State of Minnesota

Office of the State Auditor

Julie Blaha
State Auditor

St. Paul Teachers' Retirement Fund Association St. Paul, Minnesota

Years Ended June 30, 2023, and June 30, 2022

Description of the Office of the State Auditor

The Office of the State Auditor (OSA) helps ensure financial integrity and accountability in local government financial activities. The OSA is the constitutional office that oversees more than $40 billion in annual financial activity by local governments and approximately $20 billion of federal funding financial activity.

The OSA performs around 90 financial and compliance audits per year and has oversight responsibilities for over 3,300 local units of government throughout the state. The office maintains the following seven divisions:

- **Audit Practice**: Helps ensure fiscal integrity by conducting financial and compliance audits of local governments and the federal compliance audit of the State of Minnesota.

- **Constitution:** Connects with the public via external communication, media relations, legislative coordination, and public engagements for the State Auditor.

  This division also supports the State Auditor's service on the State Executive Council, State Board of Investment, Land Exchange Board, Public Employees Retirement Association Board, Minnesota Housing Finance Agency, the Minnesota Historical Society, and the Rural Finance Authority Board.

- **Government Information**: Collects, analyzes, and shares local government financial data to assist in policy and spending decisions; administers and supports financial tools including the Small Cities and Towns Accounting System (CTAS) software and infrastructure comparison tools.

- **Legal/Special Investigations**: Provides legal analysis and counsel to the OSA and responds to outside inquiries about Minnesota local law relevant to local government finances; investigates local government financial records in response to specific allegations of theft, embezzlement, or unlawful use of public funds or property.

- **Operations:** Ensures the office runs efficiently by providing fiscal management and technology support to the office.

- **Pension:** Analyzes investment, financial, and actuarial reporting for Minnesota's local public pension plans and monitors pension plan operations.

- **Tax Increment Financing (TIF)**: Promotes compliance and accountability in local governments' use of tax increment financing through education, reporting, and compliance reviews.

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St. Paul Teachers' Retirement Fund Association St. Paul, Minnesota

Years Ended June 30, 2023, and June 30, 2022

Audit Practice Division
Office of the State Auditor
State of Minnesota

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

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St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Board of Trustees
June 30, 2023

Mike McCollor	President
Lori J. Borgeson	Vice President
Matthew Bogenschultz	Secretary
Michael McKay	Treasurer
Thomas Koreltz	Trustee
John Horton	Trustee
Karen Odegard	Trustee
Stephanie Pignato	Trustee
Margaret Schiller	Trustee
Zuki Ellis	Ex-Officio

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Board of Trustees
June 30, 2022

Mike McCollor	President
Lori J. Borgeson	Vice President
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Karen Odegard	Trustee
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Financial Section

STATE OF MINNESOTA

Julie Blaha
State Auditor

Office of the State Auditor

Suite 500
525 Park Street
Saint Paul, MN 55103

Independent Auditor's Report

Board of Trustees
St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Report on the Audit of the Financial Statements

Opinion
We have audited the financial statements of the St. Paul Teachers' Retirement Fund Association as of and for the years ended June 30, 2023, and June 30, 2022, and the related notes to the financial statements, which collectively comprise the Association's basic financial statements, as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective fiduciary net position of the St. Paul Teachers' Retirement Fund Association as of June 30, 2023, and June 30, 2022, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion
We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the St. Paul Teachers' Retirement Fund Association, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Association's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance, and therefore, is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in the United States of America

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will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with auditing standards generally accepted in the United States of America, we:

- exercise professional judgment and maintain professional skepticism throughout the audit;
- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. Accordingly, no such opinion is expressed;
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements; and
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Association's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer and Non-Employer Contributions, Schedule of Investment Returns, and Notes to the Required Supplementary Information be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board (GASB), who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

/s/Julie Blaha

Julie Blaha
State Auditor

/s/Chad Struss

Chad Struss, CPA
Deputy State Auditor

December 1, 2023

Management’s Discussion and Analysis

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Management's Discussion and Analysis
As of and for the Year Ended June 30, 2023, and June 30, 2022
(Unaudited)

The following Management Discussion and Analysis provides an overview of the financial performance and actuarial status of the St. Paul Teachers' Retirement Fund Association (hereinafter SPTRFA, Plan, System, or Fund) for the fiscal years ended June 30, 2023, and June 30, 2022. It is intended to assist the reader in understanding the Plan's financial statements and financial activities during the past two years.

Financial Highlights

- The key sources of consistent funding for the Plan are employer and employee contributions. The amount of contributions received in any given year is a function of both the applicable statutory contribution rates in effect and the total amount of covered payroll subject to those rates. The 2018 Omnibus Pension and Retirement Bill (the "2018 Pension Bill" or the "Bill") provided for significant contribution increases to address historic employer underfunding and costs associated with increased member longevity. Among other things, the Bill provided for 1) a state-funded employer contribution increase of 2.5 percent, phased-in over six years, and 2) an employee contribution increase of 0.25 percent in fiscal year 2024. The Bill, together with outstanding investment performance since 2017, was a significant factor in improving the Plan's contribution sufficiency/(deficiency) from a deficiency of 0.52 percent of pay in fiscal year 2017 to a sufficiency of 5.17 percent in fiscal year 2022 and 6.36 percent in fiscal year 2023. Although the current trend for SPTRFA contributions is positive, the adequacy of contributions as a source of funding is critically important and must be monitored closely. Changes in demographics or other factors that may result in a reduction in the number of active, contributing members or a reduction in covered payroll would have a negative impact on the financial stability of the Plan.

- In addition to employer and employee contributions, the Plan has benefited from continued supplemental State funding that is intended to address, in part, historic underfunding of employer contributions. The 2018 Pension Bill provided for a $5 million increase to the Plan's annual State supplemental funding, which is scheduled to continue until either the Plan is 100 percent funded or June 30, 2048, whichever occurs earlier.

- While the Fund's investment portfolio is a significant contributor to the Plan's overall funding, its returns are dependent on market conditions and, therefore, are variable from year to year. In fiscal years 2022 and 2023, the Fund's investment portfolio returned (9.37) percent and 9.43 percent (net of fees), respectively, in line with overall market returns. Variability in the portfolio's performance impacts the Fund's overall funded ratio in any given year – returns in excess of 7.0 percent contribute to an increase in the plan's funding ratio, while returns below 7.0 percent contribute to a decrease in the plan's funding ratio.

- Annuity benefit payments account for the majority of Fund cash outflows. In fiscal year 2022 annuity benefit payments increased 1.7 percent over the prior year to $120.7 million, while fiscal year 2023 annuity benefit payments increased 1.4 percent over the prior year to $122.3 million. These increases are primarily due to the annual COLA increase of one percent and net growth in the number of retirees. For fiscal year 2022, contributions increased 7.7 percent from the previous year but decreased in fiscal year 2023 by 0.9 percent. The ratio of contributions received (employee, employer, and State supplemental) to annuity benefit payments increased from 60.9 percent in fiscal year 2021 to 64.5 percent in fiscal year 2022. Fiscal year 2023 experienced a slight decline in this ratio to 63.0 percent. The unusual fiscal year 2022 upward contribution variances were due to one-time SPPS COVID salary payments for school years 2021 and 2022, which increased fiscal year 2022 contributions by $2.2 million.

- The actuarial funded ratio of the Plan compares the actuarial value of assets (smoothed over a rolling five-year period) against the actuarially determined accrued liability. That ratio increased from 67.1 percent as of June 30, 2021, to 68.7 percent as of June 30, 2022, then decreased to 65.3 percent as of June 30, 2023. This was primarily due to a fiscal year 2023 reduction in the discount rate from 7.5 percent to 7.0 percent. Had the discount rate been 7.0 percent in 2022, the funding ratio would have been 65.1 percent. Currently, the funded status of the Plan is expected to be 100 percent or greater within its statutory amortization period.

- The Plan's funded ratio on a market value basis, which does not involve any smoothing factor, decreased from 74.9 percent as of June 30, 2021, to 62.4 percent as of June 30, 2022, and 64.3 percent as of June 30, 2023.

- The fiduciary net position of the Plan, which measures the amount of funds available to pay current and future pension benefits, decreased by $140.6 million during fiscal year 2022 to $1,154.4 million. In fiscal year 2023, the fiduciary net position of the Plan increased by $62.3 million to $1,216.7 million. These changes were principally due to the investment losses in fiscal year 2022 and investment gains in fiscal year 2023.

System Overview

SPTRFA is a nonprofit organization formed in 1909, incorporated under Minn. Stat. ch. 317A. Under the oversight of a ten-member Board of Trustees, SPTRFA staff manages two tax-qualified, defined benefit pension programs, a *Basic Plan* and a *Coordinated Plan*. The plans cover licensed personnel, the majority of whom are employed by Independent School District No. 625 ("SPPS"), 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 SPPS. The Coordinated Plan, which commenced in 1978, provides retirement benefits for members who simultaneously participate in Social Security. Currently, there are no Basic Plan members remaining in active status.

Under State law, annual payroll contributions to the Fund are a direct operating obligation of the school district and members. While SPTRFA provides an employment-based benefit, the terms are not collectively negotiated, are not administered through SPPS, and SPTRFA is not a component unit of SPPS. Although the Fund's assets and liabilities were not included historically in the SPPS financial statements, Governmental Accounting Standards Board (GASB) statements require SPPS to reflect their portion of the Fund's net pension liabilities beginning with their 2015 financial statements. Notwithstanding this reporting requirement, SPPS remains liable only for its statutorily mandated contributions and not the Fund's net pension liabilities.

Overview of the Financial Statements

The financial section of this report consists of four parts: (1) the Independent Auditor's Report; (2) the Management's Discussion and Analysis (this section); (3) the Basic Financial Statements, which include the Statement of Fiduciary Net Position, the Statement of Changes in Fiduciary Net Position, and their accompanying notes; and (4) the Required Supplementary Information, which consists of various schedules and accompanying notes. After the financial section is the Other Pension Information Section, which consists of additional schedules and accompanying notes as prescribed by GASB Statement 67.

1. Basic Financial Statements

a) The Statement of Fiduciary Net Position presents information about assets and liabilities, the difference being the net position restricted for pensions. The level of net position reflects the resources available to pay member benefits when due. Over time, increases and decreases in this metric assist in measuring SPTRFA's financial condition.

b) The Statement of Changes in Fiduciary Net Position presents the results of Fund operations during the year and the additions or deductions from plan net position. It provides more detail to support the net change that has occurred to the prior year's net position value on the Statement of Fiduciary Net Position.

c) The Notes to the Financial Statements provide additional information essential to gain a full understanding of SPTRFA's accounting policies, benefit plans, deposits and investments, securities lending, contributions, risk management, funded status/progress, and finally, a narrative description of the actuarial measurement process.

2. Required Supplementary Information

a) The Required Supplementary Information schedules provide data about employer and non-employer contributing obligations for the most recent fiscal year. These schedules begin with fiscal year 2014 data and contain results for the most recent ten fiscal years:

- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer and Non-Employer Contributions
- Schedule of Investment Returns

b) The Notes to the Required Supplementary Information provide actuarial assumptions and changes to significant plan provisions and actuarial methods/assumptions.

3. Other Pension Information

The Other Pension Information Section provides financial data, including net pension liability, deferred outflows and inflows of resources, and pension income or expenses for each contributing entity. The participating employer units are required to report this information in their financial statements.

