# Status of Local Pension Funding
# Fiscal Year 2003

## An Evaluation of Nine Local Government Employee Pension Funds within Cook County

Prepared by
The Civic Federation
February 16, 2005

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The Civic Federation is an independent, non-partisan government research organization founded in 1894. The Federation's membership includes business and professional leaders from a wide range of Chicago area corporations, professional service firms and institutions.

The mission of the Federation is to maximize the quality and cost effectiveness of government services in the Chicago region by:

• Serving as a technical resource, providing non-partisan research and information;
• Promoting rational tax policies and efficient delivery of quality government services; and,
• Offering solutions, which guard against excessive taxation, enhance financial reporting, and improve the quality of public expenditures.

Since 1996 the Federation has produced this annual survey of the nine major local government employee pension plans in Cook County. The importance of public employee pension plans to local government finance can be seen in the amount of tax revenue that is dedicated to funding these plans every year.

This report is intended to provide the public with the information they need to make informed decisions regarding the important public policy questions involved in discussions of local government finance.

Laurence Msall
President

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## EXECUTIVE SUMMARY

The Civic Federation recently concluded an analysis of the fiscal year 2003 actuarial valuation reports for nine major local government employee pension funds. The funds analyzed in our report include the four pension fund systems for City of Chicago employees: 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, and Policemen's Annuity and Benefit Fund of Chicago. In addition, we review five other local pension funds: Cook County Employees' and Officers Annuity and Benefit Fund of Cook County, Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, Park Employee's & Retirement Board Employee's Annuity and Benefit Fund, Metropolitan Water Reclamation District Retirement Fund, and Public School Teachers' Pension and Retirement Fund of Chicago.

### Assets and Liabilities

- The nine pension funds combined had approximately $41.3 billion in accrued liabilities. Combined assets had an actuarial value of $31.7 billion and a market value of $29.4 billion.

### Investment Rate of Return

- For the first fiscal year since 2000, investments yielded a positive return. The overall 13.5% return generated a total of $3.6 billion in investment income, which offsets the $2.6 billion in losses experienced in fiscal 2001 and 2002.

### Revenues and Expenditures

- Investment income represented 74% of the $4.8 billion in total pension fund income as compared to FY2002, when investment losses of $1.9 billion exceeded the $1.2 billion derived from salary deductions and employer contributions.

### Funded Ratios

- Despite substantial increases in asset value in FY2003, actuarial funding ratios continue fall. Low and declining funding ratios are a cause for concern. The City of Chicago's Firemen's funded ratio continues to slip, falling to 47% in FY2003 from 58% in FY2002. The Policemen's Pension Fund declined to 61% from 65%.

### Unfunded Liabilities

- Unfunded liabilities continue to grow by large increments each fiscal year, having increased by $386 million in 2001, $3.3 billion in 2002 and $2.7 billion in 2003.
  The aggregate unfunded liabilities now stand at **$9.7 billion.**

If growth in liabilities continues to outpace growth in assets, then local governments will have to take action to ensure their pension funds' ability to meet current obligations. Rather than allow these trends to continue, we urge policy makers to take steps now to protect the pension funds viability such as reducing benefits for new employees, decreasing the number of future beneficiaries through workforce reduction, requiring employees to contribute a greater share of wages to the pensions, and increasing employer contributions.

## PUBLIC EMPLOYEE PENSION FUND OVERVIEW

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, five other local pension funds are analyzed in this report:
- Cook County Employees' and Officers Annuity and Benefit Fund of Cook County
- Forest Preserve District Employees' Annuity and Benefit Fund of Cook County[1]
- The Metropolitan Water Reclamation District Retirement Fund
- Public School Teachers' Pension and Retirement Fund of Chicago[2]
- Park Employee's & Retirement Board Employee's Annuity and Benefit Fund[3]

The pension funds reviewed in this report collectively cover 125,443 active public employees and 78,945 beneficiaries.

The three largest funds, Municipal Employees' Annuity and Benefit Fund of Chicago, Public School Teachers' Pension and Retirement Fund of Chicago, and Cook County Employees' and Officers Annuity and Benefit Fund of Cook County account for 73% of the active employees covered by these plans and 68% of the beneficiaries.

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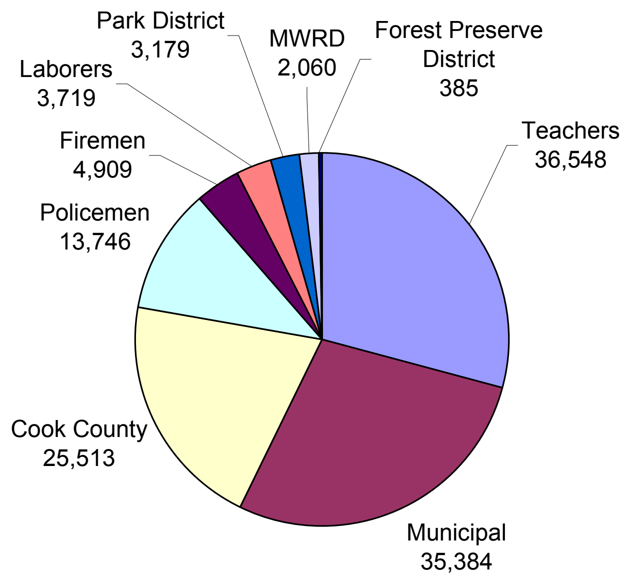
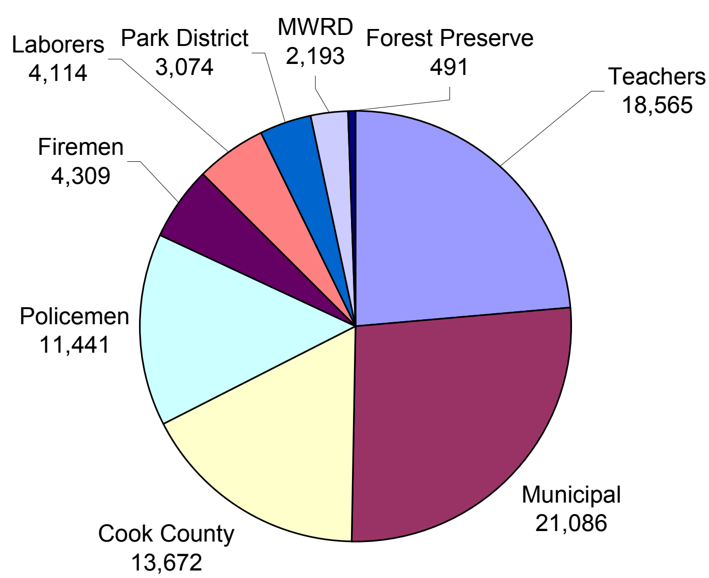
[1] Cook County's and the Forest Preserve District's funds are governed by the same pension board.
[2] The Chicago Board of Education enrolls teachers in the Public School Teachers' Pension and Retirement Fund of Chicago. All other employees of the Board of Education are enrolled in the City of Chicago's Municipal Employees' Annuity and Benefit Fund. Two other major funds cover a number of local public employees but are not supported by property taxes and are not included in this analysis: The Chicago Transit Authority Employees' Pension Plan and State University Employees' Pension Fund (some City College Employees are enrolled in this fund).
[3] The fiscal year of the Park Employees' and the Public School Teachers' pension funds is July 1-June 30. The seven other funds' fiscal year is January 1 – December 31.

