Municipal Fire and Police Retirement System of Iowa

Financial Statements as of and for the
Years Ended June 30, 2022 and 2021,
Required Supplementary Information, and
Related Independent Auditor's Reports

MUNICIPAL FIRE AND POLICE RETIREMENT SYSTEM OF IOWA

TABLE OF CONTENTS

CPAs & BUSINESS ADVISORS

Independent Auditors Report

To the Board of Trustees
Municipal Fire and Police Retirement System of Iowa
Des Moines, Iowa

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the Municipal Fire and Police Retirement System of Iowa (MFPRSI), which comprise the statements of fiduciary net position as of June 30, 2022 and 2021, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise MFPRSI's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective statements of fiduciary net position of the Municipal Fire and Police Retirement System of Iowa, as of June 30, 2022 and 2021, and the respective changes in fiduciary net 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 audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards (Government Auditing Standards)*, issued by the Comptroller General of the United States. 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 $1,322.3 million (41.4% of total assets), as of June 30, 2022, 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.

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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 opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with 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 4-7 and 29-37 be presented to supplement the basic financial statements. Such information, 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 auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 17, 2022 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
November 17, 2022

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, 2022 and 2021. 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 2022 and 2021 by $3,090,046,862 and $3,293,610,268 (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, 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. Additions for the year ended June 30, 2021, were $898,199,048, which is comprised of contributions of $112,833,332, net investment income of $785,156,295, and other income of $209,421.

- Benefit payments were $205,621,966 and $194,400,282, for the years ended June 30, 2022, and 2021, respectively, a 5.8% 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, 2022, and 2021, were approximately $3.19 billion and $3.35 billion, respectively, and were primarily comprised of investments, cash, receivables from brokers, and contributions due from employers. The $155,708,883, or 4.6%, decrease in assets from June 30, 2021, to June 30, 2022, was primarily due to the unrealized losses experienced in invested assets.

As discussed in Notes 2 and 4 to the financial statements, total retirement system investments include investments valued at $1,322.3 million (41.4% of total assets) and $1,118.9 million (33.4% of total assets), as of June 30, 2022, and 2021, 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, 2022, and 2021, were $104,107,255 and $56,914,410, respectively, and were primarily comprised of obligations under benefits and refunds payable, as well as payable to brokers for unsettled trades. The $47,192,845, or 82.9%, increase in liabilities from June 30, 2021, to June 30, 2022, was due to an increase in payables to brokers for unsettled trades and benefits payable.

During the year ended June 30, 2022, plan net position restricted for pension benefits decreased $203,563,406, or 6.2%, from the previous fiscal year, primarily due to the unrealized losses experienced in invested assets. This is in comparison to the previous fiscal year, when net position increased by $700,861,839, or 27%, from the prior year.

Municipal Fire and Police Retirement System of Iowa
Condensed Statement of Fiduciary Net Position
(In Thousands of $)

	2022	2021	2022/2021 % Change	2020	2021/2020 % Change
Assets:					
Cash	$ 7,535	$ 7,957	-5.3%	$ 17,274	-53.9%
Investments	3,123,603	3,313,612	-5.7%	2,584,510	28.2%
Receivables	63,381	28,697	120.9%	25,848	11.0%
Other Assets	142	104	36.5%	72	44.4%
Total Assets	$ 3,194,661	$ 3,350,370	-4.6%	$ 2,627,704	27.5%
Pension related deferred outflows	135	191	-29.3%	172	11.0%
Liabilities:					
Benefits and refunds payable	18,710	16,675	12.2%	17,407	-4.2%
Investment management expense payable	1,931	2,560	-24.6%	2,143	19.5%
Administrative expenses payable	427	354	20.6%	441	-19.7%
Net Pension Liability attributed to IPERS	17	840	-98.0%	699	20.2%
Payable to brokers for unsettled trades	83,022	36,485	127.6%	14,308	155.0%
Total Liabilities	$ 104,107	$ 56,914	82.9%	$ 34,998	62.6%
Pension related deferred inflows	642	37	1635.1%	130	-71.5%
Plan net position restricted for pension benefits	$ 3,090,047	$ 3,293,610	-6.2%	$ 2,592,748	27.0%

