# **STATE OF MINNESOTA Office of the State Auditor**



**Rebecca Otto State Auditor** 

## LARGE PUBLIC PENSION PLAN INVESTMENT REPORT

For the Year Ended December 31, 2011

#### **Description of the Office of the State Auditor**

The mission of the Office of the State Auditor is to oversee local government finances for Minnesota taxpayers by helping to ensure financial integrity and accountability in local governmental financial activities.

Through financial, compliance, and special audits, the State Auditor oversees and ensures that local government funds are used for the purposes intended by law and that local governments hold themselves to the highest standards of financial accountability.

The State Auditor performs approximately 150 financial and compliance audits per year and has oversight responsibilities for over 3,300 local units of government throughout the state. The office currently maintains five divisions:

Audit Practice - conducts financial and legal compliance audits of local governments;

Government Information - collects and analyzes financial information for cities, towns, counties, and special districts;

**Legal/Special Investigations** - provides legal analysis and counsel to the Office and responds to outside inquiries about Minnesota local government law; as well as investigates allegations of misfeasance, malfeasance, and nonfeasance in local government;

**Pension** - monitors investment, financial, and actuarial reporting for approximately 730 public pension funds; and

**Tax Increment Financing** - promotes compliance and accountability in local governments' use of tax increment financing through financial and compliance audits.

The State Auditor serves on the State Executive Council, State Board of Investment, Land Exchange Board, Public Employees Retirement Association Board, Minnesota Housing Finance Agency, and the Rural Finance Authority Board.

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## Large Public Pension Plan Investment Report

## For the Year Ended December 31, 2011



January 10, 2013

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#### **Scope and Methodology**

This report reviews the investment performance of Minnesota's large public pension plans for the 2011 calendar year. The three individual large local public pension plans included in this report are the Bloomington Fire Department Relief Association, the Duluth Teachers' Retirement Fund Association, and the St. Paul Teachers' Retirement Fund Association, and the St. Paul Teachers' Retirement from a pension plan, but invests the assets of certain public employee pension plans administered by the Minnesota State Retirement System, the Public Employees Retirement Association, and the Teachers Retirement Association.

These pension plans and the SBI held nearly \$48.1 billion in assets as of December 31, 2011, which represents the retirement savings of hundreds of thousands of public employees.

Limited information for the University of Minnesota Supplemental Benefits Plan is also included in this report. This plan has a total market value of less than \$25 million, so its statutory reporting requirements are less than the reporting requirements for the other plans included in this report. Therefore, only a brief description of activities for the plan is provided, and the plan is not included in the report tables.

The pension plans are required under Minnesota Statutes, section 356.219, to annually report investment information to the Office of the State Auditor, and the State Auditor is required to provide a report to the legislature on the investment performance of these plans. One way to measure investment performance is to calculate a rate of return which can then be used to compare a plan against a benchmark or against other plans. The methodologies used by each of the large plans to calculate rates of return may vary from one another and from the methodology used by the Office of the State Auditor. To obtain analogous comparisons of investment performance, the Office of the State Auditor calculates rates of return using a uniform calculation method.<sup>2</sup> Using a uniform calculation method allows for a fair comparison of performance among plans.

Oversight of these pension plans is important to safeguard the pensions of public employees and to control local and state liabilities. This report informs lawmakers of the large plans' investment performance, educates fiduciaries and members of the plans, and provides transparency to the public.

<sup>&</sup>lt;sup>1</sup> The Minneapolis Firefighters' Relief Association and the Minneapolis Police Relief Association are not included in this report as both plans were rolled into the Public Employees Retirement Association in 2011. <sup>2</sup> Minnesota Statutes, section 356.219, requires the Office of the State Auditor to compute and report total portfolio and asset class time-weighted rates of return, net of all costs and fees. The Duluth Teachers' Retirement Fund Association and the SBI are permitted by this statute to submit limited reporting information. Therefore, the rates of return included in this report for Duluth Teachers' and the SBI are provided by both respective entities, and are not re-calculated by the Office of the State Auditor.

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#### **Executive Summary**

#### **Current Trends**

- During 2011, rates of return for the large plans ranged from negative 0.7 percent (Duluth Teachers') to 0.3 percent (Bloomington Fire). All of the plans failed to meet their respective benchmarks. The rate of return for the SBI's Combined Funds was 1.5 percent. (Pages 7 through 14)
- All of the large plans except for Bloomington Fire ended 2011 with funding ratios below 100 percent. St. Paul Teachers' was the only plan that experienced an increase in its funding ratio. St. Paul Teachers' had a funding ratio of 70.0 percent. Bloomington Fire and Duluth Teachers' both saw decreases in their funding ratios. Their funding ratios were 102.7 percent and 73.2 percent, respectively. (Page 15)

#### **Long-Term Trends**

- The ten-year period from January 2002 through December 2011 provided minimal investment growth. Although none of the large plans were able to meet their actuarial assumed rates of return over this period, most of the plans were able to keep up with or exceed market returns. The best-performing plan over the ten-year period was St. Paul Teachers,' which earned 5.9 percent. The SBI's Combined Funds returned 5.7 percent for the period. (Pages 19 and 20)
- The plans with the lowest rates of return for the ten-year period were Bloomington Fire and Duluth Teachers,' with returns of 3.3 percent and 3.8 percent, respectively. Neither of these plans met their benchmarks for 2011. (Pages 19 and 20)

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### **Understanding Investment Performance Terms**

#### **Rate of Return**

The gain or loss on an investment over a specified period, usually expressed as a percentage increase over the initial investment cost.

#### Asset Allocation

Asset allocation describes the practice of distributing the assets of a portfolio among different types of investment classes, such as stocks, bonds, cash, and real estate. By diversifying assets, the goal is to create a favorable risk/reward ratio for a portfolio. When one asset class declines, the expectation is another will increase and offset the loss.

#### **Passive Investment Strategy**

Passive investment strategy or passive management is more commonly called indexing. Indexing is an investment management approach based on investing in the same securities, and in the same proportions, as a specific index. The management style is considered passive because portfolio managers do not make decisions about which securities to buy and sell. Instead, managers simply copy the index by purchasing the same securities included in a particular stock or bond market index.

#### **Active Investment Strategy**

Active investment strategy or active management is an attempt to outperform the market as measured by a particular benchmark or index. The aim of active fund management is to outperform, after fees are paid, the index that a particular fund is benchmarked against. Prevailing market trends, the economy, political and other current events, and companyspecific factors, such as earnings growth, all affect an active manager's decisions. Active investing often has higher costs than passive investing. These extra expenses may reduce any extra gains an active manager might earn.

#### **Enhanced Indexing Investment Strategy**

Enhanced indexing investment strategy or enhanced indexing is a hybrid strategy used by many of the large plans. Enhanced indexing combines both passive and active investment strategies and attempts to generate rates of return that are slightly higher than that of an index fund or other passive management techniques.

#### Benchmark

A benchmark is an index to which a plan compares its investments. Market benchmarks are used by individual investors, portfolio managers, and market researchers to determine how well a particular market or market sector performs. Investors look to broad indices as benchmarks to help them gauge not only how well the markets are performing, but also how well they are performing as investors.

#### Why Benchmarks are Important

Measuring investment returns against an appropriate benchmark encourages prudent investment decisions and gives trustees a fair depiction of how a plan's investments are performing. The key to establishing the most accurate benchmark for a portfolio is determining which indices best track investments similar to the asset allocation of the investment policy. An ideal benchmark return would consist of a hypothetical portfolio of indices, invested in the same asset classes and in the same proportion as the actual holdings of the entire portfolio. Indices track different asset classes, such as domestic equity or bonds. An index may also track subsets of an asset class, such as smallcapitalization growth domestic equity. Although benchmark indices are not directly available for investment purposes, mutual and collective index funds which hold the same securities as the index can be obtained. Known as "index funds," these funds are managed with a passive style. Figure 1 below compares the 2011 rates of return and benchmark returns for the large plans and the State Board of Investment (SBI).



Figure 1: 2011 Rates of Return and Benchmark Return

### **2011 Performance Analysis**

Investment returns fluctuated by asset class in 2011, following steady gains in 2010. The S&P 500 Index, which is a gauge of the large-capitalization U.S. equities market, returned 2.1 percent in 2011. The Russell 3000 Index measures the performance of the largest 3,000 U.S. companies, representing nearly all of the U.S. equity market. The Russell 3000 Index returned 1.0 percent.

