ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2024

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION OF MINNESOTA

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

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Public Employees Retirement Association of Minnesota

Pension Trust Funds of the State of Minnesota

Annual Comprehensive Financial Report

For the Fiscal Year Ended June 30, 2024

Executive Director
Doug Anderson

Prepared by PERA Finance Division
with assistance from PERA Communications Division.

PERA is a member of the Government Finance Officers Association of the United States and Canada.

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INTRODUCTORY SECTION

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

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GFOA Achievement Award - Financial Reporting

Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Public Employees Retirement Association
of Minnesota**

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2023

Christopher P. Morrill

Executive Director/CEO

GFOA Achievement Award - Popular Annual Financial Reporting

Government Finance Officers Association

Award for
Outstanding
Achievement in
Popular Annual
Financial Reporting

Presented to

Public Employees Retirement Association of Minnesota

For its Annual Financial Report
For the Fiscal Year Ended

June 30, 2023

Christopher P. Morrill

Executive Director/CEO

PPCC Achievement Award - Administration

Public Pension Coordinating Council

Recognition Award for Administration
2024

Presented to

Minnesota PERA

In recognition of meeting professional standards for
plan administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H. Winkle
Program Administrator

Letter of Transmittal

PUBLIC EMPLOYEES RETIREMENT ASSOCIATION

December 13, 2024

PERA Board of Trustees
Public Employees Retirement Association of Minnesota
60 Empire Drive, Suite 200
St. Paul, Minnesota 55103

Dear PERA trustees and members,

On behalf of the management and staff of the Minnesota Public Employees Retirement Association (PERA), it is our pleasure to present the *Annual Comprehensive Financial Report (ACFR).* The *ACFR* reflects PERA's financial activities for the fiscal year ended June 30, 2024.

To provide lasting policy guidance, PERA developed long-term positions approved by the PERA Board of Trustees. These positions advocate for sustainable funding of the plans and for improvements when sufficient funds are available. During fiscal year 2024, PERA focused on achieving intergenerational equity and plan sustainability with the long-term positions described below.

Intergenerational Equity

Funding Status: The plan's funding ratio (Market Value of Assets / Actuarial Accrued Liability), determined using approved assumptions, should project to achieve and sustain a level of at least 100% within the amortization period.

Amortization Period: The current Unfunded Actuarial Accrued Liability (UAAL) should be fully amortized by June 30, 2048. Subsequent annual UAAL changes resulting from actuarial gains or losses, assumption changes, or benefit changes should be amortized over no more than 20 years from the date of establishment.

Contribution Target: The long-term target for contributions is that the total employee and employer contributions should be approximately equal to the normal cost for the agreed-upon, reasonable level of benefits.

Post-retirement Increases: Post-retirement increases should be tied to an inflation index, subject to an annual cap necessary to ensure plan sustainability.

Plan Sustainability

Approved Assumptions: Assumptions should be based upon the actuary's recommendations made in accordance with Actuarial Standards of Practice. Assumptions should not be changed exclusively for the purpose of benefit or funding motives.

Supplemental Contributions: The status of supplemental contributions intended to reduce the Unfunded Actuarial Accrued Liability should be considered before contributions are reduced or benefits are enhanced.

Overview of PERA

PERA provides retirement, disability, and survivor benefits to Minnesota public employees. Created by legislation on April 24, 1931, PERA began operations on July 1, 1931. Currently, PERA administers three cost-sharing, multiple-employer defined benefit retirement plans: the Coordinated Plan, the Correctional Plan, and the Police & Fire Plan. PERA also administers one agent, multiple-employer defined benefit plan: the Statewide Volunteer Firefighter Plan, and one defined contribution plan: the Defined Contribution Plan. Additional information about the plans can be found in the Notes to the Financial Statements beginning on page 30.

PERA's defined benefit plans serve 494,834 members, including 136,867 retirees and beneficiaries, and over 2,800 employers. The fiduciary net position for the defined benefit plans is $43.6 billion as of June 30, 2024. PERA's Defined Contribution Plan serves 8,056 members and 1,100 employers. The fiduciary net position for the Defined Contribution Plan is $102.1 million.

Investments

The State Board of Investment (SBI) invests the assets of PERA’s retirement plans, which are governed by the Prudent Person Rule and other standards set in Minnesota Statutes chapters 11A and 356A. Additional information about the SBI and investment policies, strategies, safeguards, activities, and returns can be found in the Investment Section, starting on page 93.

The SBI combines assets from PERA's three cost-sharing, multiple-employer defined benefit plans with assets from the Minnesota State Retirement System (MSRS) and the Teachers Retirement Association (TRA) into the Combined Funds to capture investment efficiencies. Combined Funds assets are allocated to public equity (domestic and international), fixed income, and private markets. The SBI manages the Combined Funds assets according to its investment beliefs, which include a commitment to long-term investment, the ability to pay benefits, and a mission to maintain retirement systems viability.

The SBI invests the assets of PERA's agent, multiple-employer defined benefit plan into the Statewide Volunteer Firefighter Fund, which is a diversified portfolio of public equity (domestic and international), fixed income, and cash. Within the fund, employer investments are reported individually. The SBI's investment goal is to offer a balanced approach providing favorable long-term, risk-adjusted returns.

Table 1.1 below lists the investment returns for PERA's defined benefit plans. The investment returns presented are based on year-to-date, time-weighted returns and are net of investment management fees and the effect of any profit-sharing arrangements.

Table 1.1 Investment Returns—PERA Defined Benefit Plans

Fiscal Year Ended June 30, 2024

Investment Type	Return
Combined Funds	12.3%
Public Equity	19.8%
Fixed Income	2.7%
Private Markets (Invested)	7.7%
Volunteer Firefighter Account	11.8%

Pension Funding

To fund pension benefits, PERA collects member and employer contributions and invests those assets. The investment assets are expected to earn a targeted investment return over the long-term. Investment earnings are the largest source of funding for PERA benefits.

PERA contracts with an actuarial firm to prepare two annual actuarial valuations, the Accounting Valuation and the Funding Valuation, for the three cost-sharing, multiple-employer defined benefit plans. The Funding Valuation is used to determine the financial health of the retirement plans. To determine if the retirement plans will meet the legislature's full funding target date for each plan, the actuary compares actual fixed statutory contributions to actuarial required contributions using the actuarial value of assets. The actuary uses the statutorily-established investment rate of return assumption of 7% which it deemed within the reasonable range, according to the Actuarial Standards of Practice. The actuary recognizes investment gains and losses over a five-year period to minimize the impact of investment volatility. Additional information about the valuation reports can be found in the Actuarial Section, starting on page 109.

Report Contents and Structure

This *ACFR* complies with the requirements listed in Minnesota Statutes section 356.20. The PERA Finance Division prepared this *ACFR* under the direction of PERA's chief financial officer in collaboration with the executive director. PERA management is responsible for the integrity of the data in this report, including the fair presentation of the financial statements.

In addition, PERA management is responsible for establishing and maintaining a system of internal controls over financial reporting. The internal control framework is designed to provide reasonable—but not absolute—assurance that assets are protected from loss, that financial records and reports are reliable, and that PERA complied with all finance-related legal requirements. Reasonable assurance recognizes the relationship between the cost of a control and the potential benefit based on management's judgement. PERA management asserts, to the best of their knowledge, that the internal controls over financial reporting as of June 30, 2024 meet standards.

Internal control systems have inherent limitations, including human error, faulty decision making, fraud, or management overriding the system. Even a well-designed internal control system might not prevent or detect misstatements. In addition, any projection of internal control evaluation effectiveness may become inadequate because of changing business conditions or PERA's degree of compliance with established policies and procedures.

State law permits the Minnesota Office of the Legislative Auditor (OLA), a nonpartisan office in the legislative branch of the state government, to audit the financial statements and related note disclosures in this report. The OLA completed this audit according to auditing standards generally accepted in the US and the financial audit standards in Government Auditing Standards. The OLA also reviewed PERA's internal controls over financial reporting and compliance with certain legal provisions. The OLA found that PERA’s financial statements were presented accurately and that PERA had no material weaknesses in internal controls.

Review this Letter of Transmittal with Management’s Discussion and Analysis in the Financial Section of this report. Management’s Discussion and Analysis presents financial highlights, condensed PERA financial statements, and an analysis of PERA's defined benefit retirement funds.

Awards

Certificate of Achievement for Excellence in Financial Reporting

Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Public Employees Retirement Association (PERA) for its *Annual Comprehensive Financial Report* for the fiscal year ended June 30, 2023. In order to be awarded a Certificate of Achievement, a government must publish an easily-readable and efficiently-organized annual comprehensive financial report. This report must satisfy both generally-accepted accounting principles and applicable legal requirements.

Government Finance Officers Association of the United States and Canada (GFOA) gave an Award for Outstanding Achievement in Popular Annual Financial Reporting to the Public Employees Retirement Association (PERA) for its *Popular Annual Financial Report* for the fiscal year ended June 30, 2023. The Award for Outstanding Achievement in Popular Annual Financial Reporting is a prestigious, national award recognizing conformance with the highest standards for preparation of state and local government popular reports.

Award for Outstanding Achievement in Popular Financial Reporting

In order to receive an Award for Outstanding Achievement in Popular Annual Financial Reporting, a government unit must publish a popular annual financial report whose contents conform to program standards of creativity, presentation, understandability, and reader appeal.

An Award for Outstanding Achievement is valid for a period of one year only. We believe our current report continues to conform to the popular annual financial reporting requirements, and we are submitting it to GFOA to determine its eligibility for another award.

Recognition Award for Administration

PERA received the 2024 Public Pension Recognition Award for Administration from the Public Pension Coordinating Council (PPCC). To receive an Administration Award, the retirement system must meet requirements in five areas: comprehensive benefit program, actuarial, audit, investments, and communications. The standards were developed by a coalition of three associations that represent public pension funds which cover the vast majority of public employees in the United States. The standards reflect minimum expectations and serve as a benchmark for defined benefit public pension plans.

Acknowledgments

This report is the result of the teamwork of PERA staff under the direction of the board. We would like to extend our sincere appreciation to the PERA Board of Trustees, the PERA Finance Division, and everyone who contributed to this report.

Respectfully submitted,

Doug Anderson	Tracy Gebhard
Executive Director	Chief Financial Officer

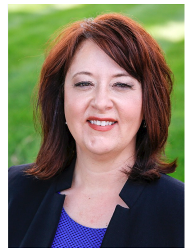
Board of Trustees and Professional Consultants

The information on this page is accurate as of November 25, 2024.

Thomas Stanley, president
Elected General membership representative
Trustee since March 2013
Current term expires January 2027

Dennis Flaherty, vice president
Elected retired, disabled, and survivor representative
Trustee since February 2023
Current term expires January 2027

Paul Bourgeois
Elected General membership representative
Trustee since February 2011
Current term expires January 2027



Julie Blaha
State auditor
Trustee since January 2019
Current term expires January 2027

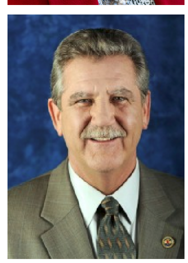
Mary Falk
Appointed General public representative
Trustee since June 2015
Current term expires January 2027

Jenni Konigsburg
Elected General membership representative
Trustee since January 2024
Current term expires January 2027

Paul Ford
Elected Police & Fire representative
Trustee since August 2017
Current term expires January 2027

Kathryn A. Green
Appointed school board representative
Trustee since April 2006
Current term expires January 2026

Barb Johnson
Appointed city representative
Trustee since January 2017
Current term expires January 2025



Thomas Thornberg
Appointed retired annuitant representative
Trustee since February 2020
Current term expires January 2028

Scott Schulte
Appointed county representative
Trustee since March 2021
Current term expires January 2025

Professional Consultants

Actuary:
Gabriel Roeder Smith & Company

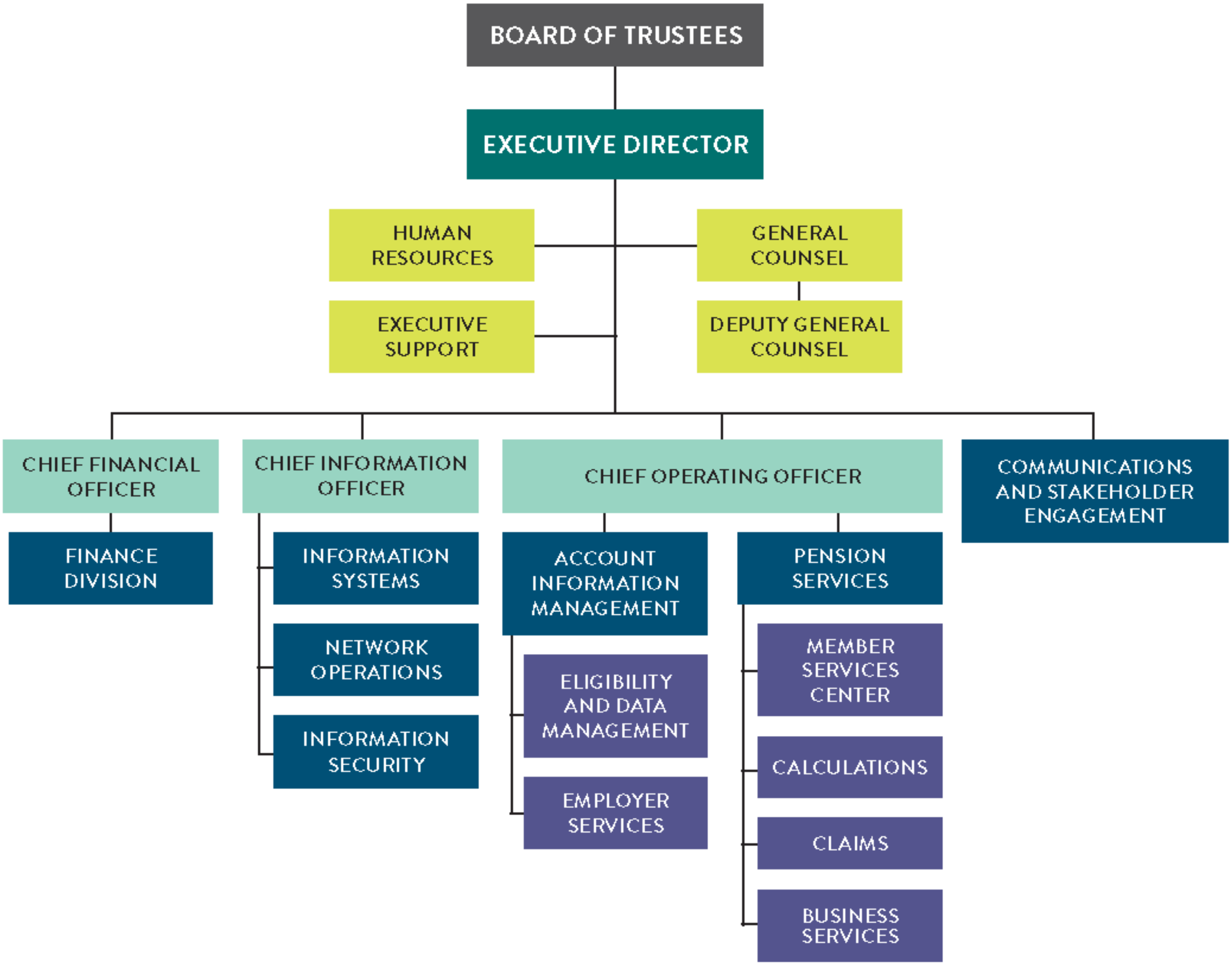
Auditors:
Minnesota Office of the Legislative Auditor
Clifton Larson Allen

Legal Counsel:
Minnesota Office of Attorney General

Medical Advisor:
MMRO: Managed Medical Review Organization

PERA invests our funds in various investment pools administered by the SBI. The SBI retains various investment advisors whose fees are paid by the pool participants, including PERA. A schedule of these advisors and PERA's share of their fees (Table 2.31) is located on page 88 in the Investment Section of this *ACFR*.

Board of Trustees and Professional Consultants



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FINANCIAL SECTION

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

OLA | OFFICE OF THE LEGISLATIVE AUDITOR

Judy Randall, Legislative Auditor
State of Minnesota

Independent Auditor's Report

Members of the Board of Trustees
Public Employees Retirement Association of Minnesota

Doug Anderson, Executive Director
Public Employees Retirement Association of Minnesota

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the Public Employees Retirement Association of Minnesota (PERA), which included the Statement of Fiduciary Net Position as of June 30, 2024, the related Statement of Changes in Fiduciary Net Position, and Notes to the Financial Statements, as listed in the Financial Section of the Table of Contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Public Employees Retirement Association of Minnesota as of June 30, 2024, and the changes in financial position for the fiscal year then ended in conformity 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 (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of 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 PERA 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 the 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.

Room 140 Centennial Building, 658 Cedar Street, St. Paul, MN 55155-1603 • Phone: 651-296-4708 • Fax: 651-296-4712
legislative.auditor@state.mn.us • www.auditor.leg.state.mn.us • Minnesota Relay: 1-800-627-3529 or 711

Independent Auditor’s Report *(Continued)*

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 PERA’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 assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* 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 GAAS and *Government Auditing Standards,* we:

- Exercise professional judgement 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 PERA’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.
- Conclude whether, in our judgment, there are conditions of events, considered in the aggregate, that raise substantial doubt about PERA’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 and the other required supplementary information, as listed in the Financial Section of the Table of Contents, 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, 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 Management’s Discussion and Analysis and the other 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

Independent Auditor's Report *(Continued)*

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.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the basic financial statements as a whole. The supporting schedules in the Financial Section, as listed in the Table of Contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the Introductory, Investment, Actuarial, and Statistical Sections, as listed in the Table of Contents, but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards,* we will issue a report on our consideration of the Public Employees Retirement Association of Minnesota's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope and results of our testing of internal control over financial reporting and compliance and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering PERA's internal control over financial reporting and compliance.

Lori Leysen, CPA
Deputy Legislative Auditor

Jordan Bjonfald, CPA
Audit Director

December 13, 2024
Saint Paul, Minnesota

Management's Discussion and Analysis

PERA's management presents this discussion and analysis of PERA's financial activities for the fiscal year ended June 30, 2024.

Overview of PERA's Pension Plans

PERA administers four defined benefit retirement plans: 1) the General Employees Retirement Plan (General Employees Plan), 2) the Public Employees Police & Fire Plan (Police & Fire Plan), 3) the Public Employees Local Government Correctional Service Retirement Plan (Correctional Plan), and 4) the Statewide Volunteer Firefighter Plan (SVF Plan). PERA also administers one defined contribution plan: the Public Employees Defined Contribution Plan.

Financial Highlights

Overall, the financial condition of PERA improved during fiscal year 2024. PERA's fiduciary net position increased over $3.9 billion, or 9.7%, from $39.8 billion as of June 30, 2023 to $43.6 billion as of June 30, 2024.

The investment rate of return, net of investment management fees and the effects of any profit-sharing arrangements, was 12.3% in 2024 for the General Employees Plan, Police & Fire Plan, and Correctional Plan. This rate of return is higher than the assumed rate of return of 7% used in the annual actuarial valuations for the Combined Funds.

For the SVF Plan, the investment rate of return, net of fees, was 11.8% in 2024. This rate of return is higher than the assumed rate of return of 6%.

Overview of the Financial Statements

The *Annual Comprehensive Financial Report (ACFR)* reflects the activities of PERA as reported in the Basic Financial Statements on pages 28 and 29. The financial statements meet generally-accepted governmental accounting principles and use the accrual basis of accounting.

Basic Financial Statements includes three sections, listed below.

- The Statement of Fiduciary Net Position describes fund balances on June 30. This statement reflects the assets available and the liabilities owed, which are reported at fair value as of June 30. The difference between the sum of total assets and the sum of total liabilities is the net position restricted for pensions. The net position amount can be used to pay future pension benefits or other expenses.

- The Statement of Changes in Fiduciary Net Position describes the effect of financial transactions during the fiscal year. The difference between financial gains and losses is the increase or decrease in net position; an increase occurs with more gains than losses, while a decrease occurs with more losses than gains. This increase or decrease in net position reflects the change in value of the fiduciary net position between the current and previous year.

- The Notes to the Financial Statements provide additional information used to understand the financial statements. The notes include a description of PERA and our plans, a summary of significant accounting policies, and information on deposits, investments, contributions, benefits, capital assets, and liabilities, including the net pension liability.

Management's Discussion and Analysis *(Continued)*

In addition to Basic Financial Statements, the *ACFR* includes Required Supplementary Information (RSI) and Supplementary Schedules. The RSI consists of three schedules with related notes: Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Contributions from Employers and Nonemployers, and Schedule of Investment Returns. The RSI schedules present multi-year data, which provides economic context about the amounts reported in the financial statements and historical context for each pension fund's fiduciary net position related to the total pension liability. The Supplementary Schedules include Schedule of Investment Expenses, Schedule of Payments to Consultants, and Schedule of Administrative Expenses. The Supplementary Schedules summarize PERA's operating expenses to administer the defined benefit and defined contribution retirement plans during fiscal year 2024.

Financial Analysis

Each of PERA's four defined benefit retirement plans has distinct characteristics, including membership served, contributions paid, and benefits received. The General Employees Plan, Police & Fire Plan, and Correctional Plan have shared characteristics, including shared investment pools. The following pages list events or conditions that significantly affected each plan's financial position and the results of operations during fiscal year 2024.

Statement of Fiduciary Net Position

Table 2.0 below compares the assets and liabilities for PERA defined benefit retirement plans.

Table 2.0 Condensed Statement of Fiduciary Net Position—PERA Defined Benefit Retirement Plans As of June 30, 2024 and 2023 (Dollars in thousands)*

Assets & Liabilities	General Employees Fund	Police & Fire Fund	Correctional Fund	SVF	Total
Total Assets, as of 06/30/2024	$31,483,540	$12,598,803	$ 1,262,255	$ 184,053	$45,528,651
Total Assets, as of 06/30/2023	28,937,475	11,617,979	1,123,131	152,089	41,830,674
Change in Total Assets	**$ 2,546,065**	**$ 980,824**	**$ 139,124**	**$ 31,964**	**$ 3,697,977**
Percentage Change	**8.8 %**	**8.4 %**	**12.4 %**	**21.0 %**	**8.8 %**
Total Liabilities as of 06/30/2024	$ 1,321,536	$ 533,571	$ 53,842	$ 38	$ 1,908,987
Total Liabilities as of 06/30/2023	1,436,697	579,051	55,931	32	2,071,711
Change in Total Liabilities	**$ (115,161)**	**$ (45,480)**	**$ (2,089)**	**$ 6**	**$ (162,724)**
Percentage Change	**(8.0)%**	**(7.9)%**	**(3.7)%**	**18.8 %**	**(7.9)%**
Total Net Position Restricted for Pensions, as of 06/30/2024	$30,162,004	$12,065,232	$ 1,208,413	$ 184,015	$43,619,664
Total Net Position Restricted for Pensions, as of 06/30/2023	27,500,777	11,038,928	1,067,200	152,057	39,758,962
Change in Net Position Restricted for Pensions	**$ 2,661,227**	**$ 1,026,304**	**$ 141,213**	**$ 31,958**	**$ 3,860,702**
Percentage Change	**9.7 %**	**9.3 %**	**13.2 %**	**21.0 %**	**9.7 %**

Management's Discussion and Analysis *(Continued)*

Total assets increased by $3.7 billion, or 8.8%, to $45.5 billion. The change in total assets can be attributed to a 12.3% investment rate of return for the fiscal year. PERA did not have any significant capital asset activity during fiscal year 2024. Total assets in fiscal year 2024 include capital assets totaling $4.8 million for the General Employees Fund. Total assets from fiscal year 2023 include capital assets totaling $5.1 million for the General Employees Fund. Refer to Note 3 in the Notes to the Financial Statements for more information on investments and Note 4 in the same section for more information on capital assets.

Total liabilities decreased from fiscal year 2023 to 2024 by $162.7 million, or 7.9%. The change in total liabilities is due to a decrease in securities lending collateral. Refer to Note 3 for more information on securities lending collateral.

Statement of Changes in Fiduciary Net Position

Table 2.1 below compares the total additions by major source and total deductions by type for PERA defined benefit retirement plans.

Table 2.1 Condensed Schedule of Changes in Fiduciary Net Position—PERA Defined Benefit Retirement Plans For the Fiscal Years Ended June 30, 2024 and 2023 (Dollars in thousands)

Descriptions of Changes	Fiscal Year Ended 06/30/2024	Fiscal Year Ended 06/30/2023	Change
Contributions	$ 1,804,495	$ 1,511,668	$ 292,827
Total Net Investment Income	4,797,334	3,285,367	1,511,967
Other Additions	20,162	10,834	9,328
Total Additions	**6,621,991**	**4,807,869**	**1,814,122**
Benefits	2,656,159	2,516,164	139,995
Refunds of Contributions	81,917	73,709	8,208
Administrative Expenses	23,212	16,341	6,871
Total Deductions	**2,761,288**	**2,606,214**	**155,074**
Net Increase (Decrease) in Net Position Restricted for Pensions	$ 3,860,703	$ 2,201,655	$ 1,659,048
Ending Net Position	**$ 43,619,664**	**$ 39,758,962**	**$ 3,860,702**

Total additions increased over $1.8 billion to $6.6 billion. The change in total additions is primarily due to the increase in total net investment income. The fiscal year 2024 investment return was 12.3%, compared to the 8.9% return in 2023. The investment return caused an increase in net investment income of approximately $1.5 billion. Contributions also increased by almost $292.8 million. The contribution increase is primarily due to $194.6 million in one-time state aid paid by the legislature in October of 2023. The remainder of the contribution increase is due to an increase in current, active members of 6.3%, or 10,915 members. The increase in other additions is primarily due to the amount of assets transferred to PERA from fire departments joining the SVF Plan. In fiscal year 2024, 23 fire departments transferred $19.3 million of assets into the SVF Plan, which is almost double the $10.7 million of assets 12 fire departments transferred into the SVF Plan in fiscal year 2023.

Management's Discussion and Analysis *(Continued)*

Total deductions increased almost $155.1 million to approximately $2.8 billion, an increase of 6.0%. The change in total deductions is primarily due to a 5.6% increase in annuity benefit distributions, which rose from over $2.5 billion to almost $2.7 billion. The benefit distribution increase is due to 2.4%, or 136,867 more members receiving benefits and paying benefit increases to retirees and other benefit recipients in January 2024. The benefit increase was 1.5% for the General Employees Plan, 1% for the Police & Fire Plan, and 2.5% for the Correctional Plan.

Actuarial Valuation Results

PERA contracts with an actuarial firm to prepare actuarial valuations for the General Employees Plan, Police & Fire Plan, and Correctional Plan on an annual basis. Separate actuarial valuations are prepared for accounting and funding purposes.

The actuarial valuations use assumptions reviewed every four years by an experience study. The experience study may result in changes in assumptions. Those assumptions are accepted by the PERA Board of Trustees and must be approved by the Minnesota Legislative Commission on Pensions and Retirement (LCPR). The assumption changes become effective in the next actuarial valuation. In July 2024, the actuary completed experience studies for the Police & Fire Plan and Correctional Plan. The experience studies changed the assumptions, which were accepted by the board and are pending approval from the LCPR. Assuming they are accepted and approved, these changes will be reflected in the 2025 actuarial valuations. The changes in assumptions will negatively impact the Police & Fire Plan and positively impact the Correctional Plan.

Accounting Valuation

The actuarial valuation for accounting purposes is used for financial reporting. The valuation lists net pension liability as of a specific date, using the market value of investment assets. The Governmental Accounting Standards Board (GASB) requires PERA to use a standardized methodology to ensure amounts are comparable and liabilities are transparently reported across US plans complying with GASB 67 and 74. Table 2.2 below lists the net pension liability as of June 30, 2024 and 2023, along with the change in net pension liability.

Table 2.2 Actuarial Valuation for Accounting Purposes: PERA Defined Benefit Retirement Plans For Fiscal Years Ended June 30, 2024 and 2023 (Dollars in thousands)

Descriptions of Valuation Information	General Employees Fund	Police & Fire Fund	Correctional Fund
Net Pension Liability, year ended 06/30/2024	$3,696,929	$1,315,609	$30,478
Net Pension Liability, year ended 06/30/2023	$5,591,888	$1,726,870	$45,205
Change in Net Pension Liability	**($1,894,959)**	**($411,261)**	**($14,727)**

The net pension liability for PERA's three defined benefit plans decreased from June 30, 2023 to June 30, 2024. The decrease in net pension liability is primarily due to a 12.3% investment rate of return for the fiscal year. The remainder of the decrease is due to one-time state aid. In October 2023, the legislature provided one-time state aid of $170 million to the General Employees Plan, almost $19.4 million to the Police & Fire Plan, and over $5.2 million to the Correctional Plan to reduce the net pension liability.

Management's Discussion and Analysis *(Continued)*

Funding Valuation

The actuarial valuation for funding purposes assesses the financial health of the retirement plans and how to fund them. The valuation uses the actuarial value of assets, which is smoothed over a five-year period to minimize the impact of investment volatility to calculate the contribution sufficiency or deficiency. The valuation uses the market value of assets to determine the funding ratio. Table 2.3 below lists the contribution sufficiency or deficiency for July 1, 2024 and July 1, 2023, both with and without the one-time state aid, along with the funding ratios using the market value of assets presented in the funding valuation reports.

Table 2.3 Actuarial Valuation for Funding Purposes: PERA Defined Benefit Retirement As of July 1, 2024 and 2023

Descriptions Valuation Information	General Employees Fund	Police & Fire Fund	Correctional Fund
Contribution Sufficiency (Deficiency), as of 07/01/2024	2.2%	(0.1)%	(2.7%)
Contribution Sufficiency (Deficiency), as of 7/01/2023 without State Aid	1.4%	(0.2)%	(0.2%)
Contribution Sufficiency (Deficiency), as of 07/01/2023 with State Aid	3.5%	1.4%	1.7%
Funding Ratio - Market Value of Assets, as of 07/01/2024	89.1%	90.2%	97.5%
Funding Ratio - Market Value of Assets, as of 07/01/2023	83.1%	86.5%	95.9%

The one-time state aid appropriated by the legislature inflated the contribution sufficiency reported as of July 1, 2023. Comparing the contribution sufficiency or deficiency without the one-time state aid to the current year, all three funds improved. This improvement is primarily due to the positive growth in the investment market. However, in the Police & Fire Fund, the improvement was reduced by losses due to salary increases for active members and increases in disability benefits. The funding ratios also improved due to the positive growth in the investment market.

Request for Information

The *ACFR* provides a general overview of PERA's financial position as of June 30, 2024 and financial activities for fiscal year 2024. Contact the Minnesota Public Employees Retirement Association by mail at 60 Empire Drive, Suite 200, Saint Paul, Minnesota, 55103-2088 or by email at benefits@mnpera.org with questions or comments about the *ACFR*.

Statement of Fiduciary Net Position

As of June 30, 2024
(In thousands)

Table 2.4 Statement of Fiduciary Net Position

	Defined Benefit Funds					
Descriptions of Assets and Liabilities	**General Employees Fund**	**Police & Fire Fund**	**Correctional Fund**	**Volunteer Firefighter Fund**	**Defined Contribution Fund**	**Total**
Assets						
Cash and Cash Equivalents						
Cash	$ 19,169	$ 17,532	$ 967	$ —	$ 315	$ 37,983
Cash Equivalents	478,719	190,265	18,782	8,674	6,770	703,210
Total Cash and Cash Equivalents	**$ 497,888**	**$ 207,797**	**$ 19,749**	**$ 8,674**	**$ 7,085**	**$ 741,193**
Receivables						
Accounts Receivable	$ 40,481	$ 19,069	$ 959	$ 154	$ 136	$ 60,799
Due from Other Funds	3,913	51	5	—	—	3,969
Total Receivables	**$ 44,394**	**$ 19,120**	**$ 964**	**$ 154**	**$ 136**	**$ 64,768**
Investments at Fair Value						
Publicly Traded Equity Securities						
Domestic Equity	$10,133,963	$ 4,053,678	$ 409,625	$ 65,346	$ 69,344	$ 14,731,956
Broad International Stock Pool	4,778,014	1,911,249	193,132	27,505	4,180	6,914,080
Global Equity Pool	329,521	131,287	11,688	—	—	472,496
Publicly Traded Debt Securities	7,050,003	2,817,784	278,227	82,374	21,658	10,250,046
Private Investments	7,353,042	2,941,285	297,216	—	—	10,591,543
Total Investments	**$29,644,543**	**$ 11,855,283**	**$ 1,189,888**	**$ 175,225**	**$ 95,182**	**$ 42,960,121**
Securities Lending Collateral	**$ 1,291,952**	**$ 516,603**	**$ 51,654**	**$ —**	**$ —**	**$ 1,860,209**
Capital Assets						
Equipment Net of Accumulated Depreciation	$ 85	$ —	$ —	$ —	$ —	$ 85
Property Net of Accumulated Depreciation	4,678	—	—	—	—	4,678
Total Capital Assets	**$ 4,763**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 4,763**
Total Assets	**$31,483,540**	**$12,598,803**	**$ 1,262,255**	**$ 184,053**	**$ 102,403**	**$45,631,054**
Liabilities						
Accounts Payable	$ 27,729	$ 14,324	$ 1,198	$ 38	$ 23	$ 43,312
Payable to Other Funds	56	2,644	990	—	279	3,969
Accrued Compensated Absences	1,425	—	—	—	—	1,425
Bonds Payable	374	—	—	—	—	374
Securities Lending Collateral	1,291,952	516,603	51,654	—	—	1,860,209
Total Liabilities	**$ 1,321,536**	**$ 533,571**	**$ 53,842**	**$ 38**	**$ 302**	**$ 1,909,289**
Net Position Restricted for Pensions	**$30,162,004**	**$ 12,065,232**	**$ 1,208,413**	**$ 184,015**	**$ 102,101**	**$ 43,721,765**

The accompanying notes are an integral part of the financial statements.

Statement of Changes in Fiduciary Net Position

For the Fiscal Year Ended June 30, 2024
(In thousands)

Table 2.5 Statement of Changes in Fiduciary Net Position

Descriptions of Additions and Deductions Information	Defined Benefit Funds: General Employees Fund	Defined Benefit Funds: Police & Fire Fund	Defined Benefit Funds: Correctional Fund	Defined Benefit Funds: Volunteer Firefighter Fund	Defined Contribution Fund	Total
Additions						
Contributions						
Employer	$ 619,580	$ 236,216	$ 22,209	$ 1,326	$ 2,475	$ 881,806
Member	521,198	152,987	14,851	—	2,374	691,410
State of Minnesota	186,093	37,397	5,256	7,382	—	236,128
Total Contributions	**$ 1,326,871**	**$ 426,600**	**$ 42,316**	**$ 8,708**	**$ 4,849**	**$ 1,809,344**
Investment Income						
Net Appreciation in Fair Value of Investments	$ 3,426,069	$ 1,370,240	$ 136,242	$ 19,457	$ 15,000	$ 4,967,008
Less Investment Expense	(112,900)	(45,207)	(4,481)	(162)	(80)	(162,830)
Net Investment Income	3,313,169	1,325,033	131,761	19,295	14,920	4,804,178
From securities lending activities:						
Securities Lending Income	$ 80,134	$ 32,044	$ 3,208	$ —	$ —	$ 115,386
Borrower Rebates	(73,294)	(29,309)	(2,935)	—	—	(105,538)
Management Fees	(1,231)	(492)	(49)	—	—	(1,772)
Net Income from Securities Lending	5,609	2,243	224	—	—	8,076
Total Net Investment Income	**$ 3,318,778**	**$ 1,327,276**	**$ 131,985**	**$ 19,295**	**$ 14,920**	**$ 4,812,254**
Other Additions (Deductions)	**$ (79)**	**$ (616)**	**$ (22)**	**$ 20,879**	**$ —**	**$ 20,162**
Total Additions	**$ 4,645,570**	**$ 1,753,260**	**$ 174,279**	**$ 48,882**	**$ 19,769**	**$ 6,641,760**
Deductions						
Benefits	$ 1,889,457	$ 720,158	$ 29,865	$ 16,679	$ —	$ 2,656,159
Refunds of Contributions	74,307	5,051	2,559	—	7,100	89,017
Administrative Expenses	20,579	1,747	641	245	281	23,493
Total Deductions	**$ 1,984,343**	**$ 726,956**	**$ 33,065**	**$ 16,924**	**$ 7,381**	**$ 2,768,669**
Net Increase (Decrease) in Net Position	**$ 2,661,227**	**$ 1,026,304**	**$ 141,214**	**$ 31,958**	**$ 12,388**	**$ 3,873,091**
Net Position Restricted for Pensions						
Beginning of year	$ 27,500,777	$ 11,038,928	$ 1,067,199	$ 152,057	$ 89,713	$ 39,848,674
End of year	**$ 30,162,004**	**$ 12,065,232**	**$ 1,208,413**	**$ 184,015**	**$ 102,101**	**$ 43,721,765**

The accompanying notes are an integral part of the financial statements.

