MFPRSI MUNICIPAL FIRE & POLICE RETIREMENT SYSTEM OF IOWA
7155 Lake Drive, Suite 201
West Des Moines, IA 50266

December 6, 2018

Chief Clerk of the House
Iowa General Assembly
State Capitol
1007 East Grand Ave
Des Moines, IA 50319

The enclosed Annual Report is being sent to you on behalf of the Board of Trustees of the Municipal Fire and Police Retirement System of Iowa, in accordance with Iowa Code 411.5.

Questions concerning the report or comments pertaining to the programs of the retirement system may be directed to my attention at pensions@mfprsi.org.

Sincerely,

Terry Slattery
Executive Director

Encl.

ANNUAL REPORT

Fiscal Year 2018

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

MFPRSI MUNICIPAL FIRE & POLICE RETIREMENT SYSTEM OF IOWA

MFPRSI provides a comprehensive set of retirement and disability benefits to eligible local police officers and firefighters in a sound, sustainable, and efficient manner in accordance with the requirements of the program's governing statute.

Comprehensive. Retirement and disability benefits will be adequate in order to attract and retain top quality police officers and firefighters, and provide for them and their families when they are no longer working or able to do so. Retirement and disability benefits should be competitive with comparable police and fire systems.

Efficient. The retirement system and the investment portfolio will be managed in a timely, professional, cost effective, and customer-oriented manner. Top quality management services will be obtained for a cost that is mid-range for comparable systems. The investment portfolio should provide net returns in the top quartile for similarly-sized plans. On a risk-adjusted basis, the portfolio's returns should be no less than the median for public plans.

Sound. Retirement benefits will be stable and secure and the funding policy will be based upon fiduciary principles, appropriate risk management policies, and independent governance. Funding should be based upon actuarially determined contribution rates and intergenerational equity, and a disciplined, accountable, and transparent funding policy. Investment practices should be cognizant of unexpected volatility.

Sustainable. The retirement system shall be economically and politically durable. Economically, the retirement system should sustain progress toward 100 percent funded status while maintaining employer contributions on a consistent basis at 30 percent or less of covered payroll. Significant year-to-year variability in funding requirements should be avoided for both members and cities. Once a fully-funded status is achieved, benefit or contribution changes should take into consideration necessary buffers against inevitable financial market downturns.

2018 MFPRSI Highlights

Membership

Investments

Funding

Contributions

Distributions

Actuarial

Active Members[1]
4,003

Inactive Members[1]
4,474

Market Value of Portfolio[3]
$2.6 Billion

Fiscal Year Rate of Return[3]
7.6%

Funded Ratio*[1]
82.0%

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

Members[2]
$27.5 Million

Employers[2]
$74.6 Million

State[2]
$0

Benefits Paid[2]
$169 Million

Refund of Contributions Paid[2]
$1.6 Million

Actuarial Value of Assets[1]
$2.6 Billion

Unfunded Actuarial Accrued Liability[1]
$566 Million

Total Pension Liability[1]
$3.1 Billion

Information provided by: 1 - SilverStone Group; 2 - Eide Bailly LLP; 3 - Summit Strategies Group

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CHAIRPERSON'S ANNUAL LETTER

Dear Members and City Officials,

On behalf of the Board of Trustees, I am pleased to present MFPRSI's Annual Report for fiscal year 2018. In addition to the report's primary focal point, the financial condition of your retirement system, I want to take a moment and showcase the actions and considerations taken by us, the trustees, to ensure this retirement system is stable and secure for Iowa's police officers, firefighters, and participating cities. We take tremendous pride in our fiduciary responsibilities and what that means to those who dedicate their lives to protecting the citizens of Iowa. We want you, members and stakeholders of our retirement system, to have the assurance of a healthy retirement system that will provide you with financial protection when you are done protecting us.

Marty Pottebaum
Board of Trustees Chair

Over the course of the fiscal year we undertook extensive reviews of our retirement system. Our efforts included a 10-year experience study that examined the actual experience of our membership from 2007 to 2017 and compared it to what was actuarially forecast. We commit to this endeavor every five years to make certain the retirement system is utilizing the appropriate assumptions in its actuarial valuations. This, in turn, ensures the inputs used in the actuarial valuations are as relevant as possible. The study revealed several demographic experiences of our membership were more favorable than what we had anticipated. This led us to modify our actuarial assumptions so our calculations were a more accurate reflection of the retirement system. These modifications helped lower the city contribution rate for the fiscal year starting July 1, 2019.