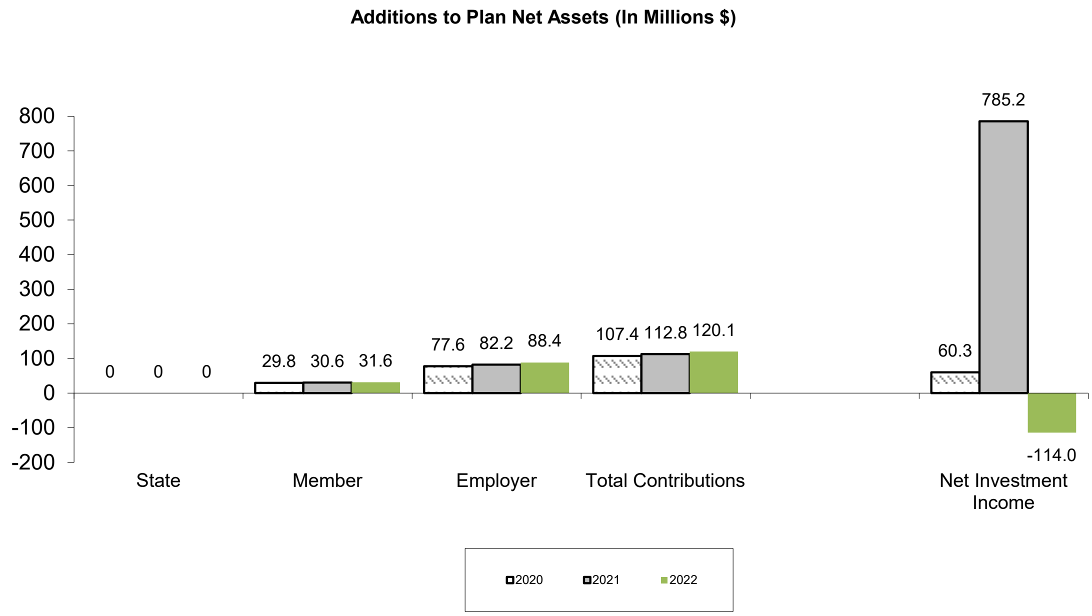
Municipal Fire and Police Retirement System of Iowa
Condensed Statement of Changes in Fiduciary Net Position
(In Thousands of $)

	2022	2021	2022/2021 % Change	2020	2021/2020 % Change
Additions:					
Contributions	$ 120,053	$ 112,833	6.4%	$ 107,360	5.1%
Net investment income	(113,965)	785,156	-114.5%	60,250	1203.2%
Other income	10	210	-95.2%	1	20900.0%
Total additions	6,098	898,199	-99.3%	167,611	435.9%
Deductions:					
Benefits and refund payments	207,530	195,202	6.3%	185,942	5.0%
Administrative expenses	2,131	2,135	-0.2%	2,046	4.3%
Total deductions	209,661	197,337	6.2%	187,988	5.0%
Net increase (decrease)	(203,563)	700,862	-129.0%	(20,377)	-3539.5%
Plan net position restricted for pension benefits:					
Beginning of year	3,293,610	2,592,748	27.0%	2,613,125	-0.8%
End of year	$ 3,090,047	$ 3,293,610	-6.2%	$ 2,592,748	27.0%

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 2022 totaled $6,097,853.

Contributions increased from the previous year by $7,219,611. This increase is primarily due to an increase in the earnable compensation of members and an increase in the employer contribution rate. Net investment income decreased from the previous year by $899,121,612. This change is primarily due to a net depreciation in the fair value of assets.

