0.0%. The eight calendar year funds all had double-digit rates of return.

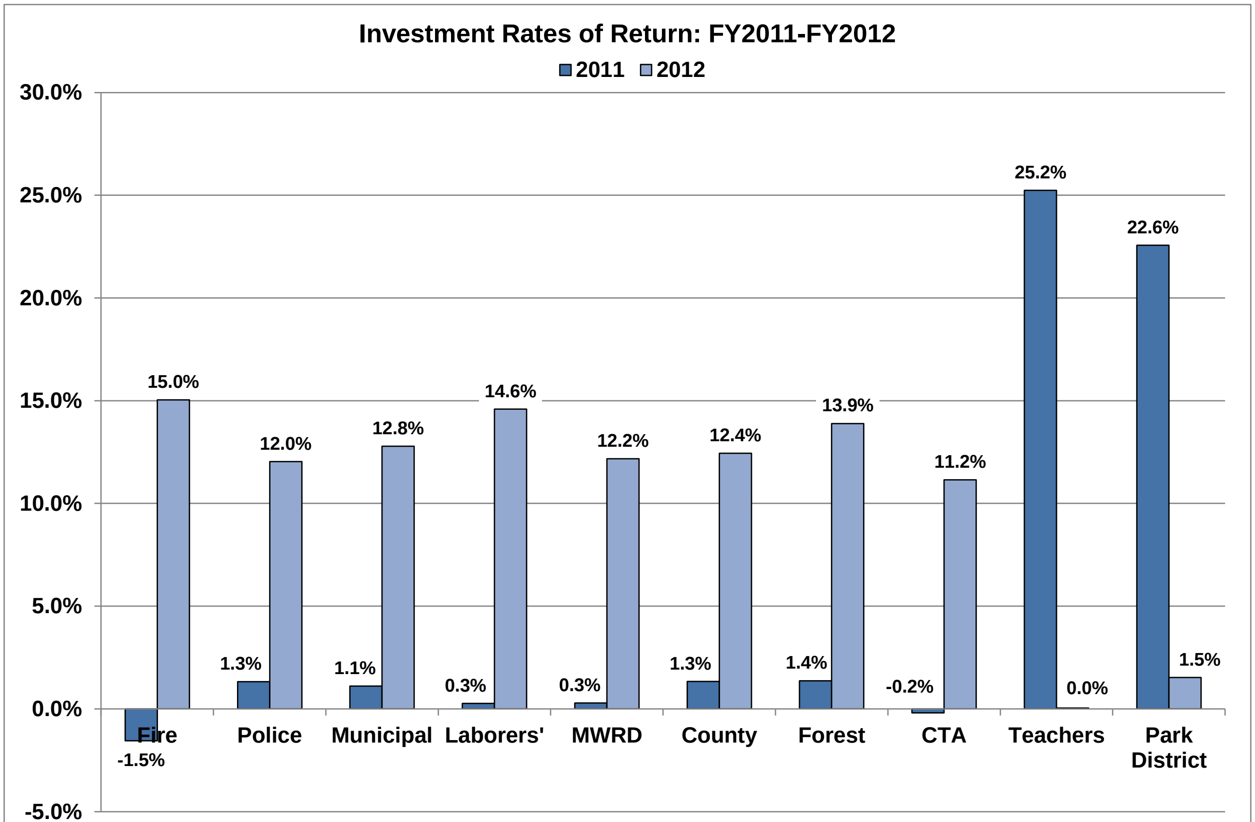
The FY2012 average rate of return for those funds with a January 1 to December 31 fiscal year was 13.0%, increasing from 0.5% in FY2011. The average rate of return for funds using a July 1 to June 30 fiscal year was 0.8% in FY2012, falling from 23.9% in FY2011.

The FY2012 investment returns resulted in a gain of $2.5 billion for the ten funds combined, compared to a $2.4 billion gain in FY2011 and a loss of $7.1 billion in FY2008.[61] A comparison of

[60] The Civic Federation calculates investment rate of return using the following formula for all funds: Current Year Rate of Return = Current Year Gross Investment Income/ (0.5*(Previous Year Market Value of Assets + Current Year Market Value of Assets – Current Year Gross Investment Income)). This is not necessarily the formula used by all funds' actuaries and investment managers, thus investment rates of return reported here may differ from those reported in a fund's actuarial statements. However, it is a standard actuarial formula. **Gross investment income** includes income from securities lending activities, net of borrower rebates. It does not subtract out related investment and securities lending fees, which are treated as expenses.

the investment rates of return for FY2011 and FY2012 in the following figure shows that for the eight funds using a calendar year fiscal year, investment returns were between 11.2% for the CTA Fund and 15.0% for the Fire Fund in FY2012. These returns are calculated gross of investment fees and are not time-weighted so they may differ from the returns reported by the funds.[62]

The two funds that use a July 1 to June 30 fiscal year, the Teachers' and Park District, experienced low returns of 0.0% and 1.5%, respectively.[63] Differences in investment returns may reflect the timing differences, investment allocation choices of the funds, the performance of investment managers or all three.



Calendar Year Funds: Fire, Police, Municipal, Laborers', MWRD, Cook County, Forest Preserve, CTA
July 1 to June 30 Funds: Teachers', Park District
See text footnotes for explanation of how rate of return is calculated.

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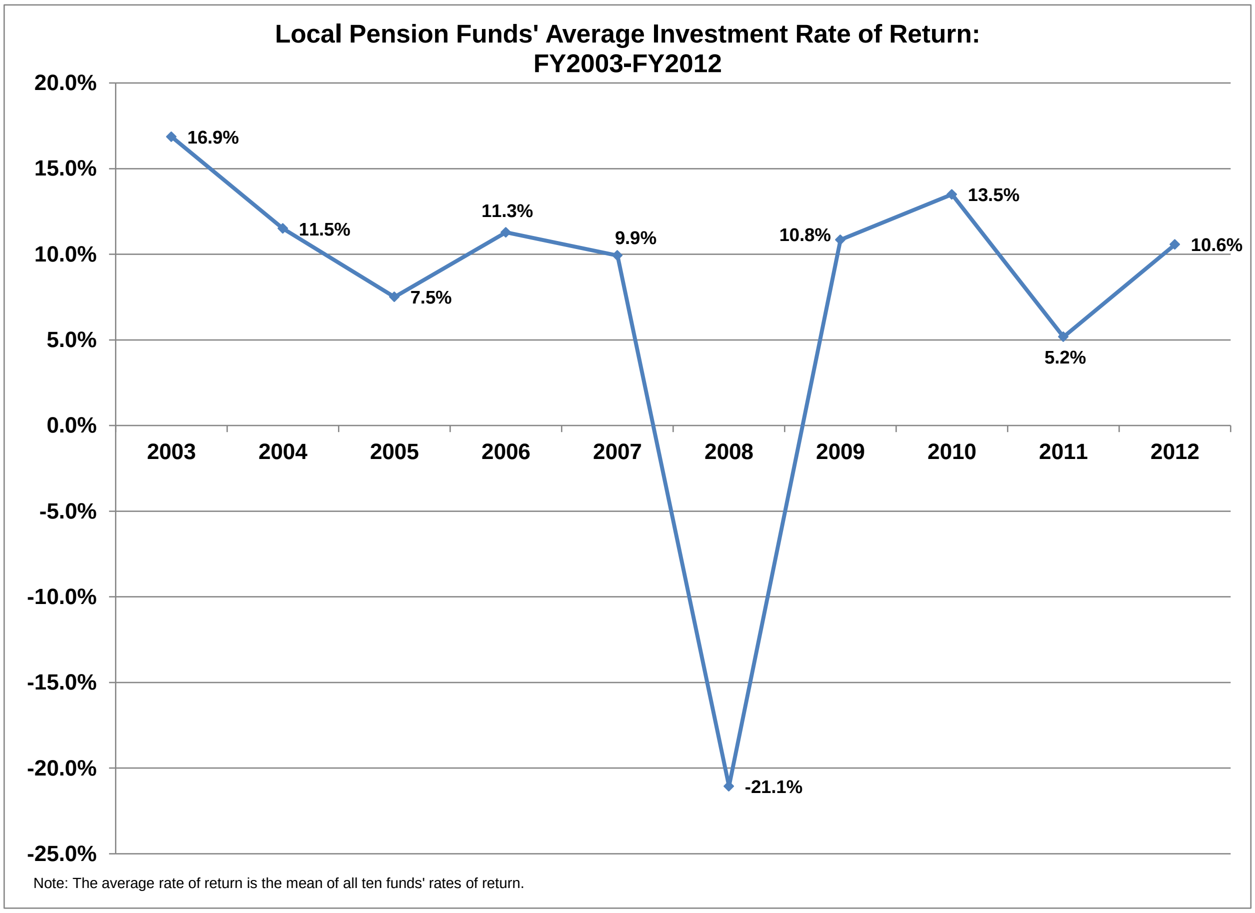
[61] Investment returns are gross investment income including income from securities lending activities net of borrower rebates. **Gross investment income** does not subtract out related investment and bank fees, which are treated as expenses in this report.

[62] The Civic Federation calculates investment rate of return using the following formula for all funds: Current Year Rate of Return = Current Year Gross Investment Income/ (0.5*(Previous Year Market Value of Assets + Current Year Market Value of Assets – Current Year Gross Investment Income)). This is not necessarily the formula used by all funds' actuaries and investment managers, thus investment rates of return reported here may differ from those reported in a fund's actuarial statements. However, it is a standard actuarial formula. **Gross investment income** includes income from securities lending activities, net of borrower rebates. It does not subtract out related investment and securities lending fees, which are treated as expenses.

[63] On August 16, 2012, Governor Quinn signed into law Public Act 097-0894 which amends the Park District Fund's fiscal year to be concurrent with the calendar year and the sponsoring government's fiscal year, beginning January 1, 2013.

Investment rates of return should be considered from a historical perspective. During the latter half of the 1990s, strong financial markets significantly increased local pension funds' assets. However, that positive trend reversed during the economic downturn of the early 2000s. In FY2003 the rates of return for all funds turned positive again, with an average rate of 16.9%. The average rate of return fell dramatically in FY2008 following the financial market crisis and rebounded in FY2009 to an average of 10.8% for all ten funds. The average rate of return rose again in FY2010 to 13.5%, and then fell to 5.2% in FY2011 and rose to 10.6% in FY2012.[64]

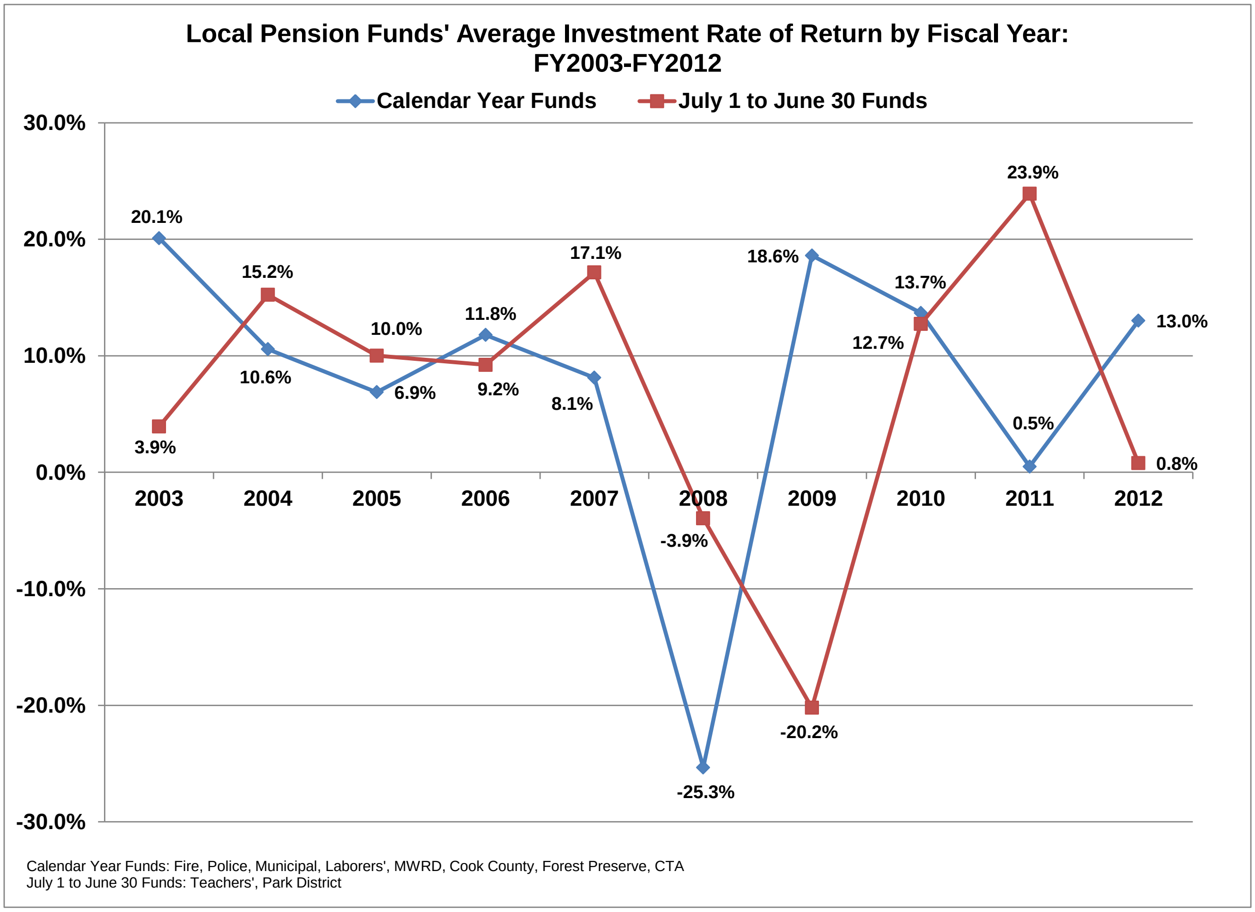


The following figure also presents the average investment rate of return, but splits the ten funds into two groups: those with calendar year fiscal years and those with July 1 to June 30 fiscal years. Differences in the trend lines reflect the timing of market trends. For example, calendar year funds saw average returns of 20.1% in FY2003 and July 1 to June 30 funds saw average returns of only 3.9% in FY2003 (July 1, 2002 to June 30, 2003). This difference is due to market declines in the second half of 2002 and a steady bull market in the last half of 2003.

Conversely, calendar year funds saw -25.3% returns in FY2008, while July 1 to June 30 funds saw only a -3.9% decrease in returns. In FY2009 the calendar year funds experienced an average return of 18.6% while the July 1 to June 30 funds had an average return of -20.2%. In FY2010 both types of funds experienced similar rates of return as calendar year funds saw an average return of 13.7% and the July 1 to June 30 funds had an average return of 12.7%. However, in

[64] The average rate of return is the mean of all ten funds' rates of return.

FY2011, returns varied greatly as the calendar year funds saw an average return of 0.5% while the July 1 to June 30 funds had an average return of 23.9%. That variation continued in FY2012 as the calendar year funds experienced an average return of 13.0% and the July 1 to June 30 funds experienced a return of 0.8%. This variation reflects the effect that timing differences in funds' fiscal years may have on investment returns.



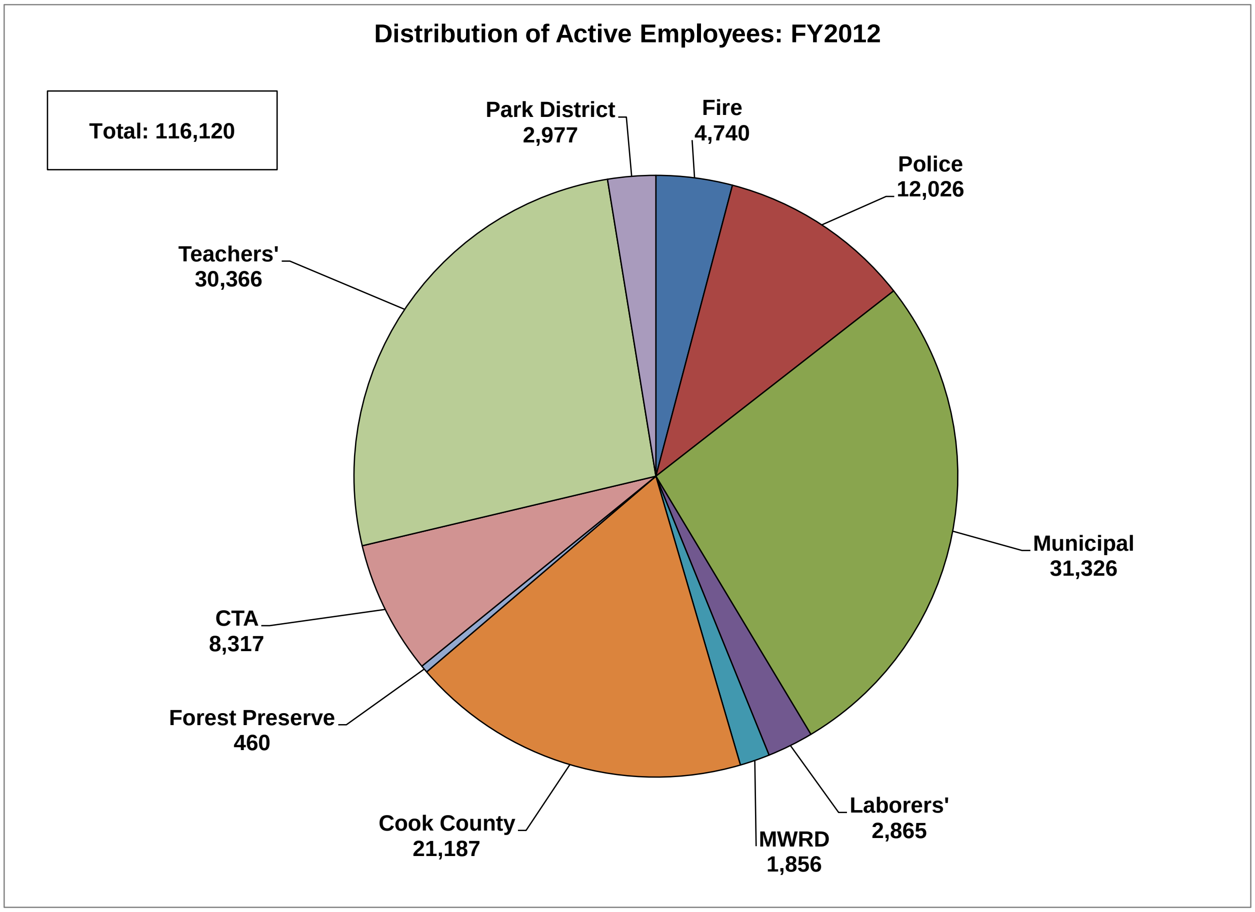
LOCAL PENSION FUND AGGREGATE DATA

In addition to using traditional indicators of individual pension fund health, the Civic Federation has aggregated pension fund data that depicts the employee-to-beneficiary ratio, total assets and liabilities of local pension funds and revenues and expenditures for each fund.

Active Employees and Beneficiaries

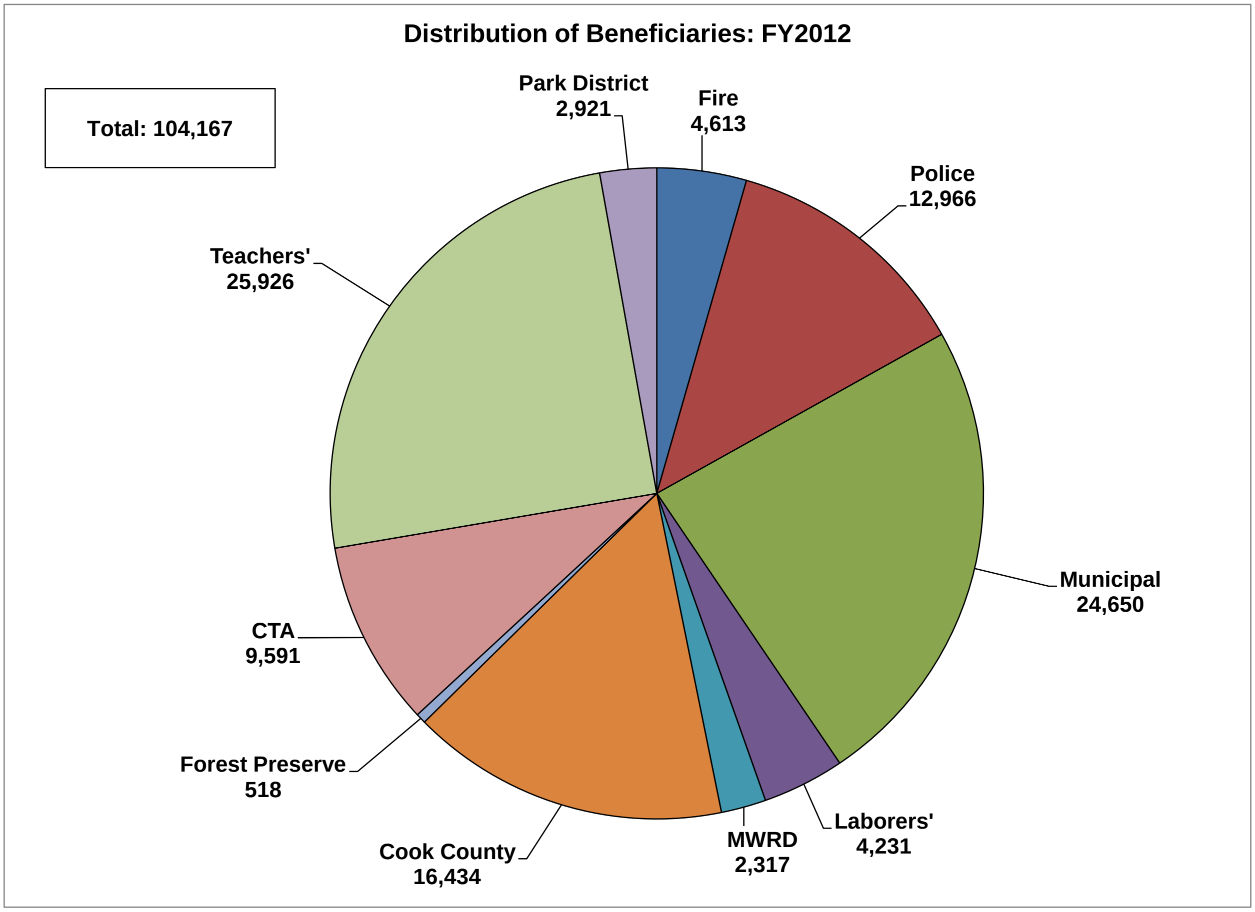
The ten pension funds reviewed in this report collectively covered 116,120 public employees and 104,167 beneficiaries (including spouses, children and disability recipients) in FY2012.