Another initiative we tackled was our annual review of how we measure up against similarly-sized retirement plans across the United States. This is part of our strategic plan and our objectives are to obtain top-quality management services for a reasonable cost and to achieve top-quartile investment returns. The reviews revealed our cost of operation per member was comparable to the median of nine peer retirement systems, and our investment returns were at the median or better over longer time periods versus twenty comparable retirement systems. These are indicators the retirement system is in line with similar retirement plans and that we are prudent with how the retirement system is being run.

These initiatives were part of our overall fiduciary responsibility to maintain a healthy retirement system. Every meeting we acknowledge and devote our time and resources to ensure our retirement system prospers because we know many people are counting on us when they are done with their careers.

We take tremendous pride in what MFPRSI means to our members. It means our participating cities can use the retirement system to attract top-quality candidates to be their firefighters and police officers. It means our members can feel assured knowing they have a future when they have retired. To highlight these two goals, we included two stories to share in this year's report. One story highlights what our disability retirement program means to one member who was injured and unable to continue working and the other story shows how the retirement system is a result of good public legislative policy that aids in the recruitment and retention of the best possible people to serve as firefighters and police officers.

We hope the financial information and the stories provide a deeper understanding of this retirement system. We believe in this plan, and we believe in what it provides. We are protecting those when they are done protecting us.

Sincerely,

Marty Pottebaum
MFPRSI Board of Trustees Chair

FORMER DES MOINES POLICE LIEUTENANT GONZALEZ GRATEFUL FOR TENURED CAREER, PENSION DISABILITY COVERAGE

Life as Joe Gonzalez, former Des Moines Police Lieutenant, knew it, changed on July 13, 2013.

Retired Des Moines Police Department Lt. Joe Gonzalez, right, with his brother Mike Gonzalez, left.

That Saturday, Gonzalez was working off duty at the World Food Prize Hall of Laureates. The building required additional security for an open house following Occupy Wall Street a couple years prior, and a wedding was to follow. A catering truck for the wedding arrived earlier than expected, parking in the handicap entrance. Gonzalez began to walk between the truck and the granite wall to speak with the drivers, but within seconds he was being pinned against the wall – and his life flashed before his eyes.

"Time stood still," Gonzalez said. "I couldn't scream or call for help due to the truck squeezing me, breaking 13 ribs, puncturing my lungs, and bruising my kidneys. All I could think was, 'This is it.' I thought about the fact that I wouldn't get to see my grandkids get married. And I thought about the dangerous situations I had faced in law enforcement every day. I really thought it was the end for me."

Fortunately for Gonzalez, the passenger in the truck realized what was happening as the truck was turning and called the vehicle to stop. Gonzalez shares that Officer Scott Baker was also working the event that day and coached him to remain calm.

"I was hyperventilating after becoming unpinned from the truck," Gonzalez said. "Scott encouraged me to breathe slowly, but that was difficult following the accident. Firefighters

showed up and transported me to Methodist [hospital], where I was stabilized and spent 10 days in the intensive care unit."

During his time at the hospital, Gonzalez also battled pneumonia, and doctors grappled with options for healing his severely broken ribs. Gonzalez was transferred to Mayo Clinic for a surgical rib fixation procedure, a complex surgery that aids in holding injured ribs in place and allows for better healing.

"I am fortunate that I got a second chance," said Gonzalez, who had a nearly 40-year career with the Des Moines Police Department. Still named the highest-ranking Hispanic in the history of the department as lieutenant, Gonzalez is appreciative of the journey that led him, his youngest brother Mike Gonzalez and cousin Tony Gomez, to law enforcement in the first place.

"I was born in Mexico, and my family immigrated to the United States in 1957 when I was five," Gonzalez said. "My parents wanted to better their lives. They always pushed me to give back. In Hispanic culture, it is important to get a job where you can take care of your family, earn a decent living, and be involved in the community."

Retired Lt. Joe Gonzalez, left, with his cousin Tony Gomez, and brother Mike Gonzalez, both Des Moines police officers.

The family immigrated to Des Moines where Gonzalez's father worked on the railroad in Valley Junction. Gonzalez attended McKinley Elementary (a school he continues to support today), Weeks Middle School, and graduated from Des Moines Technical High School, where he studied autobody repair. Gonzalez's interest in law enforcement was piqued when he took a class taught by Richard Clemens, former Des Moines Police Detective.

"Knowing I had a great interest in law enforcement during class, I formed a close bond with Detective Clemens, Sergeant Richard Nehring, and Lieutenant Charles Bachstrom," Gonzalez said. "They helped to guide me in the right direction to complete my citizenship while I waited for the existing cadet program, which was originally offered in a few specific areas only, to go city-wide."

