MFPRSI

Annual Report

A report for the pension trust for municipal firefighters and police officers in the State of Iowa

Fiscal Year

2023

MFPRSI MUNICIPAL FIRE & POLICE RETIREMENT SYSTEM OF IOWA

Mission & Vision Statements

MFPRSI is an independent leader delivering promised retirement and disability benefits to eligible municipal firefighters and police officers through responsible stewardship of assets held in trust.

Independent
To operate as a self-directed system guided by fiduciary-based decision making.

Leader
To seek best practices and innovative ideas through research-driven processes, education, and trustworthy advisors and staff.

Promised
To deliver benefits earned through a 100% targeted funding policy, an investment portfolio that meets liquidity needs and return assumptions with acceptable risk, and quality and timely services.

Responsible
To ensure a durable structure by applying consistent standards, adapting with time, evaluating risk-reward measures, security, staffing, and results-based decision making.

MFPRSI

Fiscal Year 2023 Highlights

Membership
4,168 active members[1]
4,898 inactive members[1]

Funding
85% funded ratio*[1]

Distributions
$214.1 million in benefits paid[2]
$2.0 million in refund of contributions paid[2]

Investing
$3.2 billion, market value of portfolio[3]
6.0% fiscal year return[3]

Contributions
$34.2 million from members[2]
$86.7 million from employers[2]
$0 from the State of Iowa[2]

Actuarial
$3.2 billion in actuarial value of plan assets[1]
$587 million of unfunded actuarial accrued liability[1]
$3.8 billion of total actuarial accrued liability[1]

**Based on the ratio of the actuarial value of assets to the actuarial accrued liability*

Information provided by:
1 HUB International
2 Bailly LLP
3 Marquette Associates

Table of Contents

Chairperson's Letter

Marty Pottebaum
Board Chair

To our Members, City Representatives, and Stakeholders,

It is my pleasure to present the Municipal Fire & Police Retirement System of Iowa's annual report for fiscal year 2023, the retirement system's 31st year of operation. This report summarizes our financial status and highlights our achievements during the past fiscal year, from July 1, 2022, to June 30, 2023.

The conclusion of fiscal year 2023 was an important one for MFPRSI and our members. Together we moved forward on our journey to continue our long-standing commitment and tradition of providing a secure retirement for those who put their lives on the line to protect us every day. As chair of the Board of Trustees, I am honored to represent the brave police officers and firefighters who make up our membership, and to be part of this organization as we build upon our strong foundations and toward another 30 years of success.

As we know all too well, our organization is more than a storied institution. We are a collection of people whose passion for service and commitment to others is a driving force not only in our communities, but also our world. Unsurprisingly, even upon retirement, many of our members continue to be active leaders in the towns and cities they call home. By providing guidance, counsel, and trusted leadership – MFPRSI members continue to live their passion well beyond their official years of being "on duty." I hope you enjoy reading about some of these valued members and hearing their stories in this year's annual report.

MFPRSI has proven its durability over the years by weathering significant market fluctuations through the 1990s, 2000s, and now early 2020s. As the old adage goes, "there is always something," but staying responsibly focused on our members and keeping an eye toward the future will continue to safeguard us from the things we cannot control – such as pandemics, inflation, and potential recessions. Since 1992, we have consistently provided returns no matter the storm – and the retirement system has never missed a benefit payment. The same is true for the portfolio in 2023. Furthermore, one of the most important indicators of MFPRSI's health is our return performance over the plan's 31-year lifespan, 7.8

percent, which exceeds our long-term actuarial target rate of 7.5 percent. Our three, five, and ten-year investment portfolios were all in the top 25th percentile for defined benefit retirement systems with benefits between $1 billion and $5 billion. While we continue to move beyond the uncertainties and unprecedented challenges of the past three years, we are optimistic that we are positioned for growth and stability in the years ahead. This will allow us to continue to deliver a program that is comprehensive, efficient, sound, and sustainable.

This year's investment return is 6.0 percent. Ripple effects from market instability continue to pulse through not only the pension universe, but the financial universe as a whole. Even so, the Board of Trustees has worked diligently to maintain the integrity of the retirement system, implement proactive strategies that help us anticipate what lies ahead, and continue to make sound decisions on behalf of the system and its members.

While we head into another 30 years of success, I'd like to personally thank each of you for your dedication and partnership to MFPRSI. It is because of our valued members and supporters that our institution is able to provide such a meaningful impact to the men and women who have committed their lives to public service.

Yours truly,

Marty Pottebaum

Commitment to Community and Selfless Service are a Calling for Jeff Cayler

Jeff Cayler
Retired Chief of Police

If you visit the town of Carroll, Iowa, chances are you will find somebody who knows Jeff Cayler.

Jeff, Carroll Police Department's retired chief of police, has been a mainstay in the community since he arrived in 1981. After finishing his degree at the University of Iowa where he decided to change his focus to criminal justice, Jeff moved to Carroll to accept his first job as a police officer. He recalls his initial hesitation to accept the role for fear there wasn't much opportunity for advancement. Over 40 years later – this makes Jeff laugh today.

"As a new excitable rookie, I was a little nervous that there was not much opportunity to move up," said Jeff. "Not long after I accepted the job, the chief of police at the time had resigned, and the new chief created a sergeant position within the department. In just my first couple years on the job, I received a promotion."

Not long after that, the chief of police position was open again in 1984 following another resignation. With strong encouragement from city leaders and department peers, Jeff decided to throw his hat in the ring along with 70 other candidates for the job – some of whom had PhD's, master's degrees, and years of experience as police chiefs in other counties and states.

"I was completely relaxed because I didn't really believe that I would be hired," Jeff said. "I think they ended up appreciating my honesty during my interview. I got the job."

Being named chief of police for the Carroll community was the first major milestone in what would eventually become a lifetime of dedication to policing, public service, and leadership. By the mid-1990s, Jeff was dipping his toe into the consulting world where he'd help

"As a new excitable rookie, I was a little nervous that there was not much opportunity to move up."

communities identify and assess candidates for open leadership positions including police and fire chiefs. Having been a chief of police for many years, Jeff knew what it took to not only be good at the job, but to build strong departments that were centered around efficiency, collaboration, and trust within the community. Jeff's promotional testing and assessing strategies have helped several communities hire excellent candidates for sergeants, lieutenants, captains, and chiefs – all of whom play critical roles in the communities they serve.

In addition to being a valuable resource for departments around the state when it comes to identifying and hiring the right individual for the job, Jeff has also become a mentor in the police and fire communities.

"First thing I tell candidates is to join the Iowa Police Chiefs Association (IPCA)," said Jeff. "It's important to have a network of people you can connect to and relate to. Talking to people who have been there and learning from their successes and failures is incredibly valuable."

Sound advice comes from firsthand experience.

After becoming chief of police in 1985, Jeff started a master's program where he connected to a network of people who were having similar experiences. His approach to cast a wide net continued during his career where he eventually served as an administrator to the Carroll County Communication Center, chair and vice chair of the 911 board and Emergency Management Commission, and was appointed to the National Policy Advisory Board of the Criminal Justice Information Services (CJIS) Division of the Federal Bureau of Investigation. Of course, Jeff has also been a valued member of the Municipal Fire and Police Retirement System of Iowa (MFPRSI).

"I like to be involved and know what's going on," said Jeff. "It gives me a lot of different perspectives and mentorships."

When Jeff says be involved, he means be involved.

> "MFPRSI has traditionally been great at outreach and is dedicated to educating members and communities on how the system works."
>
> -Jeff Cayler

He served as acting city manager on more than one occasion, continues to be an active member of the IPCA, and is proud to support the efforts of MFPRSI.

"MFPRSI has traditionally been great at outreach and is dedicated to educating members and communities on how the system works," he said. "From the very beginning, the system has continued to improve and serves members well. They have been great to work with."

As for Jeff, he plans to continue his talented balancing act of community involvement and professional responsibility while also settling into the much-coveted role of grandpa.

"After 42 years in Carroll, we've decided to make the move to be closer to our daughters and their growing families," said Jeff. "Of course, I love my job. It makes me feel good that I've been trusted with the responsibility to help communities and departments achieve their goals."

This is no surprise since the past four decades of Jeff's service are more than a career – it's his calling.

Bill Ell: A Legacy of Service and Leadership in Burlington

Bill Ell
Retired Burlington Fire Chief

For 22 years, Bill Ell stood at the helm of the Burlington Fire Department, leaving an influential mark on the community. Rising through the ranks from lieutenant to chief, Bill reflects on his journey with gratitude.

"I was really lucky to receive those promotions and move up quickly," Bill said.

Bill's story began in Mason City, where he initially aimed to join the police force. However, his journey took a different course, leading him to the Burlington Fire Department in December 1963. This allowed him to support others while playing a crucial role in the department's operations.

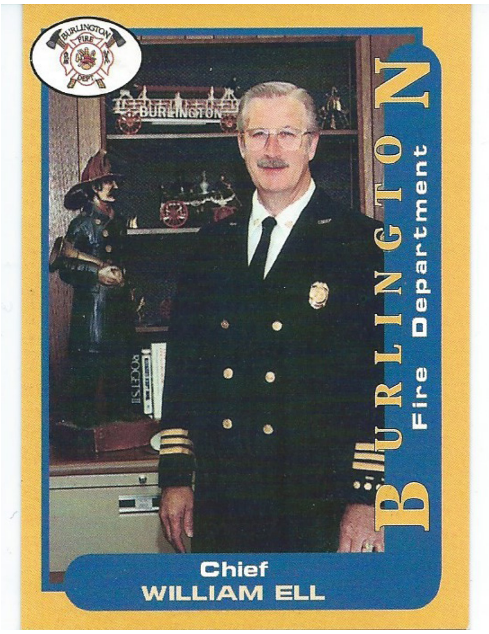
"When you become a fire chief in a small community, so much of what you do is administrative – much like human resources," Bill said.

Under Bill's leadership, the department evolved, embracing a commitment to training and the development of a full-time paramedic and ambulance service. This resulted in a safer and effective response system for residents of Burlington and beyond.

Bill's wife once described him as a 'habitual volunteer,' because his public service extended far beyond firefighting. From the city council to the Boy Scouts, where he began his tenure in 1974, Bill has been a dedicated advocate for community betterment. His involvement with the local United Way chapter further exemplifies his commitment to the well-being of Burlington.

Amid administrative responsibilities, Bill cherishes the friendships cultivated during his tenure. Beyond his role as fire chief, Bill played

> "The comradery that you get in public service is pretty darn important. Supporting these individuals in their professional pursuits has been special."



"We have been fortunate to have a great director with terrific Boards and staff, and the results have been good"

-Bill Ell

a pivotal role in assessment centers where he identified and supported individuals for a variety of civil service positions.

"The comradery that you get in public service is pretty darn important," Bill emphasized. "Supporting these individuals in their professional pursuits has been special."

In the backdrop of Bill's extensive service lies the evolution of the Municipal Fire and Police Retirement System of Iowa (MFPRSI). Initially met with apprehension due to the traditionally local handling of pension programs, Bill says that MFPRSI has thrived, earning the trust of dedicated public servants like himself.

"We have been fortunate to have a great director with terrific Boards and staff, and the results have been good," Bill said.

He commends MFPRSI's commitment to continuous improvement, acknowledging their hard work in ensuring a robust pension system. In a world where pensions are dwindling, he urges appreciation for the existence of MFPRSI, calling it "a great system" benefiting those who have served selflessly.

Bill Ell's journey stands as a testament to the power of dedication, community, and the impact one individual can have on the well-being of others. His legacy, woven into the fabric of Burlington, serves as an inspiration for future generations of public servants.

Introduction

Retirement System Overview

MFPRSI was created by the Iowa General Assembly in 1990 to establish a statewide retirement system for fire and police personnel covered by the provisions of Iowa Code Chapter 411. Upon its establishment, MFPRSI consolidated 87 local fire and police retirement systems formerly administered by 49 of Iowa's largest cities. The retirement system initiated its formal operations on January 1, 1992, to administer the retirement benefits for fire and police personnel in Iowa's participating cities.

The mission of MFPRSI is to be an independent leader delivering promised retirement and disability benefits to eligible municipal firefighters and police officers through responsible stewardship of assets held in trust. The programs of the retirement system include the payment of pension benefits for service retirement, ordinary disability retirement, accidental disability retirement, survivors of deceased members (e.g., spouse and dependent benefits), and the refund of contributions upon withdrawal by a terminated member.

In its effort to accomplish its goals, MFPRSI administers a contributory defined benefit plan for firefighters and police officers as established in Iowa Code Chapter 411. The benefits available through the retirement system are based on a formula using the average of the highest three years of earned wages as a member and a multiplier based on years of membership service.

In addition to service retirement benefits, MFPRSI offers a comprehensive disability program that includes establishing standards for entrance physical examinations, guidelines for ongoing fitness and wellness, and post-disability retirement compliance requirements.

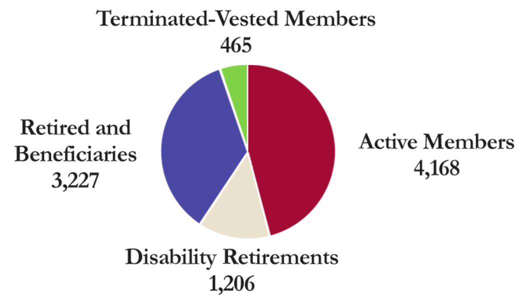
Firefighters and police officers in the participating cities are granted membership by Iowa Code Chapter 411. Participants are vested upon attaining four years of membership service. Vested status may also be achieved by actively earning service credit at age 55 or older.

The Board of Trustees ("Board") represents the firefighter and police officer memberships, cities, and citizens of Iowa, while the Iowa General Assembly provides the retirement system with direction and oversight. Iowa Code also includes specific authorization to administer each of the following: actuarial services, medical board, legal services, and organization and staff. The individuals comprising the administrative staff are available to assist members, city officials, and interested parties with any questions or concerns about the retirement program.

Membership

MFPRSI had 9,066 members at the end of fiscal year 2023, with 4,168 active members employed by the 49 participating cities. Of the remainder, 1,206 receive benefits due to disability, 3,227 are either retired or a beneficiary, and 465 are terminated-vested members. MFPRSI made over 52,000 accurate and timely benefit payments over the course of the fiscal year. Approximately 99 percent of those payments were made via electronic funds transfer.

Membership Breakdown



During the year members received annual statements summarizing their contributions as well as two newsletters highlighting news, statistics, and announcements.

Investments

Member benefits are made available through employee contributions, employer contributions, and investment earnings. Of those three sources, the investment portfolio provides the greatest percentage of income. MFPRSI manages an investment portfolio that is well diversified with a long-term investment horizon. The portfolio is designed to capture positive investment returns in public equity, fixed income, real assets, and private markets when the markets are up while minimizing losses during negative investment periods.

Investment Performance

6.0%
1-Year

10.2%
3-Year*

7.6%
5-Year*

7.8%
10-Year*

7.8%
Since Inception*

*Annualized

The fund is monitored by a staff of investment officers at MFPRSI under the direction of the Executive Director and the Chief Investment Officer. Investment recommendations are made by the Executive Director; Chief Investment Officer; Marquette Associates ("Marquette"), MFPRSI's investment consultant; and, investment officers. In turn, the Board uses the information provided by those parties to make final decisions on asset allocation. On an annual basis, and more frequently as necessary, the Board reviews and revises the investment policy.

MFPRSI's investment portfolio returned 6.0 percent in fiscal year 2023. The ten-year annualized return for the period ending June 30, 2023, was 7.8 percent. The long-term target rate of return, as determined by the Board, is 7.5 percent. The target rate is adopted by the Board as the assumed rate of return the investment portfolio can return while taking an acceptable amount of risk. The investment portfolio's annualized performance since inception in 1992 is 7.8 percent.

Accomplishments

Over the course of fiscal year 2023 (July 1, 2022 to June 30, 2023), MFPRSI engaged in several activities pertaining to both the retirement system's active and retired memberships as well as to the financial management of its investment assets. The projects described below were intended to enhance the services provided to the membership and cities or to augment the investment portfolio.

Administration

The contract with the Principal Trust Company, the retirement system's custodian bank, was renewed for an additional three-year term.

The Board analyzed its relationship with its auditing services provider, Eide Bailly LLP, and renewed its contract for an additional three years.

A new Vision Statement was adopted:

- <u>Independent</u>: To operate as a self-directed system guided by fiduciary-based decision making.
- <u>Leader</u>: To seek best practices and innovative ideas through research-driven processes, education, and trustworthy advisors and staff.
- <u>Promised</u>: To deliver benefits earned through a 100% targeted funding policy, an investment portfolio that meets liquidity needs and return assumptions with acceptable risk, and quality and timely services.
- <u>Responsible</u>: To ensure a durable structure by applying consistent standards, adapting with time, evaluating risk-reward measures, security, staffing, and results-based decision making.

The administration submitted its 2023 Financial Evaluation Report to the Iowa General Assembly. This report is submitted to the legislature once every two years. It provides a high-level overview of the retirement system and makes recommendations concerning the long-term financing and benefits policy of the System.

The Board adopted its board manual, a document that delineates the responsibilities of the retirement system's trustees.

The trustees and administration continued its review of the retirement system's Strategic Plan.

Enrollment in My411, the retirement system's online portal for members, continued to climb. As of the end of the fiscal year, over 2,700 members had registered. The administration continued to work with its online account vendor to assure safe and secure access for its membership.

Accomplishments (cont.)

Financial and Investments

The Board adopted a new asset allocation strategy that included an internally managed absolute return strategy. The move shifted 2.5% of total assets from Core and Strategic Investments to an internally managed strategy with characteristics similar to the BarclayHedge BTOP Index (BTOP 50), but without the use of leverage. The approval of the internal investment strategy was part of a goal established by the Board to reduce investment performance volatility while maintaining its investment return goal. As part of this decision, the board approved specific compliance policies and manuals, a licensing agreement, and a conflicts of interest waiver.

A $20 million investment was made to Bain Capital Credit Global Direct Lending 2021, a private credit fund.

The Board committed $30 million to Siguler Guff Hawkeye Co-Invest fund and $45 million to Adams Street Cyclone fund. Both funds are part of previously adopted separate account strategies, Hawkeye, managed by Siguler Guff and Cyclone, managed by Adams Street Partners.

As part of the annual review of its overall governance of the investment portfolio, the Board adopted its investment policy for the fiscal year.

An investment of $15 million was approved to the Top Tier Venture Velocity Prime Fund, a private equity strategy focused on secondary markets.