The three largest funds—the Teachers', Municipal and County Funds—accounted for 71.4% of the active employees covered by these plans. Roughly half of the Municipal Fund's membership consists of Board of Education employees who are not certified teachers.[65]

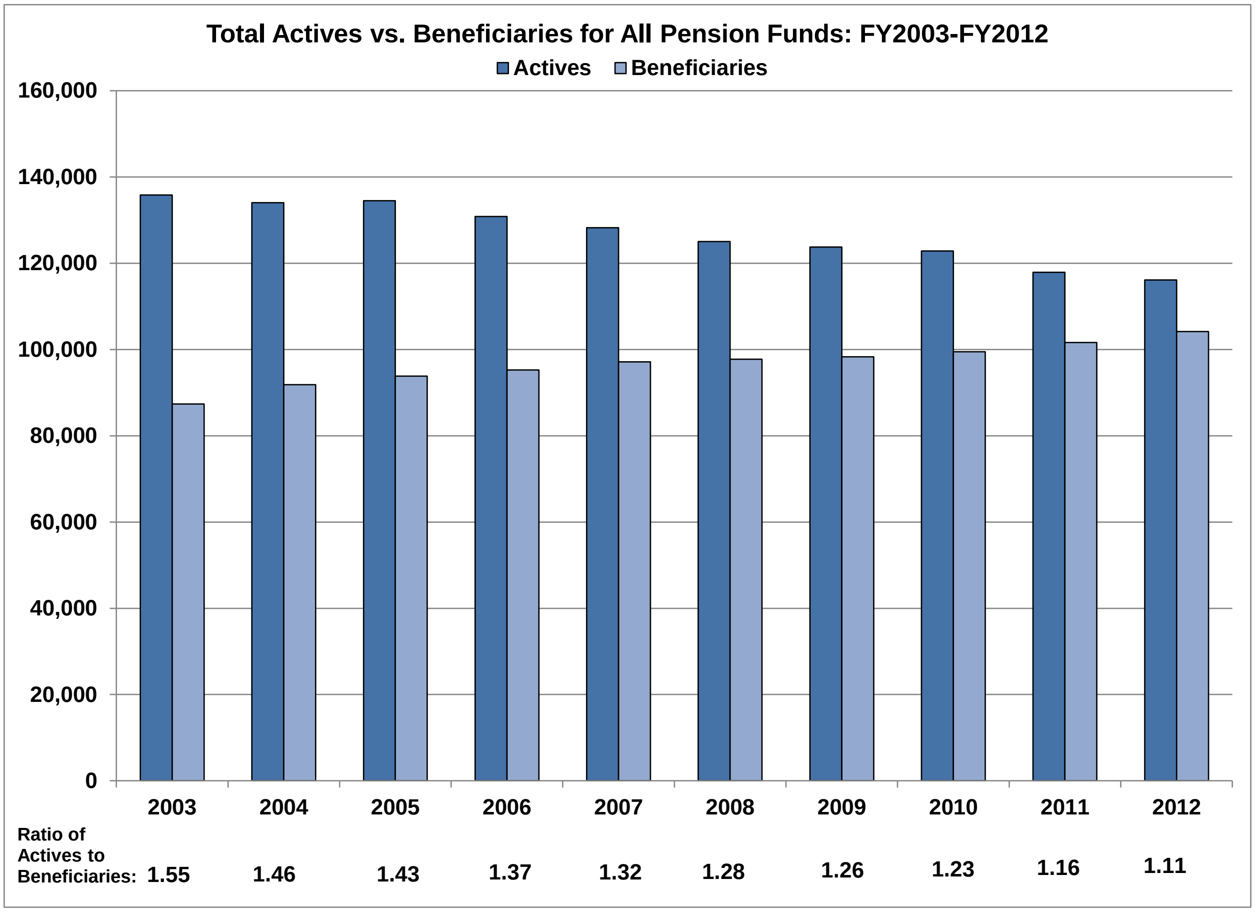


[65] Certified teachers employed by the Chicago Board of Education participate in the Public School Teachers' Pension and Retirement Fund of Chicago. Most other employees of the Board of Education are enrolled in the City of Chicago's Municipal Employees' Annuity and Benefit Fund. Approximately 17,095, or 55.8%, of Municipal Fund members considered to be active by the Fund are Board of Education employees. Municipal Employees Annuity and Benefit Fund, *Actuarial Valuation as of December 31, 2013*. The Laborers' Fund also includes some Board of Education retirees and beneficiaries. Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report as of December 31, 2013*, p. 57.

The three largest funds — Municipal, Teachers' and County Funds' —accounted for 64.3% of beneficiaries.



The ratio of total active employees to beneficiaries has gradually dropped from 1.55 actives for every one beneficiary in FY2003 to 1.11 in FY2012.



In FY2012 the Cook County Fund had the highest active-to-beneficiary ratio, at 1.29. The Police, Laborers', MWRD, Forest Preserve and CTA Funds all had *more* beneficiaries than actives in FY2012.[66]

With the exception of the Laborers', Forest Preserve and Park District Funds, seven of the ten funds saw a decline in their active-to-beneficiary ratio in 2012. For most funds, a decline in the ratio results from personnel cuts or early retirement initiatives. These measures simultaneously reduce the number of active employees and in the case of early retirement initiatives, increase beneficiaries, which can create fiscal stress for the fund because it means there is less funding from employee contributions and more annuity payments.

Ratio of Active Employees to Beneficiaries by Fund: FY2003-FY2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	FY2011-FY2012 Change
Fire	1.14	1.12	1.15	1.16	1.12	1.15	1.16	1.15	1.08	1.03	-0.05
Police	1.20	1.15	1.12	1.14	1.13	1.10	1.08	1.03	0.97	0.93	-0.04
Municipal	1.68	1.42	1.44	1.43	1.50	1.40	1.36	1.31	1.33	1.27	-0.06
Laborers'	0.90	0.71	0.73	0.76	0.75	0.79	0.74	0.70	0.68	0.68	0.00
MWRD	0.94	0.93	0.91	0.89	0.88	0.90	0.92	0.90	0.81	0.80	-0.01
Cook County	1.87	1.88	1.85	1.80	1.62	1.59	1.58	1.51	1.39	1.29	-0.10
Forest Preserve	0.78	0.70	0.73	0.77	0.83	0.87	0.91	0.87	0.78	0.89	0.10
CTA	1.24	1.21	1.18	1.07	1.05	1.04	1.06	0.96	0.93	0.87	-0.06
Teachers'	1.97	1.94	1.79	1.57	1.40	1.34	1.32	1.38	1.20	1.17	-0.02
Park District	1.03	0.87	0.90	0.97	0.99	1.01	0.96	0.95	0.96	1.02	0.06

Assets and Liabilities

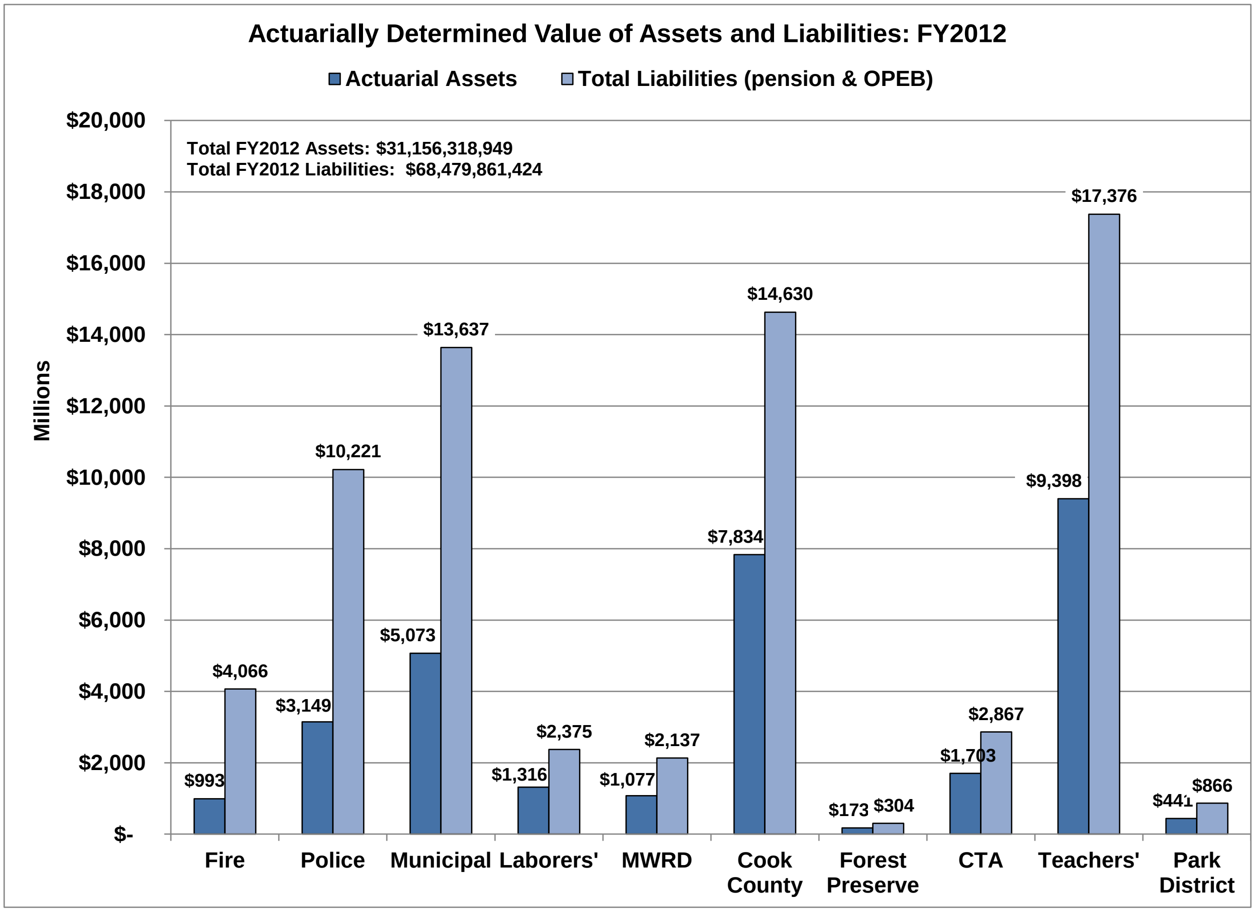
The most basic question about a pension fund is whether its assets are sufficient to cover total liabilities incurred. For this report, we combine the pension liabilities and Other Post Employment Benefit (OPEB) liabilities of each fund. The exceptions are the MWRD and the Park District whose OPEB costs are paid exclusively out of the employers' operating budgets, as opposed to the pension funds.

Liabilities are calculated using actuarial assumptions about the value of all future pension payments for both current and retired employees, as well as any other beneficiaries. Under GASB Statement No. 25, assets of public pension plans are reported based on the actuarial value of assets, determined using a smoothed market value or the current market value. A smoothed market value is the result of smoothing the effects of short-term market volatility by recognizing deviations from expected returns over a period of three to five years. The use of current market value to determine the assets of the plan reflects the value of the pension fund's assets at the end of the fiscal year. This measure is subject to fluctuations in the investment market and at any one point in time may be misleading because changes should average out over the life of a public pension plan. (see page 11).[67]

[66] The Laborers' Fund instituted a new definition of active members in FY2008. In previous reports only members who were active at the end of the year were counted as active members but starting in FY2008 all members who earned any service credit in a given year are valued as actives. Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2008*, p. 7.

[67] In November 1994, the Government Accounting Standards Board (GASB) issued Statement No. 25 that established new standards for the reporting of a pension fund's assets. The requirement became effective June 15, 1996. Up until that statement, most pension funds used two measurements for determining the net worth of assets, book value (recognizing investments at initial cost or amortized cost) and market value (recognizing investments at current value). In Statement No. 25, GASB allows a "smoothed" market value, also referred to as the actuarial value

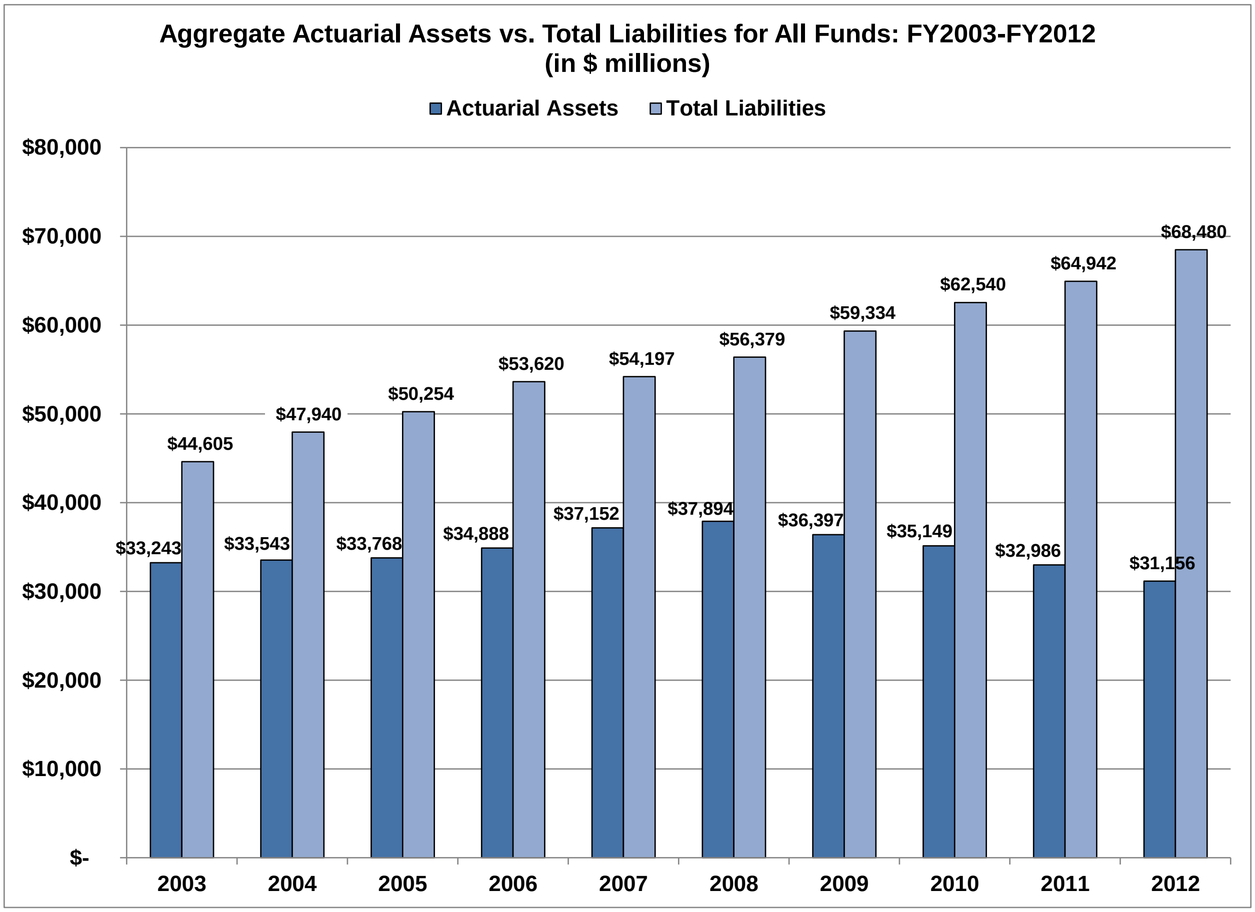
At the close of FY2012, the ten pension funds combined had approximately $68.5 billion in actuarial accrued liabilities. Combined assets had an actuarial smoothed value of $31.2 billion and a market value of $31.7 billion.[68] As shown in the following figure, in FY2012 the Teachers' Fund had the greatest assets and liabilities, followed by the Cook County and Municipal Funds.



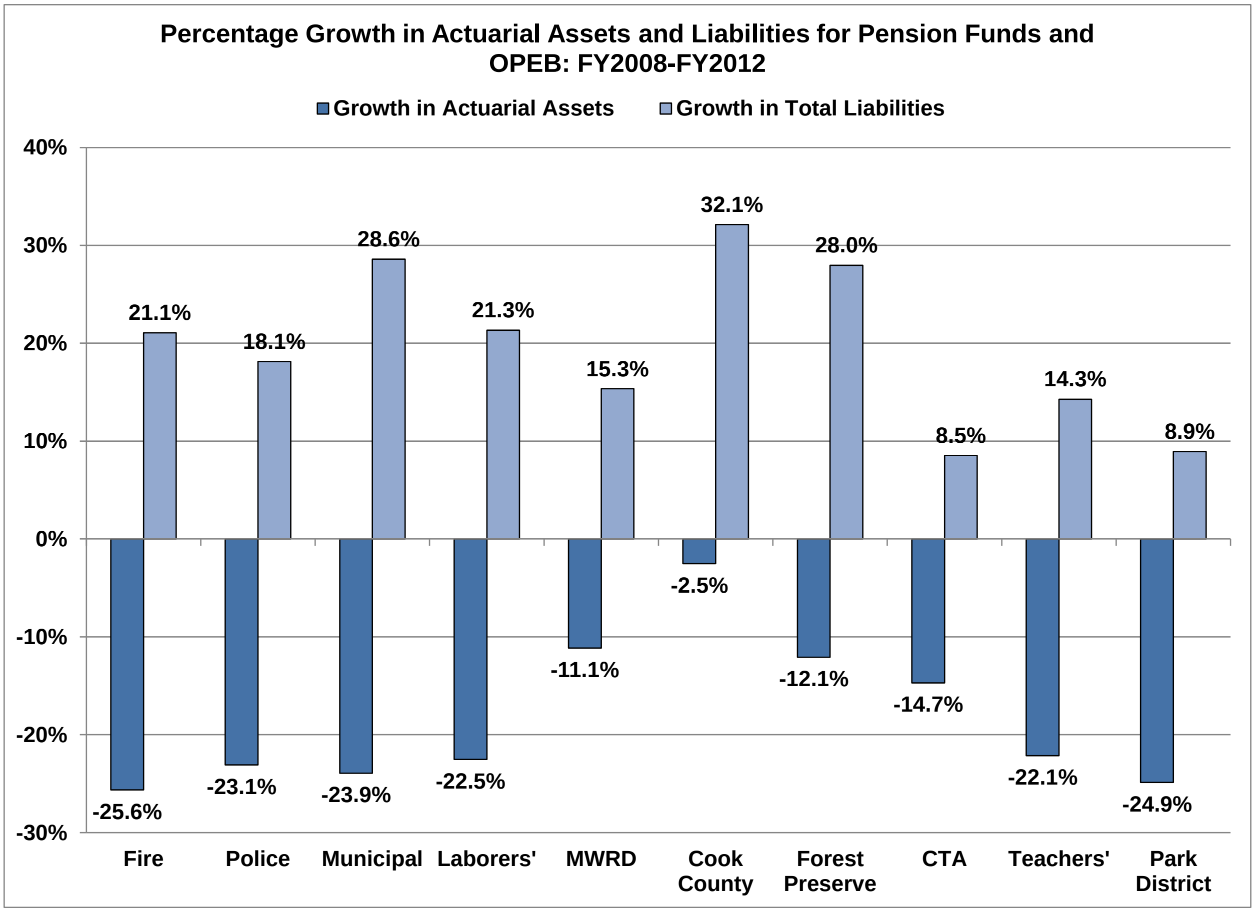
of assets, in calculations for reporting pension costs and actuarial liabilities. The smoothed market value, or actuarial value of assets, accounts for assets at market values by recognizing unexpected gains or losses over a period of three to five years. In August 2012 GASB revised its reporting standards with Statement No. 67 such that pension assets will be valued at market value for reporting purposes. GASB Statement No. 67 goes into effect for pension funds in fiscal years beginning after June 15, 2013. http://www.gasb.org/.