**Distribution of Active Employees**




**Distribution of Beneficiaries**



## DEFINED BENEFIT PLANS: POLICY CONSIDERATIONS

All public pension plans surveyed in this report are defined benefit plans.[4] 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.

The policy question inherent in an examination of pension funding is, "How shall the burden of payment be apportioned between current and future taxpayers?" If funding levels are too low, future taxpayers will experience a disparity between the level of taxes and the level of services: higher taxes will be paid to provide benefits to persons who are retired (pension benefits are constitutionally protected under Illinois law and therefore take precedence over all other obligations of government). On the other hand, if funding levels are too high, current taxpayers are being asked to endure a greater disparity between the level of taxes and services received from government than future generations.

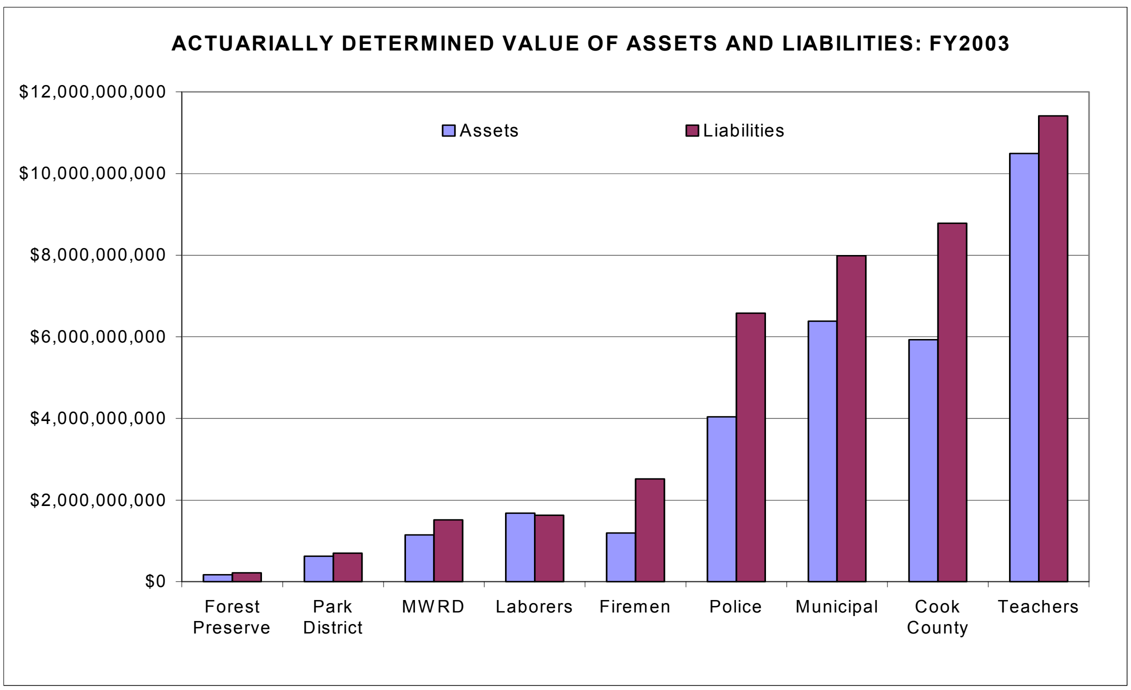
Most experts concur that there is no real need to achieve full funding. They argue that governments, unlike private corporations, are not at risk of dissolving and, therefore, can meet their obligations in perpetuity. However, public pensions should be funded sufficiently to prevent the growth of the *unfunded liability*, or that portion of future projected costs and interest not currently covered by assets.

[4] The other type of pension plan is a defined contribution 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. These plans are known as 401(k) or 403(b) plans, named after the governing sections of the Tax Code.

## ASSETS AND LIABILITIES OF LOCAL PENSION FUNDS

The basic issue at hand is whether or not the pension funds' assets are sufficient to cover liabilities. Liabilities are determined using actuarial assumptions. The assumptions are used to calculate 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, or smoothed market value, of the assets. The actuarial value uses an average of the assets' market values from previous years.[5] The current market value is another measure used to determine the assets of the plan. It reflects the value of the pension fund's assets at the end of the fiscal year. This measure is subject to variations in the market that can be misleading because the variations should average out over the life of the pension plan.

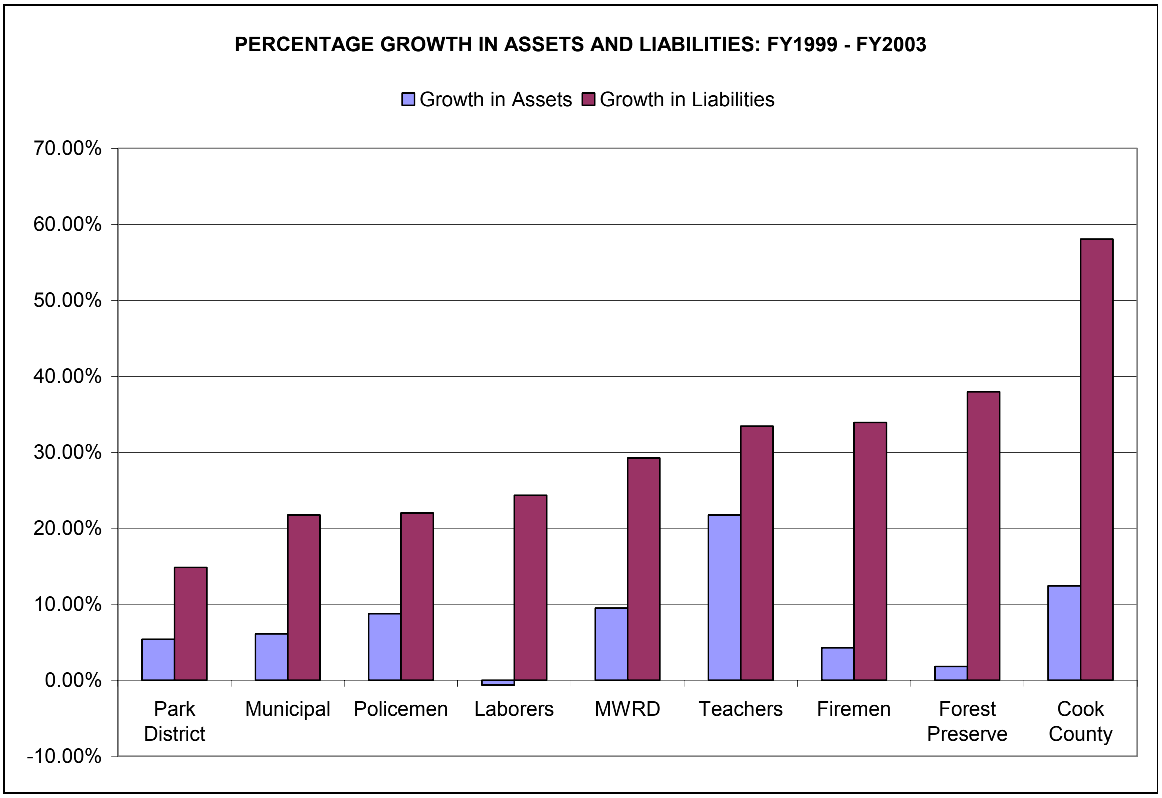
At the close of FY2003, the nine pension funds combined had approximately $41.3 billion in accrued liabilities. Combined assets had an actuarial value of $31.7 billion and a market value of $29.4 billion. Only the City of Chicago's Laborers' Fund has assets in excess of liabilities.