Benefit Plan

The Board approved the city contribution rate at 22.98 percent, effective July 1, 2023.

Board Elections

Michelle Weidner retired from her position as chief financial officer for the City of Waterloo, IA. Her seat on the retirement system's board of trustees was filled by Jennifer Sease, the administrative services director from Ankeny, IA. The Iowa League of Cities appointed Sease. Weidner had been on the Board since 2014.

Eric Snyder was appointed by the Iowa State Police Association as an active police officer representative to the board. Snyder took the seat previously occupied by David McFarland. Snyder is a police officer for the City of Ames, IA.

Marty Pottebaum was reappointed by the Iowa State Police Association as a retired police officer representative to the board.

Nickolas Shaul was reappointed to a four-year term to the board by the Iowa League of Cities as a representative of the employing cities.

Marty Pottebaum and Mary Bilden were both appointed by their peers as Chairperson and Vice Chairperson, respectively.

Duane Pitcher, from Ames, IA, was appointed as the citizen representative to the board upon Mary Bilden's retirement. Pitcher previously was a city representative on the retirement system's board of trustees from 2003 to 2022.

June Anne Gaeta, retired firefighter from Burlington, IA, was appointed to replace Bilden as Vice Chairperson.

Board of Trustees

The activities of MFPRSI are under the direction of its Board which has nine voting members and four non-voting, legislative representatives. The voting coalition of the Board is comprised of four representatives of the active and retired fire and police memberships, four representatives of the cities, and one private citizen. Individuals are appointed to four-year terms by the fire and police associations and by the Iowa League of Cities. The eight voting members select a private citizen to serve as the ninth voting member. Non-voting members are chosen by the leadership of the Iowa Senate and Iowa House of Representatives and serve two-year terms.

Voting Members

Marty Pottebaum

Chair
Retired Police Officer
Sioux City

June Anne Gaeta

Retired Firefighter
Muscatine

Mallory Merritt

City Representative
Davenport

Duane Pitcher

Citizen
Ames

Laura Schaefer

City Representative
Carroll

Nickolas Schaul

City Representative
Des Moines

Jennifer Sease

City Representative
Ankeny

Eric Snyder

Active Police Officer
Ames

Jason Zilk

Active Firefighter
Des Moines

Non-Voting Members

Kenan Judge

Representative
House District 44

Matthew Rinker

Representative
House District 99

Nate Boulton

Senator
Senate District 20

Tim Kraayenbrink

Senator
Senate District 5

Staff

The day-to-day management of MFPRSI is delegated to an Executive Director who is appointed by the Board and serves at its discretion. The Executive Director, Deputy Director, Chief Investment Officer, and administrative staff are responsible for the administration of the retirement system.

Staff Responsibilities

The Executive Director, Deputy Director, and Chief Investment Officer act as advisors to the Board on all issues relevant to MFPRSI, establish contracts for professional services, and employ the remaining staff needed to maintain the retirement system.

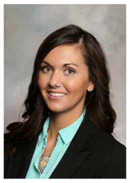
The Senior Pension Officers administer payrolls, and establish and maintain the membership records of the retirement system. Additionally, they communicate with members regarding benefit and membership status.

The Accountant/Investment Officer performs accounting, auditing, and control functions of the retirement system. They also provide analysis for the investment portfolio. The Investment/Communications Officer creates visual/print materials and provides analysis for the investment portfolio.

Staff

Dan Cassady

Executive Director



BriAnna Nystrom

Deputy Director

Carlton Chin

Chief Investment Officer

James Bybee

Accountant / Investment Officer

Angie Conner

Senior Pension Officer

Kathy Fraise

Senior Pension Officer

Jill Hagge

Senior Pension Officer

Cody Jans

Investment / Communications Officer

Financial Statements

Independent Auditor's Report

Management's Discussion and Analysis

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

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

Notes to Financial Statements as of and for the Years Ended June 30, 2023 and 2022

Independent Auditor's Report

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Municipal Fire and Police Retirement System of Iowa (MFPRSI), which comprise the statements of fiduciary net position as of and for the years then ended June 30, 2023 and 2022, and the related statements of changes in fiduciary net position for the years ended, and the notes to the financial statements, which collectively comprise the MFPRSI's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective statements of fiduciary net position of MFPRSI, as of June 30, 2023 and 2022, and the respective changes in fiduciary financial position, thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits 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 (*Government Auditing Standards*). 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 MFPRSI 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.

Emphasis of Matter

As discussed in Notes 2 and 4 to the financial statements, total system investments include investments valued at $1,346.8 million (42.1% of total assets), as of June 30, 2023, whose fair values have been estimated by management in the absence of readily determinable values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinion is not modified with respect to that matter.

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.

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

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with 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 judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of MFPRSI'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 or events, considered in the aggregate, that raise substantial doubt about MFPRSI'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 the management's discussion and analysis and the required supplementary information on pages 27-32 and 60-68 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 the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 13, 2023 on our consideration of the MFPRSI's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of MFPRSI's 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 MFPRSI's internal control over financial reporting and compliance.

Eide Bailly LLP

Boise, Idaho
October 13, 2023

Management's Discussion and Analysis

The following discussion and analysis of the Municipal Fire and Police Retirement System of Iowa's (MFPRSI or retirement system) financial performance provides an overview of the retirement system's financial activities for the fiscal years ended June 30, 2023 and 2022. Please read in conjunction with the basic financial statements, which follow this discussion. These statements represent the current condition from an accounting perspective, but do not reflect MFPRSI's actuarial status. Refer to MFPRSI's actuarial valuation for its funding status regarding long-term benefit obligations.

FINANCIAL HIGHLIGHTS

- Retirement system assets exceeded its financial liabilities at the close of the fiscal years 2023 and 2022 by $3,175,750,413 and $3,090,046,862 (reported as plan net position restricted for pension benefits), respectively. Net position restricted for pension benefits is held in trust to meet future benefit payments.

- Additions for the year ended June 30, 2023, were $304,179,047, which is comprised of contributions of $120,829,273, net investment gain of $182,866,808, and other income of $482,966. Additions for the year ended June 30, 2022, were $6,097,853, which is comprised of contributions of $120,052,943, net investment loss of $113,965,317, and other income of $10,227.

- Benefit payments were $214,140,489 and $205,621,966 for the years ended June 30, 2023, and 2022, respectively, a 4.1% increase from year to year.

THE STATEMENT OF FIDUCIARY NET POSITION AND THE STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

This annual financial report consists of two financial statements, the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position. These financial statements report information about the financial condition of the retirement system, as a whole, and should help answer the question: Is MFPRSI, as a whole, better off or worse off as a result of this fiscal year's experience? These financial statements include all assets and liabilities using the accrual basis of accounting. Under the accrual basis of accounting, all revenues and expenses are taken into account regardless of when cash is received or paid.

The Statement of Fiduciary Net Position presents all of MFPRSI's assets and liabilities, with the difference between assets and liabilities reported as plan net position restricted for pension benefits. Over time, increases and decreases in plan net position restricted for pension benefits is one method of measuring whether the retirement system's financial position is improving or deteriorating. The Statement of Changes in Fiduciary Net Position presents the changes in plan net assets during the respective fiscal year.

FINANCIAL ANALYSIS

MFPRSI's assets as of June 30, 2023, and 2022 were approximately $3.20 billion and $3.19 billion, respectively, and were primarily comprised of investments, cash, receivables from brokers, and contributions due from employers. The $4,902,453, or 0.2%, increase in assets from June 30, 2022, to June 30, 2023, was primarily due to the unrealized gains experienced in invested assets.

As discussed in Notes 2 and 4 to the financial statements, total retirement system investments include investments valued at $1,346.8 million (42.1% of total assets) and $1,322.3 million (41.4% of total assets) as of June 30, 2023, and 2022, respectively, whose fair values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners.

Total liabilities as of June 30, 2023, and 2022 were $23,878,213 and $104,107,255, respectively, and were primarily comprised of obligations under benefits and refunds payable, as well as payable to brokers for unsettled trades. The $80,229,042, or 77.1%, decrease in liabilities from June 30, 2022, to June 30, 2023, was due to a decrease in payables to brokers for unsettled trades.

During the year ended June 30, 2023, plan net position restricted for pension benefits increased $85,703,551, or 2.8%, from the previous fiscal year, primarily due to the unrealized gains experienced in invested assets. This is in comparison to the previous fiscal year, when net position decreased by $203,563,406, or 6.2%, from the prior year.

Condensed Statement of Fiduciary Net Position (In Thousands of $)

Assets:	**2023**	**2022**	**2023/2022 % Change**	**2021**	**2022/2021 % Change**
Cash	$10,822	$7,535	43.6%	$7,957	-5.3%
Investments	3,178,812	3,123,603	1.8%	3,313,612	-5.7%
Receivables	9,677	63,381	-84.7%	28,697	120.9%
Other Assets	253	142	78.2%	104	36.5%
Total Assets	$3,199,564	$3,194,661	0.2%	$3,350,370	-4.6%
Pension related deferred outflows	131	135	-3.0%	191	-29.3%
Liabilities:					
Benefits and refunds payable	18,911	18,710	1.1%	16,675	12.2%
Investment management expense payable	4,003	1,931	107.3%	2,560	-24.6%
Administrative expenses payable	477	427	11.7%	354	20.6%
Net Pension Liability attributed to IPERS	479	17	2717.6%	840	-98.0%
Payable to brokers for unsettled trades	8	83,022	-100.0%	36,485	127.6%
Total Liabilities	$23,878	$104,107	-77.1%	$56,914	82.9%
Pension related deferred inflows	67	642	-89.6%	37	1635.1%
Plan net position restricted for pension benefits	$3,175,750	$3,090,047	2.8%	$3,293,610	-6.2%

Condensed Statement of Changes in Fiduciary Net Position (In Thousands of $)

	2023	2022	2023/2022 % Change	2021	2022/2021 % Change
Additions:					
Contributions	$120,829	$120,053	0.6%	$112,833	6.4%
Net investment income	182,867	(113,965)	-260.5%	785,156	-114.5%
Other income	483	10	4730.0%	210	-95.2%
Total additions	304,179	6,098	4888.2%	898,199	-99.3%
Deductions:					
Benefits and refund payments	216,186	207,530	4.2%	195,202	6.3%
Administrative expenses	2,290	2,131	7.5%	2,135	-0.2%
Total deductions	218,476	209,661	4.2%	197,337	6.2%
Net increase (decrease)	85,703	(203,563)	-142.1%	700,862	-129.0%
Plan net position restricted for pension benefits:					
Beginning of year	3,090,047	3,293,610	-6.2%	2,592,748	27.0%
End of year	$3,175,750	$3,090,047	2.8%	$3,293,610	-6.2%

REVENUES – ADDITIONS TO FIDUCIARY NET POSITION

Reserves needed to finance retirement benefits are accumulated through the collection of contributions and earnings on investments. Contributions and net investment income for the fiscal year 2023 totaled $303,696,081.

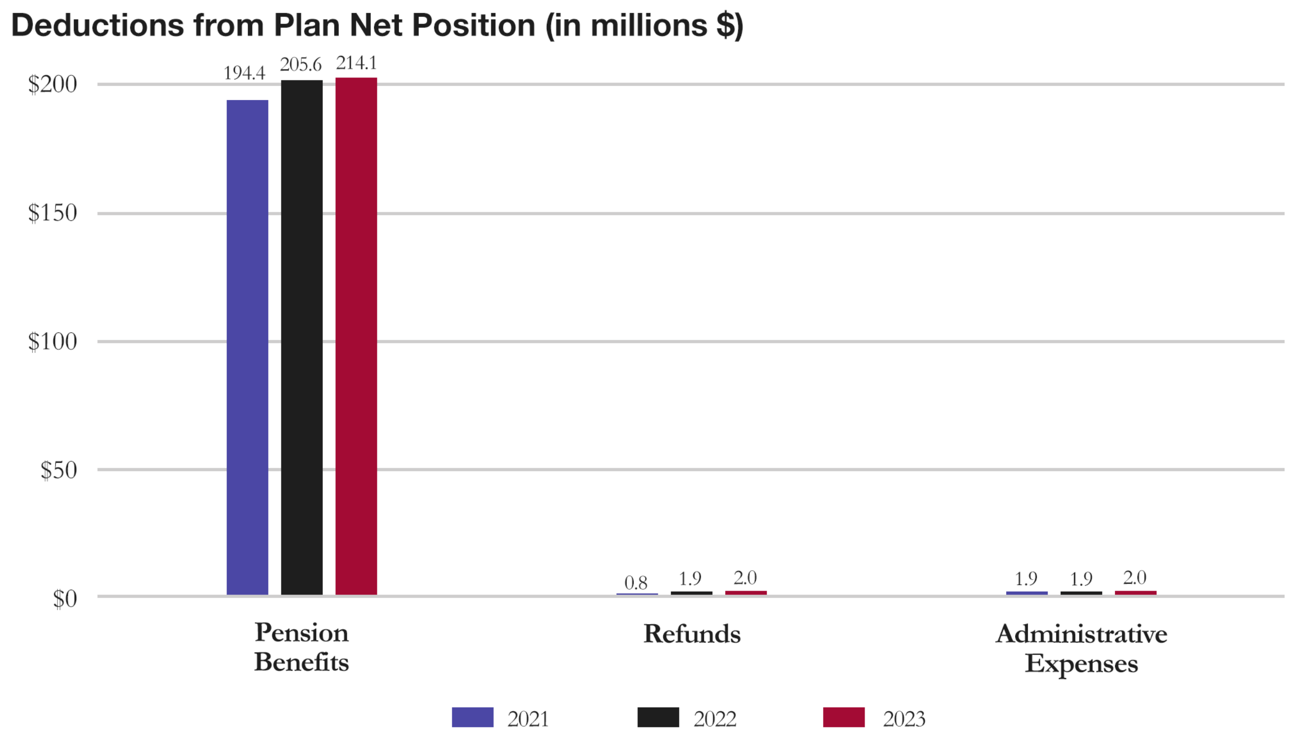
Contributions increased from the previous year by $776,330. This increase is primarily due to an increase in the earnable compensation of members. Net investment income increased from the previous year by $296,832,125. This change is primarily due to a net appreciation in the fair value of assets.

Additions to Plan Net Assets (in millions $)

EXPENSES – DEDUCTIONS FROM FIDUCIARY NET POSITION

MFPRSI's principal expenses include the payment of pension benefits to retired members and beneficiaries, refund of contributions to former members, and the cost of administering the retirement system. Total deductions for the fiscal year 2023 were $218,475,496, an increase of 4.2% over fiscal year 2022 deductions.

Pension benefit payments increased by $8,518,523, or 4.1%, from the previous year. Refund of contributions increased by $138,158, or 7.2%. These changes are primarily due to the annual escalator and an increase in the number of refund applications in 2023.



THE RETIREMENT SYSTEM AS A WHOLE

It is important to note the financial obligations established by the Iowa legislature in Iowa Code Chapter 411 are committed benefits, which are to be funded through the contributions made by the employers and the membership, in concert with the long-term return on investments. The "public policy" within Iowa has always been to meet the benefit commitments of the pension plans. The history of the plan benefits under Chapter 411 traces to 1934. The funding methods established by the legislature in the Iowa Code, whereby contributions are made from the individual employers and members, coupled with the "prudent person" concept for investment policy, provides the financial foundation for this public policy.

CONTACTING MFPRSI

This financial report is designed to provide MFPRSI's Board of Trustees, membership, and cities a general overview of the retirement system's finances and to demonstrate accountability for assets. Questions and additional financial information can be found by contacting MFPRSI's office in writing at 7155 Lake Drive, Suite 201, West Des Moines, IA 50266.

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

	2023	2022
Assets:		
Cash	$10,821,958	$7,535,154
Investments, at fair value:		
U.S. government obligations	105,966,338	152,851,994
U.S. corporate fixed income	111,623,184	131,293,740
U.S. equity securities	406,892,555	390,852,228
Foreign equity securities	391,514,258	370,042,806
Commingled fixed income	41,103,374	37,719,616
Multi-strategy commingled fund	56,372,519	49,871,274
Short-term investments and currency positions	24,037,735	46,987,969
Infrastructure	115,125,818	85,852,789
Real estate	309,137,877	337,760,970
Private equity	806,170,666	799,421,035
Private credit	60,021,378	49,368,374
Absolute Return	73,849,851	-
Fund of funds commingled investment	676,996,107	671,580,460
Total investments - at fair value	3,178,811,660	3,123,603,255
Receivables:		
Contributions	6,894,283	3,526,670
Investment income	80,152	32,831
Receivable from brokers for unsettled trades, net	2,702,901	59,821,426
Total receivables	9,677,336	63,380,927
Other assets	252,770	141,935
Total assets	3,199,563,724	3,194,661,271
Pension related deferred outflows	131,039	134,546
Liabilities:		
Benefits and refunds payable	18,910,844	18,710,398
Investment management expenses payable	4,003,145	1,930,704
Administrative expenses payable	476,732	427,211
Net pension liability attributed to IPERS	478,702	17,123
Payable to brokers for unsettled trades, net	8,790	83,021,819
Total liabilities	23,878,213	104,107,255
Pension related deferred inflows	66,137	641,700
Plan net position restricted for pension benefits	$3,175,750,413	$3,090,046,862

See notes to financial statements.

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

	2023	2022
Additions:		
Contributions:		
Member	$34,165,042	$31,631,033
Employer	86,664,231	88,421,910
State appropriations	-	-
Total contributions	120,829,273	120,052,943
Investment Income (loss):		
Interest	13,036,176	11,306,522
Dividends	13,160,790	39,308,614
Net (depreciation) appreciation in fair value of investments	172,924,270	(139,434,366)
Net investment income (loss) from investment activity	199,121,236	(88,819,230)
Less investment expenses:		
Management fees and other	16,254,428	25,146,087
Net investment income (loss)	182,866,808	(113,965,317)
Other income	482,966	10,227
Total additions	304,179,047	6,097,853
Deductions:		
Benefit payments	214,140,489	205,621,966
Refund payments	2,045,865	1,907,707
Administrative expenses	1,990,888	1,910,869
Disability expenses	298,254	220,717
Total deductions	218,475,496	209,661,259
Net (decrease) increase in net position	85,703,551	(203,563,406)
Plan net position restricted for pension benefits:		
Net Position - Beginning	3,090,046,862	3,293,610,268
Net Position - Ending	$3,175,750,413	$3,090,046,862

See notes to financial statements.