[68] Beginning in FY2011, the CTA Fund uses market value to determine its actuarial value of assets.

The following figure shows the growth of aggregate actuarial assets and liabilities for all funds combined, from FY2003 to FY2012. Aggregate liabilities increased by $23.9 billion, or 53.5%, over the ten-year period, while actuarial assets fell by $2.1 billion, or 6.3%. Between FY2011 and FY2012 total actuarial liabilities rose by $3.5 billion from $64.9 billion to $68.5 billion.



Of the ten pension funds, the Cook County Fund experienced the fastest growth in liabilities over the past five years, with a growth rate of 32.1%. It is important to note that for several of the funds below, various changes to actuarial assumptions, including reductions to expected rates of return for the Municipal, Laborers' and Police Funds that were made in FY2012, contributed to the increases in actuarial liabilities for the funds over five years, in addition to insufficient employer contributions and shortfalls in investment returns. Between FY2008 and FY2012, liabilities grew for all funds and all funds experienced a loss in actuarial assets.



The following figure shows the difference between the actuarial value of assets and the current market value of assets. Under actuarial value reporting for nine of the ten funds, unexpected investment gains or losses are smoothed over a period of three to five years.[69] In FY2012 the aggregate current market value for all funds was $560.9 million more than actuarial value, indicating that asset values for 2012 were higher than the values smoothed over the past few years.

Comparison of Actuarial Value v. Current Market Value of Assets at the Close of FY2012				
Fund	**Actuarial Value**	**Current Market Value**	**$ Difference**	**% Difference**
Fire	$ 993,283,741	$ 1,032,422,798	$ 39,139,057	4%
Police	$ 3,148,929,770	$ 3,213,433,234	$ 64,503,464	2%
Municipal	$ 5,073,320,275	$ 5,182,669,659	$ 109,349,384	2%
Laborers'	$ 1,315,913,597	$ 1,371,077,046	$ 55,163,449	4%
MWRD	$ 1,076,740,164	$ 1,092,402,602	$ 15,662,438	1%
Cook County	$ 7,833,882,926	$ 8,059,935,628	$ 226,052,702	3%
Forest Preserve	$ 172,566,956	$ 180,287,412	$ 7,720,456	4%
CTA	$ 1,702,787,884	$ 1,702,787,884	$ -	0%
Teachers'	$ 9,398,201,630	$ 9,471,440,984	$ 73,239,354	1%
Park District	$ 440,692,006	$ 410,797,588	$ (29,894,418)	-7%
Total	**$31,156,318,949**	**$ 31,717,254,835**	**$ 560,935,886**	**2%**

Note: As of FY2011 the CTA Fund uses market value as its actuarial value of assets.

Liabilities for Retiree Health Insurance Benefits (Other Post Employment Benefits)

FY2012 was the sixth year that all the local governments included in this report were required to comply with both Governmental Accounting Standards Board (GASB) Statements 43 and 45, each of which mandates new reporting requirements for Other Post Employment Benefits (OPEB) costs.[70]

Governmental audited financial statements were not previously required to include detailed financial information about OPEB costs. To address this issue, the GASB issued two statements in June 2004, GASB Statements 43 and 45, which provide reporting guidelines for these types of benefits.[71] GASB 43 and 45 require governments and associated retirement systems to calculate and report total OPEB liabilities according to guidelines similar to those used in reporting pension liabilities.

Some funds provide health insurance to the retired fund staff. However, **this report focuses only on OPEB obligations for the employees of the sponsoring government, not the fund staff**. The obligation for fund staff is typically very small compared to the obligation for government employee fund members.

[69] The Teachers' pension fund uses a four-year smoothing period. The other funds reviewed here that use smoothing use a five-year smoothing period. Beginning in FY2011, the CTA Fund uses market value to determine its actuarial value of assets. "Unexpected" gains or losses are those that deviate from the assumed rate of return.

[70] Non-pension benefits provided to employees after employment ends are referred to as Other Post Employment Benefits, or OPEB. OPEB includes health insurance coverage for retirees and their families, dental insurance, life insurance and long-term care coverage. It does not include termination benefits such as accrued sick leave and vacation.

[71] The Financial Accounting Standards Board Statement 106 (FASB 106) required private sector employers to report accrued liabilities for retiree health benefits in their financial statements in 1993. The GASB is in the process of developing new standards for reporting OPEB liabilities. See http://www.gasb.org/opeb.

GASB 43 required the retirement systems of large governments—those with over $100 million in annual revenue—to begin reporting OPEB liabilities for the fiscal year beginning after December 15, 2005 and GASB 45 required the large governments themselves to begin reporting in the fiscal year beginning after December 15, 2006. All seven governments examined here qualify as "large governments."

The MWRD and Park District Funds do not report OPEB information because retiree health insurance is provided directly by the MWRD and Park District governments, not through their pension funds. Public Act 95-708 created a separate Retiree Health Care Trust for CTA retirees, which began operations on July 1, 2009. The CTA pension fund no longer has any OPEB liability.

The Teachers' Fund was not required to implement GASB 43 until FY2007 because its first fiscal year beginning after December 15, 2005 was FY2007 (July 1, 2006 to June 30, 2007).

Before examining the OPEB liabilities of each fund, it is important to note that GASB Statements 43 and 45 require a **lower discount rate assumption for retiree healthcare benefits that are funded on a pay-as-you-go basis** rather than prefunded through a designated trust fund. The required discount rate for plans funded on a pay-as-you-go basis is the rate of return earned on the actual assets used to pay the benefits. The following table shows the discount rates for the pension benefits and Other Post Employment Benefits (primarily retiree healthcare) reported by the ten pension funds for GASB purposes.[72] As noted in the "Data Sources and Comparability" section of this report, the Cook County, Forest Preserve, and Teachers' Funds do not use the lower GASB discount rate to value their combined pension and OPEB liabilities.

FY2012 Assumed Pension Fund and OPEB Investment Rate of Return

Fund	Pension	OPEB
Fire	8.00%	4.50%
Police	7.75%	4.50%
Municipal	7.50%	4.50%
Laborers'	7.50%	4.50%
MWRD	7.75%	N/A
Cook County	7.50%	4.50%
Forest Preserve	7.50%	4.50%
CTA	8.50%	N/A
Teachers'	8.00%	4.50%
Park District	8.00%	N/A

Note: These are the rates of return used for GASB reporting purposes. As described in the "Data Sources and Comparability Issues" section of this report, the Cook County, Forest Preserve and Teachers' Funds do not use the lower OPEB discount rates to calculate total liabilities in their "Combined" actuarial valuations.

Source: Respective pension fund FY2012 actuarial valuations and financial statements.

[72] The MWRD has set up an irrevocable trust to pre-fund retiree health insurance, but this is provided directly by the MWRD government, not through its pension fund. Similarly, Park District retiree health benefits are provided directly by the Park District, not the pension fund. Because the OPEB provisions of these two governments are completely separate from their pension funds, there is no OPEB reporting in their pension fund financial statements.

The next table shows the pension and OPEB accrued actuarial liabilities of the ten pension funds for FY2012. Pension liabilities total $66.8 billion, and OPEB liabilities total $1.7 billion.[73] Overall, OPEB liabilities represent 2.4% of total liabilities for all funds combined.

It is important to note that for the City of Chicago funds there are also additional OPEB liabilities borne by the employer, described on page 45.

Pension and OPEB Actuarial Accrued Liabilities by Fund: FY2012			
Fund	**Pension Liabilities**	**OPEB Liabilities**	**Total Liabilities**
Fire	$ 4,020,137,920	$ 46,205,891	$ 4,066,343,811
Police	$ 10,051,827,391	$ 168,811,118	$ 10,220,638,509
Municipal	$ 13,475,376,963	$ 162,083,083	$ 13,637,460,046
Laborers'	$ 2,336,189,276	$ 38,653,355	$ 2,374,842,631
MWRD*	$ 2,136,508,223	$ -	$ 2,136,508,223
Cook County**	$ 13,418,486,943	$ 1,211,764,012	$ 14,630,250,955
Forest Preserve**	$ 273,136,730	$ 31,314,272	$ 304,451,002
CTA*	$ 2,867,335,313	$ -	$ 2,867,335,313
Teachers'***	$ 17,375,660,369	see note***	$ 17,375,660,369
Park District*	$ 866,370,565	$ -	$ 866,370,565
Total	**$ 66,821,029,693**	**$ 1,658,831,731**	**$ 68,479,861,424**

Note: Figures represent OPEB liabilities of the pension funds only. The City of Chicago has additional OPEB liabilities for the portion of retiree healthcare benefits subsidized by the City.

*MWRD and Park District pension funds have no OPEB liability as OPEB is provided directly through the governments. The CTA fund has no liability because OPEB is provided through a separate Retiree Health Care Trust.

**Cook County and Forest Preserve OPEB liabilities shown here are calculated using a 7.5% discount rate. Their FY2012 OPEB liabilities calculated with a 4.5% discount rate per GASB 43 are $1,845,609,132 for the Cook County Fund and $45,713,760 for the Forest Preserve Fund. See discussion of "Data Sources and Comparability Issues" earlier this report.

***Historically, the Teachers' Fund provides a fixed $65 million subsidy per law so it does not value OPEB as an ongoing liability. See discussion of "Data Sources and Comparability Issues" earlier in this report.

[73] As noted in the table and in the "Data Sources and Comparability Issues" section of this report, the OPEB liabilities for the Cook County, Forest Preserve, and Teachers' Funds shown here are not calculated according to GASB Statement 43.

There are four different models for subsidizing OPEB among the ten pension funds reviewed here: employer only subsidy, pension fund only subsidy, combination of employer and pension fund subsidies or creation of an independent trust fund.[74]

Government Only Subsidy	Pension Fund Only Subsidy	Government and Pension Fund Subsidy	Independent Retiree Health Care Trust
• MWRD • Park District	• Cook County • Forest Preserve • Teachers' • Municipal (Board of Education Employees)	• Fire • Police • Municipal (City employees) • Laborers'	• CTA

Note: The Laborers' Fund includes Board of Education retirees and beneficiaries. See Note 9 of this report for more information on the Municipal Fund members.

Government Only Subsidy: MWRD and Park District

The MWRD and Park District governments provide retiree health insurance, but their respective pension funds do not subsidize it.

- The MWRD in FY2012 subsidized 72.5% of retiree premiums.[75] The MWRD created a dedicated trust fund in 2007 to begin pre-funding its retiree healthcare obligations.[76] The MWRD Retiree Health Care Trust FY2012 Comprehensive Annual Financial Report showed a $339.7 million unfunded OPEB liability as of the December 31, 2011 actuarial valuation.[77]
- The Park District subsidized approximately 26% of total retiree premium costs in FY2012.[78] The Park District does not have a separate trust fund for OPEB. The Park District FY2012 Comprehensive Annual Financial Report showed an unfunded OPEB liability of approximately $40.0 million as of the January 1, 2011 actuarial valuation.[79]

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[74] As noted on page 41, some funds subsidize OPEB for their retired fund staff. These subsidies are "Pension Fund Only," but they are not addressed in this report. The discussion here is exclusively about the OPEB provided to employees of the sponsoring governments.

[75] Metropolitan Water Reclamation District of Greater Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*, p. 85. In September 2011, the MWRD Board of Commissioners approved a policy to increase cost-sharing for employee and retiree healthcare between the District and its employees and retirees. Starting January 1, 2011, District employees contributed 13% of healthcare costs, and effective January 1, 2012, employee healthcare contributions will increase by 1 percentage point each year for ten years. At the end of the ten-year period, employees will contribute 22% of the cost of healthcare. Beginning January 1, 2012, for the next nine years, retiree contributions will increase annually by 2.5 percentage points until the premium reaches 50% at the end of the ten-year period.

[76] The trust was created by Public Act 95-0394. It is not an independent entity like the CTA Retiree Health Care Trust, but is a component unit of the MWRD government.

[77] Metropolitan Water Reclamation District Retiree Health Care Trust, *Comprehensive Annual Financial Report for the year ended December 31, 2012*, p. 13.

[78] Chicago Park District, *Comprehensive Annual Financial Report for the year ending December 31, 2012*, p. 74.

[79] Chicago Park District, *Comprehensive Annual Financial Report for the year ending December 31, 2012*, p. 76.

Pension Fund Only Subsidy: Cook County, Forest Preserve, Teachers', Municipal (Board of Education Employees)

The governments of Cook County, Cook County Forest Preserve District and Chicago Public Schools do not contribute directly to retiree health insurance, but their respective pension funds do subsidize it.

- The Cook County and Forest Preserve District pension funds allow annuitants to participate in the fund's health insurance programs, but the Cook County and Forest Preserve District governments do not contribute to the premium costs. The respective pension funds subsidize annuitant premiums at a rate of 55% for retiree annuitants and 70% for survivor annuitants.[80] The health subsidy rate is reviewed annually.
- The Chicago Teachers' pension fund reduced annuitant reimbursements for heath insurance single premiums to 60% from 70% effective January 1, 2011. The rebate stayed at 60% for FY2012. Chicago Public Schools (CPS) does not contribute to retiree health insurance. The rebate percentage varies each year. State law currently requires that total rebates not exceed $65 million annually, in addition to any carryover amounts from the previous year. [81]
- CPS employees who are not certified teachers are enrolled in the Municipal Fund (see footnote 9). The Municipal Fund provides $95 per month for non-Medicare eligible annuitants and $65 per month for Medicare eligible annuitants who choose to participate in the CPS retiree healthcare plan.[82] However, CPS does not subsidize the plan.[83]

Government and Pension Fund Subsidy: City of Chicago Pension Funds

The City of Chicago government directly subsidizes a portion of retiree health insurance, and its four pension funds also subsidize a portion of retiree health insurance, though they do not sponsor the retiree healthcare plan.

- The City of Chicago is party to a written legal settlement agreement that required the City to pay a percentage of the cost of healthcare for eligible retirees and dependents through June 30, 2013 when the agreement expired.[84] State statutes also previously authorized the four City of Chicago pension funds (Fire, Police, Municipal and Laborers') to subsidize the participant portion of retiree health insurance premiums for those annuitants participating in the City's retiree health insurance program until June 30, 2013.
- On May 15, 2013, the City announced its decision on how it would continue retiree healthcare after June 30, 2013.[85] First, it would continue subsidies at current levels for all retirees through December 31, 2013. Second, annuitants retired before August 23, 1989, many of whom do not qualify for Medicare, will continue to receive current subsidy levels. Third, due to substantial projected increases in the cost of the plan, annuitants retired on or after August 23, 1989 will see a phase-out of the city's subsidy of benefits with an end to the plan by the beginning of 2017. Non Medicare-eligible retirees would then be able to

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[80] County Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2012*, pp. 40, 45 and Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation as of December 31, 2012*, pp. 40, 45.

[81] Chicago Teachers' Pension Fund, *117th Comprehensive Annual Financial Report for the year ended June 30, 2012*, p. 29.

[82] Municipal Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report as of December 31, 2012*, p. 66.

[83] Information provided by Terrance Stefanski, Executive Director, Municipal Employees' Annuity and Benefit Fund of Chicago, March 18, 2009.

[84] See Appendix D for information on Chicago's retiree healthcare benefits and the Korshak settlement.

[85] City of Chicago Department of Finance, "Annuitant Notice," May 15, 2013. Available at http://www.cityofchicago.org/content/dam/city/depts/fin/supp_info/Benefits/Annuitant_Notice_May_15_2013.pdf.

access healthcare and federal subsidies through the federal Affordable Care Act exchanges. On May 30, 2013, the General Assembly passed legislation allowing the four City pension funds to continue their part of the OPEB subsidy through December 31, 2016 or whenever the City ends its retiree healthcare plan, whichever comes first. Governor Quinn signed the bill into law on June 28, 2013.[86]

- Under the terms of collective bargaining agreements for Police and Firefighters, some employees who retire after age 55 are allowed to enroll themselves and their dependents in the healthcare benefit program offered to actively employed members until they become eligible for Medicare. These retirees do not contribute towards the cost of coverage, but the Police pension fund contributes $95 per month towards coverage for police officers; the Fire Pension Fund does not contribute.[87]
- In FY2012, before the expiration of the Korshak settlement, the City's contribution was roughly 52% of the premium cost, with the remainder to be paid by the annuitant. The Fire, Police, Municipal and Laborers' pension funds each contributed roughly 34% of the annuitant contribution, effectively subsidizing 13% of the total premium cost.[88] The pension funds provide $95 per month for non-Medicare eligible annuitants and $65 per month for Medicare-eligible annuitants.[89] The City of Chicago's financial statements reported a December 31, 2011 unfunded OPEB liability of $415.7 million for the portion subsidized by the pension funds and a December 31, 2011 unfunded OPEB liability of nearly $471.0 million for the portion subsidized by the City.[90] The total combined unfunded OPEB liability for the City portion and the pension fund portion is approximately $886.7 million.

Independent Retiree Health Care Trust

Neither the CTA government nor its pension fund contributes to retiree health insurance any longer.

- Since the creation of a separate retiree healthcare trust fund, the CTA and the CTA pension fund have no further obligations regarding retiree health insurance. The CTA seeded a Retiree Health Care Trust with $528.8 million in bond proceeds in 2008.[91] Public Act 95-

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[86] Public Act 98-0043.

[87] City of Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*, p. 88. A new collective bargaining agreement for city firefighters includes a provision that will require retirees not yet eligible for Medicare to contribute a portion of their annuity to defray the cost of their healthcare starting January 1, 2015. See Fran Spielman, "Council passes firefighters contract with ambulance upgrade," July 30, 2014. http://politics.suntimes.com/article/chicago/council-passes-firefighters-contract-ambulance-upgrade/wed-07302014-1217pm. Reportedly, a new tentative collective bargaining agreement for police officers may include the same provision. See Fran Spielman, "Police contract with retro pay a political coup for Emanuel," September 4, 2014. http://politics.suntimes.com/article/chicago/police-contract-retro-pay-political-coup-emanuel/thu-09042014-123pm.

[88] Cost allocation estimates provided to the Civic Federation by Sulan Tong, City of Chicago Department of Finance, August 11, 2014.

[89] City of Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*, p. 87.

[90] City of Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*, pp.87, 89. The City does not report a combined total liability for both the pension fund and the City OPEB subsidies, nor does it break out its liabilities by pension fund. However, the FY2012 City of Chicago CAFR did break out its OPEB liabilities related to the settlement plan and the collective bargaining agreement described above for police officers and firefighters. The unfunded liability related to the settlement plan was $191.4 million and the unfunded liability related to the collective bargaining agreement was $279.6 million. Both of these numbers were as of the December 31, 2011 actuarial valuation.

[91] Chicago Transit Authority, *Financial Statements and Supplementary Information December 31, 2008 and 2009*, p. 14.

708 requires employees to contribute 3% of pay to the CTA Retiree Health Care Trust.[92] Retiree, survivor and dependent premiums cannot exceed 45% of premium cost.[93] The Trust reported total present value of projected benefits at $645.7 million for FY2012 and total income and assets at $813.4 million, for a 126.0% coverage ratio.[94]

The following table summarizes the employer, pension fund and retiree contributions to health insurance premiums.

Approximate Retiree Health Insurance Premium Subsidies			
Fund	**Employer Contribution**	**Pension Plan Contribution**	**Retiree Contribution**
Fire	52%	13%	35%
Police	52%	13%	35%
Municipal*	52%	13%	35%
Laborers'	52%	13%	35%
MWRD	72.5%	0%	27.5%
Cook County	0%	55% retiree, 70% survivor	45% retiree, 30% survivor
Forest Preserve	0%	55% retiree, 70% survivor	45% retiree, 30% survivor
CTA	0%	0%	no more than 45%
Teachers'**	0%	60%	40%
Park District	26% (aggregate)	0%	74% (aggregate)

*Applies to retired City workers only, not to retired Chicago Public Schools employees who participate in the Municipal Fund.

**The rebate percentage from the Fund contribution dropped from 70% to 60% halfway through the Fund's FY2011 fiscal year, effective January 1, 2011.

Note: Percentages are approximations for FY2012 and may vary by plan type or other factors. Cost allocation estimates for the City of Chicago pension funds provided to the Civic Federation by Sulan Tong, City of Chicago Department of Finance, August 11, 2014.