During that time, Gonzalez worked at S & J Marine doing boat repair and became a citizen of the United States. He joined the Des Moines Police Cadet Program on November 8, 1971 and graduated with the first class of city-wide cadets.

In 1975, Gonzalez completed police academy and began working full-time as a police officer for the city of Des Moines. Though afraid to apply for promotions, his colleagues and cousin Tony urged him to apply over the years. Gonzalez was promoted to sergeant in 2004 and lieutenant in 2010, before retiring on July 1, 2014.

"It was a nice journey that I'm really proud of," Gonzalez said. "I'm glad I finally listened to my family and peers to apply for promotions within the department – and I'm blessed to have earned the ranking of lieutenant."

Prior to the accident, Gonzalez enrolled in the Municipal Fire and Police Retirement System of Iowa's (MFPRSI) deferred retirement option plan (DROP). The plan is a distribution election available to active members who are at least 55 years old with 22 or more years of eligible service. Members who enroll have the option of continuing to work for a choice of a three-, four-, or five-year period. DROP members have a dedicated account to which a percentage of their service benefit is credited for the duration of the selected participation period. Upon retirement the DROP account is paid to the member in a lump sum.

"I am a strong believer in the DROP program, as the member, the employer, and the pension system can all plan for your retirement," said Gonzalez, who was able to claim disability and receive his full service-level benefit. Members who are granted disability receive the greater of the disability calculation or the service retirement calculation from the pension system. "After the accident I have an even greater belief in the system. The MFPRSI staff and pension officers have always been great to work with, but when I filed for disability, they explained the process concisely and were always caring enough to ask how I was doing."

Gonzalez still has flashbacks of the accident, but says that, with time, he has been able to revisit the location of the accident.

"It has been really important for police officers and firefighters to know that when you put your life, safety, and health on the line every day, that the system is there to take care of you and your family when your career comes to a close," Gonzalez said. "Whether you go through your career and are lucky enough to retire without a disability, or if you suffer injuries that require a disability retirement, having a secure, solvent pension is important to each of us."

Though he still becomes exhausted from the trauma and experiences frequent discomfort, Gonzalez continues to give back to his community, serving as director and completing administrative work for the Latino Heritage Festival. He also enjoys spending time with his five children and eight granddaughters.

Gonzalez, like each of MFPRSI's 4,000 retirees and beneficiaries, is thankful that the pension system was there to protect him after he dedicated nearly 40 years to protecting the citizens of Des Moines.

SENATOR JEFF DANIELSON DEDICATES LIFE TO SERVING HIS COUNTRY AND COMMUNITY

As a veteran of the United States Navy, State Senator Jeff Danielson has dedicated his life to serving and protecting others. Born and raised in Waterloo, he returned home and joined the Cedar Falls Fire Department in 1994 after completing a tour of duty and six years with the Navy.

Senator Jeff Danielson

"I left home near the end of the farm crisis, and when I returned home the economy had improved significantly," Danielson said. "I never imagined I would have the opportunity to become a firefighter, but with the economy turning around I was hired alongside five other firefighters in Cedar Falls that year."

Danielson, who served as an electronics warfare technician and achieved officer of the deck qualifications, shares that transitioning from the Navy to the fire department was a logical next step in his career.

"There are a lot of similarities between serving in the military and firefighting. Each position required significant teamwork, taking care of equipment, and executing a mission," Danielson said. "On the ship, everyone was a trained firefighter, which enabled me to more easily transition into the role of serving the fire department."

A full-time firefighter for 24 years, Danielson admits he loves what he does.

"This is the best job in the world," Danielson said. "We get to help people, do something different every day, and be part of a talented team."

During his tenure as a firefighter, the self-labeled "policy geek" also continued his education, earning his associate degree from Hawkeye Community College, and both his undergraduate degree in public administration and master's of public policy from the University of Northern Iowa. In 2004, he was elected state senator and has represented the constituents of Black Hawk County, including many members of the Municipal Fire & Police and Retirement System of Iowa (MFPRSI), for the past 14 years.

Senator Danielson at an Iowa Professional Fire Fighters chili cook-off at the Iowa State Capitol.

Danielson is a firm believer in the Iowa legislature, which is a citizen legislature. This means the legislative chamber consists primarily of citizens who have full-time occupations outside of their legislative responsibilities.

"Iowa is somewhat unique in the fact that we have a citizen legislature and a right to serve law, meaning anyone can run for office and their employer cannot prohibit their participation as a legislator," Danielson said. "This allows for a lot of different types of people to run for office – not just the rich, those who are retired, or individuals who run their own business. I am incredibly blessed to be able to be a full-time firefighter and serve as a senator."