Notes to Financial Statements as of and for the Years Ended June 30, 2023 and 2022

1. PLAN DESCRIPTION

General

MFPRSI was created under Chapter 411.35 of the Code of Iowa to replace 87 separate fire and police retirement systems from 49 cities and one county in Iowa (a collection of "separate systems"). Effective January 1, 1992, the separate systems were terminated, and the respective entities were required to transfer assets to MFPRSI equal to their respective accrued liabilities (as measured by MFPRSI's actuary). Upon transfer of the assets, MFPRSI assumed all membership, benefits rights, and financial obligations of the separate systems.

MFPRSI is the administrator of a multi-employer, cost sharing, defined-benefit pension plan for the exclusive benefit of eligible employees of participating cities (substantially all full-time employees of the respective cities' fire and police departments). It is governed by a nine-member Board of Trustees (Board) who are appointed by police and fire associations and by the Iowa League of Cities. The eight voting members select a private citizen to serve as the ninth voting member. The Board is authorized by the state legislature to make investments, pay benefits, set contributions rates, hire staff and consultants, and perform all necessary functions to carry out the provisions of the Code of Iowa. MFPRSI is separate and apart from state government and is not included in the state's financial statements.

At June 30, 2023, MFPRSI was comprised of 49 cities covering 4,168 active members; 465 terminated members entitled to benefits; and 4,433 retired firefighters, police officers, bailiffs, and eligible beneficiaries across Iowa.

Funding

Member - Member contribution rates are set by state statute. In accordance with Iowa Code Chapter 411 as modified by act of the 1994 General Assembly, to establish compliance with the Federal Older Workers Benefit Protections Act, the contribution rate was 9.40% of earnable compensation for the years ended June 30, 2023, and 2022.

Employer - Employer contribution rates are based upon an actuarially determined normal contribution rate and set by state statute. The required actuarially determined contributions are calculated on the basis of the entry age normal method as adopted by the Board of Trustees as permitted under Chapter 411 of the Code of Iowa. The normal contribution rate is provided by state statute to be the actuarial liabilities of the plan less current plan assets, with such total divided by one percent of the actuarially determined present value of prospective future compensation of all members, further reduced by member contributions and state appropriations. Under the Code of Iowa the employer's contribution rate cannot be less than 17.00% of earnable compensation. The contribution rate was 23.90% and 26.18%, for the years ended June 30, 2023 and 2022, respectively.

State Appropriations - State appropriations are approved by the state legislature and may further reduce the employer's contribution rate, but not below the minimum statutory contribution rate of 17.00% of earnable compensation. The State therefore is considered to be a nonemployer contributing entity in accordance with the provisions of the Governmental Accounting Standards Board Statement No. 67 – Financial Reporting for Pension Plans, (GASB 67). There were no State appropriations for the years ended June 30, 2023 and 2022.

Benefits Provided

Participating members are entitled to the benefit provisions in effect on the member's date of termination. The following is a summary of MFPRSI's benefit provisions for the years ended June 30, 2023 and 2022:

Retirement - Members with four or more years of service are entitled to pension benefits beginning at age 55. Full service retirement benefits are granted to members with 22 years of service, while partial benefits are available to those members with four to 22 years of service based on the ratio of years completed to years required (22 years). Members with less than four years of service are entitled to a refund of their contribution only, with interest for the period of employment.

Benefits are calculated based upon the member's highest three years of compensation. The average of these three years becomes the member's average final compensation. The base benefit is 66 percent of the member's average final compensation. Additional benefits are available to members who perform more than 22 years of service (two percent for each additional year of service, up to a maximum of eight years). Survivor benefits are available to the beneficiary of a retired member according to the provisions of the benefit option chosen plus an additional benefit for each child. Survivor benefits are subject to a minimum benefit for those members who chose the basic benefit with a 50 percent surviving spouse benefit.

Disability and Death - Disability coverage is broken down into two types, accidental and ordinary. Accidental disability is defined as permanent disability incurred in the line of duty, with benefits equivalent to the greater of 60 percent of the member's average final compensation or the member's service retirement benefit calculation amount. Ordinary disability occurs outside the call of duty and pays benefits equivalent to the greater of 50 percent of the member's average final compensation, for those with five or more years of service, or the member's service retirement benefit calculation amount, and 25 percent of average final compensation for those with less than five years of service.

Death benefits are similar to disability benefits. Benefits for accidental death are 50 percent of the average final compensation of the member plus an additional amount for each child, or the provisions for ordinary death. Ordinary death benefits consist of a pension equal to 40 percent of the average final compensation of the member plus an additional amount for each child, or a lump-sum distribution to the designated beneficiary equal to 50 percent of the previous year's earnable compensation of the member or equal to the amount of the member's total contributions plus interest.

Benefits are increased ("escalated") annually in accordance with Iowa Code Chapter 411.6 which states a standard formula for the increases.

Traumatic Personal Injury - The surviving spouse or dependents of an active member who dies due to a traumatic personal injury incurred in the line of duty receives a $100,000 lump-sum payment.

Deferred Retirement Option Plan (DROP) - Active members, at least 55 years of age, with 22 or more years of service have the option to participate in the Deferred Retirement Option Plan (DROP). DROP is an arrangement whereby a member who is otherwise eligible to retire and commence benefits opts to continue working. A member can elect a three-, four-, or five-year DROP period. By electing to participate in DROP the member is signing a contract indicating the member will retire at the end of the selected DROP period. During the DROP period the member's retirement benefit is frozen and a DROP benefit is credited to a DROP account established for the member. Assuming the member completes the DROP period, the DROP benefit is equal to 52% of the member's retirement benefit at the member's earliest date eligible and 100% if the member delays enrollment for 24 months. At the member's actual date of retirement, the member's DROP account will be distributed to the member in the form of a lump sum or rollover to an eligible plan. The balance of the amounts held by the retirement system pursuant to the DROP is $18,442,000 as of June 30, 2023, and $18,526,000 as of June 30, 2022.

Net Pension Liability of the Retirement System - The components of MFPRSI's net pension liability at June 30, 2023 and 2022 were as follows:

	2023	**2022**
Total pension liability	$3,801,949,463	$3,651,617,338
Plan fiduciary net position	(3,175,750,413)	(3,090,046,862)
Retirement system's net pension liability	$626,199,050	$561,570,476
Plan fiduciary net position as a percentage of the total pension liability	83.53%	84.62%

Actuarial Assumptions – The total pension liability was determined by an actuarial valuation as of June 30, 2023 and 2022, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.0 percent
Salary increases	3.75 percent to 15.11 percent including inflation
Investment rate of return	7.5 percent net of investment expense

Mortality rates as of June 30, 2023 and 2022 were based on RP 2014 Blue Collar Healthy Annuitant table with males set-forward zero years, females set-forward two years, and disabled set-forward three years (male only rates) with generational projection of future mortality improvement with 50% of Scale BB beginning in 2017.

The actuarial assumptions used in the June 30, 2023 valuation was based on the results of an actuarial experience study for the period of July 1, 2012, to June 30, 2022.

The actuarial assumptions used in the June 30, 2022 valuation was based on the results of an actuarial experience study for the period of July 1, 2010, to June 30, 2020.

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense, and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2023, (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Broad Fixed Income	4.9%
Broad U.S. Equity	7.1%
Global Equity	7.2%
Broad Non-U.S. Equity	7.4%
Managed Futures	5.2%
Core Real Estate	6.8%
Opportunistic Real Estate	11.1%
Global Infrastructure	6.9%
Private Credit	10.1%
Private Equity	12.1%

Discount rate – The discount rate used to measure the total pension liability was 7.50 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that city employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions the pension plan's fiduciary net position was projected to be available to make all future benefit payments of current plan members. Therefore, 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.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate – The following presents MFPRSI's net pension liability calculated using the discount rate of 7.5 percent, as well as what the retirement system's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.5%) or one percentage point higher (8.5%) than the current rate:

	2023		
	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
MFPRSI's Net Pension Liability (Asset)	$1,096,680,618	$626,199,050	$236,732,612

	2022		
	1% Decrease (6.5%)	**Current Discount Rate (7.5%)**	**1% Increase (8.5%)**
MFPRSI's Net Pension Liability (Asset)	$1,016,337,877	$561,570,476	$184,789,486

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America.

MFPRSI prepared its financial statements using the accrual basis of accounting. It recognizes member and employer contributions as revenues in the month member earnings are paid. Benefits and refunds are recognized as expenses when payable. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made.

Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts in the financial statements. MFPRSI's estimates are primarily related to the valuation of various investment instruments, including real estate, private equity, and the multi-strategy commingled fund, as well as the total pension liability. Actual results could differ from those estimates.

Investments

MFPRSI's securities are reported at fair value. Where appropriate, the fair value includes estimated disposition costs. Certificates of deposit are recorded at amortized cost which approximates fair value. Interest income is recognized when earned. Dividend income is recognized on the ex-dividend date. Gains or losses on stocks and bonds are recognized on an average cost basis calculated separately for each investment manager. Other gains and losses are recognized on an identified cost basis. Gains and losses on sales and exchanges are recognized on the trade date. The fair values of marketable securities held at June 30 are determined by using the closing price listed on national securities exchanges and quoted market prices are provided by independent pricing services. For commingled funds, the net asset value is determined and certified by the commingled fund manager. Investments in real estate, private equities, and the multi-strategy commingled fund which invest in both publicly and privately owned securities are valued based on estimates and assumptions of general partners, partnership valuation committees, or third party appraisal firms in the absence of readily determined market values. Such valuations generally reflect cash flows, discounts for illiquidity and consider variables such as financial performance of investments, recent sales prices of investments, and other pertinent information.

Investment Policy

The pension plan's policy in regard to the allocation of invested assets is established and may be amended by the Board by a majority vote of its members. It is the policy of the Board to pursue an investment strategy that reduces risk through prudent diversification of the portfolio across a broad selection of distinct asset classes. The pension plan's investment policy discourages the use of cash equivalents, except for liquidity purposes, and aims to refrain from dramatically shifting asset class allocations over short time spans. The following was the Board's adopted asset allocation policy as of June 30, 2023 and 2022:

2023

Asset Class	Target Allocation
Core investments	44.5%
Strategic investments	33.5%
Illiquid investments	22.0%
Total	100%

2022

Asset Class	Target Allocation
Core investments	43.0%
Strategic investments	35.0%
Illiquid investments	22.0%
Total	100%

Rate of Return

For the years ended June 30, 2023 and 2022, the annual money-weighted rate of return on pension plan investments net of pension plan investment expense was 5.92% and -3.80%, respectively. The money-weighted rate of return, calculated arithmetically, expresses investment performance net of investment expense adjusted for the changing amounts actually invested.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period and therefore will not be recognized as an outflow of resources (expense/expenditure) until then. MFPRSI has only one item related to pensions which qualifies for reporting in this category. See note 6 for additional details.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflow of resources. This separate financial statement element, deferred inflow of resources, represents an acquisition of net position that applies to future periods, so will not be recognized as an inflow of resources (revenue) until that time. MFPRSI has only one item related to pensions which qualifies for reporting in this category. See note 6 for additional details.

Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Iowa Public Employees' Retirement System (IPERS) and additions to / deductions from IPERS' fiduciary net position have been determined on the same basis as they are reported by IPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

3. CASH

For cash deposits, custodial credit risk is the risk that in the event of a bank failure, MFPRSI's deposits may not be returned. The table below presents a summary of cash balances of the retirement system at June 30, 2023 and 2022:

	2023	2022
Insured	$250,000	$250,000
Uninsured and uncollateralized	10,841,587	8,291,061
Bank balance - June 30	11,091,587	8,541,061
Less:		
Pending bank transactions	269,629	1,005,907
Cash - Statement of Fiduciary Net Position	$10,821,958	$7,535,154

4. INVESTMENTS

Investment Policy

The investment authority, as prescribed by the Code of Iowa, is governed by the "prudent person rule." This rule requires that an investment be made with the care, skill, prudence, and diligence under the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an entity of a like character with like aims. Within the prudent person framework the Board has adopted investment guidelines for the retirement system's investment program.

Due to state statute, MFPRSI is prohibited from holding direct investments in the Sudan, Iran, and companies that boycott Israel.

The following investment vehicles are permitted by MFPRSI's investment policy and may be considered for the retirement system's funds:

Stocks and Bonds (Domestic, International & Emerging Markets):

- Securities issued by and the obligations of or guaranteed by the United States of America or U.S. government sponsored enterprises or by the Dominion of Canada or any province thereof, financial futures and options;
- Bonds issued by the State of Iowa or its political subdivisions;
- Common stock, American depository receipts, corporate bonds or other evidences of indebtedness issued under the laws of the Dominion of Canada or any province thereof;
- Common stock, bonds or other evidences of indebtedness issued under the laws of selected foreign countries or their political subdivisions;
- Debt instruments issued by multinational organizations, on behalf of selected nations or groups of nations, such as Brady bonds, whether in U.S. dollars or foreign currencies;
- Mutual funds, commingled funds, or private equity which are, comprised of stocks, equity and or debt instruments, including those which hold positions in emerging markets, whether in U.S. dollars or foreign currencies;
- Derivative instruments, such as futures and options, can be utilized as an alternative to a stock or bond position, as specified.

Other Asset Classes

MFPRSI's currency positions include the currency of a group of selected nations, which have well established and stable economic and political structures. Currency positions are only taken in countries or in multinational currencies (for example, euros) in which MFPRSI has determined to invest its assets. MFPRSI's currency assets are represented within the individual portfolios of the investment managers, which have mandates, and may include international bonds or stocks. The benchmark against which these managers compare their portfolios includes a zero percent hedged position to the U.S. dollar for the international portions of the mandate.

Derivative Instruments

Derivative instruments, such as futures and options, may be utilized in selected portfolios for the following purposes:

1) As an alternative to maintaining a selected asset position,

2) To maintain the duration of securities in a portfolio,

3) To gain exposure in a time of dollar strength to a foreign bond market with minimal exposure to the currency of the country,

4) To hedge or otherwise protect existing or anticipated portfolio positions,

5) To establish and maintain the currency positions for the currency overlay portfolio and for the individual currency activities of the individual portfolios, and

6) Not to leverage (i.e., "gear-up") the portfolio.

Derivative instruments are generally defined as contracts whose value depends on ("derives" from) the value of an underlying asset, reference rate, or index. Derivative instruments include both of the following:

a) "Over the counter" (OTC) derivatives: privately negotiated contracts provided directly by dealers to end-users. This includes swaps, futures and options based upon interest rates, currencies, equities, and commodities;

   and,

b) Standardized contracts sold on exchanges: futures and options.

Real Estate

The real estate positions of the retirement system may include domestic or international real estate investments in individual properties or groups of properties, through one or more of the following: direct purchase or mortgage of individual properties, participation in a commingled fund (open-ended or closed-ended) or in a trust or a partnership, which has positions in one or more properties.

MFPRSI's real estate positions may include investment in securitized real estate via publicly-traded or privately-held real estate investment trusts (REITs).

Fund of Funds Commingled Investments

As of June 30, 2023 and 2022, MFPRSI was invested in fund of funds commingled investments, which can be broken down into the following asset classes:

	2023	2022
INVESTMENTS - At fair value:		
U.S. equity securities	$252,982,124	$225,990,281
Foreign equity securities	179,391,918	150,511,065
Fixed income	233,048,010	141,505,266
Alternative investments	17,183,755	41,476,573
Short-term investments and currency positions	(5,609,700)	112,097,275
Total fund of funds commingled investments	$676,996,107	$671,580,460

Investment Risk Disclosure: Credit Risk

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations as of June 30, 2023 and 2022, are as follows:

2023

Quality Rating	Fair Value	Percentage of Portfolio
AA	$130,058,126	50.28%
A	21,351,501	8.25%
BBB	72,719,330	28.11%
BB	25,905,296	10.01%
B	7,025,454	2.72%
NR	1,633,189	0.63%
Total fixed income securities	$258,692,896	100.00%

2022

Quality Rating	Fair Value	Percentage of Portfolio
AAA	$2,461,777	0.76%
AA	168,077,429	52.22%
A	22,147,763	6.88%
BBB	88,513,355	27.50%
BB	37,068,214	11.52%
B	3,596,812	1.12%
Total fixed income securities	$321,865,350	100.00%

MFPRSI does not have a formal policy that limits the quality grade in which it may invest.

Custodial Credit Risk

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, MFPRSI will not be able to recover the value or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the retirement system, and are held by either the counterparty or the counterparty's trust department or agent but not in MFPRSI's name.

Iowa Code 411.7 establishes the secretary of the Board as the custodian of the fund and provides for MFPRSI to select master custodian banks to provide custody of its assets. MFPRSI has arranged for Principal Bank to act as the master custodian bank. The master custodian bank may hold MFPRSI's property in the name of its nominee, bearer form, or in book entry form so long as the custodian's records clearly indicate that such property is held as part of the retirement system's account.

Concentration of Credit Risk

MFPRSI is guided by statute and policy in the selection of security investments. No investments in any one organization represent five percent or more of plan assets.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. The following table discloses the fair value and average duration of fixed income investments as of June 30, 2023 and 2022.

2023

	Fair Value	Duration
Investment type:		
Short-term	$5,578,549	0.0377
Fixed Income	217,589,522	5.3752
Commingled	41,103,374	5.5511
Total fair value	$264,271,445	
Portfolio Modified Duration		5.2899

2022

	Fair Value	Duration
Investment type:		
Short-term	$29,238,529	0.0019
Fixed Income	284,145,735	5.2837
Commingled	37,719,616	5.6275
Total fair value	$351,103,880	
Portfolio Modified Duration		4.8808

Duration is a measure of interest rate risk. The greater the duration of a bond, or portfolio of bonds, the greater its price volatility will be in response to a change in interest rates and vice-versa. Duration is the measure of a bond price's sensitivity to a 100-basis point (or, one percent) change in interest rates. A duration of eight would mean that, given a 100-basis point change up/down in rates, a bond's price would move up/down by 8%.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The System had exposure to foreign currency fluctuations as follows as of June 30, 2023:

	Fair Value	Percentage of Holdings
Currency:		
Japanese Yen	$324,088	262.66%
Euro Currency Unit	47,905	38.82%
British Pound Sterling	(248,606)	-201.48%
Total foreign currency holdings	123,387	100.00%

There was no foreign currency as of June 30, 2022.