[5] 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 averaging unexpected gains or losses over a period of 3 to 5 years.

Over the last five years, aggregate liabilities have grown faster than the aggregate assets. The aggregate assets of the funds have grown by 12% while the aggregate liabilities have grown by 32%.

The Cook County Fund and the Forest Preserve District Fund have experienced the greatest growth rates for liabilities over the past five years, with growth rates of 58% and 38%, respectively. The sharp growth in the liabilities is due, in part, to changes in the actuarial assumptions used by Cook County and the Forest Preserve District in FY2001.[6] Between 1999 and 2003, growth in liabilities has significantly exceeded growth in assets for all nine funds.




Another point of comparison is the difference between the actuarial value of assets, or the smoothed market value, and the current market value of assets. As in fiscal 2002, the 2003 market value of assets remains below the actuarial value of assets. This is because under actuarial value reporting, unexpected gains or losses are averaged over a period of 3 to 5 years. In this case, the losses experienced in fiscal years 2001 and 2002, as well as the gains of 2003, have not yet been fully recognized in the actuarial value. In fiscal 2003, however, the difference between aggregate actuarial value and current market value narrowed to $2.3 billion from $5 billion in 2002. The Cook County and Forest Preserve pension funds are the only funds whose 2003 market value exceeds actuarial value, indicating a positive trend for those funds.

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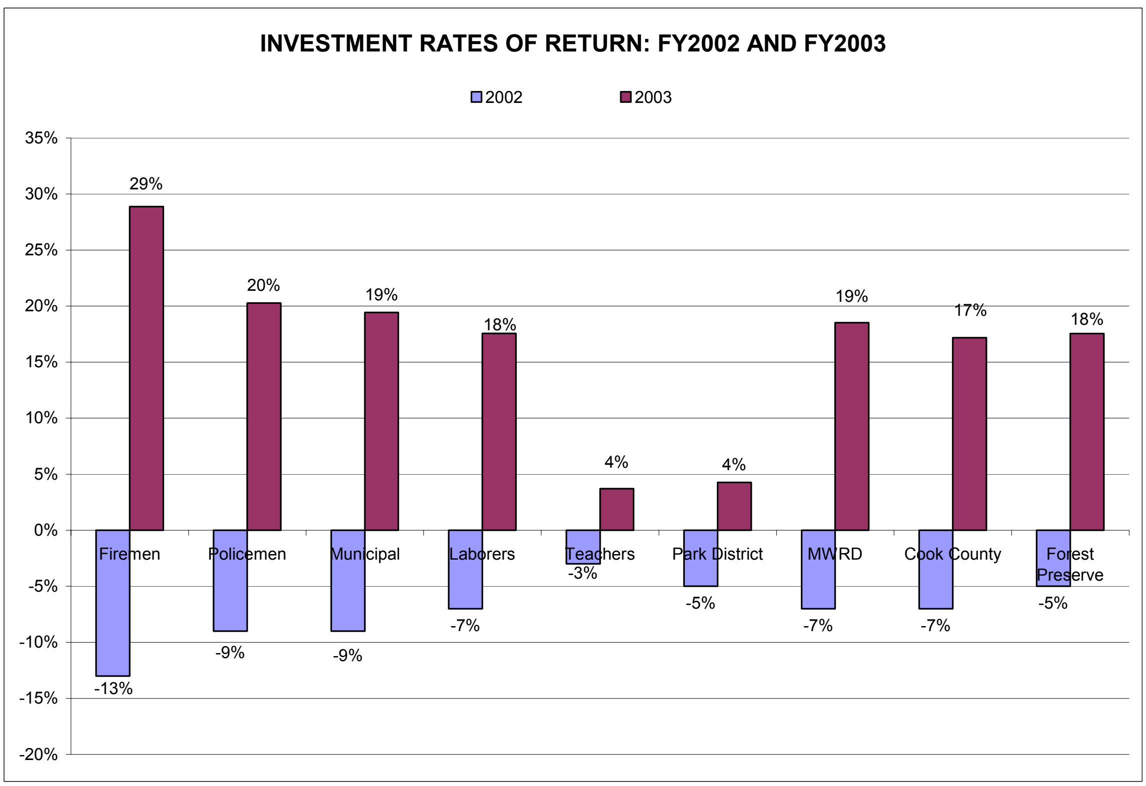
[6] The growth in the liabilities is due in large measure to changes in the actuarial assumptions used by the County and the Forest Preserve. The retiree health care cost of living factor was increased to 10%.

| COMPARISON OF CURRENT MARKET VALUE VS. ACTUARIAL VALUE AT THE CLOSE OF FY2003 | | |
|---|---|---|
| **Fund** | **Current Market Value** | **Actuarial Value** |
| Forest Preserve | $ 176,858,323 | $ 170,114,265 |
| Park Distict | $ 539,544,971 | $ 624,209,658 |
| MWRD | $ 1,088,406,445 | $ 1,146,520,634 |
| Laborers | $ 1,552,360,971 | $ 1,679,796,167 |
| Firemen | $ 1,109,560,535 | $ 1,194,007,767 |
| Policemen | $ 3,693,282,974 | $ 4,039,695,590 |
| Municipal | $ 5,922,789,999 | $ 6,384,098,957 |
| Cook County | $ 6,063,872,421 | $ 5,929,201,142 |
| Teachers | $ 9,267,643,045 | $ 10,494,754,698 |
| **TOTAL** | **$ 29,414,319,684** | **$ 31,662,398,878** |

