

STATE OF MINNESOTA

Office of the State Auditor



Rebecca Otto
State Auditor

LARGE PUBLIC PENSION PLAN INVESTMENT REPORT

For the Year Ended December 31, 2015

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 650 public pension funds; and

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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, 2015



March 30, 2017

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Scope and Methodology

This report reviews the investment performance of Minnesota's large local public pension plans for the 2015 calendar year. The public pension plans included in this report are the Bloomington Fire Department Relief Association (Bloomington Fire), and the St. Paul Teachers' Retirement Fund Association (St. Paul Teachers'). The State Board of Investment, which is referenced frequently, is not 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.

Legislation passed in May 2014 mandated the merger of Duluth Teachers' Retirement Fund Association into the Teachers Retirement Association. The merger took place on June 30, 2015. Duluth Teachers' was not required to provide investment information to the Office of the State Auditor (OSA) for the 2015 calendar year, so is not included in this report.

These pension plans and the SBI held over \$59.0 billion in assets as of December 31, 2015, which represents the future retirement benefits 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 OSA, 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 OSA. To obtain analogous comparisons of investment performance, the OSA calculates rates of return using a uniform calculation method.¹ Using a uniform calculation method allows for a fair comparison of performance among plans.

¹ Minnesota Statutes, section 356.219, requires the OSA to compute and report total portfolio and asset class time-weighted rates of return, net of all costs and fees. The State Board of Investment is permitted by this statute to submit limited reporting information. Therefore, the rates of return included in this report for the State Board of Investment are provided by the State Board of Investment and are not re-calculated by the OSA.

The purpose of this report is to inform lawmakers of the large plans' investment performance, educate fiduciaries and members of the plans, and provide transparency to the public.

A new public pension accounting standard issued by the Governmental Accounting Standards Board (GASB) took effect in fiscal year 2014, and established new accounting and reporting standards for state and local governmental pension plans. The new standard, GASB Statement No. 67, *Financial Reporting for Pension Plans*, requires changes in the presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes include an actuarial calculation of the total pension liability, the net pension asset or liability, the sensitivity of the net pension asset or liability to the discount rate, and increased investment activity disclosures.

The implementation of GASB Statement 67 resulted in changes to information presented in the Appendix tables found at the end of this report. The tables containing changes are noted with an explanation of the change.

Executive Summary

Current Trends

- During 2015, rates of return for the large plans were negative 0.4 percent (Bloomington Fire Department Relief Association), and negative 0.9 percent (St. Paul Teachers' Retirement Fund Association). Bloomington Fire and St. Paul Teachers' failed to exceed their benchmark rates of return. The rate of return for the State Board of Investment's Combined Funds was 0.0 percent. (Pages 9 through 14)
- Bloomington Fire ended 2015 with a funding ratio above 100 percent, at 111.3 percent. St. Paul Teachers' had a funding ratio of 63.6 percent. (Pages 15 and 16)

Long-Term Trends

- The ten-year period from January 2006 through December 2015 was a period of market volatility. Bloomington Fire and St. Paul Teachers' both failed to exceed their actuarial assumed rates of return over this period. St. Paul Teachers' earned 5.7 percent over the ten-year period. The State Board of Investment's Combined Funds returned 6.7 percent for the period, while Bloomington Fire returned 5.4 percent. (Pages 19 and 20)

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Understanding Investment Performance Terms

Rate of Return

Rate of return is the gain or loss on an investment over a specified time period, usually expressed as a percentage increase over the fair market value at the beginning of the period.

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 goals are to minimize risk and 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 company-specific 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

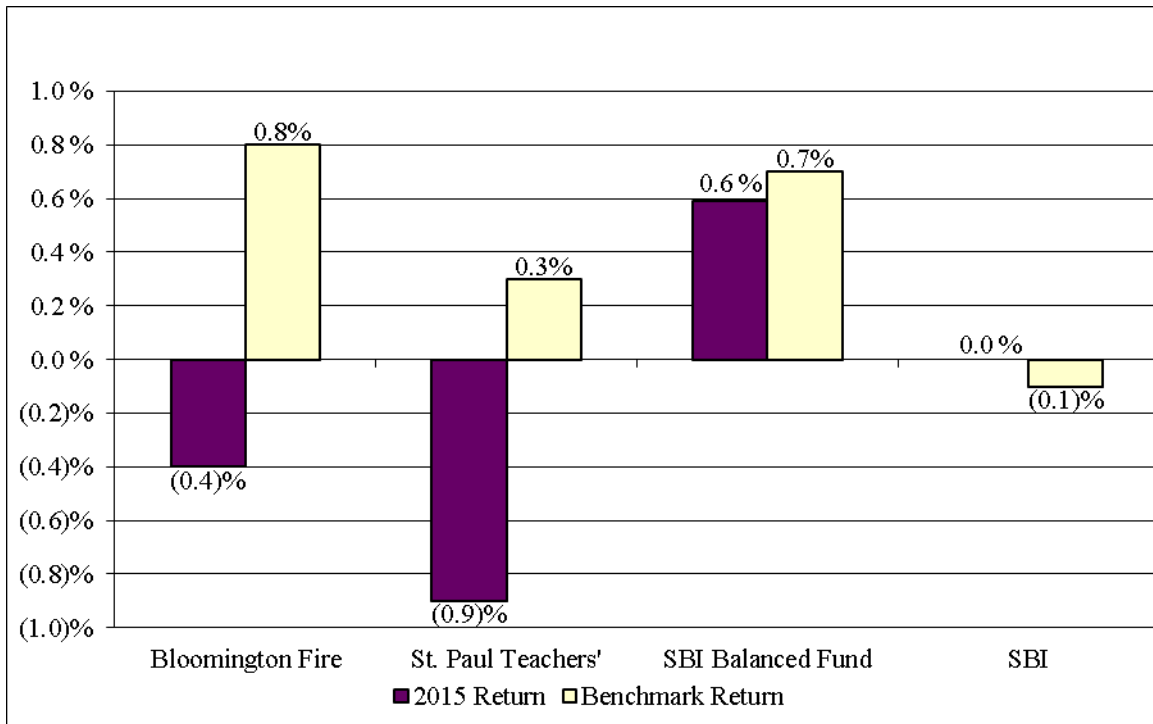
A benchmark is an index to which a plan compares its investments. Market benchmarks are used by individual investors, portfolio managers, and market researchers to determine how well a particular market or market sector performs. Investors look to broad indices as benchmarks to help them gauge not only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

Why Benchmarks are Important

Measuring investment returns against an appropriate benchmark encourages prudent investment decisions, and gives trustees another method of evaluating investment performance. 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 small-capitalization 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, on the next page, compares the 2015 rates of return and benchmark returns for the large plans and the State Board of Investment.