Financial Highlights from the Basic Financial Statements

As shown in the following table, SPTRFA's total assets for fiscal years 2022 and 2023 were $1,157.2 million and $1,224.4 million, respectively. Total assets are generally comprised of cash, receivables, investments, and securities lending collateral. The lending collateral represents cash on deposit to cover the value of securities loaned to brokerage firms for which they pay a fee to the Fund's custodian. These broker/dealer firms are obligated to return such securities at a future point in time. The Fund and custodian share the lending proceeds. This strategy, commonly employed by institutions, provides the Fund with a source of additional income to offset Plan's annual cost of custodial bank services. During fiscal years 2022 and 2023, the loaned securities of the Fund generated $121,182 and $2,121,065 of gross revenue, respectively. Costs of the program are netted against this revenue when reported in the Changes in Fiduciary Net Position, resulting in net securities lending income of $48,076 in fiscal year 2022 and $80,360 in fiscal year 2023. At the close of each year, the total market value of lendable securities in the portfolio stood at approximately $261.7 million and $299.0 million, respectively. During fiscal years 2022 and 2023, approximately $40 million to $70 million of eligible securities were on loan at any one time. As a risk control measure, the SPTRFA Board of Trustees affirmatively limits the amount of the Fund's securities that can be on loan at any given time to no more than 35 percent of Fund assets.

Fiduciary Net Position (at Market)
(in Thousands of Dollars)

Condensed Statements of Net Position

	June 30		
	2023	2022	2021
Assets			
Cash	$ 9,692	$ 23,031	$ 17,103
Receivables	7,051	3,593	23,752
Investments at fair value	1,206,871	1,128,929	1,286,595
Securities lending collateral	799	1,645	1,557
Total Assets	$ 1,224,413	$ 1,157,198	$ 1,329,007
Liabilities			
Accounts payable	$ 916	$ 558	$ 626
Security purchases payable	5,945	568	31,760
Securities lending collateral	799	1,645	1,557
Total Liabilities	$ 7,660	$ 2,771	$ 33,943
Net Position Restricted for Pensions	$ 1,216,753	$ 1,154,427	$ 1,295,064

The following table, Changes in Fiduciary Net Position, lists additions and deductions to net position. The table reflects a fiscal year 2022, $140.6 million decrease in the Fund's net position and a fiscal year 2023, $62.3 million increase in the Fund's net position.

The main Fund deductions are annuity benefit payments and, to a lesser extent, payments to members who terminated their employment with SPPS and elected to receive a refund of their contributions, with statutory interest. These payments together totaled $121.6 million in fiscal year 2022 and $123.9 million in fiscal year 2023. Total benefit payments and refunds increased $2.4 million, going from $119.2 million for fiscal year 2021 to $121.6 in fiscal year 2022. Deductions again increased by $2.3 million increasing to $123.9 million for fiscal year 2023. Administrative costs remained flat at 0.8 percent of total expenditures in fiscal year 2022. In fiscal year 2023, those costs increased to 1.0 percent of total expenditures. This was primarily due to a one-time expense recognition for accrued vacation and sick leave earned in prior years.

Sources of additions include total contributions of $77.8 and $77.1 million (which included employee, employer, and state supplemental contributions) for 2022 and 2023, respectively. Total contributions increased significantly by $5.6 million in fiscal year 2022 and decreased by $0.7 million from $72.3 million in fiscal year 2021 to $77.8 and $77.1 million in fiscal years 2022 and 2023, respectively. The fiscal year 2022 upward contribution variance was due to one-time SPPS COVID salary payments for school years 2021 and 2022, which increased fiscal year 2022 contributions by $2.2 million. Investment returns, typically more volatile, experienced returns of ($95.6) and $110.3 million for 2022 and 2023, respectively. While investment returns provide a meaningful source of benefit funding over the long-term, they fluctuate from year-to-year. Given the natural variability of investment returns, it is critical to ensure that appropriate employee and employer contribution levels are maintained.

Changes in Fiduciary Net Position (at Market)
(in Thousands of Dollars)

	Year Ended June 30 2023	2022	2021
Additions			
Employer and employee contributions	$ 61,443	$ 62,169	$ 56,585
State of Minnesota amortization aids	15,665	15,665	15,665
Investment activity, less management fees	110,217	(96,036)	305,188
Net securities lending income	80	48	44
Total Additions	$ 187,405	$ (18,154)	$ 377,482
Deductions			
Benefits, withdrawals, and refunds	$ 123,886	$ 121,556	$ 119,252
Administrative expenses	1,193	927	779
Total Deductions	$ 125,079	$ 122,483	$ 120,031
Net Increase (Decrease)	$ 62,326	$ (140,637)	$ 257,451
Net Position in Trust for Benefits – Beginning of the Year	$ 1,154,427	$ 1,295,064	$ 1,037,613
Net Position in Trust for Benefits – End of the Year	$ 1,216,753	$ 1,154,427	$ 1,295,064

Investment Performance

The Defined Benefit Plan administered by SPTRFA accumulates assets in advance of benefit obligations, covering those obligations primarily through contributions and prudent investment growth. The level of supportable benefits and long-term financial health of the Fund depend on the efficient and prudent investment of contributions from members, our employers, and certain funds received from the State.

There are cyclical, economic, market-driven, and tactical risks associated with investing plan assets in the capital markets. SPTRFA is a conservative, long-term investor, seeking attractive risk-adjusted returns over a full market cycle, with an emphasis on appropriate diversification and long-term capital preservation. The following chart reflects the Fund's current asset allocation model.

Asset Class	Target Allocation
Domestic Equity	35%
International Equity	20%
Fixed Income	20%
Real Assets	11%
Private Equity & Alternatives	9%
Opportunistic	5%
Total	**100%**

The Plan's statutory investment return target is currently 7.0 percent, which was lowered from 7.5 percent beginning in fiscal year 2023.

Investment returns will vary over time and return targets may or may not be achieved in any given year, particularly in periods of market turmoil. Maintaining a focus on the long-term is critical as this is the relevant time frame in which pension systems operate for the benefit of their members.

The Fund experienced investment performance in line with the markets in fiscal years 2022 and 2023, with returns of (9.37) and 9.43 percent (net of fees), respectively. Investment returns, both negative or positive, typically vary from the statutory investment return assumption and these two years were no exception. For additional information on investment activity, please refer to Note 3.

Actuarial and Market Valuation Summary

The actuarial valuation analysis (which attempts to mitigate the impact of market volatility by smoothing results over five years) provides another important element in understanding the long-term health of the Plan. The table below provides metrics commonly used to assess the ability of the Fund to meet its obligations. A table reflecting results on a market value basis, which does not reflect any actuarial smoothing of results, is provided for comparative purposes as well.

Below are summary comparative statistics from the actuarial valuations:

Summary of Actuarial Valuation Results

	Plan Year Beginning July 1		
	2023	2022	2021
Covered payroll	$ 296,674,000	$ 304,227,000	$ 279,916,000
Statutory contributions (ch. 354A)	30.86%	25.13%	25.13%
Required (ch. 356)	24.50%	19.96%	20.51%
Sufficiency/(Deficiency)	**6.36%**	**5.17%**	**4.62%**
Market value of assets	1,216,753,000	1,154,427,000	1,295,064,000
Actuarial value of assets	1,234,225,000	1,203,096,000	1,159,954,000
Actuarial accrued liability	1,891,617,000	1,750,400,000	1,729,621,000
Unfunded liability	**657,392,000**	**547,300,000**	**569,667,000**
Funded ratio	**65.25%**	**68.73%**	**67.06%**

Summary of Market Value Results

	Plan Year Beginning July 1		
	2023	2022	2021
Covered payroll	$ 296,674,000	$ 304,227,000	$ 279,916,000
Statutory contributions (ch. 354A)	30.86%	25.13%	25.13%
Required (ch. 356)	24.88%	20.97%	17.66%
Sufficiency/(Deficiency)	**5.98%**	**4.16%**	**7.47%**
Market value of assets	1,216,753,000	1,154,427,000	1,295,064,000
Actuarial value of assets	1,234,225,000	1,203,096,000	1,159,954,000
Actuarial accrued liability	1,891,617,000	1,750,400,000	1,729,621,000
Unfunded liability	**674,864,000**	**596,000,000**	**434,557,000**
Funded ratio	**64.32%**	**65.95%**	**74.88%**

The Fund showed an incremental decline in funding on an actuarial valuation basis for 2023, due to the adoption of more conservative underlying assumptions, such as reduced investment return and payroll growth assumptions as well as increased member longevity factors. With these changes, the 2022 funded ratio would have been 65.1 percent, on an actuarial basis. The short-term impact of these changes is reflected in the decreased funded ratio, while the long-term positive impact is reflected in the meaningful surpluses to the Plan's statutory contribution rate and contribution sufficiency.

Consistent and adequate employer and employee contributions are critically important to the long-term health of the Plan. The amount of contributions received in any given year is a function of both the applicable statutory contribution rates in effect and the total amount of covered payroll that is subject to those rates. Covered payroll increased by 8.60 percent to $304.2 in fiscal year 2022, then decreased by 2.5 percent to $296.7 million. The fiscal year 2022 covered payroll increase included a one-time SPPS Covid bonuses and in conjunction with contribution rate increases, which generated a 7.73 percent increase in total contributions. The 2018 Pension Bill authorized contribution rate increases, which will continue to be phased-in over the next year.

In fiscal year 2022 and 2023, the Fund reached 5.17 and 6.36 percent contribution sufficiency, respectively, up from the fiscal year 2021 of 4.62 percent on an actuarial basis. On a market value of assets basis, the Fund's fiscal year contribution sufficiency decreased to 4.16 and increased to 5.98 percent for 2022 and 2023, respectively, down from 7.47 percent in fiscal year 2021.

Notwithstanding the positive trend in total contributions received, events that potentially impact the level of contributions must be monitored closely. The 2018 Pension Bill provided contributions that are intended to overcome the combined effects of historic underfunding, as well as the significant Plan assumption changes made during the 2018 legislative session. SPTRFA continues to monitor changes that could, over time, reduce overall contributions, such as declining enrollment, a reduction in the number of active members, certain employer-based cost savings initiatives, certain early retirement incentives, or replacing higher salaried senior teachers with more junior staff. A reduction in contributions could compromise the fiscal health of the Fund and place a greater burden on the investment portfolio to generate realized gains to pay member benefits.

Basic Financial Statements

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit 1

Statement of Fiduciary Net Position
June 30, 2023, and June 30, 2022

	June 30, 2023	June 30, 2022
Assets		
Cash	**$ 9,691,843**	**$ 23,030,812**
Receivables		
Employer contributions	$ 437,603	$ 354,145
Employee contributions	229,437	187,247
Service purchases	55,076	59,088
Pensions	37,091	52,288
State contributions	837,607	837,607
Real estate income	201,590	259,472
Commission recapture	417	697
Interest	59,925	111,284
Dividends	1,195,796	872,028
Miscellaneous	-	524
Sales of securities	3,996,343	858,843
Total receivables	**$ 7,050,885**	**$ 3,593,223**
Investments, at fair value		
U.S. government securities	$ 54,294,862	$ 34,038,676
Corporate bonds	74,252,885	76,361,158
Municipal bonds	1,661,075	526,126
Foreign issue bonds	9,862,970	10,141,821
Corporate stocks	130,666,995	129,975,032
Limited partnerships		
Private equity	147,523,944	139,012,822
Alternative	32,051,318	28,421,797
Real asset	79,691,945	86,920,332
Opportunistic	7,557,684	6,933,541
Mutual funds		
Fixed Income	4	13,296,961
Global equities	103,168,836	92,800,437
Commingled investment funds		
Fixed income	29,106,553	28,791,571
Domestic equity	381,314,054	321,276,532
Global equities	99,176,835	92,134,677
Cash and cash equivalents		
Money market funds	56,259,221	68,297,204
Short term obligations	281,660	-
Total investments, at fair value	**$ 1,206,870,841**	**$ 1,128,928,687**
Invested securities lending collateral	**$ 799,226**	**$ 1,645,091**
Total Assets	**$ 1,224,412,795**	**$ 1,157,197,813**

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit 1
(Continued)

Statement of Fiduciary Net Position
June 30, 2023, and June 30, 2022

	June 30, 2023	June 30, 2022
Liabilities		
Accounts payable	$ 916,472	$ 557,681
Security purchases payable	5,944,530	567,936
Securities lending collateral	799,226	1,645,091
Total Liabilities	**$ 7,660,228**	**$ 2,770,708**
Net Position Restricted for Pensions	**$ 1,216,752,567**	**$ 1,154,427,105**

The notes to the financial statements are an integral part of this statement.