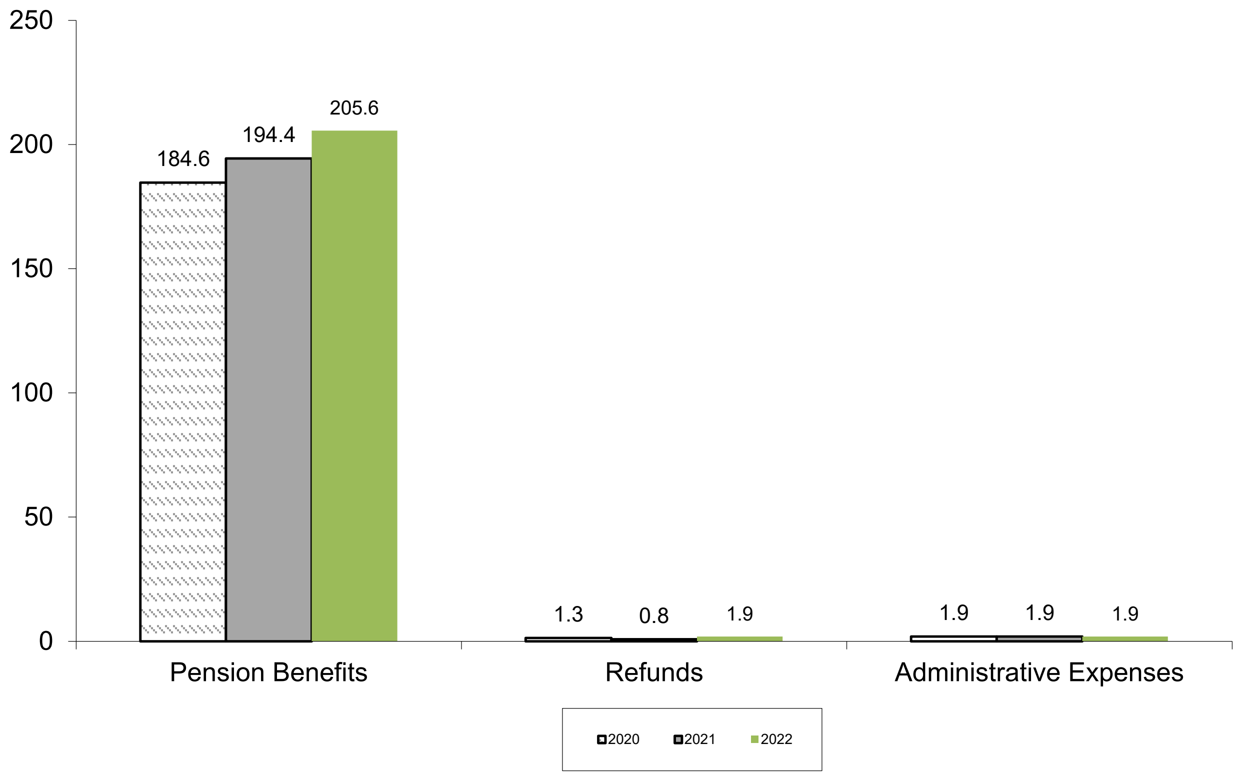


EXPENSES – DEDUCTIONS FROM FIDUCIARY NET POSITION

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 2022 were $209,661,259, an increase of 6.2% over fiscal year 2021 deductions.

Pension benefit payments increased by $11,221,684, or 5.8%, from the previous year. Refund of contributions increased by $1,105,746, or 137.9%. These changes are primarily due to member transfers to the Peace Officers' Retirement System and an increase in the number of refund applications in 2022.

Deductions from Plan Net Position (In Millions $)



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.