Figure 1: 2015 Rates of Return and Benchmark Return



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2015 Performance Analysis

Investment returns fluctuated by asset class in 2015. The S&P 500 Index, which is a gauge of the large-capitalization U.S. equities market, returned 1.4 percent in 2015. 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 0.5 percent.

International equities did not perform as well in 2015 as in 2014, returning negative 5.7 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 also did not perform as well in 2015 as in 2014, returning 0.5 percent as measured by the Barclays Capital Aggregate Index. The 2015 returns for bonds failed to match the 6.0 percent return for this asset class during 2014.

In 2015, economic indicators improved as unemployment dropped to 5.0 percent and consumer spending increased by 4.6 percent. The Consumer Price Index, which measures inflation, rose 0.7 percent.

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, 1947.² 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, one elected City official, one elected or appointed City official, and Fire Chief, who serve as ex officio voting members of the Board.

Bloomington Fire returned negative 0.4 percent in 2015, as calculated by the Office of the State Auditor (OSA). The return fell short of the plan's benchmark return of 0.8 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 allocations for 2015 varied slightly from the policy allocations, with increases in international equities and fixed income, and a reduction in domestic equities

² See Bloomington Fire Department Relief Association December 31, 2015, Financial Statements and Management Letter, page nine.

and cash. From 2014 to 2015, Bloomington Fire increased its allocations to fixed income and international equities by 3.6 percent and 1.8 percent, respectively. Bloomington Fire decreased its allocations to domestic equities and cash for the same period by 5.1 percent and 0.3 percent, respectively.

At the end of 2015, 86.9 percent of Bloomington Fire's total assets were held in the State Board of Investment's (SBI) Supplemental Investment Fund: 29.9 percent of the plan's assets with the SBI were invested in the U.S. Stock Index Fund; 22.7 percent in the Bond Fund; 15.5 percent in the U.S. Stock Actively Managed Fund; 11.1 percent in the Broad International Fund; and 7.8 percent in the Money Market Account.

The U.S. Stock Index Fund is a Russell 3000 Index fund that returned 0.5 percent for the year. The U.S. Actively Managed Fund is an actively-managed domestic equity account that returned 0.1 percent for the year. Both domestic equity accounts failed to exceed their benchmark S&P 500 return of 1.4 percent. The Broad International Stock Fund, consisting of active, semi-passive, and passive managers, returned negative 2.9 percent for the year. The account is compared to the MSCI SCWI ex-U.S. (Net) Index that returned negative 5.7 percent. The Bond Fund, an actively-managed account, returned 0.7 percent, and exceeded its benchmark Barclays Capital Aggregate Index return of 0.5 percent.

Wells Fargo Advisors held 11.7 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 3.8 percent.

Bloomington Fire also held investments in an internally-managed account. The account held 1.3 percent of the plan's assets and was entirely invested in short-term cash investments. Assets held by the internally-managed account decreased by 28.0 percent over the 2014 holdings.

St. Paul Teachers' Retirement Fund Association

The St. Paul Teachers' Retirement Fund Association is a non-profit organization formed in 1909.³ At the direction and oversight of a ten-member Board of Trustees, the 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 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.

³ See St. Paul Teachers' Retirement Fund Association June 30, 2015, Financial Statements and Management Letter, page five.

St. Paul Teachers' returned negative 0.9 percent in 2015, as calculated by the OSA, failing to exceed its benchmark return of 0.3 percent. The plan's market value decreased by \$64.9 million.

The domestic equity holdings of St. Paul Teachers' returned negative 2.3 percent, which fell short of its S&P 500 Index benchmark return of 1.4 percent. The SBI Equity Fund which is St. Paul Teachers' largest large-capitalization fund, returned 0.5 percent and matched the Russell 3000 Index benchmark of 0.5 percent. The BlackRock S&P Fund returned 1.5 percent, exceeding its S&P 500 Index benchmark return of 1.4 percent. The Barrow & Hanley Fund's rate of return of negative 1.1 percent exceeded the Russell 1000 Value Index benchmark return of negative 3.8 percent. The lone mid-capitalization fund managed by Wellington Management returned negative 6.5 percent. The small-capitalization fund managed by Boston Company returned negative 5.2 percent. The Dimensional Fund Advisors 6-10 Value Fund returned negative 6.1 percent, compared to its negative 7.5 percent benchmark return.

Fixed-income investments returned negative 0.2 percent, falling short of its Barclays Global Aggregate excluding Treasury Index benchmark return of 0.6 percent. The Guggenheim Fund, which is St. Paul Teachers' largest fixed-income fund, returned 3.5 percent, exceeding the custom benchmark return of 1.1 percent for the Barclays U.S. Aggregate plus 50 basis points. The Brandywine Fund returned negative 8.0 percent, failing to match its Citigroup World Government Bond benchmark rate of return of negative 3.6 percent. In June 2015, St. Paul Teachers' liquidated its T. Rowe Price Fund, and transferred the proceeds to the T. Rowe Price Global Fixed-Income Fund. St. Paul Teachers' also held investments in the Allianz Cash Overlay Account, which returned 6.1 percent. Fixed-income investments made up 20.3 percent of the total portfolio, after accounting for 20.2 percent of the portfolio in 2014.

St. Paul Teachers' international equity portfolio consisted of the SBI International Equity Fund which returned a negative 2.9 percent, exceeding its benchmark rate of return of negative 5.3 percent. International equity investments made up 8.4 percent of the total portfolio, after accounting for 9.5 percent of the portfolio in 2014.

Global equity investments for St. Paul Teachers' returned 2.2 percent. In February 2015, St. Paul Teachers' liquidated its holding in the Lazard Global Fund. Morgan Stanley's Global Franchise Fund and JP Morgan's Focus Fund returned 7.6 percent and negative 0.6 percent, respectively. Both funds are compared to the MSCI World Index benchmark, which returned negative 0.3 percent in 2015.