Sources: Chicago Park District, Comprehensive Annual Financial Report for the year ended December 31, 2011, p. 74; Metropolitan Water Reclamation District of Greater Chicago, Comprehensive Annual Financial Report for the year ended December 31, 2012, p. 85; County Employees' Annuity and Benefit Fund of Cook County, Actuarial Valuation as of December 31, 2012, p. 45; Forest Preserve District, Employees' Annuity and Benefit Fund of Cook County Actuarial Valuation as of December 31, 2012, p. 45; Chicago Transit Authority Retiree Health Care Plan, Financial Statements and Supplementary Information for the Years Ended December 31, 2012 and 2011, p. 4; Chicago Teachers' Pension Fund, 116th Comprehensive Annual Financial Report for the year ended June 30, 2012, p. 29; Chicago Park District, Comprehensive Annual Financial Report for the year ended December 31, 2012, p. 74.

As described above, there are four different ways of subsidizing OPEB among the ten pension funds reviewed here. The table on page 43 shows the pension and OPEB liabilities as reported by the pension funds, but there are also large additional OPEB liabilities for some of the sponsoring governments. The following table presents the sum of pension and OPEB liabilities for the seven governments covered in this report. All liabilities are presented below according to GASB financial reporting standards for the governments' annual financial statements.[95] The total OPEB liabilities of the seven governments as reported for GASB purposes were $6.3 billion in FY2012. Combined pension and OPEB liabilities were $73.1 billion.

[92] Chicago Transit Authority Retiree Health Care Trust, *Actuarial Valuation as of January 1, 2013, p. 25.*
[93] Chicago Transit Authority Retiree Health Care Plan, Financial Statements and Supplementary Information for the Years Ended December 31, 2012 and 2011, p. 15. See also 40 ICLS 5/22-101B(b)(5).
[94] Chicago Transit Authority Retiree Health Care Trust, *Actuarial Valuation as of January 1, 2013, p. 2.*
[95] As described on page 5, the OPEB liabilities for the Cook County, Forest Preserve and Teachers' Funds shown elsewhere in this report use "combined" actuarial valuations. The GASB 43 calculation of OPEB liabilities for these funds is significantly larger.

Pension and OPEB Actuarial Accrued Liabilities by Government: FY2012 (Calculated for Governmental Accounting Standards Board Statements 25 and 43)			
Government	Pension Liabilities	OPEB Liabilities	Total Liabilities
City of Chicago	$ 29,883,531,550	$ 886,705,447	$ 30,770,236,997
Metropolitan Water Reclamation District	$ 2,136,508,223	$ 394,676,000	$ 2,531,184,223
Cook County	$ 13,418,486,943	$ 1,845,609,132	$ 15,264,096,075
Cook County Forest Preserve District	$ 273,136,730	$ 45,713,760	$ 318,850,490
Chicago Transit Authority	$ 2,867,335,313	$ -	$ 2,867,335,313
Chicago Public Schools	$ 17,375,660,369	$ 3,110,316,263	$ 20,485,976,632
Chicago Park District	$ 866,370,565	$ 39,976,000	$ 906,346,565
Total	**$ 66,821,029,693**	**$ 6,322,996,602**	**$ 73,144,026,295**

Source: Respective governments' FY2012 annual financial reports.

The table below presents the sum of the unfunded liabilities of the seven governments as reported according to GASB standards. The unfunded OPEB liabilities of the MWRD and Chicago Public Schools are slightly less than their OPEB liabilities shown above because these governments report some assets set aside for OPEB. The other governments shown below do not set aside assets for OPEB obligations so their unfunded accrued actuarial liabilities for OPEB are equal to their accrued actuarial liabilities. As reported according to GASB standards, the total unfunded pension and OPEB liabilities for the seven governments were $40.7 billion in FY2012.

Pension and OPEB Unfunded Actuarial Accrued Liabilities (UAAL) by Government: FY2012 (Calculated for Governmental Accounting Standards Board Statements 25 and 43)			
Government	Pension UAAL (GASB 25)	OPEB UAAL (GASB 43)	Total
City of Chicago	$ 19,352,084,167	$ 886,705,447	$ 20,238,789,614
Metropolitan Water Reclamation District	$ 1,003,922,000	$ 339,680,000	$ 1,343,602,000
Cook County	$ 5,584,604,017	$ 1,845,609,132	$ 7,430,213,149
Cook County Forest Preserve District	$ 100,569,774	$ 45,713,760	$ 146,283,534
Chicago Transit Authority	$ 1,145,988	$ -	$ 1,145,988
Chicago Public Schools	$ 7,977,458,739	$ 3,076,191,305	$ 11,053,650,044
Chicago Park District	$ 425,678,559	$ 39,976,000	$ 465,654,559
Total	**$ 34,445,463,244**	**$ 6,233,875,644**	**$ 40,679,338,888**

Source: Respective governments' FY2012 annual financial reports.

Revenues

There are three main revenue sources for the pension plans studied here: investment income, employer contributions and employee contributions. Investment income is the most volatile source of income. When investment returns are positive, investments typically provide the majority of fund revenue. Employer contributions are generally funded by property taxes and personal property replacement taxes for all pension funds except the Teachers' and CTA funds, for which employer contributions come from general revenues.[96] Employee contributions are made through payroll deductions.

[96] In FY2008 the CTA Fund also received $1.1 billion in bond proceeds. The City of Chicago is allowed to use revenue sources other than property tax and PPRT to make the employer contribution to its pension funds. See http://www.civicfed.org/civic-federation/blog/chicago-area-governments-prohibited-improving-pension-funding-without-state-in for more details.

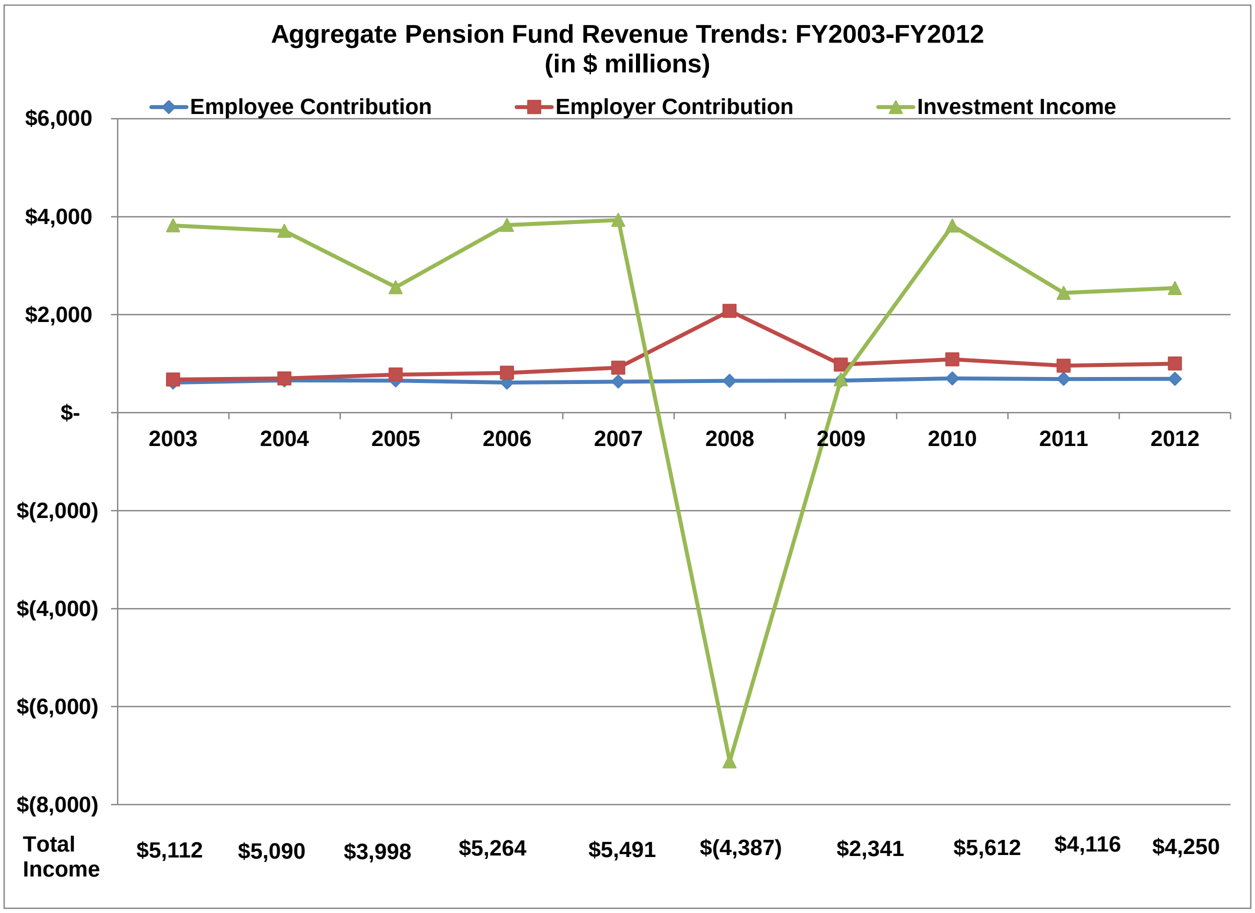
Total income for all funds in FY2012 was nearly $4.3 billion. All ten funds experienced gains in investment income in FY2012.[97] Employer contributions totaled approximately $1.0 billion, and employee contributions totaled $689.6 million for all ten funds. The $18.1 million in "Other Income" includes transfers from other governments with reciprocal agreements, health insurance rebates from vendors and other miscellaneous revenue as part of this calculation. See Appendix B for detail on the sources for revenue and expenditure figures presented in this report.

Revenues by Source: FY2012					
Fund	**Employee Contribution**	**Employer Contribution**	**Investment Income**	**Other Income**	**Total Income**
Fire	$ 53,272,730.0	$ 84,144,328.0	$ 141,746,628.0	$ 14,256.0	$ 279,177,942.0
Police	$ 95,892,052.0	$ 207,228,022.0	$ 362,705,679.0	$ 423,216.0	$ 666,248,969.0
Municipal	$ 130,266,293.0	$ 158,380,709.0	$ 615,001,940.0	$ -	$ 903,648,942.0
Laborers'	$ 16,559,017.0	$ 14,414,835.0	$ 182,518,708.0	$ -	$ 213,492,560.0
MWRD	$ 14,714,496.0	$ 65,097,835.0	$ 121,275,224.0	$ 40,046.0	$ 201,127,601.0
Cook County	$ 130,570,599.0	$ 190,720,776.0	$ 907,987,632.0	$ 10,190,689.0	$ 1,239,469,696.0
Forest Preserve	$ 2,426,776.0	$ 3,108,976.0	$ 22,615,811.0	$ 212,447.0	$ 28,364,010.0
CTA	$ 48,342,000.0	$ 62,788,000.0	$ 177,710,000.0	$ -	$ 288,840,000.0
Teachers'	$ 187,141,384.0	$ 203,729,011.0	$ 3,993,539.0	$ 7,202,441.0	$ 402,066,375.0
Park District	$ 10,404,827.0	$ 10,868,361.0	$ 6,542,735.0	$ -	$ 27,815,923.0
Total	**$ 689,590,174.0**	**$ 1,000,480,853.0**	**$ 2,542,097,896.0**	**$ 18,083,095.0**	**$ 4,250,252,018.0**

Source: Respective pension fund FY2012 actuarial valuations and financial statements.

[97] Investment returns are gross investment income including income from securities lending activities net of borrower rebates. **Gross investment income** does not subtract out related investment and securities lending fees, which are treated as expenses.

The following chart illustrates that while investment income has fluctuated considerably over the last ten years, aggregate employee contributions have risen slowly from approximately $612.8 million in FY2003 to $689.6 million in FY2012. Employer contributions rose from $674.9 million in FY2003 to an exceptional $2.1 billion in FY2008 due to a $1.1 billion pension obligation bond contribution from the CTA to the CTA fund, and then declined again to $1.0 billion in FY2012. Excluding the pension obligation bond proceeds, routine employer contributions for FY2008 were $975.3 million for all ten funds combined. The highest total aggregate income level was reached in FY2010 at $5.6 billion before falling to $4.3 billion in FY2012. Previously, the highest total aggregate income level was reached in FY2007 at nearly $5.5 billion, followed by the lowest total aggregate income level of approximately negative $4.4 billion in FY2008.



The aggregate revenue for the ten pension funds of nearly $4.3 billion in FY2012 was $561.5 million above the ten-year average of $3.7 billion.

Employee Contributions

Employee contributions to pension funds are generally established as percentages of salary, with some exceptions for flat dollar amount contributions for items such as death benefits in some plans. For most funds, there are separate contribution rates for regular employee pensions, survivor benefits and automatic annual increases on annuities.[98]

As shown in the following chart, in FY2012 the total employee contribution for most funds was 8.5% or 9.0%, with a high of 9.125% for firefighters. The CTA employee contribution rate was increased from 3.0% to 6.0% as of January 18, 2008. The CTA pension board now annually adopts employee and employer contribution rates sufficient to meet the provisions of Public Act 95-0708. For FY2010 and FY2011 those rates were 8.345% of payroll for employees and 10.69% for the employer.[99] The rates increased to 8.65% of payroll for employees and 11.3% for the employer for FY2012.[100] The rates increase again in FY2013 to 10.125% for employees and 14.25% for the employer.[101] It is important to recognize that the **CTA is the only government included in this report whose employees participate in Social Security**. The CTA and its employees each pay an additional 6.2% of salary to the Social Security administration.[102]

[98] The automatic annual annuity increase for Tier I retirees for most funds in FY2012 was 3% compounded. The CTA has occasionally bargained ad hoc dollar amount increases, but the CTA pension reform legislation, P.A. 95-0708, does **not** provide any annual annuity increases.

[99] The FY2011 rates are slightly higher than the actuarially calculated requirement but the CTA pension board opted to maintain the FY2010 rates rather than lower them in order to improve plan funding and reduce contribution fluctuation. Retirement Plan for CTA Employees, *January 1, 2009 Actuarial Valuation*, p. 1.

[100] Retirement Plan for CTA Employees, *Actuarial Valuation Report as of January 1, 2010*, p. 1.

[101] Retirement Plan for CTA Employees, *Actuarial Valuation Report as of January 1, 2011*, p. 14.

[102] The majority of government employers and those employees hired after March 31, 1986 each pay Medicare payroll taxes of 1.45%. See Internal Revenue Service Public 963 for further information.

Of the total 9.0% employee contribution rate for the Teachers' Fund, 7.0% has been paid by the employer since 1981.[103] The employer has also paid 7.0% of the 8.5% employee contribution to the Municipal fund for its non-teacher certified employees (see footnote 9).[104]

Employee Contribution Rates: FY2012 (% of salary)					
Fund	**Employee**	**Survivor**	**Disability**	**Automatic Annual Increase**	**Total**
Fire	7.125%	1.50%	0.125%	0.375%	9.125%
Police	7.00%	1.50%	-	0.50%	9.00%
Municipal****	6.50%	1.50%	-	0.50%	8.50%
Laborers'	6.50%	1.50%	-	0.50%	8.50%
MWRD*	7.00%	1.50%	-	0.50%	9.00%
Cook County**	6.50%	1.50%	-	0.50%	8.50%
Forest Preserve	6.50%	1.50%	-	0.50%	8.50%
CTA***	8.65%	-	-	-	8.65%
Teachers'****	7.50%	1.00%	-	0.50%	9.00%
Park District	7.00%	1.00%	-	1.00%	9.00%

Note: Table does not include any extra amounts that may be contributed for death benefits.

* Per P.A. 97-0894 MWRD employee pension contributions for Tier 1 members will increase by 1% per year beginning on January 1 in 2013, 2014 and 2015. The contribution rates will remain at a total of 12% of salary until the funded level of the pension fund has reached 90%, at which time rates will return to the current level of 9%. For more information, see the Recent Pension Reforms section of this report.

** Cook County Sheriff's employees contribute 7% for the employee contribution, for a total of 9%.

*** Effective January 18, 2008, this rate increased from 3% to 6%. The rates set by the CTA Pension Board were 8.345% in FY2010 and in FY2011 and increased to 8.65% in FY2012. Retirement Plan for CTA Employees, *January 1, 2011 Actuarial Valuation* , p. 2, *Actuarial Valuation as of January 1, 2012* , p. 6 and Actuarial Valuation as of January 1, 2013, p. 6.

**** Board of Education "picks up" 7% of the employee contribution for teachers and for non-teachers in the Chicago Municipal Fund.

Source: Respective pension fund FY2012 actuarial valuations or CAFRs and Illinois statutes.

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[103] Chicago Teachers' Pension Fund, *116th Comprehensive Annual Financial Report for the year ended June 30, 2012*, p. 109. This contribution is considered a part of the teacher's salary. The "pickup" is agreed to in collective bargaining.

[104] Information provided by Terrance Stefanski, Executive Director, Municipal Employees' Annuity and Benefit Fund of Chicago, March 18, 2009. This contribution is considered a part of the employee's salary. The "pickup" is agreed to in collective bargaining.

Employer Contributions and Annual Required Contribution (ARC)

In FY2012 for eight of the ten plans analyzed in this report, the basic employer contribution was set in state statute as a multiple of the total employee contribution made two years prior. The statute requires that the employer levy a property tax not to exceed the multiple amount.[105] Employers levy an amount that, when added to the revenue from the Personal Property Replacement Tax, equals the multiple amount.[106] As discussed beginning on page 16, most of these multiples are not automatically adjusted to meet the funding needs of the pension plans. Public Act 96-1495 will move the Police and Fire Funds off the multiple beginning in 2015 and onto a funding schedule to reach 90% funded by the end of 2040.[107] For the MWRD Fund, Park District Fund and Municipal and Laborers' Funds, legislation passed in 2012 and 2013 will link the multiple contribution made by these governments to the actuarial needs of those funds starting in tax year 2013 for the MWRD Fund and in tax year 2015 for the Park District Fund and Chicago Funds. [108]

Employer contributions to the Chicago Teachers' Fund are not based on a property tax levy or multiple. They historically consisted of a lump sum from the State of Illinois, as well as additional amounts from the State and the Chicago Board of Education when the funded ratio is below 90%. The employer contributions to the Teachers' Fund are discussed in detail on page 62.

The employer contributions to the CTA Fund are set at a percentage of payroll. In FY2007 the employer contributed 6% of payroll, an amount that was determined through collective bargaining. Beginning January 18, 2008, employer contributions were increased to 12% of payroll, less credit for debt service payments on pension obligation bonds, and the contribution rate is set in state statute (40 ILCS 5-22-101) rather than collectively bargained. The State Auditor General may mandate higher employer and employee contributions if necessary to stay at least 60% funded through 2039 and reach 90% by the end of 2059. The CTA pension board

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[105] The City of Chicago is allowed to use revenue sources other than property tax and PPRT to make the employer contribution to its pension funds. See http://www.civicfed.org/civic-federation/blog/chicago-area-governments-prohibited-improving-pension-funding-without-state-in for more details. Pursuant to Public Act 95-0891, the MWRD can make additional contributions beyond the multiple amount from interest income. The MWRD increased each of its FY2012 and FY2013 contributions to its pension fund by $30 million in interest income.

[106] The Personal Property Replacement Tax (PPRT) is a corporate income tax, established when the Illinois General Assembly abolished all ad valorem personal property taxes on corporations in 1979 pursuant to the 1970 Illinois Constitution. The State distributes PPRT revenues to local taxing districts according to a formula based partly on each district's share of personal property tax collection in 1976 or 1977.

[107] See page 7 and Appendix G of this report. 2015 payment is expected to be made during calendar year 2016.

[108] Per P.A. 97-0894 the property tax levy multiple contributed by the MWRD will increase to an amount calculated by the actuary to be sufficient to bring the total assets of the Retirement Fund up to 90% of total actuarial liabilities of the fund by 2050. Beginning with the FY2013 tax levy, and each year thereafter, the MWRD will levy a property tax annually which will be sufficient to meet this required contribution by the Fund, but will not exceed an amount equal to the total employee contributions two years prior multiplied by 4.19. The current tax levy multiple is 2.19. The new reform will increase the annual tax levy to the lesser of 4.19 times employee contributions two years prior or the required contribution calculated by the Fund's actuary. Per P.A. 98-0622 the property tax levy multiple contributed by the Chicago Park District will increase from 1.0 times the contribution made by employees two years prior on a five-year ramp starting in FY2015 to a maximum of 2.9 times employee contributions two years prior in FY2019 and thereafter until the fund is 90% funded. Public Act 98-0641 will move the Municipal and Laborers' Funds onto a five-year ramp and then annual actuarially calculated payments on a funding plan to get to 90% funding in 40 years. The ramp starts in 2015.

now annually adopts employee and employer contribution rates sufficient to meet the provisions of Public Act 95-0708. The employer rate for FY2012 was 11.3% of payroll.[109] This amount is net of a credit for debt service payment equivalent to 6% of payroll for FY2012. The CTA must also make a 6.2% of payroll employer contribution to Social Security.[110]

[109] Retirement Plan for CTA Employees, *Actuarial Valuation Report as of January 1, 2009*, p. 1.
[110] Retirement Plan for CTA Employees, *Actuarial Valuation Report as of January 1, 2013*, p. 4.

The following table lists the basic fund multiples and other employer contribution levels for FY2012, not including special additions or subtractions specified in statute.