International equities did not perform as well in 2011 as in 2010, returning negative 13.7 percent as measured by the Morgan Stanley Capital International (MSCI) All-Country World Index excluding the United States (ACW Index ex. U.S.). This index measures the performance of both developed and emerging markets.

Domestic bonds posted another year of steady returns, returning 7.8 percent as measured by the Barclays Capital Aggregate Index. The 2011 return for bonds outperformed the 6.5 percent return achieved during 2010.

In 2011, economic indicators also improved slightly as unemployment dropped to 8.5 percent and consumer spending increased by 3.3 percent. The increase in spending was greater than the change in the Consumer Price Index, which rose 3.0 percent. The weak housing market and high unemployment rate, as well as European debt and other geopolitical issues, were concerns that contributed to the slow, but recovering, economy.

#### Bloomington Fire Department Relief Association

The Bloomington Fire Department Relief Association consists of retired and active firefighters of the City of Bloomington. Bloomington Fire is the administrator of a single-employer defined benefit pension plan available to firefighters, which was established April 1, 1947.<sup>2</sup> Bloomington Fire is governed by a Board of Trustees made up of six members elected by the members of the plan for three-year terms, and the Mayor, City Treasurer, and Fire Chief, who serve as ex officio voting members of the Board.

Bloomington Fire returned 0.3 percent in 2011, as calculated by the Office of the State Auditor. The return fell short of the plan's benchmark return of 3.3 percent.

Bloomington Fire's investment policy allocates 50.0 percent to domestic equities, 10.0 percent to international equities, 35.0 percent to bonds, and 5.0 percent to cash. The plan's actual allocation for 2011 consisted of 51.1 percent domestic equities, 12.6 percent

<sup>&</sup>lt;sup>2</sup> See Bloomington Fire Department Relief Association December 31, 2011, Financial Statements and Management Letter, page nine.

international equities, 33.2 percent fixed income, and 3.1 percent cash. From 2010 to 2011, Bloomington Fire increased its allocation to fixed income by 4.1 percent and decreased its allocation to cash by 20.5 percent.

At the end of 2011, 87.8 percent of Bloomington Fire's total assets were held in the SBI's Supplemental Fund: 30.3 percent of the plan's assets with the SBI were invested in the Common Stock Index Account; 14.7 percent in the Growth Share Account; 10.6 percent in the International Share Account; and 32.2 percent in the Bond Market Account.

The Common Stock Account is a Russell 3000 Index fund that returned 0.8 percent for the year. The Growth Share Account is an actively-managed domestic equity account that returned 0.1 percent for the year. Both domestic equity accounts failed to meet their benchmark S&P 500 return of 2.1 percent. The International Share Account, consisting of active, semi-passive, and passive managers, returned negative 14.2 percent for the year. The account is compared to a composite index that returned negative 5.5 percent. The Bond Market Account, an actively-managed account, returned 7.2 percent, but did not meet its benchmark Barclays Capital Aggregate Index return of 7.8 percent.

Wells Fargo Advisors held 10.0 percent of Bloomington Fire's total assets. This account was invested in cash, individual stocks, fixed-income, and mutual funds. The Wells Fargo account returned negative 3.3 percent.

Bloomington Fire also held investments in an internally-managed account. The account held 2.2 percent of the plan's assets, and was entirely invested in short-term cash investments. The account returned 0.4 percent. Assets held by the internally-managed account decreased by 19.6 percent over the 2010 holdings.

#### **Duluth Teachers' Retirement Fund Association**

The Duluth Teachers' Retirement Fund Association was established in 1910 to provide retirement coverage to eligible employees of the Duluth Public Schools.<sup>3</sup> Eligible employees include the licensed, certified staff of Duluth Public Schools, certain staff at Lake Superior College hired prior to July 1, 1995 who elected to continue membership with the association, and association staff. Since 1964, the association also offers to members three tax-deferred 403(b) investment funds through payroll deduction with the school district. The association is governed by a nine-member Board of Trustees, which sets policy and oversees operations consistent with the applicable laws. The executive director is the administrative officer for the association.

Duluth Teachers' returned negative 0.7 percent in 2011, below its benchmark return of negative 0.4 percent. While international equity was the only asset class with a negative return during the year, its impact was significant enough to produce a negative overall return for the plan's total portfolio.

<sup>&</sup>lt;sup>3</sup> See Duluth Teachers' Retirement Fund Association 2011 Comprehensive Annual Financial Report Letter of Transmittal, page four.

Duluth Teachers' updated its investment policy in December of 2011 to include a Purpose-Driven Portfolio strategy, which establishes policy weights for each asset class. In this structure, asset allocation is a function of aggregate portfolio goals. Broad asset classes are not the primary focus. Investment allocations are based upon their ability to further the goals of the total portfolio. The policy has four categories: Return Enhancers, Portfolio Stabilizers, Opportunistic, and Economic Hedges.

The Return Enhancers category includes domestic equity, international equity, and private equity. In the investment policy, a target allocation of 65.0 percent of the plan's assets was established for this category. Duluth Teachers' domestic equity portfolio returned 1.3 percent. Investments in large-capitalization stocks were held through a Wells Fargo S&P 500 Index fund, which comprised 11.6 percent of the plan's total assets. The Wells Fargo fund returned 2.2 percent, falling closely in line with the benchmark S&P 500 Index return of 2.1 percent. The small-capitalization growth segment of domestic equity was managed by Disciplined Growth Investors, which held 13.7 percent of Duluth Teachers' total assets. This fund returned a favorable 4.9 percent compared to a negative 2.9 percent return from the Russell 2000 Growth Index benchmark. The small- and mid-capitalization portfolio, comprising 7.9 percent of the plan's total assets, was managed by Wellington. The Wellington Fund returned negative 6.9 percent, while its Russell 2500 Value Index benchmark provided a negative 3.4 percent return.

Duluth Teachers' international equities were managed by Artio Global Investors. International investments made up 22.6 percent of Duluth Teachers' total assets. The fund returned negative 11.1 percent, but still outperformed the benchmark MSCI ACW Index ex. U.S. return of negative 13.7 percent.

The plan's private equity funds were held by HarbourVest Partners and North Sky Capital. Private equity consists of equity securities in operating companies that are not publicly traded on a stock exchange. The assets were invested in venture funds, buyout funds, and international private equity funds. Investments in private equity comprised 9.9 percent of the plan's total assets at the end of the year and returned 16.5 percent.

The Portfolio Stabilizers category includes fixed-income investments, absolute-return strategies, and cash. A target allocation of 25.0 percent was established for this category. The fixed-income portfolio held 20.4 percent of the plan's total assets at the end of the year. Fixed-income investments managed by Western Asset Management returned 6.3 percent. The fund failed to reach the 7.8 percent benchmark return set by the Barclays Capital Aggregate Index. Metropolitan West, which reclassified its portfolio from domestic equity holdings to fixed-income holdings in 2009, comprised 1.7 percent of Duluth Teachers' total assets at the end of 2011. The fund's investments included government and investment grade corporate bonds, mortgage- and asset-backed securities, and non-U.S. fixed-income securities. The Metropolitan West fund returned negative 8.1 percent.

The Hussman Strategic Growth Fund is also classified in the Portfolio Stabilizers category. This risk-controlled equity fund sought to achieve long-term capital appreciation with added emphasis on the protection of capital during unfavorable market conditions. Comprising 5.0 percent of the plan's total assets, the fund returned 1.6 percent. The S&P 500 Index benchmark for the fund provided a return of 2.1 percent. Duluth Teachers' held 2.8 percent of its total assets in cash at the end of 2011, which returned 0.1 percent.

The Opportunistic category includes unique or short-term investment opportunities. A target allocation of 5.0 percent was established for this category. In April 2011, Duluth Teachers' began investing in a fund with BlackRock. The fund returned 1.4 percent through the end of the year. During June 2011, a fund with Pacific Investment Management Company was opened, which returned 0.8 percent through 2011. The Opportunistic investments comprised 5.3 percent of the plan's total assets at the end of the year.