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit 2

Statement of Changes in Fiduciary Net Position
For the Years Ended June 30, 2023, and June 30, 2022

	June 30, 2023	June 30, 2022
Additions		
Contributions		
Employer	$ 38,835,599	$ 39,069,831
Members	22,607,147	23,099,340
Other sources		
State of Minnesota	15,664,607	15,664,607
Total contributions	**$ 77,107,353**	**$ 77,833,778**
Investment income (loss)		
From investing activity		
Net appreciation (depreciation) in fair value of investments	$ 99,221,385	$ (112,051,744)
Interest	7,920,348	4,942,725
Dividends	3,527,917	3,703,949
Other	2,030,144	10,281,257
Total investing activity income (loss)	**$ 112,699,794**	**$ (93,123,813)**
Investing activity expense		
External	$ (1,832,019)	$ (2,456,140)
Internal	(650,465)	(455,611)
Total investing activity expense	**$ (2,482,484)**	**$ (2,911,751)**
Net income (loss) from investing activity	**$ 110,217,310**	**$ (96,035,564)**
From securities lending activity		
Securities lending income	**$ 2,121,065**	**$ 121,182**
Securities lending expense		
Borrower rebates	$ (2,006,266)	$ (52,513)
Management fees	(34,439)	(20,593)
Total securities lending expense	**$ (2,040,705)**	**$ (73,106)**
Net income from securities lending activity	**$ 80,360**	**$ 48,076**
Net investment income (loss)	**$ 110,297,670**	**$ (95,987,488)**
Other income	**$ 75**	**$ -**
Total Additions	**$ 187,405,098**	**$ (18,153,710)**

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit 2
(Continued)

Statement of Changes in Fiduciary Net Position
For the Years Ended June 30, 2023, and June 30, 2022

	June 30, 2023	June 30, 2022
Deductions		
Benefits to participants		
Retirement	$ 109,300,470	$ 108,055,666
Disability	470,063	428,068
Survivor	12,489,948	12,108,291
Dependent children	86,634	80,058
Withdrawals and refunds	1,539,407	884,521
Total benefits, withdrawals, and refunds	**$ 123,886,522**	**$ 121,556,604**
Administrative expenses		
Staff compensation	$ 839,296	$ 527,877
Professional services	249,153	249,396
Office lease and maintenance	37,088	63,968
Communication-related expenses	22,902	19,657
Other expense	44,675	65,988
Total administrative expenses	**$ 1,193,114**	**$ 926,886**
Total Deductions	**$ 125,079,636**	**$ 122,483,490**
Net Increase (Decrease)	**$ 62,325,462**	**$ (140,637,200)**
Net Position Restricted for Pensions - Beginning of Year	**1,154,427,105**	**1,295,064,305**
Net Position Restricted for Pensions - End of Year	**$ 1,216,752,567**	**$ 1,154,427,105**

The notes to the financial statements are an integral part of this statement.

Note 1 – Plan Description

Organization

Plan Administration

The St. Paul Teachers' Retirement Fund Association (SPTRFA or the Association) is the administrator of a multiple-employer, cost-sharing, defined benefit plan pension fund (the Fund), with two benefit structures known as the Basic Plan and the Coordinated Plan (the Plans). Originally established in 1909, the Association is a non-profit corporation organized pursuant to the provisions of Minn. Stat. ch. 317A and governed by Minn. Stat. chs. 354A, 356, and 356A, as well as the Association's bylaws.

Governance

Management of the SPTRFA is vested in a ten-member Board of Trustees (the Board). Nine trustees are elected by and from the Association's membership and serve rotating three-year terms. The Board of Independent School District Number 625, St. Paul Public Schools (SPPS), annually appoints the tenth trustee, who serves as an ex-officio member of the Board.

Participating Members and Employers

The SPTRFA membership consists of licensed teachers employed by SPPS, certain licensed teachers employed by St. Paul College (SPC), certain licensed teachers employed by charter schools within the City of St. Paul, and the SPTRFA staff.

Figure 1. Plan Membership	*As of June 30, 2023*	*As of June 30, 2022*
Retirees and beneficiaries currently receiving benefits	4,310	4,253
Terminated employees entitled to but not yet receiving benefits	2,611	2,514
Terminated, non-vested employees	3,007	2,915
Current active plan members (including members on leave)	3,456	3,528
Total Membership	13,384	13,210

Currently, SPPS and SPC are the two active participating employers who contribute to the Fund. In addition, the State of Minnesota makes statutorily required payments to the Fund and is, therefore, classified as a non-employer contributing entity.

Until its merger into the Minnesota State Colleges and Universities (MnSCU) system on July 1, 1995, all SPC teachers were contributing members of the Fund. As part of the merger process, the SPTRFA-covered SPC teachers were given the option to remain active members of the Fund or, if choosing other retirement coverage, converting to deferred status with the SPTRFA.

Until July 1, 2002, teachers employed by charter schools within the City of St. Paul were contributing members of the SPTRFA, after which time, all Minnesota charter school teachers converted to Minnesota Teachers' Retirement Association membership for future coverage. Contributions paid and service credits accrued with respect to charter schools prior to this transition remain with the SPTRFA. Presently in deferred status with the SPTRFA, these individuals may collect a benefit based on eligibility at retirement.

Description of the Plans

The following brief description of the Plans is provided for general information purposes only. More complete information can be found in the specific plan agreements. The SPTRFA's defined benefit plans are tax qualified under Section 401(a) of the Internal Revenue Code. Additionally, the Plans are not subject to the Employee Retirement Income Security Act of 1974 (ERISA).

The Association administers two defined benefit plan structures:

Basic Plan

Members covered prior to July 1, 1978, are participants in the SPTRFA's Basic Plan. These members do not participate in Social Security through their employment. As a result, members in the Basic Plan were subject to higher contribution rates and receive higher benefit payments than members in the Coordinated Plan. No Basic Plan members currently remain in active status.

Coordinated Plan

The Coordinated Plan provides retirement benefits to members who simultaneously participate in Social Security. Effective July 1, 1978, new members were covered by the Coordinated Plan, with lower contributions and benefits designed to supplement contributions to, and benefits from, the Social Security system. Currently, all active member participants are Coordinated Plan members.

Benefits Provisions

Pension Benefits Overview

The SPTRFA provides retirement and disability benefits to those members satisfying length-of-service and minimum age requirements. Depending on plan coverage, survivor benefits and family benefits may also be available.

The benefit paid to eligible members is formula based. The formula components are final average salary, earned service credit, applicable rate, and if retiring prior to their normal retirement age, a reduction for early retirement.

Service credit is determined by the number of days worked each fiscal year (July 1 through the following June 30).

Basic Plan

Basic Plan members must have five years of service credit to be vested for a future lifetime pension benefit with eligibility for a reduced benefit as early as age 55. The benefit that a member is entitled to receive is the greater of the pension amount computed using the applicable Tier I or Tier II formulas.

Under the Basic Plan, final average salary includes the highest five years of salary earned during the last ten years employed. The Tier I formula rate is 2.0 percent of the final average salary for each year of service credit. The benefit is subject to a maximum of 40 years, with a 0.25 percent reduction for each month the member draws their benefit prior to their normal retirement age of 65. If the member has 25 service credit years, the reduction is applied only if the member is less than 60 years old. No reduction is applied if age plus service credit years total at least 90.

The Tier II formula is 2.5 percent of the final average salary for each year of service credit. This benefit is subject to a maximum of 40 years, reduced for each month the member is under the normal retirement age of 65, using statutory early retirement reduction tables.

Coordinated Plan

Coordinated Plan members must have three years of service credit to be vested for a future lifetime pension benefit and are eligible to retire with a reduced benefit at age 55, or earlier with 30 years of service credit.

Under the Coordinated Plan, final average salary includes the average of the highest five successive years of salary earned during employment.

Members hired before July 1, 1989, are eligible for the greater of Tier I or Tier II benefits. Members hired on or after July 1, 1989, are eligible solely for Tier II benefits.

The Tier I formula multiplies the final average salary by the retirement service credit years earned by the following rates:

Tier I Formula Rates

For Service Rendered	Prior to July 1, 2015	On or After July 1, 2015
First ten years	1.20 percent	1.40 percent
Subsequent years	1.70 percent	1.90 percent

A reduction of 0.25 percent is applied for each month the member draws their benefit prior to age 65, or prior to age 62 with 30 service years. No reduction applies if the age plus years of service total at least 90.

The Tier II formula multiplies the final average salary by the retirement service credit years earned by 1.70 percent for service rendered before July 1, 2015, and 1.90 percent for each year of service rendered after June 30, 2015. This benefit is reduced for each month the member draws their benefit prior to their normal retirement ages of 65 or 66, based on statutory early retirement tables.

Disability

Active members who become totally and permanently disabled and satisfy length-of-service requirements are entitled to receive monthly disability benefits as calculated under each Plan.

Refund of Contributions

Non-vested members who terminate employment may only receive a refund or a rollover of their contributions, with statutory accumulated interest.

Post-Retirement Adjustment

Post-retirement adjustments are provided under Minnesota statutes, which may be amended from time to time. In fiscal years 2023 and 2022, the SPTRFA provided a 1.00 percent post-retirement adjustment.

Note 2 – Summary of Significant Accounting Policies

Basis of Accounting and Presentation

The accompanying financial statements were prepared and presented to conform with the accounting principles generally accepted in the United States of America (GAAP) that apply to governmental accounting for fiduciary funds, including those set forth by the Governmental Accounting Standards Board (GASB).

The SPTRFA's financial statements are prepared using the full accrual basis of accounting. Under this method, and in accordance with Minn. Stat. ch. 354A.12, contributions are recognized as revenues when due, benefits and refunds are recognized when due and payable, and expenses are recorded when corresponding liabilities are incurred, regardless of the timing of cash flow.

Investment Policies and Valuation Methodology

Investment Policy

The Association is authorized to invest the assets of the Fund under Minn. Stat. ch. 356A and Association bylaws. The SPTRFA investments are governed by Minn. Stat. § 356A.06, subds. 6 and 7, as well as the Association's bylaws and investment policy. Under these rules, permissible investments include, but are not limited to, government and corporate bonds, non-U.S. and domestic common stock, real property, private equity investments, derivatives, options, and notes.

The SPTRFA Board of Trustees is responsible for the adoption, implementation, and monitoring of the investment policy. Pursuant to the Association's Investment Policy, the Fund seeks to achieve the preservation and long-term appreciation of the Fund's assets through appropriate diversification and risk management.

Figure 2. SPTRFA's Target Asset Allocation

Asset Class	Target Allocation
Domestic Equity	35%
International Equity	20%
Fixed Income	20%
Real Assets	11%
Private Equity and Alternatives	9%
Opportunistic	5%
Total	100%

Method Used to Value Investments

Investments for the SPTRFA are stated at fair value. The SPTRFA categorizes the fair value measurements of its investments in accordance with generally accepted accounting principles. The definition of fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy is established for investments. The hierarchy is based on valuation inputs, categorized at three levels, dependent on whether the inputs to those valuations are observable or unobservable in the marketplace.

Interest income is recognized when earned on an accrual basis. Dividend income is recorded on the date that the funds are earned, and a receivable for the dividend is recorded at the time of the dividend announcement.

Rate of Return

The Association's money weighted rate of return for the years ending June 30, 2023, and June 30, 2022, were 9.43 percent and (9.37) percent, respectively, net of fees. The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the actual cash flow that took place during the performance period.

Note 3 – Deposits and Investments

Investments

Assets and liabilities measured at fair value and inputs relative to their fair value measurements are classified and reported in one of the following categories:

- Level 1 – Investments' fair values based on prices quoted in active markets for identical assets.