Employer Contribution Rates: FY2012			
Fund	**Statute**	**Statutory Rate***	**Actual Employer Contribution as % of Payroll**
Fire	40 ILCS 5/6-165	2.26 multiple	20.1%
Police	40 ILCS 5/5-168	2.00 multiple	20.4%
Municipal**	40 ILCS 5/8-173	1.25 multiple	10.0%
Laborers'**	40 ILCS 5/11-169	1.00 multiple	7.3%
MWRD***	40 ILCS 5/13-503	2.19 multiple, excluding employee contributions to optional additional benefits made after January 1, 2003, which are multiplied by 1.00	39.7%
Cook County	40 ILCS 5/9-169	1.54 multiple	12.9%
Forest Preserve	40 ILCS 5/10-107	1.30 multiple	11.8%
CTA	40 ILCS 5/22-101	11.3% of payroll, net of credit for pension obligation bond debt service payments	11.4%
Teachers'	40 ILCS 5/17-127 and 40 ILCS 5/17-129	State intends to pay amount equal to 20-30% of the contribution made to TRS.† State pays an additional amount equal to 0.544% of total teacher payroll, unless Fund was 90% or more funded (actuarial value) in the previous fiscal year. Beginning in 1999, the employer contributes an amount equal to 0.58% of each teacher's salary to offset a portion of costs associated with P.A. 90-582, unless Fund was 90% or more funded (actuarial) in the previous fiscal year. When the Fund is less than 90% funded, the employer is also required to contribute an additional amount sufficient to bring the ratio to 90% by the year 2045. P.A. 96-0889 reduces the required contribution significantly for FY2011, FY2012 and FY2013.	9.6%
Park District‡	40 ILCS 5/12-149	1.10 multiple	9.5%

* "Multiple" means multiple of total employee contribution made two years prior.

** Per P.A. 98-0641, starting in 2016 the multiple the City of Chicago contributes to the Municipal and Laborers' pension funds will increase over five years. Starting in 2021, the contribution will be an amount that will increase the funding ratio of each fund to 90% by the end of 2055.

*** Per P.A. 97-0894 the property tax levy multiple contributed by the MWRD will increase to an amount calculated by the actuary to be sufficient to bring the total assets of the Retirement Fund up to 90% of total actuarial liabilities of the fund by 2050. Beginning with the FY2013 tax levy, and each year thereafter, the MWRD will levy a property tax annually which will be sufficient to meet this required contribution by the Fund, but will not exceeed an amount equal to the total employee contributions two years prior multipled by 4.19. The current tax levy multiple is 2.19. The new reform will increase the annual tax levy to the lesser of 4.19 times employee contributions two year prior or the required contribution calculated by the Fund's actuary. For more information, see the Recent Pension Reforms section of this report.

† The State contribution has not kept pace with this 20-30% of TRS contribution guideline. See section below on Chicago Teachers' Retirement Fund employer contribution requirements.

‡ Per P.A. 98-0622, starting in 2015 the multiple the Park District contributes to the pension fund will increase on a phased-in basis until the contribution hits 2.90 in 2019. The District is also required to make additional contributions over three years totalling $75 million.

These multiples are fixed and the employer is not permitted to reduce its contribution unless the funded ratio reaches 100%.[111] There are sometimes exceptions to this rule, which must be

[111] State statutes allow the City of Chicago to suspend employer contributions to the Municipal and Laborers' Funds when they are over 100% funded. See 40 ILCS 5/8-189.4 and 40 ILCS 5/11-178.4.

approved by the General Assembly. For example, Public Act 93-0654 allowed the Chicago Park District to reduce its employer contribution by $5 million in each of calendar years 2004 and 2005, although the District was not required to reduce its property tax levy equivalently. This created roughly a 50% reduction in the employer contributions for the Park District fund in FY2005 and FY2006. This is referred to as a partial pension holiday.

Occasionally there are legislated requirements for additional employer contributions. For example, Public Act 90-766 required the City of Chicago to make additional contributions to the Fire and Police Funds for FY1999-FY2013 in order to reduce their unfunded liabilities. However, Public Act 93-0654 rescinded that requirement for FY2004-FY2013.

GASB Statements 25 and 27 require that the plans calculate an annual required employer contribution (ARC) that must be reported in the plan's annual financial statements. The ARC is equal to the sum of (1) the employer's "normal cost" of retirement benefits earned by employees in the current year and (2) the amount needed to amortize any existing unfunded accrued liability over a period of not more than 30 years.[112] In other words, the ARC represents a reasonable calculation of the amount of money the employer might contribute each year in order to cover costs attributable to the current year and to reduce unfunded liabilities. It is expressed net of employee contributions. Although the GASB does not require funding at the level of the ARC, it does require that plans report on how their actual contribution levels compare to the ARC.[113]

The GASB permits the amortization of the unfunded liability to be calculated either as **a level dollar amount or as a level percent of payroll**.[114] A level dollar amount amortization represents a declining burden over time because as payroll increases in the future, the level amortization amount equals a smaller percent of payroll. In contrast, a level percent of payroll amortization has the effect of "back-loading" the amortization payments because as payroll increases, so does the dollar amount of the amortization. This method actually allows the unfunded liability to grow if the unfunded liability is amortized on an open, rolling basis. It is not an acceptable amortization method for private sector companies governed by the federal Employee Retirement Income Security Act (ERISA), but is a very common method for public pension plans.

[112] See Civic Federation, "Pension Fund Actuarially Required Contributions (ARC): A Civic Federation Issue Brief," February 14, 2007 at http://www.civicfed.org/articles/civicfed_241.pdf.
[113] GASB sets accounting standards and has no authority over funding levels. GASB Statements No. 67 and 68 will end the required reporting of an ARC when they are implemented for public pension funds and governments.
[114] See Governmental Accounting Standards Board Statement No. 25, paragraph 36(f).

The actuarial valuation for the Municipal Fund provides an illustration of the differences in amortizing at a level dollar amount, level percent of payroll and simply paying interest on the unfunded liability to keep it from growing, as shown below. With level dollar amount amortization, the unfunded liability will decrease; paying normal cost plus interest on the unfunded liability will keep the unfunded liability constant; and level percent of payroll amortization will allow the unfunded liability to increase on an open amortization basis.

Illustration of Different Unfunded Liability Amortization Methods for the Municipal Pension Fund				
Method	**Required 2013 Tax Levy**	**Required Multiple**	**Unfunded Liability Will…**	**Amount Applicable to Unfunded Liability**
Normal Cost Plus 30-Year Level Dollar Amortization	N/A	6.41	Decrease	$ 671,301,130
Normal Cost Plus Interest on Unfunded Liability	N/A	5.79	Remain Constant	$ 593,169,656
Normal Cost Plus 30-Year Level % of Payroll Amortization	N/A	4.45	Increase	$ 440,321,883
Current Law	$162,743,400	1.25		

Source: Municipal Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation for the year ending December 31, 2012* , p. 56.

Some actuarial valuations express the ARC as a multiple and compare it to the statutory multiple. For example, the Fire Fund's actuaries calculated that the ARC expressed in terms of an annually required employer multiple for FY2012 is 7.47, as compared to the statutory 2.26.[115] The prior year's gap between the Fire Fund's ARC multiple and the statutory multiple resulted in a $168.4 million increase in the plan's unfunded liability for FY2012.[116] As noted in the table below, the Police, MWRD and Park District Funds choose to use the level percent of payroll amortization method, so their annually required multiples are smaller than they would be if calculated as normal cost plus interest or as a level dollar amount amortization. An open amortization period remains the same every year (e.g., each valuation amortizes UAAL over 30 years), while a closed amortization period declines as each year passes (e.g., successive valuations amortize at 30 years, 29 years, 28 years, etc.). Using a closed amortization methodology will pay down the unfunded liability by the end of the amortization period. Using an open amortization methodology will never completely pay down the unfunded liability since each year the amortization period remains the same, although the annual amortization payment will decrease if there are no additions to the unfunded liability due to plan amendments or actuarial losses.

FY2013 Statutory Multiple for Employer Contribution vs. Annual Required Multiple

	Unfunded Actuarial Accrued Liability Amortization Method	Annual Required Multiple (Normal Cost + UAAL Amortization)	Statutory Multiple
Fire	level dollar, open	6.52	2.26
Police*	level % of payroll, open	5.25	2.00
Municipal	level dollar, open	6.41	1.25
Laborers'	level dollar, open	7.48	1.00
MWRD**	level % of payroll, open	4.97	4.19
Cook County	level dollar, open	5.82	1.54
Forest Preserve	level dollar, open	6.33	1.30
Park District	level % of payroll, open	4.46	1.10

* Police Fund also computes that the FY2013 annual required multiple using a level dollar amortization would be 7.43. See Policemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report as of December 31, 2012* , p. 18.

** The MWRD statutory multiple falls short of both the ARC and the actuarially calculated contribution to get to 90% funded in 38 years. The required multiple for the statutory funding plan enacted in 2012 would have been 4.58 if it were not limited within the statute. Both multiple numbers calculated from data provided in *Metropolitan Water Reclamation District Retirement Fund December 31, 2012 Actuarial Report,* pp. 9 and 11.

Source: Respective pension fund FY2012 actuarial valuations or CAFRs.

GASB Statements 25 and 43 require separate calculation of the employer's actuarially calculated annual required contributions (ARC) for pensions and OPEB. The following table shows the FY2012 pension ARC for each of the ten funds examined in this report, as reported in the financial statements per GASB Statement 25. The aggregate employer ARC for the ten funds was nearly $2.8 billion, while actual employer contributions were only $872.5 million, resulting in a shortfall of approximately $1.9 billion for FY2012. None of the employers contributed 100%

[115] The 7.47 multiple is based on the actuary's calculation of normal cost plus amortization of the unfunded liability over 30 years at a level dollar amount. ARC multiples are computed for the subsequent year, such that the FY2011 actuarial valuation provides the FY2012 actuarial multiple. Firemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2011*, p. 14.

[116] Firemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2012*, p. 14.

of the employer ARC, and only one fund, the MWRD Retirement Fund, contributed more than 50% of the ARC in FY2012.

The table below also presents ARC as a percent of payroll in order to provide a sense of scale and affordability. As a percent of payroll, the pension ARC for the Fire Fund is the highest of the ten at 64.8% of payroll. In other words, the City should have contributed an amount equal to 64.8% of current firefighters' pay to the Fire Fund in FY2012 in order to cover the normal costs attributable to that year and to amortize unfunded liabilities (using a 30-year open amortization period and level dollar method in the case of the Fire Fund). The aggregate ARC for the ten funds was 36.4% of payroll. Actual employer contributions were 11.4% of payroll, or one-third of the aggregate ARC.

Ten Local Government Pension Funds
Schedule of Employer Contributions for Pension Benefits: FY2012
PENSION ONLY

Fund	Employer Annual Required Contribution (1)	Actual Employer Contribution (2)	Shortfall (1-2)	% of ARC Contributed	Payroll	ARC as % of Payroll	Actual Employer Contribution as % of Payroll
Fire	$ 271,505,718	$ 81,521,883	$ 189,983,835	30.0%	$ 418,964,763	64.8%	19.5%
Police	$ 431,010,173	$ 197,885,552	$ 233,124,621	45.9%	$ 1,015,170,686	42.5%	19.5%
Municipal*	$ 690,822,553	$ 148,858,655	$ 541,963,898	21.5%	$ 1,590,793,702	43.4%	9.4%
Laborers'	$ 77,566,394	$ 11,852,905	$ 65,713,489	15.3%	$ 198,789,741	39.0%	6.0%
MWRD	$ 74,828,844	$ 65,097,835	$ 9,731,009	87.0%	$ 163,816,934	45.7%	39.7%
Cook County	$ 540,218,287	$ 152,734,539	$ 387,483,748	28.3%	$ 1,478,253,368	36.5%	10.3%
Forest Preserve	$ 9,608,247	$ 2,117,976	$ 7,490,271	22.0%	$ 26,252,071	36.6%	8.1%
CTA**	$ 155,600,474	$ 62,788,000	$ 92,812,474	40.4%	$ 548,515,157	28.4%	11.4%
Teachers'	$ 510,101,466	$ 138,729,011	$ 371,372,455	27.2%	$ 2,118,235,482	24.1%	6.5%
Park District	$ 28,051,528	$ 10,868,361	$ 17,183,167	38.7%	$ 114,223,909	24.6%	9.5%
Total	**$ 2,789,313,684**	**$ 872,454,717**	**$ 1,916,858,967**	**31.3%**	**$ 7,673,015,813**	**36.4%**	**11.4%**

* A dollar amount actual employer contribution is not disclosed in the Schedule of Employer Contributions for 2004 and prior years for this fund so one was computed from the % of ARC contributed for those years.

** Actual employer contribution is taken from the Actuarial Valuation because the employer contribution is combined with the employee contribution in the financial statements.

Source: Financial Reports of the pension funds. ARC and % of ARC are taken from the GASB 25 Schedule of Employer Contributions provided in the financial statements and actuarial valuations.

The table below shows the OPEB ARC for seven of the ten funds analyzed in this report as reported for GASB Statement 43. The MWRD, CTA and Park District do not provide OPEB through their pension funds so they have no GASB 43 liabilities to report in the pension fund financial statements. As discussed on page 5, the Teachers' Fund does not consider its $65 million of retiree healthcare payments to constitute a long-term obligation, but GASB Statement 43 requires that it calculate the OPEB liability so the ARC associated with that liability is shown in this chart. Overall, the combined employers' annual required OPEB contribution for FY2012 totaled $411.5 million, while the total actual employer contribution for FY2012 was only $128.4 million.

Schedule of Employer Contributions for OPEB: FY2012 OPEB ONLY							
Fund	Employer Annual Required Contribution (1)	Actual Employer Contribution (2)	Shortfall (1-2)	% of ARC Contributed	Payroll	ARC as % of Payroll	Actual Employer Contribution as % of Payroll
Fire	$ 4,275,669	$ 2,622,445	$ 1,653,224	61.3%	$ 418,964,763	1.0%	0.6%
Police	$ 10,473,478	$ 9,765,686	$ 707,792	93.2%	$ 1,015,170,686	1.0%	1.0%
Municipal*	$ 14,631,863	$ 9,522,054	$ 5,109,809	65.1%	$ 1,590,793,702	0.9%	0.6%
Laborers'	$ 3,070,025	$ 2,561,930	$ 508,095	83.4%	$ 198,789,741	1.5%	1.3%
MWRD	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cook County	$ 156,700,388	$ 37,986,237	$ 118,714,151	24.2%	$ 1,478,253,368	10.6%	2.6%
Forest Preserve	$ 3,541,064	$ 991,000	$ 2,550,064	28.0%	$ 26,252,071	13.5%	3.8%
CTA**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Teachers'	$ 218,842,221	$ 65,000,000	$ 153,842,221	29.7%	$ 2,118,235,482	10.3%	3.1%
Park District	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	**$ 411,534,708**	**$ 128,449,352**	**$ 283,085,356**	**31.2%**	**$ 6,846,459,813**	**6.0%**	**1.9%**

* A dollar amount actual employer contribution was not disclosed in the Schedule of Employer Contributions for this fund so one was computed from the % of ARC contributed.

Source: Financial Reports of the pension funds. ARC and % of ARC are taken from the GASB 25 Schedule of Employer Contributions provided in the financial statements and actuarial valuations.

As noted on page 46, the City of Chicago reports its portion of OPEB liabilities and annual required employer contributions separately from that portion of retiree healthcare premiums subsidized by the four City pension funds. The following table shows the combined pension fund and City OPEB employer ARC of approximately $285.2 million for FY2012, of which $140.4 million, or 49.2%, was actually contributed.

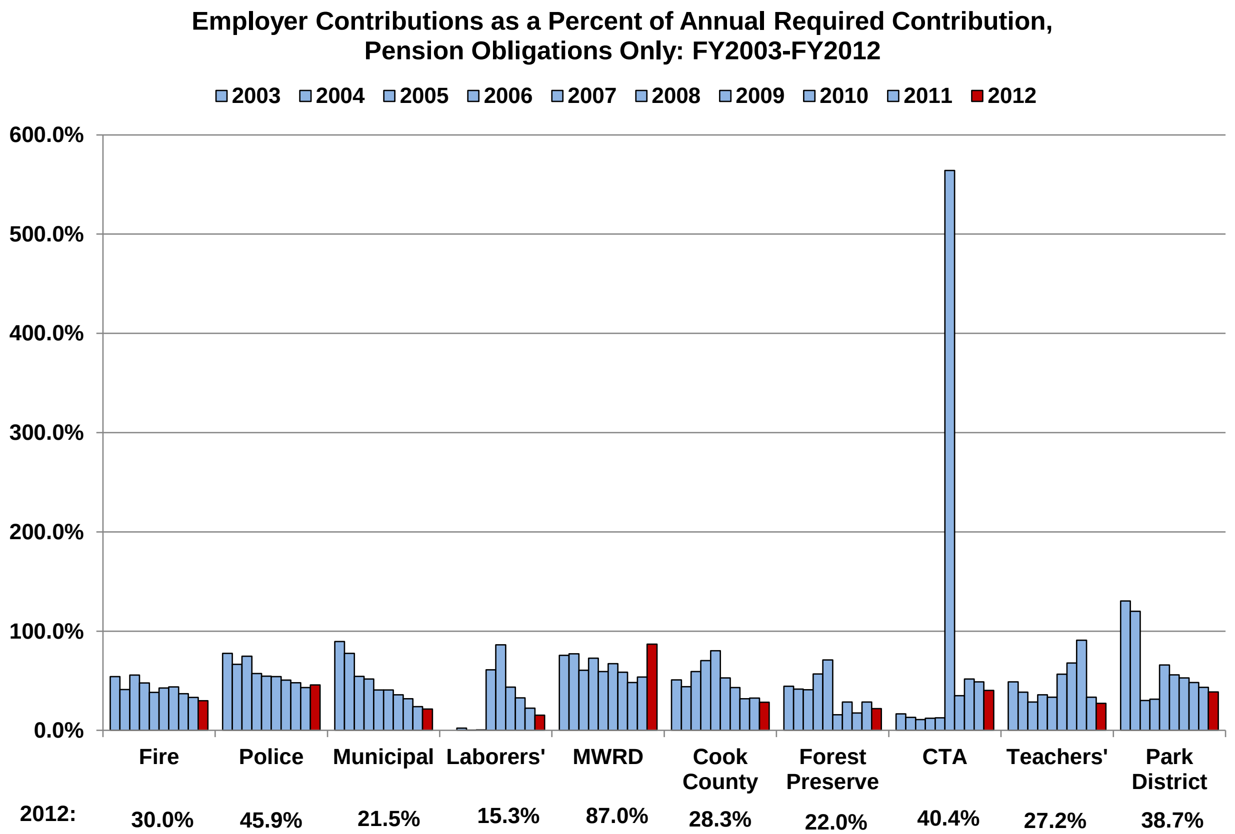
City of Chicago Total OPEB Schedule of Employer Contributions: FY2012							
	Employer Annual Required Contribution (1)	Actual Employer Contribution (2)	Shortfall (1-2)	% of ARC Contributed	Payroll	ARC as % of Payroll	Actual Employer Contribution as % of Payroll
Pension Fund Obligations	$ 32,451,035	$ 24,472,115	$ 7,978,920	75.4%	$ 3,223,718,892	1.0%	0.8%
City Obligations	$ 252,747,000	$ 115,961,000	$ 136,786,000	45.9%	$ 3,223,718,892	7.8%	3.6%
Total	**$ 285,198,035**	**$ 140,433,115**	**$ 144,764,920**	**49.2%**	**$ 3,223,718,892**	**8.8%**	**4.4%**

Source: Financial reports and actuarial valuations of the pension funds (GASB 43 Schedule of Employer Contributions) and City of Chicago FY2012 Comprehensive Annual Financial Report, p. 85 and 88.

The FY2012 combined ARC for the four City of Chicago funds including all pension and OPEB is nearly $1.8 billion, or 54.5% of covered payroll.