The Economic Hedges category includes real assets and real- and real-return bonds. A target allocation of 5.0 percent was established for this category. Duluth Teachers' real estate investments made up 0.8 percent of the plan's total assets. The investments performed well, returning 11.6 percent for the year. However, the plan's real estate investment return underperformed compared to the benchmark National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index return of 14.3 percent. The plan's real estate investments consist of the buildings which house the plan's offices. Rental income from the buildings is included by Duluth Teachers' in the calculation of the investment return for real estate, which contributed to the high return of the asset class.

#### St. Paul Teachers' Retirement Fund Association

The St. Paul Teachers' Retirement Fund Association is a non-profit organization formed in 1909.<sup>4</sup> At the direction and oversight of a ten-member Board of Trustees, St. Paul Teachers' staff manage two tax-qualified, defined-benefit pension programs, a Basic Plan and a Coordinated Plan. These plans cover licensed personnel of the Independent School District (ISD) No. 625, which is the central administrative body for public schools within the City of St. Paul. Basic Plan members do not participate in Social Security through their employment with the ISD. In 1978, the Coordinated Plan commenced and it provides retirement benefits for members who simultaneously participate in Social Security.

St. Paul Teachers' returned negative 0.6 percent in 2011, as calculated by the Office of the State Auditor, falling short of its benchmark return of negative 0.3 percent. The plan's market value decreased by \$66.7 million. International equity and global returns

<sup>&</sup>lt;sup>4</sup> See St. Paul Teachers' Retirement Fund Association June 30, 2011, Financial Statements and Management Letter, page five.

were the main contributors to the plan's overall reduction in market value. The asset allocation was in line with the plan's comprehensive investment policy.

The domestic equity holdings of St. Paul Teachers' returned negative 0.9 percent, which was below the S&P 500 Index return of 2.1 percent. St. Paul Teachers' used the S&P 500 Index as the large-capitalization benchmark. The BGI Russell 1000 Growth Index fund returned 2.7 percent and exceeded the Russell 1000 Growth Index benchmark of 2.6 percent. This fund was the plan's second largest large-capitalization fund. The Barrow & Hanley fund's rate of return of 3.8 percent exceeded the Russell 1000 Value Index benchmark return of 0.4 percent. The BGI S&P 500 Index fund returned 2.2 percent, exceeding the S&P 500 Index benchmark of 2.1 percent. The large-capitalization growth fund managed by Fifth Third Asset Management returned negative 1.6 percent, which failed to meet its Russell 3000 Index benchmark of 1.0 percent. The lone mid-capitalization fund managed by Wellington Management returned negative 6.7 percent. The small-capitalization fund managed by Boston Company returned negative 8.3 percent. The DFA 6-10 Value fund returned negative 7.3 percent, compared to its negative 5.5 percent benchmark return.

Fixed-income investments returned 8.3 percent, exceeding its Barclays Capital Aggregate Index benchmark return of 7.8 percent. The BGI U.S. Debt Index Fund returned 7.9 percent compared to the Barclays Capital Aggregate Index benchmark of 7.8 percent. St. Paul Teachers' fixed-income portfolio also included a passively-managed fund, the BGI G/C Index Fund, which returned 8.8 percent. Fixed-income investments made up 18.7 percent of the total portfolio, after accounting for 16.2 percent of the portfolio in 2010.

St. Paul Teachers' international equity portfolio returned negative 11.4 percent. The plan classifies the international equity managers as either developed or emerging market. The developed market funds, managed by JP Morgan and Morgan Stanley, track the MSCI EAFE Index benchmark, which returned negative 12.1 percent. The JP Morgan fund exceeded the benchmark, returning negative 10.1 percent, while the Morgan Stanley fund also exceeded the benchmark with a return of negative 8.1 percent. The emerging market segment played a significant role in the reduction of the overall return of the plan's international equity portfolio. The emerging market fund managed by Capital International returned negative 21.5 percent, missing the MSCI Emerging Markets Index benchmark of negative 18.2 percent.

St. Paul Teachers' was invested in a global equity fund managed by Lazard. The Lazard Thematic Global Fund returned negative 7.9 percent, falling short of the MSCI ACW Index benchmark of negative 6.9 percent.

Real estate holdings for St. Paul Teachers' returned 10.9 percent, compared to its NCREIF Property Index benchmark return of 14.3 percent. Real estate fund manager Advantus returned 6.1 percent, after returning 30.6 percent in 2010. The other real estate fund held by St. Paul Teachers' was UBS Trumbull, which returned 11.2 percent.

Alternative investments returned 21.8 percent, as calculated by the Office of the State Auditor. Alternative investments included funds managed by RWI Group, North Sky Capital, Blue Arc, and Force Ten Networks. St. Paul Teachers' uses the weighted actual rate of return for its alternative investments as the benchmark for this asset class.

St. Paul Teachers' cash portfolio returned 7.1 percent. The cash portfolio includes a cash overlay account managed by the Clifton Group. The cash overlay account overlaid equity returns on cash, contributing to the strong rate of return for the cash portfolio.

#### **State Board of Investment**

The State Board of Investment (SBI) was established by Article XI of the Minnesota Constitution to invest state funds.<sup>5</sup> The SBI is responsible for the investment management of various retirement funds, trust funds, and cash accounts. Its membership, as specified in the Constitution, is comprised of the Governor (who is designated as chair of the Board), the State Auditor, the Secretary of State, and the State Attorney General. All investments undertaken by the SBI are governed by the prudent person rule and other standards codified in Minnesota Statutes, Chapter 11A and Chapter 356A.

The SBI's Combined Funds returned 1.5 percent in 2011, falling short of its 2.1 percent benchmark for the year. The SBI's domestic-equity, fixed-income, and international-equity asset classes all failed to reach their respective benchmarks.

The SBI's domestic equity portfolio returned 0.4 percent, which was below the benchmark Russell 3000 Index return of 1.0 percent. The portfolio was managed by 19 active money managers, four semi-passive managers, and one passive manager. Each active manager was expected to exceed its respective Russell-style index over time by an amount appropriate for its active risk level. The semi-passive managers are expected to add incremental value relative to the Russell 1000 Index, employing a strategy that more closely tracks the benchmark than the active managers. The passive manager consistently tracks the Russell 3000 Index.

The fixed-income portfolio of the SBI returned 7.2 percent for the year, compared to the 7.8 percent benchmark return of the Barclays Capital Aggregate Index. An 18.0 percent allocation to fixed income was provided for in the SBI's investment policy, and the fixed-income portfolio made up 22.7 percent of the SBI's total assets at the end of the year. The SBI targeted no more than half of the fixed-income portfolio for active management, while having at least half managed semi-passively. The objective of the five active managers is to outperform the Barclays Capital Aggregate Index by focusing on high quality fixed-income securities across all sectors of the market. The three semi-passive managers had the goal of adding incremental value through superior bond selection and sector allocation rather than through interest-rate exposure.

<sup>&</sup>lt;sup>5</sup> See Minnesota State Board of Investment 2011 Annual Report, page one.

The SBI's international equity portfolio returned negative 14.2 percent, failing to reach its benchmark MSCI ACW Index ex. U.S. return of negative 13.7 percent. The SBI allocates 15.0 percent to international equities in its investment policy, and at year-end international equities accounted for 14.1 percent of the total assets. The SBI's international equity portfolio had ten active managers, three semi-passive managers, and one passive manager. Seven of the ten active managers and the three semi-passive managers invest entirely in developed markets. The remaining three active managers invest solely in emerging markets. The SBI's target is to have at least one-third of the portfolio managed actively, no more than one-third managed semi-passively, and at least one-quarter managed passively.

The alternative investments of the SBI returned 12.6 percent, providing the highest return of all asset classes. The actual rate of return was used as the benchmark for this asset class. A target allocation of 20.0 percent is established in the investment policy, with an actual allocation of 15.6 percent to alternative investments at the end of 2011. The majority of the portfolio was allocated to private equity, with assets also being held in yield-oriented investments, resource investments, and real estate.

#### University of Minnesota Supplemental Benefits Plan

The University of Minnesota Supplemental Benefits Plan is a University-funded definedbenefit plan designed to provide additional retirement benefits for certain groups of individuals.<sup>6</sup> As of July 1, 2011, the plan had six active members and 198 retirees and survivors who were receiving or were entitled to receive benefits. No additional participants in the plan are expected, as the eligible population is a closed group.