Notes to Financial Statements

NOTE 1: Plan Description

A) Organization

Established by the Minnesota legislature in 1931, the Minnesota Public Employees Retirement Association (PERA) administers five retirement plans that serve county, city, school, and other local government public employees and their beneficiaries.

Board of Trustees

The PERA Board of Trustees governs the retirement plans according to statutes passed by the Minnesota legislature. The board has a fiduciary obligation to PERA's members, their governmental employers, the state, and its taxpayers.

The PERA Board of Trustees has 11 members.

- The state auditor is a member by statute.
- The governor appoints five trustees. Serving four-year terms, these five trustees represent cities, counties, school boards, retired annuitants, and the general public, respectively.
- The remaining five board members are elected by PERA members to serve four-year terms. Three trustees represent General Plan active membership, one represents Police & Fire Plan members, and one represents benefit recipients.

Executive Director

The board appoints an executive director to serve as chief administrative officer of PERA. With approval from the board, the executive director develops the annual administrative budget, determines staffing requirements, contracts actuarial and other services, and directs the daily operations of PERA. The executive director is a member of the Investment Advisory Council.

Plans

PERA administers three cost-sharing, multiple-employer defined benefit retirement plans:

- the General Employees Retirement Plan (General Plan), accounted for in the General Employees Fund,
- the Public Employees Police & Fire Retirement Plan (Police & Fire Plan), accounted for in the Police & Fire Fund, and
- the Public Employees Local Government Correctional Service Retirement Plan (Correctional Plan), accounted for in the Correctional Fund.

PERA administers one agent, multiple-employer defined benefit retirement plan: the Statewide Volunteer Firefighter Retirement Plan (Statewide Volunteer Firefighter Plan), accounted for in the Statewide Volunteer Firefighter Fund. PERA administers one multiple-employer defined contribution plan: the Public Employees Defined Contribution Plan (Defined Contribution Plan), accounted for in the Defined Contribution Fund.

Notes to Financial Statements *(Continued)*

Each plan has specific membership requirements, contribution rates, vesting requirements, and benefit computations. These plan provisions are established and administered according to Minnesota Statutes chapters 353, 353D, 353E, 353G, and 356. Minnesota Statutes chapter 356 defines each plan's financial reporting requirements.

B) Members and Participating Employers

Table 2.6 below lists membership totals and participating employer counts in PERA's multiple-employer retirement plans as of June 30, 2024. With certain statutory exceptions, a governmental employee is a member of PERA if they perform personal services and are paid by taxation, fees, assessments, or other sources. The member's occupation determines plan eligibility.

Table 2.6 PERA Membership

Membership Descriptions	General Employees Fund	Police & Fire Fund	Correctional Fund	Statewide Volunteer Firefighter	Total
Retirees and beneficiaries receiving benefits	121,880	12,892	1,958	137	136,867
Terminated employees entitled to benefits/refunds but not yet receiving them:					
Vested	71,542	1,940	4,637	1,415	79,534
Non-Vested	89,853	894	2,635	—	93,382
Current, active employees:					
Vested	104,850	9,203	1,986	3,100	119,139
Non-Vested	59,374	2,791	1,928	1,819	65,912
Total	**447,499**	**27,720**	**13,144**	**6,471**	**494,834**

Defined Contribution Plan Membership: 8,056

C) Legislative and Other Plan Changes

The legislature approved the 2024 Pension and Retirement Policy and Supplemental Budget Bill, House File 5040, and Governor Walz signed the bill on May 15, 2024. The bill includes changes to PERA plans, described below.

Defined Contribution Plan

Starting August 1, 2024, individuals newly hired or elected to a position eligible for Defined Contribution Plan participation must make a one-time, final decision to participate in the plan within 30 days of being hired. Individuals cannot make a decision more than 30 days after hire or revoke a decision to participate. Individuals who were hired or took office between February 1, 2024 and July 31, 2024 made a one-time, final decision October 1–30, 2024.

Correctional Plan

The Correctional Plan multiplier will increase from 1.9% to 2.2% for service credit earned on or after July 1, 2025. Contribution rates increase starting July 1, 2025 as listed below:

- Members contribute 6.83%.
- Employers contribute 10.25%.

Notes to Financial Statements *(Continued)*

Workers' Compensation Offsets in the Coordinated Plan and Correctional Plan

Starting January 1, 2025, Coordinated and Correctional disability benefits will not be reduced by workers' compensation.

Police & Fire Plan

The definition of firefighter for the purpose of Police & Fire Plan membership includes certain employees that work in fire service who are exposed to the hazards of firefighting.

Statewide Volunteer Firefighter Plan

The bill modified the structure of Minnesota Statutes chapter 353G, updated definitions, changed administrative requirements, and established a defined contribution plan.

Other Administrative Changes

The bill updated language to ensure consistent qualification requirements and compensation across fund executive directors. The bill modified provisions in Minnesota Statutes chapter 356 relating to amortization, correction of errors, and federal compliance.

Actuarial Equivalence Factor Changes for Police & Fire and Correctional Plans

Starting July 1, 2025, the Police & Fire Plan actuarial equivalence factors for survivor benefits and past service purchases and the Correctional Plan actuarial factors for early retirement, survivor benefits, and past service purchases will change to reflect recommended mortality rate assumptions and the statutory change in the investment return assumption from 7.5% to 7.0%. The PERA Board of Trustees approved the new factors in their August 8, 2024 meeting.

D) General Plan, Police & Fire Plan, and Correctional Plan

PERA's defined benefit plans are tax-qualified plans under section 401(a) of the Internal Revenue Code.

PERA's primary type of plan benefit is retirement.

- Other types of benefits, such as disability, survivor benefits, and refunds are also available through the plans.
- The benefit provisions stated in this section apply to active plan participants.
- Vested, terminated employees who are entitled to benefits but not yet receiving them must follow the benefit provisions for deferred members.

General Plan

The largest of PERA's plans, the General Plan was established in 1931 and is governed by Minnesota Statutes chapters 353 and 356.

Membership in the General Plan includes employees of counties, cities, townships, schools in non-certified positions, and other governmental entities whose revenues are derived from taxation, fees, or assessments. Plan membership is required for any employee who is expected to earn more than $425 in a month, unless the employee meets exclusion criteria.

Notes to Financial Statements *(Continued)*

The General Plan includes three membership groups: Basic, Minneapolis Employees Retirement Fund (MERF), and Coordinated. Fewer than five Basic and MERF members remain active in the plan.

- Basic was PERA's original membership group, established in 1931, and is not coordinated with Social Security Administration (SSA) benefits. Basic closed to new membership in 1968 when the Coordinated membership group was created.

- MERF was added to the General Plan in 2010, but didn't fully merge into the plan until 2015. MERF closed to new membership in 1979 and does not coordinate with SSA benefits.

- Coordinated does coordinate with SSA benefits, and members pay into Social Security and Medicare. Coordinated is the only group open to new membership in the General Plan.

Police & Fire Plan

The Police & Fire Plan was established in 1959 and is governed by Minnesota Statutes chapters 353 and 356.

Membership in the Police & Fire Plan includes full-time, licensed police officers and firefighters who meet the membership criteria defined in Minnesota Statutes section 353.64 and who are not earning service credit in any other PERA retirement plan or a local relief association for the same service. Employers can provide Police & Fire Plan coverage for part-time positions and certain other public safety positions by submitting a resolution adopted by the entity's governing body. The resolution must state that the position meets plan requirements.

Correctional Plan

The Correctional Plan was established in 1999 and is governed by Minnesota Statutes chapters 353E and 356.

Membership in the Correctional Plan includes correctional officers serving in county and regional adult and juvenile corrections facilities. Participants must be responsible for the security, custody, and control of the facilities and their inmates.

Vesting Requirements

When a member is "vested," they have earned enough service credit to receive a lifetime monthly benefit after leaving public service and reaching an eligible retirement age. Members who retire at or over their Social Security full retirement age with at least one year of service qualify for a retirement benefit. Additional vesting requirements vary by plan and are listed below:

- The General Plan requires three years of service.

- Police & Fire Plan vesting requirements are based on when the employee became a member of PERA.

    - Employees hired before July 1, 2010 are vested after three years of service.

    - Employees hired on or after July 1, 2010 are 50% vested after five years of service and 100% vested after ten years. After five years, vesting increases by 10% each full year of service until members are 100% vested after 10 years.

- Correctional Plan vesting requirements are based on when the employee became a member of PERA.

◦ Employees hired before July 1, 2010 are vested after three years of service.

◦ Employees hired on or after July 1, 2010 are 50% vested after five years of service and 100% vested after ten years. After five years, vesting increases by 10% each full year until members are 100% vested after 10 years.

Retirement Benefit Formulas

Retirement monthly benefits are calculated based on three factors: service, age, and highest average salary.

- Members receive one service credit each month they are paid. Members can earn up to 12 service credits per year.
- Members receive their full benefit if they are at or above full retirement age when the benefit begins. However, if they choose to retire early, there will be an early retirement factor applied to the calculation, permanently reducing the monthly benefit amount.
- The benefit calculation uses the member's highest average salary, which is the five consecutive years—or 60 consecutive months—during which the salary is the greatest.

Each plan has different benefit formulas and retirement age requirements.

The General Plan uses two formula calculations: Step and Level.

The Step formula is only available to members of the General Plan who were first hired before July 1, 1989.

- Using the Step formula, General Plan members receive 1.2% of their highest average salary for each of the first 10 years of service and 1.7% for each year after.
- Members are eligible for a full retirement benefit when they are age 65 or older with at least one year of service credit or when their age plus years of service credit equals 90.
- Members can receive a reduced retirement benefit as early as age 55 if they have three or more years of service. Early retirement benefits are reduced by 0.25% for each month under age 65.
- Members with 30 or more years of service can retire at any age with a reduction of 0.25% for each month the member is younger than age 62.

Using the Level formula, General Plan members receive 1.7% of their highest average salary for all years of service.

- The Level formula allows General Plan members to receive a full retirement benefit at age 65 if they were first hired before July 1, 1989 or at age 66 if they were hired on or after July 1, 1989.
- Early retirement begins at age 55 with an actuarial reduction applied to the benefit.

Police & Fire Plan members receive 3% of their highest average salary for all years of service.

- Police & Fire Plan members receive a full retirement benefit when they are age 55 and vested, or when their age plus their years of service equals 90 or greater if they were first hired before July 1, 1989.

- Early retirement starts at age 50, and early retirement benefits are reduced by 0.417% each month members are younger than age 55.

Correctional Plan members receive 1.9% of their highest average salary for all years of service.

- Correctional Plan members receive a full retirement benefit when they are age 55 and vested or when their age plus their years of service equals 90 or greater if they were first hired before July 1, 1989.

- Early retirement begins at age 50 with an actuarial reduction applied to the benefit.

Benefit Options

Members of the General Plan, Police & Fire Plan, and Correctional Plan choose from several types of retirement benefits:

- A single life pension is a lifetime benefit that ends when the member dies. No survivor benefit is paid.

- A survivor option pension is a reduced benefit from the single life benefit level. When a member dies, their designated survivor begins receiving monthly benefit payments for the survivor's lifetime. Depending on the survivor option the member chose, survivor payments are 25, 50, 75, or 100% of the benefit the member received in retirement. The amount of the reduction also depends on the age of the member and the survivor. Survivor pension options incorporate an "automatic bounce back" feature that returns the pension to the single life benefit amount if the designated survivor dies before the retiree.

Annual Increases

Retirement, disability, and survivor annual benefit increases are determined by Minnesota Statutes chapter 356 and increase January 1 each year for eligible benefit recipients.

The 2024 annual increase rates for each plan were

- 1.5% for the General Plan,

- 1.0% for the Police & Fire Plan, and

- 2.5% for the Correctional Plan.

Requirements for the increases are listed below:

- In the General Plan, the annual increase is 50% of the cost-of-living adjustment (COLA) announced by the SSA, with a minimum increase of 1% and a maximum of 1.5%.

- In the Police & Fire Plan, the annual increase is fixed at 1%.

- In the Correctional Plan, the annual increase is 100% of the COLA announced by SSA, with a minimum increase of 1% and a maximum of 2.5%. If the plan's funding status is less than or equal to 85% for two consecutive years or 80% for one year, the maximum increase will be lowered from 2.5% to 1.5%.

Recipients receiving the benefit for at least one full year (or three years for the Police & Fire Plan) by June 30 of the year before the effective date of the increase will receive the full increase. Recipients receiving the benefit for more than one month but less than one year (or between 25–36 months in the Police & Fire Plan) by June 30 of the year before the effective date of the increase will receive a prorated increase.

Other Types of Benefits

The cost-sharing, multiple-employer defined benefit retirement plans offer other benefits in addition to retirement benefits.

Disability

Disability is defined by statute. Members may be eligible for disability benefits before retirement if they are unable to work because of a disability.

- PERA requires periodic medical information from members who receive disability benefits. The qualifications and types of benefits vary by plan.
- Disability benefit requirements for the General Plan and Police & Fire Plan are listed in Minnesota Statutes chapter 353.
- Disability benefit requirements for the Correctional Plan are listed in Minnesota Statutes chapter 353E.

Survivor Benefits

PERA provides survivor benefits to families of members who die before retiring.

- Annuities may be available to the surviving spouse or dependent child. If there is no surviving spouse or dependent child, refunds may be available to beneficiaries.
- The qualifications and types of benefits vary by plan. Survivor benefit requirements for the General Plan and Police & Fire Plan are listed in Minnesota Statutes chapter 353.
- Survivor benefit requirements for the Correctional Plan are listed in Minnesota Statutes chapter 353E.

Refunds

Members who terminated public service but have not started to receive retirement benefits can receive a refund of their contributions plus interest, compounded annually. The interest rate applied is 6% for members who contributed before June 30, 2011, 4% for members who contributed between July 1, 2011 and June 30, 2018, and 3% for members who contributed on or after July 1, 2018. Employer contributions are nonrefundable.

Notes to Financial Statements *(Continued)*

E) Statewide Volunteer Firefighter Plan

The Statewide Volunteer Firefighter (SVF) Plan is an agent, multiple-employer defined benefit plan and a tax-qualified plan under section 401(a) of the Internal Revenue Code. Established in 2010, the lump-sum benefit and the monthly benefit are governed by Minnesota Statutes chapters 353G and 353D.

Funding for the SVF Plan is based on insurance premiums provided by Minnesota Fire State Aid and administered by the Minnesota Department of Revenue. If required, annual funding contributions are provided by the governing body associated with the fire department. Additionally, according to statute, the governing bodies can contribute to their accounts.

PERA provides service pensions to members and survivor benefits to survivors after the death of plan members. Membership in the SVF Plan includes any municipal volunteer fire department or independent nonprofit firefighting corporation. Vesting schedules vary by plan. The most common vesting schedule is prorated from 40% at five years of service to 100% at 20 years.

Members of the plan are entitled to a service pension when

- they separate from service for at least 30 days, reach the age of 50, and complete at least five years of service credit with the fire department as a member of the lump-sum retirement division or

- if they are a member of the monthly benefit retirement division, when they complete the minimum vesting requirements specified in the retirement benefit plan document of the former relief association applicable to the fire department.

Lump-sum benefits are based on the number of years of service multiplied by a service pension level chosen by the entity sponsoring the fire department.

- The levels range from $500–15,000 per year of service.

- The service pension from the lump-sum retirement division is based on completed years of service in the department, the service pension level in effect for the department at the date of termination, and the nonforfeitable percentage of the service pension specified in statute.

The service pension from the monthly benefit retirement division is specified in the retirement benefit plan document of the former relief association applicable to the fire department.

The fire department's governing body can approve benefit level increases for the fire department once each year. Approved benefit level increases are effective January 1 of the next year. The governing body cannot decrease the fire department's benefit level.

Survivor benefit payments in the SVF Plan can be available for the member's surviving spouse or dependent child(ren). If a member does not have a surviving spouse or dependent child(ren), benefits are payable to the estate. Benefit types and qualifications are defined in Minnesota Statutes section 353G.12. The SVF Plan does not offer disability benefits or refunds.

F) Defined Contribution Plan

Established in 1987, the Defined Contribution Plan is a multiple-employer, defined contribution plan governed by Minnesota Statutes chapters 353D and 356.

Notes to Financial Statements *(Continued)*

The Defined Contribution Plan is a tax-qualified plan under section 401(a) of the Internal Revenue Code, and all contributions by or for employees are tax-deferred until the time of withdrawal.

- There are no vesting requirements for benefit distribution. Plan benefits depend solely on the amount contributed to the plan plus investment earnings minus administrative expenses.

- Employer and employee contributions are combined and used to purchase shares in one or more of the seven accounts of the Minnesota Supplemental Investment Fund administered by the Minnesota State Board of Investment. Investment options include the Broad International Stock Fund, US Stock Actively Managed Fund, US Stock Index Fund, Balanced Fund, Bond Fund, Stable Value Fund, Money Market Fund, and Private Market Investments (Alternatives).

- For administering the plan, PERA receives 2% of the employer contributions paid each year plus 0.25% of the assets in each member's account each year.

Participation is optional for qualifying individuals, including public officials, physicians, city managers, and certain public ambulance service personnel, rescue squad personnel, and volunteer firefighters. Additional qualifications for membership are listed in Minnesota Statutes chapter 353D.

When a member retires or otherwise terminates employment, PERA distributes the market value of the member's account to the member or transfers it into another qualified plan or individual retirement account. After a member dies, PERA distributes the value of the account to the member's designated beneficiary.

Notes to Financial Statements *(Continued)*

NOTE 2: Summary of Significant Accounting Policies

A) Reporting Entity

PERA functions as a separate statutory entity. PERA can sue or be sued in our own name and hold property in our own name. PERA is considered a pension trust fund of the State of Minnesota (the State) for financial reporting purposes and is included in the State's *Annual Comprehensive Financial Report* with the State's fiduciary funds. PERA does not have component units.

B) Basis of Presentation and Basis of Accounting

The accompanying financial statements meet generally-accepted accounting principles (GAAP) that apply to governmental accounting for fiduciary funds.

- Financial statements are prepared using the accrual basis of accounting.
- Employee and employer contributions are recognized as revenues when due and meet formal commitments and statutory requirements.
- Expenses are recorded when the corresponding liabilities are incurred, regardless of when the expense is paid.
- Benefits and refunds are recognized when due and paid according to the terms of each plan.

To prepare financial statements according to GAAP, PERA management must make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expenses. Actual results can differ from those estimates.

C) Cash and Cash Equivalents

In PERA's defined benefit and defined contribution funds, cash includes cash on deposit in the State's treasury, which is combined with other State funds. Cash on deposit consists of year-end receipts that were not processed before the investment cutoff on June 30. Most of PERA's cash is invested as part of an investment pool with the Minnesota State Board of Investment (SBI). PERA's investment in the cash pools is reported as a cash equivalent.

D) Receivables

Accounts receivable represent member and employer plan contributions received after the end of the fiscal year for services paid before the end of the fiscal year. For the General Employees Fund, the receivable also includes an employer supplemental contribution of $9 million billed in fiscal year 2024 but not due from employers until fiscal year 2025.

Due from other funds represents the reallocation of administrative expenses. Expenses are reallocated after the fiscal year's expenses have been finalized.

E) Investments

Investment Policy

Article XI of the Minnesota Constitution allows the SBI to invest state funds. Membership includes the Minnesota governor (who the law designates as chair of the SBI), state auditor, secretary of state, and attorney general. The legislature also established a 17-member Investment Advisory Council (IAC) to advise the SBI and its staff on investment-related matters. PERA's executive director is a permanent member of the IAC.

Notes to Financial Statements *(Continued)*

Minnesota Statutes chapter 11A allows the State's public retirement fund assets to combine into various pooled investment accounts (Combined Funds).

- Each participating retirement fund owns an undivided participation in the Combined Funds' pooled investment accounts.
- As of June 30, 2024, the participation shares in the Combined Retirement Fund at fair value totaled approximately 31.6% for the General Employees Fund, 12.7% for the Police & Fire Fund, and 1.3% for the Correctional Fund.

PERA reports investments in the pooled accounts, including assets of the Defined Contribution Fund, at fair value.

- Fair value is the market value of PERA's proportionate share of the SBI's investment portfolio in which the funds participate.
- Securities within the pooled accounts are valued at fair value except for US government short-term securities and commercial paper, which are valued at market value, less accrued interest.
- PERA recognizes accrued interest as short-term income.
- Refer to Note 3 for additional disclosures on fair value reporting of investments.

A majority vote by the SBI board can amend SBI's investment policy, which outlines its investment philosophy and provides guidelines about how the SBI will manage the Combined Funds' investments.

Minnesota Statutes section 11A.24 restricts retirement fund investments to obligations and stocks of American and Canadian governments, their agencies and registered corporations, short-term obligations of specified high quality, restricted participation as a limited partner in venture capital, real estate or resource equity investments, restricted participation in registered mutual funds, and some qualified foreign instruments. Short-term investment securities include investments that have high credit quality and are highly liquid. The securities have a low-risk, low-return profile and include US government treasury bills, bank certificates of deposit, bankers' acceptances, corporate commercial paper, and other money market instruments.

PERA recognizes investment income as earned. Accrued investment income of the pooled investment accounts is included in participation in the accounts. Gains and losses on sales or exchanges are recognized on the transaction date.

The cost of security transactions is included in the transaction price.

- Investment expenses include administrative expenses of the SBI to manage the State's investment portfolio and investment management fees paid to external money managers and the State's master custodian for pension plan assets.
- The SBI allocates these expenses to the funds participating in the pooled investment accounts.

Notes to Financial Statements *(Continued)*

- Contact the SBI at 60 Empire Drive, Suite 100, Saint Paul, Minnesota 55103-2088 for information about specific investments owned by the pooled accounts, investment activity, currency risk, interest rate risk, and a detailed schedule of fees and commissions by brokerage firm, along with the number of shares traded, total commissions, and commissions per share for the pooled investment accounts.

PERA's financial statements have historically reported investment expenses for investment management fees for public markets investments.

- In previous years and for fiscal year 2024, private markets investment management fees and the effect of any profit-sharing arrangements are reflected in all investment performance tables reported.

- For fiscal year 2024, PERA's Statement of Changes in Fiduciary Net Position lists investment management fees for all asset class categories, including private markets.

- Investment returns throughout the *ACFR* are net of public and private market investment management fees, including profit-sharing arrangements; this change has no effect on the net investment income or the net position restricted for pensions

Asset Allocation

The SBI maintains a strategic asset allocation for the combined funds that includes public equity, fixed income, private markets, and cash equivalents.

The targeted asset allocation as of June 30, 2024 is listed below:

- 50% of the assets are allocated to public equity, 33.5% of which are allocated to domestic equity and 16.5% of which are allocated to international equity.

- 25% of the assets are allocated to fixed income, of which 10% is Core/Core Plus and return-seeking bonds, 10% is treasure protection, and 5% is cash and laddered bonds.

- 25% of the assets are allocated to private markets.

If an actual allocation deviates 10% or more from the target allocation (except for private markets), assets are rebalanced to achieve long-term allocation targets. For example, the target allocation for fixed income is 25% of the fund. A 10% deviation is 2.5%. The SBI recognizes that in some market situations, the allocation to private markets could exceed 25%, but according to statute, cannot exceed 35%.

Significant Investment Changes During the Year

There were no significant investment changes during fiscal year 2024.

Annual, Money-Weighted Rate of Return

The annual, money-weighted rate of return is a method of calculating period-by-period returns on pension fund investments that adjusts for the changing amounts actually invested. The money-weighted rate of return is the internal rate of return on pension fund investments, net of investment management fees and the effect of any profit-sharing arrangements. Because the pension funds each have different cash flows throughout the year, they have different money-weighted rates of return. The money-weighted rate of return for each PERA retirement fund is presented in table 2.7 below.

Notes to Financial Statements *(Continued)*

Table 2.7 Money-Weighted Rate of Return

Fund	Fiscal Year 2024
General Employees Fund	12.31%
Police & Fire Fund	12.29%
Correctional Fund	12.38%
Volunteer Firefighter Fund	11.79%

In table 2.7 above, investment performance is presented net of investment management fees and the effect of any profit-sharing arrangements.

Long-term Expected Return on Investment

The long-term expected return on investment is based on the asset allocation study completed by the SBI in 2016. The SBI completes an asset allocation study roughly every five years. An asset allocation study is in progress and will be completed during fiscal year 2025.

The SBI determined the long-term expected rate of return on pension plan investments using a building-block method. The SBI developed best estimates for expected real rates of return (expected returns, net of inflation) for each asset class using both long-term historical returns and long-term capital market expectations from several investment management and consulting organizations. The SBI combined the asset class estimates and target allocations into a geometric, long-term expected real rate of return for the portfolio. The SBI applied inflation expectations to find the nominal rate of return for the portfolio.

The long-term expected return on investment as of June 30, 2024 is shown in table 2.8 below.

Table 2.8 Target Asset Allocation and Long-term Expected Real Rate of Return by Asset Class

Table 2.8 Part A Combined Funds

Asset Class	Target Allocation	Long-term Expected Real Rate of Return (Geometric)
Domestic Equity	33.50%	5.10%
International Equity	16.50%	5.30%
Fixed Income	25.00%	0.75%
Private Market	25.00%	5.90%

(1) Public Equity includes Domestic Equity, International Equity and Global Equity for allocation purposes.
(2) Fixed Income includes Core Bonds, Return Seeking Bonds, Treasuries, Cash, and Laddered Bonds.
(3) Private Markets includes Private Equity, Private Credit, Resources, and Real Estate.

Table 2.8 Part B Statewide Volunteer Firefighter Fund

Asset Class	Target Allocation	Long-term Expected Real Rate of Return (Geometric)
Domestic Equity	35.00%	5.10%
International Equity	15.00%	5.30%
Bonds	45.00%	0.75%
Cash Equivalents	5.00%	—%

Notes to Financial Statements *(Continued)*

F) Capital Assets

Capital assets are assets with a cost greater than $30,000 and a useful life greater than one year.

- Capital assets are capitalized at cost at the time of acquisition (refer to Note 4).
- PERA computes depreciation on a straight-line basis over the estimated useful life of related assets.
- The estimated useful lives are 3–10 years for furniture and equipment and 40 years for the building.
- PERA's threshold for intangible assets is $1,000,000. PERA did not have intangible assets in fiscal year 2024.

G) Accrued Compensated Absences

PERA's employees accrue vacation leave, sick leave, and compensatory leave at various rates within limits specified in collective bargaining agreements.

- Amounts of leave time for compensated absences are accrued when incurred.
- When a PERA employee terminates, their accrued leave time is liquidated in cash and paid to them.
- The total liability at June 30, 2024, is $1,425,000. Of this, $138,000 is considered a short-term liability and $1,287,000 is considered a long-term liability.
- The total liability increased by $150,000 during fiscal year 2024.

H) Administrative Expenses

PERA pays administrative expenses throughout the fiscal year from the General Employees Fund. At the end of the fiscal year, a portion of the expenses are allocated to the Police & Fire Fund and the Correctional Fund based on membership counts. The Defined Contribution Fund reimburses the General Employees Fund for fees collected to recover administrative costs. PERA pays certain administrative expenses of fire departments during the first year they join the Statewide Volunteer Firefighter Fund. The applicable amounts are reported as expenses on the Statement of Fiduciary Net Position as payable to other funds or due from other funds. Administrative costs are funded by investment income for the defined benefit plans.

Notes to Financial Statements *(Continued)*

NOTE 3: Deposits and Investment Risk Disclosures

A) Fair Value Reporting

Governmental Accounting Standards Board (GASB) statement 72 (GASB 72), "Fair Value Measurement and Application," describes how to measure the fair value of investments based on a hierarchy of valuation inputs. The hierarchy has three levels, described below.

Level 1: Level 1 uses the market value approach, using quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity can access on the measurement date.

Level 2: Level 2 uses the market value approach, but unlike Level 1, Level 2 does not use quoted prices for the asset or liability, either directly or indirectly. Instead, inputs for Level 2 include:

- quoted prices for similar assets or liabilities in active markets,
- quoted prices for identical or similar assets or liabilities in inactive markets,
- inputs other than quoted prices that are observable for the asset or liability, and
- inputs derived principally from or corroborated by observable market data by correlation or other means.

Level 3: Level 3 uses unobservable inputs for the asset or liability. Unobservable inputs are the assumptions of the Minnesota State Board of Investment (SBI) about what inputs other market participants can use to determine the value of an asset or liability. Assets categorized as Level 3 generally rely on methods like the cost approach, income approach, or consensus pricing for their valuation.

Net Asset Value (NAV): Investments that do not have an easily-determined fair value are measured using the NAV per share (or a similar measure) as a practical expedient and are not classified in the fair value hierarchy.

Cash and cash equivalents are investments with less than 12 months to maturity.

- Cash and cash equivalents are not leveled according to GASB 72.
- Non-cash investments include derivative investments that are not hedging derivatives.
- Non-cash investments are measured at fair value on a recurring basis.
- The SBI maintains investment pools that plans participating in the Combined Funds can invest in; plans own a proportionate share of the investment pools.
- The fair value of the investment pools is priced daily by the SBI custodian using independent pricing sources.

In table 2.9, Level 3 investments primarily consist of assets where the asset is distressed or where there is not an active market. The fair value of assets measured at NAV were determined using March 31, 2024 values, adjusted for cash flows. The investments measured at NAV are typically ineligible for redemption. Distributions received as underlying investments within the funds are liquidated over the life of the investment. The typical liquidation period for alternative investments is 3–12 years and includes private equity, real estate, real assets, and private credit. Most distributions are received during the liquidation period; however, a small amount of the fund can remain open while waiting for final close from the general partner.

As of June 30, 2024, the alternative investments are not expected to be sold at a different amount from the NAV value of the SBI's ownership interest in a partner's capital. PERA's proportionate share of unfunded commitments valued at NAV is $5.4 billion. Unfunded commitments are money that is committed to an investment but not yet transferred to the general partner.

Table 2.9 Fair Value of PERA Investments* As of June 30, 2024
(In thousands)

Investments	Fair Value	Level 1	Level 2	Level 3
Equity Investments				
Common Stock	$ 20,807,074	$ 20,806,296	$ 623	$ 155
Real Estate Investment Trust	369,726	369,726	—	—
Other Equity	712,848	393,256	1,534	318,058
Equity Total	**$ 21,889,648**	**$ 21,569,278**	**$ 2,157**	**$ 318,213**
Fixed Income Investments				
Bank Loans	$ 155,922	$ —	$ 151,254	$ 4,668
Asset-Backed Securities	374,261	—	344,998	29,263
Mortgage-Backed Securities	1,520,234	—	1,519,434	800
Corporate Bonds	2,407,893	—	2,405,598	2,295
Government Issues	5,550,176	—	5,550,176	—
Other Debt Instruments	11,601	—	11,601	—
Fixed Income Total	**$ 10,020,087**	**$ —**	**$ 9,983,061**	**$ 37,026**
Investment Derivatives				
Options	$ 181	$ 181	$ —	$ —
Rights	11	11	—	—
Swaps	—	—	—	—
Warrants	28	28	—	—
Investment Derivatives Total	**$ 220**	**$ 220**	**$ —**	**$ —**
Total Investments at Fair Value	**$ 31,909,955**	**$ 21,569,498**	**$ 9,985,218**	**$ 355,239**

Investments (Continued)		Fair Value	Level 1		Level 2		Level 3
Investments Measured at the Net Asset Value (NAV) (in thousands)							
Private Equity	$	7,769,017	74%	$	192	$	3,771,639
Real Estate		988,074	9%		36		768,056
Real Assets		954,373	9%		33		301,738
Private Credit		854,420	8%		41		586,841
Total Investments at NAV	**$**	**10,565,884**	**100%**	**$**	**302**	**$**	**5,428,274**

*Cash and cash equivalents are not leveled under GASB Statement 72, but are included in the exhibit for informational purposes. Any variance between recorded account balances and the fair value of investments as reported in the exhibit are accounts payable and accounts receivable items on June 30, 2024 and not leveled under GASB Statement 72.

Investment Types

Equity Investments

Common Stock: Common stock investments are securities representing equity ownership in a corporation, providing voting rights, and entitling the holder to a share of the company's success via dividends or capital appreciation.

Real Estate Investment Trust: Real estate investment trusts (REITs) are investment pools established by a group of investors to invest in real estate or mortgages. REITs are generally exempt from federal taxes if 95% of REIT-earned income is distributed, and investors are treated equally.

Other Equity: Other equity investments include preferred stock, depository receipts, limited partnerships units, common stock units, and mutual funds.

Fixed-Income Investments

Bank Loans: Bank loans are

- a floating rate debt instrument issued by corporations,
- secured by company assets, including property, equipment, and more, and
- typically senior in the capital structure compared to other liabilities.

Asset-Backed Securities: Asset-backed securities are bonds or notes backed by financial assets, including auto loans and credit card receivables.

Mortgage-Backed Securities: Mortgage-backed securities are asset-backed securities secured by a mortgage or collection of mortgages. The mortgages are sold to a government agency or investment bank that packages the loans together into a security that can be purchased by investors.

Corporate Bonds: Corporate bonds are debts issued by corporations instead of equity ownership via stock. Like most municipal bonds and treasuries, corporate bonds pay semi-annual interest and promise to return the principal when the bonds mature. Maturities range from 1–30 years.

Notes to Financial Statements *(Continued)*

Government Issues: Government issues are securities or bonds issued by any of the 50 states, the territories and their subdivisions, counties, cities, towns, villages and school districts, agencies (such as authorities and special districts created by the states), or certain federally-sponsored agencies (such as local housing authorities).

Other Debt Instruments: Other debt instruments include short-term investment funds (STIFs).

Investments Derivatives

Rights: Rights give investors the opportunity to buy newly-issued securities in proportion to an investor's holdings of certain stocks. The new securities are usually actively traded and exercised within a short period of time.

Warrants: Warrants are the right to purchase one or more shares of stock. Warrants are usually attached to other issues purchased by an investor. Warrants are often detachable and can be used over a long period of time (5–10 years). Warrants have value of their own and can be traded.

Options: Options are contracts that give the holder the right to buy or sell a specific amount of securities from or to the writer of the contract, at a set price, within a certain timeframe.

Swaps: Swaps are derivative contracts where two parties exchange cash flows or liabilities from two different financial instruments.

- Most swaps involve cash flows based on a notional principal amount, such as a loan, bond, or currency, without actually exchanging the principal.

- Each cash flow is one part of the swap.