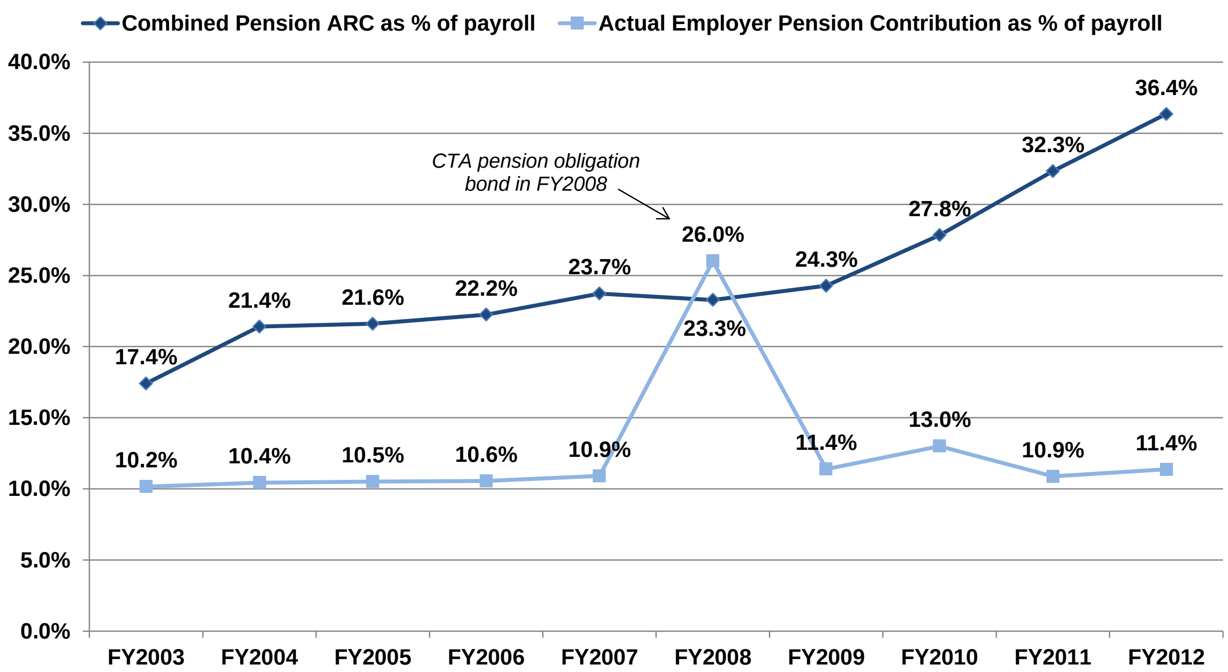
The following graphs illustrate the employer contribution as a percent of the actuarially calculated ARC for each fund's pension obligations (not including OPEB) from FY2003 to FY2012. With the exceptions of the CTA and Park District Funds, no fund received the full actuarially calculated ARC during any of the last ten years (the Laborers' Fund did not have an ARC for several years while it was over 100% funded). The CTA received less than one-third of the employer ARC during most of this period. However, due to the one-time infusion of $1.1 billion in pension obligation bond proceeds, its contribution for FY2008 greatly exceeded its annually required contribution. The Park District received well over the ARC for several years until the employer cut its contribution in half for FY2005 and FY2006 (see page 17).

The total cumulative employer shortfall for pension liabilities alone from FY2003 to FY2012 was $9.2 billion.



Note: These figures do not include OPEB obligations. The Laborers Fund had no pension ARC for several years when it was over 100% funded.
Source: Schedule of Employer Contributions as computed for GASB Statement 25 for each fund, reported in fund Actuarial Valuations and Financial Statements.

The following graph illustrates the gap between the combined pension ARC of the ten funds as a percent of payroll and the actual employer contribution as a percent of payroll from FY2003-FY2012. The aggregate pension ARC has exceeded the aggregate employer contribution for nine of the last ten years, with the exception of FY2008 when the CTA pension fund received an exceptional infusion of $1.1 billion in pension obligation bond proceeds. The spread between the two amounts has grown from a 7.3% of payroll gap in FY2003 to a 25.0% of payroll gap in FY2012. In other words, to fund the pension plans at a level that would both cover the normal cost and amortize the unfunded liabilities over 30 years, the employers would have needed to contribute an additional 25.0% of payroll, or $1.9 billion, in FY2012.



Ten Pension Funds Combined
Annual Required Contribution vs. Actual Employer Contribution: FY2003-FY2012
(Pension Obligation Only, Calculated According to Governmental Accounting Standards Board Statement 25)

Note: Beginning in FY2005 and FY2006 for some funds, the ARC for the portion of OPEB paid for by the pension funds was calculated separately from the pension ARC. This graph shows only the pension ARC after FY2005 (FY2006 for some funds). The OPEB ARC for the pension funds would add roughly 6.2% of payroll and the actual employer contribution was roughly 1.9% of payroll.

Chicago Teachers' Retirement Fund Employer Contribution Requirements

The structure of employer contributions for the Public School Teachers' Pension and Retirement Fund of Chicago is much more complex than those of the other funds in this report. The state statutes governing the Teachers' Fund require employer contributions when the fund falls below a 90% funded ratio. As described on the following pages, relatively small amounts are required from the State and from Chicago Public Schools (CPS) pursuant to benefit enhancements enacted in Public Act 90-0582. Much larger contributions are required by CPS pursuant to Public Act 89-0015 and Public Act 96-0889 in order to bring the fund up to a 90% funded ratio over a 50-year period. However, Public Act 96-0889 also granted a three-year partial pension contribution holiday to CPS and changed the funding schedule as described below.

State Employer Contribution: The State of Illinois had traditionally contributed roughly $65 million each year to the Teachers' Fund pursuant to 40 ILCS 5/17-127 which declares the General Assembly's "goal and intention" to contribute an amount equivalent to 20% or 30% of the contribution it makes to the downstate Teachers' Retirement System.[117] However, the $65 million contribution is actually much less than the 20% or 30% intention stated in the statute. The State's enacted FY2010 budget reduced the usual $65 million appropriation by 50% to $32.5 million.[118] For FY2011 the State appropriated $32.5 million for the Teachers' Fund, but designated it specifically for retiree healthcare costs paid out of the fund, so the amount is not considered as part of the employer contribution in the calculation shown on the next page.[119] There was no State contribution other than the additional state contribution described below in FY2012, FY2013 or FY2014.[120]

Additional State Contribution: The State was required to make additional contributions in FY2012 of 0.544% of teacher payroll to the Teachers' Fund to offset a portion of the cost of benefit increases enacted under Public Act 90-0582. No additional contributions are required if the funded ratio is at least 90%. The required additional State contribution was $11.0 million for FY2012.[121]

Additional CPS Contribution: CPS must make additional contributions of 0.58% of teacher payroll to offset a portion of the cost of benefit increases enacted under Public Act 90-0582. No additional contributions are required if the funded ratio is at least 90%. The required additional CPS contribution for FY2012 is approximately $11.7 million.[122]

CPS Required Contribution: Under the funding plan established by Public Act 89-0015, the minimum contribution to the Teachers' Fund was an amount needed to bring the total assets of the fund up to 90% of the total actuarial liabilities by the end of FY2045. The required CPS contribution was calculated as a level percentage of payroll over the years through FY2045. The calculation for determining the CPS required contribution was the total amount of the employer contribution less additional state appropriations, additional CPS appropriations and other employer appropriations.[123] The funding schedule established in Public Act 89-0015 was changed by Public Act 96-0889, enacted in April 2010. The new law reduces CPS' required employer pension contribution for FY2011, FY2012 and FY2013 to an amount estimated to be equivalent to the employer's normal cost.[124] It also delays the year that the pension fund must reach a 90% funded ratio from 2045 through the end of 2059.

Prior to the passage of Public Act 96-0889, the CPS Required Contribution for FY2011 was calculated to be $586.9 million, or almost double the FY2010 amount. Public Act 96-0889 reduced CPS' required FY2011 contribution to approximately $187.0 million, which was

[117] The downstate Teachers' Retirement System covers all public school teachers in Illinois except those in the Chicago Public Schools.
[118] Chicago Public Schools, *Comprehensive Annual Financial Report for the year ended June 30, 2010,* p. 12.
[119] Information provided by the CPS budget office, August 17, 2010.
[120] Chicago Public Schools FY2015 Proposed Budget, p. 147.
[121] Chicago Teachers' Pension Fund Comprehensive Annual Financial Reports, FY2009, p. 75-76; FY2010, p. 80; and FY2011, p. 84.
[122] Chicago Teachers' Pension Fund Comprehensive Annual Financial Reports, FY2010, p. 81 and FY2011, p. 85.
[123] This annual required contribution must be calculated by February 28 each year, per 40 ILCS 5/17-129.
[124] "Normal cost" is an actuarially-calculated amount representing that portion of the present value of pension plan benefits and administrative expenses which is allocated to a given valuation year.

approximately $158 million, or 84.5%, less than the prior year contribution.[125] The table below shows the required employer contributions for FY2009-FY2013. The CPS Required Contribution for FY2012 was $192.0 million and the FY2013 contribution was $196.0 million.[126]

	Calculation of Required Employer Contributions to Teachers' Pension Fund FY2010-FY2015							
		FY2010	**FY2011**	**FY2011**	**FY2012**	**FY2013**	**FY2014**	**FY2015**
			before P.A. 96-0889	**after P.A. 96-0889**				
1	**Total Required Employer Contribution**	**$393,266,000**	**$608,492,000**	**$208,600,000**	**$214,700,000**	**$218,600,000**	**$624,603,000**	**$708,667,000**
2	State Employer Contribution*	$ 32,522,400	-	-	-	-		$ 50,000,000
3	Additional State Contribution (P.A. 90-582)*	$ 5,029,000	$ 10,449,000	$ 10,449,000	$ 11,001,000	$ 10,931,000	$ 11,903,000	$ 12,145,000
4	Additional CPS Contribution (P.A. 90-582)	$ 10,723,000	$ 11,140,000	$ 11,140,000	$ 11,729,000	$ 11,654,000	$ 12,691,000	$ 12,948,000
5	Other Employer Contributions**	-	-	-	-	-	-	$ -
	CPS Required Contribution (1-2-3-4-5) Per 40 ILCS 5/17-129	**$344,991,600**	**$586,903,000**	**$187,000,000**	**$192,000,000**	**$196,000,000**	**$600,009,000**	**$633,574,000**

*At the time that the FY2010 required contribution was calculated, the State employer contribution was expected to be $65 million, and the Additional State Contribution was expected to be $10.1 million. These were the amounts used by the actuary to calculate the final CPS Required Contribution. The FY2010 enacted State Budget ultimately appropriated only $32.5 million for the State Employer Contribution and $5.0 million for the Additional State Contribution. State of Illinois FY2011 Budget, p. 5-8.

**Until FY2009, the Other category included pension funds from federal funds. These monies were applied to the CPS Required Contribution in FY2009 and FY2010.

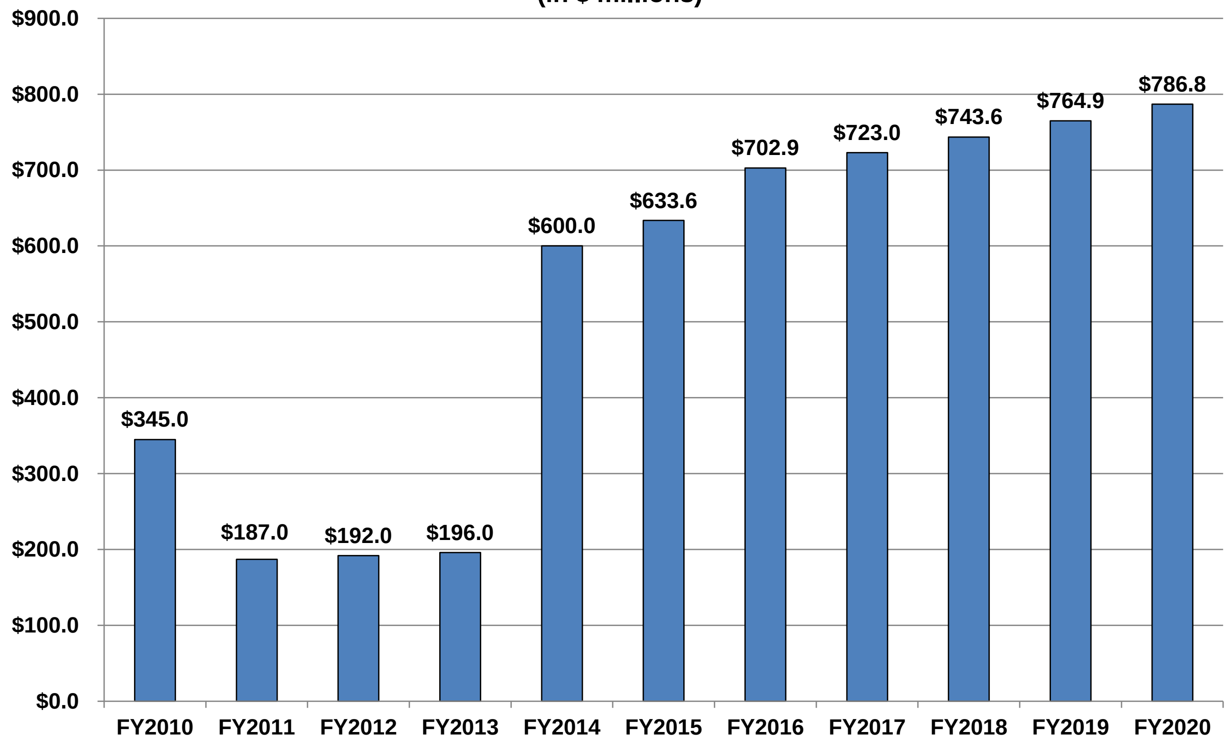
Source: Chicago Public Schools FY2015 and FY2014 Proposed Budgets, p. 147 and 143; Chicago Teachers' Pension Fund Comprehensive Annual Financial Reports, FY2009, p. 75-76; FY2010, p. 80-81; FY2011, p. 84-85; Public School Teachers' Pension and Retirement Fund of Chicago Actuarial Valuations, FY2010, p. 16, FY2011, p. 15, FY2012, p. iii, FY2013, p. iv; Illinois State FY2012 Budget, Chapter 6-8; Illinois State FY2013 Budget, Chapter 5-246; and actuarial projections by Goldstein & Associates for Kevin Huber, Executive Director of the Public School Teachers' Pension and Retirement Fund of Chicago, March 31, 2010.

125 Actuarial projection by Goldstein & Associates for Kevin Huber, Executive Director of the Public School Teachers' Pension and Retirement Fund of Chicago, March 31, 2010. See also Illinois Commission on Government Forecasting and Accountability, *Illinois Public Retirement Systems: A Report on the Financial Condition of the Chicago, Cook County and Illinois Municipal Retirement Fund Systems of Illinois*, November 2010, p. 119.

126 Public School Teachers' Pension and Retirement Fund of Chicago, *Statutorily Required Funding Valuation as of June 30, 2012*, p. 25 and Chicago Public Schools FY2015 Proposed Budget, p. 147.

The exhibit below shows actuarial projections of required CPS contributions to the Teachers' Pension Fund from FY2010 to FY2020 based on P.A. 96-0889. This exhibit does not include extra amounts contributed for benefit enhancements. As noted above, the FY2011, FY2012 and FY2013 amounts were fixed in State statute, but in FY2014 the required contribution was actuarially determined as the schedule to reach 90% funded by the end of 2059 began. The FY2014 contribution tripled from the previous year, growing by $404.0 million from $196.0 million in FY2013 to $600.0 million in FY2014.

CPS Required Contributions to Teachers' Pension Fund Per P.A. 96-0889: FY2010-FY2020 (in $ millions)



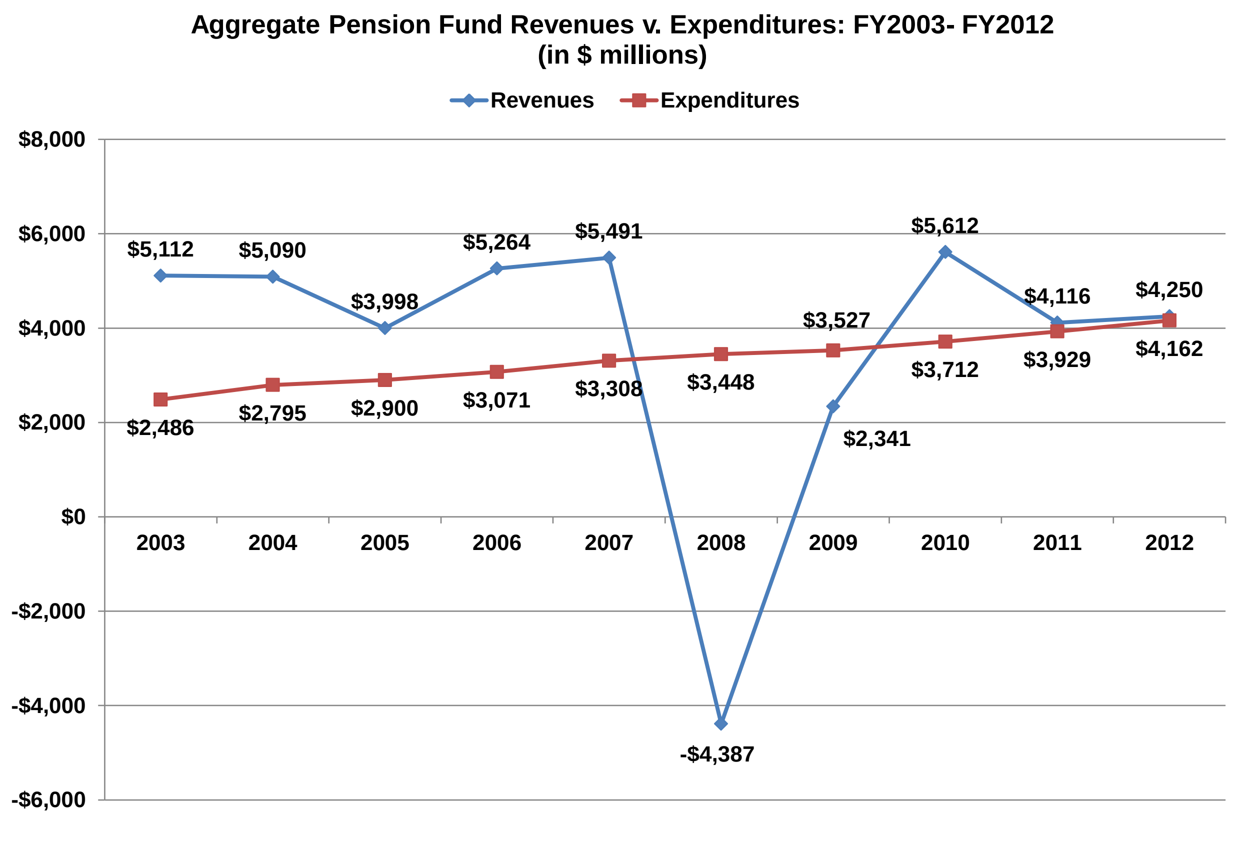
Source: Chicago Public Schools FY2015 Proposed Budget, p. 147; Public School Teachers' Pension and Retirement Fund of Chicago, *Statutorily Required Funding Valuation as of June 30, 2013*, p. 25; *Actuarial Valuation as of June 30, 2012*, p. 25; *Actuarial Valuation as of June 30, 2011*, p. 16; *Actuarial Valuation as of June 30, 2011*, p. 15; and Public Act 96-0889.

The required CPS contributions under Public Act 96-0889 will rise from $192.0 million in FY2012 to $786.8 million in FY2020 and the additional CPS contributions for Public Act 90-0582 are projected to increase from $11.7 million to $14.9 million over the same period.[127]

[127] Public School Teachers' Pension and Retirement Fund of Chicago, *Actuarial Valuation as of June 30, 2013*, p. 25.

Expenditures

In contrast to fluctuating revenues, aggregate pension fund expenditures have grown steadily by an average of 6.1% annually between FY2003 and FY2012. The following graph illustrates the ten-year trend of aggregate revenues and expenditures. As described on page 41, seven of the ten funds also provide a subsidy for retiree health insurance payments. Other types of expenses include refund payments, administrative expenses and investment costs.



Source: Respective pension funds' annual financial reports, FY2003-FY2012.

The funds' primary expenditures are for pension benefit payments, which constituted on average 87.3% of the ten funds' aggregate expenditures between FY2003 and FY2012. Pension benefit expenditures increased by 76.4% since 2003, from $2.1 billion in FY2003 to $3.7 billion in FY2012.

The following two tables show fund expenditures by type and as a percent of total expenditures in FY2012. Total expenditures for all funds were $4.2 billion, of which 89.4% was for pension benefit payments and 3.3% was for retiree health insurance.

Expenditures by Type: FY2012

Fund Name	Pension Benefit Payments	Health Insurance Payments	Refund Payments*	Other Expenses	Administrative Expenses	Investment Costs	Total Expenditures
Fire	$ 228,585,731	$ 2,622,445	$ 2,631,674	$ 520,173	$ 3,063,965	$ 6,550,136	$ 243,974,124
Police	$ 592,999,346	$ 9,756,686	$ 11,150,565	$ -	$ 4,888,486	$ 9,529,333	$ 628,324,416
Municipal	$ 695,152,356	$ 9,522,054	$ 36,908,784	$ -	$ 6,841,486	$ 25,803,472	$ 774,228,152
Laborers'	$ 137,058,112	$ 2,561,930	$ 2,594,960	$ -	$ 4,745,519	$ 9,058,632	$ 156,019,153
MWRD	$ 122,713,908	$ -	$ 1,195,737	$ -	$ 1,296,826	$ 4,989,139	$ 130,195,610
Cook County	$ 519,127,409	$ 43,964,717	$ 33,081,726	$ -	$ 4,303,353	$ 20,300,113	$ 620,777,318
Forest Preserve	$ 12,962,772	$ 1,197,385	$ 1,188,639	$ 205,887	$ 111,662	$ 405,956	$ 16,072,301
CTA	$ 232,433,000	$ -	$ 4,022,000	$ -	$ 2,275,000	$ 9,517,000	$ 248,247,000
Teachers'	$ 1,117,209,128	$ 69,011,323	$ 36,294,636	$ -	$ 10,120,434	$ 42,076,606	$ 1,274,712,127
Park District	$ 63,514,505	$ -	$ 1,988,153	$ -	$ 1,644,603	$ 2,681,562	$ 69,828,823
Total	**$ 3,721,756,267**	**$ 138,636,540**	**$ 131,056,874**	**$ 726,060**	**$ 39,291,334**	**$ 130,911,949**	**$ 4,162,379,024**

*Generally speaking, upon separation of service, an employee is entitled to receive a refund of his or her contributions and contributions made on his or her behalf. Terms vary based on government.