The Supplemental Benefits Plan is invested in the University of Minnesota Group Income Pool (GIP). The GIP is invested in a diversified bond fund, which is measured against the Barclays Capital Aggregate Index (after taxes and un-hedged). The Barclays Capital Aggregate Index returned 7.8 percent during 2011. The GIP returned 3.6 percent during the same period. The Supplemental Benefits Plan had a rate of return of 2.2 percent for 2011, as calculated by the Office of the State Auditor. The rate of return calculated by the Office of the State Auditor was for the Supplemental Benefits Plan only, and not for the entire GIP.

Beginning Market Value	\$1,970,490
Net Cash Flows	\$(299,451)
Investment Returns	\$51,126
Ending Market Value	\$1,722,165
OSA One-Year Rate of Return	2.2%
Group Income Pool One-Year Rate of Return	3.6%
Benchmark Rate of Return	7.8%

<sup>&</sup>lt;sup>6</sup> Plan and membership information was obtained from the University of Minnesota Supplemental Benefits Plan July 1, 2011, Actuarial Valuation, and from the Supplemental Benefits Plan Administrative Policy.

Figure 2 below shows the 2011 rates of return for the large plans and the SBI.



Figure 2: 2011 Rates of Return

#### **Funding Ratios**

Funding ratios show the relationship between a plan's assets and its liabilities. A plan's liabilities are calculated by an actuary using statutory assumptions based on historical data. Examining the ratio between assets and liabilities can help determine how well-funded the plan is, whether additional contributions to the plan will be needed, and whether future benefit increases would be sustainable. Investment returns, contributions, actuarial assumptions, plan provisions, changes in benefit levels, and historical funding issues can all have a direct influence on the financial health of the plan.

Bloomington Fire's funding ratio decreased 2.6 percent during 2011. Bloomington Fire was the highest-funded large public pension plan, with a funding ratio of 102.7 percent (therefore, the plan has a surplus and has no unfunded actuarial accrued liabilities). Because the assets of Bloomington Fire are not smoothed, the funding ratio is subject to greater volatility than the other large plans.<sup>7</sup>

Duluth Teachers' funding ratio decreased 10.3 percent, for a funding ratio of 73.2 percent. Duluth Teachers' unfunded actuarial accrued liability amount was \$86.0 million.<sup>8</sup>

St. Paul Teachers' funding ratio increased slightly to 70.0 percent. Its unfunded actuarial accrued liability was \$417.2 million.

Figure 3 below illustrates the funded ratios for the large plans.



#### Figure 3: Fiscal Year 2011 Funded Ratio Percentage

<sup>&</sup>lt;sup>7</sup> The other large plans included in this report have statutorily-required five-year asset-smoothing actuarial valuation of assets. *See* Minn. Stat. § 356.215, subd. 1(f).

<sup>&</sup>lt;sup>8</sup> The unfunded actuarial accrued liability is the difference between the present value of benefits estimated to be payable to plan members as a result of their service through the valuation date and the actuarial value of plan assets available to pay those benefits.

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### Administrative Expenses

Pension plans are permitted by state law to pay certain administrative expenses out of the pension plan's assets. These expenses include staff salaries, legal fees, professional services (including audit and actuarial fees), and other items such as travel, postage, and printing. Administrative expenses affect funding ratios and contribution rates since they come directly out of the pension plan's assets. It is important to limit expenses to those that are necessary and reasonable while still maintaining a well-managed pension plan.

St. Paul Teachers,' the largest plan, spent the most on administrative expenses, totaling \$722,397, a 20.0 percent increase from 2010. Duluth Teachers,' the next largest plan, spent \$497,009 on administrative expenses, which was a 1.7 percent decrease from the previous year.

Bloomington Fire, the smallest plan, increased its administrative expenses from the previous year by 6.0 percent. Bloomington Fire had the lowest total administrative expenses of the plans, at \$79,771.

St. Paul Teachers' had the highest total amount of administrative expenses, which was due in part to their legal fees, which increased by 658.3 percent from the previous year. Duluth Teachers' legal fees increased by 106.8 percent and legal fees for Bloomington Fire decreased by 18.5 percent.

Total administrative expenses on a per-member basis remained fairly constant for each of the plans during 2011, and have remained fairly constant over the past ten years.<sup>9</sup>

Figure 4 on the next page provides further detail on the administrative expenses for the large plans.

<sup>&</sup>lt;sup>9</sup> See Table 14 on page 46 of this report.



Figure 4: Administrative Expenses for Fiscal Year 2011

#### **Ten-Year Performance Analysis**

The volatility of rates of return over the last ten years has resulted in portfolio values remaining fairly constant. After rebounding in 2010, the Russell 3000 Index had a weak performance in 2011. Domestic equity, as measured by the Russell 3000 Index, posted positive returns during three of the ten years. This ten-year period will allow us to measure the performance of Minnesota's large plans during a time of stagnant investment growth.

The investment returns of Minnesota's large plans over the ten-year period ending December 31, 2011, can be assessed by using market indices as benchmarks. The U.S. stock market, as measured by the Russell 3000 Index, returned 3.5 percent over the ten-year period. Domestic equity represented the largest asset allocation for each of the large plans.

International equity, as measured by the MSCI EAFE Index, averaged 4.7 percent annually over the ten-year period. Emerging markets averaged an annual return of 14.2 percent over the period, as measured by the MSCI Emerging Markets Index.

The average bond market return over the ten-year period was 5.8 percent, as measured by the Barclays Capital Aggregate Index.

An example of a return that was calculated over the ten-year period is the State Board of Investment's Income Share Account. The target asset allocations for this account were 60.0 percent domestic equities, 35.0 percent bonds, and 5.0 percent cash. The stock component of this account is indexed to the Russell 3000 Index. The bond portion of this account is actively managed and includes corporate bonds, mortgage securities, and government-issued bonds. The Income Share Account represents a balanced fund. Over time this account is expected to average higher rates of return than a fixed-income or money market account. The Income Share Account's average annual rate of return for the ten-year period was 4.7 percent.

Bloomington Fire and Duluth Teachers' failed to meet the Income Share Account tenyear rate of return. All of the large plans failed to meet their actuarial assumed average annual rates of return over the ten-year period.

Of the large public pension plans, the top performing plan over the ten-year period was St. Paul Teachers', averaging a 5.9 percent annual rate of return. The SBI, which consolidated the basic and post funds in 2009, had a ten-year return of 5.7 percent. Duluth Teachers' had a 3.8 percent rate of return over the ten-year period. Bloomington Fire had a ten-year return of 3.3 percent, the lowest of the large plans.

Figure 5 below shows the ten-year average annual rates of return for the large plans and for the SBI.



Figure 5: Ten-Year Average Annual Rates of Return (2002-2011)

#### Why Rates of Return Matter

Rates of return matter because what may seem like small differences can make large differences in actual dollars. To put the rates of return into context, consider \$100 invested at 5.9 percent (the highest large-plan return) for ten years. At the end of ten years, you would have \$177. If you only earned 3.3 percent (the lowest large-plan return), you would have \$137 at the end of ten years. The higher rate of return yields nearly 29.2 percent more in actual dollars. If plan provisions are set up optimally, higher rates of return could allow for lower contribution rates and possible benefit increases. Although the growth won't be as steady as illustrated in the example below, the result will be the same. Additionally, all of the large plans have actuarial statutorily-assumed rates of return.

Figure 6 below shows the growth of \$100 at differing rates of return over a ten-year period.



Figure 6: Ten-Year Growth of \$100 at Differing Rates of Return

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**2011 Plan Summaries** 

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#### How to Read the Plan Summaries

The plan summaries on pages 27 through 30 of this report contain various acronyms and investment terms that are defined below.

#### **Rates of Return (ROR)**

- **OSA One-Year ROR** The pension plan's total return on its assets, as calculated by the Office of the State Auditor. *Note: Under State law, the Duluth Teachers' Retirement Fund Association and the State Board of Investment submit only limited reporting information. The rates of return for these two plans are provided by the plans and are not re-calculated by the Office of the State Auditor.*
- **Plan One-Year ROR** The pension plan's return on its assets as calculated by the plan or its consultant.
- **Benchmark ROR** The rate of return of a hypothetical portfolio invested in the plan's chosen benchmark components in the percentages dictated by the plan's investment policy. Although not perfect, it is a good measure of what return the plan could have achieved during the year.
- Actuarial Assumed ROR The rate of return required for the plan to meet its actuarial assumptions.
- Three-, Five-, and Ten-Year ROR The average annual returns earned by the plan over the specified time period, either calculated by the Office of the State Auditor or reported by the plan. *Note: Under State law, the Duluth Teachers' Retirement Fund Association and the State Board of Investment submit only limited reporting information. The rates of return for these two plans are provided by the plans and are not re-calculated by the Office of the State Auditor.*

#### Asset Class

A group of similar investments, such as domestic equity, bonds, cash, or alternative investments. Pension plans invest in different asset classes for diversification purposes. When returns for one asset class decline, another may increase offsetting the loss. In this report, any account or fund that holds investments from more than one asset class is reported as its own asset class.