- One cash flow is usually fixed and the other is usually variable and based on a benchmark interest rate, floating currency exchange rate, or index price.

Investments Measured at Net Asset Value (NAV)

Private Equity: The private equity investment strategy is to establish and maintain a diverse private equity portfolio that includes investments diversified by industry type, stage of corporate development, and location. The SBI has 192 private equity investments, which represent 73.5% of the NAV. Of these, 43 out of 192 private equity funds have exceeded the 12-year liquidation period and represent 7.9% of the private equity NAV.

Real Estate: The real estate investment strategy is to build and manage a broadly-diversified portfolio of real estate investments that includes investments across different types of properties and locations. The core of this portfolio is investments in closed-end commingled funds. The portfolio also includes investments in more focused, specialty, commingled funds and REITs. The SBI has 36 real estate investments, which represent 9.4% of the NAV. Of these, 6 out of 36 real estate funds have exceeded the 12-year liquidation period and represent 0.9% of the real estate NAV.

Real Assets: The real assets investment strategy is to establish and maintain a portfolio of real assets investment vehicles tied to tangible assets, which helps protect against inflation and enhances diversification. Real assets include oil and gas investments and energy service industry investments, diversified by geographic area and type. The SBI has 33 real assets investments, which represent 9% of the NAV. Of these, 15 out of 33 real assets funds have exceeded the 12-year liquidation period and represent 22.7% of the real assets NAV.

Private Credit: The private credit investment strategy is to target funds that typically provide a current return and can include an equity component. Subordinated debt investments and mezzanine investments are typical yield-oriented investments. The SBI has 41 private credit investments, which represent 8.1% of the NAV. Of these, 10 out of 41 private credit funds have exceeded the 12-year liquidation period and represent 6.1% of the private credit NAV.

B) Custodial Credit Risk

Custodial credit risk for cash deposits and investments is the risk that if there was a bank or custodian failure, PERA could not recover the value of our investments or collateral securities.

- Minnesota Statutes section 9.031 requires cash deposits to be secured by depository insurance or a combination of depository insurance and collateral securities held in the State's name by an agent of the State.
- The insurance and collateral coverage should ensure that deposits are less than or equal to 90% of the sum of the insured amount and the market value of the collateral.
- Throughout fiscal year 2024, the combined depository insurance and collateral met legal requirements and secured PERA's deposits, eliminating custodial credit risk.

C) Credit Risk

Credit risk is the risk that an issuer or counterparty to an investment will be unable to fulfill its obligations to the holder of the investment. The SBI has policies designed to minimize credit risk. The SBI can invest funds in governmental obligations if the issue is backed by the full faith and credit of the issuer or if the issue is rated among the top four quality rating categories by a nationally-recognized rating agency. The SBI can invest in unrated corporate obligations or in corporate obligations that are not among the top four quality categories if

- the aggregate value of these obligations cannot exceed 5% of the fund for which the state board is investing,
- participation is limited to 50% of a single offering, and
- participation is limited to 25% of an issuer's obligations.

The SBI can invest in bankers' acceptances, deposit notes of US banks, certificates of deposit, mortgage securities, and asset-backed securities rated in the top four quality categories by a nationally-recognized rating agency. Commercial paper must be rated in the top two quality categories.

PERA's share of the SBI's exposure to credit risk for debt securities and short-term investments is based on the lower of Moody's or S&P Quality Ratings is shown in table 2.10 below**.** If a security is rated by only Moody's or S&P, rather than both, that rating will be used.

Table 2.10 Credit Risk Exposure

(In thousands)

Quality Rating		Fair Value as of June 30, 2024
AAA	$	363,108
AA		6,732,537
A		330,630
BBB		1,208,888
BB		545,251
B		446,485
CCC		213,582
CC		26,421
C		1,135
D		5,043
Unrated Corporate		1,762,307
Total:	**$**	**11,635,387**

D) Concentration of Credit Risk

Concentration of credit risk is the risk of loss because of the magnitude of a government's investment in a single issuer. The SBI determines concentration of credit risk based on the security identification number. PERA is not exposed to a single issuer greater than or equal to 5% of the overall portfolio, so PERA does not have concentration of credit risk.

E) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt investments could negatively affect the fair value of an investment. The SBI does not have a policy about interest rate risk. Debt securities are held in external investment pools, and PERA's share has the weighted average maturities listed in table 2.11 below.

Table 2.11 Interest Rate Risk

Security	Weighted Average Maturity (in years)
Bank Loans	4.69
Asset-Backed Securities	5.21
Corporate Debt Obligations	6.07
Agency Securities	6.24
Yankee Bonds	7.35
Mortgage Backed Securities	7.62
Foreign Country Bonds	7.70
Collateralized Mortgage Obligations	8.94
US Treasuries	13.21
Municipal Debt Obligations	14.03
Short-Term Investments	6.29

Notes to Financial Statements *(Continued)*

F) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates between the US dollar and foreign currencies could negatively affect the fair value of an investment. Most foreign currency risk is within the SBI’s international equity investment holdings. To reduce foreign currency risk, the SBI developed and implemented policies.

- Government obligations, including guaranteed or insured issues of the International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, and the African Development Bank, must pay interest and principal in US dollars.

- The principal and interest of obligations of corporations, including those incorporated or organized under the laws of the Dominion of Canada or any province thereof, must be paid in US dollars.

- The SBI uses a foreign currency overlay manager to implement an active hedging program for its international developed markets passive equity portfolio. The SBI's active managers can use forward currency contracts within their portfolios to hedge foreign currency risk as they deem appropriate. PERA’s share of foreign security investments at June 30, 2024 was distributed among the currencies shown in table 2.12.

Notes to Financial Statements *(Continued)*

Table 2.12 Foreign Currency Risk
(Fair value in thousands)

Currency	Cash	Equity	Fixed Income
EURO CURRENCY	$ 4,152	$ 2,379,755	$ 68,997
JAPANESE YEN	6,192	1,024,103	51
POUND STERLING	4,337	698,050	13,540
CANADIAN DOLLAR	7,493	487,776	1,580
SWISS FRANC	632	413,901	—
HONG KONG DOLLAR	1,154	376,445	—
AUSTRALIAN DOLLAR	791	297,629	24
NEW TAIWAN DOLLAR	2	283,406	—
SOUTH KOREAN WON	1	266,801	—
DANISH KRONE	224	208,786	—
SWEDISH KRONA	265	146,723	—
BRAZILIAN REAL	963	88,765	15,642
SINGAPORE DOLLAR	185	66,329	—
YUAN RENMINBI	5,270	55,089	3,302
MEXICAN PESO	1,464	37,822	18,551
INDONESIAN RUPIAH	91	35,070	6,983
SOUTH AFRICAN RAND	139	34,541	6,854
NORWEGIAN KRONE	326	35,998	—
THAILAND BAHT	74	26,010	6,164
SAUDI RIYAL	10	24,524	—
POLISH ZLOTY	1	11,813	6,297
NEW ISRAELI SHEQEL	145	15,875	—
MALAYSIAN RINGGIT	33	7,055	6,623
HUNGARIAN FORINT	45	9,755	2,159
TURKISH LIRA	27	10,147	1,533
UAE DIRHAM	—	10,391	—
CZECH KORUNA	24	693	6,048
NEW ZEALAND DOLLAR	89	5,882	—
COLOMBIAN PESO	40	516	4,604
QATARI RIAL	3	4,143	—
SOL	—	—	4,100
ROMANIAN LEU	(46)	1,628	2,332
KUWAITI DINAR	12	3,737	—
PHILIPPINE PESO	—	3,216	74
CHILEAN PESO	1	2,251	659
INDIAN RUPEE	—	—	927
DOMINICAN PESO	—	—	764
URUGUAYAN PESO	—	—	657
EGYPTIAN POUND	—	381	—
PARAGUAY GUARANI	—	—	249
RUSSIAN RUBLE	(3)	—	—
YUAN RENMINBI OFFSHORE	(6,110)	—	—
Total	**$ 28,026**	**$ 7,075,006**	**$ 178,714**

Notes to Financial Statements *(Continued)*

G) Derivative Financial Instruments

On behalf of PERA, the SBI invests in various types of derivative financial instruments. Derivatives are any financial arrangement between two parties that has value based on or derived from future price fluctuations. The SBI's derivative financial instruments include futures, options, stock warrants and rights, currency forwards, and synthetic guaranteed investment contracts. For accounting purposes, derivative instruments are considered investments, not hedges.

According to Minnesota Statutes section 11A.24, subdivision 1, agencies must have a fully-offsetting amount of cash or securities to enter into any agreement for put and call options and futures contracts. This subdivision applies to foreign currency forward contracts used to offset the currency risk of a security. All other derivatives are exchange-traded. The purpose of the SBI derivative activity is to equitize cash in the portfolio, to adjust the duration of the portfolio, or to offset current futures positions.

The fair value balances and notional amounts (or face value) at June 30, 2024, classified by derivative instrument type, and the changes in fair value for fiscal year 2024 are shown in table 2.13 below.

Table 2.13 Derivative Financial Instruments
(In thousands)

Derivative Investment Type	Changes in Fair Value During Fiscal Year 2024	Fair Value at June 30, 2024	Notional Amount
Futures:			
Equity Futures–Long	$ 8,862	$ —	$ 48
Equity Futures–Short	342	—	—
Fixed Income Futures–Long	(39,323)	—	885,975
Fixed Income Futures–Short	28,039	—	(528,174)
Options:			
Futures Options Bought	$ (4,364)	$ 297	$ 1,011
Futures Options Written	1,597	(116)	(1,444)
Equity Options Bought	—	—	—
Equity Options Written	—	—	—
Fixed Income Options Written	45	—	(7,800)
Currency Forwards Contracts	$ 61,053	$ 48,228	$ 10,260,034
Stock Warrants and Rights:			
Stock Warrants	$ 13	$ 28	$ 44
Stock Rights	8	11	130
Swaps:			
Credit Default Swaps Bought	$ 43	$ (348)	$ 5,555
Credit Default Swaps Written	767	2,819	78,650
Pay Fixed Interest Rate Swaps	2,627	1,863	122,445
Receive Fixed Interest Rate Swaps	(917)	(334)	52,005
Return Swaps Equity	164	14	(1,227)

Notes to Financial Statements *(Continued)*

Derivative Investment Type Explanations

Futures: Futures are contract commitments to purchase (asset) or sell (liability) at a future date. The net change in the value of futures contracts is settled on a regular basis, and gains and losses are included in investment income.

Options: Options are contracts that give buyers or sellers the right to buy (calls) or sell (puts) a security at a predetermined price on a future date. Gains and losses result from variances in the market value of the security before or on the contract-specified date. Gains and losses are included in investment income.

Currency Forward Contracts: Foreign currency forward contracts are used to manage portfolio foreign currency risk. Contract provisions vary based on negotiation.

Stock Warrants and Rights: Similar to options, stock warrants are the right to purchase shares of a stock at a certain price by a certain date. Stock warrants usually expire after five years or more. When stock warrants are exercised, the company issues new shares. However, rights are issued to current stock owners to enable them to retain their relative ownership share. Gains and losses from the sale or exercise of stock warrants and rights are included in investment income.

Swaps: Swaps are derivative contracts where two parties exchange cash flows or liabilities from different financial instruments. Most swaps involve cash flows based on a notional principal amount, such as a loan, bond, or currency. Usually, the principal does not change hands. Each cash flow comprises one part of the swap. One cash flow is generally fixed, while the other is variable and based on a benchmark interest rate, floating currency exchange rate, or index price. The most common kind of swap is an interest rate swap, but currency swaps and credit default swaps on a reference security or basket of securities are also common.

Guaranteed Investment Contract

The SBI maintains a fully benefit-responsive synthetic guaranteed investment contract for the Supplemental Investment Fund—Stable Value Fund.

- The investment objective of the Supplemental Investment Fund—Stable Value Fund is to protect investors from loss of their original investment and to provide a competitive interest rate.

- On June 30, 2024, the Supplemental Investment Fund—Stable Value Fund portfolio of well-diversified, high-quality, investment-grade fixed income securities had a fair value of $1,440,616,645, which is $76,222,571 below the value protected by the wrap contract.

- The Supplemental Investment Fund—Stable Value Fund also includes liquid investment pools with a combined fair value of $20,017,210.

Risks

Credit Risk: The SBI is exposed to credit risk through the counterparties in foreign currency forward contracts used to offset the currency risk of a security. PERA is exposed to credit risk through 27 counterparties. These counterparties have S&P credit ratings of BBB+ or better. PERA's proportionate share of the maximum loss that SBI would have recognized as of June 30, 2024 if all counterparties failed to perform as contracted is $220,078,081.

Notes to Financial Statements *(Continued)*

H) Securities Lending

PERA does not own specific securities, but instead owns shares in pooled funds invested by the SBI. The SBI can enter into securities lending transactions according to Minnesota Statutes chapter 356A.06, subdivision 7. According to the Securities Lending Authorization Agreement, the SBI authorized State Street Bank and Trust Company (State Street) to lend the SBI's securities to approved borrowers. The amounts shown on the financial statements are PERA's proportionate share of securities loaned, collateral pledged, and loan income that resulted from the lending activity of the investment managers, retained by the SBI, of these investment pools. The types and amounts of securities loaned are presented in table 2.14.

Table 2.14 Securities Loaned

(In thousands)

Investment Type	Amount as of June 30, 2024	
Domestic Corporate Bonds	$	211,115
Domestic Equities		1,871,767
International Equities		133,258
US Government Bonds		412,179
Total	**$**	**2,628,319**

During the fiscal year, as directed by the SBI, State Street lent certain securities held by State Street as custodian and received cash or other collateral including securities issued or guaranteed by the US government. State Street cannot pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to at least 100% of the market value of the loaned securities.

According to the Securities Lending Authorization Agreement, State Street must compensate the SBI if a borrower defaults. Zero borrowers failed to return loaned securities or pay distributions during the fiscal year that resulted in a declaration or notice of default of the borrower.

During the fiscal year, the SBI and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested with the cash collateral of other qualified, tax-exempt plan lenders in a collective investment pool. As of June 30, 2024, the investment pool had an average duration of 3 days and an average weighted final maturity of 108.11 days for USD. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral. On June 30, 2024, the SBI had no credit risk exposure to borrowers. The market value of collateral held and the fair value of securities on loan from the SBI as of June 30, 2024 was $2,731,090,340 and $2,628,318,789, respectively. Cash collateral of $1,860,209 is reported on the Statement of Fiduciary Net Position as an asset. Liabilities resulting from these securities lending transactions are also reported on the Statement of Fiduciary Net Position.

Notes to Financial Statements *(Continued)*

NOTE 4: Capital Assets and Long-Term Liabilities

Capital assets

Capital assets are presented on the June 30, 2024 Statement of Fiduciary Net Position at historical cost, net of accumulated depreciation. Capital assets are summarized in table 2.15 below. PERA has zero leases as of June 30, 2024 that we were required to report according to Governmental Accounting Standards Board Statement 87.

Table 2.15 Capital Assets
(In thousands)

Capital Asset Descriptions	Balance June 30, 2023	Additions	Disposals	Balance June 30, 2024
Capital assets, not being depreciated:				
Land	$ 170	$ —	$ —	$ 170
Capital assets, being depreciated:				
Building (includes generator)	$ 10,893	$ —	$ —	$ 10,893
Equipment, furniture, and fixtures	2,012	—	—	2,012
Total capital assets being depreciated	**$ 12,905**	**$ —**	**$ —**	**$ 12,905**
Less accumulated depreciation for:				
Building (includes generator)	$ (6,116)	$ (270)	$ —	$ (6,386)
Equipment, furniture, and fixtures	(1,817)	(109)	—	(1,926)
Total accumulated depreciation	**$ (7,933)**	**$ (379)**	**$ —**	**$ (8,312)**
Total capital assets, net of accumulated depreciation on the Statement of Fiduciary Net Position:	**$ 5,142**	**$ (379)**	**$ —**	**$ 4,763**

Legislation passed in 1999 allowed PERA, the Minnesota Teacher's Retirement Association (TRA), and the Minnesota State Retirement System (MSRS) to purchase land and construct a 140,000 square foot building to house all three retirement systems.

- Facility ownership is prorated based on the amount of square footage each retirement system occupies in the building.
- PERA's ownership share is 36.5%.
- PERA's share of the cost to purchase the 4.3 acres of land was $170,308.

In June 2000, the State of Minnesota, under the authority of the Commissioner of Finance (currently known as Minnesota Management and Budget), issued revenue bonds totaling $29 million on behalf of the three retirement systems to pay for the construction of the facility. In August 2012, the remaining bonds were refunded with the proceeds of a new, lower interest rate bond issue. The new bonds are secured by the value of the total assets of the largest defined benefit plans in the three statewide retirement systems. By issuing the refunding bonds, which received an AAA credit rating, the bond term was reduced by five years and the value of the savings to the retirement systems was $9,582,538. PERA's portion of the savings was $3,497,626.

Notes to Financial Statements *(Continued)*

Long-term liabilities

Table 2.16 below lists the debt service amounts PERA is directly responsible for. Before the joint and liability clauses in the bond sale official statement, in the event of default, PERA could be liable for the entire remaining outstanding principal and premium balances of the bonds plus the interest accrued for the month of June, totaling $1,040,000. Bonds payable on the Statement of Fiduciary Net Position are PERA's share of outstanding debt at the current ownership interest and include the principal balance as of June 30, 2024, the premium balance as of June 30, 2024, and interest accrued for the month of June. PERA has zero lines of credit or assets pledged as collateral for debt.

Table 2.16 Debt Repayment Schedule by Fiscal Year
(In thousands)

Fiscal Year	Principal	Interest	Premium	Total
2025	$365	$6	$9	$380
Total Debt Repayment	$365	$6	$9	$380
Total Unpaid Principal, 06/30/2024				$365
Total Unpaid Premium, 06/30/2024				8
Accrued Interest, June 2024				1
Total bonds payable on Statement of Fiduciary Net Position				**$374**

Notes to Financial Statements *(Continued)*

NOTE 5: Contribution Requirements

Minnesota Statutes chapters 353, 353E, 353G, and 356 set the rates for employer and employee contributions. Contribution rates are listed in table 2.17 below.

Table 2.17 Retirement Plan Contribution Rates

Effective Date	Contributor	General Employees Fund			Police & Fire Fund	Correctional Fund
		Basic	Coordinated	MERF		
01/01/2020	Member	9.10%	6.50%	9.75%	11.80%	5.83%
	Employer	11.78%	7.50%	9.75%	17.70%	8.75%

Since fiscal year 2014, the State of Minnesota must contribute $9 million each year to the Police & Fire Fund. This state aid will continue until the Police & Fire Fund is 90% funded, or until the State Patrol Plan (administered by the Minnesota State Retirement System) is 90% funded, whichever is later. In addition, the state pays $9 million each year on October 1 in direct state aid to the Police & Fire Fund until full funding is reached or until July 1, 2048, whichever is earlier.

The Minneapolis Employees Retirement Fund (MERF) fully merged into the General Employees Fund in fiscal year 2015.

- Supplemental contribution amounts were recalculated after the merger based on the amount of MERF's unfunded liability as of the merger date.

- The State of Minnesota contributes $16 million and MERF's employers contribute $21 million to the General Employees Fund each year until September 15, 2031.

In fiscal year 2024, the State of Minnesota also contributed $170 million to the General Employees Plan, almost $19.4 million to the Police & Fire Plan, and over $5.2 million to the Correctional Plan in one-time state aid. The one-time state aid was used to reduce the net pension liability and to fully fund a one-time cost of living adjustment to benefit recipients in fiscal year 2024.

Minnesota Statutes section 353D.03 specifies contribution rates for members of the Defined Contribution Plan.

- An eligible elected official or physician who decides to participate contributes 5% of their salary, which is matched by their employer.

- For ambulance service personnel, employer contributions are determined by the employer, and for salaried employees, employer contributions must be a fixed percentage of salary.

- Employer contributions for volunteer personnel can be a unit value for each call or period of alert duty.

- Employees who are paid for their services can make member contributions, but those contributions must be less than or equal to the employer's contribution.

Employer-required contributions are calculated annually for each employer in the Statewide Volunteer Firefighter Plan. If fire state aid (based on income generated from insurance policies) plus expected investment income does not cover the expected normal cost of benefits during the next calendar year, employer contributions are calculated and payable by the end of the next calendar year.

Notes to Financial Statements *(Continued)*

Purchasing Service Credits

Authorized leave of absence: Members can take an authorized leave of absence from PERA-covered employment. Members can purchase missing employee and employer contributions, plus interest, to restore the lost credit.

Periodic, repetitive leave: An employer can offer or require a furlough to all employees. Members participating in the furlough can pay PERA their contributions lost plus interest to restore their highest average salary. After a member payment is received, employers must send the employer portion of the furloughed salary plus interest to PERA.

Repayment of refunded service: Former members who forfeited service credits after receiving a refund of PERA contributions can repay the refund after they rejoin public service for six months or more. Repaying the refund restores the forfeited service credit. Interest charged for a repayment of refund is calculated from the date of the refund at 8.5% compounded annually until June 30, 2015, 8% July 1, 2015 through June 30, 2018, 7.5% July 1, 2018 through June 30, 2023, and 7% July 1, 2023 thereafter.

Past military service: Since 2019, PERA members can actuarially purchase service credit for one or more periods while in the uniformed services, as defined in United States Code title 38, section 4301(13). The eligible purchase is for military leave period(s) that occurred before becoming a public employee or during PERA-covered employment when the member missed the original purchase timeframe.

Notes to Financial Statements *(Continued)*

NOTE 6: Net Pension Liability of Employers and Non-employer Contributing Entity

The components of the net pension liability (NPL) of the cost-sharing defined benefit plans for participating employers and the State of Minnesota (a non-employer contributing entity in the General Employees Fund) as of June 30, 2024, calculated according to Governmental Accounting Standards Board Statement 67, are listed in table 2.18 below.

Table 2.18 Net Pension Liability Components
(In thousands)

Liability Descriptions	General Employees Fund	Police & Fire Fund	Correctional Fund
Total Pension Liability (A)	$33,858,933	$13,380,841	$1,238,891
Fund Fiduciary Net Position (B)	(30,162,004)	(12,065,232)	(1,208,413)
Net Pension Liability (A - B)	**$3,696,929**	**$1,315,609**	**$30,478**
Fund Fiduciary Net Position as a Percentage of the Total Pension Liability (B / A)	**89.1%**	**90.2%**	**97.5%**

A) Actuarial Methods and Assumptions

The total pension liability for each of the cost-sharing defined benefit plans was determined by an actuarial valuation as of June 30, 2024, using the entry age normal actuarial cost method. The long-term rate of return on pension plan investments used to determine the total liability is 7%. The 7% assumption is based on a review of inflation and investment return assumptions from a number of national investment consulting firms. The review provided a range of investment return rates considered reasonable by the actuary. An investment return of 7% is within that range.

- Inflation is assumed to be 2.25% for the General Employees Plan, Police & Fire Plan, and the Correctional Plan.

- Benefit increases after retirement are assumed to be 1.25% for the General Employees Plan, 1% for the Police & Fire Plan, and 2% for the Correctional Plan.

Salary growth assumptions in the General Employees Plan range in annual increments from 10.25% after one year of service to 3% after 27 years of service. In the Police & Fire Plan, salary growth assumptions range in annual increments from 11.75% after one year of service to 3% after 24 years of service. In the Correctional Plan, salary growth assumptions range from 11% at age 20 to 3% at age 60.

Mortality rates for the General Employees Plan are based on the Pub-2010 General Employee Mortality Table. Mortality rates for the Police & Fire Plan and the Correctional Plan are based on the Pub-2010 Public Safety Employee Mortality tables. The tables are adjusted slightly to fit PERA’s experience.

Actuarial assumptions for the General Employees Plan are reviewed every four years. The General Employees Plan was last reviewed in 2022. The assumption changes were adopted by the board and became effective with the July 1, 2023 actuarial valuation. The Police & Fire Plan and Correctional Plan were reviewed in 2024. PERA anticipates the experience study will be approved by the Legislative Commission on Pensions and Retirement and become effective with the July 1, 2025 actuarial valuation.

Notes to Financial Statements *(Continued)*

B) Discount Rate

To measure the total pension liability in 2024, PERA used a 7% discount rate. The discount rate was determined using a projection of cash flows that assumed contributions from plan members and employers will be made at rates set by Minnesota Statutes. Based on these assumptions, the fiduciary net position of the General Employees Plan, Police & Fire Plan, and Correctional Plan are projected to be available to make all future benefit payments of current plan members. The long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

C) Sensitivity Analysis

Table 2.19 below lists the net pension liability (asset) of employers and the State of Minnesota for PERA's cost-sharing defined benefit plans as of June 30, 2024, calculated using the current discount rate. Table 2.19 also lists each plan's net pension liability calculated using a discount rate that is 1% lower and 1% higher than the current discount rate.

Table 2.19 Sensitivity Analysis: Net Pension Liability (Asset) at Different Discount Rates

(Dollars in thousands)

	General Employees Fund			Police & Fire Fund			Correctional Fund		
1% Decrease	6.00%	$	8,074,688	6.00%	$	3,109,041	6.00%	$	247,671
Current Discount Rate	7.00%	$	3,696,929	7.00%	$	1,315,609	7.00%	$	30,478
1% Increase	8.00%	$	95,823	8.00%	$	(157,174)	8.00%	$	(142,550)

NOTE 7: Other Notes

A) New Asset Transfers

The Minnesota legislature created the Statewide Volunteer Firefighter Plan in 2009.

- The plan is an agent multiple-employer defined benefit retirement plan.
- Twenty three fire departments joined the plan in fiscal year 2024, bringing the total number of fire departments in the Volunteer Firefighter Plan to 240.
- The amount of assets transferred, which is greater than $19.3 million, is included in Other Additions in the Statement of Changes in Fiduciary Net Position.
- Each fire department has a separate account and retains its own assets and liabilities.

B) Participating Pension Plan

PERA employees participate in the General Employees Coordinated Plan and are eligible for the plan provisions described in section D of Note 1. Minnesota Statutes section 353.27 sets the rates for Coordinated Plan employee and employer contributions. Contribution rates for the Coordinated Plan are listed in table 2.17 on page 57. The total covered payroll for PERA employees during fiscal year 2024 was approximately $9.0 million.

Employer pension contributions for PERA employees in the fiscal years ending June 30, 2024, 2023 and 2022 were $674,415 in fiscal year 2024, $629,885 in fiscal year 2023, and $575,191 in fiscal year 2022. Employer contributions are equal to the required contributions set by statute. Employer contributions paid by PERA on behalf of these employees are funded by General Employees Fund investment income.

Schedule of Changes in Net Pension Liability and Related Ratios

General Employees Fund Schedule of Changes

Required Supplementary Information (unaudited, in thousands)

Table 2.20 General Employees Fund Schedule of Changes in Net Pension Liability and Related Ratios*

Descriptions	2024	2023	2022
Total Pension Liability			
Service Cost	$ 652,637	$ 675,709	$ 648,767
Interest on the Total Pension Liability	2,270,597	2,168,019	2,098,002
Change of Benefit Terms	—	28,123	—
Difference between Expected and Actual Experience	310,043	186,049	88,206
Assumption Changes	(503,245)	(2,043,586)	72,199
Benefit Payments	(1,889,457)	(1,808,287)	(1,737,905)
Refund Payments	(74,307)	(67,580)	(73,152)
Net Change in Total Pension Liability	766,268	(861,553)	1,096,117
Total Pension Liability--Beginning	33,092,665	33,954,218	32,858,101
Total Pension Liability--Ending (a)	**$ 33,858,933**	**$ 33,092,665**	**$ 33,954,218**
Plan Fiduciary Net Position			
Contributions--Employer	$ 619,580	$ 581,044	$ 546,291
Contributions--Member	521,198	487,107	457,740
Contributions--Nonemployer Contributing Entity	186,093	16,000	16,000
Net Investment Income	3,318,778	2,272,563	(1,749,186)
Benefit Payments	(1,889,457)	(1,808,287)	(1,737,905)
Refund Payments	(74,307)	(67,580)	(73,152)
Administrative Expenses	(20,579)	(14,459)	(13,398)
Other **	(79)	204	142
Net Change in Plan Fiduciary Net Position	2,661,227	1,466,592	(2,553,468)
Plan Fiduciary Net Position--Beginning	27,500,777	26,034,185	28,587,653
Plan Fiduciary Net Position--Ending (b)	**$ 30,162,004**	**$ 27,500,777**	**$ 26,034,185**
Net Pension Liability (a)-(b)	**$ 3,696,929**	**$ 5,591,888**	**$ 7,920,033**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability (b)/(a)	89.08 %	83.10 %	76.67 %
Covered-Employee Payroll	$ 8,018,431	$ 7,493,954	$ 7,042,154
Net Pension Liability as a Percentage of Covered Employee Payroll	46.11 %	74.62 %	112.47 %

*Restated 2016 & 2017 for rounding and other differences; no effect on Plan Fiduciary Net Position.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

2021	2020	2019	2018	2017	2016	2015
Total Pension Liability						
$ 530,547	$ 518,112	$ 494,737	$ 513,422	$ 471,706	$ 434,551	$ 421,602
2,102,259	2,053,793	1,991,061	1,948,853	1,921,869	1,839,388	1,712,534
—	(65,850)	—	(79,217)	—	—	1,147,198
(154,087)	(30,245)	104,946	8,763	280,527	(647,197)	(348,383)
3,476,596	(128,849)	(120,162)	(262,228)	(853,320)	2,119,742	—
(1,666,103)	(1,604,842)	(1,536,071)	(1,470,450)	(1,413,448)	(1,359,176)	(1,235,303)
(58,027)	(84,947)	(65,834)	(42,589)	(37,234)	(37,209)	(35,655)
4,231,185	657,172	868,677	616,554	370,100	2,350,099	1,661,993
28,626,916	27,969,744	27,101,067	26,484,513	26,114,413	23,764,314	22,102,321
$ 32,858,101	**$ 28,626,916**	**$ 27,969,744**	**$ 27,101,067**	**$ 26,484,513**	**$ 26,114,413**	**$ 23,764,314**
Plan Fiduciary Net Position						
$ 524,685	$ 509,821	$ 515,444	$ 488,819	$ 477,888	$ 459,978	$ 435,115
439,488	435,419	424,044	409,423	400,204	375,291	353,765
16,000	16,000	16,000	16,000	6,000	6,000	—
6,712,710	931,041	1,547,224	2,063,582	2,682,901	(20,851)	777,504
(1,666,103)	(1,604,842)	(1,536,071)	(1,470,450)	(1,413,448)	(1,359,176)	(1,235,303)
(58,027)	(84,947)	(65,834)	(42,589)	(37,234)	(37,209)	(35,655)
(12,741)	(12,268)	(13,470)	(11,943)	(11,292)	(11,350)	(10,367)
182	267	154	56	411	671	891,914
5,956,194	190,491	887,491	1,452,898	2,105,430	(586,646)	1,176,973
22,631,459	22,440,968	21,553,477	20,100,579	17,995,149	18,581,795	17,404,822
$ 28,587,653	**$ 22,631,459**	**$ 22,440,968**	**$ 21,553,477**	**$ 20,100,579**	**$ 17,995,149**	**$ 18,581,795**
$ 4,270,448	**$ 5,995,457**	**$ 5,528,776**	**$ 5,547,590**	**$ 6,383,934**	**$ 8,119,264**	**$ 5,182,519**
87.00 %	79.06 %	80.23 %	79.53 %	75.90 %	68.91 %	78.19 %
$ 6,761,354	$ 6,698,754	$ 6,523,754	$ 6,298,815	$ 6,156,985	$ 5,773,708	$ 5,549,255
63.16 %	89.50 %	84.75 %	88.07 %	103.69 %	140.62 %	93.39 %

*Restated 2016 & 2017 for rounding and other differences; no effect on Plan Fiduciary Net Position.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Notes to the General Employees Fund Schedule of Changes

Required Supplementary Information

2024 Changes

Changes in Actuarial Assumptions

The following changes in assumptions are effective with the July 1, 2024 valuation, as recommended in the most recent experience study (dated June 29, 2023):

- Rates of merit and seniority were adjusted, resulting in slightly higher rates.
- Assumed rates of retirement were adjusted as follows: increase the rate of assumed unreduced retirements, slight adjustments to Rule of 90 retirement rates, and slight adjustments to early retirement rates for Tier 1 and Tier 2 members.
- Minor increase in assumed withdrawals for males and females.
- Lower rates of disability.
- Continued use of Pub-2010 general mortality table with slight rate adjustments as recommended in the most recent experience study.
- Minor changes to form of payment assumptions for male and female retirees.
- Minor changes to assumptions made with respect to missing participant data.

Changes in Plan Provisions

The workers' compensation offset for disability benefits was eliminated. The actuarial equivalent factors updated to reflect the changes in assumptions

2023 Changes

Changes in Actuarial Assumptions

The investment return assumption and single discount rate changed from 6.50% to 7.00%.

Changes in Plan Provisions

An additional one-time direct state aid contribution of $170.1 million was contributed to the General Plan on October 1, 2023.

The vesting period for those hired after June 30, 2010 changed from five years of allowable service to three years of allowable service.

The benefit increase delay for early retirements on or after January 1, 2024 was eliminated.

A one-time, non-compounding benefit increase of 2.5% minus the actual 2024 adjustment was payable in a lump sum for calendar year 2024 by March 31, 2024.

2022 Changes

Changes in Actuarial Assumptions

The mortality improvement scale changed from Scale MP-2020 to Scale MP-2021.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Changes in Plan Provisions

There were no changes in plan provisions since the previous valuation.

2021 Changes

Changes in Actuarial Assumptions

The investment return and single discount rates changed from 7.5% to 6.5% for financial reporting purposes.

The mortality improvement scale changed from Scale MP-2019 to Scale MP-2020.

Changes in Plan Provisions

There were no changes in plan provisions since the previous valuation.

2020 Changes

Changes in Actuarial Assumptions

The price inflation assumption decreased from 2.5% to 2.25%.

The payroll growth assumption decreased from 3.25% to 3%.

Assumed salary increase rates changed as recommended in the June 30, 2019 experience study. The net effect is assumed rates that average 0.25% less than previous rates.

Assumed rates of retirement changed as recommended in the June 30, 2019 experience study. The changes result in more unreduced (normal) retirements and slightly fewer Rule of 90 and early retirements.

Assumed rates of termination changed as recommended in the June 30, 2019 experience study. The new rates are based on service and are generally lower than the previous rates for years 2–5 and slightly higher thereafter.

Assumed rates of disability changed as recommended in the June 30, 2019 experience study. The change results in fewer predicted disability retirements for males and females.

The base mortality table for healthy annuitants and employees changed from the RP-2014 table to the Pub-2010 General Mortality table, with adjustments. The base mortality table for disabled annuitants changed from the RP-2014 disabled annuitant mortality table to the PUB-2010 General/Teacher disabled annuitant mortality table, with adjustments.

The mortality improvement scale changed from Scale MP-2018 to Scale MP-2019.

The assumed spouse age difference changed from two years older for females to one year older.

The assumed number of married male new retirees electing the 100% joint & survivor option changed from 35% to 45%. The assumed number of married female new retirees electing the 100% joint & survivor option changed from 15% to 30%. The corresponding number of married new retirees electing the life annuity option was adjusted accordingly.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Changes in Plan Provisions

Augmentation for current privatized members decreased to 2% for the period July 1, 2020 through December 31, 2023 and 0% after. Augmentation was eliminated for privatizations occurring after June 30, 2020.

2019 Changes

Changes in Actuarial Assumptions

The mortality projection scale was changed from MP-2017 to MP-2018.

Changes in Plan Provisions

The employer supplemental contribution changed prospectively, decreasing from $31 million to $21 million per year. The State's special funding contribution changed prospectively, requiring $16 million due per year through 2031.