Commitments

MFPRSI is committed, as of June 30, 2023 and 2022, to invest approximately $461,000,000 and $521,000,000, respectively, in certain private equity, private credit, real estate partnerships, real estate commingled funds, and infrastructure funds.

Fair Value Measurements

MFPRSI categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy below.

In instances where inputs used to measure fair value fall into different levels in the above fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. MFPRSI's assessment of the significance of particular inputs to these fair value measurements requires judgement and considers factors specific to each asset or liability.

Investments Measured at Fair Value on a Recurring Basis

Investments by fair value level:	Balance at June 30, 2023	2023 Fair Value Measurement Using* Level 1*	Level 2*	Level 3*
Debt Securities				
U.S. Treasury securities	$9,924,752	$9,924,752	$-	$-
Mortgage-Related securities	91,762,920	-	91,762,920	-
Government-Related securities	4,418,695	-	4,418,695	-
Corporate securities	111,483,155	-	111,483,155	-
Total debt securities	217,589,522	9,924,752	207,664,770	-
Equity securities				
Preferred Stock	2,480,147	2,480,147	-	-
Total equity securities	2,480,147	2,480,147	-	-
Total investments by fair value level	220,069,669	$12,404,899	$207,664,770	$-
Investments measured at the NAV:				
Domestic equity funds	386,601,631			
International equity funds	380,080,899			
Global equity funds	29,244,135			
Global bond funds	41,103,374			
Private credit funds	60,021,378			
Infrastructure funds	115,125,818			
Real estate funds	303,769,860			
Private equity funds	806,170,667			
Multi-strategy commingled fund	56,372,519			
Absolute Return	73,849,851			
Fund of funds commingled investments	676,996,107			
Real estate held as investment	5,368,017			
Total investments measured at the NAV	2,934,704,256			
Total investments measured at fair value	$3,154,773,925			

*Key:

Level 1 - Quoted Prices in Active Markets for Identical Assets

Level 2 - Significant Other Observable Inputs

Level 3 - Significant Unobservable Inputs

Investments Measured at Fair Value on a Recurring Basis

Investments by fair value level:	Balance at June 30, 2022	2022 Fair Value Measurement Using* Level 1*	Level 2*	Level 3*
Debt Securities				
U.S. Treasury securities	$35,099,761	$35,099,761	$-	$-
Mortgage-Related securities	112,876,310	-	112,876,310	-
Government-Related securities	4,875,924	-	4,875,924	-
Corporate securities	131,293,740	-	131,293,740	-
Cash Collateral	-	-	-	-
Total debt securities	284,145,735	35,099,761	249,045,974	-
Equity securities				
MLPs	-	-	-	-
Preferred Stock	2,335,486	2,335,486	-	-
Total equity securities	2,335,486	2,335,486	-	-
Total investments by fair value level	286,481,221	$37,435,247	$249,045,974	$-
Investments measured at the NAV:				
Domestic equity funds	385,347,928			
International equity funds	368,218,892			
Global equity funds	4,992,727			
Global bond funds	37,719,616			
Private credit funds	49,368,374			
Infrastructure funds	85,852,789			
Real estate funds	332,376,924			
Private equity funds	799,421,035			
Multi-strategy commingled fund	49,871,274			
Fund of funds commingled investments	671,580,460			
Real estate held as investment	5,384,046			
Total investments measured at the NAV	2,790,134,065			
Total investments measured at fair value	$3,076,615,286			

*Key:

Level 1 - Quoted Prices in Active Markets for Identical Assets

Level 2 - Significant Other Observable Inputs

Level 3 - Significant Unobservable Inputs

Debt and equity securities classified as Level 1 are valued using prices quoted in active markets for those securities.

The fair value of mortgage-related securities, corporate securities and government-related securities at June 30, 2023 and 2022, were determined primarily based on level 2 inputs. Principal Bank estimates the fair value of these investments using other inputs such as interest rates and yield curves that are observable at commonly quoted intervals.

Investments in Entities that Calculate Net Asset Value per Share

MFPRSI holds shares or interest in investment companies where the fair value of the investments are measured on a recurring basis using net asset value per share (or its equivalent) of the investment companies as a practical expedient.

At year end, the fair value, unfunded commitments, and redemption rules of those investments is as follows:

Investments Measured at the NAV
($ in millions)

			2023	
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Domestic equity funds	$387		Daily	1-5 days
International equity funds	380		Daily, Monthly	1 week/15th
Global equity funds	29		Daily	2 days
Global bond funds	41		Daily	1 day
Private credit funds	60	$5	Monthly	3 days
Infrastructure funds	115		Quarterly	90 days
Real estate funds	304	$19	N/A	N/A
Private equity funds	807	$437	N/A	N/A
Multi-strategy hedge funds	56		Monthly	2 weeks
Absolute Return	74		Daily	1 day
Fund of funds commingled investments	677		Daily	1 day
Real estate held as investment	5		N/A	N/A
Total investments measured at the NAV	$2,935			

Investments Measured at the NAV
($ in millions)

	2022			
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Domestic equity funds	$385		Daily	1-5 days
International equity funds	368		Daily, Monthly	1 week/15th
Global equity funds	5		Daily	2 days
Global bond funds	38		Daily	1 day
Private credit funds	49	$16	Monthly	3 days
Infrastructure funds	86	$20	Quarterly	90 days
Real estate funds	332	$31	N/A	N/A
Private equity funds	800	$454	N/A	N/A
Multi-strategy hedge funds	50		Monthly	2 weeks
Fund of funds commingled investments	672		Daily	1 day
Real estate held as investment	5		N/A	N/A
Total investments measured at the NAV	$2,790			

MFPRSI does not anticipate restrictions, other than those outlined in the table, on the ability to sell individual investments at the measurement date. Additionally, MFPRSI does not anticipate that NAV driven investments will become redeemable at valuations materially different from the corresponding NAV listed above. On average, distributions received through the liquidation of underlying investments/assets can occur over the span of 8-15 years. MFPRSI has no prescribed time frame to liquidate the investments.

The multi-strategy hedge funds class invests in hedge funds that pursue multiple strategies to diversify risks and reduce volatility. The underlying portfolios hold both long and short positions in various asset classes and may also employ leverage. The investments of the underlying portfolios will likely include, but will not be limited to, common stocks, depository receipts, bank loans, bonds (including sovereign debt of emerging market countries), notes, commodities, currencies, forwards, futures, options and swap agreements.

5. DERIVATIVES

MFPRSI's investment managers may invest in derivative securities as permitted by their contracts. Derivatives are generally defined as contracts whose values depend on, or derive from, the value of an underlying asset, reference rate, or index. MFPRSI is exposed to various derivative products through the investment management of the MFPRSI and its external managers. All of MFPRSI's derivatives are classified as investment derivatives. The fair values of all derivative financial instruments are reported in the Statement of Fiduciary Net Position as 'Absolute Return.' Changes in the values of derivative financial instruments are reported in the Statement of Changes in Fiduciary Net Position as 'Net appreciation in fair value of investments.' Derivative financial instruments involve, to varying degrees, credit risk and market risk. At June 30, 2022 the retirement system had no derivative financial instruments.

Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. To limit credit risk, each investment manager screens potential counter-parties and establishes and maintains an approved list of acceptable firms which meet a high level of credit-worthiness.

Market risk is the possibility that a change in interest or currency rates will cause the value of a financial instrument to decrease or become more costly to settle. The market risk associated with derivatives, the prices of which are constantly fluctuating, is managed by imposing contractual requirements on the investment managers as to the types, amounts and degree of risk they may undertake. Investment managers' derivative activities are reviewed on a periodic basis by MFPRSI as well as the Board to monitor compliance with the contracts. The retirement system does not purchase derivatives with borrowed funds and does not allow the leveraging of the portfolios.

MFPRSI's derivative investments may include foreign currency forward contracts, options, futures, and collateralized mortgage obligations. Derivative securities may also be used to improve yield, adjust the duration of the fixed income portfolio, or to hedge changes in interest rates.

Futures Contracts

A futures contract is a contract to buy or sell units of an index or financial instrument at a specified future date at a price agreed upon when the contract is originated. MFPRSI enters into these certain derivative instruments as investments primarily to enhance the performance and reduce the volatility of its portfolio. Upon entering into such a contract, MFPRSI pledges to the broker cash or U.S. government securities equal to the minimum initial margin requirement of the futures exchange. Additionally, MFPRSI receives or pays a daily variation margin, which is an amount of cash equal to the daily fluctuation in value of the contract. The change in fair value of the futures contracts is presented in the statement of changes in fiduciary net position as "Net appreciation in fair value of investments." The net change in fair value from futures contracts for fiscal year ended June 30, 2023 was ($1,150,149). There were no futures contracts as of June 30, 2022.

Futures contract positions at June 30, 2023 were as follows:

Description	Expiration date	Open position	Number of contracts	Notional Contract size	Fair value
DAX Index	Sep-23	Long	5	EUR 25 X Index	$2,219,501
Euro Bund	Sep-23	Short	9	EUR 100,000	$(1,313,434)
10-Year Long Gilt	Sep-23	Short	14	GBP 100,000, 4% coupon	$(1,694,167)
FTSE 100 Index	Sep-23	Long	22	GBP 10 X Index	$2,106,763
Nikkei Index	Sep-23	Long	15	JPY 500 X Index	$1,737,734
Australian Dollar	Sep-23	Short	21	AUD 100,000	$(1,402,380)
British Pound	Sep-23	Long	74	GBP 62,500	$5,873,288
Canadian Dollar	Sep-23	Long	43	CAD 100,000	$3,252,090
Euro Currency Unit	Sep-23	Long	6	EUR 125,000	$821,475
Japanese Yen	Sep-23	Short	86	JPY 12,500,000	$(7,538,438)
Crude Oil WTI	Oct-23	Short	2	1,000 U.S Barrels	$(141,440)
Cotton #2	Dec-23	Short	23	50,000 pounds (100 bales)	$(924,255)
U.S. Dollar Index	Sep-23	Long	6	$1,000 X Index	$615,522
S&P 500 E-Mini	Sep-23	Long	5	$50 X Index	$1,122,063
Gold	Oct-23	Long	10	100 fine troy ounces	$1,948,500
Lean Hogs	Oct-23	Short	12	40,000 pounds	$(376,200)
High Grade Copper	Sep-23	Short	5	25,000 pounds	$(469,938)
Heating Oil	Sep-23	Short	11	42,000 gallons	$(1,128,204)
Live Cattle	Oct-23	Long	21	40,000 pounds	$1,508,220
Natural Gas	Sep-23	Short	10	10,000 MMBtu	$(277,400)
Platinum	Oct-23	Short	31	50 troy ounces	$(1,415,460)
Gasoline RBOB	Oct-23	Long	2	42,000 gallons	$186,312
Russell 2000 E-mini	Sep-23	Short	17	$50 X Index	$(1,618,145)
Sugar #11	Oct-23	Long	31	112,000 pounds	$791,269
Silver	Sep-23	Long	7	5,000 troy ounces	$805,700
VIX Volutility Index	Aug-23	Long	51	$1000 X Index	$836,415
VIX Volutility Index	Oct-23	Long	10	$1000 X Index	$183,489
30 Year T-Bond	Sep-23	Short	9	$100,000	$(1,142,156)
Corn	Dec-23	Long	19	5,000 bushels	$470,013
Soybean Oil	Dec-23	Long	4	60,000 pounds	$141,528
Soybean Meal	Dec-23	Short	6	100 tons	$(238,380)
10 Year T-Note	Sep-23	Short	14	$100,000	$(1,571,719)
Soybeans	Nov-23	Long	9	5,000 bushels	$604,463
Wheat	Dec-23	Short	6	5,000 bushels	$(200,775)

6. IOWA PUBLIC EMPLOYEES PENSION SYSTEM (IPERS)

IPERS Plan Description

IPERS membership is mandatory for employees of MFPRSI. Pensions are provided to employees of MFPRSI through a cost-sharing, multiple employer defined benefit pension plan administered by IPERS. IPERS issues a stand-alone financial report which is available to the public by mail at 7401 Register Drive, P.O. Box 9117, Des Moines, Iowa 50306-9117 and at www.ipers.org.

IPERS benefits are established under Iowa Code chapter 97B and the administrative rules thereunder. Chapter 97B and the administrative rules are the official plan documents. The following brief description is provided for general informational purposes only. The plan documents contain more information.

IPERS Pension Benefits

A Regular member may retire at normal retirement age and receive monthly benefits without an early-retirement reduction. Normal retirement age is age 65, anytime after reaching age 62 with 20 or more years of covered employment, or when the member's years of service plus the member's age at the last birthday equals or exceeds 88, whichever comes first (these qualifications must be met on the member's first month of entitlement to benefits). Members cannot begin receiving retirement benefits before age 55.

The formula used to calculate a Regular member's monthly IPERS benefit includes:

- A multiplier (based on years of service).
- The member's highest five-year average salary (For members with service before June 30, 2012, the highest three-year average salary as of that date will be used if it is greater than the highest five-year average salary.)

If a member retires before normal retirement age, the member's monthly retirement benefit will be permanently reduced by an early-retirement reduction. The early-retirement reduction is calculated differently for service earned before and after July 1, 2012. For service earned before July 1, 2012, the reduction is 0.25 percent for each month that the member receives benefits before the member's earliest normal retirement age. For service earned starting July 1, 2012, the reduction is 0.50 percent for each month that the member receives benefits before age 65.

Generally, once a member selects a benefit option, a monthly benefit is calculated and remains the same for the rest of the member's lifetime. However, to combat the effects of inflation, retirees who began receiving benefits prior to July 1990 receive a guaranteed dividend with their regular November benefit payments.

IPERS Disability and Death Benefits

A vested member who is awarded federal Social Security disability or Railroad Retirement disability benefits is eligible to claim IPERS benefits regardless of age. Disability benefits are not reduced for early retirement. If a member dies before retirement, the member's beneficiary will receive a lifetime annuity or a lump-sum payment equal to the present actuarial value of the member's accrued benefit or calculated with a set formula, whichever is greater. When a member dies after retirement, death benefits depend on the benefit option the member selected at retirement.

IPERS Contributions

As a result of a 2010 law change effective July 1, 2012, the contribution rates are established by IPERS following the annual actuarial valuation, which applies IPERS' Contribution Rate Funding Policy and Actuarial Amortization Method. Statute limits the amount rates can increase or decrease each year to one percentage point.

IPERS Contribution Rate Funding Policy requires that the actuarial contribution rate be determined using the "entry age normal" actuarial cost method and the actuarial assumptions and methods approved by the IPERS Investment Board. The actuarial contribution rate covers normal cost plus the unfunded actuarial liability payment based on a 30-year amortization period. The payment to amortize the unfunded actuarial liability is determined as a level percentage of payroll, based on the Actuarial Amortization Method adopted by IPERS' Investment Board.

In fiscal year 2023, pursuant to the required rate, Regular members contributed 6.29 percent of pay and MFPRSI contributed 9.44 percent for a total rate of 15.73 percent.

MFPRSI's total contributions to IPERS for the years ended June 30, 2023 and 2022, were $99,255 and $96,332, respectively.

IPERS Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2023, MFPRSI reported a liability of $478,702 for its proportionate share of the IPERS net pension liability. The IPERS net pension liability was measured as of June 30, 2022, and the IPERS total pension liability used to calculate the IPERS net pension liability was determined by an actuarial valuation as of that date. The MFPRSI's proportion of the IPERS net pension liability was based on the MFPRSI's share of contributions to the pension plan relative to the contributions of all IPERS participating employers. At June 30, 2022, the MFPRSI's proportion was 0.012061 percent, which was a decrease from 0.012214, its proportion measured as of June 30, 2021.

For the year ended June 30, 2023, MFPRSI recognized pension expense of ($12,267). At June 30, 2023, MFPRSI reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$21,221	$6,557
Changes of Assumptions	406	11
Net difference between projected and actual earnings on pension plan investments	-	51,244
Changes in proportion and differences between MFPRSI contributions and proportionate share of contributions	10,157	8,325
MFPRSI contributions subsequent to the measurement date of June 30, 2022	99,255	-
Total	$131,039	$66,137

Deferred outflows of resources related to pensions resulting from MFPRSI contributions of $99,255 reported subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2023. Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

2024	$(44,932)
2025	(32,926)
2026	(61,194)
2027	104,269
2028	430
Thereafter	-

For the year ended June 30, 2022, MFPRSI recognized pension expense of ($64,591). At June 30, 2022, MFPRSI reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$13,028	$13,081
Changes of Assumptions	11,200	-
Net difference between projected and actual earnings on pension plan investments	-	620,401
Changes in proportion and differences between MFPRSI contributions and proportionate share of contributions	13,986	8,218
MFPRSI contributions subsequent to the measurement date of June 30, 2021	96,332	-
Total	$134,546	$641,700

Deferred outflows of resources related to pensions resulting from MFPRSI contributions of $96,332 reported subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2022. Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2023	$(153,402)
2024	(149,219)
2025	(137,072)
2026	(165,688)
2027	1,895
Thereafter	-

There were no non-employer contributing entities at IPERS.

IPERS Actuarial assumptions – The total pension liability in the June 30, 2022 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Rate of inflation (effective June 30, 2017)	2.60 percent per annum
Rates of salary increase (effective June 30, 2017)	3.25 to 16.25 percent, average, including inflation. Rates vary by membership group.
Long-term investment rate of return (effective June 30, 2017)	7.00 percent, compounded annually, net of investment expense, including inflation.

The IPERS actuarial assumptions used in the June 30, 2022 valuation were based on the results of actuarial experience studies with dates corresponding to those listed above.

Mortality rates were based on the PubG-2010 Employee and Healthy Annuitant Tables, using MP-2021 generational adjustments.

The actuarial assumptions used in the June 30, 2022 valuation are based on the results of the most recent actuarial experience studies. An experience study of the System's demographic assumptions was presented to the Investment Board in June 2022. This study included information on mortality, retirement, disability and termination rates, as well as salary trends, for the period of July 1, 2017 – June 30, 2021. The findings of the experience study, along with the resulting recommendations, are included in the report dated June 16, 2022.

Several factors are considered in evaluating the actuarial assumed investment return including long-term historical data, estimates inherent in current market data, along with estimates of variability and correlations for each asset class, and in analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) were developed by IPERS's investment consultant. These ranges were combined to develop the actuarial assumed investment return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The actuarial assumed investment return reflects the anticipated returns on current and future plan assets and provides a discount rate to determine the present value of future benefit payments.