- Level 2 – Investments' fair values based on observable inputs for the assets either directly or indirectly, other than those considered Level 1 inputs, which may include quoted prices for identical assets in markets that are not considered to be active, and quoted prices of similar assets in active or inactive markets.

- Level 3 – Investments are based on valuation methodologies including pricing models, discounted cash flow models, and similar techniques in which one or more significant inputs are unobservable. Level 3 valuations incorporate subjective judgments and consider assumptions including capitalization rates, discount rates, cash flow, and other factors that are not observable in the market.

The categorization of investments within the hierarchy in Figure 3 is based solely upon the objectivity of the inputs used in the measurement of fair value of the investments and does not reflect the level of risk associated with the investments.

Investments classified in Level 1 of the fair value hierarchy are valued from predetermined external pricing vendors or primary dealers who source quoted prices in active markets which are readily attainable exit values of these securities. Investments classified in Level 2 are subject to alternative pricing sources, such as matrix pricing, and include a combination of price sources, descriptive data, and pricing models based on attributes such as spread data, sector, quality, duration, and prepayment characteristics. Where applicable, investment instruments classified as Level 2 are also valued using market approaches that consider benchmark interest rates or foreign exchange rates. The values are supplied by advisors or general partners who hold those or similar assets in investment vehicles they oversee. These pricing sources may or may not be indicative of realizable exit value attainable for the assets.

Figure 3. SPTRFA's Investments Measured at Fair Value

		Fair Value Measurements Using		
	As of June 30, 2023	Level 1	Level 2	Level 3
Investments by fair value level				
Equity securities				
Domestic equity	$ 157,836,699	$ 157,836,699	$ -	$ -
International equity	12,678,910	12,678,910	-	-
Equity funds	103,168,836	17,616,788	85,552,048	-
Total equity securities	$ 273,684,445	$ 188,132,397	$ 85,552,048	$ -
Fixed income securities				
U.S. Treasury Bill	$ 281,660	$ 281,660	$ -	$ -
U.S. government issues	54,294,862	18,739,914	35,554,948	-
Municipal issues	1,661,075	-	1,661,075	-
Corporate issues	33,708,870	-	33,708,870	-
Asset-backed securities	32,657,970	-	32,657,970	-
Mortgage-backed securities	7,886,045	-	7,886,045	-
Foreign issues	9,862,970	-	9,862,970	-
Fixed income funds	4	-	4	
Total fixed income securities	$ 140,353,456	$ 19,021,574	$ 121,331,882	$ -
Total Investments by Fair Value Level	$ 414,037,901	$ 207,153,971	$ 206,883,930	$ -
Investments measured at the net asset value (NAV)				
Private equity	$ 147,523,944			
Private real asset funds	16,484,721			
Alternative investments	39,609,002			
Commingled global fixed income funds	29,106,553			
Commingled global equity funds	85,250			
Commingled domestic equity funds	66,750,750			
Commingled real estate funds	23,358,610			
Money market funds	56,259,221			
Total Investments Measured at NAV	$ 379,178,051			

Net Asset Value (NAV): The fair value of investments in entities that calculate a net asset value per share are determined using that NAV in lieu of the leveling methodology previously described.

Figure 3. SPTRFA's Investments Measured at Fair Value (Continued)

	As of June 30, 2022	Fair Value Measurements Using Level 1	Level 2	Level 3
Investments by fair value level				
Equity securities				
Domestic equity	$ 160,082,288	$ 160,082,288	$ -	$ -
International equity	11,245,358	11,245,358	-	-
Equity funds	92,800,437	17,403,025	75,397,412	-
Total equity securities	$ 264,128,083	$ 188,730,671	$ 75,397,412	$ -
Fixed income securities				
U.S. government issues	$ 34,038,676	$ 6,829,438	$ 27,209,238	$ -
Municipal issues	526,126	-	526,126	-
Corporate issues	32,016,740	-	32,016,740	-
Asset-backed securities	34,022,073	-	34,022,073	-
Mortgage-backed securities	10,322,345	-	10,322,345	-
Foreign issues	10,141,821	-	10,141,821	-
Fixed income funds	13,296,961	-	13,296,961	
Total fixed income securities	$ 134,364,742	$ 6,829,438	$ 127,535,304	$ -
Total Investments by Fair Value Level	$ 398,492,825	$ 195,560,109	$ 202,932,716	$ -
Investments measured at the net asset value (NAV)				
Private equity	$ 139,012,822			
Private real asset funds	15,726,718			
Alternative investments	35,355,338			
Commingled global fixed income funds	28,791,571			
Commingled global equity funds	110,656			
Commingled domestic equity funds	56,910,138			
Commingled real estate funds	29,841,000			
Money market funds	68,297,204			
Total Investments Measured at NAV	$ 374,045,447			

Figure 4. SPTRFA's Investments Measured at NAV

	Investments Measured at Net Asset Value (NAV)			
	As of June 30, 2023	Unfunded Commitments	As of June 30, 2022	Unfunded Commitments
Investments				
Private equity				
GSEW Stock Holdings LLC	$ 85,527	$ None	$ 86,980	$ None
North Sky Fund IV L.P.	469,390	360,000	2,227,710	2,490,000
SP/FP Private Equity Fund, L.P.	142,325,575	59,559,728	132,312,845	57,486,211
Guggenheim Partners	1,029,502	None	1,000,000	None
Venture Investment Associates	3,613,950	800,000	3,385,287	900,000
Private real asset funds				
Dune Real Estate Partners L.P. Fund III	3,308,068	None	3,252,795	None
Dune Real Estate Partners L.P. Fund IV	4,012,639	1,302,855	2,362,060	2,753,532
Kimmeridge Energy Engagement Ptrs, LP	9,164,014	4,754,707	10,111,863	2,909,916
Alternative investments				
Entrust Special Op Fund III, LTD.	7,557,684	None	6,683,541	None
Parametric Defensive Equity Funds LLC	29,129,547	None	25,332,986	None
TCW DL LLC	2,921,771	2,234,911	3,088,811	3,799,411
Guggenheim Partners	-	None	250,000	None
Commingled global fixed income funds				
Brandywine Global Opportunistic	29,106,553	None	28,791,571	None
Commingled global equity funds				
JPMCB Global Focus Fund	85,250	None	110,656	None
Commingled domestic equity funds				
Blackrock S&P 500 Equity Index	14,541,378	None	12,161,726	None
Dimensional – US Small Cap Value	52,209,372	None	44,748,412	None
Comingled real estate fund				
UBS Trumbull Property Fund	23,358,610	None	29,841,000	None
Money market funds	56,259,221	None	68,297,204	None
Total Investments Measured at NAV	$ 379,178,051		$ 374,045,447	

Investments Measured at NAV with Redemption Options Available	Redemption Frequency	Redemption Notice Period
Entrust Special Op Fund III, LTD.	Quarterly	95 days
Parametric Defensive Equity Funds LLC	Monthly	5 days
Brandywine Global Opportunistic	Daily	10 days
JPMCB Global Focus Fund	Daily	None
Blackrock S&P 500 Equity Index	Daily	1 day
Dimensional – US Small Cap Value	Daily	5 days
UBS Trumbull Property Fund	Quarterly, subject to available capital liquidity	60 days
Vanguard Short-Term Bond	Daily	None
Morgan Stanley Institutional Global	Daily	None

Remaining funds are not eligible for redemption. Distributions are received as underlying investments are liquidated.

External Investment Pools

As of June 30, 2023, the Fund holds $413,654,889 with the Minnesota State Board of Investment (MNSBI), an internal investment pool. Comprised of international and domestic equity, the portfolios are identified as SBI International Equity ($99,091,585) and SBI Domestic Equity ($314,563,304).

On June 30, 2022, the Fund held $356,390,415 with the MNSBI. Comprised of international and domestic equity, the portfolios are identified as SBI International Equity ($92,024,021) and SBI Domestic Equity ($264,366,394).

The Fund invests in this pool due to its cost-efficient fees for services provided. The fair value of the investment is the fair value per share of the underlying portfolio. Redemptions are available with a five-day notice.

Description of Significant Investment Strategies Using NAV

Private equity consists of a broadly diversified private equity portfolio of investments that provide diversification by industry type, size, stage of corporate development, and location, through limited partnership structures. The fair values of the investments of this type have been determined using the NAV per share of the Plan's ownership interest in partners' capital. These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which can occur following an investment period of five to ten years.

Private real asset funds consist of three investments in limited partnerships that invest primarily in U.S. commercial real estate and energy infrastructure assets, using a private equity style capital call structure. The fair value of investments is determined using the NAV per share of the Plan's ownership interest in partners' capital. These funds are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which can occur following an investment period of five to ten years.

Alternative investments include a variety of investment strategies that are intended to provide attractive risk-adjusted returns and portfolio diversification. These investments are reflected in three (for year-end June 30, 2023) and four (for year-end June 30, 2022) commingled investment vehicles and include equity co-investments and hedged equity structures. The fair value of investments is determined using the NAV per share of the Plan's ownership interest in partners' capital.

Commingled global fixed income consists of one commingled investment vehicle that invests primarily in publicly traded global fixed income securities. The investment is valued at NAV of units held at the end of the period based upon the NAV per share of the underlying investments.

Commingled global equity consists of one commingled investment vehicle that primarily invests in publicly traded global equity securities. The funds are valued at the NAV of units held at the end of the period based upon the NAV per share of underlying investments.

Commingled domestic equity consists of two commingled investment vehicles that invest primarily in publicly traded domestic equity securities. The funds are valued at the NAV of units held at the end of the period based upon the NAV per share of underlying investments.

Commingled real estate consists of a commingled investment vehicle that invests primarily in U.S. commercial real estate, focused on a growth and income strategy. The fair value of investments is determined using the NAV per share of the Plan's ownership interest in partners' capital.

Short-term investment funds include cash equivalents, bank notes, corporate notes, government bills, money market funds, and various short-term debt instruments. These types of funds are typically used to provide a temporary investment prior to an expenditure or an allocation to another investment opportunity.

It is the Association's policy to optimize total return on the Fund's portfolio through a policy of diversified investments to achieve maximum rates of return. The Association invests in these types of securities in order to achieve this policy.

Securities Lending

The Association participates in a securities lending program. The Association's custodian, U.S. Bank, is the Association's securities lending agent. In accordance with GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, investment collateral under the program is listed as both an asset and a liability. On June 30, 2023, 16.7 percent of the Fund's securities available for lending were on loan and on June 30, 2022, 17.0 percent of the Fund's securities available for lending were on loan.

The Association is permitted to enter into securities lending transactions under Minn. Stat. § 356A.06, subd. 7a, provided collateral with a market value of at least 100 percent of the value of the loaned securities is received at the time of the loan agreement. The Association's agreement with U.S. Bank requires all securities lending transactions to be collateralized with 102 percent of the market value of the loaned securities at loan inception, with a simultaneous agreement to return the collateral for the same securities in the future. Requiring collateral in excess of the value of loaned securities protects the Association from loss in the event of failure by the borrowing party to deliver the loaned securities. The Association's contract with U.S. Bank also specifies that U.S. Bank will indemnify the Association for any "fails," or loss of securities by failure of borrowers to return securities.

Such loans are permitted to be made solely to pre-approved borrowers. Qualifications of borrowers and the fiscal status of such entities are monitored by the securities lending agent on a continuing basis. Loaned investments are marked to market daily.

If the collateral provided by the borrower falls below 100 percent of the market value of the loaned investment, the borrower is required to provide additional collateral to bring the collateral value to 102 percent. Collateral may be provided in securities or cash.

On June 30, 2023, the market value of collateral was 101.6 percent of the market value of loaned securities. On June 30, 2022, the market value of collateral was 103.7 percent of the market value of loaned securities.