Danielson, who continues to work his scheduled weekend shifts when able during the legislative session, finds it helpful to garner feedback from his colleagues at the fire department on what they are hearing and reading about politics. "I really enjoy solving problems with good public policy," Danielson said. "I believe our state is strongest when all three sectors – public service, private, and non-profit – are thriving."

Over the course of his tenure as a senator, Danielson chaired both the state government committee and the administration and regulation budget committee, where he was responsible for the important role of balancing pension sustainability and being a responsible steward of taxpayer funds.

"The MFPRSI pension system is an important recruitment and retention tool, creating a workforce that is ready, willing, and able to work in the line of public service. I'm proud to say that Iowa's pension system ranks highly among states across the country," Danielson said. "That is due to good public policy established by legislators and through administration of the system to provide a fund that is sustainable and financially sound."

Danielson, who has helped to implement changes to Iowa's retirement systems, including implementation of the DROP program and the heart-lung cancer presumption, upholds his fiduciary responsibility as a legislator and plan member with the utmost regard.

"We've made changes over the years for the betterment of our retirement systems," Danielson said. "We have a lot of ideas that circulate every year, but not all ideas are good ideas. We have to analyze if each idea is fiscally sound, can be paid for, and has a long-term plan – and each of those components has to be backed by solid evidence."

During his time as a legislator, Danielson has utilized his first-hand experience as a firefighter to help implement those important changes.

Senator Danielson and Representative Timi Brown-Powers, a member of the Iowa Professional Fire Fighters association, and Senator Bill Dotzler.

"My fellow firefighter Roger Boorom developed cancer in his 30th year of fire service, which also happened to be the same year he was going to retire," Danielson said. "There was no heart-lung cancer presumption at that time, and within six months, Boorom passed away. Implementation of the presumption was a difficult change that made a financial impact on the pension system, but we needed to recognize the number of lives this was impacting if we didn't implement the presumption. Prior to implementation, all risks were assumed by the family, leaving widows and children burdened by heavy medical expenses."

Danielson presented this example to the legislature as a senator, bringing a real-life example to the forefront of discussion, which played a significant role in the passing of the presumption.

"I care about the people of Iowa and our communities. Serving as a senator allows me to help solve problems that keep people first," Danielson said. "People are relying on our retirement systems, and I think we owe it to them to have a credible, reliable pension they can count on. It's my small way of protecting our police officers and firefighters in Des Moines, while they protect our communities every day."

INTRODUCTION

Retirement System Overview
Accomplishments
Board of Trustees
Staff

Introduction Highlights

- Operating since January 1, 1992
- Sound, sustainable, and efficient contributory defined benefit plan
- Board of Trustees: 9 voting members, 4 non-voting members
- Staff: 9 full-time employees administer the retirement system.

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 provide a comprehensive set of retirement and disability benefits to eligible local police officers and firefighters in a sound, sustainable, and efficient manner in accordance with the requirements of the program's governing statute. 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 contribution 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 years of membership service, the average of the highest three years of earned wages as a member, and a multiplier.

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.

Permanent full-time 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.

The Board of Trustees ("Board") represents the police officer and firefighter 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 8,477 members at the end of fiscal year 2018, with 4,003 active members employed by the 49 participating cities. Of the remainder, 1,130 receive benefits due to disability, 2,977 are either retired or a beneficiary, and 367 are terminated-vested members. MFPRSI made over 50,000 accurate and timely benefit payments over the course of the fiscal year. Approximately 98 percent of those payments were made via electronic funds transfer.

During the year members received annual statements summarizing their contributions as well as two newsletters highlighting news, statistics, and announcements. On its website, www.mfprsi.org, MFPRSI also provides its membership with a comprehensive *Member Handbook* which details the various benefit structures that are available.

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.

The fund is monitored by a staff of investment officers at MFPRSI under the direction of the executive director who acts as the chief investment officer. Investment recommendations are made by the executive director; deputy director; Summit Strategies Group ("Summit"), 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 7.6 percent in fiscal year 2018. The five-year return for the period ending June 30, 2018, was 8.0 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 performance since inception in 1992 is 7.7 percent.