MUNICIPAL FIRE AND POLICE RETIREMENT SYSTEM OF IOWA

STATEMENT OF FIDUCIARY NET POSITION
AS OF JUNE 30, 2022 AND 2021

	2022	2021
Assets:		
Cash	$ 7,535,154	$ 7,957,216
Investments, at fair value:		
U.S. government obligations	152,851,994	153,263,070
U.S. corporate fixed income	131,293,740	124,838,512
U.S. equity securities	390,852,228	551,922,246
Foreign equity securities	370,042,806	487,932,767
Commingled fixed income	37,719,616	50,683,978
Short-term investments and currency positions	46,987,969	38,415,914
Infrastructure	85,852,789	-
Real estate	337,760,970	291,872,892
Private equity	799,421,035	750,183,992
Private credit	49,368,374	21,000,000
Multi-strategy commingled fund	49,871,274	55,782,571
Fund of funds commingled investment	671,580,460	787,715,979
Total investments - at fair value	3,123,603,255	3,313,611,921
Receivables:		
Contributions	3,526,670	3,784,340
Investment income	32,831	27,746
Receivable from brokers for unsettled trades, net	59,821,426	24,885,189
Total receivables	63,380,927	28,697,275
Other assets	141,935	103,742
Total assets	3,194,661,271	3,350,370,154
Pension related deferred outflows	134,546	191,539
Liabilities:		
Benefits and refunds payable	18,710,398	16,674,935
Investment management expenses payable	1,930,704	2,559,884
Administrative expenses payable	427,211	354,716
Net pension liability attributed to IPERS	17,123	839,724
Payable to brokers for unsettled trades, net	83,021,819	36,485,151
Total liabilities	104,107,255	56,914,410
Pension related deferred inflows	641,700	37,015
Plan net position restricted for pension benefits	$ 3,090,046,862	$ 3,293,610,268

MUNICIPAL FIRE AND POLICE RETIREMENT SYSTEM OF IOWA

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEARS ENDED JUNE 30, 2022 AND 2021

	2022	2021
Additions:		
Contributions:		
Member	$ 31,631,033	$ 30,587,481
Employer	88,421,910	82,245,851
State appropriations	-	-
Total contributions	120,052,943	112,833,332
Investment income:		
Interest	11,306,522	8,321,735
Dividends	39,308,614	15,707,876
Net (depreciation) appreciation in fair value of investments	(139,434,366)	791,585,262
Net investment income from investment activity	(88,819,230)	815,614,873
Less investment expenses:		
Management fees and other	25,146,087	30,458,578
Net investment income	(113,965,317)	785,156,295
Other income	10,227	209,421
Total additions	6,097,853	898,199,048
Deductions:		
Benefit payments	205,621,966	194,400,282
Refund payments	1,907,707	801,961
Administrative expenses	1,910,869	1,899,280
Disability expenses	220,717	235,686
Total deductions	209,661,259	197,337,209
Net (decrease) increase in net position	(203,563,406)	700,861,839
Plan net position restricted for pension benefits:		
Net Position - Beginning	3,293,610,268	2,592,748,429
Net Position - Ending	$3,090,046,862	$3,293,610,268

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, 2022, MFPRSI was comprised of 49 cities covering 4,155 active members; 453 terminated members entitled to benefits; and 4,353 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, 2022, and 2021.

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 26.18% and 25.31%, for the years ended June 30, 2022, and 2021, 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, 2022, and 2021.

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, 2022, and 2021:

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 $18,526,000 as of June 30, 2022, and $16,525,000 as of June 30, 2021.

Net Pension Liability of the Retirement System – The components of MFPRSI's net pension liability at June 30, 2022 and 2021 were as follows:

	2022	2021
Total pension liability	$ 3,651,617,338	$ 3,518,184,403
Plan fiduciary net position	(3,090,046,862)	(3,293,610,268)
Retirement system's net pension liability	$ 561,570,476	$ 224,574,135
Plan fiduciary net position as a percentage of the total pension liability	84.62%	93.62%

Actuarial Assumptions – The total pension liability was determined by an actuarial valuation as of June 30, 2022 and 2021, using the following actuarial assumptions, applied to all periods included in the measurement:

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

Mortality rates as of June 30, 2022 and 2021, 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, 2022 and 2021, valuations were 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, 2022, (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	3.5%
Broad U.S. Equity	6.7%
Global Equity	6.8%
Broad Non-US Equity	7.0%
Managed Futures	5.1%
Emerging Market	7.2%
Real Estate – Core	6.4%
Opportunistic Real Estate	11.0%
Global Infrastructure	6.8%
Private Credit	8.6%
Private Equity	12.0%

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:

	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, 2022:

Asset Class	Target Allocation
Core investments	43%
Strategic investments	35%
Private markets	22%
Total	100%

Rate of Return

For the years ended June 30, 2022, and 2021, the annual money-weighted rate of return on pension plan investments net of pension plan investment expense was -3.80% and 29.90%, 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, 2022 and 2021:

	2022	2021
Insured	$ 250,000	$ 250,000
Uninsured and uncollateralized	8,291,061	8,604,424
Bank balance — June 30	$ 8,541,061	$ 8,854,424
Less:		
Pending Bank Transactions	1,005,907	897,208
Cash - Statement of Fiduciary Net Position	$ 7,535,154	$ 7,957,216

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 speculate or 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, 2022 and 2021, MFPRSI was invested in fund of funds commingled investments, which can be broken down into the following asset classes:

	2022	2021
INVESTMENTS — At fair value:		
U.S. equity securities	$ 225,990,281	$ 328,758,277
Foreign equity securities	150,511,065	221,629,822
Fixed income	141,505,266	138,689,606
Alternative investments	41,476,573	21,612,398
Short-term investments and currency positions	112,097,275	77,025,876
Total fund of funds commingled investments	$ 671,580,460	$ 787,715,979

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, 2022 and 2021, are as follows:

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 %

2021

Quality Rating	Fair Value	Percentage of Portfolio
AAA	$ 3,128,106	0.95 %
AA	169,793,047	51.64 %
A	49,795,137	15.15 %
BBB	71,313,289	21.69 %
BB	34,546,891	10.51 %
B	209,090	0.06 %
Total fixed income securities	$ 328,785,560	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, 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%.

Commitments

MFPRSI is committed, as of June 30, 2022, to invest approximately $521,000,000 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

		Fair Value Measurement Using		
	Balance at June 30, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level:				
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	-
Total debt securities	284,145,735	35,099,761	249,045,974	-
Equity securities				
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			

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, 2022, was determined primarily based on level 2 inputs. Wells Fargo 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)

	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. A derivative security is an investment whose payoff depends upon the value of an underlying asset such as bond and stock prices or a market index. All derivatives are considered investments. The fair values of all derivative financial instruments are reported in the Statement of Fiduciary Net Position as 'Short-term investments and currency positions.' 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 and 2021, 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.

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 2022, 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, 2022 and 2021, were $96,332 and $93,581, respectively.

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

At June 30, 2022, MFPRSI reported a liability of $17,123 for its proportionate share of the IPERS net pension liability. The IPERS net pension liability was measured as of June 30, 2021, 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, 2021, the MFPRSI's proportion was 0.012214 percent, which was an increase from 0.012038, its proportion measured as of June 30, 2020.

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:

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, 2021 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, 2021 valuation were based on the results of actuarial experience studies with dates corresponding to those listed above.

Mortality rates were based on the RP-2014 Employee and Healthy Annuitant Tables adjusted to 2006 and 2017 with MP-2017 generational adjustments.

The actuarial assumptions used in the June 30, 2021 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 2018. This study included information on mortality, retirement, disability and termination rates, as well as salary trends, for the period of July 1, 2013 – June 30, 2017. At the Investments Board's direction, the experience study of the System's economic assumptions, including the long-term rate of return, was accelerated a year resulting in a full review of the economic assumptions in early 2017. The findings of the experience study on economic assumptions, along with the resulting recommendations, are included in the report dated March 24, 2017.

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, 2021 are shown in the following table:

Asset Class	IPERS Target Allocation	IPERS Long-Term Expected Real Rate of Return
Domestic equity	22%	4.43%
International equity	17.5	6.01
Global smart beta equity	6	5.1
Core-plus fixed income	26	0.29
Public credit	4	2.08
Cash	1	-0.25
Private equity	13	9.51
Private real assets	7.5	4.63
Private credit	3	2.87
Total	100%	

IPERS - Discount Rate. The discount rate used to measure the total pension liability was 7.0 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from MFPRSI will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. 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 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.

	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, 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.

At June 30, 2021, 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.