As of June 30, 2023, the fair value of cash collateral received was $799,226, and on June 30, 2022, the fair value was $1,645,091. These amounts are included in the Statement of Fiduciary Net Position both as an asset and offsetting liability for their respective years. The cash collateral, with a weighted average maturity of four days on June 30, 2023, and five days on June 30, 2022, was invested entirely in the Mount Vernon Liquid Assets Portfolio. The Association has no credit risk exposure to borrowers because the amounts the Association owes borrowers exceeds amounts borrowers owe the Association. All securities loans may be terminated on demand by either the Association or the borrower.

As an additional step to mitigate risk, the Board of Trustees affirmatively limits the amount of the Fund's securities that may be on loan at any given time to 35 percent of Fund assets. As of June 30, 2023, 4.13 percent of the Fund's assets were on loan, and on June 30, 2022, 3.94 percent of the Fund's assets were on loan.

Custodial Credit Risk

Custodial credit risk for cash deposits and investments is generally the risk that, in the event of a bank or custodial failure, SPTRFA would not be able to recover the value of its investments or collateral securities. Generally, all marketable securities purchased by the Association are held by a third-party custodian. The Association is also authorized by Minn. Stat. § 356A.06 to deposit its cash in financial institutions designated by the Board of

Trustees. Cash on deposit at U.S. Bank was secured by a Letter of Credit from the Federal Home Loan Bank in Cincinnati.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair market value of an investment. The Association participates in fixed income markets, which are traditionally viewed as having the highest sensitivity to interest rate movements, through the external managers listed below.

Figure 5. Interest Rate Risk

Fixed Income Mandate	Account	June 30, 2023 Market Value	June 30, 2022 Market Value
Active Global Opportunistic Fixed Income Fund	Brandywine	$ 29,106,553	$ 28,791,571
Active Core Plus Fixed Income	Guggenheim	98,683,126	101,032,063
Active Core Fixed Income	Payden & Rygel	41,388,666	-

In accordance with its investment policy, the Association has a 20 percent target allocation to fixed income assets. Each external manager hired by the Association monitors and manages the interest rate risk associated with its underlying portfolio. A key component of interest rate sensitivity is a debt instrument's weighted average of future cash flows, or duration. The following table shows weighted overall durations of each investment account and the associated benchmark as of June 30, 2023, and June 30, 2022.

Figure 6. Duration Risk

	As of June 30, 2023		As of June 30, 2022	
Account	Average Duration in Years	Average Duration of Benchmark	Average Duration in Years	Average Duration of Benchmark
Brandywine	8.30	7.46	6.47	7.82
Guggenheim	6.71	6.31	6.93	644
Payden & Rygel	6.38	6.31	n/a	n/a
U.S. Bank – Securities Lending Cash Collateral	0.01	None	0.01	None

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the holder of the investment. The Fund's credit risk exposure is statutorily restricted, under Minn. Stat. § 356A.06, subd. 7, to specific credit rating requirements and concentration limits. It is the Association's policy to follow this statute with regard to credit risk.

The Association invests in debt securities through investment managers and through its custodian, U.S. Bank. For the investment manager, Brandywine, amounts totaling $29,106,553 and $28,791,571 were invested on June 30, 2023 and June 30, 2022, respectively, in the Brandywine Global Opportunistic Fixed Income Fund, which is an unrated pool.

For the investment manager, Vanguard, $13,296,961 was invested on June 30, 2022, in a Vanguard Short-Term Bond Index Mutual Fund. The Vanguard account was redeemed during fiscal year 2023, resulting in a residual $4 balance in the fund at year-end.

As of June 30, 2023, fixed income securities managed by Guggenheim totaled $98,683,126 and Payden & Rygel totaled $41,388,666. As of June 30, 2022, fixed income securities managed by Guggenheim totaled $101,032,063 and Parametric TIPS totaled $20,035,718. The credit risk for the securities required to be presented is broken out in the following tables:

Figure 7. Credit Risk
As of June 30, 2023

Debt Security Types	Credit Quality Ratings Standard and Poor's or Equivalent	Market Value	Percent of Total Investments (%)
Federal National Mortgage Association	AA	**$ 18,072,021**	**1.50**
Federal Home Loan Mortgage Corporation	AA	**7,762,918**	**0.64**
Municipal bonds	AAA	$ 102,916	
Municipal bonds	AA	1,558,159	
Total municipal bonds		**$ 1,661,075**	**0.14**
Foreign issues	AA	$ 228,389	
Foreign issues	A	2,014,868	
Foreign issues	BBB	5,831,073	
Foreign issues	BB	1,629,420	
Foreign issues	B	159,220	
Total foreign issues		**$ 9,862,970**	**0.82**
Corporate bonds	AA	$ 437,670	
Corporate bonds	A	6,876,940	
Corporate bonds	BBB	17,017,457	
Corporate bonds	BB	4,432,446	
Corporate bonds	B	999,069	
Corporate bonds	CCC	79,727	
Total corporate bonds		**$ 29,843,309**	**2.47**
Asset backed securities	AAA	$ 16,170,350	
Asset backed securities	AA	6,253,369	
Asset backed securities	A	11,568,202	
Asset backed securities	BBB	9,882,015	
Asset backed securities	NR*	535,640	
Total asset backed securities		**$ 44,409,576**	**3.68**
Total Debt Securities		**$ 111,611,869**	**9.25**

*N/R indicates securities were not rated by a nationally recognized rating agency.

Figure 7. Credit Risk
As of June 30, 2022

Debt Security Types	Credit Quality Ratings Standard and Poor's or Equivalent	Market Value	Percent of Total Investments (%)
Federal National Mortgage Association	AA	**$ 2,389,796**	**0.21**
Federal Home Loan Mortgage Corporation	AA	**906,209**	**0.08**
Municipal bonds	AA	**$ 526,126**	**0.05**
Foreign issues	AA	666,224	
Foreign issues	A	673,808	
Foreign issues	BBB	6,471,954	
Foreign issues	BB	1,842,926	
Foreign issues	B	486,909	
Total foreign issues		**$ 10,141,821**	**0.90**
Corporate bonds	AA	$ 776,558	
Corporate bonds	A	4,429,890	
Corporate bonds	BBB	17,652,977	
Corporate bonds	BB	7,199,473	
Corporate bonds	B	1,410,722	
Total corporate bonds		**$ 31,469,620**	**2.79**
Asset backed securities	AAA	$ 15,430,637	
Asset backed securities	AA	5,950,960	
Asset backed securities	A	12,234,224	
Asset backed securities	BBB	10,640,117	
Asset backed securities	NR*	635,600	
Total asset backed securities		**$ 44,891,538**	**3.98**
Total Debt Securities		**$ 90,325,110**	**8.00**

In the absence of a Standard and Poor's credit quality rating, other nationally recognized rating agencies were used. For reporting clarity, all ratings are displayed using comparable Standard and Poor's ratings.

*N/R indicates securities were not rated by a nationally recognized rating agency.

Derivative Investments

As provided by Minn. Stat. § 356A.06, any agreement for put and call options and futures contracts may be entered into only with a fully offsetting amount of cash or securities. Upon entering into a futures contract, each party is required to deposit with the broker an amount, referred to as the initial margin, equal to a percentage of the purchase price indicated by the futures contract. In lieu of a cash initial margin, certain investments are held for the broker as collateral. On June 30, 2023, and June 30, 2022, the Association had futures contracts through its cash overlay program with Parametric and with Guggenheim Investments.

Subsequent deposits, referred to as variation margins, are received or paid each day by each party equal to the daily fluctuations in the fair value of the contract. These amounts are recorded by each party as unrealized gains or losses. When a contract is closed, each party records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed.

Futures contracts involve, to varying degrees, credit and market risks. The Association may enter into contracts only on exchanges or boards of trade where the exchange or board of trade acts as the counterparty to the transactions. Thus, credit risk on such transactions is limited to the failure of the exchange or board of trade. Losses in value may arise from changes in the value of the underlying instruments or if there is an illiquid secondary market for the contracts.

The futures contracts held by the Association on June 30, 2023, had maturity dates of September 15, 2023, to September 29, 2023. As of June 30, 2023, the Fund's cash overlay account associated with the futures contracts had no money market funds. The futures contracts' change in fair value during the reporting period was ($209,494), which is not reported as an asset or liability because, upon maturity of the contract, an exchange does not take place, but instead the gain or loss is settled in cash.

The futures contracts held by the Association on June 30, 2022, had maturity dates of September 16, 2022, to September 30, 2022. As of June 30, 2022, the Fund's cash overlay account associated with the futures contracts had no money market funds. The futures contracts' change in fair value during the reporting period was ($709,412), which is not reported as an asset or liability because, upon maturity of the contract, an exchange does not take place, but instead the gain or loss is settled in cash.

The following are risks associated generally with futures contracts, which are mitigated by the practice of the money manager settling the futures contracts each business day:

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Losses in value may arise from changes in the value of the underlying instruments or if there is an illiquid secondary market for the contracts.

Interest Rate Risk – Interest rate risk for investments consists of assessing the potential for adverse effects on the fair value of debt securities held as a result of interest rate changes.

Foreign Currency Risk – Foreign currency risk is the risk that changes in exchange rates of foreign currencies relative to the U.S. dollar adversely affect the fair value of an investment or a deposit.

Market Risk – Market risk is the possibility that a change in market prices or currency rates will cause the value of a financial instrument to decrease or become more costly to settle.

Concentration Risk

Concentration risk relates to the adequacy of policy and practice in limiting the risk of loss due to insufficient diversification of holdings measured from several different aspects, such as asset class, region, sector, industry, or company size.

As specified in Minn. Stat. § 356A.06, subd. 7, equity investment holdings may not exceed 5.0 percent of any one corporation's outstanding shares. For June 30, 2023, and June 30, 2022, the Fund's largest ownership of any one corporation's outstanding shares was 0.04 percent.

Association policy also limits exposure to any one company's securities at 1.5 percent of the total fund. As of June 30, 2023, the largest aggregate total holding was under this requirement at 0.33 percent. On June 30, 2022, the largest aggregate total holding is under this requirement at 0.27 percent.

Association policy further provides that no more than 15.00 percent of the Fund's assets may be invested in any one industry sector and that the maximum allocation to any single active investment manager is limited to no more than 15.00 percent of the total fund. As of June 30, 2023, the Fund met these requirements at 3.54 percent and 11.79 percent, respectively. As of June 30, 2022, the Fund met these requirements at 3.94 percent and 11.73 percent, respectively.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates of foreign currencies relative to the U.S. dollar may adversely affect the fair value of an investment or a deposit.

The Fund has exposure to certain foreign currency risks through its external investment managers who invest in global equity and fixed income markets. This exposure is detailed in the following chart:

Figure 8. Foreign Currency Risk
Assets Held in Non-U.S. Securities by Currency

Country	Currency	June 30, 2023 Value	June 30, 2022 Value
Australia	Australian Dollar	4,349,504	4,070,033
Brazil	Brazilian Real	1,363,088	1,012,523
Canada	Canadian Dollar	7,295,590	7,031,209
Chile	Chilean Peso	38,730	38,293
China	Yuan Renminbi	992,806	1,232,340
Colombia	Colombian Peso	7,528	13,638
Czech Republic	Czech Koruna	10,976	94,813
Denmark	Danish Krone	2,228,916	1,880,867
Egypt	Egyptian Pound	6,030	5,248
European Union	Euro	36,506,609	27,225,776
Great Britain	Pound Sterling	18,685,274	16,915,556
Hong Kong	Hong Kong Dollar	5,686,673	6,320,059
Hungary	Hungarian Forint	98,655	86,664
Indonesia	Indonesian Rupiah	568,219	474,941
Israel	New Israeli Shekel	242,787	347,102
Japan	Japanese Yen	14,432,052	12,183,681
Kuwait	Kuwaiti Dinar	59,233	60,415
Malaysia	Malaysian Ringgit	97,195	106,515
Mexico	Mexican Peso	613,063	435,038
New Zealand	New Zealand Dollar	101,319	89,087
Norway	Norwegian Krone	513,933	694,846
Philippines	Philippine Peso	95,000	65,515
Poland	Polish Zloty	153,643	130,964
Qatar	Qatari Riyal	66,176	102,572
Romania	Romanian Leu	14,927	23,738
Russia	Russian Ruble	130	-
Saudia Arabia	Saudi Riyal	141,088	-
Singapore	Singapore Dollar	1,007,781	770,724
South Africa	South African Rand	600,189	665,188
South Korea	South Korean Won	2,997,945	2,751,448
Sweden	Swedish Krona	1,874,332	1,539,074
Switzerland	Swiss Franc	6,268,268	5,582,095
Taiwan	New Taiwan Dollar	2,999,698	2,832,809
Thailand	Thailand Baht	356,665	280,448
Turkey	Turkish Lira	68,281	71,633
United Arab Emirates	UAE Dirham	195,956	157,588
Totals		$ 110,738,259	$ 95,292,440

Note 4 – Contribution Requirements

Funding and contribution provisions are established by state law and may be amended only by the State of Minnesota Legislature. Provisions regarding funding status and contribution rates are set forth in Minn. Stat. §§ 356.215 and 354A.12, respectively.