Best estimates of geometic real rates of return for each major asset class included in IPERS' target asset allocation as of June 30, 2022 are shown in the following table:

Asset Class	IPERS Target Allocation	IPERS Long-Term Expected Real Rate of Return
Domestic equity	22%	3.57%
International equity	17.5	4.79
Global smart beta equity	6	4.16
Core-plus fixed income	20	1.66
Public credit	4	3.77
Cash	1	0.77
Private equity	13	7.57
Private real assets	8.5	3.55
Private credit	8	3.63
Total	100%	

IPERS - Discount Rate. The discount rate used to measure the TPL is 7 percent. The projection of cash flows used to determine the discount rate assumed that contributions from employees and employers will be made at contractually required rates, which are set by the Contribution Rate Funding Policy and derived from the actuarial valuation. Based on those assumptions, IPERS' fiduciary net position is projected to be available to make all projected future benefit payments of current plan members. Therefore, the actuarial assumed investment return was applied to all periods of projected benefit payments to determine the TPL.

Sensitivity of MFPRSI's proportionate share of the IPERS net pension liability to changes in the discount rate. The following presents MFPRSI's proportionate share of the IPERS net pension liability calculated using the discount rate of 7.0 percent, as well as what MFPRSI's proportionate share of the IPERS net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.0%) or one percentage point higher (8.0%) than the current rate.

2023	1% Decrease 6.0%	Current Discount Rate 7.0%	1% Increase 8.0%
MFPRSI's proportionate share of the IPERS net pension liability	$891,879	$478,702	$114,579

2022	1% Decrease 6.0%	Current Discount Rate 7.0%	1% Increase 8.0%
MFPRSI's proportionate share of the IPERS net pension liability	$606,045	$17,123	$(476,431)

Pension plan fiduciary net position. Detailed information about the pension plan's fiduciary net position is available in the separately issued IPERS financial report which is available on IPERS' website at www.ipers.org.

Payables to IPERS

At June 30, 2023, MFPRSI reported payables to the defined benefit pension plan of $11,368.53 for legally required employer contributions and $7,574.97 for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS.

At June 30, 2022, MFPRSI reported payables to the defined benefit pension plan of $0 for legally required employer contributions and $0 for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN MFPRSI'S NET PENSION LIABILITY
Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Total pension liability					
Service cost	$61,347,565	$58,814,108	$56,807,678	$55,133,707	$53,017,674
Interest	270,511,939	260,633,217	251,348,980	242,467,141	233,282,508
Differences between expected and actual experience	30,734,937	21,515,283	14,881,260	9,638,175	16,177,781
Changes of assumptions	3,924,038	-	-	-	-
Benefit payments, including refunds	(216,186,354)	(207,529,673)	(195,202,243)	(185,942,113)	(178,457,619)
Net change in total pension liability	150,332,125	133,432,935	127,835,675	121,296,910	124,020,344
Total pension liability - beginning	3,651,617,338	3,518,184,403	3,390,348,728	3,269,051,818	3,145,031,474
Total pension liability - ending	3,801,949,463	3,651,617,338	3,518,184,403	3,390,348,728	3,269,051,818
Plan fiduciary net position					
Contributions - employer	86,664,231	88,421,910	82,245,851	77,551,461	78,766,019
Contributions - member	34,165,042	31,631,033	30,587,481	29,808,835	28,472,627
Net investment income	182,866,808	(113,965,317)	785,156,295	60,250,246	136,635,233
Benefit payments, including refunds	(216,186,354)	(207,529,673)	(195,202,243)	(185,942,113)	(178,457,619)
Administrative expense	(1,969,805)	(1,902,581)	(1,894,969)	(1,887,579)	(1,797,284)
Other	163,629	(218,778)	(30,576)	(157,670)	(121,714)
Net change in plan fiduciary net position	85,703,551	(203,563,406)	700,861,839	(20,376,820)	63,497,262
Plan fiduciary net position - beginning	3,090,046,862	3,293,610,268	2,592,748,429	2,613,125,249	2,549,627,987
Plan fiduciary net position - ending	$3,175,750,413	$3,090,046,862	$3,293,610,268	$2,592,748,429	$2,613,125,249
MFPRSI's net pension liability - ending	$626,199,050	$561,570,476	$224,574,135	$797,600,299	$655,926,569

*GASB Statement No. 68 requires ten years of information to be presented in this table.

SCHEDULE OF CHANGES IN MFPRSI'S NET PENSION LIABILITY
Last 10 Fiscal Years

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$56,128,110	$53,423,772	$51,366,130	$49,893,939	$48,020,046
Interest	224,678,250	213,069,288	205,836,959	196,289,405	187,172,397
Difference between expected and actual experience	(9,748,387)	12,891,275	7,643,609	15,374,059	(1,248,941)
Changes of assumptions	21,266,192	39,751,096	(10,467,574)	17,508,411	32,616,664
Benefit payments, including refunds	(170,663,862)	(163,571,586)	(156,566,482)	(150,026,306)	(143,833,568)
Net change in total pension liability	121,660,303	155,563,845	97,812,642	129,039,508	122,726,598
Total pension liability - beginning	3,023,371,171	2,867,807,326	2,769,994,684	2,640,955,176	2,518,228,578
Total pension liability - ending	3,145,031,474	3,023,371,171	2,867,807,326	2,769,994,684	2,640,955,176
Plan fiduciary net position					
Contributions - employer	74,641,639	73,411,163	75,254,727	79,748,943	76,917,460
Contributions - member	27,493,680	26,625,022	25,455,597	24,622,310	24,054,541
Net investment income	183,182,098	259,812,040	164,100	69,833,569	358,680,682
Benefit payments, including refunds	(170,663,862)	(163,571,586)	(156,566,482)	(150,026,306)	(143,833,568)
Administrative expense	(1,781,886)	(1,767,657)	(1,728,951)	(1,680,944)	(1,553,740)
Other	(139,793)	(159,263)	(212,954)	(774,140)	(75,070)
Net change in plan fiduciary net position	112,731,876	194,349,719	(57,633,963)	21,723,432	314,190,305
Plan fiduciary net position - beginning	2,436,896,111	2,242,546,392	2,300,180,355	2,278,456,923	1,964,266,618
Plan fiduciary net position - ending	$2,549,627,987	$2,436,896,111	$2,242,546,392	$2,300,180,355	$2,278,456,923
MFPRSI's net pension liability - ending	$595,403,487	$586,475,060	$625,260,934	$469,814,329	$362,498,253

*GASB Statement No. 68 requires ten years of information to be presented in this table.

SCHEDULE OF MFPRSI'S NET PENSION LIABILITY
Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Total pension liability	$3,801,949,463	$3,651,617,338	$3,518,184,403	$3,390,348,728	$3,269,051,818
Plan fiduciary net position	3,175,750,413	3,090,046,862	3,293,610,268	2,592,748,429	2,613,125,249
MFPRSI's net pension liability	$626,199,050	$561,570,476	$224,574,135	$797,600,299	$655,926,569
Plan fiduciary net position as a percentage of the total pension liability	83.53%	84.62%	93.62%	76.47%	79.94%
Actuarial projected covered payroll	$362,613,585	$337,741,039	$324,953,814	$317,709,825	$302,713,506
MFPRSI's net pension liability as a percentage of covered payroll	172.69%	166.27%	69.11%	251.05%	216.68%

*GASB Statement No. 68 requires ten years of information to be presented in this table.

SCHEDULE OF MFPRSI'S NET PENSION LIABILITY
Last 10 Fiscal Years

	2018	2017	2016	2015	2014
Total pension liability	$3,145,031,474	$3,023,371,171	$2,867,807,326	$2,769,994,684	$2,640,955,176
Plan fiduciary net position	2,549,627,987	2,436,896,111	2,242,546,392	2,300,180,355	2,278,456,923
MFPRSI's net pension liability	$595,403,487	$586,475,060	$625,260,934	$469,814,329	$362,498,253
Plan fiduciary net position as a percentage of the total pension liability	81.07%	80.60%	78.20%	83.04%	86.27%
Actuarial projected covered payroll	$290,660,576	$283,222,057	$270,986,891	$262,260,060	$255,370,044
MFPRSI's net pension liability as a percentage of covered payroll	204.84%	207.07%	230.73%	179.14%	141.95%

*GASB Statement No. 68 requires ten years of information to be presented in this table.

SCHEDULE OF MFPRSI'S CONTRIBUTIONS
Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Actuarially determined contribution	$86,664,231	$88,421,910	$82,245,851	$77,551,461	$78,766,019
Contributions in relation to the actuarially determined contribution	86,664,231	88,421,910	82,245,851	77,551,461	78,766,019
Contribution deficiency (excess)	$-	$-	$-	$-	$-
Reported covered payroll	$362,613,585	$337,741,039	$324,953,814	$317,709,825	$302,713,506
Contributions as a percentage of covered payroll	23.90%	26.18%	25.31%	24.41%	26.02%

*GASB Statement No. 68 requires ten years of information to be presented in this table.

SCHEDULE OF MFPRSI'S CONTRIBUTIONS
Last 10 Fiscal Years

	2018	2017	2016	2015	2014
Actuarially determined contribution	$74,641,639	$73,411,163	$75,254,727	$79,748,943	$76,917,460
Contributions in relation to the actuarially determined contribution	74,641,639	73,411,163	75,254,727	79,748,943	76,917,460
Contribution deficiency (excess)	$-	$-	$-	$-	$-
Reported covered payroll	$290,660,576	$283,222,057	$270,986,891	$262,260,060	$255,370,044
Contributions as a percentage of covered payroll	25.68%	25.92%	27.77%	30.41%	30.12%

*GASB Statement No. 68 requires ten years of information to be presented in this table.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

Fiscal Year	Annual money-weighted rate of return, net of investment expenses
2023	5.92%
2022	-3.80%
2021	29.90%
2020	2.35%
2019	5.32%
2018	7.59%
2017	11.72%
2016	0.02%
2015	3.02%
2014	17.97%

SCHEDULE OF MFPRSI PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
Iowa Public Employees' Retirement System
Last 9 Fiscal Years

	2022	2021	2020	2019	2018
MFPRSI's proportion of the net pension liability (asset)	0.012061%	0.012214%	0.012038%	0.011991%	0.011874%
MFPRSI's proportionate share of the net pension liability (asset)	$478,702	$17,123	$839,724	$699,044	$751,182
MFPRSI's covered payroll	$1,051,430	$1,020,466	$991,326	$948,686	$892,161
MFPRSI's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	45.53%	1.68%	84.71%	73.69%	84.20%
Plan fiduciary net position as a percentage of the total net pension liability	90.34%	99.60%	82.90%	85.45%	83.62%

The amounts presented for each fiscal year were determined as of June 30.

GASB Statement No. 68 requires ten years of information to be presented in this table. However, until a full 10-year trend is compiled, MFPRSI will present information for those years for which information is available.

SCHEDULE OF MFPRSI PROPORTIONATE SHARE OF THE NET PENSION LIABILITY

Iowa Public Employees' Retirement System
Last 9 Fiscal Years

	2017	2016	2015	2014
MFPRSI's proportion of the net pension liability (asset)	0.012415%	0.012738%	0.012726%	0.012759%
MFPRSI's proportionate share of the net pension liability (asset)	$819,626	$794,389	$632,688	$516,371
MFPRSI's covered payroll	$988,443	$902,363	$877,346	$851,989
MFPRSI's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	82.92%	88.03%	72.11%	60.61%
Plan fiduciary net position as a percentage of the total net pension liability	82.21%	81.82%	84.19%	56.84%

The amounts presented for each fiscal year were determined as of June 30.

GASB Statement No. 68 requires ten years of information to be presented in this table. However, until a full 10-year trend is compiled, MFPRSI will present information for those years for which information is available.

SCHEDULE OF MFPRSI'S CONTRIBUTIONS

Iowa Public Employees' Retirement System
Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Actuarially determined contribution	$99,255	$96,332	$93,581	$89,556	$86,727
Contributions in relation to the actuarially determined contribution	(99,255)	(96,332)	(93,581)	(89,556)	(86,727)
Contribution deficiency (excess)	$-	$-	$-	$-	$-
Reported covered payroll	$1,051,430	$1,020,466	$991,326	$948,686	$918,718
Contributions as a percentage of covered payroll	9.44%	9.44%	9.44%	9.44%	9.44%

*GASB Statement No. 68 requires ten years of information to be presented in this table.

Iowa Public Employees' Retirement System
Last 10 Fiscal Years

	2018	2017	2016	2015	2014
Actuarially determined contribution	$79,670	$88,268	$80,581	$78,347	$76,083
Contributions in relation to the actuarially determined contribution	(79,670)	(88,268)	(80,581)	(78,347)	(76,083)
Contribution deficiency (excess)	$-	$-	$-	$-	$-
Reported covered payroll	$892,161	$988,443	$902,363	$877,346	$851,989
Contributions as a percentage of covered payroll	8.93%	8.93%	8.93%	8.93%	8.93%

*GASB Statement No. 68 requires ten years of information to be presented in this table.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

Methods and Assumptions used in Calculations of Actuarially Determined Contributions. The actuarially determined contribution rates in the schedule of MFPRSI's contributions are calculated as of July 1, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

Valuation date	July 1, 2023
Actuarial cost method	Entry age normal
Amortization method	Level Dollar, Closed, Layered
Remaining amortization period	25 Years
Asset valuation method	5 year smoothed market
Actuarial assumptions:	
Investment rate of return	7.50 percent
Projected salary increases	3.75 to 15.11 percent
Post-retirement mortality table:	
Ordinary	RP 2014 Blue Collar Healthy Annuitant table with males set-forward zero years, females set-forward two years, with generational projection of future mortality improvement with 50% of Scale BB beginning in 2017.
Disabled	RP 2014 Blue Collar Healthy Annuitant Mortality Table - Male, set-forward three years, with generational projection of future mortality improvement with 50% of Scale BB beginning in 2017.

Actuary

Actuarial Valuation's Purpose

Cities' Recommended Contribution Rate

Actuarial Report Highlights

Actuarial Valuation's Purpose

Provided by HUB International

The actuarial data in this section was determined by MFPRSI's actuarial services provider, HUB International ("HUB"). The information in this section presents a portion of the annual actuarial valuation, which was determined in accordance with Iowa Code Chapter 411. The complete actuarial valuation report as of July 1, 2023, can be accessed on the retirement system's website, www.mfprsi.org.

The costs developed and presented in this section are based on asset values as of June 30, 2023, member census data as of July 1, 2023, and current retirement system provisions, all of which were supplied by MFPRSI.

The purposes of the actuarial valuation are the following:

1. To determine the normal contribution rate that is payable by the cities under Chapter 411 of the Code of Iowa;

2. To determine the funded status of the retirement system; and

3. To provide information relating to the disclosure requirements of the Governmental Accounting Standards Board (GASB) Statement No. 67 – Financial Reporting for Defined Benefit Pension Plans (an amendment of GASB Statement No. 25).

All costs and liabilities were determined in accordance with generally accepted actuarial principles and procedures and are based on the actuarial assumptions and methods prescribed by the Board in accordance with Iowa Code Section 411.5.10-11. The information supplied in this section is accurate and the assumptions are reasonably related to both MFPRSI's experience and its reasonable expectations under the retirement system in the opinion of HUB.

Cities' Recommended Contribution Rate

The cities' contribution rate is established by Iowa Code Chapter 411. The rate specified for employees is set by the statute, currently at 9.40 percent of earnable compensation. The rate for employers is adopted each year by the Board following the completion of the annual actuarial valuation. The required contribution rate as reported by MFPRSI's actuary is developed in the chart below and is effective July 1, 2024.

Annual Contributions and Contribution Rate Formula
Data as of July 1, 2023
Effective July 1, 2024

Preliminary Total Contribution	**2022**	**2023**
1. Annual Normal Cost	$61,347,565	$65,495,151
2. Estimated Member Contributions	32,876,731	35,228,232
3. Unfunded Actuarial Accrued Liability Amortization Payment	51,904,632	54,638,078
4. Total (Cities plus State) Contribution = (1) - (2) + (3)	80,375,466	84,904,997
Cities' Contribution		
5. Preliminary Total Contribution = (4)	80,375,466	84,904,997
6. Estimated State Contribution	0	0
7. Preliminary Cities' Contribution = (5) - (6)	80,375,466	84,904,997
8. Covered Payroll	349,752,458	374,768,422
9. Cities' Contribution as a percent of payroll = (7) / (8)	22.98%	22.66%
10. Minimum required contribution rate for Cities	17.00%	17.00%
11. Cities' Contribution = [Greater of (9) or (10)] x (8)	80,373,115	84,922,524

Cities' Recommended Contribution Rate (cont.)

The Retirement System's total contribution rate decreased from 22.98% for 2022 to 22.66% for 2023. The Retirement System's contribution rate before any adjustment to the minimum required rate changed as follows:

Year-over-year changes to the participating cities' contribution rate

July 1, 2022 Normal Contribution Rate effective July 1, 2023*		22.98%
• Effect of different State contribution		0.00%
• Effect of Cities' contribution different than actuarially determined		(0.09%)
• System experience more favorable than assumed		
— Salary increases more than assumed	0.35%	
— Investment experience more favorable than assumed	(0.04%)	
— Effect of new members	(0.56%)	
— Effect of DROP experience	(0.01%)	
— Other population changes	0.05%	
		(0.21%)
• Changes in System provisions		0.00%
• Changes in actuarial assumptions		(0.02%)
• Changes in actuarial methods		0.00%
Preliminary Normal Contribution Rate		22.66%
• Increase to meet minimum required contribution rate of 17.00%		0.00%
July 1, 2023, Normal Contribution Rate effective July 1, 2024		22.66%

* Before adjustment for minimum contribution rate, if applicable.

Effect of Different State of Iowa Contribution 0.00%

The contribution provided by the State of Iowa remained unchanged at $0 for 2022 and $0 for 2023.

Effect of Cities' Contribution Different than Actuarially Determined (0.09%)

The Cities' actual contribution rate as a percent of covered payroll was 23.90 percent for the period ended June 30, 2023. The actuarially determined rate for the same period was 22.98 percent of covered payroll. This had the effect of producing larger contributions than expected and decreased the Cities' contribution rate by 0.09 percent.

Cities' Recommended Contribution Rate (cont.)

Salary Increases More than Assumed 0.35%

The actual weighted average salary increase for active members included in the valuation was 9.49 percent compared to an expected weighted average increase of 5.09 percent. Actual salaries paid in the prior plan year ended June 30, 2023 were reported for the July 1, 2023 valuation. This had the effect of increasing the Cities' contribution rate by 0.35 percent.