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REQUIRED SUPPLEMENTARY INFORMATION

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

	2022	2021	2020	2019
Total pension liability				
Service cost	$ 58,814,108	$ 56,807,678	$ 55,133,707	$ 53,017,674
Interest	260,633,217	251,348,980	242,467,141	233,282,508
Differences between expected and actual experience	21,515,283	14,881,260	9,638,175	16,177,781
Changes of assumptions	-	-	-	-
Benefit payments, including refunds	(207,529,673)	(195,202,243)	(185,942,113)	(178,457,619)
Net change in total pension liability	133,432,935	127,835,675	121,296,910	124,020,344
Total pension liability - beginning	3,518,184,403	3,390,348,728	3,269,051,818	3,145,031,474
Total pension liability - ending	3,651,617,338	3,518,184,403	3,390,348,728	3,269,051,818
Plan fiduciary net position				
Contributions - employer	88,421,910	82,245,851	77,551,461	78,766,019
Contributions - member	31,631,033	30,587,481	29,808,835	28,472,627
Net investment income	(113,965,317)	785,156,295	60,250,246	136,635,233
Benefit payments, including refunds	(207,529,673)	(195,202,243)	(185,942,113)	(178,457,619)
Administrative expense	(1,902,581)	(1,894,969)	(1,887,579)	(1,797,284)
Other	(218,778)	(30,576)	(157,670)	(121,714)
Net change in plan fiduciary net position	(203,563,406)	700,861,839	(20,376,820)	63,497,262
Plan fiduciary net position - beginning	3,293,610,268	2,592,748,429	2,613,125,249	2,549,627,987
Plan fiduciary net position - ending	$ 3,090,046,862	$ 3,293,610,268	$ 2,592,748,429	$ 2,613,125,249
MFPRSI's net pension liability - ending	$ 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
Total pension liability				
Service cost	$ 56,128,110	$ 53,423,772	$ 51,366,130	$ 49,893,939
Interest	224,678,250	213,069,288	205,836,959	196,289,405
Differences between expected and actual experience	(9,748,387)	12,891,275	7,643,609	15,374,059
Changes of assumptions	21,266,192	39,751,096	(10,467,574)	17,508,411
Benefit payments, including refunds	(170,663,862)	(163,571,586)	(156,566,482)	(150,026,306)
Net change in total pension liability	121,660,303	155,563,845	97,812,642	129,039,508
Total pension liability - beginning	3,023,371,171	2,867,807,326	2,769,994,684	2,640,955,176
Total pension liability - ending	3,145,031,474	3,023,371,171	2,867,807,326	2,769,994,684
Plan fiduciary net position				
Contributions - employer	74,641,639	73,411,163	75,254,727	79,748,943
Contributions - member	27,493,680	26,625,022	25,455,597	24,622,310
Net investment income	183,182,098	259,812,040	164,100	69,833,569
Benefit payments, including refunds	(170,663,862)	(163,571,586)	(156,566,482)	(150,026,306)
Administrative expense	(1,781,886)	(1,767,657)	(1,728,951)	(1,680,944)
Other	(139,793)	(159,263)	(212,954)	(774,140)
Net change in plan fiduciary net position	112,731,876	194,349,719	(57,633,963)	21,723,432
Plan fiduciary net position - beginning	2,436,896,111	2,242,546,392	2,300,180,355	2,278,456,923
Plan fiduciary net position - ending	$ 2,549,627,987	$ 2,436,896,111	$ 2,242,546,392	$ 2,300,180,355
MFPRSI's net pension liability - ending	$ 595,403,487	$ 586,475,060	$ 625,260,934	$ 469,814,329

* 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

	2014	2013
Total pension liability		
Service cost	$ 48,020,046	$ 47,487,380
Interest	187,172,397	185,532,855
Differences between expected and actual experience	(1,248,941)	(22,020,082)
Changes of assumptions	32,616,664	(49,002,711)
Benefit payments, including refunds	(143,833,568)	(137,617,880)
Net change in total pension liability	122,726,598	24,379,562
Total pension liability - beginning	2,518,228,578	2,493,849,016
Total pension liability - ending	2,640,955,176	2,518,228,578
Plan fiduciary net position		
Contributions - employer	76,917,460	65,327,766
Contributions - member	24,054,541	23,358,844
Net investment income	358,680,682	229,592,075
Benefit payments, including refunds	(143,833,568)	(137,617,880)
Administrative expense	(1,553,740)	(1,523,477)
Other	(75,070)	(99,223)
Net change in plan fiduciary net position	314,190,305	179,038,105
Plan fiduciary net position - beginning	1,964,266,618	1,785,228,513
Plan fiduciary net position - ending	$ 2,278,456,923	$ 1,964,266,618
MFPRSI's net pension liability - ending	$ 362,498,253	$ 553,961,960