Funding

The SPTRFA's full funding date is June 30, 2048, established under Minn. Stat. § 356.215.

As part of the Fund's annual actuarial valuation, the sufficiency or deficiency of the statutory contribution rates toward meeting the required full funding deadline are determined, on both an actuarial and market value basis. The actuary compares the actual contribution rate to a "required" contribution rate. The required contribution rate consists of: (a) normal costs based on entry age normal cost methods, (b) a supplemental contribution for amortizing any unfunded actuarial accrued liability by the required date for full funding, and (c) an allowance for administrative expenses.

The contribution sufficiency improved from 5.17 percent of payroll in the fiscal year 2022 to 6.36 percent of payroll for fiscal year 2023 as measured on the actuarial value of assets. On a market value of assets basis, the statutory contribution sufficiency improved from 4.16 percent of payroll to 5.98 percent of payroll from fiscal year 2022 to 2023.

Contribution Rates

Required contribution rates for employer and employee contributions to the SPTRFA are established by Minn. Stat. § 354A.12, subdivisions 1 and 2a. Current rates for the plan are shown below.

Figure 9. Statutory Schedule of Contribution Rates

	Basic Plan			Coordinated Plan		
On or After July 1	Employee	Employer Base	Employer Additional	Employee	Employer Base	Employer Additional
2021	10.00%	12.090%	3.64%	7.50%	8.590%	3.84%
2022	10.00%	12.300%	3.64%	7.50%	8.800%	3.84%
2023	10.25%	12.500%	3.64%	7.75%	9.000%	3.84%
2024	10.25%	12.500%	3.64%	7.75%	9.000%	3.84%
2025	11.50%	13.250%	3.64%	9.00%	9.750%	3.84%

Additionally, pursuant to Minn. Stat. § 423A.02, SPPS contributed $800,000 to the Fund in fiscal years 2023 and 2022. The State of Minnesota also contributed $15,664,607 to the Fund in fiscal years 2023 and 2022, pursuant to Minn. Stat. §§ 354A.12 and 423A.02. These contributions are scheduled to terminate at the Fund's full funding target date (currently June 30, 2048), or when full funding is achieved, whichever occurs first.

Note 5 – Net Pension Liability

The Association's actuary performs another actuarial valuation to comply with the requirements of GASB Statement 67. The components of the net pension liability for the Fund's participating employers and the State of

Minnesota (a non-employer contributing entity) as of June 30, 2023, and June 30, 2022, are shown in Figure 10, as calculated by the Association's actuary, Gabriel Roeder Smith & Company.

Figure 10. Net Pension Liability *(Dollars in Thousands)*

Measurement Date	(a) Total Pension Liability	(b) Plan Fiduciary Net Position	(a - b) Net Pension Liability	(b/a) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
June 30, 2023	$ 1,891,617	$ 1,216,753	$ 674,864	64.32%
June 30, 2022	$ 1,849,295	$ 1,154,427	$ 694,868	62.43%

Actuarial Valuation

The actuarial valuation of the Fund involves estimates of the reported amounts and assumptions about the probability of the occurrence of events far into the future, including anticipated member mortality and salary increases. These assumptions are derived from the Fund's periodic experience study, performed by the Association's actuary.

For June 30, 2023, assumptions were based on the most recent actuarial study covering the period July 1, 2016, to June 30, 2021. These assumptions are shown in Figure 11a below.

For June 30, 2022, assumptions were based on the Fund's experience study covering the period July 1, 2011, to June 30, 2016. These assumptions are shown in Figure 11b below.

Figure 11a. Key Methods and Assumptions Used in Valuation of Total Pension Liability

Valuation date	June 30, 2023
Actuarial cost method	Entry Age Normal
Actuarial assumptions:	
Investment Return Rate	7.00 percent per year
Salary Increases	2.50 percent to 8.00 percent; service based
Inflation Rate	2.50 percent per year
Annuitant Mortality	Pub-2010 Healthy Teacher Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021 from 2010. Retiree mortality rates are multiplied by a factor of 1.03.

Figure 11b. Key Methods and Assumptions Used in Valuation of Total Pension Liability

Valuation date	June 30, 2022
Actuarial cost method	Entry Age Normal
Actuarial assumptions:	
Investment Return Rate	7.00 percent per year
Salary Increases	3.00 percent to 9.00 percent; service based
Inflation Rate	2.50 percent per year
Annuitant Mortality	RP-2014 Healthy Mortality Table, with white collar adjustment, set back two years for females, projected with Scale MP-2021 from 2006.

Long-Term Expected Rate of Return

The assumed long-term expected rate of return on pension plan investments used in the determination of the contribution rate is 7.00 for June 30, 2023, and 7.50 for June 30, 2022. The assumed long-term expected rate of return is established by the Minnesota State Legislature.

This rate was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return were adopted by the Board of Trustees after considering input from the Fund's investment consultant and actuary. Best estimates for each major asset class included in the target asset allocation as of June 30, 2023, and June 30, 2022, are summarized in the following table:

Figure 12. Long-Term Expected Real Rate of Return
June 30, 2023, and June 30, 2022

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return (Arithmetic)
Domestic Equity	35%	6.55%
International Equity	20%	6.98%
Fixed Income	20%	3.45%
Real Assets	11%	3.90%
Private Equity and Alternatives	9%	7.47%
Opportunistic	5%	6.08%
Total	100%	

For purposes of these calculations, the Association's assumed inflation rate is 2.50 percent.

Single Discount Rate

The single discount rate used to measure the total pension liability was 7.00 percent for June 30, 2023, and June 30, 2022. The projection of cash flows used to determine this single discount rate assumed that plan members, employer, and State of Minnesota contributions will be made in accordance with rates set by Minnesota statutes. Based on these assumptions, the SPTRFA's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

As a result, the single discount rate of 7.00 percent was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity Analysis

GASB Statement 67 requires the disclosure of the sensitivity of the net pension liability to changes in the current discount rate. Figure 13 presents the Fund's net pension liability, calculated using the discount rate of 7.00 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00 percent lower or 1.00 percent higher.

Figure 13. Net Pension Liability at Different Discount Rates

Sensitivity of Net Pension Liability to the Single Discount Rate Assumptions
(Dollars in Thousands)

	1.00% Decrease 6.00%	Current Single Discount Rate Assumption 7.00%	1.00% Increase 8.00%
June 30, 2023	$ 910,725	$ 674,864	$ 479,861
June 30, 2022	$ 923,474	$ 694,868	$ 505,981

Note 6 – Risk Management

The Association is exposed to various risks of loss related to torts; theft of, damage to, or destruction of assets; errors or omissions; injuries to employees; and natural disasters. To cover its liabilities, the Association purchases commercial insurance. There were no significant reductions in insurance coverage from the prior year. There were no claims filed on behalf of the Fund this year.

Required Supplementary Information

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Schedule of Changes in Net Pension Liability and Related Ratios
(Dollars in Thousands)

Fiscal Year Ending June 30	2023	2022	2021
Total Pension Liability			
Service cost	$ 28,846	$ 24,863	$ 23,777
Interest on the total pension liability	126,124	126,096	123,262
Benefit changes	50,908	-	-
Difference between expected and actual experience	(16,123)	(11,734)	20,339
Assumption changes	(23,547)	102,005	(9,741)
Benefit payments	(122,347)	(120,672)	(118,665)
Refunds	(1,539)	(884)	(587)
Net change in total pension liability	**$ 42,322**	**$ 119,674**	**$ 38,385**
Total Pension Liability – Beginning	**1,849,295**	**1,729,621**	**1,691,236**
Total Pension Liability – Ending (a)	**$ 1,891,617**	**$ 1,849,295**	**$ 1,729,621**
Plan Fiduciary Net Position			
Employer contributions	$ 39,023	$ 39,070	$ 35,251
Employee contributions	22,420	23,099	21,334
Non-employer contributions	15,665	15,665	15,665
Pension plan net investment income	110,297	(95,988)	305,232
Benefit payments	(122,347)	(120,672)	(118,665)
Refunds	(1,539)	(884)	(587)
Pension plan administrative expense	(1,193)	(927)	(779)
Net change in plan fiduciary net position	**$ 62,326**	**$ (140,637)**	**$ 257,451**
Plan Fiduciary Net Position – Beginning	**1,154,427**	**1,295,064**	**1,037,613**
Plan Fiduciary Net Position – Ending (b)	**$ 1,216,753**	**$ 1,154,427**	**$ 1,295,064**
Net Pension Liability – Ending (a)-(b)	**$ 674,864**	**$ 694,868**	**$ 434,557**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	**64.32%**	**62.43%**	**74.88%**
Covered Employee Payroll	**$ 296,674**	**$ 304,227**	**$ 279,916**
Net Position Liability as a Percentage of Covered Employee Payroll	**227.48%**	**228.40%**	**155.25%**

**As of July 1, 2013, the COLA is assumed to increase from 1 percent to 2 percent on January 1, 2056.*
As of July 1, 2014, the COLA is assumed to increase from 1 percent to 2 percent on January 1, 2032; and from 2 percent to 3 percent on January 1, 2044.
As of July 1, 2015, the COLA is assumed to increase from 1 percent to 2 percent on January 1, 2041; and from 2 percent to 2.5 percent on January 1, 2051.
As of July 1, 2016, the COLA is assumed to increase from 1 percent to 2 percent on January 1, 2055; and from 2 percent to 2.5 percent on January 1, 2066.
As of July 1, 2017, the COLA is assumed to increase from 1 percent to 2 percent on January 1, 2042; and from 2 percent to 2.5 percent on January 1, 2052.
COLA is 0% for January 2019 and 2020; then 1% each January thereafter.