#### **Benchmark Components and Rates of Return**

Benchmark components are the different indices to which the plan compares its investments. Indices track different asset classes, such as domestic equity or bonds. They may also track subsets of an asset class. To evaluate investment performance, it is important to use appropriate indices. The rates of return for each benchmark component are also provided.

#### **Policy Asset Allocation**

The percentage allocated to each asset class in the investment policy.

#### **Actual Asset Allocation**

The percentage actually invested in each asset class. In the plan summaries that follow, the actual asset allocation is measured as of the year-end.

#### **Beginning Market Value/Ending Market Value**

The market value is the price as determined by buyers and sellers in an open market. The dollar amount in the asset class or investment as of the beginning/end of 2011 is the beginning market value/ending market value.

#### **Net Cash Flows**

The net amount of cash (or securities) deposited or withdrawn from the asset class or investment during the year.

#### **Investment Return**

The net amount of interest, dividends, and appreciation or depreciation the asset class or investment gained or lost during the year.

#### **Rate of Return**

The net (after fees) return of the asset class or investment during the year.

## **Bloomington Fire Department Relief Association**

For the Year Ended December 31, 2011

(Dollars in Thousands)

Rates of Return (ROR)	
OSA One-Year ROR	0.3 %
Plan One-Year ROR	0.4 %
Benchmark ROR	3.3 %
Actuarial Assumed ROR - Active	6.0 %
Actuarial Assumed ROR - Retired	6.0 %
OSA Three-Year ROR	9.4 %
OSA Five-Year ROR	1.0 %
OSA Ten-Year ROR	3.3 %

Benchmark Components		Policy		Actual Asset Allocation		
and Rates of Retu	rn	Asset Allocat	Asset Allocation As		on	
S&P 500	2.1 %	Stock	50.0 %	Domestic Equities	51.1 %	
MSCI World (Net)	(5.5)%	International Stock	10.0 %	International Equities	12.6 %	
Barclays Capital Aggregate	7.8 %	Bonds	35.0 %	Fixed Income	33.2 %	
90-Day U.S. Treasury Bill	0.1 %	Cash	5.0 %	Cash	3.1 %	

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Asset Class	Investment Type	Beginning <u>Market Value</u>	Net Cash Flow (Net of Fees)	Investment Return	Ending <u>Market Value</u>	Rate of Return
Domestic Equities	Domestic Equities	\$ 49,719	\$ 0	\$ 301	\$ 50,020	0.6 %
International Equities	International Equities	13,760	0	(1,951)	11,809	(14.2)%
Fixed Income	Fixed Income	33,349	0	2,399	35,748	7.2 %
Cash	Cash	13	(2)	0	11	0.0 %
Internally Managed	Balanced	3,079	(607)	4	2,476	0.4 %
Wells Fargo	Balanced	11,472	0	(374)	11,098	(3.3)%
	Total	\$ 111,392	\$ (609)	\$ 379	\$ 111,162	

## **Duluth Teachers' Retirement Fund Association**

For the Year Ended December 31, 2011

(Dollars in Thousands)

Rates of Return (ROR)					
Plan One-Year ROR	(0.7)%				
Benchmark ROR	(0.4)%				
Actuarial Assumed ROR - Active	8.5 %				
Actuarial Assumed ROR - Retired	8.5 %				
Plan Three-Year ROR	11.1 %				
Plan Five-Year ROR	(1.0)%				
Plan Ten-Year ROR	3.8 %				

Benchmark Components and Rates of Return					
U.S. Custom Equity Index	(0.4)%				
S&P 500	2.1 %				
Barclays Capital Aggregate	7.8 %				
MSCI ACWI ex. U.S.	(13.7)%				
91-Day U.S. Treasury Bill	0.1 %				
NCREIF Property Index	14.3 %				

Policy Asset Allocatio	<u>n</u>	Actual Asset Allocation			
Domestic Equities	33.0 %	Domestic Equities	33.2 %		
<b>Risk-Controlled Equities</b>	5.0 %	<b>Risk-Controlled Equities</b>	5.0 %		
Fixed Income	17.0 %	Fixed Income	20.4 %		
International Equities	25.0 %	International Equities	22.6 %		
Cash	3.0 %	Cash	2.8 %		
Real Assets	5.0 %	Real Assets	0.8 %		
Private Equity	7.0 %	Private Equity	9.9 %		
Opportunistic	5.0 %	Opportunistic	5.3 %		

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∞ <u>Asset Class</u>	Investment Type	Beginning <u>Market Valu</u> e	Net Cash Flow (Net of Fees)	Investment Return	Ending <u>Market Value</u>	Rate of Return
Domestic Equities	Domestic Equities	\$ 82,442	\$ (20,188)	\$ 1,801	\$ 64,055	1.3 %
<b>Risk-Controlled Equities</b>	Domestic Equities	9,569	0	158	9,727	1.6 %
Fixed Income	Fixed Income	63,246	(26,330)	2,525	39,441	4.6 %
International Equities	International Equities	33,433	16,000	(5,759)	43,674	(11.1)%
Cash	Cash	7,218	(1,776)	2	5,444	0.1 %
Real Estate	Real Estate	1,461	0	0	1,461	11.6 %
Private Equity	Private Equity	15,227	2,531	1,373	19,131	16.5 %
Opportunistic	Opportunistic	0	10,000	118	10,118	1.7 %
	Total	\$ 212,596	\$ (19,763)	\$ 218	\$ 193,051	

## St. Paul Teachers' Retirement Fund Association

Year Ending December 31, 2011

(Dollars in Thousands)

Rates of Return (ROR)		Benchmark Components and Rates of Return		Policy Asset Allocatio	Policy Asset Allocation		Actual Asset Allocation	
		S&P 500	2.1 %	Equities: Large Cap	30.0 %	Domestic Equities	42.1 %	
OSA One-Year ROR	(0.6)%	Russell 2000 Value	(5.5)%	Equities: Small Cap	12.0 %			
Plan One-Year ROR	(1.3)%	Barclays Capital Aggregate	7.8 %	Fixed Income: Domestic	18.6 %	Domestic Fixed Income	18.7 %	
Benchmark ROR	(0.3)%	NCREIF Property Index	14.3 %	Real Estate	10.0 %	Real Estate	10.0 %	
Actuarial Assumed ROR - Active	8.5 %	MSCI EAFE	(12.1)%	Int'l Equities: Core	18.6 %	International Equities	22.3 %	
Actuarial Assumed ROR - Retired	8.5 %	MSCI Emerging Markets	(18.2)%	Int'l Equities: Emerging	3.5 %			
OSA Three-Year ROR	11.4 %	MSCI ACWI	(6.9)%	Global Equities	4.1 %	Global Equities	4.1 %	
OSA Five-Year ROR	1.4 %	Alternative Assets	(8.5)%	Alternative Assets	1.6 %	Alternative Assets	1.2 %	
OSA Ten-Year ROR	5.9 %	90-Day U.S. Treasury Bill	0.1 %	Cash	1.6 %	Cash	1.6 %	

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Asset Class	Investment Type	Beginning Market Value	Net Cash Flow (Net of Fees)	Investment Return	Ending Market Value	Rate of Return
Domestic Equities	Domestic Equities	\$ 403,656	\$ (39,048)	\$ (1,982)	\$ 362,626	(0.9)%
Domestic Fixed Income	Domestic Fixed Income	149,802	(1,291)	12,374	160,885	8.3 %
Real Estate	Real Estate	75,954	2,000	8,479	86,433	10.9 %
International Equities	International Equities	221,993	(6,000)	(24,308)	191,685	(11.4)%
Global Equities	Global Equities	38,386	0	(3,003)	35,383	(7.8)%
Alternatives	Alternative Assets	13,649 <sup>1</sup>	(6,839)	3,251	10,061	21.8 %
Cash	Cash	24,368	(11,845)	1,479	14,002	7.1 %
	Total	\$ 927,808	\$ (63,023)	\$ (3,710)	\$ 861,075	

<sup>1</sup> The Alternative Assets beginning balance includes \$15,709 from the Blue Arc Fund not included in the 2010 ending market value.