ACCOMPLISHMENTS

Over the course of fiscal year 2018 (July 1, 2017, to June 30, 2018), MFPRSI engaged in a number of activities pertaining to both the retirement system's active and retired memberships, as well as the financial management of the assets of the plan. The following projects were intended to either enhance the services provided to membership and cities or further the performance opportunities for the investment portfolio:

Administration. MFPRSI's staff worked with its communication consultant, Wixted & Company, to improve the retirement system's messaging to its stakeholders. This effort included several projects ranging from producing a brochure describing service retirement to interviewing individual members for feature stories in MFPRSI's newsletter, *MFPRSI Update*.

The Board reviewed its vendor relationship with Wells Fargo & Company, its custodian bank services provider. Wells Fargo was retained for an additional three years after extensive examination.

Also, the Board analyzed its vendor relationship with BrownWinick, its legal counsel. As a result, a contract renewal for three years was agreed to with BrownWinick.

On behalf of the Board, Terry Slattery, executive director, and a representative from the retirement system's actuary, SilverStone Group, LLC, presented its biennial *Legislative Interim Report* to the Public Retirement Systems Committee of the Iowa General Assembly. The report provided a high-level overview of the retirement system's major program activities and responsibilities as defined by Iowa Code Chapter 411. The report also included actuarial and investment return data, and a 25-year forecast of the cities' contribution rate.

Financial and Investments. At the request of the Board, the administration and investment consultant conducted a strategic review of the investment portfolio's assets

and liabilities. This process included comparing MFPRSI's investment allocations against the allocations of similarly-sized retirement plans across the United States. The asset classes included in the study were public equity, fixed income, private markets, real assets, hedge funds, and cash. Using quarterly return data the study uncovered that the retirement system's current asset allocation provided levels of risk and returns in line with its peer set.

As part of its regular annual review, the Board examined and adopted its *Investment Policies & Objectives* with minor amendments.

The Board terminated its core-plus fixed income investment portfolio with Aberdeen and transferred the money to another fixed income manager, Dodge & Cox, an investment firm with whom MFPRSI was already invested.

A $40 million commitment was made to add to MFPRSI's separate account private equity holdings with Siguler Guff & Company.

The retirement system's emerging markets debt portfolio with Pictet Asset Management was terminated. The funds were transferred to a short-term liquid investment.

The Commercial Mortgage Back Security (CMBS) portfolio with Principal Financial Group was terminated and the money was placed with BlackRock, Inc., a manager within the investment portfolio's strategic sleeve.

Summit provided educational workshops to the Board on specific investment concepts related to the investment portfolio and investment markets. Included in the topics covered were multiple compositional reviews of both the fixed income and private equity portfolios. Summit also reviewed real estate investments and provided an outlook for the retirement system's master limited partnerships (MLPs) positions.

Investment officers traveled to investment firms managing assets on behalf of the retirement system. They met with professionals responsible for managing its investment portfolios and conducted reviews of the firm's compliance and accounting procedures.

The Board and staff conducted reviews with the investment firms managing MFPRSI's assets. In addition to the written reports provided by the firms, the staff engaged in regularly scheduled conference call reviews with each investment firm.

Benefit Plan. A 10-year experience analysis, focusing on the fiscal years 2007-2017 was conducted by the Board with the assistance of the retirement system's actuary, SilverStone Group. The study reviewed several components of the retirement system's benefit structure. The investment return assumption, 7.5 percent, which is the annualized assumed investment return over a long-term time horizon with an acceptable amount of risk, was reviewed. The Board determined that 7.5 percent was a feasible goal, and it remained

unchanged. In addition, the 10-year study reviewed various demographic assumptions (i.e., rate of salary increases of the membership, withdrawal rate from the retirement system by active members, etc.) and the Board adopted changes to seven actuarial assumptions in order to bring expected experience in line with trending actual experience. The overall effect of these changes was key in lowering the city contribution rate for fiscal year 2019.

A change to the retirement system's mortality assumption was approved by the Board. The change in accrued liability will be amortized over a 25-year period and included a mortality improvement assumption with the adoption of RP-2014 Blue Collar Healthy Annuitant mortality table with a generational projection for the future mortality improvement of 50 percent of Scale BB. This was done in order to include the trend of improving (i.e., lessening) rates of mortality in blue-collar working class environments. Both RP-2014 and Scale BB are considered interim tables to be used until the Society of Actuaries releases a new set of public employee retirement plan mortality tables and mortality improvement rates in the near future.

MFPRSI's formal funding policy was updated to include language stating that the actuarial experience of the retirement system will be analyzed every five years. Previously, the policy stated that the experience review would occur as of a specific date.

MFPRSI continued the administration of the retirement, disability, and deferred retirement option plan (DROP). Participation in DROP experienced a gradual uptick to 49 percent of those eligible from 46 percent the year before.