(Unaudited)

Exhibit A-1

2020	2019	2018	2017	2016	2015	2014
$ 23,120	$ 23,279	$ 25,087	$ 24,098	$ 25,596	$ 24,998	$ 22,954
123,300	122,197	125,256	123,820	124,294	123,108	118,503
-	-	(74,376)	-	-	(5,677)	-
(22,742)	(9,831)	(13,445)	7,106	(42,295)	(17,133)	(16,257)
(5,601)	(3,037)	118,561	(22,643)	-	-	39,642
(117,306)	(116,379)	(115,298)	(112,771)	(111,167)	(108,878)	(105,742)
(1,256)	(701)	(800)	(972)	(628)	(875)	(1,103)
$ (485)	**$ 15,528**	**$ 64,985**	**$ 18,638**	**$ (4,200)**	**$ 15,543**	**$ 57,997**
1,691,721	**1,676,193**	**1,611,208**	**1,592,570**	**1,596,770**	**1,581,227**	**1,523,230**
$ 1,691,236	**$ 1,691,721**	**$ 1,676,193**	**$ 1,611,208**	**$ 1,592,570**	**$ 1,596,770**	**$ 1,581,227**
$ 34,139	$ 31,316	$ 28,544	$ 27,685	$ 26,563	$ 26,046	$ 24,532
20,889	20,626	20,112	20,146	18,538	17,567	16,564
15,665	15,665	10,665	10,665	10,665	10,665	10,665
5,726	60,209	95,886	128,719	1,475	25,757	168,176
(117,306)	(116,379)	(115,298)	(112,771)	(111,167)	(108,878)	(105,742)
(1,256)	(701)	(800)	(972)	(628)	(875)	(1,103)
(788)	(764)	(786)	(889)	(749)	(748)	(739)
$ (42,931)	**$ 9,972**	**$ 38,323**	**$ 72,583**	**$ (55,303)**	**$ (30,466)**	**$ 112,353**
1,080,544	**1,070,572**	**1,032,249**	**959,666**	**1,014,969**	**1,045,435**	**933,082**
$ 1,037,613	**$ 1,080,544**	**$ 1,070,572**	**$ 1,032,249**	**$ 959,666**	**$ 1,014,969**	**$ 1,045,435**
$ 653,623	**$ 611,177**	**$ 605,621**	**$ 578,959**	**$ 632,904**	**$ 581,801**	**$ 535,792**
61.35%	**63.87%**	**63.87%**	**64.07%**	**60.26%**	**63.56%**	**66.12%**
$ 274,667	**$ 268,614**	**$ 263,122**	**$ 264,342**	**$ 258,787**	**$ 263,844**	**$ 259,740**
237.97%	**227.53%**	**230.17%**	**219.02%**	**244.57%**	**220.51%**	**206.28%**

The notes to the required supplementary information are an integral part of this schedule.

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Schedule of Employer and Non-Employer Contributions
(Dollars in Thousands)

Fiscal Year Ending June 30	2023	2022	2021
Actuarially determined contribution	**$ 36,796**	**$ 39,298**	**$ 39,072**
Actual non-employer contributions	$ 15,665	$ 15,665	$ 15,665
Actual employer contributions	39,023	39,070	35,251
Total contributions	**$ 54,688**	**$ 54,735**	**$ 50,916**
Annual Contribution Deficiency (Excess)	**$ (17,892)**	**$ (15,437)**	**$ (11,844)**
Covered-employee payroll	$ 296,674	$ 304,227	$ 279,916
Contributions as a percent of covered-employee payroll	18.43%	17.99%	18.19%

(Unaudited)

The notes to the required supplementary information are an integral part of this schedule.

Exhibit A-2

	2020	2019	2018	2017	2016	2015	2014
	$ 39,181	**$ 37,233**	**$ 38,196**	**$ 39,172**	**$ 39,155**	**$ 40,320**	**$ 40,916**
	$ 15,665	$ 15,665	$ 10,665	$ 10,665	$ 10,665	$ 10,665	$ 10,665
	34,139	31,316	28,544	27,685	26,563	26,046	24,532
	$ 49,804	**$ 46,981**	**$ 39,209**	**$ 38,350**	**$ 37,228**	**$ 36,711**	**$ 35,197**
	$ (10,623)	**$ (9,748)**	**$ (1,013)**	**$ 822**	**$ 1,927**	**$ 3,609**	**$ 5,719**
	$ 274,667	$ 268,614	$ 263,122	$ 264,342	$ 258,787	$ 263,844	$ 259,740
	18.13%	17.49%	14.90%	14.51%	14.39%	13.91%	13.55%

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit A-3

Schedule of Investment Returns

Fiscal Year Ending June 30	Annual Return (%)
2023	9.43
2022	(9.37)
2021	32.65
2020	0.10
2019	5.73
2018	9.75
2017	13.93
2016	0.34
2015	2.65
2014	18.50

Annual money-weighted rate of return net of investment expense.

(Unaudited)

The notes to the required supplementary information are an integral part of this schedule.

Note 1 – Actuarial Methods and Assumptions

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

For Fiscal Year 2023

Valuation Date:	June 30, 2023
Notes	Actuarially determined contribution rates are calculated as of each July 1.

Methods and Assumptions Used to Determine Contribution Rates:

Funding Valuation Date	June 30, 2022
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	26 years
Asset Valuation Method	5-year smoothed market; no corridor
Assumed Inflation	2.50 percent
Salary Increases	3.00 percent to 9.00 percent; service based
Investment Rate of Return	7.50 percent
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2018 valuation pursuant to an experience study of the period 2011-2016.
Mortality	RP-2014 annuitant generational mortality table, projected with scale MP-2021 from a base year of 2006, white collar adjustment, set back two years for females.

Other Information:

Notes	For actuarially determined contribution rate purposes, the plan is assumed to pay a 1.00 percent post-retirement benefit increase each January.

For Fiscal Year 2022

Valuation Date:	June 30, 2022
Notes	Actuarially determined contribution rates are calculated as of each July 1.

Methods and Assumptions Used to Determine Contribution Rates:

Funding Valuation Date	June 30, 2021
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	27 years
Asset Valuation Method	5-year smoothed market; no corridor
Assumed Inflation	2.50 percent
Salary Increases	3.00 percent to 9.00 percent; service based
Investment Rate of Return	7.50 percent
Retirement Age	Experienced-based table of rates specific to the type of eligibility condition. Last updated for the 2018 valuation pursuant to an experience study of the period 2011-2016.
Mortality	RP-2014 annuitant generational mortality table, projected with scale MP-2020 from a base year of 2006, white collar adjustment, set back two years for females.

Other Information:

Notes	For actuarially determined contribution rate purposes, the plan is assumed to pay a 1.00 percent post-retirement benefit increase each January.

Note 2 – Changes in Actuarial Assumptions and Plan Provisions

2023

As a result of the 2022 experience study as well as the Omnibus Pension and Retirement Bill, the following assumption and method changes are reflected in the actuarial funding valuation report:

- Statutory contribution rates for members and their employers are shown as a percent of pay below:

Plan Contribution Rates: Basic/Coordinated

Contributions After June 30	Member (%)	Employer Regular (%)	Employer Additional (%)
2023	10.25/7.75	12.50/9.00	3.64/3.84
2024	10.25/7.75	12.50/9.00	3.64/3.84
2025	11.50/9.00	13.25/9.75	3.64/3.84

- The assumed investment return was lowered from 7.50 percent to 7.00 percent.
- The assumed wage inflation decreased from 3.00 percent to 2.50 percent.

- Salary increase rate ranges were updated from a range of 3.00 percent to 9.00 percent to a 2.50 percent to 8.00 percent range.
- Retirement, withdrawal, and disability rates were adjusted to better fit observed experience.
- The mortality table was changed from RP-2014 mortality table with adjustments to PUB-2010 teacher mortality table, adjusted for mortality improvements using projection scale MP-2021.
- A one-time, non-compounding benefit increase of 1.50 percent for coordinated members and 3.00 percent for basic members will be payable in a lump sum for calendar year 2024 by March 31, 2024.

2022

- The mortality improvement scale was updated from MP-2020 to MP-2021

2021

- The mortality improvement scale was updated from MP-2019 to MP-2020

2020

- The mortality improvement scale was updated from MP-2018 to MP-2019

2019

- The mortality improvement scale was updated from MP-2017 to MP-2018

2018

As a result of the 2018 experience study as well as the 2018 Omnibus Pension and Retirement Bill, the following assumption and method changes are reflected in the actuarial funding valuation report:

2018 Actuarial Assumptions

- The assumed investment return was lowered from 8.00 percent to 7.50 percent.
- The assumed wage inflation decreased from 4.00 percent to 3.00 percent.
- Salary increase rates were updated from an age-based table with a service-based component during the first 15 years, to a service-based table of rates.
- Retirement, withdrawal, and disability rates were adjusted to better fit observed experience.
- The mortality table was updated from the RP-2000 Mortality Table (with adjustments) projected with Scale AA to 2020, to the RP-2014 Mortality Table, with white collar adjustment, set back 2 years for females, projected with Scale MP-2017 from 2006.
- The statutory amortization period was changed from June 30, 2042, to June 30, 2048.

2018 Plan Provisions

- The annuity benefit increases changed to 0.00 percent for January 1, 2019 and 2020, with 1.00 percent payable thereafter. In addition, for retirements on or after July 1, 2024, the first benefit increase is delayed until the retiree reaches Normal Retirement Age (not applicable to Rule of 90 retirees, Rule of 62/30 retirees, disability benefit recipients, or survivors).

- Interest credited on member contributions decreased from 4.0 percent to 3.0 percent prospectively, beginning July 1, 2018.

- Lower early retirement factors will be phased in over a sixty-month period starting July 1, 2019.

- Deferred augmentation was changed to 0.00 percent, prospectively, effective July 1, 2019.

- Statutory contribution rates for members and their employers are shown as a percent of pay below:

Plan Contribution Rates: Basic/Coordinated

Contributions After June 30	Member (%)	Employer Regular (%)	Employer Additional (%)
2018	10.000/7.50	10.835/7.335	3.640/3.840
2019	10.000/7.50	11.670/8.170	3.640/3.840
2020	10.000/7.50	11.880/8.380	3.640/3.840
2021	10.000/7.50	12.090/8.590	3.640/3.840
2022	10.250/7.50	12.300/8.800	3.640/3.840
2023	10.250/7.75	12.500/9.000	3.640/3.840

- Additional supplemental contributions of $5,000,000 will be made by the State of Minnesota annually beginning October 1, 2018.

- The plan's statutory amortization period was changed to June 30, 2042, to June 30, 2048.

2017

- The Combined Service Annuity (CSA) loads on liabilities were changed as follows:

Combined Service Annuity Loads

	Active Pre-89 (%)	Active Post-89 (%)	Vested Terminated (%)	Non-Vested Terminated (%)
Prior	7.0	2.0	30.0	30.0
Current	0.0	0.0	20.0	9.0

2016

- No significant changes.

2015

- The assumed investment return rate was changed to 8.00 percent from the previously required "select and ultimate" approach (8.00 percent through 2017 and 8.50 percent thereafter).

- The interest rate accruing for service purchases (refund repayments or leave of absence service purchase) decreased to 8.00 percent for the portion of any service purchases which cover repayment of refunded service originally earned, or leaves of absence taken, on or after July 1, 2015. The 8.50 percent rate continues to apply to interest accrual periods through June 30, 2015, with the 8.00 percent rate applying only to interest accrual periods occurring on or after July 1, 2015.

- Once the Fund has attained a 90 percent funding level for two consecutive years, the post-retirement benefit increase (COLA) will be 2.50 percent, rather than the previous increase provision of CPI-based up to 5.00 percent.

- Statutory contribution rates for members and their employers are shown as a percent of pay below:

Plan Contribution Rates: Basic/Coordinated

Contributions After June 30	Member (%)	Employer Regular (%)	Employer Additional (%)
2014	9.00/6.50	9.00/5.50	3.64/3.84
2015	9.50/7.00	9.50/6.00	3.64/3.84
2016	10.00/7.50	9.75/6.25	3.64/3.84
2017	10.00/7.50	10.00/6.50	3.64/3.84

2014

- The post-retirement benefit increase (COLA) provision was modified to allow the Fund to change future rates for COLA increases once the Fund's Accrued Liability Funding Ratio reached 80 percent or 90 percent for two consecutive years, rather than the previous one year. The actual COLA rates remain as modified in 2011.

- The State of Minnesota supplemental contribution of $7,000,000 (which was initially passed for two years only) was extended as an open and standing appropriation. This aid will terminate upon the Plan's full funding target date of the actual full funding, or June 30, 2042, whichever occurs first.

Other Pension Information Section

STATE OF MINNESOTA

Office of the State Auditor

Julie Blaha
State Auditor

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Independent Auditor's Report

Board of Trustees
St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Report on the Audit of the Schedules

Opinions

We have audited the accompanying schedule of employer and non-employer allocations of the St. Paul Teachers' Retirement Fund Association as of and for the years ended June 30, 2023, and June 30, 2022, and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by entity of the St. Paul Teachers' Retirement Fund Association as of and for the years ended June 30, 2023, and June 30, 2022, and the related notes.