Note: Investment costs include investment fees and securities lending bank fees.

Source: Respective pension funds' FY2012 annual financial reports.

Expenditures by Type as a Percentage of Total: FY2012

Fund Name	Pension Benefit Payments	Health Insurance Payments	Refund Payments*	Other Expenses	Administrative Expenses	Investment Costs	Total Expenditures
Fire	93.7%	1.1%	1.1%	0.2%	1.3%	2.7%	100.0%
Police	94.4%	1.6%	1.8%	0.0%	0.8%	1.5%	100.0%
Municipal	89.8%	1.2%	4.8%	0.0%	0.9%	3.3%	100.0%
Laborers'	87.8%	1.6%	1.7%	0.0%	3.0%	5.8%	100.0%
MWRD	94.3%	0.0%	0.9%	0.0%	1.0%	3.8%	100.0%
Cook County	83.6%	7.1%	5.3%	0.0%	0.7%	3.3%	100.0%
Forest Preserve	80.7%	7.4%	7.4%	1.3%	0.7%	2.5%	100.0%
CTA	93.6%	0.0%	1.6%	0.0%	0.9%	3.8%	100.0%
Teachers'	87.6%	5.4%	2.8%	0.0%	0.8%	3.3%	100.0%
Park District	91.0%	0.0%	2.8%	0.0%	2.4%	3.8%	100.0%
Total	**89.4%**	**3.3%**	**3.1%**	**0.0%**	**0.9%**	**3.1%**	**100.0%**

*Generally speaking, upon separation of service, an employee is entitled to receive a refund of his or her contributions and contributions made on his or her behalf. Terms vary based on government.

Note: Investment costs include investment fees and securities lending bank fees.

Source: Respective pension funds' FY2012 annual financial reports.

APPENDIX A: GLOSSARY

Actuarial Value of Assets: Under Government Accounting Standards Board (GASB) Statement No. 25, assets of public pension plans may be reported based on their smoothed or market value. The smoothed value typically reduces the effects of short-term market volatility by recognizing deviations from expected returns over a period of three to five years.[128] For example, one smoothing technique recognizes 20% of the difference between the expected (based on the assumed rate of return) and actual investment returns for each of the previous five years.

Annual Required Contribution (ARC): The sum of (1) the employer's normal cost of retirement benefits earned by employees in the current year and (2) the amount needed to amortize any existing unfunded accrued liability over a period of not more than 30 years. ARC is a concept created and defined by the Governmental Accounting Standards Board.

Defined Benefit Plan: A type of pension plan. In defined benefit plans, employers and employees annually contribute fixed amounts to investments intended to cover future benefit payments. Upon retirement, the employee receives an annuity based upon his or her highest salary (usually based on an average of several years) and length of service. If the amounts contributed to the plan over the term of the employee's employment (plus accrued earnings) are insufficient to support the benefits (including health and survivor's benefits), the former employer is required to pay the difference.

Defined Contribution Plan: A type of pension plan. In a defined contribution plan, the employee and the employer contribute fixed amounts. Upon retirement, the employee receives an annuity and interest based upon the amount contributed to the plan over the term of his or her employment. Once the employee retires, the employer has no further liability to the employee (except, perhaps, for ancillary health benefits). Historically, defined benefit plans were the most common type of plan, but changes in tax laws encouraged numerous conversions in the private sector to defined contribution plans. Two common examples of defined contribution plans are 401(k) and 403(b) plans, named after the governing sections of the Federal tax code. Some public employee funds in the U.S. are now "hybrid" plans, offering a combined defined benefit and defined contribution to employees.

Discount Rate: The assumed investment rate of return. For example, a typical asset investment allocation of 60% equities and 40% fixed income is often assumed to produce a long-term return of 8%. This assumed rate of return is then used in actuarial calculations to discount the present value of projected future benefits (liabilities). The discount rate has an inverse relationship to actuarial liabilities, such that a higher discount rate will result in lower liabilities. If a pension plan expects to owe $1 million in pension benefits 30 years from now, a 5% discount rate assumption would calculate the present value of that liability as $231,377, while an 8% discount rate would produce a present value of only $99,377. GASB 43 and 45 specify that the discount

[128] In November 1994, the Government Accounting Standards Board (GASB) issued Statement No. 25 that established new standards for the reporting of a pension fund's assets. The requirement became effective June 15, 1996. Up until that statement, most pension funds used two measurements for determining the net worth of assets, book value (recognizing investments at initial cost or amortized cost) and market value (recognizing investments at current value). In Statement No. 25, GASB recommends a "smoothed" market value, also referred to as the actuarial value of assets, in calculations for reporting pension costs and actuarial liabilities. The smoothed market value or actuarial value of assets accounts for assets at market values by recognizing unexpected gains or losses over a period of 3 to 5 years.

rate must reflect the assumed investment rate of return on whatever monies are expected to be used to pay for the OPEB benefits. If OPEB is "pre-funded" through a trust fund with long term investments, a higher discount rate can be used to reflect the investment yield (and actuarial liabilities are smaller). However, if OPEB is paid on a pay-as-you-go basis, the discount rate must reflect short-term investment returns (e.g., money market), typically in the 2-5% range. This lower discount rate will produce a higher actuarial liability.

Funded Ratio: The ratio of assets to liabilities. Usually this ratio is expressed in terms of actuarial values, as required by GASB 25. When a pension fund has enough assets to cover all its accrued liabilities, it is considered 100% funded.

GASB Statement Nos. 25 & 27: The Government Accounting Standards Board (GASB) is an independent, non-profit organization that establishes accounting and reporting guidelines for state and local governments in the United States. GASB Statements 25 and 27, issued in November 1994, made a number of changes to reporting requirements for public pension fund assets and liabilities in the pension fund and sponsoring government financial statements. Statement 25 applied to pension fund financial statements and was effective for periods beginning after June 15, 1996. Statement 27 applied to sponsoring government financial statements and was effective for periods beginning after June 15, 1997. GASB Statements 67 and 68 will replace Statements 25 and 27 for pension plan fiscal years starting after June 15, 2013 and government fiscal years starting after June 15, 2014.

GASB Statement Nos. 43 & 45: The Government Accounting Standards Board (GASB) is an independent, non-profit organization that establishes accounting and reporting guidelines for state and local governments in the United States. GASB Statements 43 and 45, issued in June 2004, provide reporting guidelines for Other Post Employment Benefits (**OPEB**), namely retiree health insurance. GASB 43 and 45 require governments and retirement systems to calculate and report total OPEB liabilities according to guidelines similar to those used in reporting pension liabilities. These requirements were phased in from 2005-2008 depending on the size of individual governments.

Market Value of Assets: Assets can be reported by their market value, which recognizes unrealized gains and losses immediately in the current year and can produce significant fluctuation year-to-year. This measure is subject to volatility in the market.

Multiple (Employer Contribution Multiple): For eight of the pension funds analyzed in this report, the basic employer contribution is set in state statute as a multiple of the total employee contribution made two years prior. The statute requires that the employer levy a property tax not to exceed the multiple amount. Employers levy an amount that, when added to the revenue from Personal Property Replacement Taxes, equals the multiple amount. For example, the MWRD must contribute an amount equal to 2.19 times the employee contribution made two years prior.

Normal Cost: That portion of the present value of pension plan benefits and administrative expenses which is allocated to a given valuation year and is calculated using one of six standard actuarial cost methods. Each of these methods provides a way to calculate the present value of future benefit payments owed to active employees. The methods also specify procedures for systematically allocating the present value of benefits to time periods, usually in the form of the normal cost for the valuation year and the **actuarial accrued liability (AAL).** The actuarial accrued liability is that portion of the present value of benefits which is not covered by future normal costs.

Other Post Employment Benefits (OPEB): Non-pension benefits provided to employees after employment ends. OPEB includes health insurance coverage for retirees and their families, dental insurance, life insurance and term care coverage. It does not include termination benefits such as accrued sick leave and vacation.

Unfunded Liabilities: The current liabilities not covered by actuarial assets. It is calculated by subtracting the actuarial value of assets from the actuarial accrued liability of a fund.

APPENDIX B: REVENUE AND EXPENDITURE DATA SOURCES

The following two tables list the source documents for pension fund revenue and expenditure amounts presented in this report, as well as the line items included in revenue and expenditure totals. In some cases, the Civic Federation calculates income and expenditures differently than does the fund. For example, the Civic Federation presents investment fees as an expenditure rather than a deduction from gross investment income.

FY2012 Revenues By Source					
Fund Name	**Source Document**	**Employee Contribution**	**Employer Contribution**	**Investment Income**	**Other Income**
Fire	Comprehensive Annual Financial Report, p. 6	Total Plan Member Contributions	Total Employer Contributions	Net investment income (+ investment expenses); net securities lending income (+ management fees)	Gift fund donations; miscellaneous income; tax levy interest
Police	Comprehensive Annual Financial Report, p. 26	Plan member salary deductions	Employer contributions	Total investment income; net income from investing activities (+ bank fees)	Miscellaneous income
Municipal	Comprehensive Annual Financial Report, p. 25	Member contributions	Contributions from the City of Chicago	Net income from investing activities (+ investment expenses); net income from securities lending activities (+ bank fees)	none
Laborers'	Comprehensive Annual Financial Report, p. 17	Plan member contributions	Employer contributions	Net investment income (+ investment expenses); net securities lending income (+ management fees)	none
MWRD	Comprehensive Annual Financial Report, p. 31	Employee contributions	Employer contributions	Total investment income; net securities lending income (+ bank fees)	Other
Cook County	Financial Statements, p. 6	Employee contributions	Employer contributions	Total investment income; securities lending (income)	Employer federal subsidized programs; Medicare Part D subsidy; prescription plan rebates; employee transfers from Forest Preserve; miscellaneous
Forest Preserve	Financial Statements, p. 6	Total employee contributions	Employer contributions	Total investment income; securities lending (income)	Medicare Part D subsidy; prescription plan rebates; miscellaneous
CTA	Financial Statements, pp. 12, 23	Employee contributions	Employer contributions	Net investment income before investment expenses	none
Teachers'	Comprehensive Annual Financial Report, p. 27	Employee contributions	Intergovernmental net; minimum funding requirement (employer)	Total investment income, net; + investment advisory and custodial fees	Federal insurance reimbursement; miscellaneous
Park District	Comprehensive Annual Financial Report, p. 16	Employee contributions	Employer contributions	Total investment income; net securities lending income (+ bank fees)	none

FY2012 Expenditure By Type							
Fund Source	**Source Document**	**Benefit Payments**	**Health Insurance Payments**	**Refund Payments**	**Other Expenses**	**Administrative Expenses**	**Investment Costs**
Fire	Comprehensive Annual Financial Report, pp. 6-7	Total benefits	Annuitant healthcare	Refunds of contributions	Litigation settlement	Professional services and administrative expenses	Investment expenses; securities lending income management fees
Police	Comprehensive Annual Financial Report, pp. 26, 116	Pension; disability; death benefits (minus Hospitalization)	Hospitalization	Refunds of employee deductions	none	Administrative and OPEB expenses	Total investment activity expenses; from securities lending activities bank fees
Municipal	Comprehensive Annual Financial Report, p. 25	Total benefits	Post-employment healthcare subsidies	Refund of member contributions	none	Administrative and OPEB expenses	Investment expenses; Securities lending activities bank fees
Laborers'	Comprehensive Annual Financial Report, p.17 and Actuarial Valuation, p. 27	Benefit payments - Pension	Benefit payments - Health Insurance Supplement	Refunds	none	Administrative and OPEB expenses	Investment expenses; securities lending management fees
MWRD	Comprehensive Annual Financial Report, p. 31	Total annuities and benefits	none	Refunds of employee contributions	none	Administrative expense	Investment expenses; securities lending income bank fees
Cook County	Financial Statements, pp. 6-7	Pension benefits	Postemployment healthcare	Refunds	none	Net administrative expenses	Investment expenses; securities lending expenses
Forest Preserve	Financial Statements, p. 6	Pension benefits	Postemployment healthcare	Refunds	Employee transfers to (from) Cook County	Administrative expenses	Investment expenses; securities lending expenses
CTA	Financial Statements, pp. 12, 23	Benefit payments	none	Contribution refunds, including interest	none	Administrative expenses	Securities lending fees; management fees and other
Teachers'	Comprehensive Annual Financial Report, p. 27	Pension benefits; death benefits	Refund of insurance premiums	Refunds; 2.2 legislative refunds*	none	Administrative and miscellaneous expenses	Investment advisory and custodial fees
Park District	Comprehensive Annual Financial Report, p. 16	Total benefits	none	Refund of contributions	none	Administrative and general expenses	Investment expenses; securities lending bank fees

* 2.2 legislative refunds are refunds due to employees who made additional contributions to upgrade past service to the 2.2% formula. See the Teachers' pension CAFR for more information.

APPENDIX C: SOURCES FOR FY2012

<u>Fire</u>

- Firemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2012*. Gabriel Roeder Smith & Company. May 16, 2013.
- Firemen's Annuity and Benefit Fund of Chicago, *Comprehensive Annual Financial Report, December 31, 2012*. June 17, 2013.

<u>Police</u>

- Policemen's Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2012*. Gabriel Roeder Smith & Company. April 8, 2013.
- Policemen's Annuity and Benefit Fund of Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*. July 24, 2013.

<u>Municipal</u>

- Municipal Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2012*. Gabriel Roeder Smith & Company. April 10, 2013.
- Municipal Employees' Annuity and Benefit Fund of Chicago, *Comprehensive Annual Financial Report for the year ended December 31, 2012*. June 1, 2013.

<u>Laborers'</u>

- Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, *Actuarial Valuation Report for the year ending December 31, 2012*. Gabriel Roeder Smith & Company. April 5, 2013.
- Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, *Comprehensive Annual Financial Report for the fiscal year ended December 31, 2012*. April 15, 2013.

<u>MWRD</u>

- Metropolitan Water Reclamation District Retirement Fund, *December 31, 2012 Actuarial Report*. Foster & Foster. March 20, 2013.
- Metropolitan Water Reclamation District Retirement Fund, *Comprehensive Annual Financial Report for the year ending December 31, 2012*. May 20, 2013.
- Metropolitan Water Reclamation District Retiree Health Care Trust, *Comprehensive Annual Financial Report Year Ended December 31, 2012*. May 6, 2013.

<u>Cook County</u>

- County Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation Report as of December 31, 2012*. Buck Consultants. April 26, 2013.
- County Employees' and Officers' Annuity and Benefit Fund of Cook County, *Financial Statements: December 31, 2012*. May 2, 2013.

<u>Forest Preserve</u>

- Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, *Actuarial Valuation Report as of December 31, 2012*. Buck Consultants. April 25, 2013.

- Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, *Financial Statements: December 31, 2012*. May 2, 2013.

<u>CTA</u>

- Retirement Plan for CTA Employees, *Actuarial Valuation Report as of January 1, 2013*, Buck Consultants. August 12, 2013.
- Retirement Plan for Chicago Transit Authority Employees, *Financial Statements and Supplementary Information for Years Ended December 31, 2012 and 2011*. September 26, 2013.
- Chicago Transit Authority Retiree Health Care Trust, *Actuarial Valuation as of January 1, 2013 Including Accounting Disclosures for the Year Ended December 31, 2012*. Segal Consulting. September 24, 2013.
- Chicago Transit Authority Retiree Health Care Plan, *Financial Statements and Supplementary Information, for the years ended December 31, 2012 and 2001*. September 26, 2013.

<u>Teachers'</u>

- Public School Teachers' Pension and Retirement Fund of Chicago, *Statutorily Required Funding Valuation as of June 30, 2012*. The Segal Company. February 5, 2013.
- Public School Teachers' Pension and Retirement Fund of Chicago, *Statutorily Required Funding Valuation as of June 30, 2013*. The Segal Company. December 13, 2013.
- Public School Teachers' Pension and Retirement Fund of Chicago, *Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2012 in Accordance with GASB Statement No. 43*. The Segal Company. February 1, 2013.
- Public School Teachers' Pension and Retirement Fund of Chicago, *Actuarial Valuation and Review as of June 30, 2012*. The Segal Company. January 31, 2013.
- Chicago Teachers' Pension Fund, *117th Comprehensive Annual Financial Report, for the year ended June 30, 2012*. March 29, 2013.

<u>Park District</u>

- Park Employees' & Retirement Board Employees' Annuity and Benefit Fund, *Comprehensive Annual Financial Report, for fiscal year ended June 30, 2012*. December 20, 2012.

APPENDIX D: CITY OF CHICAGO RETIREE HEALTHCARE REFORM

The City of Chicago administered a retiree benefit healthcare plan under the terms of a settlement agreement that expired on June 30, 2013.[129] Under the agreement, the four City of Chicago pension funds additionally all subsidized the participant portion of retiree health insurance premiums for those annuitants participating in the City's retiree health insurance program. The pension funds provided $95 per month for non-Medicare eligible annuitants and $65 per month for Medicare eligible annuitants. The City's contribution was roughly 55% of the premium cost, with the remainder to be paid by the annuitant. The Fire, Police, Municipal and Laborers' pension funds each contributed roughly 34% of the annuitant contribution, effectively subsidizing 13% of the total premium cost.[130]

The settlement agreement called for the creation of a Retiree Healthcare Benefits Commission ("RHBC") to "make recommendations concerning the state of retiree healthcare benefits, their related cost trends and issues affecting the offering of any retiree healthcare benefits after July 1, 2013." The agreement said the members of the RHBC must be experts who will be "objective and fair-minded as to the interests of both retirees and taxpayers." The other members of the Commission were to be a representative of the City and a representative of the pension funds.[131]

The City appointed a reconstituted Retiree Healthcare Benefits Commission, who met for the first time on June 22, 2012 to explore the options available to the City in continuing to provide or not continuing to provide retiree healthcare benefits and make recommendations.[132] Members of the Commission included former City of Chicago Comptroller Amer Ahmad; Leemore Dafney, Associate Professor of Management and Strategy, and the Herman Smith Research Professor in Hospital and Health Services at the Kellogg School of Management at Northwestern University; Will Irving, Laborers Union, Local 1001; and Michael Knitter, Executive Director of Compensation and Benefits at the University of Chicago.[133]

The Commission finished its work in January 2013 and released its report on January 11, 2013.[134] The report did not make any specific recommendations as to how the City should proceed regarding retiree healthcare, but instead offered a series of options with their projected cost to the City. These proposed options included: 1) continuing to provide retiree healthcare

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[129] The most recent version of the settlement was dated April 4, 2003 and resulted from *City of Chicago v. Marshall Korshak, et. al., and Martin Ryan,* No. 01 CH 4962 (Circuit Court of Cook County, Illinois, County Department, Chancery Division). See http://www.cityofchicago.org/city/en/depts/fin/supp_info/rhbc/rhbc_report_to_mayor.html.
[130] Cost allocation estimates provided to the Civic Federation by Sulan Tong, City of Chicago Department of Finance, April 2, 2013.
[131] *City of Chicago v. Marshall Korshak, et. al., and Martin Ryan,* Settlement Agreement, p. 8-10.
[132] Retiree Healthcare Benefits Commission, http://www.cityofchicago.org/city/en/depts/fin/provdrs/ben/alerts/2012/aug/retiree_healthcarebenefitscommissionmeeting.html.
[133] Retiree Healthcare Benefits Commission, June 22, 2012 Meeting Minutes. Available at http://www.cityofchicago.org/city/en/depts/fin/supp_info/rhbc/retiree_healthcarebenefitscommissionjune222012.html. The Chicago City Council passed an ordinance on March 14, 2012 to indemnify the non-City employee members of the RHBC against lawsuits arising from their participation as members of the Commission. Ordinance O2012-1422.
[134] Retiree Healthcare Benefits Commission, Report to the Mayor's Office on the State of Retiree Healthcare, January 11, 2013. Available at http://www.cityofchicago.org/content/dam/city/depts/fin/supp_info/Benefits/RHBC/ReportToMayor/RHBC_Report_to_the_Mayor.pdf.

benefits at current support levels; 2) continuing to provide benefits at reduced support levels; and 3) eliminating City support for retiree healthcare benefits and placing non-Medicare eligible retirees on the Affordable Care Act Exchanges. The report additionally gave background on the City's history of the court case arising from the City of Chicago's provision of other post employment benefits (OPEB), as well as an analysis of current enrollment and costs.