## INVESTMENT RATE OF RETURN

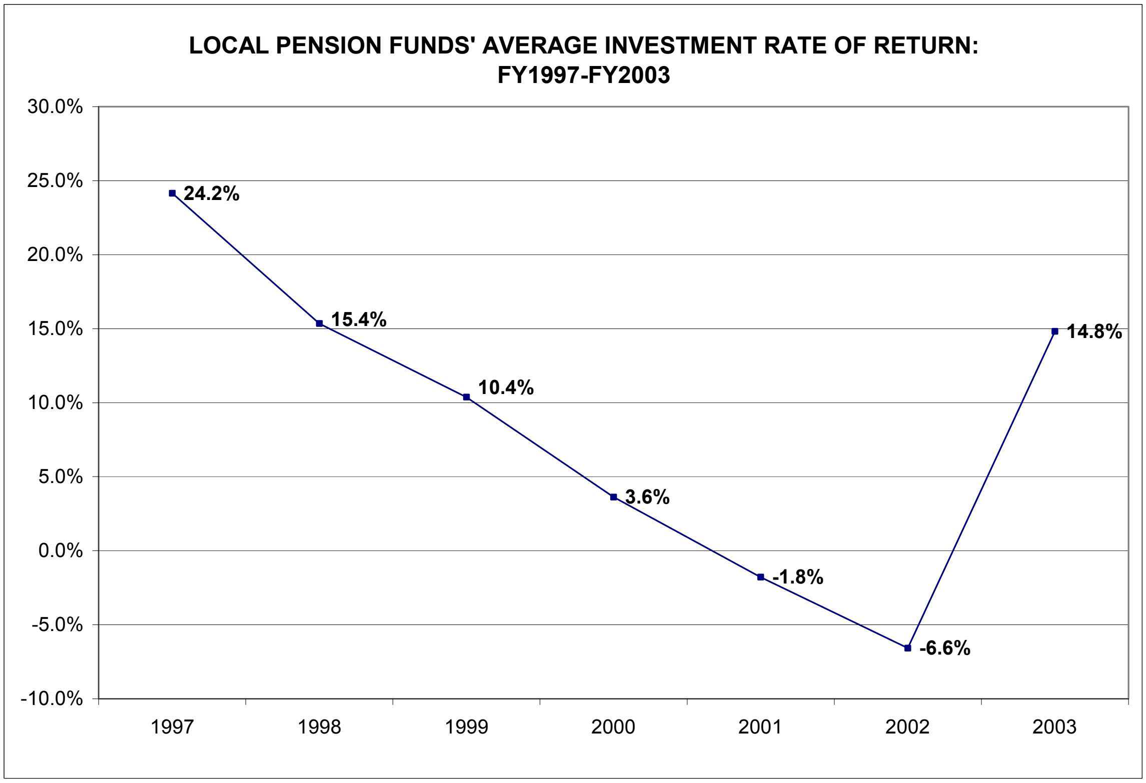
During FY2003, each of the nine pension funds yielded a positive rate of return. In aggregate, the funds generated an investment rate of return of 13.5%. This marks the first time since fiscal year 2000 that investments yielded a positive return.

The improved investment return, which yielded a total of $3.6 billion for the nine funds combined, offsets the $2.6 billion in investment losses experienced in fiscal 2001 and 2002. A comparison of the investment rates of return for FY2002 and FY2003 shows that among the nine pension funds, improvements to rates of return are inversely related to prior declines. In other words, the greater the losses experienced by a fund in FY2002, the greater the gains in FY2003. Positive returns in FY2003 exceed negative returns in FY2002. In the aggregate, the funds yielded 13% in FY2003 as compared to -6.5% in FY2002. It is important to note that the Park District and the Teachers' funds use a July 1 – June 30 fiscal year, thus their rates of return reflect the last half of 2002 and the first half of 2003. Significant market growth occurred in the third and fourth quarters of 2003.



## Historical Trends

The recent improvement in investment rates of return should be considered from a historical perspective. During the latter half of the 1990s, strong financial markets increased local pension funds' assets significantly. In 1998, the nine funds experienced rates of return ranging from 18% to 37%. That positive trend reversed, however, and by the close of FY2002 every fund had a negative rate of return, ranging from –3% to –13%.[7] In FY2003, the rates of return for all funds turned positive again, with an average rate of 15%. The chart below shows the average rate of return since FY1997, the earliest year for which we have data.




Another way of assessing pension funds' performance over time is to consider the annual change in assets, calculated as the difference between total income and total expenditures. In the figure below, we compare the aggregate change in assets at the close of each fiscal year with the aggregate rate of return for all the funds combined. As will be discussed in the next section, investment rates of return have a significant impact on pension fund assets.

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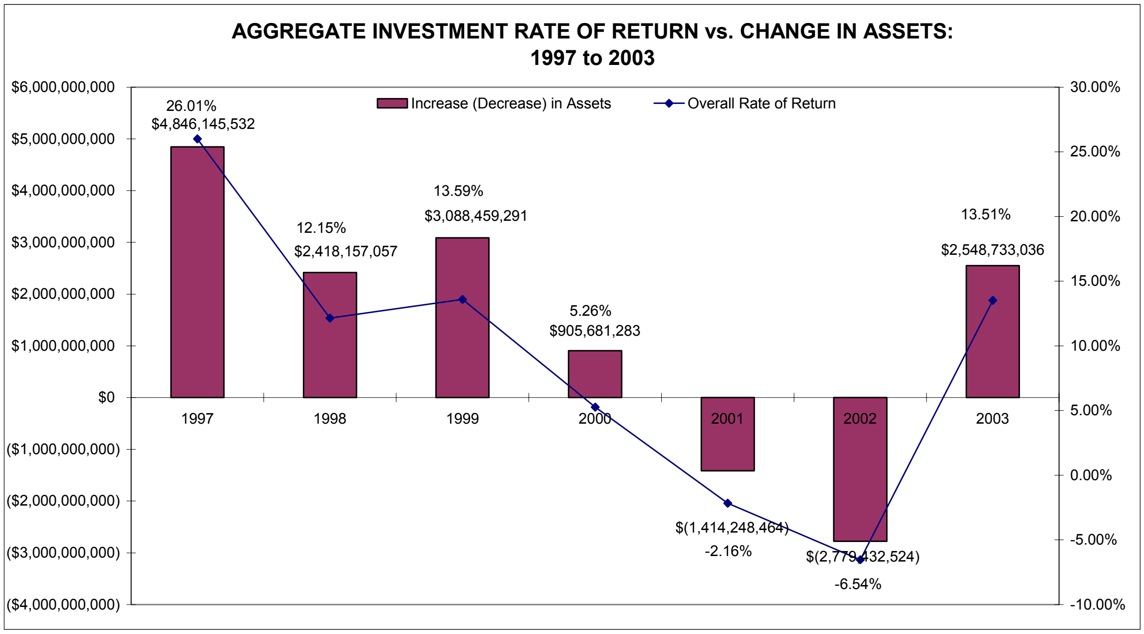
[7] Rates of return are calculated using the fair value of all assets.




## REVENUES AND EXPENDITURES

Of the three primary sources of revenue for the pension plans studied here (investment income, employer contributions, and employee contributions) investment income continues to be the primary driver of total income for all of the pension funds.