2018 Changes

Changes in Actuarial Assumptions

The mortality projection scale changed from MP-2015 to MP-2017.

The assumed benefit increase changed from 1% per year through 2044 and 2.5% per year thereafter to 1.25% per year.

Changes in Plan Provisions

The augmentation adjustment in early retirement factors was eliminated over a five-year period starting July 1, 2019, resulting in actuarial equivalence after June 30, 2024.

Interest credited on member contributions decreased from 4% to 3%, beginning July 1, 2018.

Deferred augmentation changed to 0%, effective January 1, 2019. Augmentation that has already accrued for deferred members will still apply.

Contribution stabilizer provisions were repealed.

Annual increases changed from 1% per year with a provision to increase to 2.5% upon attainment of 90% funding ratio to 50% of the Social Security cost of living adjustment, between 1–1.5%, beginning January 1, 2019.

For retirements on or after January 1, 2024, the first benefit increase is delayed until the retiree reaches normal retirement age and does not apply to Rule of 90 retirees, disability benefit recipients, or survivors.

Actuarial equivalent factors updated to reflect revised mortality and interest assumptions.

2017 Changes

Changes in Actuarial Assumptions

The combined service annuity (CSA) loads changed from 0.8% for active members and 60% for vested and non-vested deferred members. The revised CSA load are now 0% for active member liability, 15% for vested deferred member liability, and 3% for non-vested deferred member liability.

The assumed annual increase rate changed from 1% per year for all years to 1% per year through 2044 and 2.5% per year thereafter.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Changes in Plan Provisions

The State's contribution for the Minneapolis Employees Retirement Fund equals $16.0 million in 2017 and 2018 and $6.0 million thereafter.

The Employer Supplemental Contribution for the Minneapolis Employees Retirement Fund changed from $21,000,000 to $31,000,000 in calendar years 2019 to 2031. The State's contribution changed from $16,000,000 to $6,000,000 in calendar years 2019 to 2031.

2016 Changes

Changes in Actuarial Assumptions

The assumed annual increase rate changed from 1% per year through 2035 and 2.5% per year thereafter to 1% per year for all years.

The assumed investment return changed from 7.9% to 7.5%. The single discount rate changed from 7.9% to 7.5%.

Other assumptions changed as recommended by the experience study June 30, 2015. The assumed future salary increases, payroll growth, and inflation decreased by 0.25% to 3.25% for payroll growth and 2.5% for inflation.

Changes in Plan Provisions

There were no changes since the prior valuation.

2015 Changes

Changes in Actuarial Assumptions

The assumed annual increase rate changed from 1% per year through 2030 and 2.5% per year thereafter to 1% per year through 2035 and 2.5% per year thereafter.

Changes in Plan Provisions:

On January 1, 2015, the Minneapolis Employees Retirement Fund merged into the General Employees Fund, which increased the total pension liability by $1.1 billion and increased the fiduciary plan net position by $892 million. Upon consolidation, state and employer contributions were revised; the State's contribution of $6 million, which meets the special funding situation definition, was due September 2015.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Police & Fire Fund Schedule of Changes

Required Supplementary Information (unaudited, in thousands)

Table 2.21 Police & Fire Fund Schedule of Changes in Net Pension Liability and Related Ratios*

Descriptions	2024	2023	2022
Total Pension Liability			
Service Cost	$ 280,316	$ 385,544	$ 282,658
Interest on the Total Pension Liability	878,035	789,647	779,519
Change of Benefit Terms	—	67,743	—
Difference between Expected and Actual Experience	181,901	329,023	187,572
Assumption Changes	—	(2,899,706)	1,984,805
Benefit Payments	(720,158)	(669,804)	(633,255)
Refund Payments	(5,051)	(3,747)	(4,196)
Net Change in Total Pension Liability	615,043	(2,001,300)	2,597,103
Total Pension Liability--Beginning	12,765,798	14,767,098	12,169,995
Total Pension Liability--Ending (a)	**$ 13,380,841**	**$ 12,765,798**	**$ 14,767,098**
Plan Fiduciary Net Position			
Contributions--Employer	$ 236,216	$ 223,305	$ 206,416
Contributions--Member	152,987	144,470	133,023
Contributions--Nonemployer Contributing Entity	37,397	18,000	18,000
Net Investment Income	1,327,276	912,519	(700,942)
Benefit Payments	(720,158)	(669,804)	(633,255)
Refund Payments	(5,051)	(3,747)	(4,196)
Administrative Expenses	(1,747)	(1,247)	(1,634)
Other	(616)	(61)	(20)
Net Change in Plan Fiduciary Net Position	1,026,304	623,435	(982,608)
Plan Fiduciary Net Position--Beginning	11,038,928	10,415,493	11,398,101
Plan Fiduciary Net Position--Ending (b)	**$ 12,065,232**	**$ 11,038,928**	**$ 10,415,493**
Net Pension Liability (a)-(b)	**$ 1,315,609**	**$ 1,726,870**	**$ 4,351,605**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability (b)/(a)	90.17 %	86.47 %	70.53 %
Covered-Employee Payroll	$ 1,296,500	$ 1,224,322	$ 1,127,314
Net Pension Liability as a Percentage of Covered Employee Payroll	101.47 %	141.05 %	386.02 %

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

2021	2020	2019	2018	2017	2016	2015
Total Pension Liability						
$ 226,012	$ 217,127	$ 209,098	$ 203,131	$ 318,401	$ 194,352	$ 187,959
758,002	729,945	703,640	682,903	616,740	658,198	648,233
—	—	—	(50,771)	—	—	—
128,782	30,348	14,491	21,720	37,292	(375,575)	(221,112)
1,361,379	(24,785)	(19,898)	(42,807)	(2,300,201)	2,650,350	—
(592,687)	(567,040)	(547,699)	(528,468)	(512,379)	(498,608)	(481,330)
(3,060)	(3,181)	(3,283)	(1,902)	(2,119)	(2,391)	(1,953)
1,878,428	382,414	356,349	283,806	(1,842,266)	2,626,326	131,797
10,291,567	9,909,153	9,552,804	9,268,998	11,111,264	8,484,938	8,353,141
$ 12,169,995	**$ 10,291,567**	**$ 9,909,153**	**$ 9,552,804**	**$ 9,268,998**	**$ 11,111,264**	**$ 8,484,938**
Plan Fiduciary Net Position						
$ 201,129	$ 193,819	$ 174,817	$ 170,781	$ 166,329	$ 156,065	$ 144,317
129,351	123,525	111,762	105,479	101,984	95,172	88,733
18,000	13,500	13,500	9,000	9,000	9,000	9,000
2,672,826	368,949	609,512	813,966	1,058,942	(8,949)	317,556
(592,687)	(567,040)	(547,699)	(528,468)	(512,379)	(498,608)	(481,330)
(3,060)	(3,181)	(3,283)	(1,902)	(2,119)	(2,391)	(1,953)
(941)	(924)	(1,018)	(886)	(992)	(906)	(803)
23	260	54	58	24	3	84
2,424,641	128,908	357,645	568,028	820,789	(250,614)	75,604
8,973,460	8,844,552	8,486,907	7,918,879	7,098,090	7,348,704	7,273,100
$ 11,398,101	**$ 8,973,460**	**$ 8,844,552**	**$ 8,486,907**	**$ 7,918,879**	**$ 7,098,090**	**$ 7,348,704**
$ 771,894	**$ 1,318,107**	**$ 1,064,601**	**$ 1,065,897**	**$ 1,350,119**	**$ 4,013,174**	**$ 1,136,234**
93.66 %	87.19 %	89.26 %	88.84 %	85.43 %	63.88 %	86.61 %
$ 1,096,195	$ 1,069,481	$ 1,011,421	$ 976,657	$ 944,296	$ 881,222	$ 845,076
70.42 %	123.25 %	105.26 %	109.14 %	142.98 %	455.41 %	134.45 %

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Notes to the Police & Fire Fund Schedule of Changes

Required Supplementary Information

2024 Changes

Changes in Actuarial Assumptions

There were no changes in actuarial assumptions since the prior valuation.

Changes in Plan Provisions

The State contribution of $9.0 million per year will continue until the earlier of 1) both the Police & Fire Plan and the State Patrol Retirement Fund attain 90% funded status for three consecutive years (on an actuarial value of assets basis) or 2) July 1, 2048. The contribution was previously due to expire after attaining a 90% funded status for one year.

The additional $9.0 million contribution will continue until the Police & Fire Plan is fully funded for a minimum of three consecutive years on an actuarial value of assets basis, or July 1, 2048, whichever is earlier. This contribution was previously due to expire upon attainment of fully funded status on an actuarial value of assets basis for one year (or July 1, 2048 if earlier).

2023 Changes

Changes in Actuarial Assumptions

The investment return assumption changed from 6.5% to 7.0%.

The single discount rate changed from 5.4% to 7.0%.

Changes in Plan Provisions

Additional one-time, direct state aid contribution of $19.4 million will be contributed to the Police & Fire Plan on October 1, 2023.

Vesting requirement for new hires after June 30, 2014 changed from a graded 20-year vesting schedule to a graded 10-year vesting schedule, with 50% vesting after five years, increasing incrementally to 100% after 10 years.

A one-time, non-compounding benefit increase of 3.00% will be payable in a lump sum for calendar year 2024 by March 31, 2024.

Psychological treatment is required effective July 1, 2023 before approval for a duty disability benefit for a psychological condition relating to the member's occupation.

The total and permanent duty disability benefit increased, effective July 1, 2023.

2022 Changes

Changes in Actuarial Assumptions

The mortality improvement scale changed from Scale MP-2020 to Scale MP-2021.

The single discount rate changed from 6.5% to 5.4%.

Changes in Plan Provisions

There were no changes in plan provisions since the previous valuation.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

2021 Changes

Changes in Actuarial Assumptions

The investment return and single discount rates changed from 7.5% to 6.50% for financial reporting purposes.

The inflation assumption changed from 2.5% to 2.25%.

The payroll growth assumption changed from 3.25% to 3%.

The base mortality table for healthy annuitants and employees changed from the RP-2014 table to the Pub-2010 Public Safety Mortality table. The mortality improvement scale changed from MP-2019 to MN-2020.

The base mortality table for disabled annuitants changed from the RP-2014 healthy annuitant mortality table (with future mortality improvement according to Scale MP-2019) to the Pub-2010 Public Safety disabled annuitant mortality table (with future mortality improvement according to Scale MP-2020).

Assumed rates of salary increase modified as recommended in the July 14, 2020 experience study. The overall impact is a decrease in gross salary increase rates.

Assumed rates of retirement changed as recommended in the July 14, 2020 experience study. The changes result in slightly more unreduced retirements and fewer assumed early retirements.

Assumed rates of withdrawal changed from select and ultimate rates to service-based rates. The changes result in more assumed terminations.

Assumed rates of disability increased for ages 25–44 and decreased for ages over 49. Overall, proposed rates result in more projected disabilities.

Assumed percent married for active female members was changed from 60% to 70%. Minor changes to form of payment assumptions were applied.

Changes in Plan Provisions

There were no changes in plan provisions since the previous valuation.

2020 Changes

Changes in Actuarial Assumptions

The mortality projection scale changed from MP-2018 to MP-2019.

Changes in Plan Provisions

There were no changes since the prior valuation.

2019 Changes

Changes in Actuarial Assumptions

The mortality projection scale changed from MP-2017 to MP-2018.

Changes in Plan Provisions

There were no changes since the prior valuation.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

2018 Changes

Changes in Actuarial Assumptions

The mortality projection scale changed from MP-2016 to MP-2017.

Changes in Plan Provisions

Annual increases changed to 1% for all years, with no trigger.

An end date of July 1, 2048 was added to the existing $9 million state contribution.

New annual state aid will equal $4.5 million in fiscal years 2019 and 2020 and $9 million thereafter until the plan reaches 100% funding or until July 1, 2048, if earlier.

Member contributions changed from 10.8% to 11.3% of pay, effective January 1, 2019, and 11.8% of pay, effective January 1, 2020.

Employer contributions changed from 16.2% to 16.95% of pay, effective January 1, 2019, and 17.7% of pay, effective January 1, 2020.

Interest credited on member contributions decreased from 4% to 3%, beginning July 1, 2018.

Deferred augmentation changed to 0%, effective January 1, 2019. Augmentation that has already accrued for deferred members will still apply.

Actuarial equivalent factors updated to reflect revised mortality and interest assumptions.

2017 Changes

Changes in Actuarial Assumptions

Assumed salary increases changed as recommended in the June 30, 2016 experience study. The net effect is proposed rates that average 0.34% lower than the previous rates.

Assumed rates of retirement were changed, resulting in fewer retirements.

The combined service annuity (CSA) load was 30% for vested and non-vested, deferred members. The CSA changed to 33% for vested members and 2% for non-vested members.

The base mortality table for healthy annuitants changed from the RP-2000 fully generational table to the RP-2014 fully generational table (with a base year of 2006), with male rates adjusted by a factor of 0.96. The mortality improvement scale changed from Scale AA to Scale MP-2016. The base mortality table for disabled annuitants changed from the RP-2000 disabled mortality table to the mortality tables assumed for healthy retirees.

Assumed termination rates decreased to 3% for the first three years of service. Rates beyond the select period of three years were adjusted, resulting in more expected terminations overall.

Assumed percentage of married female members was decreased from 65% to 60%.

Assumed age difference changed from separate assumptions for male members (wives assumed to be three years younger) and female members (husbands assumed to be four years older) to the assumption that males are two years older than females.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

The assumed percentage of female members electing joint and survivor annuities increased.

The assumed annual benefit increase rate changed from 1% for all years to 1% per year through 2064 and 2.5% thereafter.

The single discount rate changed from 5.6% per year to 7.5% per year.

Changes in Plan Provisions

There were no changes since the prior valuation.

2016 Changes

Changes in Actuarial Assumptions

The assumed annual benefit increase rate changed from 1% per year through 2037 and 2.5% per year thereafter to 1% per year for all future years.

The assumed investment return changed from 7.9% to 7.5%.

The single discount rate changed from 7.9% to 5.6%.

The assumed future salary increases, payroll growth, and inflation decreased by 0.25% to 3.25% for payroll growth and 2.5% for inflation.

Changes in Plan Provisions

There were no changes since the prior valuation.

2015 Changes

Changes in Actuarial Assumptions

The assumed annual increase rate changed from 1% per year through 2030 and 2.5% per year thereafter to 1% per year through 2037 and 2.5% per year thereafter.

Changes in Plan Provisions:

The annual increase to be paid after the attainment of the 90% funding threshold changed from inflation up to 2.5% to a fixed rate of 2.5%.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Correctional Fund Schedule of Changes

Required Supplementary Information (unaudited, in thousands)

Table 2.22 Correctional Fund Schedule of Changes in Net Pension Liability and Related Ratios*

Descriptions	2024	2023	2022
Total Pension Liability			
Service Cost	$ 35,354	$ 45,941	$ 36,877
Interest on the Total Pension Liability	77,971	71,324	66,604
Change of Benefit Terms	26,237	141	—
Difference between Expected and Actual Experience	19,348	26,116	(9,042)
Assumption Changes	—	(309,346)	220,073
Benefit Payments	(29,865)	(27,117)	(23,372)
Refund Payments	(2,559)	(2,369)	(2,713)
Net Change in Total Pension Liability	126,486	(195,310)	288,427
Total Pension Liability--Beginning	1,112,405	1,307,715	1,019,288
Total Pension Liability--Ending (a)	**$ 1,238,891**	**$ 1,112,405**	**$ 1,307,715**
Plan Fiduciary Net Position			
Contributions--Employer	$ 22,209	$ 20,518	$ 19,227
Contributions--Member	14,851	13,894	12,843
Contributions--Nonemployer Contributing Entity	5,256	—	—
Net Investment Income	131,985	87,393	(66,015)
Benefit Payments	(29,865)	(27,117)	(23,372)
Refund Payments	(2,559)	(2,369)	(2,713)
Administrative Expenses	(641)	(434)	(371)
Other	(23)	—	—
Net Change in Plan Fiduciary Net Position	141,213	91,885	(60,401)
Plan Fiduciary Net Position--Beginning	1,067,200	975,315	1,035,716
Plan Fiduciary Net Position--Ending (b)	**$ 1,208,413**	**$ 1,067,200**	**$ 975,315**
Net Pension Liability (a)-(b)	**$ 30,478**	**$ 45,205**	**$ 332,400**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability (b)/(a)	97.54 %	95.94 %	74.58 %
Covered-Employee Payroll	$ 254,735	$ 238,319	$ 220,292
Net Pension Liability as a Percentage of Covered Employee Payroll	11.96%	18.97%	150.89%

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

2021	2020	2019	2018	2017	2016	2015
Total Pension Liability						
$ 32,307	$ 33,172	$ 30,362	$ 45,378	$ 49,202	$ 25,950	$ 25,098
61,462	57,354	52,741	53,811	47,336	40,605	37,043
—	—	—	(66,822)	—	—	—
(3,822)	(12,083)	(1,846)	1,018	(3,516)	382	(7,892)
137,113	(1,977)	(2,206)	(209,457)	(66,147)	310,332	—
(20,088)	(17,569)	(15,381)	(13,183)	(11,033)	(9,381)	(7,777)
(2,140)	(2,709)	(2,244)	(1,364)	(1,478)	(982)	(1,057)
204,832	56,188	61,426	(190,619)	14,364	366,906	45,415
814,456	758,268	696,842	887,461	873,097	506,191	460,776
$ 1,019,288	**$ 814,456**	**$ 758,268**	**$ 696,842**	**$ 887,461**	**$ 873,097**	**$ 506,191**
Plan Fiduciary Net Position						
$ 19,351	$ 19,043	$ 18,676	$ 17,871	$ 17,489	$ 16,490	$ 15,736
12,948	12,692	12,485	11,956	11,666	11,008	10,472
—	—	—	—	—	—	—
238,666	31,774	50,853	62,962	78,363	209	20,373
(20,088)	(17,569)	(15,381)	(13,183)	(11,033)	(9,381)	(7,777)
(2,140)	(2,709)	(2,244)	(1,364)	(1,478)	(982)	(1,057)
(344)	(332)	(361)	(308)	(330)	(290)	(247)
1	—	—	1	—	(2)	(1)
248,394	42,899	64,028	77,935	94,677	17,052	37,499
787,322	744,423	680,395	602,460	507,783	490,731	453,232
$ 1,035,716	**$ 787,322**	**$ 744,423**	**$ 680,395**	**$ 602,460**	**$ 507,783**	**$ 490,731**
$ (16,428)	**$ 27,134**	**$ 13,845**	**$ 16,447**	**$ 285,001**	**$ 365,314**	**$ 15,460**
101.61 %	96.67 %	98.17 %	97.64 %	67.89 %	58.16 %	96.95 %
$ 222,093	$ 217,702	$ 214,151	$ 205,077	$ 200,103	$ 188,816	$ 179,623
(7.40%)	12.46%	6.47%	8.02%	142.43%	193.48%	8.61%

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Notes to the Correctional Fund Schedule of Changes

Required Supplementary Information

2024 Changes

Changes in Actuarial Assumptions

There were no changes in actuarial assumptions since the prior valuation.

Changes in Plan Provisions

Employee contribution rates will increase from 5.83% of pay to 6.83% of pay, effective July 1, 2025.

Employer contribution rates will increase from 8.75% of pay to 10.25% of pay, effective July 1, 2025.

The benefit multiplier changed from 1.9% to 2.2% for service earned after June 30, 2025.

2023 Changes

Changes in Actuarial Assumptions

The investment return rate changed from 6.50% to 7.00%.

The single discount rate changed from 5.42% to 7.00%.

Changes in Plan Provisions

Additional one-time direct state aid contribution of $5.3 million will be contributed to the Plan on October 1, 2023.

A one-time, non-compounding benefit increase of 2.5% minus the actual 2024 adjustment was payable in a lump sum for calendar year 2024 by March 31, 2024.

The maximum benefit increase will revert back to 2.5% if the maximum increase is 1.5% and the Correctional Plan's funding ratio improves to 85% for two consecutive years on a market value of assets basis.

2022 Changes

Changes in Actuarial Assumptions

The mortality improvement scale changed from Scale MP-2020 to Scale MP-2021.

The single discount rate changed from 6.5% to 5.42%.

The benefit increase assumption changed from 2% each year to 2% each year until December 31, 2054 and 1.5% each year thereafter.

Changes in Plan Provisions

There were no changes in plan provisions since the previous valuation.

2021 Changes

Changes in Actuarial Assumptions

The investment return and single discount rates changed from 7.5% to 6.5% for financial reporting purposes.

The inflation assumption changed from 2.5% to 2.25%.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

The payroll growth assumption changed from 3.25% to 3%.

The base mortality table for healthy annuitants and employees changed from the RP-2014 table to the Pub-2010 Public Safety Mortality table. The mortality improvement scale changed from MP-2019 to MN-2020.

The base mortality table for disabled annuitants changed from the RP-2014 healthy annuitant mortality table (with future mortality improvement according to Scale MP-2019) to the Pub-2010 Public Safety disabled annuitant mortality table (with future mortality improvement according to Scale MP-2020).

Assumed rates of salary increase were modified as recommended in the July 10, 2020 experience study. The overall impact is a decrease in gross salary increase rates.

Assumed rates of retirement changed as recommended in the July 10, 2020 experience study. The changes result in slightly more unreduced retirements and fewer assumed early retirements.

Assumed rates of withdrawal changed as recommended in the July 10, 2020 experience study. The new rates predict more terminations, both in the three-year select period (based on service) and the ultimate rates (based on age).

Assumed rates of disability decreased.

Assumed percent married for active members decreased from 85% to 75%.

Minor changes to form of payment assumptions were applied.

Changes in Plan Provisions

There were no changes since the prior valuation.

2020 Changes

Changes in Actuarial Assumptions

The mortality projection scale changed from MP-2018 to MP-2019.

Changes in Plan Provisions

There were no changes since the prior valuation.

2019 Changes

Changes in Actuarial Assumptions

The mortality projection scale changed from MP-2017 to MP-2018.

Changes in Plan Provisions

There were no changes since the prior valuation.

2018 Changes

Changes in Actuarial Assumptions

The single discount rate changed from 5.96% each year to 7.5% each year.

The mortality projection scale changed from MP-2016 to MP-2017.

The assumed annual increase changed from 2.5% per year to 2% per year.

Schedule of Changes in Net Pension Liability and Related Ratios *(Continued)*

Changes in Plan Provisions

The augmentation adjustment in early retirement factors is eliminated over a five-year period starting July 1, 2019, resulting in actuarial equivalence after June 30, 2024.

Interest credited on member contributions decreased from 4% to 3%, beginning July 1, 2018.

Deferred augmentation changed to 0%, effective January 1, 2019. Augmentation already accrued for deferred members still applies.

Annual increases changed from 2.5% each year (with a provision to reduce to 1% if the funding status declines to a certain level) to 100% of the Social Security cost of living adjustment between 1–2.5%, beginning January 1, 2019. If the funding status declines to 85% for two consecutive years or 80% for one year, the maximum increase will be lowered to 1.5%.

Actuarial equivalent factors updated to reflect revised mortality and interest assumptions.

2017 Changes

Changes in Actuarial Assumptions

The base mortality table for healthy annuitants changed from the RP-2000 fully-generational table to the RP-2014 fully-generational table (with a base year of 2006), with male rates adjusted by a factor of 0.96. The mortality improvement scale changed from Scale AA to Scale MP-2016, and is applied to healthy and disabled members. The base mortality table for disabled annuitants changed from the RP-2000 disabled mortality table to the RP-2014 disabled annuitant mortality table (with future mortality improvement according to MP-2016).

The combined service annuity (CSA) load was 30% for vested and non-vested deferred members. The CSA changed to 35% for vested members and 1% for non-vested members.

The single discount rate changed from 5.31% each year to 5.96% each year.

Changes in Plan Provisions

There were no changes since the prior valuation.

2016 Changes

Changes in Actuarial Assumptions

The assumed investment return changed from 7.9% to 7.5%. The single discount rate changed from 7.9% to 5.31%.

The assumed future salary increases, payroll growth, and inflation decreased by 0.25% to 3.25% for payroll growth and 2.5% for inflation.

Changes in Plan Provisions

There were no changes since the prior valuation.

2015 Changes

Changes in Actuarial Assumptions

There were no changes since the prior valuation.

Changes in Plan Provisions

There were no changes since the prior valuation.

Schedule of Contributions from Employers and Nonemployers

General Employees Fund Schedule of Contributions

Required Supplementary Information (in thousands)

Table 2.23 General Employees Fund Schedule of Contributions from Employers and Nonemployers

Year Ended June 30	Actuarially Determined Contribution (A)	Statutorily Determined Contribution (B)	Actual Contributions (C)	Contribution Deficiency (Excess) (A - C)	Covered Payroll (D)	Actual Contribution as a % of Covered Payroll (C / D)
2024	$ 536,433	$ 805,673	$ 805,673	$ (269,240)	$ 8,018,431	10.05%
2023	$ 355,963	$ 597,044	$ 597,044	$ (241,081)	$ 7,493,954	7.97%
2022	$ 368,305	$ 562,291	$ 562,291	$ (193,986)	$ 7,042,154	7.98%
2021	$ 448,278	$ 540,685	$ 540,685	$ (92,407)	$ 6,761,354	8.00%
2020	$ 455,515	$ 525,821	$ 525,821	$ (70,306)	$ 6,698,754	7.85%
2019	$ 453,401	$ 531,444	$ 531,444	$ (78,043)	$ 6,523,754	8.15%
2018	$ 609,725	$ 504,819	$ 504,819	$ 104,906	$ 6,298,815	8.01%
2017	$ 615,083	$ 483,888	$ 483,888	$ 131,195	$ 6,156,985	7.86%
2016	$ 542,151	$ 465,978	$ 465,978	$ 76,173	$ 5,773,708	8.07%
2015	$ 523,017	$ 435,115	$ 435,115	$ 87,902	$ 5,549,255	7.84%

Schedule of Contributions from Employers and Nonemployers *(Continued)*

Notes to the General Employees Fund Schedule of Contributions

Required Supplementary Information

The following methods and assumptions are used to calculate actuarially determined contributions and are, in a few cases, different from the methods and assumptions used to calculate the net pension liability in accordance with Governmental Accounting Standards Board requirements.

Table 2.24 Methods and Assumptions: General Employees Fund

Criteria	Details
Valuation Date:	June 30, 2023
Actuarial Cost Method:	Entry Age Normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	25 years
Asset Valuation Method:	5-year smoothed market, no corridor
Inflation:	2.25%
Payroll Growth Rate:	3.00%
Salary Increases:	3.00% to 10.25% including inflation
Investment Rate of Return:	7.00%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2020 valuation pursuant to an experience study of the period 2014 - 2019.
Mortality:	Pub-2010 General annuitant generational mortality tables, projected with scale MP-2021 from a base year of 2010. Male rates are multiplied by a factor of 1.02 and female rates are multiplied by a factor of 0.90.
Cost-of-Living Increase:	The plan is assumed to pay a 1.25% annual increase for all future years.

Schedule of Contributions from Employers and Nonemployers *(Continued)*

Police & Fire Fund Schedule of Contributions

Required Supplementary Information (in thousands)

Table 2.25 Police & Fire Fund Schedule of Contributions from Employers and Nonemployers

Year Ended June 30	Actuarially Determined Contribution (A)	Statutorily Determined Contribution (B)	Actual Contributions (C)	Contribution Deficiency (Excess) (A - C)	Covered Payroll (D)	Actual Contribution as a % of Covered Payroll (C / D)
2024	$ 260,208	$ 273,613	$ 273,613	$ (13,405)	$ 1,296,500	21.10%
2023	$ 161,733	$ 241,305	$ 241,305	$ (79,572)	$ 1,224,322	19.71%
2022	$ 153,766	$ 224,416	$ 224,416	$ (70,650)	$ 1,127,314	19.91%
2021	$ 174,405	$ 219,129	$ 219,129	$ (44,724)	$ 1,096,195	19.99%
2020	$ 177,855	$ 207,319	$ 207,319	$ (29,464)	$ 1,069,481	19.39%
2019	$ 173,459	$ 188,317	$ 188,317	$ (14,858)	$ 1,011,421	18.62%
2018	$ 193,183	$ 179,781	$ 179,781	$ 13,402	$ 976,657	18.41%
2017	$ 165,252	$ 175,329	$ 175,329	$ (10,077)	$ 944,296	18.57%
2016	$ 189,375	$ 165,065	$ 165,065	$ 24,310	$ 881,222	18.73%
2015	$ 197,325	$ 153,317	$ 153,317	$ 44,008	$ 845,076	18.14%

Schedule of Contributions from Employers and Nonemployers *(Continued)*

Notes to the Police & Fire Fund Schedule of Contributions

Required Supplementary Information

The following methods and assumptions are used to calculate actuarially determined contributions and are, in a few cases, different from the methods and assumptions used to calculate the net pension liability in accordance with Governmental Accounting Standards Board requirements.

Table 2.26 Methods and Assumptions: Police & Fire Fund

Valuation Date:	June 30, 2023
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
Inflation:	2.25%
Payroll Growth Rate:	3.00%
Salary Increases:	3.00% to 11.75% including inflation
Investment Rate of Return:	7.00%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2021 valuation pursuant to an experience study of the period 2015 - 2019.
Mortality:	Pub-2010 Public Safety Mortality Tables projected with mortality improvement scale MP-2021, from a base year of 2010. Male retiree rates adjusted by a factor of 0.98.
Cost of Living Increase:	The plan is assumed to pay a 1.00% post retirement benefit increase for all future years.

Schedule of Contributions from Employers and Nonemployers *(Continued)*

Correctional Fund Schedule of Contributions

Required Supplementary Information (in thousands)

Table 2.27 Correctional Fund Contributions Schedule of Contributions from Employers and Nonemployers

Year Ended June 30	Actuarially Determined Contribution (A)	Statutorily Determined Contribution (B)	Actual Contributions (C)	Contribution Deficiency (Excess) (A - C)	Covered Payroll (D)	Actual Contribution as a % of Covered Payroll (C / D)
2024	$23,206	$27,465	$27,465	($4,259)	$254,734	10.78%
2023	$13,251	$20,518	$20,518	($7,267)	$238,319	8.61%
2022	$13,063	$19,227	$19,227	($6,164)	$220,292	8.73%
2021	$19,167	$19,351	$19,351	($184)	$222,093	8.71%
2020	$19,593	$19,043	$19,043	$550	$217,702	8.75%
2019	$19,466	$18,676	$18,676	$790	$214,151	8.72%
2018	$19,031	$17,871	$17,871	$1,160	$205,077	8.71%
2017	$17,269	$17,489	$17,489	($220)	$200,103	8.74%
2016	$16,446	$16,490	$16,490	($44)	$188,816	8.73%
2015	$13,759	$15,736	$15,736	($1,977)	$179,623	8.76%

Schedule of Contributions from Employers and Nonemployers *(Continued)*

Notes to Schedule of Contributions

Required Supplementary Information

The following methods and assumptions are used to calculate actuarially determined contributions and are, in a few cases, different from the methods and assumptions used to calculate the net pension liability in accordance with Governmental Accounting Standards Board requirements.

Table 2.28 Methods and Assumptions: Correctional Fund

Valuation Date:	June 30, 2023
Actuarial Cost Method:	Entry Age Normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	30 years
Asset Valuation Method:	5-year smoothed market, no corridor
Inflation:	2.25%
Payroll Growth Rate:	3.00%
Salary Increases:	3.00% to 11.00% including inflation
Investment Rate of Return:	7.00%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2021 valuation pursuant to an experience study of the period 2015 - 2019
Mortality:	PUB-2010 annuitant generational Public Safety mortality table projected with mortality improvement scale MP-2021, from a base year of 2010. Male rates adjusted by a factor of 0.98.
Cost-of-Living Increase:	The plan is assumed to pay a 2.00% post-retirement benefit increase for all years.

Schedule of Investment Returns

Required Supplementary Information (unaudited)

Table 2.29 Annual Money-Weighted Rate of Return for Combined Funds

Year	General Employees Fund	Police & Fire Fund	Correctional Fund	Volunteer Firefighter Fund
2024	12.31%	12.29%	12.38%	11.79%
2023	8.90%	8.91%	8.96%	9.29%
2022	(6.23%)	(6.24%)	(6.36%)	(13.08%)
2021	30.29%	30.27%	30.21%	20.61%
2020	4.29%	4.24%	4.24%	6.83%
2019	7.33%	7.31%	7.42%	8.11%
2018	10.47%	10.48%	10.35%	5.83%
2017	15.23%	15.22%	15.22%	10.31%
2016	(0.07%)	(0.09%)	0.08%	2.82%
2015	4.45%	4.46%	4.42%	2.83%

In table 2.29 above, investment performance is presented net of investment management fees and the effect of any profit-sharing arrangements.

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Supporting Schedules

Schedule of Investment Expenses

For the Fiscal Year Ended June 30, 2024
(In thousands)

Table 2.30 Schedule of Investment Expenses

Source of Expenses	General Employees	Police & Fire Plan	Correctional Plan	SVF	DCP	Total
Outside Money Managers--Private Markets	$ 83,469	$ 33,430	$ 3,330	$ —	$ —	$ 120,229
Outside Money Managers--Equities	18,715	7,493	740	67	44	27,059
Outside Money Managers--Fixed Income	6,813	2,721	256	78	27	9,895
Minnesota State Board of Investment	2,975	1,191	118	17	9	4,310
AON Investment	182	73	7	—	—	262
Broadridge	115	46	5	—	—	166
Meketa	161	65	6	—	—	232
Albourne	470	188	19	—	—	677
Total Investment Expenses	**$ 112,900**	**$ 45,207**	**$ 4,481**	**$ 162**	**$ 80**	**$ 162,830**

A Schedule of Investment Fees paid to money managers is provided in the Investment Section of this report.