Investment Experience More Favorable than Assumed (0.04%)

The actuarial value of assets realized a return of 7.56 percent compared to the assumed investment return of 7.50 percent. This had the effect of decreasing the Cities' contribution rate by 0.04 percent.

Effect of New Members (0.56%)

New members are generally younger and lower-paid than the ongoing members. Thus, these new members require a lower contribution rate from the Cities due to the longer period of time over which to fund their benefits. This had the effect of decreasing the Cities' contribution rate by 0.56 percent.

Effect of DROP Experience (0.01%)

The expected number of active members who choose to participate, the age at which the members chose to participate, the duration of the DROP period selected and the number of members who prematurely withdraw from DROP do not exactly match the actual incidences. In addition, the investment earnings on the DROP accounts differ from that assumed. These variances in participation rates, age at participation, duration of participation, premature withdrawals and investment earnings caused a decrease in the Cities' contribution rate.

Other Population Changes 0.05%

The expected rates of disability, death, retirement and withdrawal do not exactly match the actual incidences. These variances will cause a gain or loss each year. For example, there were fewer active members' deaths (2) than assumed (3) during the period ended June 30, 2023. In addition, there were fewer service retirements (30) than assumed (45) and more withdrawals (150) than assumed (99) during the period ended June 30, 2023. Finally, there were more disability retirements (64) than assumed (34) and fewer inactive member deaths (151) than assumed (153) during the period ended June 30, 2023. These variances in active member deaths, service retirements, disability retirements and inactive member deaths caused an actuarial loss which increased the Cities' contribution rate by 0.05 percent.

Changes in System Provisions 0.00%

There were no changes in System benefit provisions from the prior year valuation.

Cities' Recommended Contribution Rate (cont.)

Changes in Actuarial Assumptions (0.02%)

In accordance with Iowa State Code Section 411.5.10-11, the Board of Trustees prescribes the actuarial assumptions used in the actuarial valuation. Per the Code Section, the retirement system's actuary conducts a formal investigation, or experience study, of the primary assumptions every five years. The most recent investigation was completed in the spring of 2023 for the 10-year period ending June 30, 2022.

Based on the results of the recent 10-year experience study and adoption by the Board of Trustees, the following actuarial assumptions were changed:

- Change withdrawal rates to be 10% higher for ages below age 40 for actives.
- Increase ordinary disability rates to be 50% higher for actives ages 35 to 54.
- Increase accidental disability rates to be 50% higher for actives ages 35 to 49.
- Increase DROP participation rates to 60% for ages 55 to 56 for actives.
- Increase DROP voluntary premature withdrawal rates to 30% for ages 55 to 56 for actives.

Changes in Actuarial Methods 0.00%

There were no changes in actuarial methods from the prior year valuation.

Actuarial Report Highlights

As of July 1,	2021	2022	2023
Cities' Recommended Contribution	$80,528,971	$80,373,115	$84,922,524
Normal Contribution Rate	23.90%	22.98%	22.66%
Plan Assets			
Market Value	3,293,610,268	3,090,046,862	3,175,750,413
Actuarial Value	2,918,169,854	3,083,242,438	3,215,148,052
Prior Year Investment Return			
Market Value	30.78%	(3.51%)	6.03%
Actuarial Value	10.97%	8.86%	7.56%
Actuarial Accrued Liability	3,518,184,403	3,651,617,338	3,801,949,463
Funded Ratio*	82.95%	84.43%	84.57%
Annual Participating Payroll	336,941,302	349,752,458	374,768,422
Annual Normal Cost	58,814,108	61,347,565	65,495,151
Percent of Payroll	17.46%	17.54%	17.48%
Annual Pension Benefits			
Service Retirement	105,137,988	110,489,748	112,910,652
Disabled Retirement	55,264,320	58,285,284	60,857,436
Vested Retirement	9,127,704	9,865,500	10,623,012
Beneficiaries	23,239,020	23,986,512	25,155,240
Total	192,769,032	202,627,044	209,546,340
Number of Members			
Active	4,107	4,155	4,168
Disabled	1,159	1,181	1,206
Retirees and Beneficiaries	3,126	3,172	3,227
Vested Terminated	415	453	465
Total	8,807	8,961	9,066

*Based on the ratio of the Actuarial Value of Assets to Actuarial Accrued Liability.

Actuarial Value of Assets - Year Ending June 30, 2023

1. Actuarial Value of Assets at July 1, 2022	$3,083,242,438
2. Contributions for 2022 Plan Year (Members, Cities, and State)	120,829,273
3. Benefit distributions and refunds for 2022 plan year	(216,186,354)
4. Noninvestment Expenses	
a. Administrative Expenses	(1,969,805)
b. Disability Expenses	(298,254)
c. Other Expenses	(21,083)
d. Total	(2,289,142)
5. Expected return on Market Value of Assets for year at 7.5%	228,157,979

6. Asset gains/(losses) for prior five plan years

	(i) Asset gain or (loss)	Years Recognized	Years Remaining	(ii) Recognition Percentage	(i) x (ii) Recognized Amount
a. 2022	$(44,808,205)	1	4	20.000%	(8,961,641)
b. 2021	(357,676,297)	2	3	20.000	(71,535,259)
c. 2020	594,021,191	3	2	20.000	118,804,238
d. 2019	(132,764,343)	4	1	20.000	(26,552,869)
e. 2018	(51,803,055)	5	0	20.000	(10,360,611)
f. Total					1,393,858

7. Asset gains/(losses) to be recognized = (6f)	1,393,858
8. Actuarial Value of Assets at July 1, 2023 = (1) + (2) + (3) + (4d) + (5) + (7)	3,215,148,052
9. Market Value of Assets at July 1, 2023	3,175,750,413
10. Ratio of Actuarial Value to Market Value at July 1, 2023 = (8) / (9)	101.24%

Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability is the amount the actuarial accrued liability exceeds the actuarial value of plan assets determined as of the actuarial valuation date. The unfunded actuarial accrued liability is reduced during a year when System funding exceeds the annual normal cost and interest accrued on the prior year unfunded accrued liability. The unfunded actuarial accrued liability is also reduced (increased) when the investment return on System assets exceeds (is less than) the assumed investment return. The actuarial accrued liability is increased if there are amendments that revise benefits payable from the System. The actuarial accrued liability may be increased or decreased as the result of System experience or if there are changes in the actuarial assumptions used to determine annual contributions.

As of July 1,	2022	2023
1. Actuarial Accrued Liability before changes		
a. Active members		
Service retirements/DROP	$1,176,241,273	$1,240,080,367
Ordinary disability	23,419,759	24,655,998
Accidental disability	120,154,197	126,107,048
Ordinary death	3,243,816	3,436,563
Accidental death	6,233,366	6,562,115
Withdrawal	39,571,838	42,273,548
Total Active	1,368,864,249	1,443,115,639
b. Inactive members		
Members receiving benefits	2,219,736,188	2,287,941,120
Deferred vested terminations	62,021,916	66,083,800
Refund of member contributions due	994,985	884,866
Total Inactive	2,282,753,089	2,354,909,786
c. Total Actuarial Accrued Liability	3,651,617,338	3,798,025,425
2. Actuarial Value of Plan Assets	3,083,242,438	3,215,148,052
3. Unfunded Actuarial Accrued Liability before changes = [Excess of (1) over (2)]	568,374,900	582,877,373
4. Change in Unfunded Actuarial Accrued Liability		
a. Change in System Provisions	0	0
b. Change in Actuarial Assumptions	0	3,924,038
5. Unfunded Actuarial Accrued Liability after changes	568,374,900	586,801,411

Unfunded Accrued Liability Payments

One of the components included to determine the recommended contribution is the Unfunded Accrued Liability Payment (UAL). The UAL Payment is an annual amount that will amortize over 25 years on a closed, layered level dollar basis:

- The initial unfunded accrued liability was established as of July 1, 2013.
- An increase in unfunded accrued liability may occur if benefits are improved through amendments.
- An increase or decrease in the unfunded accrued liability is associated with a change in actuarial assumptions.
- An increase or decrease in the unfunded accrued liability resulting from actuarial gains or losses due to experience.

Amortization Base	Date Established	Source of Base
$657,280,700	July 1, 2013	Initial unfunded
(101,748,328)	July 1, 2014	Actuarial gain
32,616,664	July 1, 2014	Assumption change
(64,447,420)	July 1, 2015	Actuarial gain
17,508,411	July 1, 2015	Assumption change
21,275,521	July 1, 2016	Actuarial loss
(10,467,574)	July 1, 2016	Assumption change
(7,154,241)	July 1, 2017	Actuarial gain
39,751,096	July 1, 2017	Assumption change
(15,920,159)	July 1, 2018	Actuarial gain
21,266,192	July 1, 2018	Assumption change
63,348,299	July 1, 2019	Actuarial loss
63,889,229	July 1, 2020	Actuarial loss
(77,624,458)	July 1, 2021	Actuarial gain
(17,602,441)	July 1, 2022	Actuarial gain
28,830,747	July 1, 2023	Actuarial loss
3,924,038	July 1, 2023	Assumption change

Initial Charge Amortization Base	Initial Term - Years	Remaining Term on Valuation Date		Amortization Payment
$657,280,700	25	15		$54,851,250
32,616,664	25	16		2,721,919
17,508,411	25	17		1,461,108
21,275,521	25	18		1,775,480
39,751,096	25	19		3,317,300
21,266,192	25	20		1,774,702
63,348,299	25	21		5,286,529
63,889,229	25	22		5,331,670
28,830,747	25	25		2,405,977
3,924,038	25	25		327,468
			Total	79,253,404

Initial Credit Amortization Base	Initial Term - Years	Remaining Term on Valuation Date		Amortization Payment
$101,748,328	25	16		$8,491,080
64,447,420	25	17		5,378,253
10,467,574	25	18		873,538
7,154,241	25	19		597,034
15,920,159	25	20		1,328,566
77,624,458	25	23		6,477,900
17,602,441	25	24		1,468,955
			Total	24,615,326

Net Amortization Payment $54,638,078

Actuarial Report Highlights (cont.)

Actuarial Gain / (Loss)
Expected Unfunded Actuarial Accrued Liability

1. Expected Actuarial Accrued Liability	
Actuarial Accrued Liability on July 1, 2022	$3,651,617,338
Normal Cost	61,347,565
Benefit Distributions	(216,186,354)
Interest on above at 7.50% to June 30, 2023	270,511,939
Total	3,767,290,488
2. Expected assets	
Actuarial Value of Assets on July 1, 2022	3,083,242,438
Contributions	120,829,273
Benefit Distributions and Noninvestment Expenses	(218,475,496)
Interest on above at 7.50% to June 30, 2023	227,647,647
Total	3,213,243,862
3. Expected Unfunded Actuarial Accrued Liability on June 30, 2023	554,046,626
Actual Unfunded Actuarial Accrued Liability	
4. Actuarial Accrued Liability Before Changes	3,798,025,425
5. Actuarial Value of Assets	3,215,148,052
6. Actual Unfunded Actuarial Accrued Liability on July 1, 2023 (4) – (5)	582,877,373
Actuarial Gain or (Loss)	
7. Expected Unfunded Actuarial Accrued Liability	554,046,626
8. Actual Unfunded Actuarial Accrued Liability	582,877,373
9. Actuarial Gain or (Loss) for 2023 Fiscal Year (7) – (8)	(28,830,747)
10. Investment Gain or (Loss) (5) – (2e)	1,904,190
11. Other Gain or (Loss) (1e) – (4)	(30,734,937)

Actuarial Present Value of Accrued Benefits

As of July 1,	2022	2023
1. Present value of vested accrued benefits		
a. Present value of vested accrued benefits for active members	$1,057,376,381	$1,106,101,064
b. Present value of benefits for terminated members	63,016,901	66,968,666
c. Present value of benefits for retirees, beneficiaries, and disableds	2,219,736,188	2,287,941,120
Total	$3,340,129,470	$3,461,010,850
2. Present value of accrued non-vested benefits	38,821,836	40,610,775
3. Present value of all accrued benefits = (1) + (2)	$3,378,951,306	$3,501,621,625
4. Market value of assets	$3,090,046,862	$3,175,750,413
5. Ratio of market value of assets to the present value of all accrued benefits = (4) / (3)	91.45%	90.69%
6. Ratio of market value of assets to the present value of vested accrued benefits = (4) / (1)	92.51%	91.76%

Change in Actuarial Present Value of Accrued Benefits

The change in actuarial present value of accrued benefits due to various factors including benefits accumulated, the passage of time, benefits paid, changes in assumptions and changes in System provisions is displayed below.

Actuarial present value of accrued benefits on July 1, 2022	$3,378,951,306
Change in present value of accrued benefits from July 1, 2022, to July 1, 2023, due to:	
Additional benefits accumulated	$84,697,969
Interest due to passage of time	245,460,919
Benefits paid	(216,186,354)
Change in assumptions	8,697,785
Change in System provisions	0
Actuarial present value of accrued benefits on July 1, 2023	$3,501,621,625

Investments

Investment Consultant's Report

Performance

Overview

Investment Consultant's Report

Provided by Doug Oest, CAIA, Managing Partner and
David H. Smith, CFA, Managing Director
Marquette Associates

David H. Smith, CFA
Managing Director
Marquette Associates

Doug Oest, CAIA
Managing Partner
Marquette Associates

Despite a swift rise in interest rates and heightened market volatility, the MFPRSI Portfolio ("Portfolio") grew during the last twelve months to $3.2 billion, as of June 30, 2023. For the fiscal year, the Portfolio earned 6.0% investment return, net of fees, and returned 7.8% annualized over the trailing ten years, net of fees. The Portfolio is measured against a benchmark of 60 percent global stocks and 40 percent domestic bonds which earned 10.6% for the fiscal year and 6.9%, annualized, over the trailing ten-year period. The Portfolio is diversified across both public and private market investments and as evidenced by this fiscal year, can underperform its policy benchmark during periods of lofty stock market returns. Over the long term, however, the Portfolio has meaningfully outperformed its policy benchmark.

Inflation surged to a forty-year high at the beginning of this fiscal year, prompting major central banks worldwide to aggressively reverse years of easy monetary policies by raising interest rates. More specifically, the Federal Reserve raised policy rates eleven times to suppress rising prices. As a result, equity and fixed income performance tumbled during calendar year 2022.

Entering calendar year 2023, consensus views suggested that the U.S. economy would enter recession because of tighter interest rates and dwindling money supply. In March, three U.S. banks failed and one global systemically important financial institution, Credit Suisse, succumbed to liquidity pressures. However, equity markets soared in June with the S&P 500 Index gaining +6.6% for the month. The upward move capped off a very strong second half of the fiscal year, where the S&P 500 Index rose +16.9%.

Strong U.S. equity market performance during the second half of the fiscal year was led by large-cap growth stocks, particularly the "Magnificent Seven": Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla. Bullish sentiment appeared to be in response to a very resilient U.S. economy, rapidly cooling inflation and enthusiasm around artificial intelligence. Like U.S. equities, non-U.S. equities delivered impressive returns in the second half of the fiscal year, led by developed markets, with quality and growth factors performing the best. While the Federal Reserve likely finished its rate hiking cycle in July 2023, the European Central Bank is not yet at the same point given the stubborn trend of core inflation, which may lead to further strengthening of the euro versus the dollar.

The overall yield environment coupled with an outlook for fewer Fed rate hikes helped propel investment grade fixed income back into positive territory in the second half of the fiscal year. For the six-month period ending June 30, 2023, the Bloomberg Aggregate Bond Index returned 2.1%. With the rate hiking cycle nearing a close, bond returns across both investment grade and below investment grade sectors should continue their positive trajectory in the upcoming year.

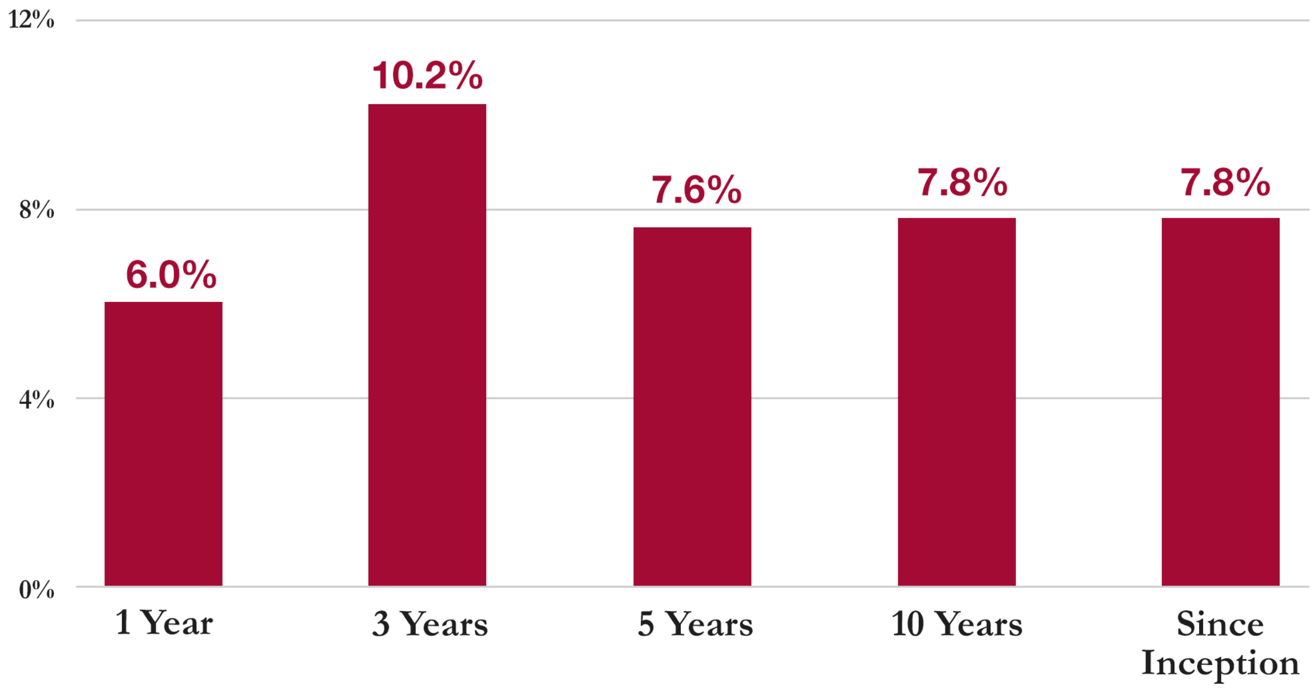
Real assets, which exhibit low correlation to traditional asset classes, helped buoy the Portfolio in calendar year 2022 as equity and fixed income markets retreated. More recently, however, real estate values declined as the office sector faces both secular and cyclical headwinds. The three remaining core real estate sectors; industrial, multi-family, and retail appear more promising, supported by solid fundamentals such as lower vacancy rates and net operating income growth.