Real estate holdings for St. Paul Teachers' returned 1.1 percent, as calculated by the OSA, compared to its NCREIF Fund Index (NFI) Open End Diversified Core Equity (ODCE) (net) Index benchmark return of 13.9 percent. The UBS Trumbull Fund returned 13.0 percent in 2015, underperforming the NFI ODCE (net) Index benchmark return of 13.9 percent. The UBS Trumbull Growth and Income Fund returned 19.8 percent in 2015, outperforming the NCREIF Property benchmark of 13.3 percent for the same period. The Tortoise MLP Fund returned negative 27.0 percent in 2015,

outperforming the Alerian MLP benchmark return of negative 32.6 percent. The Advantus Fund returned 6.0 percent, which exceeded the benchmark Wilshire Real Estate Securities Index return of 4.2 percent.

Prior to 2013, alternative investments and private equity investments held by St. Paul Teachers' were combined for reporting purposes. Beginning with the 2013 reporting year, private equity and alternative investments were separated into their own asset classes. Private equity investments returned 6.3 percent in 2015, as calculated by the OSA. Private equity investments included funds managed by RWI Group, North Sky Capital, Parametric Defensive Equity Fund, and Franklin Park. St. Paul Teachers' uses the Russell 3000 plus 3 percent as a benchmark for its private equity funds. The 2015 benchmark rate of return was 3.5 percent.

St. Paul Teachers' alternative investments portfolio returned negative 16.6 percent in 2015 as calculated by the OSA. Waddell and Reed was liquidated in June 2015, and TCW Asset Management - DL Fund was purchased in March 2015. VIA Energy was the only alternative investment held for the entire 2015 calendar year.

During 2015, St. Paul Teachers' added an opportunistic asset class. Opportunistic investments returned negative 7.4 percent for the last 10 months of 2015 as calculated by the OSA. In February 2015, St. Paul Teachers' added the Corvex Master Fund LP. In March 2015, EnTrust Special Opportunities Fund III, Ltd., was added to the opportunistic asset class.

St. Paul Teachers' cash portfolio returned 3.7 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.

St. Paul Teachers' U.S. Treasury Bills portfolio consisted of the Clifton Group Treasury Inflation Protected Securities (TIPS) Fund. The fund returned negative 1.9 percent.

State Board of Investment

The State Board of Investment (SBI) was established by Article XI of the Minnesota Constitution to invest state funds. 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 0.0 percent in 2015, exceeding its benchmark return of negative 0.1 percent. The SBI's domestic-equity asset classes failed to reach their respective benchmarks.

The SBI's domestic equity portfolio returned 0.3 percent, which was below the benchmark Russell 3000 Index return of 0.5 percent. The portfolio is managed by 15 active money managers, four semi-passive managers, and one passive manager. Each active manager is expected to add value over the long run relative to the Russell Style Index which reflects its investment approach or style. 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 that of the active managers. The passive manager consistently tracks the Russell 3000 Index.

The fixed-income portfolio of the SBI returned 0.7 percent for the year, compared to the 0.6 percent benchmark return of the Barclays Capital Aggregate Index. An 18.0 percent allocation to fixed income is provided for in the SBI's investment policy, and the fixed-income portfolio made up 24.5 percent of the SBI's total assets at the end of the year. The SBI targets 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 have the goal of adding incremental value through superior bond selection and sector allocation rather than through interest rate exposure.

The SBI's international equity portfolio returned a negative 2.9 percent, outperforming its benchmark MSCI ACW Index ex. U.S. return of negative 5.7 percent. The SBI allocates 15.0 percent to international equities in its investment policy, and at year-end, international equities accounted for 14.3 percent of the total assets. The SBI's international equity portfolio has eight active managers, three semi-passive managers, and one passive manager. Six of the eight active managers and the three semi-passive managers invest entirely in developed markets. The remaining two 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 1.4 percent in 2015. The actual rate of return is 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 12.4 percent to alternative investments at the end of 2015. The majority of the portfolio is allocated to private equity, with assets also being held in yield-oriented investments, resource investments, and real estate.

University of Minnesota Supplemental Benefits Plan

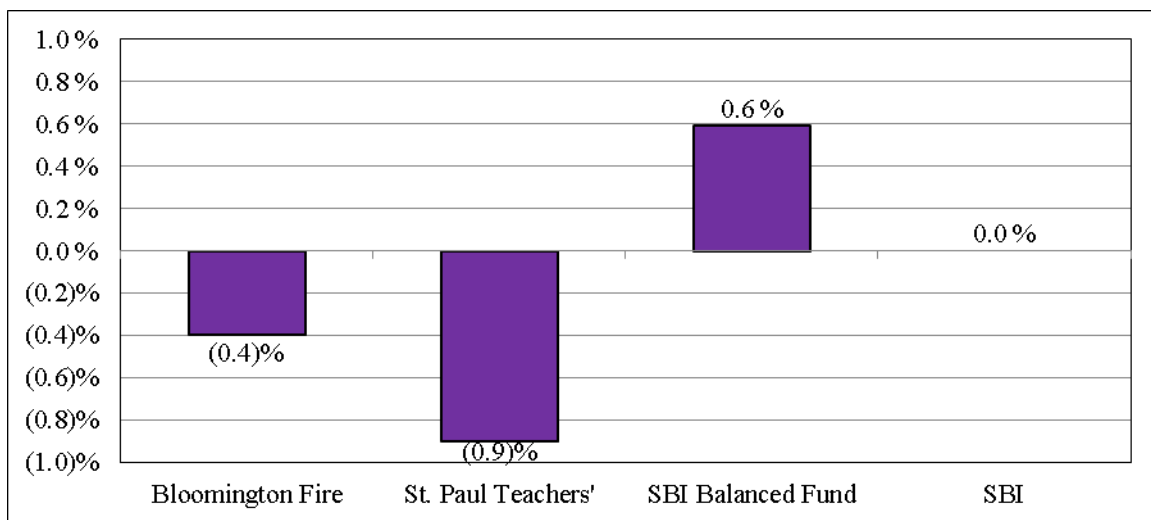
The University of Minnesota Supplemental Benefits Plan is a University-funded defined-benefit plan designed to provide additional retirement benefits for certain groups of individuals.⁴ As of July 1, 2015, the plan had four active members and 119 retirees and survivors who were receiving or were entitled 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 0.6 percent during 2015. The GIP returned 1.0 percent during the same period. The Supplemental Benefits Plan had a rate of return of 0.2 percent for 2015, as calculated by the OSA. The rate of return calculated by the OSA was for the Supplemental Benefits Plan only, and not for the entire GIP.

Beginning Market Value	\$1,424,002
Net Cash Flows	\$(336,325)
Investment Returns	\$4,270
Ending Market Value	\$1,091,947
OSA One-Year Rate of Return	0.2%
OSA Three-Year Rate of Return	1.4%
Group Income Pool One-Year Rate of Return	1.0%
Benchmark Rate of Return	0.6%

Figure 2 below shows the 2015 rates of return for the large plans and the SBI.