Supporting Schedules *(Continued)*
Schedule of Payments to Consultants
For the Fiscal Year Ended June 30, 2024
(In thousands)

Table 2.31 Schedule of Payments to Consultants

Payee	Payment
Actuary	
Gabriel Roeder Smith & Co	$ 310
Total Actuary	**310**
Financial Services	
Clifton Larson Allen LLP	145
Carahsoft Tech Corp	62
Enavate SMB LLC	14
Gabriel Roeder Smith & Co	40
Lance Soll & Lunghard LLP	5
Office of the Legislative Auditor	205
SVF Audit Fees	65
US Bank	1
USI Consulting Group	16
Total Financial Services	**553**
Legal	
Administrative Hearings	19
Attorney General	100
Ice Miller LLP	60
Minnesota Management and Budget	8
Total Legal	**187**
Management Consultants	
Access Information Management of MN Inc	23
Carahsoft Tech Corp	25
Do Good	1
Experian Information Solutions Inc	3
GoTo Techonologies USA Inc	2
LexisNexis Risk Data Mgmt	10
Minnesota Management and Budget	19
MRI Software LLC	1
Nighthawk Inc	99
Pension Benefit Information LLC	86
Software House Intl Inc	54
Teachers Retirement Association of Minnesota	1
US Bank	12
Total Management Consultants	**336**

Supporting Schedules *(Continued)*

Payee (Continued)	Payment
Medical Evaluations	
MMRO	450
Total Medical Evaluations	**450**
Information Technology Consultants	
CDW	16
OneNeck IT Solutions	21
Paragon Development Systems	19
Software House International	7
Total System Development	**63**
Total Professional Service Fees	**$ 1,899**

Supporting Schedules *(Continued)*
Schedule of Administrative Expenses
For the Fiscal Year Ended June 30, 2024
(In thousands)

Table 2.32 Schedule of Administrative Expenses

Payee	Payment
Personnel Expenses:	
Staff Salaries	$ 12,264
Part-Time, Seasonal Labor	355
Other Benefits	211
Total Personnel Expenses	**12,830**
Professional Services:	
Actuary	310
Financial	553
Legal	187
Management Consultants	336
Medical Evaluations	450
System Development	63
Total Professional Services	**1,899**
Communications	
Mail & Telephone Services	962
Printing & Advertising	167
Total Communications	**1,129**
Office Building & Maintenance	
Building	496
Depreciation - Building	270
Bond Interest	3
Total Office Building & Maintenance	**769**
Other:	
Depreciation - Equipment	109
Employee Development	103
Equipment	133
Equipment Maintenance	6
Indirect Costs	205
Operating Costs	18
Other Costs	5,439
Software Licenses	725
Supplies & Materials	63
Travel	65
Total Other	**6,866**
Total Administrative Expenses	**$ 23,493**

Supporting Schedules *(Continued)*

Schedule of Administrative Expenses *(Continued)*

Allocation of Administrative Expenses:	Allocation
Defined Benefit Plans	
Public Employees Retirement Fund	*20,579*
Public Employees Police and Fire Fund	*1,747*
Public Employees Correctional Fund	*641*
Statewide Volunteer Firefighter	*245*
Defined Contribution Plan	
Defined Contribution Plan	*281*
Total Administrative Expenses	**$ 23,493**

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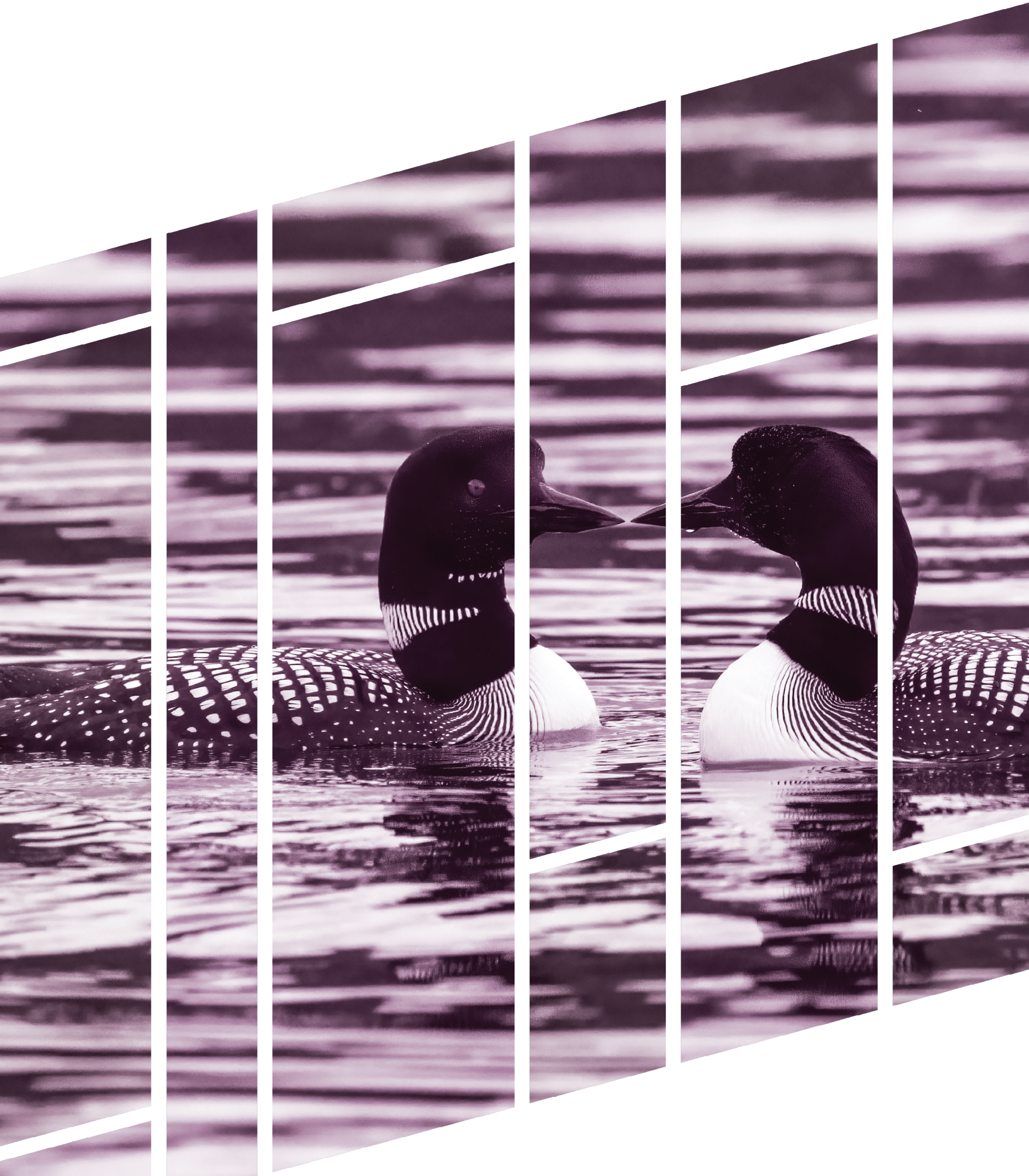
INVESTMENT SECTION

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT



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Investment Report

Board Members:
Governor Tim Walz, Chair
State Auditor Julie Blaha
Secretary of State Steve Simon
Attorney General Keith Ellison

Executive Director & Chief Investment Officer:
Jill E. Schurtz

Minnesota State Board of Investment
60 Empire Drive, Suite 100
St. Paul, MN 55103
Phone: (651) 296-3328
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Email: minn.sbi@state.mn.us
Website: https://mn.gov/sbi
An Equal Opportunity Employer

INVESTMENT AUTHORITY

Minnesota Statutes provide that the Minnesota State Board of Investment (SBI) is responsible for investing the assets of the three statewide public pension plans: the Minnesota State Retirement System (MSRS), the Minnesota Public Employees Retirement Association (PERA), and the Minnesota Teachers Retirement Association (TRA) (See Minnesota Statutes, Chapters 11A and 356A). Each of MSRS, PERA, TRA, and the SBI are separate and independent entities with independent governance structures. Under Article 11, Section 8 of the Minnesota Constitution, the governing body of the SBI includes Minnesota's Governor, Auditor, Secretary of State, and Attorney General. Additionally, a 17-member Investment Advisory Council (IAC), established under Minnesota Statute, advises the SBI and its staff on investment-related matters. PERA's executive director serves as a member of the IAC.

INVESTMENT POLICY

Minnesota law requires the SBI to operate within standard investment practices of the prudent person rule. The SBI is required to "exercise that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived therefrom." (See Minnesota Statutes, section 11A.09 and 356A.04). The SBI is authorized to own government obligations, corporate obligations, various short-term obligations, equity, real estate, and resource investments, whether publicly or privately traded, subject to specific constraints. (See Minnesota Statutes, section 11A.24). The SBI must manage the pension fund assets for the exclusive benefit of the plan participants and beneficiaries. (See Minnesota Statutes, section 356A.05).

INVESTMENT OBJECTIVES AND PERFORMANCE

The SBI invests PERA's pension contributions from employees and employers through a pooled vehicle known as the Combined Funds. The Combined Funds include the assets of the defined benefit plans administered by MSRS, TRA, and PERA. PERA's ownership interest in the Combined Funds is represented by a participation interest in the pooled vehicle.

Because the assets of the Combined Funds are intended to accumulate for extended periods of time, typically spanning decades, the SBI is able to take advantage of the long-term investment return opportunities offered by a diversified investment approach that includes equities and alternative assets. This long-term, institutional investment approach allows the SBI to ensure that sufficient funds are available to make all required distributions to PERA plan participants and beneficiaries and to meet the actuarial assumed rate of return target over appropriate periods of time. The Minnesota legislature is responsible for setting the actuarial assumed rate of return for the three statewide retirement systems, including PERA. The current assumption, which was most recently adjusted by the legislature in 2023, is 7%.

Long-Term Objectives. The long-term objectives of the Combined Funds are to: 1) provide returns that are 3-5 percentage points greater than inflation over the latest 20-year period; and 2) outperform a composite market index weighted in a manner that reflects the actual asset mix of the Combined Funds over the latest 10-year period.

Consistent with these objectives, the SBI maintains a long-term strategic asset allocation policy target for the Combined Funds as follows:

- Public Equity 50%
- Total Fixed Income 25%
- Private Markets 25%

As of June 30, 2024, the SBI met or exceeded each of the Combined Funds' long-term investment objectives: 1) the 20-year annualized return was 8.3%, which exceeded inflation, as measured by CPI, by 5.8 percentage points and 2) the 10-year return was 8.3%, which exceeded the composite index by 0.2%.

Most Recent Fiscal Year Performance and Peer Comparisons. For the one-year period ending June 30, 2024, the Combined Funds returned 12.3%, placing it among the top performing investment funds in the country. Comparing the Combined Funds' investment returns against other public pension plans with over $20 billion in assets within the Trust Universe Comparison Service, the Combined Funds ranked in the: top 17th percentile for the one-year period; top 33rd percentile for the 3-year period; top 20th percentile for the 5-year period; top 15th percentile for the 10-year-period; and the top 12th percentile over the past 20 years.

INVESTMENT PRESENTATION

Investment returns were prepared using a time-weighted rate of return methodology based on fair market value. Performance is presented net of investment management fees and the effect of any profit-sharing arrangements.

On behalf of all of us at the SBI, thank you to the PERA plan participants and beneficiaries - it's a privilege to play a role in contributing to your retirement security. We are grateful for your continued trust and support.

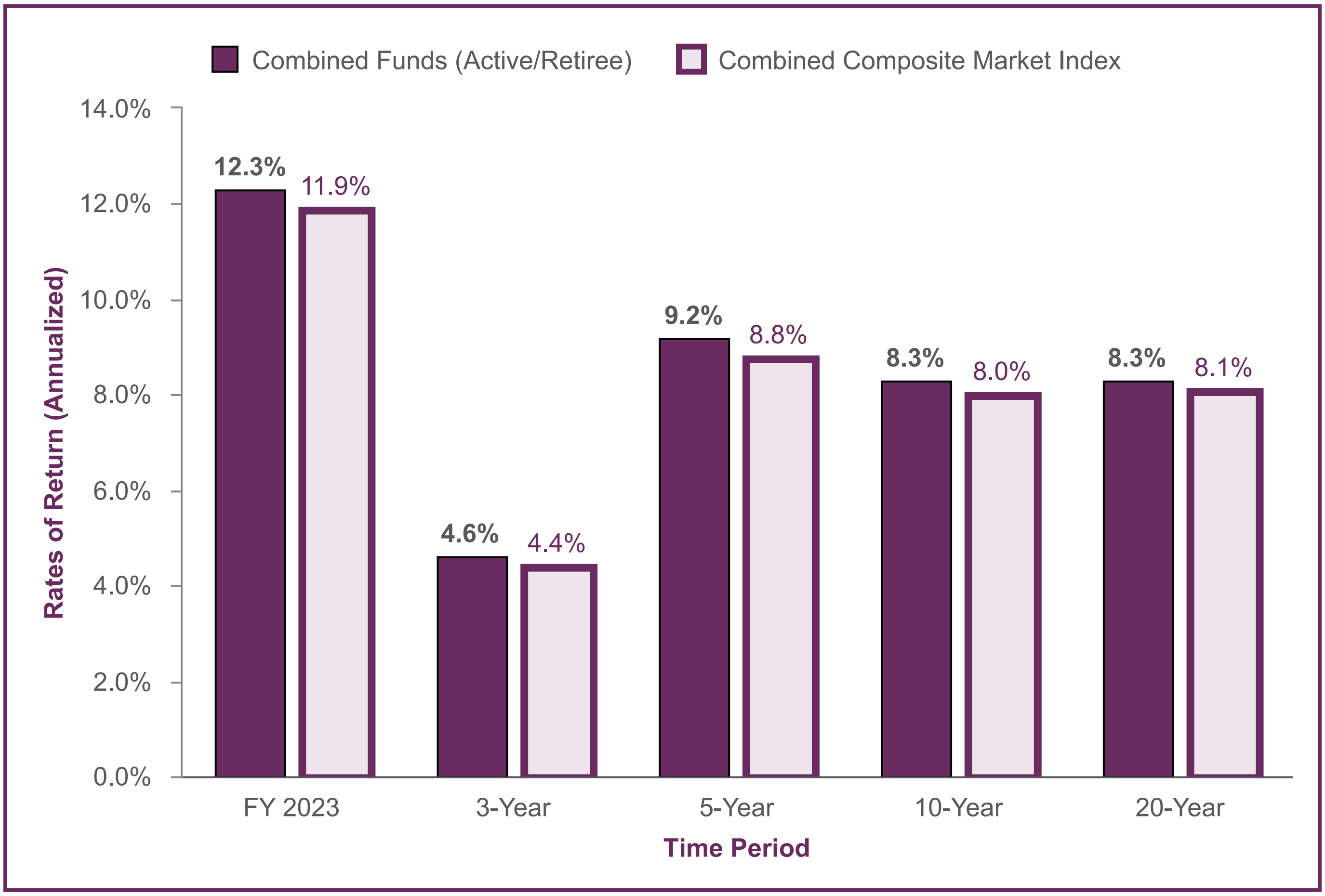
Respectfully submitted,

Jill E. Schurtz

Executive Director and Chief Investment Officer
Minnesota State Board of Investment
December 5, 2024

Investment Results

Figure 3.0 Fund Performance



In figure 3.0 above and table 3.0 below, investment performance is presented net of investment management fees and the effect of any profit-sharing arrangements.

Table 3.0 Fund Performance

	Rates of Return (Annualized)				
Fund	**FY 2024**	**3-Year**	**5-Year**	**10-Year**	**20-Year**
Combined Funds (Active/Retiree)*	12.3%	4.6%	9.2%	8.3%	8.3%
Combined Composite Market Index	11.9%	4.4%	8.8%	8.0%	8.1%

*Percentages are net of all management fees.

Composite indexes are composed of the market indicators described below, weighted according to asset allocation.

Public Equity: The Combined Funds public equity includes domestic equity, international equity, and global equity. The public equity benchmark is 67% Russell 3000 and 33% MSCI ACWI ex US (net).

Fixed Income: The Combined Funds fixed income includes Core/Core Plus, return-seeking fixed income, treasuries, laddered bonds, and cash. The total fixed income benchmark is 40% Bloomberg Barclays US Aggregate Index, 40% Bloomberg Barclays Treasury 5+ Years Index, and 20% ICE BofA US Three-Month Treasury Bill.

Investment Results *(Continued)*

Table 3.1 Investment Returns by Asset Class

Performance of Asset Pools (Net of Fees)	Rates of Return (Annualized)				
Asset Class	**FY 2024**	**3-Year**	**5-Year**	**10-Year**	**20-Year**
Public Equity*	**19.8%**	**5.9%**	**11.7%**	**9.8%**	**9.0%**
Domestic Equity	23.5%	8.0%	14.2%	12.1%	10.1%
Domestic Equity Benchmark	23.1%	8.1%	14.1%	12.1%	10.2%
International Equity	12.8%	2.0%	6.8%	4.7%	6.3%
International Equity Benchmark	11.6%	0.5%	5.5%	3.8%	5.8%
Global Equity***	12.0%	(1.8)%	N/A	N/A	N/A
Global Equity Benchmark	19.4%	5.4%	N/A	N/A	N/A
Fixed Income**	**2.7%**	**(2.8)%**	**0.5%**	**2.1%**	**3.7%**
Core/Core Plus	3.6%	(2.8)%	0.5%	1.9%	3.6%
Core Bonds Benchmark	2.6%	(3.0)%	(0.2)%	1.3%	3.1%
Return Seeking Fixed Income	7.1%	(0.4)%	N/A	N/A	N/A
Return Seeking Fixed Income Benchmark	2.6%	(3.0)%	N/A	N/A	N/A
Treasuries	(1.6)%	(6.6)%	(2.3)%	N/A	N/A
Treasuries Benchmark	(1.7)%	(6.6)%	(2.3)%	N/A	N/A
Laddered Bond + Cash	5.5%	3.0%	2.1%	1.6%	1.8%
Laddered Bond + Cash Benchmark	5.4%	3.0%	2.2%	1.5%	1.6%
Private Markets	**7.7%**	**11.0%**	**12.9%**	**11.6%**	**13.6%**
Private Equity	9.8%	10.8%	16.1%	15.2%	15.7%
Private Credit	9.8%	13.2%	11.5%	12.3%	12.6%
Resources	4.4%	12.8%	4.6%	1.3%	12.6%
Real Estate	(6.7)%	9.0%	8.9%	10.1%	8.7%

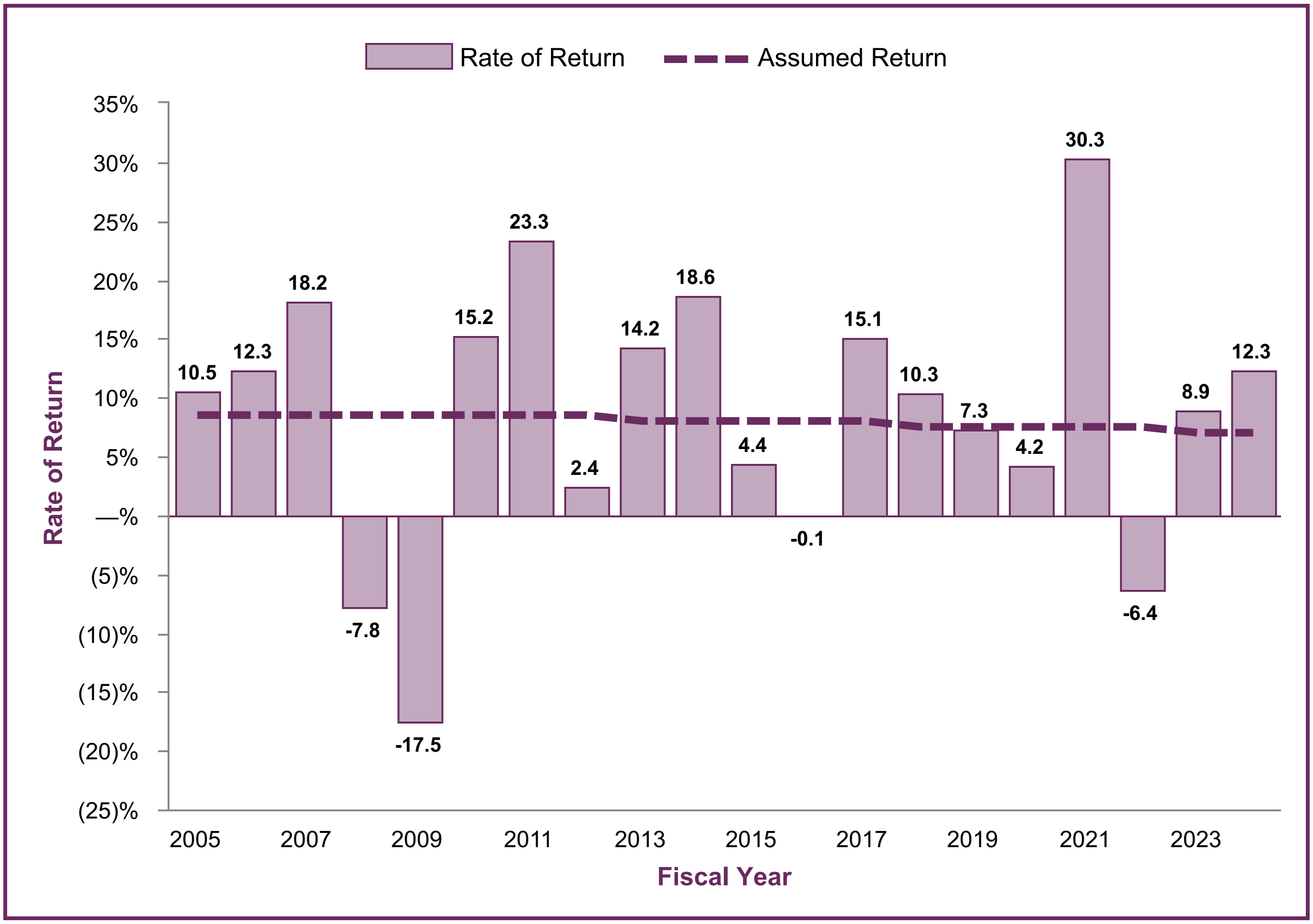
*Before June 30, 2016, the returns of Domestic and International Equity were not reported as a total Public Equity return.

**Since December 1, 2020, the Total Fixed Income includes allocations to Core/Core Plus Bonds, Return Seeking Bonds, Treasuries and Laddered Bond + Cash. From July 1, 2020 to November 30, 2020, Total Fixed Income was Core Bonds, Treasuries, and Cash. From February 1, 2018 to June 30, 2020, Total Fixed Income was Core Bonds and Treasuries. Before February 1, 2018, Total Fixed Income was Core Bonds.

In table 3.1 above, investment performance is prepared using a time-weighted return methodology, based on fair value, net of investment management fees and the effect of any profit-sharing arrangements.

Investment Results *(Continued)*

Table 3.2 SBI Investment Return Compared to Assumed Rate of Return



Investment performance is presented net of all fees, including investment management fees and the effect of any profit-sharing arrangements.

The State Board of Investment (SBI) has exceeded its assumed rate of return of 7% in 2024. Over the last 20 years, the SBI has had annualized investment earnings of 8.3%.

Asset Allocation

As of June 30, 2024

Table 3.3 Combined Funds Asset Allocation

Investment Type	Actual Asset Mix	Policy Target Weight
Public Equity	50.5%	50.0%
Fixed Income	24.9%	25.0%
Private Markets, Invested	24.4%	24.9%
Private Markets, Uninvested	0.2%	0.1%
Total	**100%**	**100%**

Figure 3.1 Asset mix

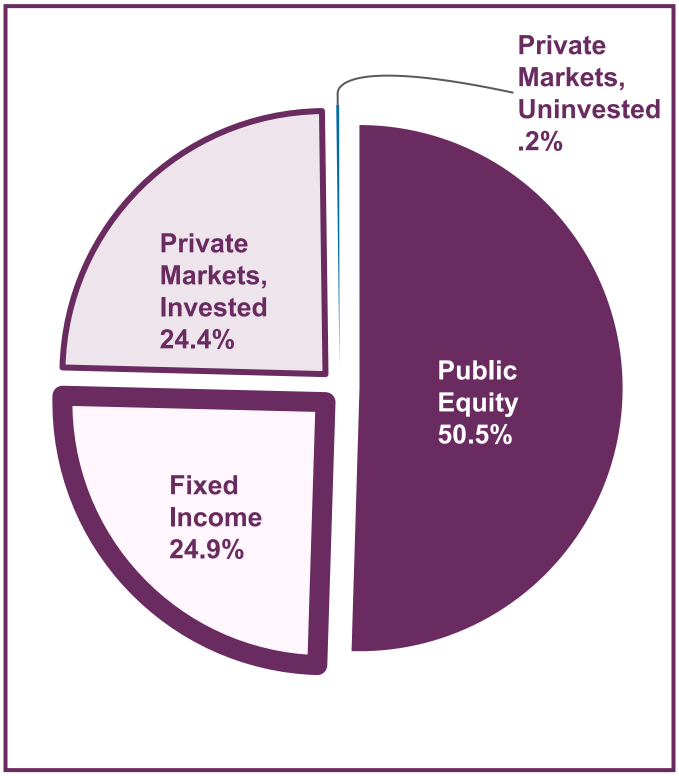
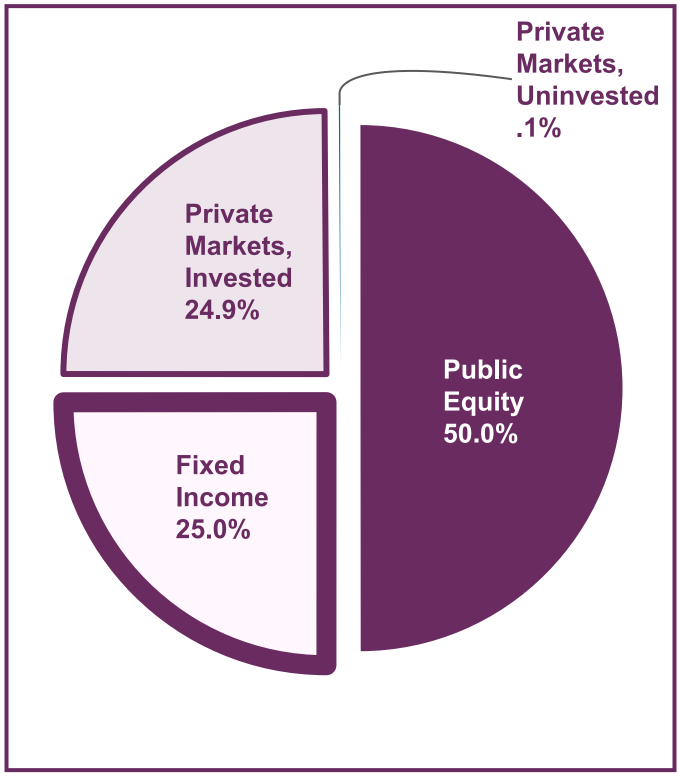


Figure 3.2 Policy target weight



List of Largest Assets Held

As of June 30, 2024

Table 3.4 Top Ten Equity Holdings (By Fair Value)

Security	Fair Value (In millions)	% of Portfolio
MICROSOFT CORP	$944.88	1.30%
NVIDIA CORP	845.03	1.16%
APPLE INC	835.92	1.15%
MSBI SIF	705.80	0.97%
BLACKROCK LONG TERM PRIVATE CA	703.47	0.97%
AMAZON.COM INC	510.87	0.70%
META PLATFORMS INC CLASS A	315.48	0.43%
ALPHABET INC CL A	302.23	0.42%
ALPHABET INC CL C	248.64	0.34%
BROADCOM INC	209.13	0.29%

Table 3.5 Top Ten Fixed Income Holdings (by Fair Value)

Security	Maturity Date	Coupon %	Fair Value (In millions)	% of Portfolio
US TREASURY N/B	11/15/2033	4.500%	$179.70	0.25%
US TREASURY N/B	8/15/2033	3.880%	135.10	0.19%
US TREASURY N/B	2/28/2030	4.000%	128.36	0.18%
US TREASURY N/B	1/31/2030	3.500%	119.54	0.16%
US TREASURY N/B	7/31/2030	4.000%	119.13	0.16%
US TREASURY N/B	11/30/2030	4.380%	117.93	0.16%
US TREASURY N/B	5/31/2030	3.750%	116.17	0.16%
US TREASURY N/B	2/15/2053	3.630%	97.20	0.13%
US TREASURY N/B	11/15/2053	4.750%	90.28	0.12%
US TREASURY N/B	5/15/2048	3.130%	82.77	0.11%

PERA's assets are commingled in pooled investment accounts administered by the State Board of Investment (SBI). The percentages provided in the tables above are the total pooled accounts. The fair value amounts are based on PERA's participation in the pools. Contact the SBI for information on investment activity, a listing of specific investments owned by the pooled accounts, and a schedule of fees and commissions.

Investment Summary at Fair Value

For the Fiscal Year Ended June 30, 2024 (in thousands)

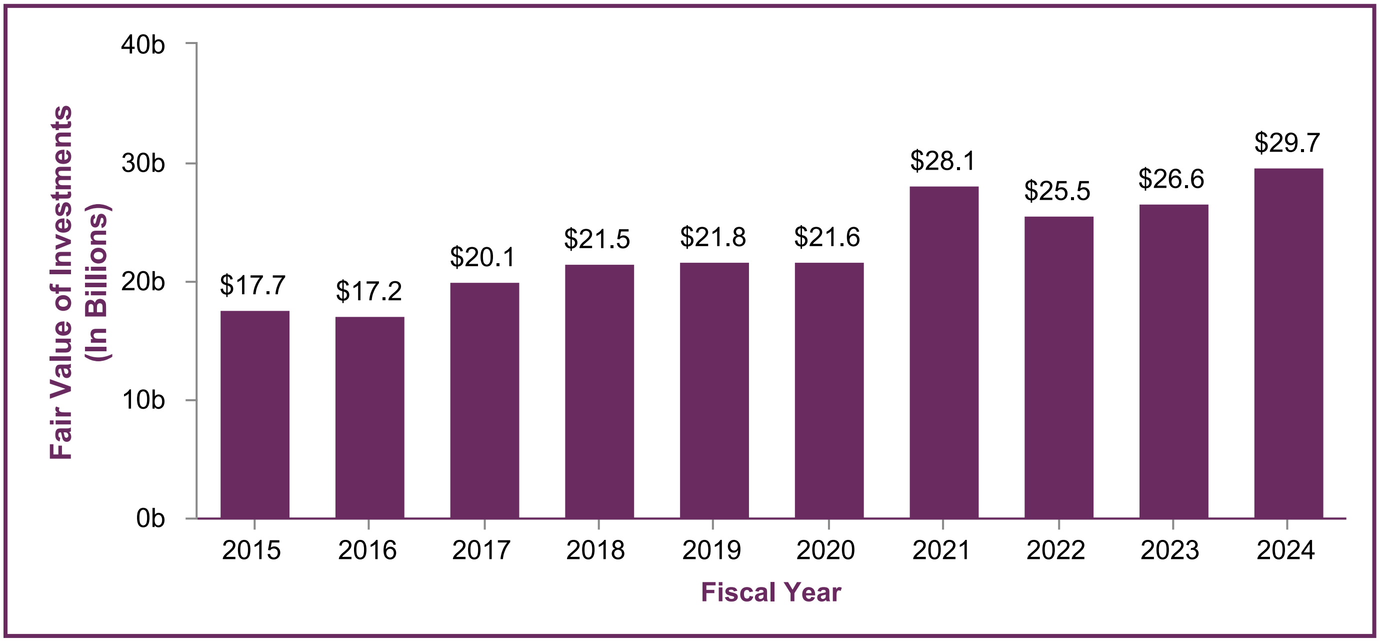
Table 3.6 Investment Summary at Fair Value

Accounts by Fund		2024 Beginning Fair Value		2024 Ending Fair Value	Percent of Total Fair Value
General Employees Fund					
Publicly Traded Equity Securities					
Domestic Equity	$	9,202,021	$	10,133,963	34%
Broad International Stock Pool		4,370,877		4,778,014	16%
Global Equity Pool		315,028		329,521	1%
Publicly Traded Debt Securities		5,830,410		7,050,003	24%
Private Investments		6,928,404		7,353,042	25%
Total Pooled Accounts	**$**	**26,646,740**	**$**	**29,644,543**	**100%**
Police & Fire Fund					
Publicly Traded Equity Securities					
Domestic Equity	$	3,695,840	$	4,053,678	34%
Broad International Stock Pool		1,755,491		1,911,249	16%
Global Equity Pool		125,513		131,287	1%
Publicly Traded Debt Securities		2,337,364		2,817,784	24%
Private Investments		2,782,680		2,941,285	25%
Total Pooled Accounts	**$**	**10,696,888**	**$**	**11,855,283**	**100%**
Correctional Fund					
Publicly Traded Equity Securities					
Domestic Equity	$	359,419	$	409,625	35%
Broad International Stock Pool		170,721		193,132	16%
Global Equity Pool		11,174		11,688	1%
Publicly Traded Debt Securities		223,184		278,227	23%
Private Investments		270,615		297,216	25%
Total Pooled Accounts	**$**	**1,035,113**	**$**	**1,189,888**	**100%**
Volunteer Firefighter Fund					
Publicly Traded Equity Securities					
Domestic Equity	$	55,709	$	65,346	37%
Broad International Stock Pool		22,971		27,505	16%
Publicly Traded Debt Securities		66,111		82,374	47%
Total Pooled Accounts	**$**	**144,791**	**$**	**175,225**	**100%**

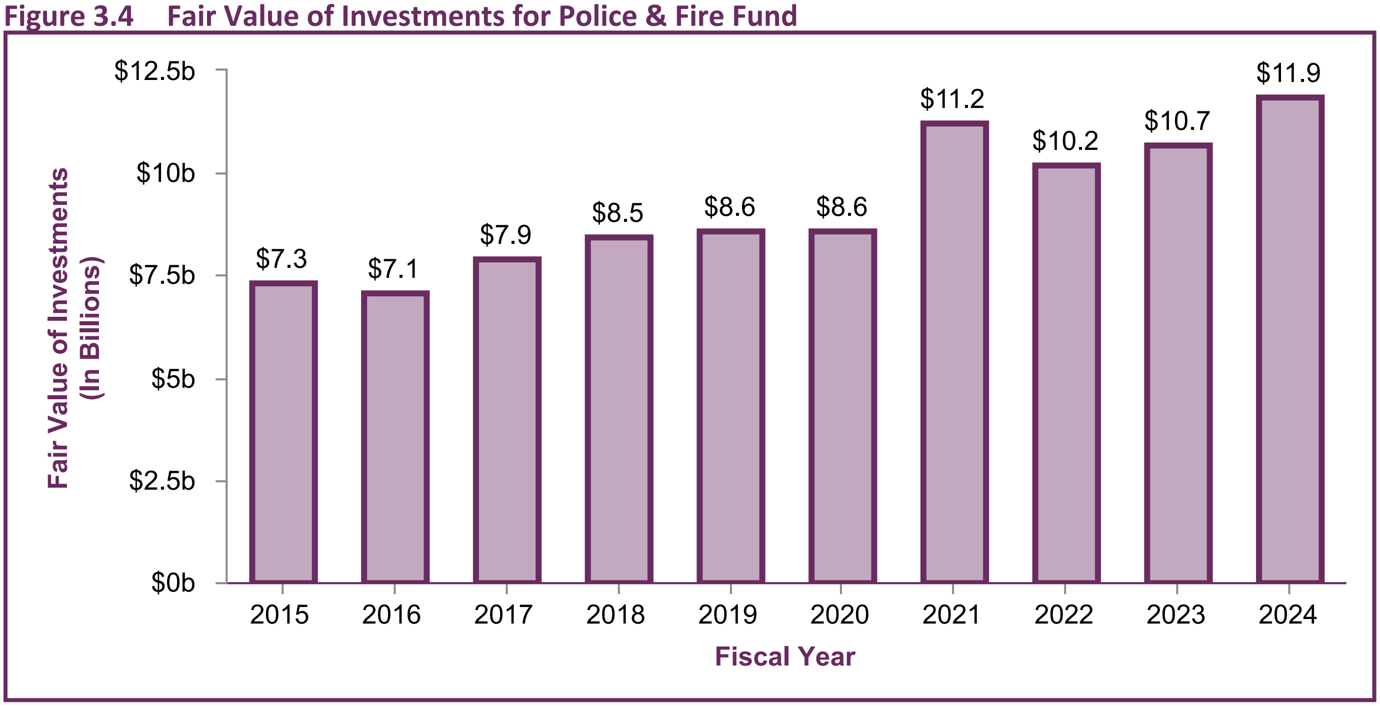
Fair Value of Investments
Last 10 Years

General Employees Fund
The Minneapolis Employees Retirement Fund (MERF) merged into the General Employees Fund on January 1, 2015. For comparison purposes, both funds are combined on this illustration.