On May 15, 2013, the City announced its decision on how it would continue retiree healthcare after June 30, 2013.[135] First, it would continue subsidies at current levels for all retirees through December 31, 2013. Second, annuitants retired before August 23, 1989, many of whom do not qualify for Medicare, will continue to receive current subsidy levels. Third, due to substantial projected increases in the cost of the plan, annuitants retired on or after August 23, 1989 will see a phase-out of the city's subsidy of benefits with an end to the plan by the beginning of 2017. Non Medicare-eligible retirees would then be able to access healthcare and federal subsidies through the federal Affordable Care Act exchanges. On May 30, 2013, the General Assembly passed legislation allowing the four City pension funds to continue their part of the OPEB subsidy through December 31, 2016 or whenever the City ends its retiree healthcare plan, whichever comes first. Governor Quinn signed the bill into law on June 28, 2013.[136]

On October 9, 2013, the City released the details for FY2014 for the previously announced reduction to retiree healthcare subsidies for those retired on or after August 23, 1989.[137] It is important to note that police officers and firefighters who retired on or after August 23, 1989 and are eligible to receive healthcare coverage pursuant to their collective bargaining agreements will see no change to their coverage. The reductions to other affected retirees during FY2014 were announced as follows:

- For those who retired on or after August 23, 1989 and before July 1, 2005:
    - The City will provide up to a 41.25% subsidy toward these retirees' healthcare benefits. The current subsidy is 55%.
- For those who retired after July 1, 2005 through the present, the City subsidy will vary depending on years of City service. The City subsidy will be as follows for the following groups of retirees:
    - 20-plus years will be up to 37.5%. (Currently 50 percent.)
    - 15 through 19 years will be up to 33.75%. (Currently 45 percent.)
    - 10 through 14 years will be up to 30%. (Currently 40 percent.)[138]

Mayor Emanuel expected these changes to save the City approximately $24 million in FY2014.[139]

[135] City of Chicago Department of Finance, "Annuitant Notice," May 15, 2013. Available at http://www.cityofchicago.org/content/dam/city/depts/fin/supp_info/Benefits/Annuitant_Notice_May_15_2013.pdf.
[136] Public Act 98-0043.
[137] Chicago Mayor Rahm Emanuel's Press Office, "City Informs Retirees of Healthcare Adjustments For 2014," October 9, 2013. Available at http://www.cityofchicago.org/city/en/depts/mayor/press_room/press_releases/2013/october_2013/city_informs_retireesofhealthcareadjustmentsfor2014.html.
[138] "City of Chicago 2014 Retiree Healthcare Plan – Questions and Answers." Available at http://ward32.org/wp-content/uploads/2013/10/Retiree_healthcare_fact_sheet_10.08.13.pdf.
[139] City of Chicago, FY2014 Budget Overview, p. 2.

APPENDIX E: CTA PENSION REFORM IN PUBLIC ACT 95-0708

Public Act 95-0708, signed by Governor Blagojevich on January 18, 2008, enacted the following pension and retiree healthcare reforms for the Chicago Transit Authority.[140]

Pension Reform

- CTA contribution increases from 6% of payroll to 12%; employee contribution increases from 3% to 6%. CTA gets "credit" for debt service up to 6% of their contribution.
- $1 billion in pension obligation bond proceeds deposited into pension fund to bring it to approximately 72% funded. The bonds cannot be issued unless the Auditor General certifies the financial data and the reasonableness of the transaction.
- Debt service on pension and healthcare bonds is paid from CTA's new operating funds. Cap on total bonding is set at $1.78 billion. Debt service in 2009 is at least 70% of 2012 debt service; 80% in 2010; 90% in 2011; level debt service required in 2012 and thereafter. The CTA can take "credit" for capitalized interest payments against their required pension contributions only for 2008.
- The RTA must approve any pledge of RTA revenues. An intercept is established so that new funding is provided directly to the trustee for the bondholders.
- Pension fund must stay above 60% funded through 2039 and reach 90% funded by 2059. The Auditor General will annually determine if the contributions are sufficient and additional contributions must be made if he determines it is necessary. If additional contributions are needed to comply with this requirement, they are made 2/3 by CTA, 1/3 by employees.
- Governance reforms by elimination of "bloc" voting (each member would vote independently); 11 member Board of Trustees established: five union, five CTA and expert member selected by RTA Board.
- Benefits changes for employees hired on or after January 18, 2008:
    - Reduced pensions available at 55 years of age and 10 years of service (currently 3 years).
    - Full pension available at 64 years of age (currently 55) and 25 years of service.
    - CTA executive pension eliminated.
- Auditor General annually submits financial report to General Assembly.

Retiree Healthcare Reform

- An independent healthcare trust is established to manage and provide retiree benefits and is seeded with $528.8 million in bond proceeds. The Trust is solely responsible for providing retiree healthcare benefits no earlier than January 1, 2009 and no later than June 30, 2009.
- Contributions by active employees would be at least 3% of compensation on a pre-tax basis (currently they contribute nothing) bringing total pension and healthcare contribution to at least 9%.
- Retirees and their dependents would contribute up to 45% of the cost of coverage (currently retirees contribute nothing and dependents pay approximately 20% of the costs of coverage).
- If there is a projected funding shortfall, then contribution increases or benefit decreases must be implemented to cure the shortfall within 10 years. The Auditor General will review and must approve any plan to correct a shortfall.

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[140] Mass Transit Funding and Reform: HB 656, Fact Sheet, Representative Julie Hamos (D-Evanston), January 2008.

- Governance reforms by elimination of “bloc” voting (each member would vote independently); seven- member Board of Trustees: three union, three CTA and expert member selected by RTA Board.
- Retiree benefits would be no greater than 90% in network, 70% out of network (currently benefits include 100% indemnity coverage option).
- Auditor General annually submits financial report to General Assembly.

APPENDIX F: PENSION REFORM IN PUBLIC ACTS 96-0889 AND 96-1495

Public Acts 96-0889 and 96-1495 create a new tier of benefits for most Illinois public employees hired on or after January 1, 2011.[141] A "trailer bill" to correct technical problems in Public Act 96-0889 was enacted in December 2010 as Public Act 96-1490.

Public Act 96-0889 was enacted in April 2010 and applies to new members of the following pension funds:

- Illinois Municipal Retirement Fund (except sheriff's law enforcement members)
- Chicago Municipal Fund
- Chicago Laborers' Fund
- Cook County Fund
- Cook County Forest Preserve District Fund
- Chicago Park District Fund
- Metropolitan Water Reclamation District Fund
- Chicago Public Schools Fund
- State Employees Retirement System
- State Universities Retirement System
- Teachers' Retirement System
- Judges Retirement System
- General Assembly Retirement System

Public Act 96-0889 creates a new tier of benefits for public employees who become members of these public pension plans on or after January 1, 2011.[142] Previous benefit provisions differ among the funds. In general, for many funds the major benefit changes are an increase in age to receive an unreduced benefit from 60 to 67 and early retirement age from 55 to 62, reduction of final average salary from the highest 4 year average to the highest 8 year average, a $106,800 cap on pensionable earnings (increased annually by the lesser of 3% or one half of the increase in Consumer Price Index), and the reduction of the automatic annual benefit increase from 3% compounded to the lesser of 3% or one half of the increase in Consumer Price Index not compounded. The Act also eliminates "double-dipping" by suspending the pension of any retiree who goes to work for a government that participates in another pension system until that employment ends.

There are notable differences in the second tier benefits of the Judges and General Assembly Retirement Systems. For those two systems, the cap on pensionable earnings is increased annually by the lesser of 3% or the increase in the Consumer Price Index (not one half of the increase in the Consumer Price Index as for other funds). Likewise the automatic cost of living adjustment on the second tier Judges' and General Assembly annuity is the lesser of 3% or the full increase in the Consumer Price Index compounded, rather than simple interest. However, the maximum annuity for new members of these funds will be 60% of final average salary, reduced from 85% for first tier members. There is no change to maximum percent of final average salary for the other funds affected by Public Act 96-0889. Finally, the "double-dipping" prohibition does not apply to the Judges or General Assembly plans.

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[141] The legislation did not change benefits for new Chicago Transit Authority employees because major reforms to the CTA retirement benefits had been enacted in 2008.
[142] A "trailer bill" to correct technical problems with Public Act 96-0889 was enacted in December 2010 as Public Act 96-1490.

Public Act 96-0889 does not change employer or employee contributions, with the significant exception of a partial employer contribution holiday granted to the Chicago Public Schools. The Act reduces CPS' required employer pension contribution for FY2011, FY2012 and FY2013 to an amount estimated to be equivalent to the employer's normal cost, thereby revising the funding standards set in Public Act 89-0015.[143] It also delays the year that the Chicago Teachers' pension fund must reach a 90% funded ratio from 2045 to 2060. Prior to the passage of Public Act 96-0889, the CPS required contribution for FY2011 was calculated to be $586.9 million, or almost double the FY2010 amount. Public Act 96-0889 reduces CPS' required FY2011 contribution to $187.0 million, which is $120.5 million, or 39.2%, less than the prior year contribution.[144] In FY2014, the year when the reduced payment provision sunsets, CPS' pension payment is projected to rise to $599.6 million, an increase of $403.6 million over the currently projected FY2013 pension contribution.

Over time the benefit changes introduced by Public Act 96-0889 will slowly reduce liabilities from what they would have been as new employees are hired and fewer members remain in the old benefit tier. However, Public Act 96-0889 does not guarantee the future solvency of the affected funds. Even with reduced benefits for new employees, the Laborers', Municipal, Park and County Funds are projected to run out of assets during the years 2035, 2030, 2025 and 2038, respectively.[145]

Public Act 96-1495 was enacted in December 2010 and applies to new members of the following pension funds:

- Illinois Municipal Retirement Fund sheriff's law enforcement members
- Chicago Police Fund
- Chicago Fire Fund
- Downstate Police funds
- Downstate Fire funds

Public Act 96-1495 creates a new tier of benefits for public employees who become members of these public safety pension funds on or after January 1, 2011. Previous benefit provisions differ among the funds. In general, the major benefit changes are an increase in age to receive an unreduced benefit from 50 to 55, reduction of final average salary from the highest 4 year average to the highest 8 year average, a $106,800 cap on pensionable earnings (increased annually by the lesser of 3% or one half of the increase in Consumer Price Index), and change in the automatic annual benefit increase from 1.5% not compounded to the lesser of 3% or one half of the increase in Consumer Price Index not compounded.[146]

[143] "Normal cost" is an actuarially-calculated amount representing that portion of the present value of pension plan benefits and administrative expenses which is allocated to a given valuation year.
[144] Actuarial projection by Goldstein & Associates for Kevin Huber, Executive Director of the Public School Teachers' Pension and Retirement Fund of Chicago, March 31, 2010. See also Illinois Commission on Government Forecasting and Accountability, *Illinois Public Retirement Systems: A Report on the Financial Condition of the Chicago, Cook County and Illinois Municipal Retirement Fund Systems of Illinois*, November 2010, p.119.
[145] Illinois Commission on Government Forecasting and Accountability, *Illinois Public Retirement Systems: A Report on the Financial Condition of the Chicago, Cook County and Illinois Municipal Retirement Fund Systems of Illinois*, January 2012, p. iii.
[146] This is the change for Chicago Police and Fire Funds. Most other public safety funds' first tier benefits provide a 3% compounded automatic cost of living adjustment.

Public Act 96-1495 does not change employee contributions but it does change employer contributions for the Downstate and Chicago police and fire funds (not for the IMRF sheriff's plan). Employers that sponsor Downstate and Chicago Police and Fire Funds will be required to make contributions sufficient to bring the funded ratio of each fund to 90% in 30 years (by the end of 2040), using a level percentage of payroll and projected unit credit actuarial valuation method.[147] This represents a slight reprieve for Downstate Police and Fire funds employers, who were previously required to contribute amounts sufficient to reach 100% funded ratios by the year 2033. For the City of Chicago the new funding schedule creates a significant contribution increase beginning in 2015. City officials have estimated that it will represent roughly a 60% contribution increase in 2015.[148] If any employer sponsoring a police or fire pension fund fails to make its required contributions within 90 days of due date, the Illinois Comptroller must deduct and deposit into the pension fund the certified amounts or a portion of these amounts from the following proportions of grants of State funds to the municipality (not to exceed total amount of delinquency): one-third of total State grants to municipality in 2016, two-thirds of total State grants to municipality in 2017 and 100% of State grants to municipality in 2018 and thereafter.

Prior to the enactment of Public Act 96-1495, the Fire Fund was projected to run out of assets during 2021 and the Police Fund was projected to run out of assets during 2025.[149]

Public Act 96-1495 also makes the following changes:

- Each police and fire fund's actuarial value of assets will be reset at market value on March 30, 2011, and will be calculated thenceforth using five-year smoothing.
- Larger downstate police and fire funds (over $10 million in assets) are given greater flexibility to invest in corporate bonds and equities.
- Three new studies are required to be conducted by the State's Commission on Government Forecasting and Accountability:
    - A study of all Downstate Police and Fire pension fund historical employer contribution rates, fund balances, actuarial formulas used for employer contributions, available contribution sources, impact of revenue limitations caused by tax caps and non-home rule status and existing statutory funding compliance procedures. Due January 1, 2013. See http://cgfa.ilga.gov/Upload/2013FinancialConditionofDownstatePoliceFirePA96-1495.pdf
    - A study of cost or cost savings associated with creation of an investment pool for Downstate Police and Fire funds. Due December 31, 2011. See http://cgfa.ilga.gov/Upload/Feb2012MarquetteAssocStudyforCGFA.pdf
    - A study of the feasibility of Downstate Police and Fire fund employer/employee cost sharing of normal cost contributions where each would contribute 50% of the normal cost. Due December 31, 2011.

[147] This funding schedule requirement begins in the year 2015 for Chicago.
[148] Letter of December 8, 2010 from the Chicago City Council to Governor Pat Quinn. Last accessed on January 4, 2011 at http://www.wttw.com/res/pdf/quinn_letter.pdf.
[149] Illinois Commission on Government Forecasting and Accountability, *Illinois Public Retirement Systems: A Report on the Financial Condition of the Chicago, Cook County and Illinois Municipal Retirement Fund Systems of Illinois*, November 2010, p. 46 and 108.

Although Public Act 96-1495 is commonly considered the public safety pension reform bill, many new public safety employees' pension will be determined instead by Public Act 96-0889 because they are members of pension funds affected by that act. These include:

- Cook County sheriff's employees, who are members of the Cook County Fund;
- Cook County Forest Preserve police officers, who are members of the Cook County Forest Preserve District Fund; and
- State university and community college police and firefighters, who are members of SURS.

One result is that new public safety employees affected by Public Act 96-1495 will be eligible for retirement without age reduction at age 55 with 10 years of service while the public safety employees affected by Public Act 96-0889 will be eligible for retirement without age reduction at age 67 with 10 years of service.[150]

[150] New state police, firefighters, correctional officers and others eligible for the SERS "alternative formula" are affected by Public Act 96-0889 but their requirement for retirement without age reduction was raised from age 50 with 25 years of service to age 60 with 20 years of service rather than to age 67 with 10 years of service like other SERS members.

APPENDIX G: PENSION REFORM IN PUBLIC ACT 98-0641

Public Act 98-0641, signed by Governor Quinn on June 9, 2014, enacted the following pension benefit and funding reforms for the City of Chicago Municipal and Laborers' Pension Funds.[151]

Benefit Changes

The following changes apply to both the Municipal and the Laborers' Funds:

- Retirement Age: Decreases the retirement age for Tier 2 employees from 67 to 65, and from 62 to 60 for early retirement. No change for Tier 1 employees (currently, age 50 with 30 years of service, 55 with 25 years, and 60 with 10 years).
- Annual Adjustment Calculation: Changes the annual annuity increase (AAI) for Tier 1 members (including current retirees) to ½ of the annual unadjusted percentage increase in the Consumer Price Index-Urban (CPI) or 3%, whichever is less, utilizing simple interest. Currently the AAI is equal to 3% compounded interest (set in 1999). The Tier 1 AAI will now be equal to the Tier 2 AAI.
- Skipped Annual Adjustments: All Tier 1 retirees (current and future) will skip AAIs in 2017, 2019, and 2025. A Tier 1 retiree with an annual annuity of less than $22,000 will receive an adjustment of 1% in these years. Tier 2 retirees will skip an AAI in 2025. Further, all members will have a 1 year AAI delay after the date the member would otherwise receive his or her first AAI.
- Exception for Annuities Under $22,000: Retirees with an annual annuity of less than $22,000 will receive at least 1% AAI every year, including the skip years.

Employee Contribution Increases

The following changes to employee contributions apply to both the Municipal and Laborers' Funds:

- Employee Contribution Increase: Currently, employee contributions are equal to 8.5% of salary. Under the bill, all employee contributions would increase by 0.5% each year from 2015 to 2019. Contributions would increase to 9% in 2015, 9.5% in 2016, 10% in 2017, 10.5% in 2018 and finally 11% in 2019 and going forward.
- When the fund reaches 90% funded, employee contributions would decrease to 9.75% and remain 9.75% as long as the fund is 90% funded.

Employer Contribution Increases for the Municipal Fund

- The City of Chicago currently contributes an amount equal to 1.25 times the total contribution by employees two years earlier to the MEABF. Beginning in payment year 2016, the multiplier for employer contributions will increase at the following schedule:
    - 2016: 1.85
    - 2017: 2.15
    - 2018: 2.45

[151] Municipal Employees' Annuity and Benefit Fund of Chicago, "Public Act 98-0641 – Summary." Available at http://www.meabf.org/userfiles/file/PA%2098-0641/Public%20Act%2098-0641.pdf. Laborers' & Retirement Board Employees' Annuity & Benefit Fund of Chicago, "Pension Legislation – Summary of Changes." Available at http://www.labfchicago.org/assets/1/17/Pension_Reform_News_Rev_6_10_14.pdf.

- 2019: 2.75
- 2020: 3.05

From 2016-2020, the Plan Sponsor will contribute based on the increased multiplier, or an actuarial schedule, whichever is less. Beginning in 2021, the Plan Sponsor will make contributions based on an actuarial funding schedule to reach 90% funded by 2055.

Employer Contribution Increases for the Laborers' Fund

- The City of Chicago currently contributes an amount equal to 1.0 times (multiplier) the total contributions made by participants two years earlier. The table below details the new employer multiplier and the year in which the payment will be received:
  - 2016:1.6
  - 2017: 1.9
  - 2018: 2.2
  - 2019: 2.5
  - 2020: 2.8

  Beginning in 2021, the City will make contributions based on an actuarial funding schedule to reach 90% funded by 2055.

Intercept of State Funding

Public Act 98-0641 includes an intercept of state funding if the City of Chicago fails to make its required contributions in a timely manner, modelled on the intercept included in Public Act 96-1495.

APPENDIX H: PENSION REFORM IN PUBLIC ACT 98-0622

Public Act 98-0622, signed by Governor Quinn on January 7, 2014, enacted the following pension benefit and funding reforms for the Chicago Park District Pension Fund.[152]

Benefit Changes

- Retirement Age - Tier 1 employees - minimum retirement age increases from 50 to 58 for those employees younger than 45 on January 1, 2015
  Tier 2 employees – age for normal retirement decreases from 67 to 65; age for early retirement decreases from 62 to 60
- Automatic Annual Increase - Effective January 1, 2015, increase is adjusted to the lesser of ½ of the increase in CPI-U or 3% simple (currently: 3% simple)
- Payment of automatic annual increase suspended in years 2015, 2017 and 2019.
- All automatic annual increase provisions apply to current annuitants (spousal increase remains the same)
- Duty Disability - Decrease from current 75% of salary to 74% in 2015, 73% in 2017 and 72% in 2019

Employer Contributions

- Previous law: 1.1 times the amount of Employee contributions two years earlier
- Public Act 098-0622:
  - 2015: multiplier increases to 1.7
  - 2017: multiplier increases to 2.3
  - 2019: multiplier increases to 2.9
  - 2.9 multiplier remains in effect until Fund is 90% funded, after which time Employer obligation is the lesser of the 2.9 multiplier or the amount necessary to maintain 90% funding

  Supplemental employer contributions:
  - 2015: $12.5 million
  - 2016: $12.5 million
  - 2019: $50 million

Employee Contributions

- Previous law: 9.0%
- Public Act 098-0622:
  - 2015: 10.0%
  - 2017: 11.0%
  - 2019: 12.0%

  Contribution remains at 12.0% until Fund reaches 90% funding level, at which time it drops to 10.5% as long as the Fund remains at or above 90%

Miscellaneous Provisions

[152] Park Employees' Annuity and Benefit Fund of Chicago, "Summary of Public Act 098-0622." Available at http://www.chicagoparkpension.org/Summary_of_New_Pension_Law_-_Public_Act_98-0622.pdf.

- Funding Guarantee: If the Chicago Park District fails to make any of its required annual contributions, the Fund may seek judicial relief mandating payment.
- Retiree Health Care: While the Fund does not currently subsidize retiree health care it will be prohibited from doing so in the future.
- New Benefits - No new pension benefit to be granted unless a method for funding the benefit is included in the statute creating or extending the new benefit.