Figure 2: 2015 Rates of Return



⁴ Plan and membership information was obtained from the University of Minnesota Supplemental Benefits Plan July 1, 2015, Actuarial Valuation, and from the Supplemental Benefits Plan Administrative Policy.

Funding Ratios

Funding ratios show the relationship between a plan's assets and its liabilities. A funding ratio below 100 percent means the plan does not have a surplus and has unfunded actuarial accrued liabilities.⁵ 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 are all factors that affect the financial health of the plan.

The funding ratios provided in this report are calculated based on each plan's fiscal year. Bloomington Fire has a December 31 fiscal year-end, while St. Paul Teachers' has a June 30 fiscal year-end.

Bloomington Fire's funding ratio decreased 2.4 percent during 2015. Bloomington Fire was the highest-funded large public pension plan, with a funding ratio of 111.3 percent. Because the assets of Bloomington Fire are not smoothed, the funding ratio is subject to greater volatility.⁶ Actuarial smoothing evens out the effect of short-term volatility in the market value of assets.

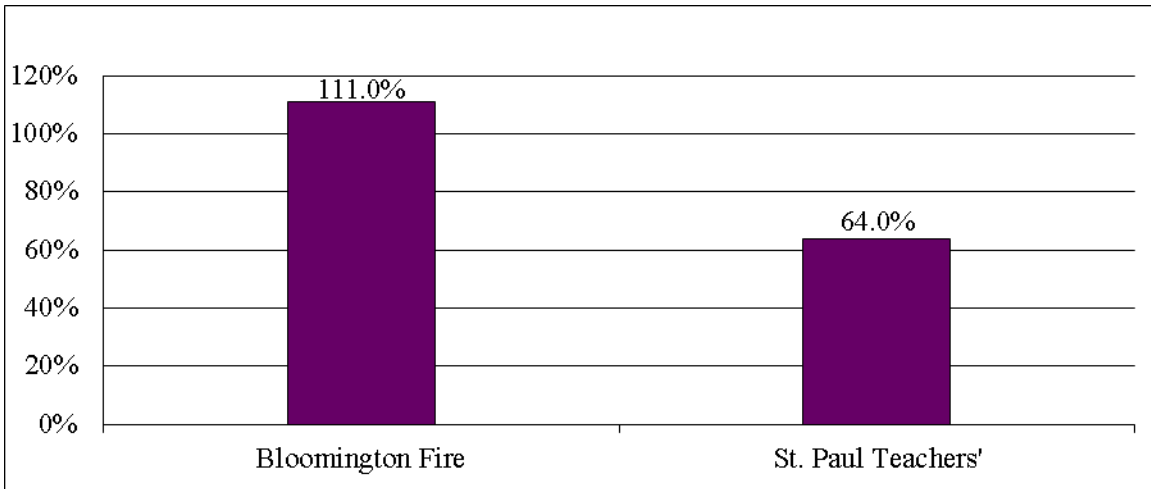
St. Paul Teachers' funding ratio decreased by 2.6 percent to 63.6 percent. Its unfunded actuarial accrued liability was \$581.8 million.

Figure 3, on the next page, illustrates the funded ratios for the large plans.

⁵ 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.

⁶ 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).

Figure 3: Fiscal Year 2015 Funded Ratio Percentage



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. It is important to limit expenses to those that are necessary and reasonable while still maintaining a well-managed pension plan.

The administrative expenses provided in this report are calculated based on each plan's fiscal year.

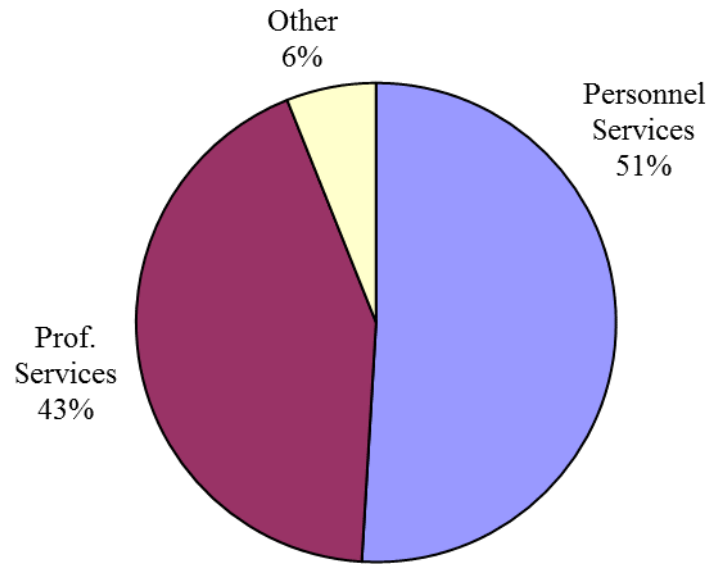
St. Paul Teachers' spent the most on administrative expenses, totaling \$748,614, a 1.4 percent increase from 2014. Bloomington Fire had administrative expenses of \$93,226. Bloomington Fire saw an increase in its administrative expenses of 11.8 percent from the previous year.

Employee salaries made up the largest portion of administrative expenses paid by the plans in 2015. Employee salaries include payroll expenses, plus insurance and benefits for the employees. St. Paul Teachers' paid \$456,377 in employee salaries in 2015. This was an increase of 3.3 percent in the amount paid from the previous year. Bloomington Fire paid \$47,301 in employee salaries during 2015, which remained unchanged over the amount spent in 2014.

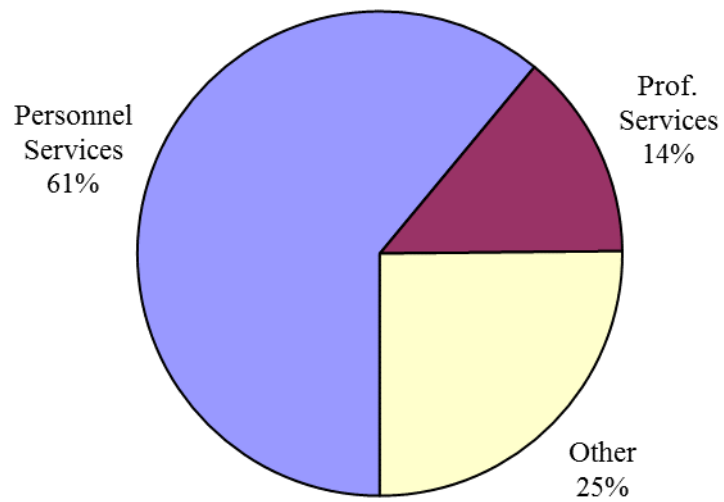
Total administrative expenses on a per-member basis remained fairly constant for both plans during 2015 and have remained fairly constant over the past ten years.⁷ Figure 4, on the next page, provides further detail on administrative expenses.