Figure 3.3 Fair Value of Investments for General Employees Fund



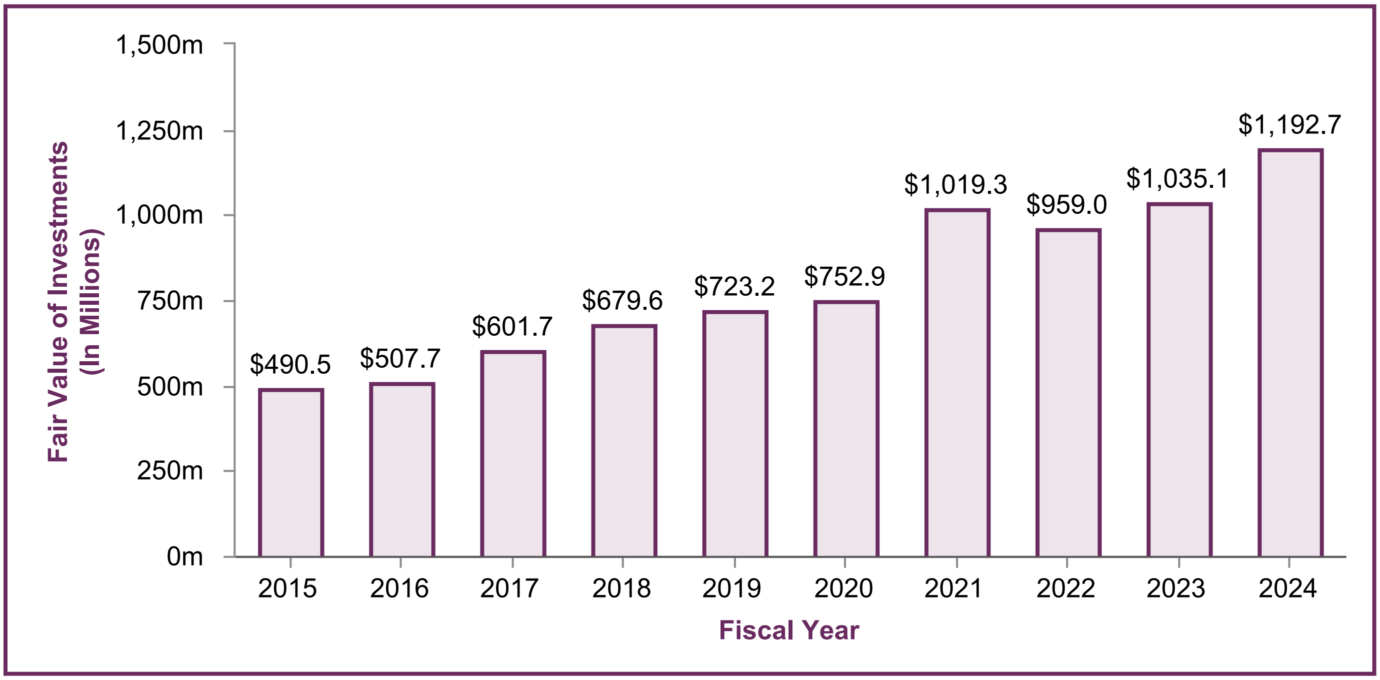
Police & Fire Fund
Figure 3.4 Fair Value of Investments for Police & Fire Fund



Fair Value of Investments *(Continued)*

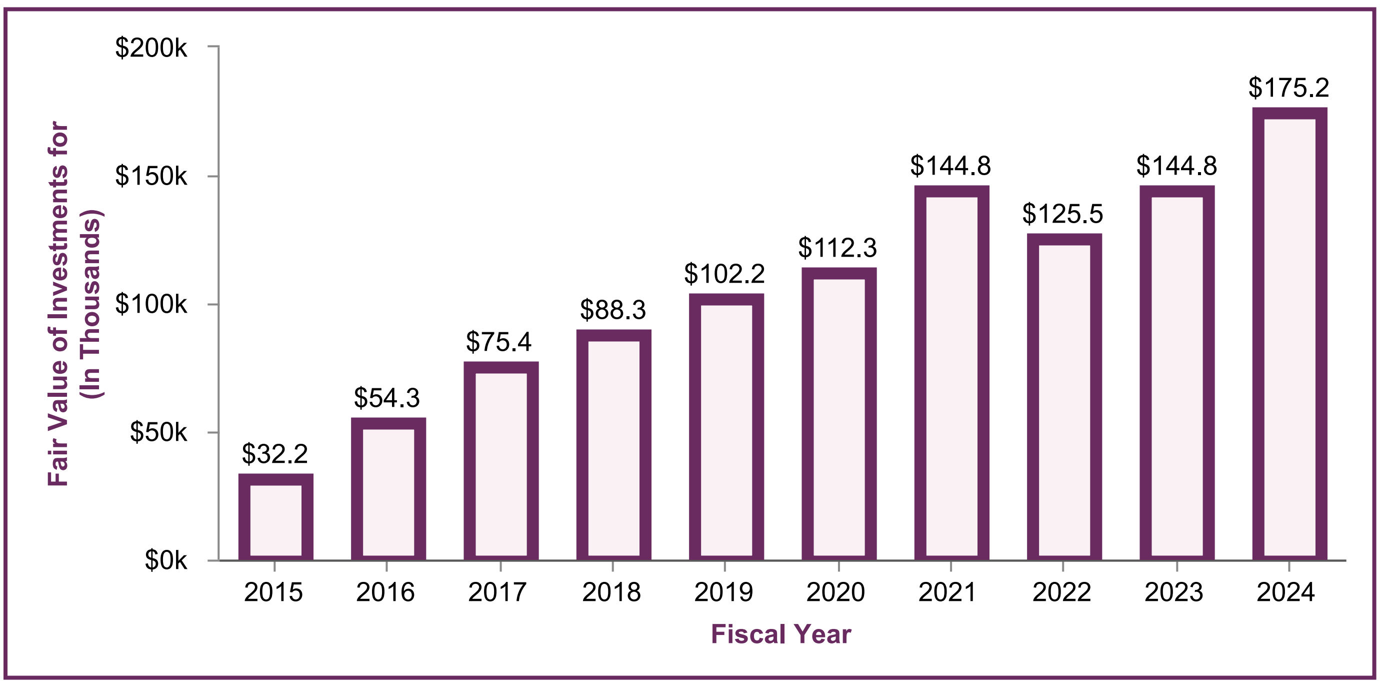
Correctional Fund

Figure 3.5 Fair Value of Investments for Correctional Fund



Statewide Volunteer Firefighter Fund

Figure 3.6 Fair Value of Investments for Statewide Volunteer Firefighter Fund



Schedule of Investment Fees

For Fiscal Year Ended June 30, 2024 (in thousands)

Table 3.7 Schedule of Investment Fees

Investments		Fees
State Board of Investment		4,310
AON Investment		262
Broadridge		166
Meketa		232
Albourne		677
Total	**$**	**5,647**
Outside Money Managers:		
Private Markets		
Undisclosed		120,229
Total	**$**	**120,229**
Active Domestic Equity:		
ZEVENBERGEN CAPITAL		442
WINSLOW CAPITAL		306
BARROW, HANLEY		437
LSV ASSET		387
SANDS CAPITAL		315
PEREGRINE CAPITAL		586
GOLDMAN EQUITY		452
HOTCHKIS AND WILEY		868
MARTINGALE		437
WELLINGTON MANAGEMNT COMPANY LLP		567
ARROWMARK ASSET MANAGEMENT LLC		595
HOOD RIVER CAPITAL MGMT LLC		690
RICE HALL JAMES & ASSCOC. LLC		576
Total	**$**	**6,658**
Passive Domestic Equity:		
Blackrock		12
Passive Domestic Equity Large Cap:		
Blackrock Passive		488
Passive Domestic Equity Small Cap:		
Blackrock Passive		2
Semi Passive Equity:		
Blackrock		808
JP Morgan		800
Total	**$**	**2,110**

Schedule of Investment Fees *(Continued)*

Investments (Continued)		Fees
Domestic Bonds:		
Blackrock Financial Mgmt		315
Dodge & Cox		523
Goldman		475
Neuberger		472
Western Asset Management		534
Total	**$**	**2,319**
Return Seeking Fixed Income:		
Columbia		600
Pimco		911
Blackrock		895
Ashmore EMD		640
KKR High Yield		413
Oaktree High Yield		504
PGIM FI Mac		520
Payden & Rygel Mav		489
TCW		559
Ashmore		3
Total	**$**	**5,534**
International Equity:		
Acadian Asset		903
State Street Emerging		226
AQR Capital Management		42
Fidelity Investments GPK2		632
JP Morgan Fleming		627
Earnest Partners, LLC		535
Macquarie/Delaware Investments		946
Martin Currie, Inc.		933
Marathon Asset		629
Morgan Stanley Dean Witter		1,374
Neuberger Berman Investment		875
Pzena Investment Management		1,779
Rock Creek		1,245
Columbia Investments		669
State Street		324
Record Currency		3,953
Earnest Partners, LLC		734
Ashmore		12
Total	**$**	**16,438**

Schedule of Investment Fees *(Continued)*

Investments (Continued)		Fees
Global Equity:		
Martin Currie Global Equity		470
Ariel Global Equity		846
Baillie Gifford Global Equity		537
Total	**$**	**1,853**
Treasury Protection Pool:		
Blackrock Financial		592
Goldman Sachs		554
Neuberger Berman		561
Total	**$**	**1,707**
Ladder Portfolio:		
Goldman		166
Neuberger		162
Total	**$**	**328**
Uninvested Private Markets:		
NISA Cash Overlay		—
Blackrock S&P 500		—
Total	**$**	**—**
Supplemental Investment Funds		
Galliard - Fixed Income		7
Total		**7**
Total Investment Fees	**$**	**162,830**

In the table above, the effective expense ratio reflects investment management fees based on average account values for the fiscal year.

- The effective expense ratio for total PERA investments was 0.38% in 2024.
- The effective expense ratio of PERA's defined benefit funds portion of public markets was 0.13%.
- The effective expense ratio of PERA's defined benefit funds portion of private markets was 1.14%.

PERA's assets are commingled in pooled investment accounts administered by the State Board of Investment (SBI). The SBI uses outside money managers and consultants to invest the assets. The amounts in the Schedule of Investment Fees represent PERA's share of fees paid to the SBI and fees paid by the SBI to consultants and money managers. Contact the SBI for a listing of commissions paid to money managers.

ACTUARIAL SECTION

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

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Actuary's Certification Letter

December 3, 2024

Board of Trustees
Public Employees Retirement Association of Minnesota (PERA)
60 Empire Drive, Suite 200
St. Paul, Minnesota 55103-2088

Dear Members of the Board:

We have previously prepared and presented to you our annual actuarial valuation of the General Employees Retirement Plan, the Public Employees Police and Fire Plan, and the Local Government Correctional Service Retirement Plan as of July 1, 2024. In order to gain a full understanding of the actuarial condition of the plans, it is important to read and understand the full actuarial reports and potentially other relevant information, in addition to this Annual Comprehensive Financial Report. The actuarial reports are available on PERA's website, along with online copies of this and previous Annual Comprehensive Financial Reports. Reading this Annual Comprehensive Financial Report is not a substitute for reading the actuarial reports.

Valuation Results

The fundamental financing objective of the fund is to establish contribution rates which will remain approximately level as a percentage of active member payroll from generation to generation and meet the required deadline for full funding. The results of the valuations for funding purposes are summarized in the following table. They are based upon the statutory 7.00% discount rate. For all of the plans, because the valuations smooth asset gains and losses over five years, the actuarial value of assets is lower than the market value of assets. The funding ratios and contribution sufficiencies/(deficiencies) on both bases are presented in the following table:

	Accrued Liability Funding Ratio		Contribution Sufficiency/ (Deficiency) (% of Pay)		
Plan	**Actuarial Value of Assets**	**Market Value of Assets**	**Actuarial Value of Assets**	**Market Value of Assets**	**Statutory Amortization Date**
General Employees	86.70%	89.08%	2.15%	2.77%	2048
Police & Fire	87.77%	90.17%	(0.06)%	1.51%	2048
Correctional Service	94.93%	97.54%	(2.67)%*	(1.93)%*	2048

**Does not reflect 2.5% in future statutory contribution increases.*

Actuary's Certification Letter *(Continued)*

A contribution sufficiency means that the fund is expected to meet the goal of full funding by (or before) the statutory amortization date. A contribution deficiency means the opposite; full funding will not be attained by the statutory amortization date.

The funded ratio measurements shown on the previous page are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations (of transferring the obligations to an unrelated third party in an arm's length market value transaction). The measurements also are dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amounts of future required contributions will be different from those calculated in the actuarial reports due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement of 100% is not synonymous with no required future contributions. A plan with a funded status of 100% would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).

The following changes were recognized this year by the General Employees Retirement Plan:

- The workers' compensation offset for disability benefits was eliminated.
- The actuarial equivalent factors were updated to reflect the changes in assumptions.
- Rates of merit and seniority were adjusted, resulting in slightly higher rates.
- Assumed rates of retirement were adjusted as follows: increase the rate of assumed unreduced retirements, slight adjustments to Rule of 90 retirement rates, and slight adjustments to early retirement rates for Tier 1 and Tier 2 members.
- Minor increase in assumed withdrawals for males and females.
- Lower rates of disability.
- Continued use of Pub-2010 general mortality table with slight rate adjustments as recommended in the most recent experience study.
- Minor changes to form of payment assumptions for male and female retirees.
- Minor changes to assumptions made with respect to missing participant data.

The following changes were recognized this year by the Public Employees Police and Fire Plan:

- The statutory amortization date was changed from June 30, 2049 to June 30, 2048.

Actuary's Certification Letter *(Continued)*

The following changes were recognized this year by the Local Government Correctional Service Retirement Plan:

- Employee contribution rates will increase from 5.83% of pay to 6.83% of pay, effective July 1, 2025.
- Employer contribution rates will increase from 8.75% of pay to 10.25% of pay, effective July 1, 2025.
- The benefit multiplier was changed from 1.9% to 2.2%, for service earned after June 30, 2025.
- The statutory amortization date was changed from June 30, 2053 to June 30, 2048.

GRS performed a brief review of the basic financial and membership data provided to us by the Association as of June 30, 2024, and determined that the data appears reasonable in comparison to last year. We have relied upon the data as submitted in performing the actuarial valuation and preparing trend data schedules. The actuarial cost method and the assumptions related to asset valuation and investment return are specified by State Statute. All other assumptions are defined in the standards for actuarial work adopted by the Legislative Commission on Pensions and Retirement (LCPR), and are based on actual experience with changes recommended by the actuary, adopted by the PERA Board, and approved by the LCPR.

The assumptions and methods used for funding purposes meet the guidance set by the Actuarial Standards of Practice. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. However, note that a recent experience study recommended material changes to demographic assumptions for the Public Employees Police and Fire Plan and the Local Government Correctional Service Retirement Plan. The proposed assumption changes have been accepted by the PERA Board, and must be approved by the LCPR in order to take effect. Additional detail about these changes can be found in the experience study for the 2019-2023 period issued on July 31, 2024, and the related cost impact study issued on June 10, 2024.

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

The actuary prepared the following supporting schedules in the Actuarial Section of the Annual Comprehensive Financial Report:

- Schedule of Funding Progress;
- Determination of Contribution Sufficiency;
- Determination of Actuarial Value of Assets; and
- Schedule of Changes in Unfunded Actuarial Accrued Liabilities.

All other supporting schedules in the Actuarial Section, along with the Schedule of Changes in Net Pension Liabilities and Related Ratios and the Schedule of Contributions from Employers and Non-Employers in the Financial Section of the Annual Comprehensive Financial Report were prepared by PERA based on information included in the actuary's annual valuation.

Actuary's Certification Letter *(Continued)*

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

To the best of our knowledge and belief, the valuations were performed in accordance with generally accepted actuarial principles and procedures, current Governmental Accounting Standards Board (GASB) pronouncements, the requirements of Minnesota Statutes, Section 356.215, and the requirements of the Standards for Actuarial Work established by the LCPR. In our opinion, the results of the valuations reflect the actuarial position of the plans on an ongoing basis under the prescribed assumptions, methods, and procedures.

Bonita J. Wurst and Sheryl L. Christensen are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. In addition, GRS meets the requirements of “approved actuary” under Minnesota Statutes Section 356.215, Subdivision 1, Paragraph (c). The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Bonita J. Wurst

Bonita J. Wurst, ASA, EA, FCA, MAAA

Sheryl Christensen

Sheryl L. Christensen, FSA, EA, FCA, MAAA
BJW/SLC:rl

Summary of Actuarial Assumptions and Methods

PERA implemented GASB Statement 67 (GASB 67) in fiscal year 2014. GASB 67 requires pension plans to calculate and disclose a net pension liability in Notes to the Financial Statements and Required Supplementary Information using a specific set of actuarial methods and assumptions.

The schedules in the Actuarial Section of the *Annual Comprehensive Financial Report (ACFR)* are based on actuarial assumptions and methods specified by Minnesota Statutes or approved by the Legislative Commission on Pensions and Retirement (LCPR) to determine funding requirements. PERA's actuary conducts experience studies of PERA's demographics for each plan to develop demographic assumptions.

PERA's actuary uses the funding actuarial assumptions disclosed on the following pages to prepare the actuarial valuations. The Actuarial Section includes the Summary of Actuarial Assumptions and Methods and the year adopted for each cost-sharing, multiple-employer defined benefit plan.

While some of the actuarial assumptions used for GASB financial reporting are the same as those used for funding purposes, there are differences. For example, GASB 67 requires using the fair value of assets to calculate the net pension liability for reporting purposes. Minnesota Statutes require using the actuarial value of assets (averaged over a five-year period) to calculate the unfunded actuarial accrued liability for funding purposes.

A summary of plan provisions is available in the Notes to the Financial Statements. The Minnesota legislature is responsible for establishing and maintaining a funding policy.

Summary of Actuarial Assumptions and Methods *(Continued)*

Table 4.0 Sensitivity Analysis

$ in Billions, Contributions as % of Pay	Using 6%	Using 7%	Using 8%
General Employees Retirement Plan			
Normal Cost Rate	***10.62%***	***8.57%***	***7.08%***
Amortization of Unfunded Liability			
Level % of Pay to 2048	6.17%	3.45%	0.76%
Expenses, % of Pay	0.27%	0.27%	0.27%
Total Required Contribution, % of Pay	17.06%	12.29%	8.11%
Contribution Sufficiency/(Deficiency), % of Pay	(2.62)%	2.15%	6.33%
Accrued Liability Funding Ratio	76.80%	86.70%	97.00%
Present Value of Projected Benefits (a)	$ 45.70	$ 39.40	$ 34.50
Present Value of Future Normal Costs (b)	$ 7.50	$ 5.50	$ 4.20
Actuarial Accrued Liability (a-b)	**$ 38.20**	**$ 33.90**	**$ 30.30**
Unfunded Accrued Liability	**$ 8.90**	**$ 4.50**	**$ 0.90**
Police & Fire Retirement Plan			
Normal Cost Rate	***29.80%***	***23.35%***	***18.57%***
Amortization of Unfunded Liability			
Level % of Pay to 2048	15.22%	8.01%	0.88%
Expenses, % of Pay	0.14%	0.14%	0.14%
Total Required Contribution, % of Pay	45.16%	31.50%	19.59%
Contribution Sufficiency/(Deficiency), % of Pay	(13.72)%	(0.06)%	11.85%
Accrued Liability Funding Ratio	77.40%	87.80%	98.60%
Present Value of Projected Benefits (a)	$ 19.20	$ 16.30	$ 14.10
Present Value of Future Normal Costs (b)	$ 4.00	$ 2.90	$ 2.20
Actuarial Accrued Liability (a-b)	**$ 15.20**	**$ 13.40**	**$ 11.90**
Unfunded Accrued Liability	**$ 3.40**	**$ 1.60**	**$ 0.20**
Local Correctional Retirement Plan			
Normal Cost Rate	***19.71%***	***15.56%***	***12.58%***
Amortization of Unfunded Liability			
Level % of Pay to 2048	581.00%	1.44%	(2.48)%
Expenses, % of Pay	0.25%	0.25%	0.25%
Total Required Contribution, % of Pay	25.77%	17.25%	10.35%
Contribution Sufficiency/(Deficiency), % of Pay	(11.19)%	(2.67)%	4.23%
Accrued Liability Funding Ratio	80.80%	94.90%	110.30%
Present Value of Projected Benefits (a)	$ 1,891.40	$ 1,557.00	$ 1,305.40
Present Value of Future Normal Costs (b)	$ 435.30	$ 318.10	$ 239.50
Actuarial Accrued Liability (a-b)	**$ 1,456.10**	**$ 1,238.90**	**$ 1,065.90**
Unfunded Accrued Liability	**$ 280.00**	**$ 62.80**	**$ (110.30)**

Summary of Actuarial Assumptions and Methods *(Continued)*
General Employees Plan

The assumptions listed in the table below were used to determine the value of the liabilities and benefits under the General Plan. Actuarial assumptions are determined by Minnesota Statutes, the Legislative Commission on Pensions and Retirement (LCPR), or the PERA Board of Trustees. Unless noted otherwise, the assumptions described below are based on the experience study published June 27, 2019 and a review of inflation and investment assumptions published June 29, 2023. An experience study for 2018–2022 was issued on June 29, 2023. This report recommended changes to economic and demographic assumptions, expected to be effective at a future date. The allowance for combined service annuity assumptions is based on an analysis completed by the LCPR actuary and documented in the Combined Service Annuity and Coverage by More Than One Retirement System Provisions Study as of July 1, 2015 report published October 2016.

Table 4.1 Summary of Actuarial Assumptions for the General Plan

Actuarial Cost Method	Entry Age Normal, with costs allocated as a level percentage of payroll. Actuarial gains reduce the unfunded actuarial accrued liability, while actuarial losses increase the unfunded actuarial accrued liability. (1960)*
Asset Valuation Method	Fair market value smoothed over five years. (2008)
Investment return	7.00% per year. (2024)
Benefit increases after retirement	1.25% per year. (2018)
Salary increases	Reported salary at valuation date increased according to the rate table, to current fiscal year and annually for each future year. Prior fiscal year salary is annualized for members with less than one year of service earned during the year. (2018)
Inflation	2.25% per year. (2020)
Payroll growth	3.00% per year. (2020)
Mortality rates: **Healthy pre-retirement**	Pub-2010 General Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021. Rates are multiplied by a factor of 1.07 for males and 0.98 for females.
Mortality rates: **Healthy post-retirement**	Pub-2010 Healthy General Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021. Rates are multiplied by a factor of 1.02 for males and 0.90 for females.
Mortality rates: **Disabled retirees**	Pub-2010 General/Teacher Disabled Retiree Mortality Table adjusted for mortality improvements using projection scale MP-2021. Rates are set forward two years for males and set forward four years for females.
Mortality rates: ***Note***	*The Pub-2010 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 18–80 and the annuitant mortality table contains mortality rates for ages 50–120. We have extended the annuitant mortality table as needed for members younger than age 50 who are receiving a benefit by deriving rates based on the employee table and the juvenile table. Similarly, we have extended the employee table as needed for members older than age 80 by deriving rates based on the annuitant table.*
Retirement	Members retiring from active status are assumed to retire according to the age related rates shown in the tables. Members who have attained the highest assumed retirement age are assumed to retire in one year. (2016)
Withdrawal	Service-related rates based on experience; see table of sample rates. (2016)

Summary of Actuarial Assumptions and Methods *(Continued)*

Disability	Age-related rates based on experience; see table of sample rates. (2016)
Allowance for combined service annuity	Liabilities for former members are increased by 15.0% for vested members and 3.0% for non-vested members to account for the effect that some participants have eligibility for a Combined Service Annuity. (2017)
Administrative expenses	Prior year administrative expenses expressed as percentage of prior year projected payroll. (1989)
Refund of contributions	For non-vested members, account balances accumulate interest until the assumed commencement date and are discounted back to the valuation date. Active members decrementing after becoming eligible for a deferred benefit are assumed to take the contributions accumulated with interest if larger than the value of the benefit.
Commencement of deferred	Members receiving deferred annuities (including current benefits terminated deferred members) are assumed to begin receiving benefits at Normal Retirement.
Percentage married	80% of male and 70% of female active members are assumed to be married. Actual marital status is used for members in payment status.
Age of spouse	Males are assumed to have a beneficiary three years younger, while females are assumed to have a beneficiary one year older. For members in payment status, actual spouse date of birth is used, if provided.
Eligible children	Retiring members are assumed to have no dependent children.
Form of payment	Married members retiring from active status are assumed to elect subsidized joint and survivor form of annuity as follows:
Males:	10% elect 25% Joint & Survivor option
	15% elect 50% Joint & Survivor option
	10% elect 75% Joint & Survivor option
	45% elect 100% Joint & Survivor option
Females:	10% elect 25% Joint & Survivor option
	10% elect 50% Joint & Survivor option
	5% elect 75% Joint & Survivor option
	30% elect 100% Joint & Survivor option
	Remaining married members and unmarried members are assumed to elect the Straight Life option.
	Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a straight life annuity.
Eligibility testing	Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.
Decrement operation	Withdrawal decrements do not operate during retirement eligibility. Decrements are assumed to occur mid-fiscal year.
Service credit accruals	It is assumed that members accrue one year of service credit per year.
Pay increases	Pay increases are assumed to happen at the beginning of the fiscal year. This is equivalent to assuming that reported earnings are pensionable earnings for the year ending on the valuation date.
Changes in actuarial assumptions	The statutory investment return assumption was changed from 7.50% to 7.00%.

*Year in parentheses is the date of adoption.

Summary of Actuarial Assumptions and Methods *(Continued)*
General Employees Plan

Table 4.2 Mortality Assumptions in the General Plan

	Percentage of Members Dying Each Year*					
	Healthy Post-Retirement Mortality**		Healthy Pre-Retirement Mortality**		Disability Mortality**	
Age	Male	Female	Male	Female	Male	Female
20	0.04%	0.01%	0.04%	0.01%	0.48%	0.31%
25	0.04%	0.01%	0.03%	0.01%	0.37%	0.25%
30	0.06%	0.02%	0.05%	0.02%	0.56%	0.44%
35	0.08%	0.03%	0.07%	0.03%	0.79%	0.70%
40	0.10%	0.04%	0.09%	0.04%	1.00%	0.93%
45	0.13%	0.06%	0.11%	0.05%	1.24%	1.18%
50	0.31%	0.20%	0.14%	0.07%	1.70%	1.65%
55	0.44%	0.28%	0.21%	0.11%	2.24%	2.09%
60	0.68%	0.39%	0.32%	0.18%	2.84%	2.46%
65	0.99%	0.58%	0.47%	0.26%	3.41%	2.63%
70	1.53%	0.92%	0.65%	0.40%	4.01%	3.05%
75	2.55%	1.63%	0.96%	0.66%	5.10%	4.26%
80	4.59%	3.02%	1.53%	1.12%	7.26%	6.64%
85	8.49%	5.78%	6.55%	4.67%	10.98%	10.69%
90	14.85%	10.89%	13.62%	10.23%	16.90%	15.93%

*Generally, mortality rates are expected to increase as age increases. These standard mortality rates have been adjusted slightly to prevent decreasing mortality rates. If the rates were not adjusted as described, the valuation results would not be materially different.

**Rates are adjusted for mortality improvements using Scale MP-2021 from a base year of 2010.

Summary of Actuarial Assumptions and Methods *(Continued)*

Table 4.3 Age at Disability Retirement Assumptions in the General Plan

	Disability Retirement	
Age	Male	Female
20	0.01%	0.01%
25	0.01%	0.01%
30	0.01%	0.01%
35	0.02%	0.01%
40	0.03%	0.03%
45	0.04%	0.04%
50	0.08%	0.07%
55	0.18%	0.10%
60	0.37%	0.15%
65	0.00%	0.00%
70	0.00%	0.00%

Summary of Actuarial Assumptions and Methods *(Continued)*

Table 4.4 Salary Scale and Withdrawal Assumptions in the General Plan

	Salary Scale	% Withdrawals	
Year	Increase	Male	Female
1	11.50%	22.00%	23.50%
2	6.75%	16.00%	17.25%
3	6.00%	11.00%	13.00%
4	5.50%	9.00%	11.00%
5	5.25%	7.50%	9.50%
6	5.00%	6.50%	8.50%
7	4.75%	6.00%	7.50%
8	4.50%	5.00%	7.00%
9	4.40%	5.00%	6.80%
10	4.40%	5.00%	6.40%
11	4.20%	4.75%	6.20%
12	4.10%	4.25%	5.50%
13	4.00%	3.75%	4.50%
14	3.90%	3.50%	4.35%
15	3.80%	3.25%	4.25%
16	3.70%	3.25%	4.00%
17	3.60%	3.25%	3.75%
18	3.50%	2.75%	3.40%
19	3.50%	2.50%	3.20%
20	3.40%	2.25%	2.80%
21	3.30%	2.00%	2.60%
22	3.30%	1.75%	2.60%
23	3.20%	1.75%	2.60%
24	3.20%	1.70%	2.60%
25	3.10%	1.65%	2.30%
26	3.10%	1.60%	2.10%
27	3.10%	1.55%	2.00%
28	3.00%	1.50%	2.00%
29	3.00%	1.50%	2.00%
30+	3.00%	1.50%	2.00%

Summary of Actuarial Assumptions and Methods *(Continued)*

Police & Fire Plan

The following assumptions were used to value the liabilities and benefits under the Police & Fire Plan. Actuarial assumptions are determined by Minnesota Statutes, the LCPR, or the board of trustees. Unless noted otherwise, the assumptions described below are based on the experience study dated July 14, 2020 and a review of inflation and investment assumptions in the General Employees Retirement Plan Experience Study dated June 29, 2023. The Allowance for Combined Service Annuity assumptions are based on an analysis completed by the LCPR actuary and documented in a report dated October 2016.

Table 4.5 Summary of Actuarial Assumptions for the Police & Fire Plan

Actuarial Cost Method	Entry Age Normal, with costs allocated as a level percentage of payroll. Actuarial gains (losses) reduce (increase) the unfunded actuarial accrued liability. (1960)*
Asset Valuation Method	Fair market value smoothed over five years. (2008)
Investment return	7.00% per annum. (2024)
Benefit increases after retirement	1.00% for all years, no trigger. (2018)
Salary increases	Reported salary at valuation date increased according to the rate table, to current fiscal year and annually for each future year. Prior fiscal year salary is annualized for members with less than one year of service earned during the year. (2018)
Inflation	2.25% per year. (2021)
Payroll growth	3.00% per year. (2021)
Mortality rates: **Healthy pre-retirement**	Pub-2010 Public Safety Employee Mortality Table adjusted for mortality improvements using projection scale MP-2021
Mortality rates: **Healthy post-retirement**	Pub-2010 Healthy Retired Public Safety Mortality Table adjusted for mortality improvements using projection scale MP-2021. Male rates are multiplied by a factor of 0.98.
Mortality rates: **Disabled retirees**	Pub-2010 Public Safety Disabled Retiree Mortality Table, adjusted for mortality improvements using projection scale MP-2021. Males rates are multiplied by a factor of 1.05.
Mortality rates: ***Note***	*The Pub-2010 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 18–80 and the annuitant mortality table contains mortality rates for age 50–120. We have extended the annuitant mortality table as needed for members and beneficiaries younger than age 50 who are receiving a benefit by deriving rates based on the employee table and the juvenile table. Similarly, we have extended the employee table as needed for members older than age 80 by deriving rates based on the annuitant table.*
Retirement	Members retiring from active status are assumed to retire according to the age related rates shown in the rate table. Members who have attained the highest assumed retirement age are assumed to retire in one year. Note that significant plan changes reflected in this report may result in behavior changes that are not anticipated in the current retirement rates. (2016)
Withdrawal	Service related rates based on actual experience; see table of sample rates. (2021)

Summary of Actuarial Assumptions and Methods *(Continued)*

Disability	Age-related rates based on experience; see table of sample rates. All incidences are assumed to be duty-related. (2021)
Allowance for combined service annuity	Liabilities for former members are increased by 33.0% for vested members and 2.0% for non-vested members to account for the effect of some participants having eligibility for a Combined Service Annuity. (2017)
Administrative expenses	Prior year administrative expenses expressed as percentage of prior year projected payroll. (1989)
Refund of contributions	For non-vested members, account balances accumulate interest until the assumed commencement date and are discounted back to the valuation date. Active members decrementing after becoming eligible for a benefit are assumed to take the contributions accumulated with interest if larger than the value of the benefit.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 55.
Percentage married	85% of male and 70% of female active members are assumed to be married. Actual marital status is used for members in payment status.
Age of spouse	Males are assumed to be two years older than females. For members in payment status, actual spouse date of birth is used, if provided.
Eligible children	Retiring members are assumed to have no dependent children.
Form of payment	Married members retiring from active status are assumed to elect subsidized joint and survivor form of annuity as follows:
Males:	7.5% elect 25% Joint & Survivor option
	15% elect 50% Joint & Survivor option
	12.5% elect 75% Joint & Survivor option
	55% elect 100% Joint & Survivor option
Females:	15% elect 25% Joint & Survivor option
	30% elect 50% Joint & Survivor option
	5% elect 75% Joint & Survivor option
	20% elect 100% Joint & Survivor option
	Remaining married members and unmarried members are assumed to elect the Straight Life option. Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a straight life annuity.
Eligibility testing	Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.
Decrement operation	Withdrawal decrements do not operate during retirement eligibility. Decrements are assumed to occur mid-fiscal year.
Service credit accruals	It is assumed that members accrue one year of service credit per year.
Pay increases	Pay increases are assumed to happen at the beginning of the fiscal year. This is equivalent to assuming that reported earnings are pensionable earnings for the year ending on the valuation date.
Changes in actuarial assumptions	The statutory investment return assumption was changed from 7.50% to 7.00%.

*Year in parentheses is the date of adoption.

Summary of Actuarial Assumptions and Methods *(Continued)*

Table 4.6 Mortality Assumptions in the Police & Fire Plan

	Percentage of Members Dying Each Year*					
	Healthy Post-Retirement Mortality**		Healthy Pre-Retirement Mortality**		Disability Mortality**	
Age	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.02%	0.13%	0.06%
25	0.04%	0.02%	0.04%	0.02%	0.13%	0.08%
30	0.06%	0.04%	0.06%	0.04%	0.18%	0.12%
35	0.07%	0.05%	0.07%	0.05%	0.22%	0.17%
40	0.09%	0.06%	0.08%	0.06%	0.25%	0.20%
45	0.13%	0.08%	0.09%	0.07%	0.28%	0.22%
50	0.18%	0.13%	0.11%	0.08%	0.35%	0.27%
55	0.28%	0.25%	0.17%	0.12%	0.48%	0.45%
60	0.51%	0.46%	0.27%	0.17%	0.78%	0.72%
65	0.86%	0.73%	0.41%	0.22%	1.24%	1.00%
70	1.41%	1.15%	0.70%	0.39%	1.84%	1.40%
75	2.43%	1.98%	1.26%	0.78%	2.99%	2.11%
80	4.41%	3.56%	2.36%	1.62%	5.19%	3.56%
85	8.12%	6.37%	7.41%	5.58%	8.77%	6.37%
90	14.43%	11.20%	14.72%	11.20%	15.46%	11.20%

*Generally, mortality rates increase as age increases. These standard mortality rates have been adjusted slightly to prevent decreasing mortality rates. If the rates were not adjusted, the valuation results would not be materially different.