As part of its ongoing educational seminars, the Board reviewed its fiduciary standards with the assistance of its legal counsel, BrownWinick.

MFPRSI continued its application of the Federal Pension Protection Act of 2006. This act established a $3,000 income tax exclusion for eligible retired public safety officers who elect to use a portion of their distributions from an eligible retirement plan to directly pay for qualified health insurance premiums. The utilization of this program among eligible retirees has expanded significantly over the past several years.

Board Re-Elections. June Anne Gaeta was reappointed by the Iowa Professional Fire Fighters and Duane Pitcher's term was renewed by the Iowa League of Cities in April 2017. Each will serve a four-year term on the Board.

Eric Hartman joined the Board in January 2018. Hartman will finish the term through 2021 originally attained by his predecessor, Eric Court, who vacated his seat due to retirement. Hartman is an active police member.

Also, Bob Fagan joined the board in June 2018. He replaced Dan Ritter, who also vacated his seat due to retirement and whose term expires in 2019. Fagan is a city member appointee.

The eight members selected to the Board by their respective associations agreed to reappoint Mary Bilden as the citizen representative member on the Board.

The average tenure for the nine voting trustees stands at 11 years as of June 30, 2018.

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

Mary Bilden
Citizen
Boone

P. Kay Cmelik
City Representative
Grinnell

Bob Fagen
City Representative
Des Moines

June Anne Gaeta
Active Firefighter
Muscatine

Frank Guihan
Retired Firefighter
Burlington

Eric Hartman
Active Police Officer
Des Moines

Duane Pitcher
City Representative
Ames

Michelle Weidner
City Representative
Waterloo

Non-Voting Members.

Jim Carlin
Senator
Senate District 3

Wally Horn
Senator
Senate District 35

Scott Ourth
Representative
House District 26

Dawn Pettengill
Representative
House District 75

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, and administrative staff are responsible for the administration of the retirement system.

Staff Responsibilities. The executive director and deputy director 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 executive administrator develops research information, acts as the human resources director, and maintains contracts with external vendors.

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 accounting/investment officers perform 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.

Administration.

Terry Slattery
Executive Director

Dan Cassady
Deputy Director

BriAnna Nystrom
Executive Administrator

James Bybee
Accountant/ Investment Officer

Angie Conner
Sr. Pension Officer

Kathy Fraise
Sr. Pension Officer

Jill Hagge
Sr. Pension Officer

Cody Jans
Investment/ Comm. Officer

Blake Jeffrey
Accountant/ Investment Officer

FINANCIAL STATEMENTS

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Management's Discussion and Analysis
Statement of Fiduciary Net Position
Statement of Changes in Fiduciary Net Position
Notes to Financial Statements

Financial Highlights

Total Assets

$2.57 Billion

Contributions

$102 Million

Net Investment Income

$183 Million

INDEPENDENT AUDITOR'S REPORT

Provided by Eide Bailly LLP

Report on the Financial Statements. We have audited the accompanying financial statements of MFPRSI which comprise the statements of fiduciary net position as of June 30, 2018, and 2017, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements. Management (i.e., MFPRSI) is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditor's Responsibility. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of

significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion. In our opinion, the financial statements referred to above present fairly, in all material respects, the respective statements of fiduciary net position of MFPRSI, as of June 30, 2018, and 2017, 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.

Emphasis of Matter. As discussed in Notes 2 and 4 to the financial statements, total MFPRSI investments include investments valued at $835.2 million (32.5% of total assets) as of June 30, 2018, 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. Our opinion is not modified with respect to this matter.

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 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 ("GASB"), who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards. In accordance with Government Auditing Standards, we have also issued a report on our consideration of 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 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 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.

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of MFPRSI's financial performance provides an overview of the retirement system's financial activities for the fiscal years ended June 30, 2018, and 2017. 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 the retirement system's funding status regarding long term benefit obligations.

Financial Highlights.

- MFPRSI's assets exceeded its financial liabilities at the close of the fiscal years 2018 and 2017 by $2,549,627,987 and $2,436,896,111 (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, 2018, were $285,328,950, which is comprised of contributions of $102,135,319, net investment income of $183,182,098, and other income of $11,533. Additions for the year ended June 30, 2017, were $359,850,135, which is comprised of contributions of $100,036,185, net investment income of $259,812,040, and other income of $1,910.
- Benefit payments were $169,075,775 and $162,588,755 for the years ended June 30, 2018, and 2017, respectively, a 4.0% 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 retirement system as a whole, and financial condition that 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.

Condensed Statement of Fiduciary Net Position (In Thousands of Dollars).