⁷ See Table 14 on page 44 of this report.

Figure 4: Administrative Expenses for Fiscal Year 2015



Bloomington Fire - \$93,226



St. Paul Teachers' - \$748,614

Ten-Year Performance Analysis

The rates of return over the last ten years have remained fairly constant in spite of three years of limited or negative growth in 2008, 2011, and 2015. Domestic equity, as measured by the Russell 3000 Index, posted positive returns during seven of the ten years. This ten-year period allows us to measure the performance of Minnesota's large plans during a period of volatility.

The investment returns of Minnesota's large plans over the ten-year period ending December 31, 2015, can be assessed by using market indices as benchmarks. The U.S. stock market, as measured by the Russell 3000 Index, returned 7.4 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 2.9 percent annually over the ten-year period.

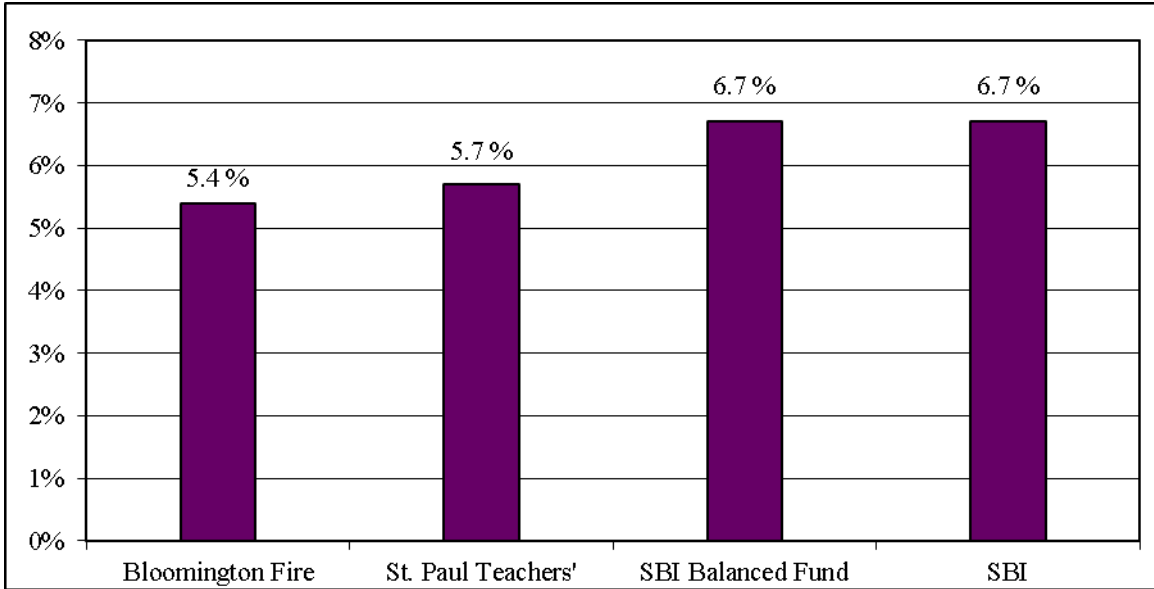
The average bond market return over the ten-year period was 4.5 percent, as measured by the Barclays Capital Aggregate Index.

An example of a return that was calculated over the ten-year period is the SBI's Balanced Fund. 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. Over time, this account is expected to average higher rates of return than a fixed-income or money market account. The Balanced Fund's average annual rate of return for the ten-year period was 6.7 percent. Bloomington Fire and St. Paul Teachers' did not meet the Balanced Fund's ten-year rate of return.

St. Paul Teachers' averaged a 5.7 percent annual rate of return over the ten-year period. For comparison purposes, the SBI had a ten-year return of 6.7 percent. Bloomington Fire had a ten-year return of 5.4 percent. Bloomington Fire's actuarial assumed rate of return of 6.0 percent is lower than the actuarial assumed rate of return for St. Paul Teachers', so Bloomington Fire's rate of return results from different investment and risk objectives. Bloomington Fire and St. Paul Teachers' both failed to meet their actuarial assumed average annual rates of return over the ten-year period.

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 (2006-2015)



2015 Plan Summaries

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How to Read the Plan Summaries

The plan summaries on pages 25 through 27 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 OSA. *Note: Under State law, the SBI submits only limited reporting information. The rates of return for the SBI are provided by the SBI and are not re-calculated by the OSA.*
- **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 OSA or reported by the plan. *Note: Under State law, the SBI submits only limited reporting information. The rates of return for the SBI are provided by the SBI and are not re-calculated by the OSA.*

Asset Class

Asset class is 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

Policy asset allocation is the percentage allocated to each asset class in the investment policy.

Actual Asset Allocation

Actual asset allocation is 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 2015 is the beginning market value/ending market value.

Net Cash Flows

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

Investment Return

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

Rate of Return

Rate of return is 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, 2015

(Dollars in Thousands)

Rates of Return (ROR)	
OSA One-Year ROR	(0.4)%
Plan One-Year ROR	(0.4)%
Benchmark ROR	0.8 %
Actuarial Assumed ROR	6.0 %
OSA Three-Year ROR	8.3 %
OSA Five-Year ROR	7.5 %
OSA Ten-Year ROR	5.4 %

Benchmark Components and Rates of Return	Policy Asset Allocation	Actual Asset Allocation
S&P 500	1.4 %	49.8 %
MSCI World (Net)	(0.9)%	13.0 %
Barclays Capital Agg. Bond	0.6 %	27.4 %
90-Day U.S Treasury Bill	0.1 %	9.8 %
	Stock	Domestic Equities
	International Stock	International Equities
	Bonds	Fixed-Income
	Cash	Cash

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	\$ 75,853	\$ (9,000)	\$ 545	\$ 67,398	0.5 %
International Equities	International Equities	14,639	2,500	(684)	16,455	(2.9)%
Fixed-Income	Fixed-Income	29,621	4,000	180	33,801	0.7 %
Cash	Cash	11,556	10	16	11,582	0.1 %
Internally Managed	Balanced	2,738	(766)	2	1,974	0.5 %
Wells Fargo	Balanced	18,104	0	(686)	17,418	(3.8)%
	Total	\$ 152,511	\$ (3,256)	\$ (627)	\$ 148,628	