**Rates are adjusted for mortality improvements using Scale MP-2021 from a base year of 2010.

Table 4.7 Vested Membership and Disability Retirement Assumptions in the Police & Fire Plan

	Vesting Percent if Hired		
Years of Service	Before 7/1/10	After 6/30/10 & Before 7/1/14	After 6/30/14
< 3	100.00%	0.00%	0.00%
3 - 4	100.00%	100.00%	0.00%
5	100.00%	100.00%	50.00%
6	100.00%	100.00%	60.00%
7	100.00%	100.00%	70.00%
8	100.00%	100.00%	80.00%
9	100.00%	100.00%	90.00%
10+	100.00%	100.00%	100.00%

	Disability Retirement	
Age	Male	Female
20	0.11%	0.11%
25	0.14%	0.14%
30	0.21%	0.21%
35	0.34%	0.34%
40	0.54%	0.54%
45	0.62%	0.62%
50	0.95%	0.95%
55	1.30%	1.30%
60	1.30%	1.30%

Summary of Actuarial Assumptions and Methods *(Continued)*

Table 4.8 Rates of Service, Withdrawal, and Salary Scale Assumptions in the Police & Fire Plan

	Rates of Service		Withdrawal		Salary Scale
Age	Retirement	Year	Rates	Year	Increase
50	7.50%	1	6.00%	1	11.75%
51	5.00%	2	4.00%	2	9.25%
52	5.00%	3	2.75%	3	8.00%
53	7.50%	4	2.50%	4	7.00%
54	10.00%	5	2.50%	5	5.50%
55	30.00%	6	2.25%	6	4.80%
56	20.00%	7	2.25%	7	4.60%
57	22.50%	8	2.00%	8	4.30%
58	25.00%	9	2.00%	9	4.10%
59	25.00%	10	2.00%	10	4.00%
60	20.00%	11	1.75%	11	3.90%
61	25.00%	12	1.50%	12	3.80%
62	30.00%	13	1.50%	13	3.70%
63	27.50%	14	1.50%	14	3.60%
64	27.50%	15	1.50%	15	3.50%
65	50.00%	16	1.50%	16	3.50%
66	40.00%	17	1.50%	17	3.50%
67	50.00%	18	1.25%	18	3.50%
68	50.00%	19	1.25%	19	3.40%
69	50.00%	20	1.25%	20	3.40%
70+	100.00%	21+	1.00%	21	3.40%
				22	3.30%
				23	3.15%
				24+	3.00%

Summary of Actuarial Assumptions and Methods *(Continued)*
Correctional Plan

The following assumptions were used to determine the value of the liabilities and benefits in the Correctional Plan. All actuarial assumptions are determined by Minnesota Statutes, the LCPR, or the board of trustees. Unless noted otherwise, the assumptions described are based on the experience study dated July 10, 2020 and a review of inflation and investment assumptions in the General Employees Retirement Plan Experience Study dated June 29, 2023. The Allowance for Combined Service Annuity assumptions are based on an analysis completed by the LCPR actuary and documented in a report dated October 2016.

Table 4.9 Summary of Actuarial Assumptions for the Correctional Plan

Actuarial Cost Method	Entry Age Normal, with costs allocated as a level percentage of payroll. Actuarial gains (losses) reduce (increase) the unfunded actuarial accrued liability. (1999)*
Asset Valuation Method	Fair market value smoothed over five years. (2008)
Investment return	7.00% per annum. (2024)
Benefit increases after retirement	2.00% per annum. (2018)
Salary increases	Reported salary at valuation date increased according to the rate table, to current fiscal year and annually for each future year. Prior fiscal year salary is annualized for members with less than one year of service earned during the year. (2018)
Inflation	2.25% per year. (2021)
Payroll growth	3.00% per year. (2021)
Mortality rates: **Healthy pre-retirement**	Pub-2010 Public Safety Mortality Table adjusted for mortality improvements using projection scale MP-2021.
Mortality rates: **Healthy post-retirement**	Pub-2010 Healthy Retired Public Safety Mortality Table adjusted for mortality improvements using projections scale MP-2021. Male rates are adjusted by a factor of 0.98.
Mortality rates: **Disabled retirees**	Pub-2010 Public Safety Disabled Retiree Mortality Table adjusted for mortality improvements using projection scale MP-2021. Male rates are adjusted by a factor of 1.05.
Mortality rates: ***Note***	*The Pub-2010 employee mortality table as published by the Society of Actuaries (SOA) contains mortality rates for ages 18–80 and the annuitant mortality table contains mortality rates for ages 50–120. We have extended the annuitant mortality table as needed for members and beneficiaries younger than 50 who are receiving a benefit by deriving rates based on the employee table and the juvenile table. Similarly, we have extended the employee table as needed for members older that age 80 by deriving rates based on the annuitant table.*
Retirement	Members retiring from active status are assumed to retire according to the age related rates shown in the rate table. Members who have attained the highest assumed retirement age are assume to retire in one year. Note that significant plan changes reflected in this report may result in behavior changes that are not anticipated in the current retirement rates. (2016)

Summary of Actuarial Assumptions and Methods *(Continued)*

Withdrawal	Select and Ultimate rates based on actual experience. Ultimate rates after the third year are shown in rate table. Select rates in the first three years are:
	Year / **Select Withdrawal Rates**
	1 / 27%
	2 / 23%
	3 / 17%
Disability	Age-related rates based on experience; see table of sample rates. All incidences are assumed to be duty-related.
Allowance for combined service annuity	Liabilities for former members are increased by 35.0% for vested members and 1.0% for non-vested members to account for the effect of some participants having eligibility for a Combined Service Annuity. (2017)
Administrative expenses	Prior year administrative expenses expressed as percentage of prior year projected payroll. (1989)
Refund of contributions	For non-vested members, account balances accumulate interest until the assumed commencement date and are discounted back to the valuation date. Active members decrementing after becoming eligible for a benefit are assumed to take the contributions accumulated with interest if larger than the value of the benefit.
Commencement of deferred benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 55.
Percentage married	75% of active members are assumed to be married. Actual marital status is used for members in payment status.
Age of spouse	Females are assumed to be three years younger than their male spouses. For members in payment status, actual spouse date of birth is used, if provided.
Eligible children	Retiring members are assumed to have no dependent children.
Form of payment	Married members retiring from active status are assumed to elect subsidized joint and survivor form of annuity as follows:
Males:	10% elect 25% Joint & Survivor option
	15% elect 50% Joint & Survivor option
	5% elect 75% Joint & Survivor option
	50% elect 100% Joint & Survivor option
Females:	10% elect 25% Joint & Survivor option
	10% elect 50% Joint & Survivor option
	5% elect 75% Joint & Survivor option
	25% elect 100% Joint & Survivor option
	Remaining married members and unmarried members are assumed to elect the Straight Life option.
	Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a straight life annuity.
Eligibility testing	Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.
Decrement operation	Withdrawal decrements do not operate during retirement eligibility. Decrements are assumed to occur mid-fiscal year.

Summary of Actuarial Assumptions and Methods *(Continued)*

Service credit accruals	It is assumed that members accrue one year of service credit per year.
Pay increases	Pay increases are assumed to happen at the beginning of the fiscal year. This is equivalent to assuming that reported earnings are pensionable earnings for the year ending on the valuation date.
Changes in actuarial assumptions	The statutory investment return assumption was changed from 7.50% to 7.00%.

*Year in parentheses is the date of adoption.

Table 4.10 Mortality Assumptions in the Correctional Plan

	Percentage of Members Dying Each Year*					
	Healthy Post-Retirement Mortality**		Healthy Pre-Retirement Mortality**		Disability** Mortality	
Age	Male	Female	Male	Female	Male	Female
20	0.04%	0.02%	0.04%	0.02%	0.13%	0.06%
25	0.04%	0.02%	0.04%	0.02%	0.13%	0.08%
30	0.06%	0.04%	0.06%	0.04%	0.18%	0.12%
35	0.07%	0.05%	0.07%	0.05%	0.22%	0.17%
40	0.09%	0.06%	0.08%	0.06%	0.25%	0.20%
45	0.13%	0.08%	0.09%	0.07%	0.28%	0.22%
50	0.18%	0.13%	0.11%	0.08%	0.35%	0.27%
55	0.28%	0.25%	0.17%	0.12%	0.48%	0.45%
60	0.51%	0.46%	0.27%	0.17%	0.78%	0.72%
65	0.86%	0.73%	0.41%	0.22%	1.24%	1.00%
70	1.41%	1.15%	0.70%	0.39%	1.84%	1.40%
75	2.43%	1.98%	1.26%	0.78%	2.99%	2.11%
80	4.41%	3.56%	2.36%	1.62%	5.19%	3.56%
85	8.12%	6.37%	7.41%	5.58%	8.77%	6.37%
90	14.43%	11.20%	14.72%	11.20%	15.46%	11.20%

*Generally, mortality rates increase as age increases. These standard mortality rates have been adjusted slightly to prevent decreasing mortality rates. If the rates were not adjusted, the valuation results would not be materially different.

**Rates are adjusted for mortality improvement using Scale MP-2021 from a base year of 2010.

Summary of Actuarial Assumptions and Methods *(Continued)*

Table 4.11 Disability Retirement Assumptions in the Correctional Plan

	Withdrawal Rates		Disability Retirement	
Age	Male	Female	Male	Female
20	17.00%	17.00%	0.04%	0.04%
25	17.00%	17.00%	0.06%	0.06%
30	11.00%	13.00%	0.10%	0.08%
35	7.50%	9.00%	0.18%	0.17%
40	5.50%	6.50%	0.21%	0.18%
45	3.50%	4.75%	0.31%	0.39%
50	3.00%	3.00%	0.55%	0.70%
55	0.00%	0.00%	0.78%	0.93%
60	0.00%	0.00%	0.92%	1.30%
65	0.00%	0.00%	1.00%	1.30%

Table 4.12 Rates of Service and Salary Scale Assumptions in the Correctional Plan

	Rates of Service	Salary Scale	
Age	Retirement	Age	Increase
50	5.00%	20	11.00%
51	5.00%	25	7.75%
52	5.00%	30	6.00%
53	5.00%	35	5.50%
54	7.00%	40	4.75%
55	15.00%	45	4.00%
56	10.00%	50	3.75%
57	11.00%	55	3.50%
58	11.00%	60	3.00%
59	11.00%	65	3.00%
60	15.00%	70+	3.00%
61	15.00%		
62	25.00%		
63	25.00%		
64	30.00%		
65	40.00%		
66	50.00%		
67	40.00%		
68	30.00%		
69	40.00%		
70+	100.00%		

Schedule of Funding Progress

Last 10 Years (in thousands, unaudited)

Table 4.13 General Employees Plan Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)-Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a) / c]
6/30/2024	$29,354,976	$33,858,933	$ 4,503,957	86.70%	$8,018,431	56.2%
6/30/2023	$27,665,822	$33,092,665	$ 5,426,843	83.60%	$7,493,954	72.4%
6/30/2022	$26,397,045	$30,189,649	$ 3,792,604	87.44%	$7,042,154	53.9%
6/30/2021	$24,909,060	$29,215,560	$ 4,306,500	85.26%	$6,761,354	63.7%
6/30/2020	$22,792,333	$28,626,916	$ 5,834,583	79.62%	$6,698,754	87.1%
6/30/2019	$21,979,022	$27,969,744	$ 5,990,722	78.58%	$6,523,754	91.8%
6/30/2018	$21,129,746	$27,101,067	$ 5,971,321	77.97%	$6,298,815	94.8%
6/30/2017	$19,916,322	$25,615,722	$ 5,699,400	77.75%	$6,156,985	92.6%
6/30/2016	$18,765,863	$24,848,409	$ 6,082,546	75.52%	$5,773,708	105.3%
6/30/2015	$17,974,439	$23,560,951	$ 5,586,512	76.29%	$5,549,255	100.7%

Table 4.14 Police & Fire Plan Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)-Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a) / c]
6/30/2024	$11,744,115	$13,380,841	$1,636,726	87.77%	$1,296,500	126.2%
6/30/2023	$11,105,741	$12,765,798	$1,660,057	87.00%	$1,224,322	135.6%
6/30/2022	$10,563,877	$11,351,467	$787,590	93.06%	$1,127,314	69.9%
6/30/2021	$9,931,003	$10,793,845	$862,842	92.01%	$1,096,195	78.7%
6/30/2020	$9,036,069	$10,291,567	$1,255,498	87.80%	$1,069,481	117.4%
6/30/2019	$8,661,613	$9,909,153	$1,247,540	87.41%	$1,011,421	123.3%
6/30/2018	$8,320,094	$9,552,804	$1,232,710	87.10%	$976,657	126.2%
6/30/2017	$7,840,549	$9,199,208	$1,358,659	85.23%	$944,296	143.9%
6/30/2016	$7,385,777	$8,417,621	$1,031,844	87.74%	$881,222	117.1%
6/30/2015	$7,076,271	$8,460,477	$1,384,206	83.64%	$845,076	163.8%

Schedule of Funding Progress *(Continued)*

Table 4.15 Correctional Plan Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)- Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a) / c]
6/30/2024	$1,176,113	$1,238,891	$62,778	94.93%	$254,734	24.6%
6/30/2023	$1,075,475	$1,112,405	$36,930	96.68%	$238,319	15.5%
6/30/2022	$992,811	$944,741	($48,070)	105.09%	$220,292	(21.8)%
6/30/2021	$904,434	$870,567	($33,867)	103.89%	$222,093	(15.2)%
6/30/2020	$794,221	$814,456	$20,235	97.52%	$217,702	9.3%
6/30/2019	$729,570	$758,268	$28,698	96.22%	$214,151	13.4%
6/30/2018	$666,012	$696,842	$30,830	95.58%	$205,077	15.0%
6/30/2017	$595,366	$629,870	$34,504	94.52%	$200,103	17.2%
6/30/2016	$529,879	$553,840	$23,961	95.67%	$188,816	12.7%
6/30/2015	$475,963	$498,052	$22,089	95.56%	$179,623	12.3%

Solvency Test

Last 10 Years (in thousands, unaudited)

Table 4.16 General Employees Plan Solvency Test

	Actuarial Accrued Liability For:			Portion of Accrued Liabilities Covered by Valuation Assets			
Valuation Date	Active Member Contribution (1)	Current Retirees and Beneficiaries (2)	Active Members (Employer Financed) Portion (3)	Valuation Assets	1	2	3
06/30/24	$3,939,985	$21,817,959	$8,100,989	$29,354,976	100%	100%	44.4%
06/30/23	$3,748,106	$21,651,247	$7,693,312	$27,665,822	100%	100%	34.4%
06/30/22	$3,614,311	$20,019,859	$6,555,479	$26,397,045	100%	100%	34.4%
06/30/21	$3,567,480	$19,086,577	$6,561,503	$24,909,060	100%	100%	13.5%
06/30/20	$3,471,543	$18,409,104	$6,746,269	$22,792,333	100%	100%	10.3%
06/30/19	$3,346,315	$17,944,118	$6,679,311	$21,979,022	100%	100%	10.6%
06/30/18	$3,239,795	$17,185,254	$6,676,018	$21,129,746	100%	100%	14.5%
06/30/17	$3,148,413	$15,800,416	$6,666,893	$19,916,322	100%	100%	0.7%
06/30/16	$3,018,468	$15,706,371	$6,123,570	$18,765,863	100%	100%	6.6%
06/30/15	$2,915,621	$14,666,626	$5,978,704	$17,974,439	100%	100%	3.5%

Table 4.17 Police & Fire Plan Solvency Test

	Actuarial Accrued Liability For:			Portion of Accrued Liabilities Covered by Valuation Assets			
Valuation Date	Active Member Contribution (1)	Current Retirees and Beneficiaries (2)	Active Members (Employer Financed) Portion (3)	Valuation Assets	1	2	3
06/30/24	$1,141,486	$8,651,835	$3,587,520	$11,744,115	100 %	100 %	54.4%
06/30/23	$1,068,742	$8,362,512	$3,334,544	$11,105,741	100 %	100 %	50.2%
06/30/22	$1,034,615	$7,453,436	$2,863,416	$10,563.877	100 %	100 %	72.5%
06/30/21	$1,007,796	$6,980,151	$2,805,898	$9,931.003	100 %	100 %	69.2%
06/30/20	$990,616	$6,448,667	$2,852,284	$9,036.069	100 %	100 %	56.0%
06/30/19	$923,025	$6,271,401	$2,714,727	$8,661.613	100 %	100 %	54.0%
06/30/18	$877,470	$6,021,677	$2,653,657	$8,320.094	100 %	100 %	53.5%
06/30/17	$821,166	$5,744,606	$2,633,436	$7,840.549	100 %	100 %	48.4%
06/30/16	$769,533	$5,279,381	$2,368,707	$7,385.777	100 %	100 %	56.4%
06/30/15	$715,501	$5,310,721	$2,434,255	$7,076.271	100 %	100 %	43.1%

Solvency Test (Continued)

Table 4.18 Correctional Plan Solvency Test

	Actuarial Accrued Liability For:				Portion of Accrued Liabilities Covered by Valuation Assets		
Valuation Date	Active Member Contribution (1)	Current Retirees and Beneficiaries (2)	Active Members (Employer Financed) Portion (3)	Valuation Assets	1	2	3
06/30/24	$95,722	$729,899	$413,270	$1,176,113	100%	100%	84.8%
06/30/23	$91,669	$663,255	$357,481	$1,075,475	100%	100%	89.7%
06/30/22	$88,795	$559,998	$295,948	$992,811	100%	100%	116.2%
06/30/21	$94,212	$473,124	$303,231	$904,434	100%	100%	111.2%
06/30/20	$91,782	$416,648	$306,026	$794,221	100%	100%	93.4%
06/30/19	$89,874	$369,015	$299,379	$729,570	100%	100%	90.4%
06/30/18	$86,410	$326,339	$284,093	$666,012	100%	100%	89.1%
06/30/17	$84,107	$280,963	$264,800	$595,366	100%	100%	87.0%
06/30/16	$81,675	$228,642	$243,523	$526,879	100%	100%	88.9%
06/30/15	$77,771	$194,694	$225,587	$475,963	100%	100%	90.2%

Schedule of Active Members Valuation Data

Last 10 Years

Table 4.19 General Employees Plan Active Member Valuation Data

Valuation Date	Number	Valuation Payroll	Annual Average Pay	% Increase in Average Pay
06/30/24	164,224	$8,054,695,000	$49,047	3.4%
06/30/23	154,261	$7,317,216,000	$47,434	1.0%
06/30/22	149,987	$7,042,154,000	$46,952	3.7%
06/30/21	149,281	$6,761,354,000	$45,293	4.0%
06/30/20	153,741	$6,698,754,000	$43,572	2.9%
06/30/19	154,130	$6,523,754,000	$42,326	2.9%
06/30/18	153,059	$6,298,815,000	$41,153	2.2%
06/30/17	152,867	$6,156,985,000	$40,277	3.8%
06/30/16	148,745	$5,773,708,000	$38,816	1.9%
06/30/15	145,650	$5,549,255,000	$38,100	2.0%

Table 4.20 Police & Fire Plan Active Member Valuation Data

Valuation Date	Number	Valuation Payroll	Annual Average Pay	% Increase in Average Pay
06/30/24	11,994	$1,261,781,000	$105,201	6.3%
06/30/23	11,635	$1,151,376,000	$98,958	2.1%
06/30/22	11,629	$1,127,314,000	$96,940	3.5%
06/30/21	11,705	$1,096,195,000	$93,652	5.3%
06/30/20	12,025	$1,069,481,000	$88,938	3.4%
06/30/19	11,763	$1,011,421,000	$85,983	2.8%
06/30/18	11,673	$976,657,000	$83,668	2.1%
06/30/17	11,522	$944,296,000	$81,956	6.0%
06/30/16	11,398	$881,222,000	$77,314	2.1%
06/30/15	11,157	$845,076,000	$75,744	0.4%

Table 4.21 Correctional Plan Active Member Valuation Data

Valuation Date	Number	Valuation Payroll	Annual Average Pay	% Increase in Average Pay
06/30/24	3,914	$268,763,000	$68,667	7.6%
06/30/23	3,786	$241,588,000	$63,811	3.2%
06/30/22	3,564	$220,292,000	$61,810	5.4%
06/30/21	3,788	$222,093,000	$58,631	3.8%
06/30/20	3,855	$217,702,000	$56,473	4.6%
06/30/19	3,965	$214,151,000	$54,010	4.8%
06/30/18	3,981	$205,077,000	$51,514	(1.1%)
06/30/17	3,842	$200,103,000	$52,083	5.6%
06/30/16	3,827	$188,816,000	$49,338	1.4%
06/30/15	3,692	$179,623,000	$48,652	1.9%

To find a summary of changes in the nature of the plans, actuarial methods and assumptions used, and the year change occurred, refer to the Summary of Actuarial Assumptions and Methods on pages 115–130.

Schedule of Retirees and Beneficiaries

Last 10 Years

Table 4.22 General Employees Plan Retirees and Beneficiaries

	Added to Rolls		Removed from Rolls		Year-End Total			
Valuation Date	Number Added	Annual Allowances	Number Removed	Annual Allowances	Number	Annual Allowances	% Change in Annual Allowances	Average Annual Allowances
06/30/24	6,814	$ 137,643,124	4,014	$ 73,353,492	121,880	$1,890,655,338	3.5%	$15,512
06/30/23	7,068	$ 135,971,142	3,968	$ 70,549,092	119,080	$1,826,365,706	3.7%	$15,337
06/30/22	7,663	$ 139,178,027	3,915	$ 65,283,792	115,980	$1,760,943,656	4.4%	$15,183
06/30/21	7,572	$ 126,930,158	3,832	$ 63,936,168	112,232	$1,687,049,421	3.9%	$15,032
06/30/20	6,837	$ 118,695,452	3,588	$ 57,858,288	108,492	$1,624,055,431	3.9%	$14,969
06/30/19	6,842	$ 122,035,019	3,371	$ 57,475,656	105,243	$1,563,218,267	4.3%	$14,853
06/30/18	6,878	$ 114,687,040	3,307	$ 55,454,136	101,772	$1,498,658,904	4.1%	$14,726
06/30/17	7,132	$ 117,947,000	3,219	$ 53,791,000	98,201	$1,439,426,000	4.7%	$14,658
06/30/16	6,783	$ 110,107,000	3,087	$ 52,933,000	94,288	$1,375,270,000	4.3%	$14,586
06/30/15	10,537	$ 241,065,000	3,079	$ 54,630,000	90,592	$1,318,096,000	16.5%	$14,550

*MERF merged with the General Employees Plan effective January 1, 2015.

Table 4.23 Police & Fire Plan Retirees and Beneficiaries

	Added to Rolls		Removed from Rolls		Year-End Total			
Valuation Date	Number Added	Annual Allowances	Number Removed	Annual Allowances	Number	Annual Allowances	% Change in Annual Allowances	Average Annual Allowances
06/30/24	576	$40,852,362	285	$12,780,936	12,892	$ 710,598,684	4.1%	$55,119
06/30/23	793	$51,198,848	299	$13,109,568	12,601	$ 682,527,258	5.9%	$54,165
06/30/22	851	$54,242,164	400	$19,306,740	12,107	$ 644,437,978	5.7%	$53,229
06/30/21	809	$53,357,862	354	$16,938,648	11,656	$ 609,502,554	6.4%	$52,291
06/30/20	549	$32,891,144	379	$18,134,352	11,201	$ 573,083,340	2.6%	$51,164
06/30/19	606	$37,676,147	331	$15,535,284	11,031	$ 558,326,548	4.1%	$50,614
06/30/18	474	$28,399,145	297	$13,622,460	10,756	$ 536,185,685	2.8%	$49,850
06/30/17	517	$31,389,000	290	$12,513,000	10,579	$ 521,409,000	3.8%	$49,287
06/30/16	447	$25,711,000	304	$13,615,000	10,352	$ 502,533,000	2.5%	$48,545
06/30/15	431	$31,109,000	261	$11,409,000	10,209	$ 490,437,000	4.2%	$48,040

Schedule of Retirees and Beneficiaries *(Continued)*

Last 10 Years

Table 4.24 Correctional Plan Retirees and Beneficiaries

	Added to Rolls		Removed from Rolls		Year-End Total			
Valuation Date	Number Added	Annual Allowances	Number Removed	Annual Allowances	Number	Annual Allowances	% Change in Annual Allowances	Average Annual Allowances
06/30/24	154	$3,784,229	39	$528,708	1,958	$31,437,369	11.6%	$16,056
06/30/23	165	$3,885,433	39	$663,972	1,843	$28,181,848	12.9%	$15,291
06/30/22	184	$4,247,686	39	$605,820	1,717	$24,960,387	17.1%	$14,537
06/30/21	162	$3,630,746	33	$384,756	1,572	$21,318,521	18.0%	$13,561.00
06/30/20	150	$1,932,914	25	$281,436	1,443	$18,072,531	10.1%	$12,524
06/30/19	137	$2,395,199	12	$162,096	1,318	$16,421,053	15.7%	$12,459
06/30/18	134	$2,471,430	26	$318,480	1,193	$14,187,950	17.9%	$11,893
06/30/17	142	$2,365,000	24	$329,000	1,085	$12,035,000	20.4%	$11,092
06/30/16	118	$1,645,000	15	$146,000	967	$9,999,000	17.6%	$10,340
06/30/15	121	$1,722,000	26	$336,000	864	$8,500,000	19.5%	$9,838

Determination of Contribution Sufficiency

As of June 30, 2024 (in thousands)

Table 4.25 Determination of Contribution Sufficiency

	General Employees Plan		Police & Fire Plan		Correctional Plan	
Contributions	**Percent of Payroll**	**Dollar Amount**	**Percent of Payroll**	**Dollar Amount**	**Percent of Payroll**	**Dollar Amount**
A. Statutory Contributions: Minnesota Statutes Chapter 353						
1. Employee Contributions	6.50 %	$549,162	11.80 %	$155,952	5.83 %	$16,480
2. Employer Contributions	7.50 %	633,648	17.70 %	233,929	8.75 %	24,734
3. Employer Supplemental	0.25 %	21,000	0.00 %	0	0.00%	0
4. Minneapolis Police Contributions	0.00 %	0	0.34 %	4,490	0.00%	0
5. Minneapolis Fire Contributions	0.00 %	0	0.24 %	3,189	0.00%	0
6. State of Minnesota	0.19 %	16,000	1.36 %	18,000	0.00 %	0
7. Total	**14.44 %**	**$1,219,810**	**31.44 %**	**$415,560**	**14.58 %**	**$41,214**
B. Actuarially-Determined Contributions: Minnesota Statutes Chapter 356						
1. Normal Cost						
a. Retirement Benefits	6.30 %	$532,258	16.46 %	$217,540	9.25 %	$26,147
b. Disability Benefits	0.16 %	13,520	4.44 %	58,680	2.69 %	7,604
c. Survivor Benefits	0.09 %	7,604	0.60 %	7,930	0.12 %	339
d. Deferred Benefits	1.67 %	141,093	1.69 %	22,336	2.68 %	7,576
e. Refunds	0.35 %	29,571	0.16 %	2,115	0.82 %	2,318
f. Total	8.57 %	724,046	23.35 %	308,601	15.56 %	43,984
2. Amortization of Supplemental Contribution UAAL	3.45 %	291,476	8.01 %	105,863	1.44 %	4,070
3. Allowance for Administrative Expenses	0.27 %	22,811	0.14 %	1,850	0.25 %	707
4. Total	**12.29 %**	**$1,038,333**	**31.50 %**	**$416,314**	**17.25 %**	**$48,761**
C. Contribution Sufficiency/ (Deficiency) (A.7–B.4)	**2.15%**	**$181,477**	**(0.06%)**	**($754)**	**(2.67%)**	**$(7,547)**
Projected annual payroll for fiscal year beginning July 1, 2023		$8,448,585		$1,321,631		$282,673
*The required contribution on a market value of assets basis of payroll is		11.67 %		29.93%		16.51%

Determination of Actuarial Value of Assets

As of June 30, 2024 (in thousands)

Table 4.26 Determination of Actuarial Value of Assets

General Employees Plan				
Fair value of assets available for benefits (a)				**$30,162,004**
Calculation of unrecognized return	**Original Amount**	**% Not Recognized**	**Unrecognized Return**	
Year ended June 30, 2024	$1,416,738	80%	$1,133,390	
Year ended June 30, 2023	$350,223	60%	$210,134	
Year ended June 30, 2022	($3,863,099)	40%	($1,545,240)	
Year ended June 30, 2021	$5,043,720	20%	$1,008,744	
Year ended June 30, 2020	($724,261)		$—	
Total unrecognized return (b)				**807,028**
Actuarial Value of Assets (a - b)				**$29,354,976**
Police & Fire Plan				
Fair value of assets available for benefits (a)				**$12,065,232**
Calculation of unrecognized return	**Original Amount**	**% Not Recognized**	**Unrecognized Return**	
Year ended June 30, 2024	$565,085	80%	$452,068	
Year ended June 30, 2023	$142,198	60%	$85,319	
Year ended June 30, 2022	($1,545,237)	40%	($618,095)	
Year ended June 30, 2021	$2,009,123	20%	$401,825	
Year ended June 30, 2020	($285,391)		$—	
Total unrecognized return (b)				**321,117**
Actuarial Value of Assets (a - b)				**$11,744,115**
Correctional Plan				
Fair value of assets available for benefits (a)				**$1,208,413**
Calculation of unrecognized return	**Original Amount**	**% Not Recognized**	**Unrecognized Return**	
Year ended June 30, 2024	$56,958	80%	$45,566	
Year ended June 30, 2023	$14,076	60%	$8,446	
Year ended June 30, 2022	($143,904)	40%	($57,562)	
Year ended June 30, 2021	$179,252	20%	$35,850	
Year ended June 30, 2020	($24,475)		$—	
Total unrecognized return (b)				**32,300**
Actuarial Value of Assets (a - b)				**$1,176,113**

Schedule of Changes in Unfunded Actuarial Accrued Liabilities (UAAL)

For the Fiscal Year Ended June 30, 2024 (in thousands)

Table 4.27 Schedule of Changes in Unfunded Actuarial Accrued Liabilities (UAAL)

	General Employees Plan	Police & Fire Plan	Correctional Plan
A.UAAL at Beginning of Year (7/1/23)	**$ 5,426,843**	**$ 1,660,057**	**$ 36,930**
B.Change Due to Interest Requirements and Current Rate of Funding			
1. Normal Cost and Expenses	673,216	282,063	35,995
2. Contributions	(1,326,871)	(426,600)	(42,316)
3. Interest on A, B1, and B2	357,001	111,145	2,364
C.Expected UAAL at End of Year (A+B)	**$ 5,130,189**	**$ 1,626,665**	**$ 32,973**
D.Increase (Decrease) Due to Actuarial Losses (Gains) Because of Experience Deviations from Expected*			
1. Age and Service Retirements	36,883	3,346	33
2. Disability Retirements	(2,867)	3,134	(1,979)
3. Death-in-Service Benefits	(2,160)	2,246	(64)
4. Withdrawals	(33,633)	4,428	(2,657)
5. Salary Increases	242,495	172,819	13,395
6. Investment Income	(411,731)	(170,032)	(15,117)
7. Mortality of Annuitants	(21,347)	(10,037)	525
8. January 1, 2024 COLA (gain)/loss	45,668	—	1,891
8. Other Items	23,705	4,157	7,541
E.UAAL at End of Year Before Plan Amendments and Changes in Actuarial Assumptions (C+D)	**$ 5,007,202**	**$ 1,636,726**	**$ 36,541**
F.Change in UAAL Due to Change in Plan Provisions	**$ —**	**$ —**	**$ 26,237**
G.Change in UAAL Due to Change in Actuarial Assumptions and Methods	**(503,245)**	**—**	**—**
H.Change in Unfunded Actuarial Accrued Liability Due to Changes in Methodology	**$ —**	**$ —**	**$ —**
I.UAAL at End of Year 6/30/2024 (E+F+G+H)	**4,503,957**	**1,636,726**	**62,778**

*Explanatory Notes

1. If members retire earlier than assumed, there is a loss; if later, a gain.
2. If more members take a disability than assumed, there is a loss; if fewer, a gain.
3. If fewer active members die than assumed, there is a loss; if more, a gain.
4. If fewer members terminate employment than assumed, there is a loss; if more, a gain.
5. If there are larger salary increases than assumed, there is a loss; if smaller, a gain.
6. If there is a smaller investment return than assumed, there is a loss; if larger, a gain.
7. If benefit recipients live longer than assumed, there is a loss; if less, a gain.
8. January 1 benefit increase is greater than expected, there is a loss; if less, a gain.
9. Miscellaneous gains and losses.

STATISTICAL SECTION

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

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Introduction to the Statistical Section

The Statistical Section provides historical perspective, context, and detail to PERA's financial statements, note disclosures, and supplemental information.

The Statistical Section includes the following:

- The Schedule of Changes in Fiduciary Net Position provides a 10-year schedule of additions and deductions for each fund and each addition and deduction type.
- The Benefits and Refunds by Type section provides a 10-year schedule of the types of benefit payments and refunds paid.
- The Summary of Membership provides a 10-year schedule of the number of our active, terminated, and retired members.
- The Schedule of New Retirees and Initial Benefits Paid provides a 10-year schedule of information used to calculate first benefit payments.
- The Schedule of Benefit Recipients by Type provides information about the type of benefit selected and the survivor option selected.
- The Principal Participating Employers section provides the top ten participating employers in each plan compared to the top ten employers from ten years ago.
- The Privatized Employers section provides a list of privatized employers according to Minnesota Statutes chapter 325F.

Information in this section was produced by PERA's actuary and internal data sources.

Schedule of Changes in Fiduciary Net Position

Last 10 Fiscal Years (in thousands)

Table 5.0 Schedule of Changes in Fiduciary Net Position

Additions & Deductions by Fund	2024	2023	2022	2021
General Employees Fund*				
Additions				
Employer Contributions	$619,580	$581,044	$546,291	$524,685
Member Contribution	521,198	487,107	457,740	439,488
State Contributions	186,093	16,000	16,000	16,000
Investment Income	3,318,778	2,272,563	(1,749,186)	6,712,710
Other	(79)	204	142	182
Total Additions to Fiduciary Net Position	4,645,570	3,356,918	(729,013)	7,693,065
Deductions				
Benefits	1,889,457	1,808,287	1,737,905	1,666,103
Refunds	74,307	67,580	73,152	58,027
Administrative Expenses	20,579	14,459	13,398	12,741
Other	—	—	—	—
Total Deductions from Fiduciary Net Position	1,984,343	1,890,326	1,824,455	1,736,871
Change in Fiduciary Net Position	**$2,661,227**	**$1,466,592**	**($2,553,468)**	**$5,956,194**
Police & Fire Fund				
Additions				
Employer Contributions	$236,216	$223,305	$206,416	$201,129
Member Contribution	152,987	144,470	133,023	129,351
State Contributions	37,397	18,000	18,000	18,000
Investment Income	1,327,276	912,519	(700,942)	2,672,826
Other	(616)	(61)	(20)	23
Total Additions to Fiduciary Net Position	1,753,260	1,298,233	(343,523)	3,021,329
Deductions				
Benefits	720,158	669,804	633,255	592,687
Refunds	5,051	3,747	4,196	3,060
Administrative Expenses	1,747	1,247	1,634	941
Other	—	—	—	—
Total Deductions from Fiduciary Net Position	726,956	674,798	639,085	596,688
Change in Fiduciary Net Position	**$1,026,304**	**$623,435**	**($982,608)**	**$2,424,641**
Correctional Fund				
Additions				
Employer Contributions	$22,209	$ 20,518	$19,227	$19,351
Member Contributions	14,851	13,894	12,843	12,948
State Contribution	5,256	—	—	—
Investment Income	131,985	87,393	(66,015)	238,666
Other	(22)	—	—	1
Total Additions to Fiduciary Net Position	174,279	121,805,000	(33,945)	270,966
Deductions				
Benefits	29,865	27,117	23,372	20,088
Refunds	2,559	2,369	2,713	2,140
Administrative Expenses	641	434	371	344
Other	—	—	—	—
Total Deductions from Fiduciary Net Position	33,065	29,920	26,456	22,572
Change in Fiduciary Net Position	**$141,214**	**$91,885**	**($60,401)**	**$248,394**

*The Minneapolis Employees Retirement Fund (MERF) merged into the General Employees Retirement Fund on January 1, 2015. The General Fund has been restated to include MERF for the ten-year schedule.