## **State Board of Investment**

For the Year Ended December 31, 2011 (Dollars in Thousands)

Rates	of Return	(ROR)
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Р	lan One-Year ROR	1.5 %
В	enchmark ROR	2.1 %
A	ctuarial Assumed ROR - Active	8.5 %
A	ctuarial Assumed ROR - Retired	8.5 %
Р	lan Three-Year ROR	11.8 %
Р	lan Five-Year ROR	2.5 %
P	lan Ten-Year ROR	5.7 %

Benchmark Components and Rates of Return			
Russell 3000	1.0 %		
Barclays Capital Aggregate	7.8 %		
MSCI ACWI ex. U.S.	(13.7)%		
Alternative Assets 1	12.6 %		
90-Day U.S. Treasury Bill	0.1 %		

Policy Asset Allocation		Actual Asset Allocation			
Domestic Equities	45.0 %	Domestic Equities	45.8 %		
Fixed Income	18.0 %	Fixed Income	22.7 %		
International Equities	15.0 %	International Equities	14.1 %		
Alternative Assets	20.0 %	Alternative Assets	15.6 %		
Cash	2.0 %	Cash	1.8 %		

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Asset Class	Investment Type	Beginning Market Value	Net Cash Flow (Net of Fees)	Investment Return	Ending Market Value	Rate of Return
Domestic Equities	Domestic Equities	\$ 22,007,185	\$ (1,507,743)	\$ 230,873	\$ 20,730,315	0.4 %
Fixed Income	Fixed Income	9,296,311	232,481	716,084	10,244,876	7.2 %
International Equities	International Equities	7,274,403	126,910	(1,037,566)	6,363,747	(14.2)%
Alternatives	Alternative Assets	6,507,621	(252,161)	798,795	7,054,255	12.6 %
Cash & Disbursement Account	Cash	892,850	(61,430)	3,246	834,666	0.4 %
	Total	\$ 45,978,370	\$ (1,461,943)	\$ 711,432	\$ 45,227,859	

<sup>1</sup> The actual rate of return is used as the benchmark for Alternative Assets.
2011 Appendix

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## **Historical Rates of Return**

#### For Calendar Years 2002 to 2011

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Bloomington Fire</b>	(14.4)%	19.4 %	9.5 %	4.7 %	13.0 %	6.9 %	(25.2)%	15.6 %	13.0 %	0.3 %
Duluth Teachers'	(12.6)%	28.2 %	10.6 %	7.6 %	14.7 %	6.6 %	(35.1)%	19.2 %	16.0 %	(0.7)%
Minneapolis Fire	(10.0)%	20.0 %	10.1 %	6.6 %	12.5 %	11.5 %	(28.7)%	27.2 %	12.0 %	*
Minneapolis Police	(10.1)%	22.3 %	10.1 %	6.0 %	13.8 %	6.9%	(29.5)%	26.7 %	13.9 %	*
St. Paul Teachers'	(10.1)%	26.7 %	14.1 %	9.9 %	15.6 %	8.1%	(28.2)%	22.4 %	13.7 %	(0.6)%
SBI Basic Fund	(11.6)%	22.7 %	13.0 %	10.2 %	14.7 %	9.7%	(26.1)%	$20.3\%^{1}$	14.4 %	1.5 %
SBI Post Fund	(11.6)%	23.5 %	11.8 %	9.6 %	14.5 %	9.2%	(26.2)%	20.3%	14.4 /0	1.5 /0

<sup>1</sup> The SBI Basic and Post Funds were combined in 2009.

#### **State of Minnesota Contributions**

For Fiscal Years 2002 to 2011

Public Pension Plans	 2002	 2003	 2004	 2005	 2006
Bloomington Fire (12/31)	\$ 411,764	\$ 495,967	\$ 625,566	\$ 585,966	\$ 606,454
Duluth Teachers' (6/30)	486,000	-	-	-	-
Minneapolis Fire (12/31)	1,024,112	1,328,901	2,146,934	1,913,951	1,221,161
Minneapolis Police (12/31)	5,413,835	5,879,854	7,089,022	6,573,582	5,200,521
St. Paul Teachers' (6/30)	 3,257,761	 3,383,761	3,392,761	 3,397,761	 3,399,761
Total	\$ 10,593,472	\$ 11,088,483	\$ 13,254,283	\$ 12,471,260	\$ 10,427,897
Public Pension Plans	 2007	2008	2009	 2010	2011
Bloomington Fire (12/31)	\$ 517,023	\$ 439,902	\$ 372,096	\$ 380,275	\$ 356,741
Duluth Teachers' (6/30)	-	-	346,000	760,000	659,000
Minneapolis Fire (12/31)	1,259,931	1,413,297	2,285,077	2,293,859	*
Minneapolis Police (12/31)	3,167,214	2,275,349	3,424,326	3,575,883	*
St. Paul Teachers' (6/30)	 3,651,216	3,509,320	 3,343,013	 4,108,442	 4,077,140
Total	\$ 8,595,384	\$ 7,637,868	\$ 9,770,512	\$ 11,118,459	\$ 5,092,881

Note: This table includes any amount from the State of Minnesota regardless of where it is reported in the financial statements (e.g., as part of Employer Contributions).

#### **Employer Contributions**

For Fiscal Years 2002 to 2011

Public Pension Plans		2002	 2003		2004		2005	 2006
Bloomington Fire (12/31)	\$	-	\$ 742,343	\$	2,986,280	\$	1,576,139	\$ 841,138
Duluth Teachers' (6/30)		2,955,816	2,933,172		2,826,730		2,845,684	2,867,299
Minneapolis Fire (12/31)		5,907	4,270		2,670		4,737,705	1,348,855
Minneapolis Police (12/31)		2,912,060	13,540,305		20,800,530		24,976,747	5,366,224
St. Paul Teachers' (6/30)		20,958,423	 19,986,168		20,378,315		20,435,230	 20,615,130
Total	\$	26,832,206	\$ 37,206,258	\$	46,994,525	\$	54,571,505	\$ 31,038,646
Public Pension Plans	_	2007	2008	_	2009	_	2010	 2011
Bloomington Fire (12/31)	\$	-	\$ -	\$	-	\$	3,245,667	\$ 3,129,651
Duluth Teachers' (6/30)		2,940,697	2,994,086		2,954,026		2,866,150	2,798,027
Minneapolis Fire (12/31)		3,030,347	3,336,852		1,837,448		1,377,896	*
Minneapolis Police (12/31)		3,647,229	3,535,999		2,870,590		11,635,632	*
St. Paul Teachers' (6/30)		20,466,200	 20,775,392		21,501,237		21,107,889	 21,013,360
Total	\$	30,084,473	\$ 30,642,329	\$	29,163,301	\$	40,233,234	\$ 26,941,038

Note: This table includes all city contributions where the city is the employer. The Employer Contributions are calculated by adding the employer regular and special contributions together. Some of the above entities include State of Minnesota contributions as Employer Contributions for financial reporting purposes, but they have been removed for purposes of this table.