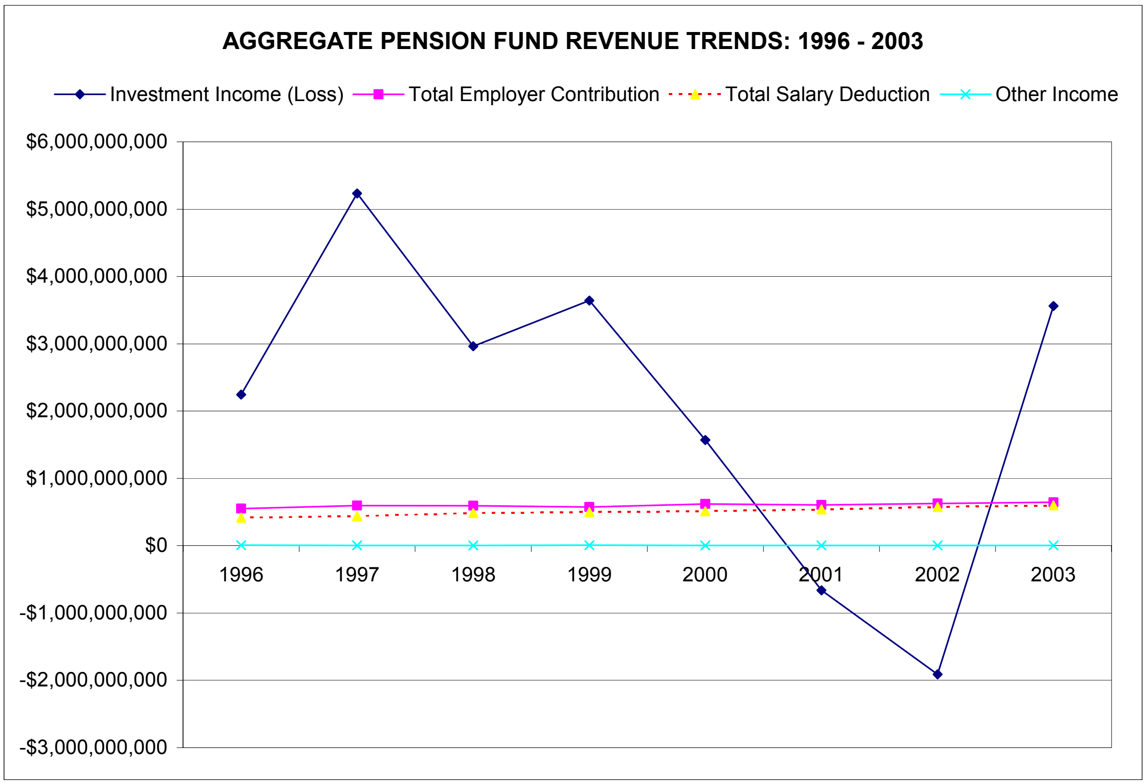
The increases in asset values experienced in the late 1990's, the subsequent declines between 2000 and 2002, and the recovery in 2003 have caused significant shifts in the sources of pension fund revenue.

For the first time since FY2000, strong investment returns in FY2003 generated positive revenue for all of the pension funds. The overall 13.5% return generated a total of $3.6 billion in revenue, an amount that offsets the $2.6 billion in losses experienced in fiscal 2001 and 2002.

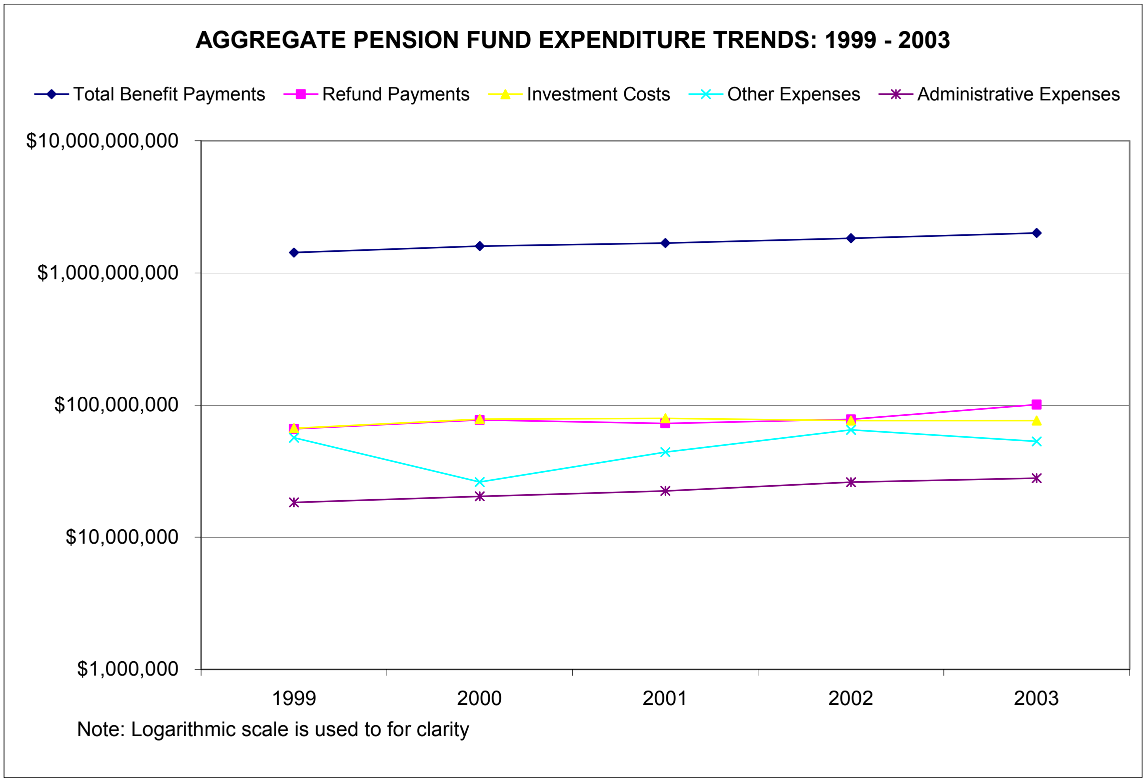
The table below shows each fund's fiscal 2003 revenue by source in descending order of total income. The Teachers' Fund and the Laborers' Fund were the only funds where the employee contribution exceeded the employer contribution. With the exception of Cook County, the "Other" income category as a source of income is negligible. For each fund, investment income constitutes the greatest portion of total income.

| FY 2003 REVENUES BY SOURCE | | | | | |
|---|---|---|---|---|---|
| Fund Name | Employee Contribution | Employer Contribution | Investment Income | Other Income | TOTAL INCOME |
| Municipal | $ 129,579,379 | $ 141,882,893 | $978,764,026 | $ - | $ 1,250,226,298 |
| Cook County | $ 140,029,598 | $ 181,216,061 | $ 892,643,671 | $ 4,566,059 | $ 1,218,455,389 |
| Policemen | $ 79,816,332 | $ 140,734,767 | $ 636,514,858 | $ 72,587 | $ 857,138,544 |
| Teachers | $ 159,931,110 | $ 78,747,983 | $ 339,736,037 | $ 35,775 | $ 578,450,905 |
| Firemen | $ 42,665,388 | $ 60,234,206 | $ 254,523,496 | $ 83,850 | $ 357,506,940 |
| Laborers | $ 19,798,759 | $ 366,920 | $ 237,460,265 | $ - | $ 257,625,944 |
| MWRD | $ 14,230,224 | $ 28,778,648 | $ 172,748,408 | $ 11,202 | $ 215,768,482 |
| Park District | $ 9,533,018 | $ 9,842,559 | $ 22,801,556 | $ - | $ 42,177,133 |
| Forest Preserve | $ 2,317,237 | $ 3,853,092 | $ 26,989,271 | $ 3,428 | $ 33,163,028 |
| TOTAL | $597,901,045 | $645,657,129 | $3,562,181,588 | $4,772,901 | $4,810,512,663 |

The following chart illustrates that while historically investment income has fluctuated considerably, aggregate employer and employee contributions have remained relatively constant at approximately $600 million each.