Assets	2018	2017	2018/2017 Inc/(Dec)	2016	2017/2016 Inc/(Dec)
Cash	$57,798	$24,764	133.4%	$7,692	221.9%
Investments	$2,504,248	$2,427,393	3.2%	$2,250,515	7.9%
Receivables	$5,651	$7,563	(25.3)%	$4,327	74.8%
Other Assets	$115	$143	(19.6)%	$188	(23.9)%
Total Assets	$2,567,812	$2,459,863	4.4%	$2,262,722	8.7%
Pension Related Deferred Outflows	$241	$325	(25.8)%	$207	57.0%
Liabilities					
Benefits and Refunds Payable	$14,543	$16,185	(10.1)%	$16,781	(3.6)%
Investment Management Expenses Payable	$2,584	$2,250	14.8%	$2,152	4.6%
Administrative Expenses Payable	$403	$393	2.5%	$402	(2.2)%
Net Pensions Liability Attributed to IPERS	$820	$794	3.3%	$633	25.4%
Payable to Brokers for Unsettled Trades	$46	$3,562	(98.7)%	$268	1,229.1%
Total Liabilities	$18,396	$23,184	(20.7)%	$20,236	14.6%
Pension Related Deferred Inflows	$29	$108	(73.1)%	$147	(26.5)%
Net Position Restricted for Pension Benefits	$2,549,628	$2,436,896	4.6%	$2,242,546	8.7%

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 MFPRSI'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. The retirement system's assets as of June 30, 2018, and 2017, were approximately $2.57 billion and $2.46 billion, respectively, and were primarily comprised of investments, cash, receivables from brokers, and contributions due from employers. The $107,949,144, or 4.4%, increase in assets from June 30, 2017, to June 30, 2018, 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 $835.2 million (32.5% of total assets) and $779.6 million (31.7% of total assets) as of June 30, 2018, and 2017, 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, 2018, and 2017, were $18,395,197 and $23,183,768, respectively, and were primarily comprised of obligations under benefits and refunds payable, as well as investment management expenses payable. The $4,788,571, or 20.7%, decrease in liabilities from June 30, 2017, to June 30, 2018, was due to a decrease in payables to brokers for unsettled trades.

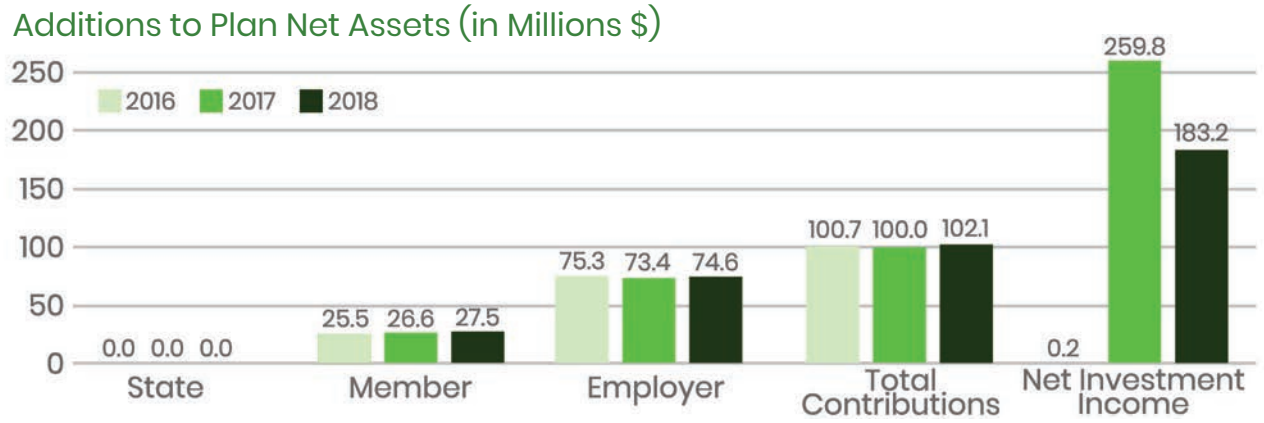
During the year ended June 30, 2018, plan net position restricted for pension benefits increased $112,731,876, or 4.6%, from the previous fiscal year, primarily due to unrealized gains experienced in invested assets. This is in comparison to the previous fiscal year, when net position increased by $194,349,719, or 8.7%, from the prior year.