St. Paul Teachers' Retirement Fund Association

For the Year Ended December 31, 2015

(Dollars in Thousands)

Rates of Return (ROR)	
OSA One-Year ROR	(0.9)%
Plan One-Year ROR	(0.8)%
Benchmark ROR	0.3%
Actuarial Assumed ROR	8.0%
OSA Three-Year ROR	7.9%
OSA Five-Year ROR	7.0%
OSA Ten-Year ROR	5.7%

Benchmark Components and Rates of Return	Policy Asset Allocation	Actual Asset Allocation
MSCI All Country World	Global/Domestic Equity	Domestic Equities
(1.8)%	55.0%	39.0%
Barclay Global Aggregate	Global/Domestic Fixed-Income	Domestic Fixed-Income
(3.2)%	20.0%	20.3%
NFIODCE (net)	Inflation Hedged/Real Assets	Real Estate
13.9%	11.0%	11.6%
Russell 3000 +3%	Private Equity/Alternatives	International Equities
3.5%	9.0%	8.4%
HFRI FOF Composite Index	Opportunistic	Global Equities
(0.3)%	5.0%	10.3%
		Alternative Assets
		Private Equity
		Cash
		Treasury Bills
		Opportunistic

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	\$ 443,608	\$ (63,085)	(7.173)	\$ 373,350	(2.3)%
Domestic Fixed-Income	Domestic Fixed-Income	206,830	(12,133)	(590)	\$ 194,107	(0.2)%
Real Estate	Real Estate	77,721	32,769	923	\$ 111,413	1.1%
International Equities	International Equities	97,298	(15,000)	(2,304)	\$ 79,994	(2.9)%
Global Equities	Global Equities	126,749	(30,349)	2,677	\$ 99,077	2.2%
Alternatives	Alternative Assets	16,206	(10,063)	(752)	\$ 5,391	(16.6)%
Private Equities	Private Equities	21,941	22,993	2,246	\$ 47,180	6.3%
Cash	Cash	14,043	1,019	(1,331)	\$ 13,731	3.7%
Treasury Bills	Treasury Bills	18,803	(3,997)	(247)	\$ 14,559	(1.9)%
Opportunistic	Opportunistic	0	21,296	(1,762)	\$ 19,534	(7.4)%
Total		\$ 1,023,199	\$ (56,550)	(8.313)	\$ 958,336	

State Board of Investment

For the Year Ended December 31, 2015

(Dollars in Thousands)

Rates of Return (ROR)	
Plan One-Year ROR	(0.0)%
Benchmark ROR	(0.1)%
Actuarial Assumed ROR*	8.0 %
Plan Three-Year ROR	9.3 %
Plan Five-Year ROR	8.5 %
Plan Ten-Year ROR	6.7 %

	Benchmark Components and Rates of Return		Policy Asset Allocation		Actual Asset Allocation	
Russell 3000	0.5 %		Domestic Equities	45.0 %	Domestic Equities	46.5 %
Barclays Capital Aggregate	0.6 %		Fixed-Income	18.0 %	Fixed-Income	24.5 %
MSCI ACWI ex. U.S. (Net)	(5.7)%		International Equities	15.0 %	International Equities	14.3 %
Alternative Assets ¹	1.4 %		Alternative Assets	20.0 %	Alternative Assets	12.4 %
90-Day U.S. Treasury Bill	0.1 %		Cash	2.0 %	Cash	2.3 %

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	\$ 28,638,579	\$ (1,782,972)	\$ 43,026	\$ 26,898,633	0.3 %
Fixed Income	Fixed-Income	14,139,348	(18,233)	97,273	14,218,388	0.7 %
International Equities	International Equities	8,511,127	9,236	(244,469)	8,275,894	(2.9)%
Alternatives	Alternative Assets	7,640,346	(573,930)	99,835	7,166,251	1.4 %
Cash & Disbursement Account	Cash	894,138	266,596	2,369	1,163,103	0.3 %
Cash - CD Repo	Cash	142,339	8,718	417	151,474	0.3 %
	Total	\$ 59,965,877	\$ (2,090,585)	\$ (1,549)	\$ 57,873,743	

¹ The actual rate of return is used as the benchmark for Alternative Assets.

* The actuarial assumed rate of return for TRA at the end of December 2015 was calculated using Select and Ultimate rates of return (8.0% for five years beginning July 1, 2012, and 8.5% thereafter). The actuarial assumed rates of return for the other plans for which the SBI invests were 8.0%.

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2015 Appendix

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Table 1**Historical Rates of Return**

For Calendar Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire	13.0 %	6.9 %	(25.2)%	15.6 %	13.0 %	0.3 %	12.6 %	19.2 %	7.0 %	(0.4)%
Duluth Teachers'	14.7 %	6.6 %	(35.1)%	19.2 %	16.0 %	(0.7)%	15.0 %	20.7 %	5.9 %	*
St. Paul Teachers'	15.6 %	8.1 %	(28.2)%	22.4 %	13.7 %	(0.6)%	12.5 %	19.2 %	6.5 %	(0.9)%
SBI Basic Fund	14.7 %	9.7 %	(26.1)%	20.3 % ¹	14.4 %	1.5 %	13.7 %	20.2 %	8.6 %	0.0 %
SBI Post Fund	14.5 %	9.2 %	(26.2)%							

¹ The SBI Basic and Post Funds were combined in 2009.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 2**State of Minnesota Contributions**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ 606,454	\$ 517,023	\$ 439,902	\$ 372,096	\$ 380,275
Duluth Teachers' (6/30)	-	-	-	346,000	760,000
St. Paul Teachers' (6/30)	3,399,761	3,651,216	3,509,320	3,343,013	4,108,442
Total	\$ 4,006,215	\$ 4,168,239	\$ 3,949,222	\$ 4,061,109	\$ 5,248,717

Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 356,741	\$ 361,567	\$ 401,714	\$ - ¹	\$ - ¹
Duluth Teachers' (6/30)	659,000	553,710	346,000	6,555,402	*
St. Paul Teachers' (6/30)	4,077,140	3,657,839	3,664,607	10,664,607	10,664,607
Total	\$ 5,092,881	\$ 4,573,116	\$ 4,412,321	\$ 17,220,009	\$ 10,664,607

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).