### **Employee Contributions**

For Fiscal Years 2002 to 2011

Public Pension Plans		2002	 2003	 2004	 2005	 2006
Bloomington Fire (12/31)	\$	-	\$ -	\$ -	\$ -	\$ -
Duluth Teachers' (6/30)		3,275,405	3,298,902	2,991,801	2,924,264	3,030,418
Minneapolis Fire (12/31)		149,260	136,209	39,852	12,010	-
Minneapolis Police (12/31)		20,620	3,815	-	-	-
St. Paul Teachers' (6/30)		14,467,695	 14,222,154	 14,307,616	 13,586,719	 13,453,021
Total	\$	17,912,980	\$ 17,661,080	\$ 17,339,269	\$ 16,522,993	\$ 16,483,439
Public Pension Plans	_	2007	 2008	 2009	 2010	 2011
Bloomington Fire (12/31)	\$	-	\$ -	\$ -	\$ -	\$ -
Duluth Teachers' (6/30)		2,978,435	2,954,062	2,927,260	2,899,071	2,779,703
Minneapolis Fire (12/31)		-	-	-	-	*
Minneapolis Police (12/31)		-	-	-	-	*
St. Paul Teachers' (6/30)		13,438,323	 13,642,161	 13,863,565	 13,831,670	 13,745,038
Total	\$	16,416,758	\$ 16,596,223	\$ 16,790,825	\$ 16,730,741	\$ 16,524,741

### **Average Contribution per Member**

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bloomington Fire (12/31)	\$ 1,363	\$ 4,309	\$ 12,567	\$ 7,558	\$ 4,975	\$ 1,673	\$ 1,433	\$ 1,216	\$ 11,927	\$ 11,583
Duluth Teachers' (6/30)	1,956	1,784	1,776	1,766	1,817	1,751	1,766	1,843	1,936	1,848
Minneapolis Fire (12/31)	1,656	2,130	3,302	10,445	4,125	7,056	8,051	7,233	6,664	*
Minneapolis Police (12/31)	8,482	20,254	29,701	34,257	11,754	7,797	6,757	7,503	18,687	*
St. Paul Teachers' (6/30)	4,076	3,921	3,864	3,776	3,768	3,774	3,766	3,815	3,842	3,746

For Fiscal Years 2002 to 2011

Note: This average is calculated by dividing all Contributions by the number of Members at Fiscal Year End.

#### Average of Total Annual Benefits per Retired Member/Beneficiary

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bloomington Fire (12/31)	\$ 17,343	\$ 19,095	\$ 18,880	\$ 19,744	\$ 20,193	\$ 20,543	\$ 21,612	\$ 22,515	\$ 22,934	\$ 23,533
Duluth Teachers' (6/30)	14,815	15,365	15,309	15,931	16,235	16,517	17,408	18,192	18,311	18,065
Minneapolis Fire (12/31)	37,956	31,666	35,070	35,141	36,184	39,094	39,686	38,537	38,148	*
Minneapolis Police (12/31)	33,108	34,070	35,611	37,378	38,599	41,899	44,453	41,965	38,151	*
St. Paul Teachers' (6/30)	27,835	28,618	29,174	29,349	30,323	30,778	31,502	31,716	31,656	30,582

For Fiscal Years 2002 to 2011

Note: Beneficiaries include retirees, disabled members and surviving spouses.

## Percent Increase in Average of Total Benefits per Retired Member/Beneficiary and the Consumer Price Index

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Consumer Price Index	1.60 %	2.30 %	2.70 %	3.40 %	3.20 %	2.90 %	3.80 %	(0.30)%	1.60 %	3.20 %
Bloomington Fire (12/31)	2.58 %	10.10 %	(1.13)%	4.57 %	2.27 %	1.74 %	5.20 %	4.18 %	1.86 %	2.61 %
Duluth Teachers' (6/30)	7.99 %	3.71 %	(0.36)%	4.06 %	1.91 %	1.74 %	5.40 %	4.50 %	0.65 %	(1.34)%
Minneapolis Fire (12/31)	0.73 %	(16.57)%	10.75 %	0.20 %	2.97 %	8.04 %	1.52 %	(2.90)%	(1.01)%	*
Minneapolis Police (12/31)	1.39 %	2.91 %	4.52 %	4.96 %	3.27 %	8.55 %	6.09 %	(5.60)%	(9.09)%	*
St. Paul Teachers' (6/30)	5.28 %	2.81 %	1.94 %	0.60 %	3.32 %	1.50 %	2.35 %	0.68 %	(0.19)%	(3.39)%

For Fiscal Years 2002 to 2011

Note: Beneficiaries include retirees, disabled members and surviving spouses.

#### **Funded Ratio Percentage**

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bloomington Fire (12/31)	96.42 %	110.21 %	115.12 %	124.16 %	133.93 %	130.94 %	91.28 %	99.01 %	105.41 %	102.66 %
Duluth Teachers' (6/30)	100.40 %	95.70 %	91.80 %	86.40 %	84.10 %	86.80 %	82.10 %	76.55 %	81.66 %	73.22 %
Minneapolis Fire $(12/31)^{1}$	87.20 %	80.60 %	90.20 %	86.20 %	87.50 %	92.80 %	90.13 %	79.07 %	77.35 %	*
Minneapolis Police $(12/31)^{1}$	66.80 %	64.50 %	68.60 %	77.30 %	85.70 %	87.90 %	73.50 %	66.87 %	62.75 %	*
St. Paul Teachers' (6/30)	78.82 %	75.57 %	71.82 %	69.65 %	69.11 %	73.01 %	75.13 %	72.20 %	68.05 %	69.99 %

For Fiscal Years 2002 to 2011

Note: The Funded Ratio Percentage is calculated by dividing the actuarial value of plan assets by the actuarial accrued liability.

<sup>1</sup> The Minneapolis Firefighters' Relief Association and the Minneapolis Police Relief Association were required to revise the 2008 actuarial valuation pursuant to a court order dated November 20, 2009. The 2008 percentages are the resulting restated Funded Ratio Percentages.

Total

#### **Unfunded Actuarial Accrued Liability**

For Fiscal Years 2002 to 2011

Public Pension Plans	 2002	 2003	 2004	 2005	 2006
Bloomington Fire (12/31)	\$ 2,914,369	\$ (8,516,589)	\$ (13,307,091)	\$ (20,457,329)	\$ (29,632,941)
Duluth Teachers' (6/30)	(1,087,000)	12,642,000	24,755,000	42,443,000	51,303,000
Minneapolis Fire (12/31)	37,484,000	56,964,000	26,967,000	43,137,000	37,650,000
Minneapolis Police (12/31)	153,820,000	165,122,000	147,279,000	105,190,000	62,979,000
St. Paul Teachers' (6/30)	 241,728,000	290,601,000	 352,600,000	 394,539,000	419,701,000
Total	\$ 434,859,369	\$ 516,812,411	\$ 538,293,909	\$ 564,851,671	\$ 542,000,059
<b>Public Pension Plans</b>	 2007	 2008	 2009	 2010	 2011
Bloomington Fire (12/31)	\$ (28,864,471)	\$ 8,465,842	\$ 990,413	\$ (5,700,134)	\$ (2,870,900)
Duluth Teachers' (6/30)	43,952,000	64,977,000	85,555,000	57,341,000	85,993,000
Minneapolis Fire $(12/31)^1$	20,982,000	25,988,000	53,230,000	54,749,000	*
Minneapolis Police (12/31) <sup>1</sup>	51,815,000	117,076,000	137,637,000	151,322,000	*
St. Paul Teachers' (6/30)	 375,576,000	356,089,000	 404,360,000	 470,186,000	 417,157,000

<sup>1</sup> The Minneapolis Firefighters' Relief Association and the Minneapolis Police Relief Association were required to revise the 2008 actuarial valuation pursuant to a court order dated November 20, 2009. The 2008 amounts are the resulting restated Unfunded Actuarial Accrued Liabilities.

572,595,842

\$

681,772,413

\$

727,897,866

\$

500,279,100

\$

463,460,529

\$

### Net Assets Held in Trust for Pension Benefits

For Fiscal Years 2002 to 2011

Public Pension Plans	2002	2003	2004	2005	2006
Bloomington Fire (12/31)	\$ 78,447,410	\$ 91,904,997	\$ 101,341,890	\$ 105,139,140	\$ 116,978,895
Duluth Teachers' (6/30)	234,368,916	231,247,693	258,831,515	267,383,556	281,950,173
Minneapolis Fire (12/31)	226,580,974	250,351,289	254,086,792	254,424,228	265,244,602
Minneapolis Police (12/31)	277,143,300	323,467,991	348,910,983	366,406,914	390,831,714
St. Paul Teachers' (6/30)	768,931,641	757,639,499	871,902,589	934,667,364	1,005,745,229
Total	\$ 1,585,472,241	\$ 1,654,611,469	\$ 1,835,073,769	\$ 1,928,021,202	\$ 2,060,750,613

<b>Public Pension Plans</b>		2007	 2008	2009		 2010	 2011
Bloomington Fire (12/31)	\$	122,158,440	\$ 88,639,493	\$	98,707,362	\$ 111,072,465	\$ 110,822,777
Duluth Teachers' (6/30)		318,973,530	271,616,844		179,933,200	192,402,546	213,367,995
Minneapolis Fire (12/31)		276,046,212	182,391,932		211,052,137	217,167,206	*
Minneapolis Police (12/31)		389,025,966	249,250,216		280,741,244	301,008,825	*
St. Paul Teachers' (6/30)		1,156,017,206	 1,023,639,596		773,258,985	815,307,121	 950,120,989
Total	\$ 2	2,262,221,354	\$ 1,815,538,081	\$	1,543,692,928	\$ 1,636,958,163	\$ 1,274,311,761

Note: These Net Assets only include any net assets that are "Held in Trust for Pension Benefits."