In our opinion, the accompanying schedules referred to above present fairly, in all material respects, the employer and non-employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expenses for the total of all participating entities of the St. Paul Teachers' Retirement Fund Association as of and for the years ended June 30, 2023, and June 30, 2022, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the St. Paul Teachers' Retirement Fund Association, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedule of employer and non-employer allocations and the specified column totals included in the schedule of pension amounts by entity are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance, and therefore, is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in the United States of America

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will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedule of employer and non-employer allocations and the specified column totals included in the schedule of pension amounts by entity.

In performing an audit in accordance with auditing standards generally accepted in the United States of America, we:

- exercise professional judgment and maintain professional skepticism throughout the audit;

- identify and assess the risks of material misstatement of the schedule of employer and non-employer allocations and the specified totals included in the schedule of pension amounts by entity, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedule of employer and non-employer allocations and the specified totals included in the schedule of pension amounts by employer and the related disclosures;

- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. Accordingly, no such opinion is expressed;

- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedule of employer and non-employer allocations and the specified totals included in the schedule of pension amounts by employer.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the St. Paul Teachers' Retirement Fund Association as of and for the years ended June 30, 2023, and June 30, 2022, and our report thereon dated December 1, 2023, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of St. Paul Teachers' Retirement Fund Association management, the Board of Trustees, St. Paul Teachers' Retirement Fund Association employers and non-employer entities, and their auditors, and is not intended to be and should not be used by anyone other than those specified parties.

/s/Julie Blaha	*/s/Chad Struss*
Julie Blaha State Auditor	Chad Struss, CPA Deputy State Auditor

December 1, 2023

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit B-1

Schedule of Employer and Non-Employer Allocations
As of the Measurement Date of June 30, 2023

Entity		2023 Actual Contributions	Allocation Percentage (%)
State of Minnesota	$	15,664,607	29.018
St. Paul College		20,176	0.037
St. Paul Public Schools		38,296,982	70.945
Total	**$**	**53,981,765**	**100.000**

The notes to the required schedules are an integral part of this schedule.

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Schedule of Pension Amounts by Entity
As of and for the Year Ended June 30, 2023

			Deferred Outflows of Resources				
Entity	Allocation Percentage (%)	Net Pension Liability	Differences Between Expected and Actual Experience	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Entity Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
State of Minnesota	29.018	$ 195,832,036	$ -	$ 9,866,410	$ 3,757,831	$ 821,334	$ 14,445,575
St. Paul College	0.037	249,700	-	12,580	4,792	11,118	28,490
St. Paul Public Schools	70.945	478,782,264	-	24,122,010	9,187,377	2,998,444	36,307,831
Total	**100.000**	**$ 674,864,000**	**$ -**	**$ 34,001,000**	**$ 12,950,000**	**$ 3,830,896**	**$ 50,781,896**

The notes to the required schedules are an integral part of this schedule.

Exhibit B-2

Deferred Inflows of Resources					Pension Expense		
Differences Between Expected and Actual Experience	**Changes of Assumptions**	**Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments**	**Changes in Proportion and Differences Between Entity Contributions and Proportionate Share of Contributions**	**Total Deferred Inflows of Resources**	**Proportionate Share of Plan Pension Expense**	**Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Entity Contributions and Proportionate Share of Contributions**	**Total Pension Expense**
$ 4,254,329	$ 4,555,246	$ -	$ 2,972,370	$ 11,781,945	$ 37,860,655	$ (4,258,944)	$ 33,601,711
5,425	5,808	-	26,074	37,307	48,275	(72,804)	(24,529)
10,401,246	11,136,946	-	832,452	22,370,644	92,564,070	4,331,748	96,895,818
$ 14,661,000	**$ 15,698,000**	**$ -**	**$ 3,830,896**	**$ 34,189,896**	**$ 130,473,000**	**$ -**	**$ 130,473,000**

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Exhibit B-3

Schedule of Employer and Non-Employer Allocations
As of the Measurement Date of June 30, 2022

Entity	2022 Actual Contributions	Allocation Percentage (%)
State of Minnesota	$ 15,664,607	28.841
St. Paul College	19,224	0.035
St. Paul Public Schools	38,630,032	71.124
Total	**$ 54,313,863**	**100.000**

The notes to the required schedules are an integral part of this schedule.

St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

Schedule of Pension Amounts by Entity
As of and for the Year Ended June 30, 2022

Entity	Allocation Percentage (%)	Net Pension Liability	Deferred Outflows of Resources: Differences Between Expected and Actual Experience	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Entity Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
State of Minnesota	28.841	$ 200,406,880	$ 1,955,131	$ 19,612,745	$ 14,036,626	$ -	$ 35,604,502
St. Paul College	0.035	243,204	2,373	23,801	17,034	-	43,208
St. Paul Public Schools	71.124	494,217,916	4,821,496	48,366,454	34,615,340	7,746,418	95,549,708
Total	**100.000**	**$ 694,868,000**	**$ 6,779,000**	**$ 68,003,000**	**$ 48,669,000**	**$ 7,746,418**	**$ 131,197,418**

The notes to the required schedules are an integral part of this schedule.

Deferred Inflows of Resources															Pension Expense		
	Differences Between Expected and Actual Experience		Changes of Assumptions		Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		Changes in Proportion and Differences Between Entity Contributions and Proportionate Share of Contributions		Total Deferred Inflows of Resources		Proportionate Share of Plan Pension Expense		Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Entity Contributions and Proportionate Share of Contributions		Total Pension Expense		
$	2,256,231	$	936,466	$	-	$	7,641,981	$	10,834,678	$	18,796,833	$	(8,740,049)	$	10,056,784		
	2,738		1,136		-		104,437		108,311		22,811		(127,258)		(104,447)		
	5,564,031		2,309,398		-		-		7,873,429		46,354,356		8,867,307		55,221,663		
$	**7,823,000**	**$**	**3,247,000**	**$**	**-**	**$**	**7,746,418**	**$**	**18,816,418**	**$**	**65,174,000**	**$**	**-**	**$**	**65,174,000**		

The notes to the required schedules are an integral part of this schedule.

Note 1 – Summary

The St. Paul Teachers' Retirement Fund Association (SPTRFA) is classified as a cost-sharing multi-employer defined benefit pension plan. As specified in Governmental Accounting Standards Board (GASB) Statement 68, employers that participate in SPTRFA are required to recognize their proportionate share of the collective pension amounts for all benefits provided through the Fund. Pension amounts to be recognized by employers include the net pension liability, deferred outflows of resources related to pensions, deferred inflows of resources related to pensions, and pension expense. In addition, the effects of (1) a change in the employer's proportion of the collective net pension liability and (2) differences during the measurement period between the employer's contributions and its proportionate share of the total contributions from employers included in the collective net pension liability are required to be determined and recognized. The State of Minnesota is statutorily required to make contributions to the Fund; therefore, the State is classified as a non-employer contributor who will share in the liabilities and will also be required to recognize its share of the employer costs.

The basis of the allocation of collective pension amounts should be consistent with the manner in which contributions are paid to the plan. Since contributions to SPTRFA are collected as a percentage of payroll, covered employee payroll for the fiscal years ending June 30, 2023, and June 30, 2022, are used as the proportionate share of allocation basis. The required annual contributions made by the State of Minnesota were used to calculate its proportionate share. SPTRFA employees are covered by the plan and make contributions, however, they are excluded from the allocation of pension amounts.

Note 2 – Reconciliation of Financial Statement Employer Contributions to Total Employer Contributions Reported on the Schedule of Employer and Non-Employer Allocations

While GASB 68 allows the employer's proportionate share of the collective pension amounts to be based on historical employer contributions, it encourages the use of the employer's projected long-term contributions effort to the retirement plan. The following is a reconciliation of employer contributions presented in SPTRFA's Statement of Changes in Fiduciary Net Position to the employer contributions presented in the Schedule of Employer and Non-Employer Allocations.

Reconciliation of Employer Contributions

	June 30, 2023	June 30, 2022
Employer contributions reported in the Statement of Changes in Fiduciary Net Position	$ 38,835,599	$ 39,069,831
Deduct employer contributions not related to future contribution efforts	(436,685)	(339,073)
Deduct SPTRFA's contributions not included in allocation	(81,756)	(81,502)
Total employer contributions	$ 38,317,158	$ 38,649,256
Total non-employer contributions	15,664,607	15,664,607
Total Contributions Reported in Schedule of Employer and Non-Employer Allocations	$ 53,981,765	$ 54,313,863

Note 3 – Actuarial Methods and Assumptions

The information presented in the schedule of employer and non-employer allocations and the schedule of pension amounts by entity was based on the actuarial valuation for purposes of determining the net pension liability. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

2023 Actuarial Valuation

Valuation Date:	June 30, 2023
Measurement Date of the Net Pension Liability:	June 30, 2023

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Price Inflation	2.50 percent per annum
Inflation	2.50 percent per annum
Salary Increases	2.50 percent to 8.00 percent; service based
Investment Rate of Return	7.00 percent per year
Annuitant Mortality	Pub-2010 Healthy Teacher Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021 from a base year of 2010. Rates are multiplied by a factor of 1.03.

2022 Actuarial Valuation

Valuation Date:	June 30, 2023
Measurement Date of the Net Pension Liability:	June 30, 2022

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Price Inflation	2.50 percent per annum
Inflation	2.50 percent per annum
Salary Increases	3.00 percent to 9.00 percent; service based
Investment Rate of Return	7.00 percent per year
Annuitant Mortality	RP-2014 Healthy Mortality Table, with white collar adjustment, set back two years for females, projected with Scale MP-2021 from a base year of 2006.

Other Information:

Notes

For fiscal year 2022, the actuarial methods and assumptions were last updated for the July 1, 2019, valuation as a result of an experience study during the five-year period from July 1, 2011, to June 30, 2016, as well as a legislated change to the investment return assumption effective July 1, 2018.

For fiscal year 2023, the actuarial methods and assumptions were last updated for the July 1, 2022, valuation as a result of an experience study during the five-year period from July 1, 2016, to June 30, 2021, as well as a legislated change to the investment return assumption effective July 1, 2023.

The recognition period for the measurement of inflows and outflows of resources due to liabilities, based on the average expected remaining service lives of all employees, changed from five years to four years, beginning in 2016. Starting in 2019, this recognition period changed from four years to three years.

Management and Compliance Section

STATE OF MINNESOTA

Office of the State Auditor

Julie Blaha
State Auditor

Suite 500
525 Park Street
Saint Paul, MN 55103

Independent Auditor's Report on Minnesota Legal Compliance

Board of Trustees
St. Paul Teachers' Retirement Fund Association
St. Paul, Minnesota

We have audited, in accordance with auditing standards generally accepted in the United States of America, the accompanying financial statements of the St. Paul Teachers' Retirement Fund Association as of and for the years ended June 30, 2023, and June 30, 2022, and the related notes to the financial statements, which collectively comprise the Association's basic financial statements, and have issued our report thereon dated December 1, 2023.

In connection with our audit, nothing came to our attention that caused us to believe that the St. Paul Teachers' Retirement Fund Association failed to comply with the provisions of the depositories of public funds and public investments section and portions of the relief associations sections applicable to all public pension plans in the state of the *Minnesota Legal Compliance Audit Guide for Relief Associations*, promulgated by the State Auditor pursuant to Minn. Stat. § 6.65, insofar as they relate to accounting matters. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding the Association's noncompliance with the above referenced provisions, insofar as they relate to accounting matters.

This report is intended solely for the information and use of the Board of Trustees and management of the St. Paul Teachers' Retirement Fund Association and the State Auditor, and is not intended to be, and should not be, used by anyone other than those specified parties.

/s/Julie Blaha

Julie Blaha
State Auditor

/s/Chad Struss

Chad Struss, CPA
Deputy State Auditor

December 1, 2023

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