In contrast to the fluctuating revenues, aggregate pension fund expenditures have grown an average of 6.9% each year between 1999 and 2003. The primary expenditure of the pension funds is benefit payments, which consistently constitutes roughly 88% of the nine funds' aggregate expenditures. The other types of expenses are refund payments, administrative costs and investment costs. The aggregate amount of benefit payments made has increased by 41% since 1999, from $1.4 billion to $2.0 billion.




The City of Chicago's Municipal Employees Fund and the Teachers Fund account for nearly half of all expenditures by the funds included in this report. With 39,651 beneficiaries, these two funds also account for approximately 50% of the people currently receiving benefits payments.

| FY 2003 EXPENDITURES BY TYPE | | | | | | |
|---|---|---|---|---|---|---|
| **Fund Name** | **Benefit Payments** | **Refund Payments** | **Other Expenses** | **Administrative Expenses** | **Investment Costs** | **TOTAL EXPENDITURES** |
| Teachers | $ 546,623,658 | $ 15,623,466 | $ 53,123,602 | $ 6,576,953 | $ 26,233,867 | $ 648,181,546 |
| Municipal | $ 408,596,239 | $ 25,561,485 | $ - | $ 4,678,634 | $ 16,875,154 | $ 455,711,512 |
| Policemen | $ 370,696,206 | $ 4,806,372 | $ - | $ 3,166,146 | $ 9,223,825 | $ 387,892,549 |
| Cook County | $ 315,772,471 | $ 44,209,953 | $ - | $ 7,132,404 | $ 9,147,583 | $ 376,262,411 |
| Firemen | $ 147,813,232 | $ 1,360,018 | $ - | $ 2,046,754 | $ 4,528,358 | $ 155,748,362 |
| Laborers | $ 82,740,302 | $ 2,826,928 | $ - | $ 1,910,350 | $ 5,876,343 | $ 93,353,923 |
| MWRD | $ 73,231,227 | $ 1,041,560 | $ - | $ 1,149,105 | $ 1,736,233 | $ 77,158,125 |
| Park District | $ 47,460,349 | $ 2,774,837 | $ - | $ 1,169,531 | $ 2,503,601 | $ 53,908,318 |
| Forest Preserve | $ 10,437,502 | $ 2,672,454 | $ - | $ 156,129 | $ 296,796 | $ 13,562,882 |
| **TOTAL** | **$ 2,003,371,186** | **$ 100,877,074** | **$ 53,123,602** | **$ 27,986,006** | **$ 76,421,760** | **$ 2,261,779,628** |

## FUNDED RATIOS

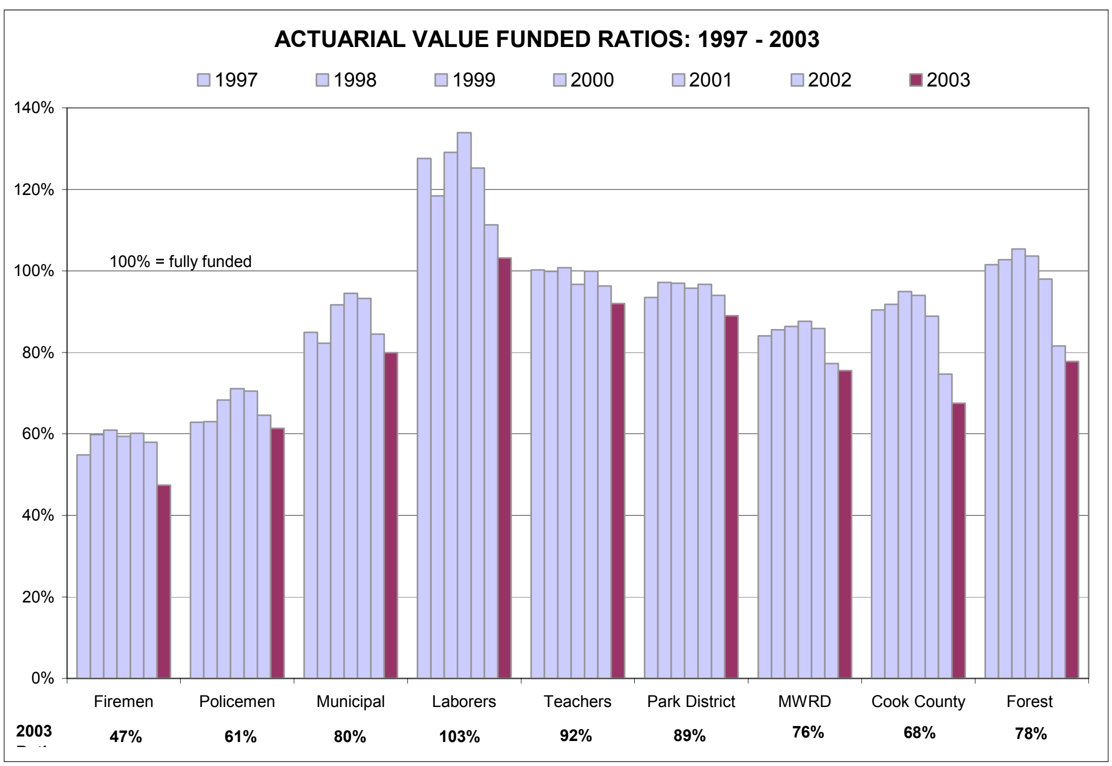
This report uses two measurements of the pension plans funded ratios: the actuarial value of assets measurement and the market value of assets measurement.

The actuarial value of assets measurement looks at the ratio of assets to liabilities and accounts for assets by averaging unexpected gains and losses over a period of three to five years (see note 5, page 8 for an explanation of actuarial value of assets). The market value of assets measurement looks at the ratio of assets to liabilities by recognizing investments only at current value.