#### Net Assets per Member

For Fiscal Years 2002 to 2011

Public Pension Plans	2002	 2003		2004		2005		2006
Bloomington Fire (12/31)	\$ 259,760	\$ 314,743	\$	350,664	\$	363,803	\$	401,989
Duluth Teachers' (6/30)	68,230	66,203		78,984		81,819		86,861
Minneapolis Fire (12/31)	318,232	362,828		383,238		398,784		425,754
Minneapolis Police (12/31)	281,650	337,297		371,577		397,836		434,741
St. Paul Teachers' (6/30)	81,017	79,028		88,482		94,325		101,141
Public Pension Plans	 2007	 2008		2009		2010		2011
Bloomington Fire (12/31)	\$ 395,335	\$ 288,728	\$	322,573	\$	365,370	\$	368,182
Duluth Teachers' (6/30)	94,371	80,622		53,266		57,076		63,220
Minneapolis Fire (12/31)	454,023	309,139		370,267		394,133		*
Minneapolis Police (12/31)	445,110	289,826		334,614		369,790		*
St. Paul Teachers' (6/30)	116,171	101,652		76,206		80,223		91,640

Note: This calculation is the result of dividing the Net Assets Held in Trust for Pension Benefits by the Members at Fiscal Year End.

### **Unfunded Actuarial Accrued Liability per Member**

Public Pension Plans	2002		2003		2004		2005		2006	
Bloomington Fire (12/31)	\$ 9,650	\$	(29,166)	\$	(46,045)	\$	(70,787)	\$	(101,831)	
Duluth Teachers' (6/30)	(316	)	3,619		7,554		12,987		15,805	
Minneapolis Fire (12/31)	52,646		82,557		40,674		67,613		60,433	
Minneapolis Police (12/31)	156,321		172,181		156,847		114,213		70,055	
St. Paul Teachers' (6/30)	25,469	1	30,312		35,782		39,816		42,206	

For Fiscal Years 2002 to 2011

<b>Public Pension Plans</b>	Public Pension Plans		007 2008		2009		2010		2011	
Bloomington Fire (12/31)	\$	(93,413)	\$	27,576	\$	3,237	\$	(18,750)	\$	(9,538)
Duluth Teachers' (6/30)		13,004		19,287		25,327		17,010		25,479
Minneapolis Fire (12/31)		34,510		72,731		93,386		99,363		*
Minneapolis Police (12/31)		59,285		211,891		164,049		185,899		*
St. Paul Teachers' (6/30)		37,743		35,361		39,850		46,264		40,235

Note: This calculation is the result of dividing the Unfunded Actuarial Accrued Liability by the Members at Fiscal Year End.

### **Administrative Expenses**

For Fiscal Years 2002 to 2011

Public Pension Plans	 2002		2003		2004	2005			2006
Bloomington Fire (12/31)	\$ 83,633	\$	75,953	\$	64,223	\$	64,844	\$	71,254
Duluth Teachers' (6/30)	447,584		444,810		448,704		436,507		424,840
Minneapolis Fire (12/31)	707,462		615,867		577,336		668,027		586,587
Minneapolis Police (12/31)	874,230		582,371		769,566		589,491		613,007
St. Paul Teachers' (6/30)	 451,749		473,934		515,716		558,574		590,852
Total	\$ 2,564,658	\$	2,192,935	\$	2,375,545	\$	2,317,443	\$	2,286,540
Public Pension Plans	2007	2008		2009		2010		2011	
Bloomington Fire (12/31)	\$ 74,683	\$	107,871	\$	77,778	\$	75,288	\$	79,771
Duluth Teachers' (6/30)	456,987		487,944		505,164		505,672		497,009
Minneapolis Fire (12/31)	581,704		692,982		1,122,885		1,028,608		*
Minneapolis Police (12/31)	529,561		578,932		812,279		767,575		*
St. Paul Teachers' (6/30)	COF 700		601 157		604,724		602,001		722,397
St. I ddi Tedeners (0/50)	 695,700		691,157		004,724		002,001		122,391

# Administrative Expenses per Member

For Fiscal Years 2002 to 2011

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bloomington Fire (12/31)	\$ 277	\$ 260	\$ 222	\$ 224	\$ 245	\$ 242	\$ 351	\$ 254	\$ 248	\$ 265
Duluth Teachers' (6/30)	130	127	137	134	131	135	145	150	150	147
Minneapolis Fire (12/31)	994	893	871	1,047	942	957	1,175	1,970	1,887	*
Minneapolis Police (12/31)	888	607	820	640	682	606	673	968	943	*
St. Paul Teachers' (6/30)	48	49	52	56	59	70	69	60	59	70

### Members at Fiscal Year End

For Fiscal Years 2002 to 2011

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bloomington Fire (12/31)	302	292	289	289	291	309	307	306	304	301
Duluth Teachers' (6/30)	3,435	3,493	3,277	3,268	3,246	3,380	3,369	3,378	3,371	3,375
Minneapolis Fire (12/31)	712	690	663	638	623	608	590	570	551	*
Minneapolis Police (12/31)	984	959	939	921	899	874	860	839	814	*
St. Paul Teachers' (6/30)	9,491	9,587	9,854	9,909	9,944	9,951	10,070	10,147	10,163	10,368
Total	14,924	15,021	15,022	15,025	15,003	15,122	15,196	15,240	15,203	14,044

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Note: "Members" is the sum of retired/beneficiary, terminated and active members at fiscal year end.

### Members at Fiscal Year End - Retirees & Beneficiaries Receiving Benefits

Public Pension Plans	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bloomington Fire (12/31)	141	139	147	149	151	161	160	163	166	171
Duluth Teachers' (6/30)	1,085	1,107	1,137	1,153	1,190	1,227	1,243	1,264	1,295	1,344
Minneapolis Fire (12/31)	634	630	621	601	592	581	563	546	528	*
Minneapolis Police (12/31)	928	935	921	904	884	860	846	828	806	*
St. Paul Teachers' (6/30)	2,136	2,248	2,361	2,505	2,624	2,738	2,851	2,933	3,044	3,212
Total	4,924	5,059	5,187	5,312	5,441	5,567	5,663	5,734	5,839	4,727

For Fiscal Years 2002 to 2011

Note: Beneficiaries are defined as retirees, disabled members, and surviving spouses.

# **Investment Expenses**

For Fiscal Years 2002 to 2011

Public Pension Plans	 2002	2003		 2004		2005		2006
Bloomington Fire (12/31)	\$ 161,551	\$	64,744	\$ 78,689	\$	86,305	\$	29,588
Duluth Teachers' (6/30)	1,237,863		959,000	1,203,295		1,169,704		1,289,870
Minneapolis Fire (12/31)	1,093,627		1,001,354	1,042,816		1,088,434		1,141,368
Minneapolis Police (12/31)	1,150,027		932,425	922,855		645,622		504,973
St. Paul Teachers' (6/30)	 2,656,216		2,774,231	 3,059,912		3,422,410		4,609,937
Total	\$ 6,299,284	\$	5,731,754	\$ 6,307,567	\$	6,412,475	\$	7,575,736

Public Pension Plans	2007	 2008	 2009	 2010		2011
Bloomington Fire (12/31)	\$ 17,251	\$ 57,751	\$ 60,234	\$ 93,871	\$	109,000
Duluth Teachers' (6/30)	1,758,675	1,566,292	1,289,965	1,209,193		1,359,608
Minneapolis Fire (12/31)	1,061,056	847,469	794,662	835,285		*
Minneapolis Police (12/31)	555,491	521,518	468,414	751,593		*
St. Paul Teachers' (6/30)	5,064,712	 4,767,302	 3,635,962	 4,594,683		4,483,067
Total	\$ 8,457,185	\$ 7,760,332	\$ 6,249,237	\$ 7,484,625	\$	5,951,675

Note: Investment Expenses excludes securities lending.

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