Over the long-term, MFPRSI's well-seasoned, cash-flowing private equity portfolio has offered an attractive illiquidity premium. Private equity transactions continue to occur at more attractive valuations compared to comparable public equity transactions, though the spread has narrowed with the public market pullback. Small buyouts, a core focus of MFPRSI's Portfolio, continue to benefit from inefficiencies and growing demand from capital raised by larger funds, creating a strong exit environment.

Fear of a hard landing and bear market are giving way to falling inflation, Fed easing, and more optimism around a soft landing. Whatever is in store, the Portfolio is strategically allocated and thoughtfully managed for long-term capital growth.

Performance

As of June 30, 2023



Inception date is January 1, 1992. The 3-years, 5-years, 10-years, and since inception returns are annualized. It is important to note that historical performance is not a guarantee of future performance of the portfolio due to the cyclical nature of markets and the individual components thereof.

Overview

In order to maximize the important role that investment returns play in the funded status of MFPRSI's investment portfolio, the Board has adopted its Investment Policy as its investment guidelines. This document is designed to provide the framework necessary to guide the investment portfolio toward the retirement system's ongoing requirements of the benefit plan. The complete Investment Policy is available on MFPRSI's website, www.mfprsi.org.

MFPRSI's overall investment performance goal is to exceed an annualized actuarial assumed rate of return of 7.5 percent over a long-term time horizon. The actuarial assumed rate of return is the rate of return which will meet or exceed the benefits and administrative funding requirements of the retirement system. While the investment portfolio will exceed or fall short of that goal in shorter time periods, it is designed to withstand all market environments and out-pace the actuarial assumed rate of return over the long term.

MFPRSI's investments are managed by professional investment management firms who have full discretion to direct the investment and reinvestment of the assets in their respective accounts in accordance with MFPRSI's investment policies, applicable to federal and state statutes and regulations, and the executed and detailed investment management agreements.

The net investment market values reported in this section differ from those shown in the Financial Statements and Actuary sections of this report. The values used in this section are the appropriate industry standard basis for investment return calculations.

Asset Allocation and Diversification

Asset allocation is a process designed to construct an optimal long-term mix that achieves a specific set of investment objectives. The Board's Investment Policy establishes the retirement system's asset allocation policy to meet those objectives. The asset allocation policy is adopted to provide diversification of assets in order to maximize returns within appropriate levels of market and economic risks.

MFPRSI pursues diversification in the investment portfolio by varying its investment assets and style. The success of any individual investment style tends to be cyclical, and diversification of assets within the investment portfolio enhances the potential to achieve MFPRSI's long-term goal of meeting a 7.5 percent annualized actuarial assumed rate of return.

Risk

Investing in any asset involves the possibility that the asset's actual return will differ from its expected return. Investment risk can be defined as the potential occurrence of a loss relative to the expected return on investment.

Risk is a vital element when determining the forecast of an investment. MFPRSI and Marquette carefully consider investment risk when implementing its investment strategy. The investment portfolio is tasked with achieving a long-term 7.5 percent actuarially assumed rate of return. In order to do so, the investment portfolio must take on risk as simply investing in low-risk or no-risk assets would make it difficult for the investment portfolio to achieve its 7.5 percent benchmark. Therefore, a moderate amount of risk must be accepted in order to surpass the actuarial assumed rate of return.

One common tool to measure risk is standard deviation which is a statistical measure of the amount an investment's returns differ from the mean of its returns. The lower the standard deviation, the closer an investment's actual returns tend to be to its average returns, and the higher the standard deviation, the further its actual returns tend to be from its average returns.

In its measurement using data as of March 2023, Marquette reported the retirement system's expected 10-year annualized volatility for its investment portfolio at 9.32 percent. This is the level of uncertainty the retirement system accepts in order to achieve its actuarial assumed rate of return. This is a relatively low-risk expectation given the task of building an investment portfolio is to provide annual returns of 7.5 percent.

MFPRSI and Marquette regularly review the investment portfolio's level of risk and will make changes as necessary to mitigate the investment portfolio's risk profile. This is done as part of the Board's commitment to being a sound retirement system.

Types of Assets

The retirement system's overall investment portfolio is separated into three main categories:

Core Investments

The Core Portfolio is comprised of a diversified mix of global public equity, fixed income, core real estate, absolute return, and infrastructure portfolios. The aggregate Core Portfolio's allocation and underlying investment manager makeup are determined by the Board, with the intention of out-performing a specified composite index on both an absolute and risk-adjusted basis and over a full market cycle. This index is also determined and reviewed by the Board in an attempt to meet or exceed the retirement system's actuarial rate of return over time.

Strategic Investments

The Strategic Portfolio is comprised of multi-asset investment managers that invest in global securities, including but not limited to: public debt and equity, real assets, currencies, derivatives, and cash. The intent of the Strategic Portfolio is to outperform a specified composite index on both an absolute and risk-adjusted basis over a full market cycle. The composite index is currently weighted 75 percent to global equity and 25 percent to fixed income. This index is determined and reviewed by the Board in an attempt to meet or exceed the retirement system's actuarial rate of return over time. Individual managers in the Strategic Portfolio are granted the flexibility to tactically adjust their underlying asset allocations to take advantage of market opportunities they believe will benefit the retirement system.

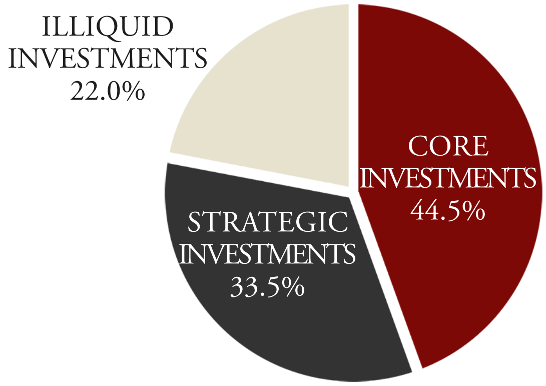
Illiquid Investments

The fund may hire various investment managers who invest in private illiquid investment opportunities, including but not limited to venture, buyout, opportunistic, secondary market, credit and debt-related, closed-end real estate, and direct investment. These opportunities will consist of investing in private companies that do not offer equity and fixed income securities on public markets

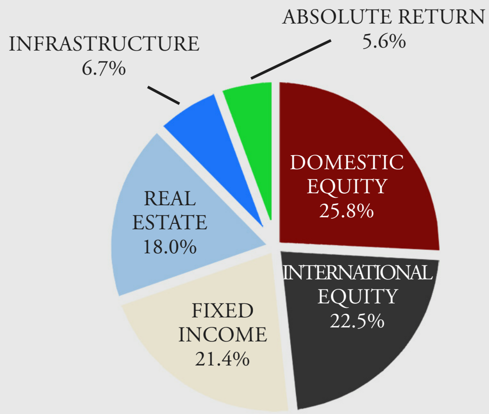
Overview (cont.)

Investment Allocation

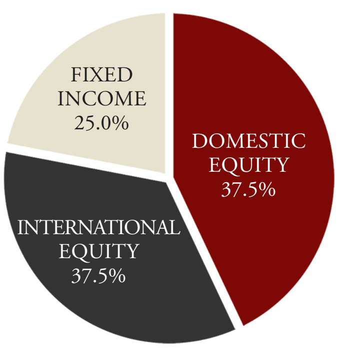
Asset Class	Portfolio Target Percentage
Core Investments[1]	44.5%
Strategic Investments[2]	33.5%
Illiquid Investments[3]	22.0%
Total	100.0%



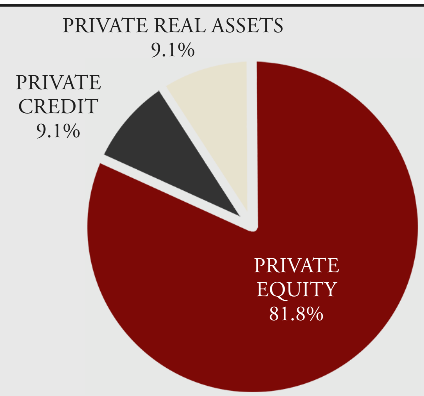
[1]Core Investments Asset Class	Portfolio Target Percentage
Domestic Equity	25.8%
International Equity	22.5%
Fixed Income	21.4%
Real Estate	18.0%
Infrastructure	6.7%
Absolute Return	5.6%
Total	100.0%



[2]Strategic Investments Asset Class	Portfolio Target Percentage
Domestic Equity	37.5%
International Equity	37.5%
Fixed Income	25.0%
Total	100.0%

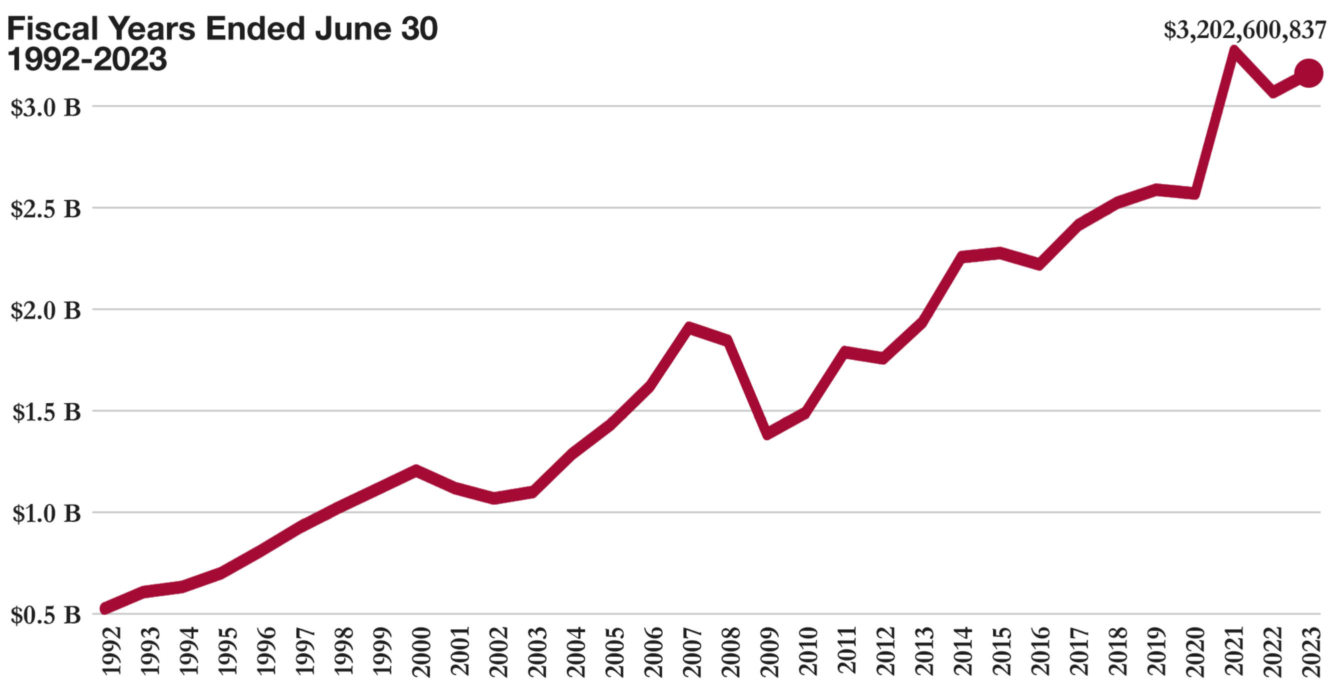


[3]Illiquid Investments Asset Class	Portfolio Target Percentage
Private Equity	81.8%
Private Credit	9.1%
Private Real Assets	9.1%
Total	100.0%

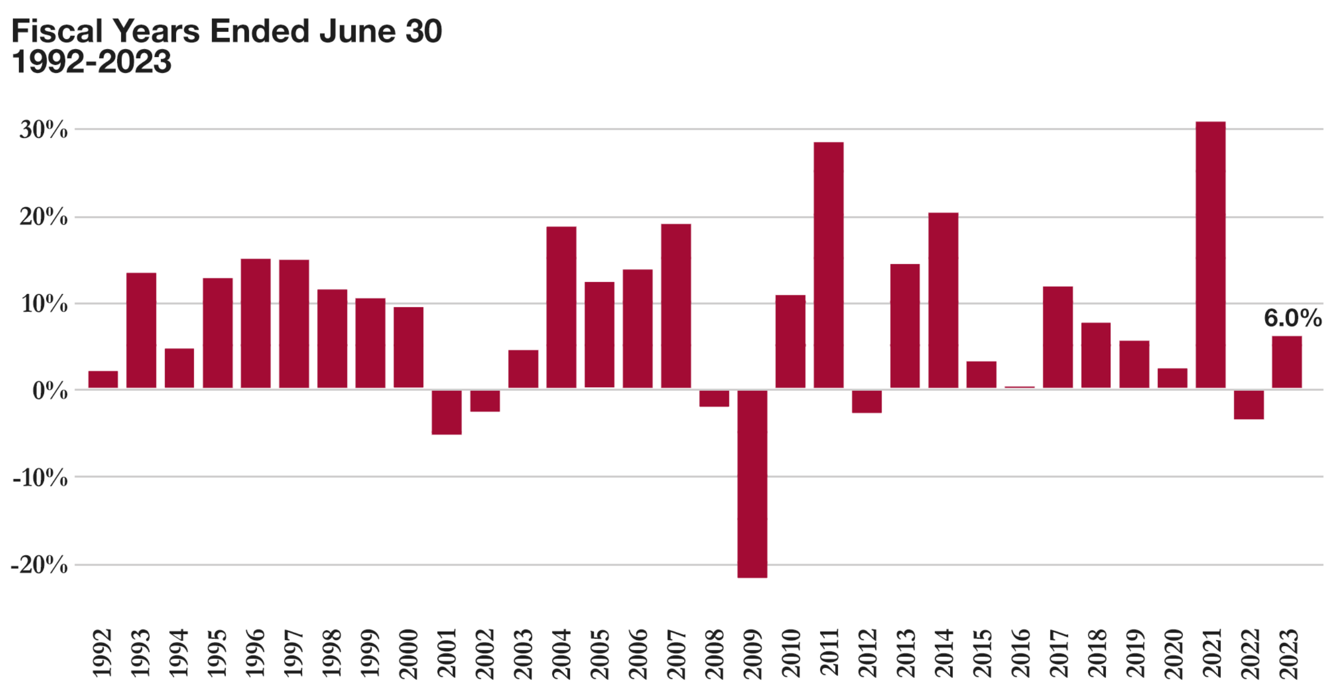


Caveats: In the absence of suitable opportunities within a specific market, the funds shall be directed to the other components within the debt or equity category. Due to the fluctuation of market values, positioning within ±5% of the Core and Strategic Investments target and within ±10% of Illiquid Investments shall constitute compliance with the policy. A review of the allocation policy shall occur periodically to allow the Board of Trustees to consider the effect of any changes in market conditions or of the expectations for the retirement system.

Growth of Net Investment Portfolio Assets



Annual Investment Returns



Benefits

Description of Benefit Plan

Optional Forms of Retirement

DROP - Deferred Retirement Option Plan

Membership Data

Description of Benefit Plan

Benefit formulas are established by Iowa Code Chapter 411, and revisions to the benefit program can only be instituted by the Iowa General Assembly. The Board and staff are required to administer retirement benefits in compliance with the statutory provisions. Questions concerning an individual's eligibility should be directed to the administration.

Retirement Age

To qualify for a full service retirement, the member must be age 55 or older with a minimum of 22 years of service at termination of employment. Death and disability benefits do not have specific age or length of service requirements. Retirement under the ordinary disability or accidental disability programs of MFPRSI are available to members who become permanently disabled (while there are no age or length of service requirements, "permanently disabled" is defined as a duration of one year or longer) while employed as a firefighter or police officer.

Benefit Amounts

Current benefit amounts are based upon a percentage of the member's average monthly earnable compensation. The average monthly earnable compensation is calculated by adding the member's earnable compensation for the highest three years of service and dividing it by 36. The percentage multiplier varies by type of retirement and the length of the member's service. For service retirements, the benefit percentage is 66 percent with 22 years of service and 82 percent with 30 years of service.

Refund of Contributions

Since July 1, 1990, members who terminate service, other than by death or disability, may withdraw their contributions in total from their date of hire through their termination date. If a member withdraws contributions, the member waives any claim to benefits for the period of membership for which the withdrawal is made.

Members who terminate service also have the option to rollover the eligible portion of their refund to another qualified retirement plan or to an individual retirement account (IRA). Such rollovers must be approved in advance by MFPRSI. The contributions being withdrawn are credited with an annualized simple interest rate determined by the Board, currently set at 5 percent.

Vesting

When a member earns at least 4 years of credited service or reaches age 55 while performing membership service, the member becomes vested in the retirement system. Once vested, the member is entitled to a monthly benefit.

Optional Forms of Retirement

Members retiring through a service or vested service retirement have the opportunity to select either the "basic benefit" as provided by Chapter 411, or one of six optional forms of benefits. The basic benefit is a lifetime benefit based on the member's average monthly compensation and number of years of service. Each option is actuarially adjusted and based on the basic benefit.

1. **The Basic Benefit** - The member's spouse is entitled to 50 percent of the gross benefit at the time of the member's passing, but not less than 20 percent of the average earnable compensation of the active membership as reported by the actuary.

   Please visit www.mfprsi.org for more information about the basic benefit.

The optional forms of benefits below are calculated using actuarial tables which consider the age of the member at retirement, the age of the member's beneficiary, and the assumed life expectancy of both. The beneficiary receives this amount for his or her lifetime.

2. **Joint & 75 Percent Survivor Annuity** - The designated beneficiary receives 75 percent of the gross amount of the member's retirement at the time of the member's passing. If the beneficiary passes before the member, then the benefits end upon the member's passing.

3. **Joint & 75 Percent Survivor Annuity with Pop-Up** - The designated beneficiary receives 75 percent of the gross amount of the member's retirement at the time of the member's passing. Should the beneficiary pass before the member, the benefit will increase to the amount of the basic benefit and no survivor benefit is payable following the member's passing.