* 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

	2022	2021	2020	2019
Total pension liability	$ 3,651,617,338	$ 3,518,184,403	$ 3,390,348,728	$ 3,269,051,818
Plan fiduciary net position	3,090,046,862	3,293,610,268	2,592,748,429	2,613,125,249
MFPRSI's net pension liability	$ 561,570,476	$ 224,574,135	$ 797,600,299	$ 655,926,569
Plan fiduciary net position as a percentage of the total pension liability	84.62%	93.62%	76.47%	79.94%
Actuarial projected covered payroll	$ 337,741,039	$ 324,953,814	$ 317,709,825	$ 302,713,506
MFPRSI's net pension liability as a percentage of covered payroll	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
Total pension liability	$ 3,145,031,474	$ 3,023,371,171	$ 2,867,807,326	$ 2,769,994,684
Plan fiduciary net position	2,549,627,987	2,436,896,111	2,242,546,392	2,300,180,355
MFPRSI's net pension liability	$ 595,403,487	$ 586,475,060	$ 625,260,934	$ 469,814,329
Plan fiduciary net position as a percentage of the total pension liability	81.07%	80.60%	78.20%	83.04%
Actuarial projected covered payroll	$ 290,660,576	$ 283,222,057	$ 270,986,891	$ 262,260,060
MFPRSI's net pension liability as a percentage of covered payroll	204.84%	207.07%	230.73%	179.14%

* 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

	2014	2013
Total pension liability	$ 2,640,955,176	$ 2,518,228,578
Plan fiduciary net position	2,278,456,923	1,964,266,618
MFPRSI's net pension liability	$ 362,498,253	$ 553,961,960
Plan fiduciary net position as a percentage of the total pension liability	86.27%	78.00%
Actuarial projected covered payroll	$ 255,370,044	$ 250,107,112
MFPRSI's net pension liability as a percentage of covered payroll	141.95%	221.49%

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

See Notes to Required Supplementary Information

SCHEDULE OF MFPRSI'S CONTRIBUTIONS
Last 10 Fiscal Years

	2022	2021	2020	2019
Actuarially determined contribution	$ 88,421,910	$ 82,245,851	$ 77,551,461	$ 78,766,019
Contributions in relation to the actuarially determined contribution	88,421,910	82,245,851	77,551,461	78,766,019
Contribution deficiency (excess)	$ -	$ -	$ -	$ -
Reported covered payroll	$ 337,741,039	$ 324,953,814	$ 317,709,825	$ 302,713,506
Contributions as a percentage of covered payroll	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
Actuarially determined contribution	$ 74,641,639	$ 73,411,163	$ 75,254,727	$ 79,748,943
Contributions in relation to the actuarially determined contribution	74,641,639	73,411,163	75,254,727	79,748,943
Contribution deficiency (excess)	$ -	$ -	$ -	$ -
Reported covered payroll	$ 290,660,576	$ 283,222,057	$ 270,986,891	$ 262,260,060
Contributions as a percentage of covered payroll	25.68%	25.92%	27.77%	30.41%

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

SCHEDULE OF MFPRSI'S CONTRIBUTIONS
Last 10 Fiscal Years

	2014	2013
Actuarially determined contribution	$ 76,917,460	$ 65,327,766
Contributions in relation to the actuarially determined contribution	76,917,460	65,327,766
Contribution deficiency (excess)	$ -	$ -
Reported covered payroll	$ 255,370,044	$ 250,107,112
Contributions as a percentage of covered payroll	30.12%	26.12%

* 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
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%
2013	13.10%