¹ Bloomington Fire received aid from the State of Minnesota during 2014 and 2015. Because the state aid is not paid directly to the pension plan, it is not considered a nonemployer contribution pursuant to GASB Statement 68. Instead, the state aid is considered a contribution from the City of Bloomington and is included in Table 3.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 3

Employer Contributions

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ 841,138	\$ -	\$ -	\$ -	\$ 3,245,667
Duluth Teachers' (6/30)	2,867,299	2,940,697	2,994,086	2,954,026	2,866,150
St. Paul Teachers' (6/30)	20,615,130	20,466,200	20,775,392	21,501,237	21,107,889
Total	\$ 24,323,567	\$ 23,406,897	\$ 23,769,478	\$ 24,455,263	\$ 27,219,706

Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 3,129,651	\$ 1,852,639	\$ 1,911,112	\$ 3,170,255	\$ 1,715,281
Duluth Teachers' (6/30)	2,798,027	2,878,549	3,013,717	3,133,292	*
St. Paul Teachers' (6/30)	21,013,360	21,451,545	22,779,713	24,531,933	26,045,986
Total	\$ 26,941,038	\$ 26,182,733	\$ 27,704,542	\$ 30,835,480	\$ 27,761,267

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.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 4**Employee Contributions**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ -	\$ -	\$ -	\$ -	\$ -
Duluth Teachers' (6/30)	3,030,418	2,978,435	2,954,062	2,927,260	2,899,071
St. Paul Teachers' (6/30)	13,453,021	13,438,323	13,642,161	13,863,565	13,831,670
Total	\$ 16,483,439	\$ 16,416,758	\$ 16,596,223	\$ 16,790,825	\$ 16,730,741
Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ -	\$ -	\$ -	\$ -	\$ -
Duluth Teachers' (6/30)	2,779,703	2,888,242	3,050,990	3,160,794	*
St. Paul Teachers' (6/30)	13,745,038	14,117,481	15,163,538	16,563,972	17,567,065
Total	\$ 16,524,741	\$ 17,005,723	\$ 18,214,528	\$ 19,724,766	\$ 17,567,065

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 5**Average Contribution per Member**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 4,975	\$ 1,673	\$ 1,433	\$ 1,216	\$ 11,927	\$ 11,583	\$ 7,120	\$ 7,160	\$ 9,636	\$ 5,327
Duluth Teachers' (6/30)	1,817	1,751	1,766	1,843	1,936	1,848	1,884	1,918	3,848	*
St. Paul Teachers' (6/30)	3,768	3,774	3,766	3,815	3,842	3,746	3,760	3,893	4,734	4,820

Note: This average is calculated by dividing all contributions by the number of members at fiscal year-end.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 6**Average of Total Annual Benefits per Retired Member/Beneficiary**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 20,193	\$ 20,543	\$ 21,612	\$ 22,515	\$ 22,934	\$ 23,533	\$ 24,206	\$ 24,498	\$ 24,422	\$ 25,977
Duluth Teachers' (6/30)	16,235	16,517	17,408	18,192	18,311	18,065	17,968	17,782	17,895	*
St. Paul Teachers' (6/30)	30,323	30,778	31,502	31,716	31,656	30,582	31,205	30,673	30,276	30,210

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

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 7

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

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<i>Consumer Price Index</i>	3.20 %	2.90 %	3.80 %	(0.30)%	1.60 %	3.20 %	2.10 %	1.50 %	1.60 %	0.10 %
Bloomington Fire (12/31)	2.27 %	1.74 %	5.20 %	4.18 %	1.86 %	2.61 %	2.86 %	1.21 %	(0.31)%	6.37 %
Duluth Teachers' (6/30)	1.91 %	1.74 %	5.40 %	4.50 %	0.65 %	(1.34)%	(0.54)%	(1.04)%	0.64 %	*
St. Paul Teachers' (6/30)	3.32 %	1.50 %	2.35 %	0.68 %	(0.19)%	(3.39)%	2.04 %	(1.70)%	(1.29)%	(0.22)%

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

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 8

Funded Ratio Percentage

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	133.93 %	130.94 %	91.28 %	99.01 %	105.41 %	102.66 %	98.66 %	110.95 %	113.69 %	111.29 %
Duluth Teachers' (6/30)	84.10 %	86.80 %	82.10 %	76.55 %	81.66 %	73.22 %	63.40 %	54.00 %	46.81 %	*
St. Paul Teachers' (6/30)	69.11 %	73.01 %	75.13 %	72.20 %	68.05 %	69.99 %	61.98 %	60.40 %	66.12 %	63.56 %

Note: The Funded Ratio Percentage for fiscal years ending prior to 2014 is calculated by dividing the actuarial value of plan assets by the actuarial accrued liability. For fiscal years 2014 and beyond, the Funded Ratio Percentage is calculated by dividing the total pension liability by the ending net position. This change in calculation was due to the implementation of the Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plan*, effective for financial statements for periods beginning after June 15, 2013, (i.e. fiscal years ending in 2014).

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 9**Unfunded Actuarial Accrued Liability (Asset)/Net Pension Liability (Asset)¹**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ (29,632,941)	\$ (28,864,471)	\$ 8,465,842	\$ 990,413	\$ (5,700,134)
Duluth Teachers' (6/30)	51,303,000	43,952,000	64,977,000	85,555,000	57,341,000
St. Paul Teachers' (6/30)	419,701,000	375,576,000	356,089,000	404,360,000	470,186,000
Total	\$ 441,371,059	\$ 390,663,529	\$ 429,531,842	\$ 490,905,413	\$ 521,826,866

Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ (2,870,900)	\$ 1,665,469	\$ (14,169,780)	\$ (18,315,400)	\$ (14,992,249)
Duluth Teachers' (6/30)	85,993,000	119,410,000	162,026,000	256,917,881	*
St. Paul Teachers' (6/30)	417,157,000	559,286,000	581,054,000	535,792,000	581,801,000
Total	\$ 500,279,100	\$ 680,361,469	\$ 728,910,220	\$ 774,394,481	\$ 566,808,751

¹ In accordance with Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plans*, effective for financial statements for periods beginning after June 15, 2013, (i.e. fiscal years ending in 2014), the net pension liability (asset) replaces the unfunded actuarial accrued liability (asset).