### <u>Actuarial Value of Assets</u>

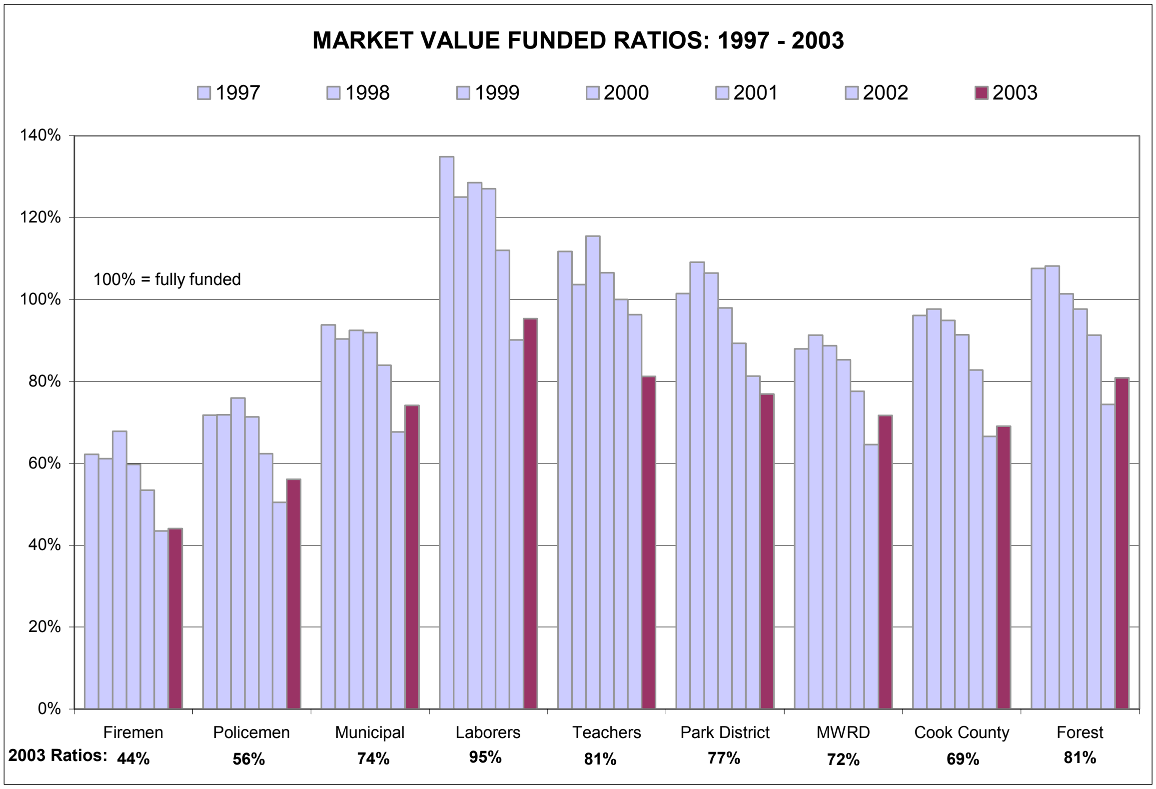
Despite stronger financial markets in FY2003, each of the nine funds lost ground in terms of their actuarially funded ratios. The low funded ratios of the Firemen's and Policemen's pension funds are a continuing cause for concern, since these ratios have fallen to 47.4% and 61.4% respectively. On the high end of the scale, the Laborers' Fund remains over-funded at 103%, down from 129% in 1999. The City's contributions to this fund have declined over the past several years to compensate for this over-funding. Although the Laborer's Fund has more assets than projected liabilities accrued to date, The Civic Federation continues to caution policy makers against viewing this "surplus" as an opportunity to dramatically increase benefits.

It is important to consider the actuarial funded ratios over time. The following table charts illustrate the nine funds' standing since 1997, the earliest year for which we have data.



## Market Value of Assets

It is also useful to evaluate Funds' market value funded ratios over time. The following table illustrates the fluctuations in the market value actuarial funded ratio since 1997, the earliest year for which we have data. Market value funded ratios are more volatile than the actuarial funded ratios due to the smoothing effect of the three-to-five year average in the actuarial value. The 2003 market value funded ratios are generally lower than the actuarial funded ratios because the market gains of 2003 have not yet compensated for the losses in 2001 and 2002.

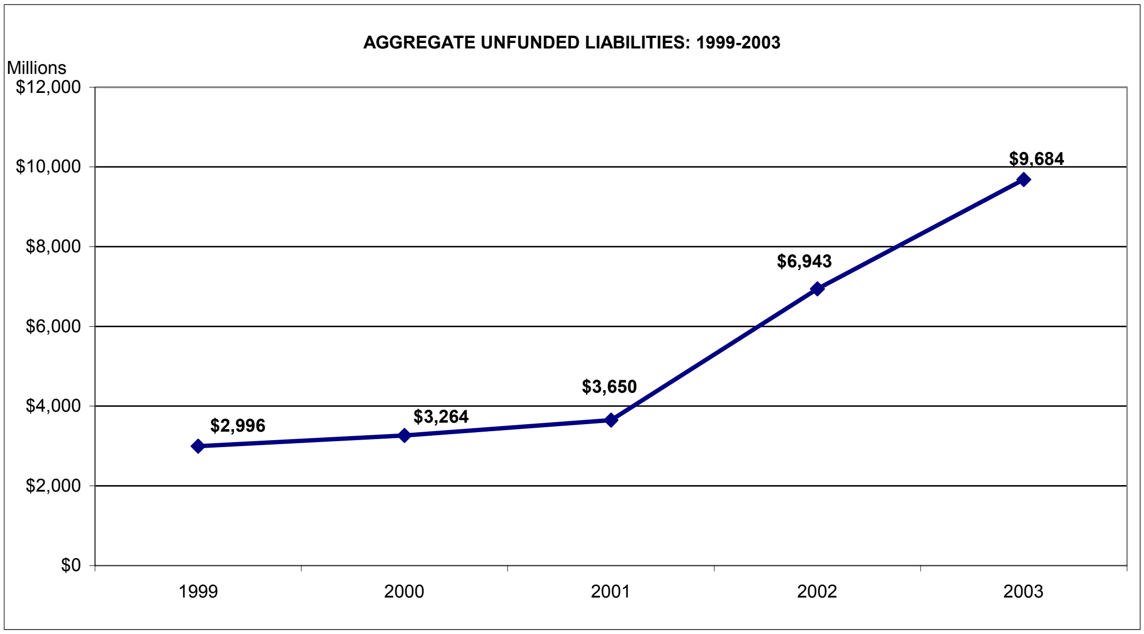



## UNFUNDED LIABILITIES

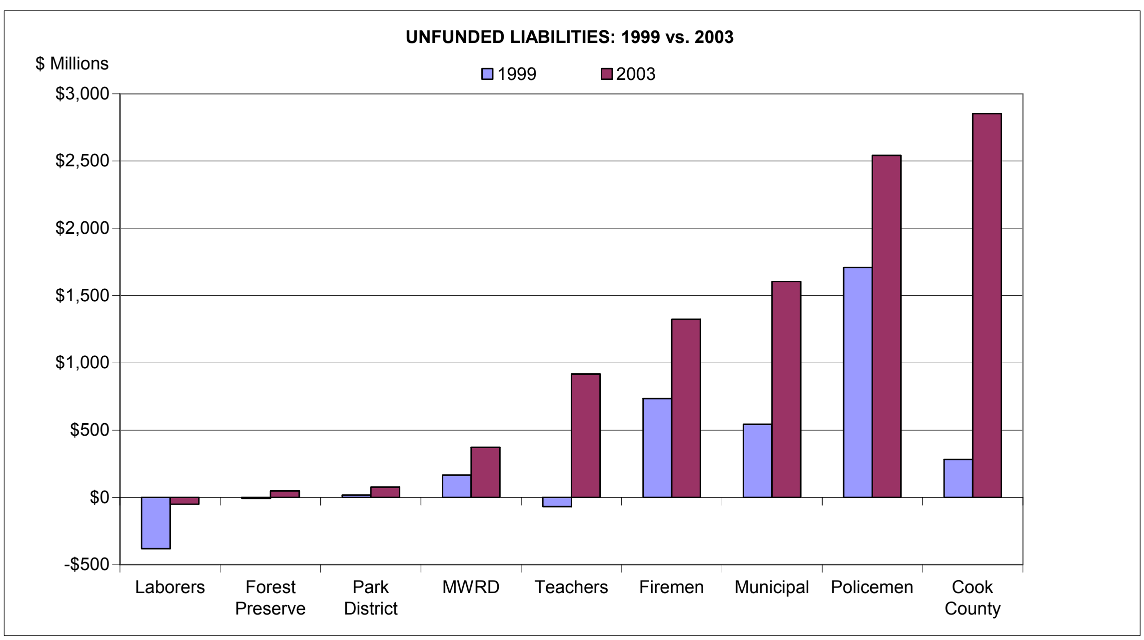
The difference between assets and liabilities is known as the unfunded liability. This figure is derived by subtracting the actuarial value of the assets from the accrued liability of each fund.