SCHEDULE OF MFPRSI PROPORTIONATE SHARE OF THE NET PENSION LIABILITY

Iowa Public Employees' Retirement System
Last 8 Fiscal Years

	2021	2020	2019	2018	2017
MFPRSI's proportion of the net pension liability (asset)	0.012214%	0.012038%	0.011991%	0.011874%	0.012415%
MFPRSI's proportionate share of the net pension liability (asset)	$ 17,123	$ 839,724	$ 699,044	$ 751,182	$ 819,626
MFPRSI's covered payroll	$1,020,466	$ 991,326	$ 948,686	$ 892,161	$ 988,443
MFPRSI's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	1.68%	84.71%	73.69%	84.20%	82.92%
Plan fiduciary net position as a percentage of the total net pension liability	99.60%	82.90%	85.45%	83.62%	82.21%

*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 8 Fiscal Years

	2016	2015	2014
MFPRSI's proportion of the net pension liability (asset)	0.012738%	0.012726%	0.012759%
MFPRSI's proportionate share of the net pension liability (asset)	$ 794,389	$ 632,688	$ 516,371
MFPRSI's covered payroll	$ 902,363	$ 877,346	$ 851,989
MFPRSI's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	88.03%	72.11%	60.61%
Plan fiduciary net position as a percentage of the total net pension liability	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 9 Fiscal Years

	2022	2021	2020	2019	2018
Actuarially determined contribution	$ 96,332	$ 93,581	$ 89,556	$ 86,727	$ 79,670
Contributions in relation to the actuarially determined contribution	(96,332)	(93,581)	(89,556)	(86,727)	(79,670)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Reported covered payroll	$1,020,466	$ 991,326	$ 948,686	$ 918,718	$ 892,161
Contributions as a percentage of covered payroll	9.44%	9.44%	9.44%	9.44%	8.93%

* 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 9 Fiscal Years

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

* 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.

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, 2022
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.

Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trustees
Municipal Fire and Police Retirement System of Iowa
Des Moines, Iowa

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Municipal Fire and Police Retirement System of Iowa (MFPRSI) as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise MFPRSI's basic financial statements and have issued our report thereon dated November 17, 2022.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered MFPRSI's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of MFPRSI's internal control. Accordingly, we do not express an opinion on the effectiveness of MFPRSI's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We identified certain deficiencies in internal control, described in the accompanying Schedule of Findings and Responses OR Schedule of Findings and Questioned Costs as item 2022-001 that we consider to be significant deficiencies.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether MFPRSI's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Entity's Response to Findings

Government Auditing Standards requires the auditor to perform limited procedures on MFPRSI's response to the findings identified in our audit and described in the accompanying Schedule of Findings and Responses. MFPRSI's response was not subjected to the other auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on the response.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Eide Bailly LLP

Boise, Idaho
November 17, 2022

MUNICIPAL FIRE AND POLICE RETIREMENT SYSTEM OF IOWA

SCHEDULE OF FINDINGS AND RESPONSE
AS OF AND FOR THE YEAR ENDED JUNE 30, 2022

2022-001 AUDIT ADJUSTMENT
SIGNIFICANT DEFICIENCY

CRITERIA:
Supporting schedules, third-party statements and required documentation should be reviewed by MFPRSI to identify the necessary adjustments for year-end closing and financial reporting.

CONDITION:
As auditors, we identified a $15,000,000 adjustment to investments and investment income that was not identified by management as part of their investment reconciliation between the Principal statements and the general ledger.

CAUSE:
Due to the transition from Wells Fargo to Principal as MFPRSI's investment custodian in February 2022, the Principal statements made it difficult to ensure transfers were properly recorded in the correct account.

EFFECT:
The auditor calling attention to the above variance led to a material adjusting journal entry to be made by MFPRSI.

RECOMMENDATION:
We recommend that management should ensure controls are in place to review supporting schedules and related financial statement information to perform the reconciliation.

RESPONSE AND ACTION PLAN OF MANAGEMENT:
We agree the deficiency was caused by the ownership transition of the custodian bank. A change in accounting codes at the custodian caused an incorrect data pull into MFPRSI's general ledger. MFPRSI's clearing account identified the deficiency but was not observed by MFPRSI staff prior to providing a draft trial balance to auditors. The custodian bank coding issue has been corrected, and management again reviewed the clearing account controls with staff.