4. **Joint & 100 Percent Survivor Annuity** - The designated beneficiary receives 100 percent of the gross amount of the member's retirement at the time of the member's passing. If the beneficiary passes before the member, then the benefits end upon the member's passing.

5. **Joint & 100 Percent Survivor Annuity with Pop-Up** - The designated beneficiary receives 100 percent of the gross amount of the member's retirement at the time of the member's passing. Should the beneficiary pass before the member, the benefit will increase to the amount of the basic benefit and no survivor benefit is payable following the member's passing.

6. **Single-Life Annuity with Designated Lump Sum** - The designated beneficiary receives a one-time, lump-sum payment upon the passing of the member. If the beneficiary passes prior to the member, the lump sum is paid to the member's estate.

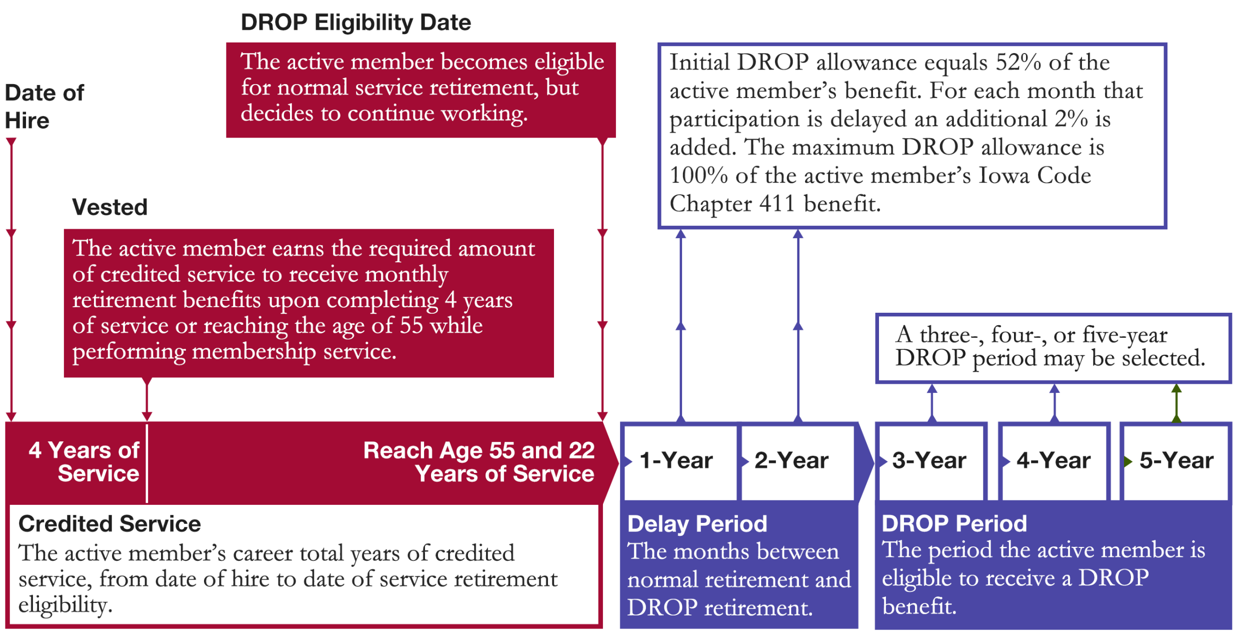
7. **Straight-Life Annuity** - Following the member's passing, no further benefits are payable.

DROP - Deferred Retirement Option Plan

Active members, at least 55 years old with 22 or more years of service, have the option to participate in DROP (Deferred Retirement Option Plan). This program is an arrangement for members who are otherwise eligible to retire and begin benefits, but continue working. Members can elect a three-, four-, or five-year DROP period. Members will sign a contract indicating they will retire at the end of the selected DROP period by electing to participate in the program.

During the member's DROP period the member's retirement benefit is frozen and a DROP benefit is credited to an account established for the member. The DROP benefit is equal to 52 percent of the member's retirement benefit at the member's earliest date eligible and 100 percent if the member delays enrollment for 24 months. At the member's actual date of retirement, the member's DROP account will be distributed in the form of a lump sum or rolled over to an eligible plan.

DROP Timeline - The graphic below provides a general timeline of a member's career and participation in DROP. Following the member's DROP eligibility date, which is the date the member would normally be qualified to retire yet they have decided to continue working, completing two additional full years before officially enrolling in the plan earns the member 100 percent of their Chapter 411 benefit. Upon completion of the DROP period (three, four, or five years) and termination of employment, the member will receive their benefit accrued through the DROP plan in the form of a one-time, lump-sum payout.



Membership Data

Retirement System Membership Profile

Active members	As of July 1, 2023	Year Over Year Increase/ (Decrease)
Number	4,168	13
Average age (in years)	40.1	-0.1
Average past service (in years)	12.8	-0.1
Average annual compensation	$89,916	$5,740
Non-active members in pay status		
Number	4,433	80
Average age (excluding children)	70.3	0.1
Average annual benefit	$47,269	$720
Non-active members with deferred benefits		
Number*	465	12
Average age	43.4	0.1
Average annual benefit	$21,831	$650

*Excludes 111 terminated non-vested members in 2023 and 114 terminated non-vested members in 2022 who had not received a refund of contributions as of the end of the fiscal year.

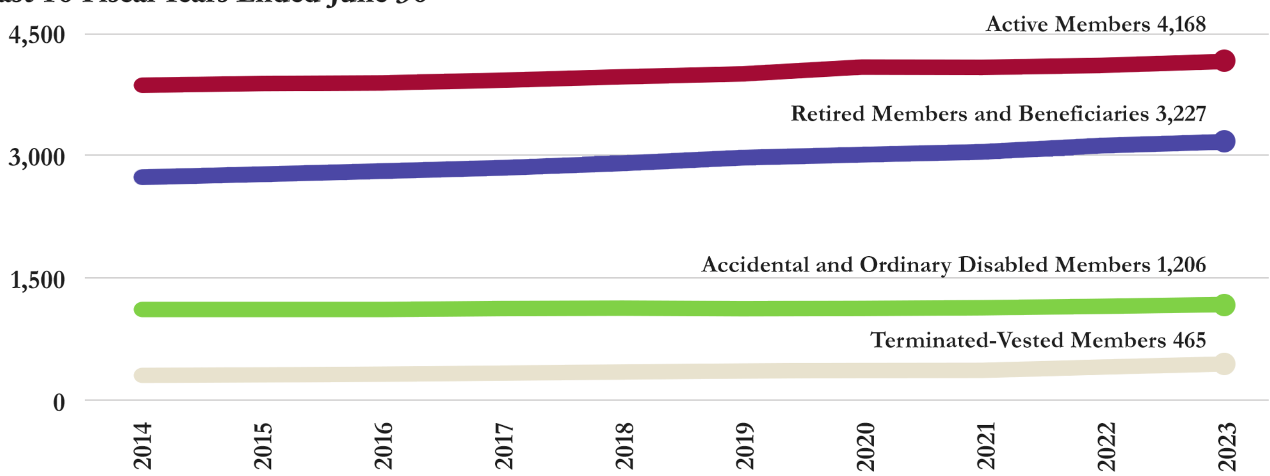
Participating Cities

Ames	Des Moines	Marshalltown
Ankeny	DeWitt*	Mason City
Bettendorf	Dubuque	Muscatine
Boone	Estherville*	Newton
Burlington	Evansdale*	Oelwein
Camanche	Fairfield	Oskaloosa
Carroll*	Fort Dodge	Ottumwa
Cedar Falls	Fort Madison	Pella*
Cedar Rapids	Grinnell	Sioux City
Centerville	Indianola*	Spencer
Charles City	Iowa City	Storm Lake
Clinton	Keokuk	Urbandale
Clive*	Knoxville*	Waterloo
Council Bluffs	Le Mars*	Waverly*
Creston	Maquoketa*	Webster City
Davenport	Marion	West Des Moines
Decorah		

*Police department only.

Membership by Type

Last 10 Fiscal Years Ended June 30



Membership Data (cont.)

Benefits by Type

Service Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
55 - 59	166	$11,887,056	$71,609
60 - 64	270	18,678,816	$69,181
65 - 69	362	24,499,860	$67,679
70 - 74	377	24,162,444	$64,091
75 - 79	287	17,721,576	$61,748
80 - 84	192	10,392,840	$54,129
Over 84	124	5,568,060	$44,904
Total	1,778	$112,910,652	$63,504

Accidental Disability Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 40	14	$628,980	$44,927
40 - 49	74	3,627,252	49,017
50 - 59	204	11,308,140	55,432
60 - 69	281	15,579,948	55,445
70 - 79	294	15,107,448	51,386
Over 80	127	5,586,816	43,991
Total	994	$51,838,584	$52,151

Ordinary Disability Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 40	7	$258,804	$36,972
40 - 49	42	1,612,056	38,382
50 - 59	49	2,203,320	44,966
60 - 69	44	1,924,668	43,742
70 - 79	51	2,255,016	44,216
Over 80	19	764,988	40,263
Total	212	$9,018,852	$42,542

Membership Data (cont.)

Beneficiary (Spouse) Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 50	22	$705,852	$32,084
50 - 59	47	1,447,020	30,788
60 - 69	137	4,082,496	29,799
70 - 79	293	8,031,012	27,410
Over 80	419	10,564,368	25,213
Total	918	$24,830,748	$27,049

Beneficiary (Children) Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 12	6	$35,376	$5,896
12 - 17	10	65,568	6,557
18 and Over	29	223,548	7,709
Total	45	$324,492	$7,211

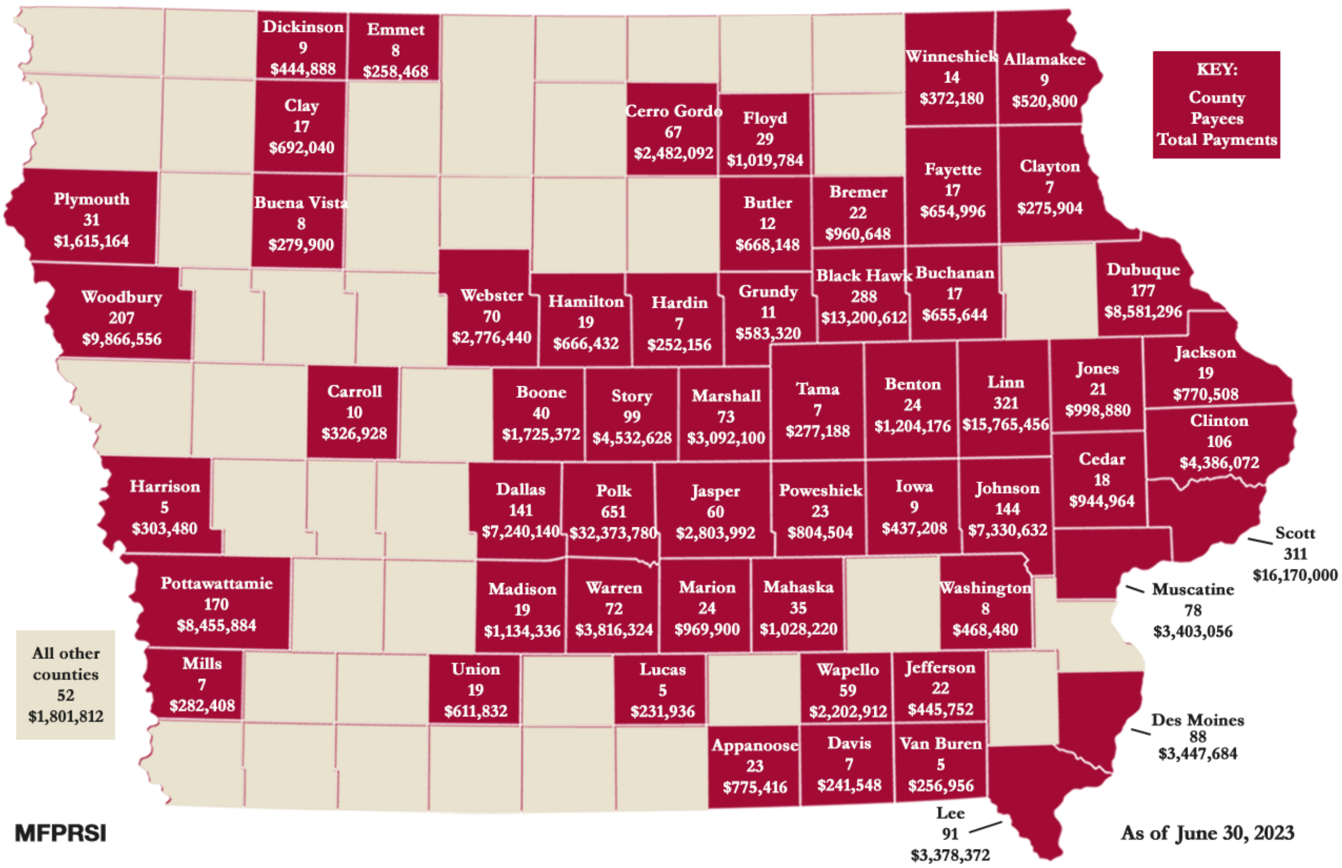
Vested Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
55 - 59	108	$2,918,220	$27,021
60 - 69	215	4,995,024	23,233
70 - 79	129	2,278,908	17,666
80 and Over	34	430,860	12,672
Total	486	$10,623,012	$21,858

Terminated-Vested Benefits

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 40	156	$2,327,724	$14,921
40 - 49	193	4,327,296	22,421
50 and Over	116	3,496,200	30,140
Total	465	$10,151,220	$21,831

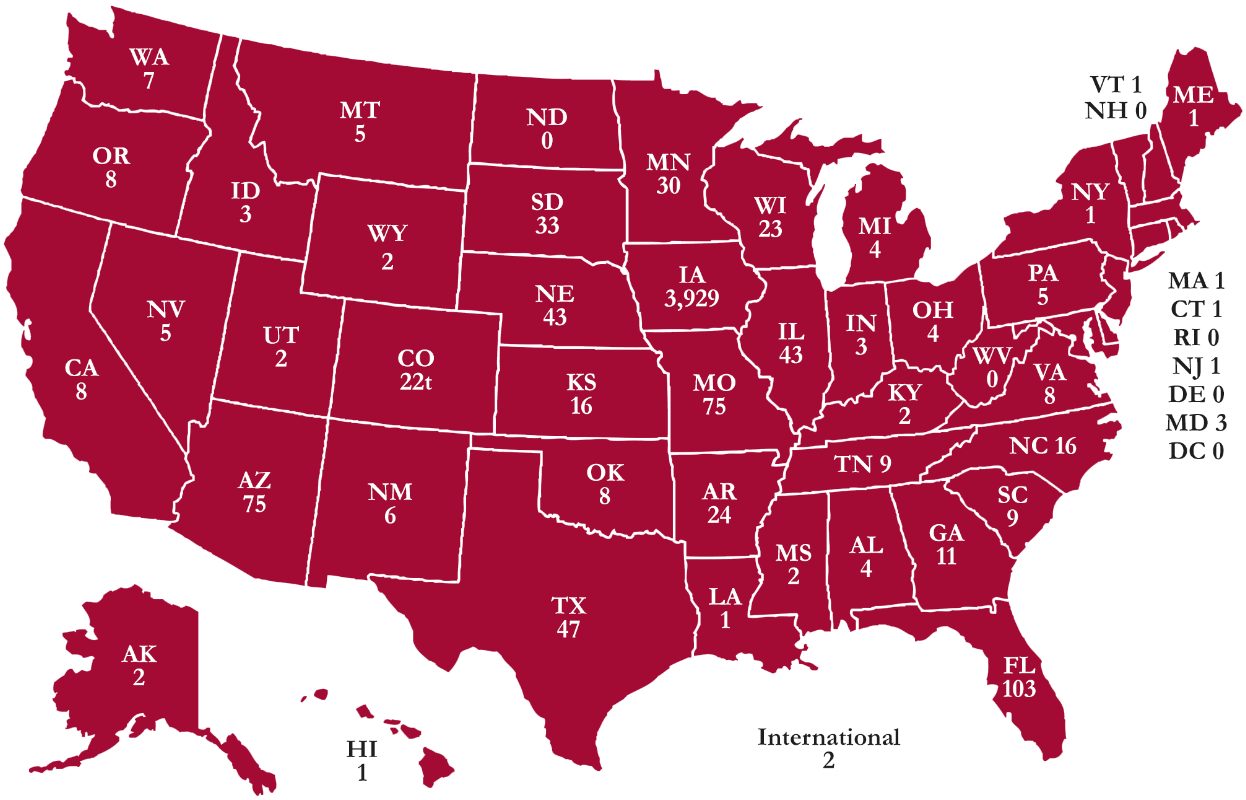
Payees and Total Benefit Payments by Counties in Iowa



The map above illustrates the number of benefit payments made to members with mailing addresses residing in the State of Iowa as of June 30, 2023. Approximately 85% of all members receiving a monthly benefit from MFPRSI reside in Iowa.

Number of Benefit Payments to Members by U.S. State

Benefit Payroll June 30



The map above illustrates the number of benefit payments made to members with mailing addresses residing in the individual states and internationally as of June 30, 2023. Approximately 99% of all monthly benefit payments are done via ACH.

Preparation of Annual Report

The preparation of this report and financial statements were the result of the combined efforts of the retirement system's staff under the direction of the Executive Director, Deputy Director, and Chief Investment Officer.

MFPRSI's annual report for fiscal year 2023 was prepared by MFPRSI staff using data gathered from various sources including MFPRSI's actuarial services provider, HUB International, investment consultant, Marquette Associates, and communications consultant, Wixted & Co. The two feature articles about Jeff Cayler and Bill Ell were written by Wixted & Co.

The firm of Eide Bailly LLP conducted an audit for the period ending June 30, 2023. A copy of the audit report has been provided to each of the employing cities and is viewable at www.mfprsi.org. Copies of the report are also available at MFPRSI's office in West Des Moines, Iowa.

This report is intended to provide reliable information as a basis for management decisions, legal compliance, and stewardship of the retirement system's assets. The Board and staff appreciate the efforts extended by city officials as well as the support given to MFPRSI by the active and retired memberships and city representatives.

Design/Production/Writing - Cody Jans, Leslie Diehl, and Wixted & Co.
Printing - Universal Printing Services

MFPRSI MUNICIPAL FIRE & POLICE RETIREMENT SYSTEM OF IOWA