One of the functions of this indicator is to measure a fund's ability to bring assets in line with liabilities. Healthy funds continue to reduce debt over time without dramatic reductions at the expense of employees or taxpayers. Over the five year period between FY1999 and FY2003, substantial increases occurred across all of nine funds reviewed and are largely the result of steady or declining values of assets and increasing liabilities.

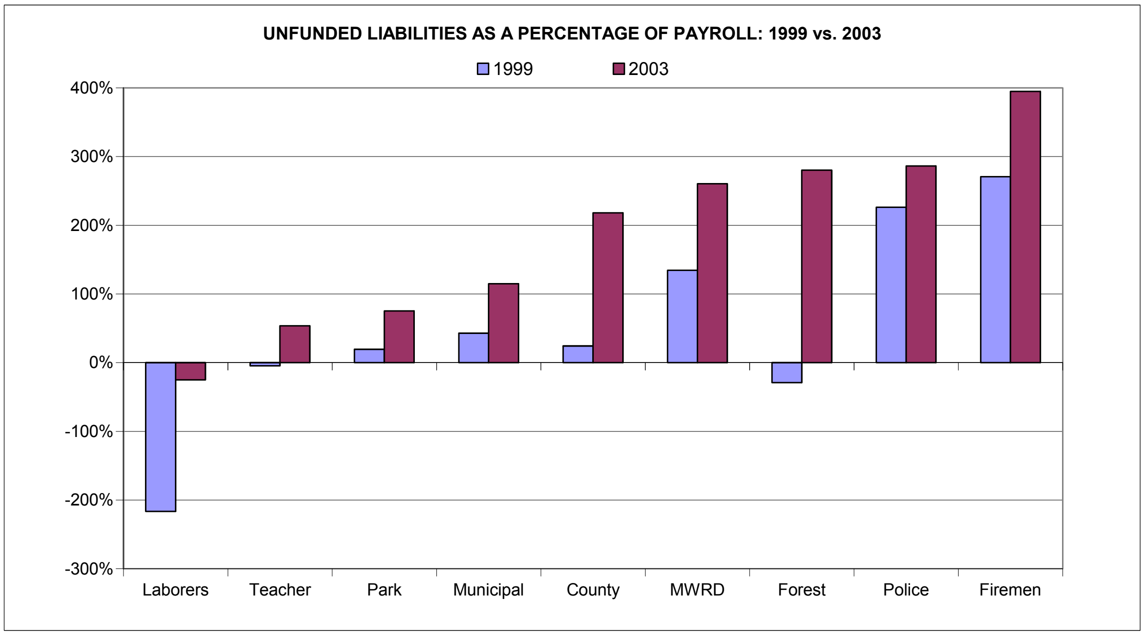
The aggregate unfunded liability of the nine pension funds is increasing as shown in the following chart. Between fiscal years 2002 and 2003, the aggregate unfunded liability increased by nearly 40%, rising from $6.9 billion to $9.7 billion.




The largest unfunded liability in FY2003 is now Cook County's pension fund at $2.9 billion, almost ten times its 1999 unfunded liability. In FY2002, the Policemen's pension unfunded liability was the largest at $2.3 billion. The Municipal, Firemen, Teacher, MWRD all had substantial growth in unfunded liabilities since 1999.



Another indicator of funding progress is the reporting of a fund's unfunded liability as a percentage of covered payrolls. This measurement expresses the unfunded liability in terms of the 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 on reducing its unfunded liability. An indication of a reasonable funding strategy would be a gradual decrease in unfunded liability as a percent of covered payroll over time. If the opposite is true, unfunded liability continues to increase as a percentage of covered payrolls, then a new funding strategy and the level of benefits granted by the fund need to be considered. Every fund has experienced significant increases in unfunded liabilities as a percentage of payroll in the last five years. The Firemen's Fund has the highest unfunded liabilities as a percentage of payroll, at almost 400%.



## CONCLUSION

In our Status of Local Pensions 1996 report, produced during a period of increasing rates of return, The Civic Federation warned that "The funded ratios of these funds will continue to improve provided that the financial markets remain strong and other factors remain equal. However, if the markets do not remain strong, the other sources of funding for these funds will not provide enough income to compensate for substantial increases in salary or additional, unanticipated years of service earned by employees."[8]

In fact, funded ratios for these pensions did improve through FY1999. However, in FY2001 and FY2002, when that positive trend had reversed, the gains made in funded ratios were eliminated. At the close of FY2003, despite a 13.5% aggregate rate of return on investments, actuarial funded ratios continued to fall. Of great concern are the pension funds with the lowest funded ratios: the Firemen's and Policemen's funds with actuarial ratios of 47% and 65%, respectively. However, all funds' actuarial funded ratios are below 1997 levels.

Investment income drives the total income of the pension funds. In FY2003, investment income represented 74% of total income. In FY2002, the $1.9 billion in investment losses exceeded the $1.2 billion derived from salary deductions and employer contributions. These contribution levels have remained relatively constant. Taken together, the revenue generated from these sources is insufficient to bridge widening gap between pension assets and pension liabilities.

If growth in liabilities continues to outpace growth in assets, then local governments will have to take action to ensure their pension funds' ability to meet current. Rather than allow these trends to continue, we urge policy makers to take steps now to protect the viability of the local pension funds. Some of these options include:

- Reducing benefits for new employees;
- Decreasing the number of future beneficiaries through workforce reduction;
- Requiring employees to contribute a greater share of wages to the pensions; and
- Increasing employer contributions.

[8] The Civic Federation. Status of Local Pension Funding 1996, p. 5.

**SOURCES**

1. County Employees' and Officers' Annuity and Benefit Fund of Cook County, Actuarial Statement, December 31, 2003, Donald F. Campbell Consulting Actuaries. June 2004.

2. Firemen's Annuity and Benefit Fund of Chicago Actuarial Valuation for the Year Ending December 31, 2003, Gabriel, Roeder, Smith & Co. May 2004.

3. Forest Preserve District Employees' Annuity and Benefit Fund of Cook County, Actuarial Statement, December 31, 2003, Donald F. Campbell Consulting Actuaries. June 2004.

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6. Municipal Employees' Annuity and Benefit Fund of Chicago Actuarial Valuation for the Year Ending December 31, 2003, Gabriel, Roeder, Smith & Co. April 2004.

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9. Public School Teachers' Pension and Retirement Fund, 106th Comprehensive Annual Report, June 30, 2003. November 2003.