Schedule of Changes in Fiduciary Net Position *(Continued)*

Last 10 Fiscal Years (in thousands)

2020	2019	2018	2017	2016	2015
General Employees Fund*					
Additions					
$509,821	$515,444	$488,819	$477,888	$459,978	$435,265
435,419	424,044	409,423	400,204	375,291	353,765
16,000	16,000	16,000	6,000	6,000	21,575
931,041	1,547,224	2,063,582	2,682,901	(20,851)	777,621
267	154	56	411	431	281
1,892,548	2,502,866	2,977,880	3,567,404	820,849	1,588,507
Deductions					
1,604,842	1,536,071	1,470,450	1,413,448	1,359,176	1,301,396
84,947	65,834	42,589	37,234	37,209	35,706
12,268	13,470	11,943	11,292	11,110	10,377
—	—	—	—	—	—
1,702,057	1,615,375	1,524,982	1,461,974	1,407,495	1,347,479
$190,491	**$887,491**	**$1,452,898**	**$2,105,430**	**($586,646)**	**$241,028**
Police & Fire Fund					
Additions					
$193,819	$174,817	$170,781	$166,329	$156,065	$144,317
123,525	111,762	105,479	101,984	95,172	88,733
13,500	13,500	9,000	9,000	9,000	9,000
368,949	609,512	813,966	1,058,942	(8,949)	317,556
260	54	58	24	3	84
700,053	909,645	1,099,284	1,336,279	251,291	559,690
Deductions					
567,040	547,699	528,468	512,379	498,608	481,330
3,181	3,283	1,902	2,119	2,391	1,953
924	1,018	886	992	906	803
—	—	—	—	—	—
571,145	552,000	531,256	515,490	501,905	484,086
$128,908	**$357,645**	**$568,028**	**$820,789**	**($250,614)**	**$75,604**
Correctional Fund					
Additions					
$19,043	$18,676	$17,871	$17,489	$16,490	$15,736
12,692	12,485	11,956	11,666	11,008	10,472
—	—	—	—	—	—
31,774	50,853	62,962	78,363	209	20,373
—	—	1	—	—	—
63,509	82,014	92,790	107,518	27,707	46,581
Deductions					
17,569	15,381	13,183	11,033	9,381	7,777
2,709	2,244	1,364	1,478	982	1,057
332	361	308	330	292	247
—	—	—	—	—	—
20,610	17,986	14,855	12,841	10,655	9,081
$42,899	**$64,028**	**$77,935**	**$94,677**	**$17,052**	**$37,500**

*The Minneapolis Employees Retirement Fund (MERF) merged into the General Employees Retirement Fund on January 1, 2015. The General Fund has been restated to include MERF for the ten-year schedule.

Schedule of Changes in Fiduciary Net Position *(Continued)*

Last 10 Fiscal Years (in thousands)

Additions & Deductions by Fund	2024	2023	2022	2021
Statewide Volunteer Firefighter Fund				
Additions				
Employer Contributions	$1,326	$1,331	$998	$529
State Contribution	7,382	5,999	5,349	5,059
Investment Income	19,295	12,892	(19,459)	24,776
Other (mainly initial transfer of assets)	20,879	10,691	5,522	2,355
Total Additions to Fiduciary Net Position	48,882	30,913	(7,590)	32,719
Deductions				
Benefits	16,679	10,956	5,142	5,627
Refunds	—	13		
Administrative Expenses**	245	201	161	12
Other Deductions**	—	—	—	—
Total Deductions from Fiduciary Net Position	16,924	11,170	5,303	5,639
Change in Fiduciary Net Position	**$31,958**	**$19,743**	**$(12,893)**	**$27,080**
Defined Contribution Fund				
Additions				
Employer Contributions	$2,475	$2,365	$2,242	$2,133
Member Contributions	2,374	2,268	2,127	2,066
Investment Income	14,920	10,622	(12,084)	23,301
Other	—	—	—	6
Total Additions to Fiduciary Net Position	19,769	15,255	(7,715)	27,506
Deductions				
Refunds	7,100	7,697	8,067	6,986
Administrative Expenses	281	331	298	279
Total Deductions from Fiduciary Net Position	7,381	8,028	8,365	7,265
Change in Fiduciary Net Position	**$12,388**	**$7,227**	**($16,080)**	**$20,241**

**Other Deductions and Administrative Expenses were restated to reflect departments that transferred out of the Statewide Volunteer Firefighter Fund.

Schedule of Changes in Fiduciary Net Position *(Continued)*

Last 10 Fiscal Years (in thousands)

2020	2019	2018	2017	2016	2015
Statewide Volunteer Firefighter Fund					
Additions					
$1,051	$1,181	$938	$716	$332	$226
4,580	3,993	3,522	2,659	1,811	1,430
7,535	7,682	4,681	6,409	1,325	880
4,802	10,916	8,048	14,206	20,401	4,667
17,968	23,772	17,189	23,990	23,869	7,203
Deductions					
7,057	4,709	4,161	2,700	1,644	1,221
48	111	70	61	132	86
250	—	—	—	—	—
7,355	4,820	4,231	2,761	1,776	1,307
$10,613	**$18,952**	**$12,958**	**$21,229**	**$22,093**	**$5,896**
Defined Contribution Fund					
Additions					
$2,160	$2,084	$2,036	$1,822	$1,965	$1,850
2,002	1,957	1,911	1,739	1,779	1,698
5,227	5,440	6,490	7,274	999	2,681
—	—	—	7	2	—
9,389	9,481	10,437	10,842	4,745	6,229
Deductions					
3,971	5,959	4,326	5,233	3,755	3,489
234	214	211	137	189	186
4,205	6,173	4,537	5,370	3,944	3,675
$5,184	**$3,308**	**$5,900**	**$5,472**	**$801**	**$2,554**

Benefits & Refunds by Type

Defined Benefit Plans: Last 10 Fiscal Years (in thousands)

Table 5.1 Benefits & Refunds by Type

Benefits & Refunds	2024	2023	2022	2021
General Employees Fund*				
Benefits by Type				
Retirement	$1,721,198	$1,642,917	$1,574,140	$1,503,311
Survivor	152,392	148,389	146,641	144,756
Disability	15,866	16,981	17,124	18,036
Total	$1,889,456	$1,808,287	$1,737,905	$1,666,103
Refund by Type				
Separation	$57,156	$53,183	$56,234	$43,945
Death	784	821	745	433
Interest/Employer	16,366	13,576	16,173	13,649
Total	$74,306	$67,580	$73,152	$58,027
Police & Fire Fund				
Benefits by Type				
Retirement	$551,380	$511,162	$486,560	$463,500
Survivor	72,107	67,640	66,167	64,688
Disability	96,671	91,002	80,528	64,499
Total	$720,158	$669,804	$633,255	$592,687
Refund by Type				
Separation	$4,153	$2,923	$3,428	$2,476
Death	—	211	—	—
Interest/Employer	898	613	768	584
Total	$5,051	$3,747	$4,196	$3,060
Correctional Fund				
Benefits by Type				
Retirement	$25,360	$22,754	$19,565	$16,571
Survivor	1,117	1,059	884	811
Disability	3,389	3,304	2,923	2,706
Total	$29,866	$27,117	$23,372	$20,088
Refund by Type				
Separation	$2,157	$2,023	$2,253	$1,731
Death	—	—	2	—
Interest/Employer	403	346	458	409
Total	$2,560	$2,369	$2,713	$2,140
Volunteer Firefighter Fund				
Benefits by Type				
Retirement	$1,207	$1,086	$1,020	$953
Survivor	90	86	87	84
Lump Sum Benefit	15,382	9,784	4,035	4,590
Total	$16,679	$10,956	$5,142	$5,627

*The Minneapolis Employees Retirement Fund (MERF) merged into the General Employees Retirement Fund on January 1, 2015. The General Fund has been restated to include MERF for the ten-year schedule

Benefits & Refunds by Type *(Continued)*

Defined Benefit Plans: Last 10 Fiscal Years (in thousands)

2020	2019	2018	2017	2016	2015
General Employees Fund*					
Benefits by Type					
$1,442,689	$1,373,267	$1,307	$1,250,427	$1,195,640	$1,137,897
142,659	142,187	142	141,449	140,630	141,178
19,494	20,617	21	21,572	22,906	22,321
$1,604,842	$1,536,071	$1,470	$1,413,448	$1,359,176	$1,301,396
Refund by Type					
$59,829	$43,723	$31	$27,513	$27,601	$26,179
542	812	1	508	505	731
24,576	21,299	11	9,213	9,103	8,796
$84,947	$65,834	$43	$37,234	$37,209	$35,706
Police & Fire Fund					
Benefits by Type					
$445,843	$432,012	$417	$403,053	$391,952	$379,068
63,210	60,872	59	58,568	58,119	56,523
57,987	54,814	52	50,758	48,537	45,739
$567,040	$547,698	$528	$512,379	$498,608	$481,330
Refund by Type					
$2,390	$2,117	$1	$1,599	$1,540	$1,423
65	29	—	52	—	—
726	1,137	—	468	851	530
$3,181	$3,283	$1	$2,119	$2,391	$1,953
Correctional Fund					
Benefits by Type					
$14,307	$12,287	$10	$8,555	$6,954	$5,528
712	617	1	437	372	278
2,550	2,477	2	2,041	2,055	1,971
$17,569	$15,381	$13	$11,033	$9,381	$7,777
Refund by Type					
$2,034	$1,617	$1	$1,129	$792	$821
38	—	—	45	—	29
637	627	—	304	190	207
$2,709	$2,244	$1	$1,478	$982	$1,057
Statewide Volunteer Firefighter Fund					
Benefits by Type					
$903	$762	$1	$554	$279	$0
90	58	0	51	23	0
6,064	3,889	4	2,095	1,342	1,221
$7,057	$4,709	$5	$2,700	$1,644	$1,221

Summary of Membership

Defined Benefit Plans: Last 10 Years

Table 5.2 Membership Summary by Plan

Table 5.2 Part A General Employees Fund

Fiscal Year	Active	Benefit Recipients	Terminated Vested	Terminated Non-Vested	Total
2024	164,224	121,880	71,542	89,853	**447,499**
2023	154,261	119,080	70,221	88,292	**431,854**
2022	149,987	115,980	68,636	84,675	**419,278**
2021	149,281	112,232	66,048	81,052	**408,613**
2020	153,741	108,492	64,672	79,069	**405,974**
2019	154,130	105,243	63,311	126,116	**448,800**
2018	153,059	101,772	61,066	138,768	**454,665**
2017	152,867	98,201	52,274	138,335	**441,677**
2016	148,745	94,288	52,516	132,416	**427,965**
2015	145,650	90,592	51,605	125,366	**413,213**

Table 5.2 Part B Police & Fire Plan

Fiscal Year	Active	Benefit Recipients	Terminated Vested	Terminated Non-Vested	Total
2024	11,994	12,892	1,940	894	**27,720**
2023	11,635	12,601	1,966	941	**27,143**
2022	11,629	12,107	1,864	957	**26,557**
2021	11,705	11,656	1,813	912	**26,086**
2020	12,025	11,201	1,686	894	**25,806**
2019	11,763	11,031	1,620	1,145	**25,559**
2018	11,673	10,756	1,580	1,188	**25,197**
2017	11,522	10,579	1,506	1,134	**24,741**
2016	11,398	10,352	1,490	1,059	**24,299**
2015	11,157	10,209	1,560	995	**23,921**

Summary of Membership *(Continued)*

Defined Benefit Plans—Last 10 Years

Table 5.2 Part C Correctional Plan

Fiscal Year	Active	Benefit Recipients	Terminated Vested	Terminated Non-Vested	Total
2024	3,914	1,958	4,637	2,635	**13,144**
2023	3,786	1,843	4,378	2,604	**12,611**
2022	3,564	1,717	4,129	2,480	**11,890**
2021	3,788	1,572	3,832	2,200	**11,392**
2020	3,855	1,443	3,637	2,184	**11,119**
2019	3,965	1,318	3,374	2,790	**11,447**
2018	3,981	1,193	3,165	2,811	**11,150**
2017	3,842	1,085	2,933	2,624	**10,484**
2016	3,827	967	2,755	2,359	**9,908**
2015	3,692	864	2,620	2,139	**9,315**

*Table 5.2 Part D Statewide Volunteer Firefighter Plan**

Fiscal Year	Active	Benefit Recipients	Terminated Vested	Terminated Non-Vested	Total
2024	4,919	137	1,415	—	**6,471**
2023	4,454	142	1,302	—	**5,898**
2022	4,186	143	1,156	—	**5,485**
2021	4,007	140	1,032	—	**5,179**
2020	3,773	136	968	—	**4,877**
2019	3,517	137	840	—	**4,494**
2018	3,256	86	751	—	**4,093**
2017	2,753	75	560	—	**3,388**
2016	1,639	79	928	—	**2,646**

*The first monthly benefit division participant joined the Statewide Volunteer Firefighter Plan on January 1, 2016.

Schedule of New Retirees & Initial Benefit Paid

Defined Benefit Plans—Last 10 Years

Table 5.3 Schedule of New Retirees & Initial Benefit Paid by Plan

Table 5.3 Part A General Employees Plan

	Years Credited Service						
	0–4	5–9	10–14	15–19	20–24	25–29	30 +
2024							
Average monthly benefit	$147	$362	$661	$1,055	$1,370	$1,867	$3,456
Average high five salary	$4,246	$3,080	$3,346	$3,841	$4,027	$4,606	$6,108
Number of retirees	711	1042	706	789	797	652	983
2023							
Average monthly benefit	$154	$368	$642	$982	$1,340	$1,857	$3,340
Average high five salary	$4,516	$3,113	$3,302	$3,626	$4,043	$4,581	$5,932
Number of retirees	761	1109	836	786	905	631	1,062
2022							
Average monthly benefit	$153	$352	$687	$1,009	$1,351	$1,825	$3,287
Average high five salary	$4,190	$3,091	$3,368	$3,677	$3,991	$4,424	$5,793
Number of retirees	830	1,228	906	878	939	712	1,242
2021							
Average monthly benefit	$148	$346	$646	$996	$1,289	$1,684	$3,247
Average high five salary	$4,009	$2,930	$3,132	$3,569	$3,825	$4,086	$5,678
Number of retirees	810	1,116	903	829	946	740	1,242
2020							
Average monthly benefit	$157	$343	$677	$981	$1,312	$1,775	$3,232
Average high five salary	$4,232	$2,910	$3,207	$3,529	$3,893	$4,283	$5,632
Number of retirees	689	950	873	781	809	675	1,204
2019							
Average monthly benefit	$158	$339	$627	$969	$1,301	$1,784	$3,147
Average high five salary	$4,104	$2,813	$3,165	$3,525	$3,752	$4,250	$5,489
Number of retirees	749	1,007	966	885	801	769	1,304
2018							
Average monthly benefit	$164	$331	$599	$921	$1,213	$1,804	$3,018
Average high five salary	$4,145	$2,755	$3,008	$3,435	$3,600	$4,222	$5,304
Number of retirees	691	867	846	880	806	788	1,224
2017							
Average monthly benefit	$154	$333	$614	$866	$1,195	$1,761	$2,956
Average high five salary	$4,170	$2,719	$3,076	$3,283	$3,586	$4,130	$5,190
Number of retirees	630	795	836	841	718	758	1,125
2016							
Average monthly benefit	$142	$317	$576	$864	$1,193	$1,802	$2,877
Average high five salary	$3,772	$2,731	$2,896	$3,189	$3,496	$4,171	$5,080
Number of retirees	619	875	821	776	793	810	1,187
2015							
Average monthly benefit	$139	$309	$571	$866	$1,134	$1,781	$2,771
Average high five salary	$3,714	$2,500	$2,830	$3,236	$3,422	$4,109	$4,911
Number of retirees	579	901	864	808	814	813	1,174

Schedule of New Retirees & Initial Benefit Paid *(Continued)*

Defined Benefit Plans—Last 10 Years

Table 5.3 Part B ***Police & Fire Plan***

	Years Credited Service						
	0–4	5–9	10–14	15–19	20–24	25–29	30 +
2024							
Average monthly benefit	$827	$1,598	$2,825	$4,054	$5,660	$7,400	$9,537
Average high five salary	$5,396	$5,643	$6,936	$7,546	$8,525	$9,279	$10,060
Number of retirees	20	21	32	43	96	181	77
2023							
Average monthly benefit	$536	$1,463	$2,639	$3,827	$5,427	$7,247	$9,274
Average high five salary	$5,232	$4,960	$5,899	$7,147	$8,157	$9,230	$9,663
Number of retirees	27	34	29	59	92	153	100
2022							
Average monthly benefit	$453	$1,611	$2,453	$3,681	$5,191	$6,772	$8,948
Average high five salary	$5,082	$5,171	$5,790	$7,156	$7,937	$8,621	$9,365
Number of retirees	17	22	20	39	100	140	98
2021							
Average monthly benefit	$347	$1,172	$2,446	$3,781	$5,329	$6,841	$8,825
Average high five salary	$4,008	$4,978	$5,993	$7,312	$8,184	$8,604	$9,270
Number of retirees	14	23	28	32	94	129	119
2020							
Average monthly benefit	$483	$1,496	$2,492	$3,565	$4,958	$6,554	$8,529
Average high five salary	$5,349	$5,165	$6,312	$6,920	$7,560	$8,124	$8,930
Number of retirees	20	21	22	40	64	74	55
2019							
Average monthly benefit	$375	$1,419	$2,580	$3,662	$4,802	$6,252	$8,085
Average high five salary	$4,587	$5,526	$6,377	$7,087	$7,448	$7,840	$8,582
Number of retirees	20	23	22	33	79	108	110
2018							
Average monthly benefit	$838	$1,654	$2,418	$3,188	$4,726	$6,239	$7,705
Average high five salary	$4,969	$5,272	$5,798	$6,380	$7,170	$7,857	$8,149
Number of retirees	15	14	32	30	69	84	64
2017							
Average monthly benefit	$583	$1,370	$2,133	$3,512	$4,321	$5,990	$8,096
Average high five salary	$5,387	$4,615	$5,277	$6,523	$6,772	$7,575	$8,426
Number of retirees	18	25	24	34	59	98	74
2016							
Average monthly benefit	$565	$1,363	$2,130	$3,152	$4,403	$5,649	$7,322
Average high five salary	$6,026	$5,244	$5,110	$6,023	$6,821	$7,171	$7,613
Number of retirees	20	17	18	30	59	91	44
2015							
Average monthly benefit	$278	$1,559	$2,202	$3,290	$4,232	$5,791	$7,394
Average high five salary	$5,703	$5,563	$5,631	$6,172	$6,553	$7,299	$7,401
Number of retirees	16	16	27	33	56	81	47

Schedule of New Retirees & Initial Benefit Paid *(Continued)*

Defined Benefit Plans—Last 10 Years

Table 5.3 Part C Correctional Plan*

	Years Credited Service						
	0–4	5–9	10–14	15–19	20–24	25–29	30 +
2024							
Average monthly benefit	$260	$702	$1,348	$2,099	$3,314		
Average high five salary	$6,221	$4,598	$5,811	$5,919	$7,457		
Number of retirees	29	20	19	23	37		
2023							
Average monthly benefit	$186	$882	$1,385	$2,041	$2,730		
Average high five salary	$5,661	$4,976	$5,177	$6,061	$6,519		
Number of retirees	28	18	20	21	43		
2022							
Average monthly benefit	$239	$768	$1,318	$2,001	$2,600		
Average high five salary	$4,419	$4,495	$5,676	$5,878	$6,344		
Number of retirees	26	19	13	29	73		
2021							
Average monthly benefit	$307	$555	$1,080	$1,561	$2,639		
Average high five salary	$4,361	$3,936	$4,367	$5,064	$6,622		
Number of retirees	32	18	19	21	49		
2020							
Average monthly benefit	$351	$654	$1,219	$1,868			
Average high five salary	$4,474	$4,147	$4,946	$5,437			
Number of retirees	35	18	15	32			
2019							
Average monthly benefit	$269	$595	$990	$1,917			
Average high five salary	$3,947	$3,760	$4,447	$5,497			
Number of retirees	26	15	20	62			
2018							
Average monthly benefit	$287	$644	$1,112	$1,963			
Average high five salary	$4,176	$3,799	$4,860	$5,823			
Number of retirees	15	12	27	61			
2017							
Average monthly benefit	$340	$703	$1,088	$1,749			
Average high five salary	$4,463	$4,099	$4,601	$5,524			
Number of retirees	15	17	29	58			
2016							
Average monthly benefit	$201	$552	$1,107	$1,513			
Average high five salary	$3,930	$3,655	$4,713	$4,928			
Number of retirees	13	21	20	48			
2015							
Average monthly benefit	$501	$758	$1,106				
Average high five salary	$4,436	$3,924	$4,364				
Number of retirees	15	21	30				

*The Correctional Plan was established July 1, 1999.

Schedule of New Retirees & Initial Benefit Paid *(Continued)*

Defined Benefit Plans—Last 10 Years

Table 5.3 Part D Statewide Volunteer Firefighter Plan**

	Years Credited Service						
	0–4	5–9	10–14	15–19	20–24	25–29	30 +
2024							
Average monthly benefit	$—	$—	$—	$—	$1,160	$—	$—
Average high five salary	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	—	—	2	—	—
2023							
Average monthly benefit	$—	$—	$668	$—	$—	$—	$—
Average high five salary	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	3	—	—	—	—
2022							
Average monthly benefit	$—	$—	$483	$1,092	$—	$—	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	4	1	—	—	—
2021							
Average monthly benefit	$—	$—	$412	$—	$—	$—	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	2	—	—	—	—
2020							
Average monthly benefit	$—	$—	$391	$693	$1,058	$—	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	3	4	1	—	—
2019							
Average monthly benefit	$—	$—	$323	$—	$975	$—	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	2	—	3	—	—
2018							
Average monthly benefit	$0	$0	$447	$—	$156	$—	$1,260
Average high five salary**	$0	$0	$—	$—	$—	$—	$—
Number of retirees	0	0	1	—	10	—	1
2017							
Average monthly benefit	$—	$—	$—	$—	$722	$—	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	—	—	3	—	—
2016							
Average monthly benefit	$—	$166	$357	$561	$771	$975	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	1	10	13	48	3	—
2015							
Average monthly benefit	$—	$—	$—	$—	$—	$—	$—
Average high five salary**	$—	$—	$—	$—	$—	$—	$—
Number of retirees	—	—	—	—	—	—	—

*The first monthly benefit division employer joined the Statewide Volunteer Firefighter Plan on January 1, 2016. **The monthly benefit is based on years of service, not salary.

Schedule of Benefit Recipients by Type

As of June 30, 2024

Table 5.4 Schedule of Benefit Recipients by Type

Table 5.4 Part A General Employees Plan

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Benefit				Option Selected					
		A	B	C	D	1	2	3	4	5	6
$1–250	25,046	23,057	422	1,442	125	15,003	7,796	435	1,045	559	10
251–500	18,855	17,163	278	1,260	154	11,024	5,344	432	1,241	688	11
501–750	13,976	12,656	203	987	130	7,831	3,876	388	1,103	651	5
751–1000	10,776	9,783	157	725	111	5,892	2,941	356	983	527	4
1001–1250	8,496	7,664	115	610	107	4,425	2,365	341	809	489	2
1251–1500	6,727	6,054	75	511	87	3,270	1,976	337	696	405	2
1501–1750	5,642	5,051	80	433	78	2,563	1,662	367	641	357	3
1751–2000	4,785	4,360	50	322	53	2,101	1,402	323	596	316	1
2001–2250	4,232	3,861	33	292	46	1,796	1,268	276	558	298	1
2251–2500	3,715	3,401	40	247	27	1,457	1,160	236	549	279	0
2501–2750	3,203	2,936	33	211	23	1,229	1,015	216	466	237	1
2751–3000	2,758	2,543	30	171	14	1,050	895	175	378	213	1
3001–3250	2,346	2,176	16	134	20	913	697	185	319	189	0
3251–3500	2,029	1,879	18	119	13	740	675	143	264	153	1
3501–3750	1,648	1,503	25	109	11	603	515	112	238	137	2
3751–4000	1,352	1,254	12	80	6	448	469	94	195	112	1
4001–4250	1,124	1,044	14	62	4	399	360	80	172	78	0
4251–4500	942	881	7	54	0	323	282	65	170	71	0
4501–4750	717	672	6	39	0	247	248	36	115	52	1
4751–5000	647	593	2	49	3	190	229	45	93	65	0
5001–5250	540	493	4	41	2	177	180	47	76	38	1
5251–5500	400	364	5	30	1	138	112	41	59	31	0
5501–5750	387	348	3	35	1	121	141	30	54	29	0
5751–6000	283	259	2	22	0	90	96	27	40	20	0
6001–6250	228	205	3	20	0	89	61	19	29	17	0
6251–6500	189	175	1	12	1	57	54	15	41	15	0
6501–6750	174	161	1	12	0	47	60	16	29	15	1
6751–7000	125	113	1	11	0	27	50	11	24	8	0
Over 7000	538	488	5	45	0	168	147	64	93	40	0
Totals	**121,880**	**111,137**	**1,641**	**8,085**	**1,017**	**62,418**	**36,076**	**4,912**	**11,076**	**6,089**	**48**

Type of Benefit	Option Selected
A. Retirement **B.** Survivor of Active Member **C.** Survivor of Benefit Recipient **D.** Disability	**1.** Single Life **2.** 100% Joint & Survivor **3.** 75% Joint & Survivor **4.** 50% Joint & Survivor **5.** 25% Joint & Survivor **6.** Other (Death, Term-certain, Children's Benefits, etc.)

Schedule of Benefit Recipients by Type *(Continued)*

As of June 30, 2024

Table 5.4 Part B Police & Fire Plan

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Benefit					Option Selected					
		A	B	C	D	E	1	2	3	4	5	6
$1–250	167	134	7	21	1	4	62	80	6	9	5	0
251–500	171	142	3	23	1	2	56	82	2	17	11	0
501–750	154	125	8	19	1	1	37	76	9	15	9	1
751–1000	155	113	4	34	1	3	55	44	7	26	19	1
1001–1250	186	123	6	53	2	2	58	59	5	25	25	1
1251–1500	180	108	8	58	4	2	44	56	10	22	33	1
1501–1750	210	115	9	77	5	4	53	57	16	24	17	2
1751–2000	229	119	13	81	7	9	58	58	16	43	11	1
2001–2250	269	133	15	96	14	11	61	66	13	69	11	0
2251–2500	286	144	16	78	27	21	73	96	10	51	16	0
2501–2750	332	161	29	92	20	30	72	98	24	65	14	2
2751–3000	409	194	30	113	18	54	92	112	35	75	15	1
3001–3250	631	198	78	264	14	77	91	137	30	67	12	1
3251–3500	488	287	17	66	10	108	124	178	43	71	20	0
3501–3750	472	274	14	50	4	130	136	159	51	65	20	1
3751–4000	567	319	14	61	16	157	179	198	41	83	29	1
4001–4250	607	355	17	62	10	163	182	204	51	79	41	0
4251–4500	588	371	15	42	14	146	165	198	72	76	36	0
4501–4750	619	430	11	33	12	133	167	185	67	104	39	0
4751–5000	590	441	7	35	10	97	169	182	73	91	35	0
5001–5250	585	457	10	36	7	75	149	198	66	91	38	0
5251–5500	589	482	8	25	9	65	174	152	81	96	35	0
5501–5750	541	427	5	27	33	49	126	133	71	106	34	0
5751–6000	754	702	3	13	6	30	125	110	65	120	40	0
6001–6250	383	327	4	16	8	28	101	124	57	65	31	0
6251–6500	345	322	5	1	0	17	96	88	57	72	29	0
6501–6750	320	284	3	5	6	22	86	95	51	66	20	0
6751–7000	273	246	3	7	0	17	72	95	37	49	17	1
Over 7000	1,792	1,689	4	30	11	58	446	555	224	295	131	0
Totals	**12,892**	**9,222**	**366**	**1,518**	**271**	**1,515**	**3,309**	**3,875**	**1,290**	**2,037**	**793**	**14**

Type of Benefit	Option Selected
A. Retirement	**1.** Single Life
B. Survivor of Active Member	**2.** 100% Joint & Survivor
C. Survivor of Benefit Recipient	**3.** 75% Joint & Survivor
D. Non-Duty Disability	**4.** 50% Joint & Survivor
E. Line-of-Duty Disability	**5.** 25% Joint & Survivor
	6. Other

Schedule of Benefit Recipients by Type *(Continued)*

As of June 30, 2024

Table 5.4 Part C *Correctional Plan*

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Benefit					Option Selected					
		A	B	C	D	E	1	2	3	4	5	6
$1–250	264	239	7	14	4	0	142	89	7	14	10	1
251–500	187	174	3	10	0	0	98	60	2	17	10	0
501–750	190	169	4	11	6	0	88	69	11	17	5	0
751–1000	189	159	7	13	10	0	85	69	6	14	11	4
1001–1250	193	169	3	8	10	3	84	69	11	18	11	0
1251–1500	168	155	3	1	7	2	67	59	11	21	9	1
1501–1750	152	143	1	3	1	4	72	51	8	15	5	1
1751–2000	128	115	1	4	2	6	54	52	7	7	7	1
2001–2250	122	104	1	3	1	13	51	44	6	13	8	1
2251–2500	105	91	1	1	3	9	45	44	1	7	7	1
2501–2750	84	68	0	0	1	15	35	31	2	9	7	0
2751–3000	59	43	0	1	0	15	26	23	2	2	6	0
3001–3250	50	38	2	0	0	10	24	13	1	6	4	2
3251–3500	31	26	0	0	1	4	22	7	0	1	1	0
3501–3750	16	13	0	0	0	3	9	4	1	1	1	0
3751–4000	6	4	1	0	0	1	2	0	2	0	1	1
4001–4250	6	4	0	0	0	2	3	1	0	0	2	0
4251–4500	5	3	0	0	0	2	2	2	0	0	1	0
4501–4750	2	2	0	0	0	0	2	0	0	0	0	0
4751–5000	1	1	0	0	0	0	0	0	1	0	0	0
Totals	**1,958**	**1,720**	**34**	**69**	**46**	**89**	**911**	**687**	**79**	**162**	**106**	**13**

Type of Benefit	Option Selected
A. Retirement	**1.** Single Life
B. Survivor of Active Member	**2.** 100% Joint & Survivor
C. Survivor of Benefit Recipient	**3.** 75% Joint & Survivor
D. Non-Duty Disability	**4.** 50% Joint & Survivor
E. Line-of-Duty Disability	**5.** 25% Joint & Survivor
	6. Other

Schedule of Benefit Recipients by Type *(Continued)*

As of June 30, 2024

Table 5.4 Part D Statewide Volunteer Firefighter Plan

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Benefit			Option Selected		
		A	B	C	1	2	3
$1–250	21	16	5	0	13	2	6
251–500	29	26	3	0	8	13	8
501–750	28	22	6	0	9	13	6
751–1000	54	54	0	0	8	41	5
Over 1000	5	5	0	0	1	3	1
Totals	**137**	**123**	**14**	**0**	**39**	**72**	**26**

Type of Benefit	Option Selected
A. Retirement	**1.** Single Life
B. Survivor of Active Member	**2.** 75% Joint & Survivor
C. Survivor of Benefit Recipient	**3.** 50% Joint & Survivor

Principal Participating Employers

Defined Benefit Plans—Top 10 Listing for FY 2023

Table 5.5 Principal Participating Employers

Table 5.5 Part A General Employees Fund

Employer Name	Active Members	% of Total Active Members
HENNEPIN COUNTY	8,119	5.16%
HENNEPIN HEALTHCARE SYSTEM	5,500	3.49%
MINNEAPOLIS SPECIAL ISD-1	5,001	3.18%
CITY OF MINNEAPOLIS	3,724	2.37%
RAMSEY COUNTY	3,527	2.24%
ANOKA-HENNEPIN ISD-11	2,971	1.89%
ST PAUL ISD-625	2,717	1.73%
ROSEMOUNT ISD- 196	2,445	1.55%
CITY OF ST PAUL	2,311	1.47%
DAKOTA COUNTY	1,916	1.22%

A complete list of participating employers can be found in the Financial Resource Center page of mnpera.org.

Table 5.5 Part B Police & Fire Plan

Employer Name	Active Members	% of Total Active Members
CITY OF ST PAUL	1,025	8.52%
CITY OF MINNEAPOLIS	1,023	8.50%
HENNEPIN COUNTY	304	2.53%
CITY OF DULUTH	274	2.28%
CITY OF ROCHESTER	238	1.98%
RAMSEY COUNTY	226	1.88%
HENNEPIN HEALTHCARE SYSTEM	190	1.58%
CITY OF ST CLOUD	181	1.50%
WRIGHT COUNTY	164	1.36%
CITY OF BLOOMINGTON	155	1.29%

A complete list of participating employers can be found in the Financial Resource Center page of mnpera.org.

Principal Participating Employers (Continued)

Defined Benefit Plans—Top 10 Listing for FY 2023

Table 5.5 Part C Correctional Plan

Employer	Active Members	% of Total Active Members
HENNEPIN COUNTY	458	11.99%
RAMSEY COUNTY	420	10.99%
ANOKA COUNTY	226	5.91%
SHERBURNE COUNTY	150	3.93%
DAKOTA COUNTY	141	3.69%
CLAY COUNTY	118	3.09%
PRAIRIE LAKES DETENTION CENTER	112	2.93%
OLMSTED COUNTY	94	2.46%
SCOTT COUNTY	89	2.33%
ARROWHEAD REGIONAL CORRECTIONS	83	2.17%

A complete list of participating employers can be found in the Financial Resource Center page of mnpera.org.

Table 5.6 Statewide Volunteer Firefighter Plan

Employer	Active Members	% of Total Active Members
CITY OF VADNAIS HEIGHTS VOL FIRE DEPT	56	1.03%
CITY OF COTTAGE GROVE	55	1.01%
CITY OF OAK GROVE	53	0.98%
CITY OF HASTINGS	52	0.96%
CITY OF VICTORIA	51	0.94%
CITY OF CARVER	49	0.90%
CITY OF WILLMAR	46	0.85%
CITY OF WACONIA	44	0.81%
ISANTI AREA JOINT FIRE DISTRICT	44	0.81%
CITY OF WHITE BEAR LAKE	42	0.77%

A complete list of participating employers can be found in the Statewide Volunteer Firefighter Retirement Plan page of mnpera.org.

Privatized Employers

Below is a list of privatized employers according to Minnesota Statutes chapter 325F.

Table 5.7 Privatized Employers

Allina Rice County District 1 Hospital
Benedictine Living Community of St Peter
Cannon Falls Med Center - Mayo Health
Cedarview Care Center
Centracare Health - Paynesville
Centracare Health System - Sauk Centre
City of Glencoe Regional Health Center
City of Granite Falls Hospital And Manor
City of Lakefield Colonial Nursing Home
City of Willmar Rice Memorial Hospital
Cornerstone Nursing & Rehab Center*
Essentia Bridges Medical Center
Essentia Health Virginia LLC
Harmony River Living Center
Hutchinson Area Health Care
Lakeland Medical Center
Lakeside Health Care Center
Pennington County Oakland Park Nursing
Redwood Area Hospital
Renville County Hospital
Renville Health Services
Ridgeview Medical Center
Sanford Health Wheaton Medical Center
Sanford Hosptial Luverne
Sanford Regional Hospital Worthington
Sibley Medical Center
St. Paul Area Company
Swift County Benson Hospital
Traverse Care Center
Weila Health
Weiner Hospital, City of Marshall
Willmar Medical Services LLP

PUBLIC EMPLOYEES
RETIREMENT ASSOCIATION

Public Employees Retirement Association
60 Empire Drive | Suite 200
St. Paul, MN 55103-2088
mnpera.org