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 10**Net Assets/Net Position' Held in Trust for Pension Benefits**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ 116,978,895	\$ 122,158,440	\$ 88,639,493	\$ 98,707,362	\$ 111,072,465
Duluth Teachers' (6/30)	281,950,173	318,973,530	271,616,844	179,933,200	192,402,546
St. Paul Teachers' (6/30)	1,005,745,229	1,156,017,206	1,023,639,596	773,258,985	815,307,121
Total	\$ 1,404,674,297	\$ 1,597,149,176	\$ 1,383,895,933	\$ 1,051,899,547	\$ 1,118,782,132

Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 110,822,777	\$ 122,544,916	\$ 143,611,691	\$ 152,114,148	\$ 147,828,626
Duluth Teachers' (6/30)	213,367,995	194,552,931	205,300,543	226,071,060	*
St. Paul Teachers' (6/30)	950,120,989	881,926,414	933,082,142	1,045,435,289	1,014,968,633
Total	\$ 1,274,311,761	\$ 1,199,024,261	\$ 1,281,994,376	\$ 1,423,620,497	\$ 1,162,797,259

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

¹In accordance with Governmental Accounting Standards Board Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, effective for financial statements for periods beginning after December 15, 2011, the residual measure is renamed as net position, rather than net assets.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 11**Net Assets/Net Position¹ per Member**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ 401,989	\$ 395,335	\$ 288,728	\$ 322,573	\$ 365,370
Duluth Teachers' (6/30)	86,861	94,371	80,622	53,266	57,076
St. Paul Teachers' (6/30)	101,141	116,171	101,652	76,206	80,223
Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 368,182	\$ 394,035	\$ 444,618	\$ 462,353	\$ 459,095
Duluth Teachers' (6/30)	63,220	57,989	61,412	67,706	*
St. Paul Teachers' (6/30)	91,640	84,540	87,302	95,622	90,123

Note: This calculation is the result of dividing the Net Assets Held in Trust for Pension Benefits/Net Position Held in Trust for Pension Benefits by the members at fiscal year-end.

¹In accordance with Governmental Accounting Standards Board Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, effective for financial statements for periods beginning after December 15, 2011, the residual measure is renamed as net position, rather than net assets.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 12

Unfunded Actuarial Accrued Liability/Net Pension Liability (Asset)¹ per Member

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ (101,831)	\$ (93,413)	\$ 27,576	\$ 3,237	\$ (18,750)
Duluth Teachers' (6/30)	15,805	13,004	19,287	25,327	17,010
St. Paul Teachers' (6/30)	42,206	37,743	35,361	39,850	46,264
Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ (9,538)	\$ 5,355	\$ (43,869)	\$ (55,670)	\$ (46,560)
Duluth Teachers' (6/30)	25,479	35,592	48,467	76,945	*
St. Paul Teachers' (6/30)	40,235	53,613	54,365	49,007	51,661

¹ This calculation is the result of dividing the Unfunded Actuarial Accrued Liability by the members at fiscal year-end for fiscal years prior to 2014. For fiscal years 2014 and beyond, this calculation is the result of dividing the Net Pension Liability (Asset) by the members at fiscal year-end. This change in calculation was due to the implementation of the Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plans*, effective for financial statements for periods beginning after June 15, 2013, (i.e. fiscal years ending in 2014).

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 13

Administrative Expenses

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ 71,254	\$ 74,683	\$ 107,871	\$ 77,778	\$ 75,288
Duluth Teachers' (6/30)	424,840	456,987	487,944	505,164	505,672
St. Paul Teachers' (6/30)	590,852	695,700	691,157	604,724	602,001
Total	\$ 1,086,946	\$ 1,227,370	\$ 1,286,972	\$ 1,187,666	\$ 1,182,961

Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 79,771	\$ 87,482	\$ 94,617	\$ 83,410	\$ 93,226
Duluth Teachers' (6/30)	497,009	628,923	537,013	661,653	*
St. Paul Teachers' (6/30)	722,397	736,446	751,064	738,606	748,614
Total	\$ 1,299,177	\$ 1,452,851	\$ 1,382,694	\$ 1,483,669	\$ 841,840

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 14**Administrative Expenses per Member**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 245	\$ 242	\$ 351	\$ 254	\$ 248	\$ 265	\$ 281	\$ 293	\$ 254	\$ 290
Duluth Teachers' (6/30)	131	135	145	150	150	147	187	161	198	*
St. Paul Teachers' (6/30)	59	70	69	60	59	70	71	70	68	66

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 15**Members at Fiscal Year End**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	291	309	307	306	304	301	311	323	329	322
Duluth Teachers' (6/30)	3,246	3,380	3,369	3,378	3,371	3,375	3,355	3,343	3,339	*
St. Paul Teachers' (6/30)	9,944	9,951	10,070	10,147	10,163	10,368	10,432	10,688	10,933	11,262
Total	13,481	13,640	13,746	13,831	13,838	14,044	14,098	14,354	14,601	11,584

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

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 16**Members at Fiscal Year End - Retirees & Beneficiaries Receiving Benefits**

For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	151	161	160	163	166	171	174	181	187	188
Duluth Teachers' (6/30)	1,190	1,227	1,243	1,264	1,295	1,344	1,386	1,445	1,502	*
St. Paul Teachers' (6/30)	2,624	2,738	2,851	2,933	3,044	3,212	3,292	3,404	3,529	3,633
Total	3,965	4,126	4,254	4,360	4,505	4,727	4,852	5,030	5,218	3,821

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

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

Table 17

Investment Expenses
For Fiscal Years 2006 to 2015

Public Pension Plans	2006	2007	2008	2009	2010
Bloomington Fire (12/31)	\$ 29,588	\$ 17,251	\$ 57,751	\$ 60,234	\$ 93,871
Duluth Teachers' (6/30)	1,289,870	1,758,675	1,566,292	1,289,965	1,209,193
St. Paul Teachers' (6/30)	4,609,937	5,064,712	4,767,302	3,635,962	4,594,683
Total	\$ 5,929,395	\$ 6,840,638	\$ 6,391,345	\$ 4,986,161	\$ 5,897,747

Public Pension Plans	2011	2012	2013	2014	2015
Bloomington Fire (12/31)	\$ 109,000	\$ 122,563	\$ 115,426	\$ 130,675	\$ 137,153
Duluth Teachers' (6/30)	1,359,608	1,269,821	1,311,857	1,476,174	*
St. Paul Teachers' (6/30)	4,483,067	4,148,331	5,063,012	4,503,001	4,515,761
Total	\$ 5,951,675	\$ 5,540,715	\$ 6,490,295	\$ 6,109,850	\$ 4,652,914

Note: Investment Expenses excludes securities lending.

* During the 2014 legislative session, a law was passed which merged the Duluth Teachers' Retirement Fund Association into the Minnesota Teachers Retirement Association (TRA) effective June 30, 2015.

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