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

Additions	2018	2017	2018/2017 Inc/(Dec)	2016	2017/2016 Inc/(Dec)
Contributions	$102,135	$100,036	2.1%	$100,710	(0.7)%
Net Investment Income	$183,182	$259,812	(29.5)%	$164	158,322.0%
Other Income	$12	$2	500.0%	$2	0.0%
Total Additions	$285,329	$359,850	(20.7)%	$100,876	256.7%
Deductions					
Benefits and Refunds Payments	$170,664	$163,572	4.3%	$156,566	4.5%
Administrative Expenses	$1,933	$1,928	0.3%	$1,944	(0.8)%
Total Deductions	$172,597	$165,500	4.3%	$158,510	4.4%
Net Increase (Decrease)	$112,732	$194,350	(42.0)%	$(57,634)	(437.2)%
Plan Net Position Restricted for Pension Benefits					
Beginning of Year	$2,436,896	$2,242,546	8.7%	$2,300,180	(2.5)%
End of Year	$2,549,628	$2,436,896	4.6%	$2,242,546	8.7%

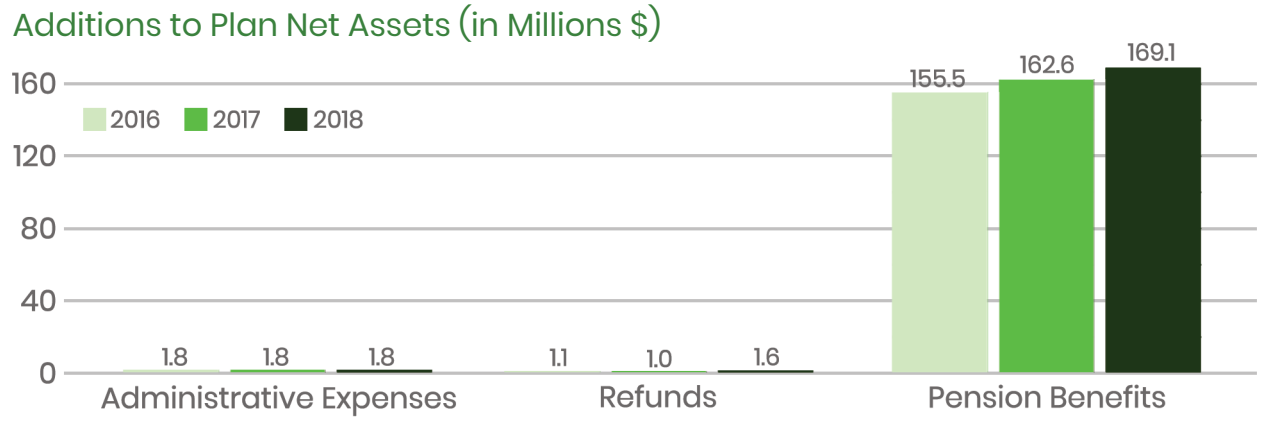
Revenues - Additions to Fiduciary Net Position. Reserves needed to finance retirement benefits are accumulated through the collection of contributions and earnings on investments. Contributions and net investment income for the fiscal year 2018 totaled $285,328,950.

Contributions increased from the previous year by $2,099,134. This increase is primarily due to an increase in the number of active members for the years ended June 30, 2018 and 2017, respectively. Net investment income decreased from the previous year by $76,629,942. This change is primarily due to a net depreciation in the fair value of investments.



Expenses - Deductions from Fiduciary Net Position. The principal expenses of MFPRSI 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 2018 were $172,597,074, an increase of 4.3% over fiscal year 2017 deductions.

Pension benefit payments increased by $6,487,020, or 4.0%, from the previous year. Refund of contributions increased by $605,256, or 61.6%. These changes are primarily due to the annual escalator fund applied to benefit payments and the noted increase in number of applications for refunds in 2018.



STATEMENT OF FIDUCIARY NET POSITION AS OF JUNE 30, 2018, AND 2017

Assets	2018	2017
Cash	$57,798,376	$24,763,759
Investments, at Fair Value:		
U.S. Government Obligations	$79,203,825	$35,117,865
U.S. Corporate Fixed Income	$52,563,915	$30,286,680
U.S. Equity Securities	$461,079,763	$451,698,916
Foreign Equity Securities	$382,076,887	$390,895,373
Commingled Fixed Income	$62,205,236	$194,995,096
Multi-Strategy Commingled Fund	$48,827,803	$56,953,655
Short-Term Investments and Currency Positions	$18,476,846	$19,859,423
Real Estate	$269,472,057	$279,113,610
Private Equity	$516,856,484	$487,615,861
Fund-of-Funds Commingled Investments	$613,485,388	$480,856,341
Total Investments - At Fair Value	$2,504,248,204	$2,427,392,820
Receivables		
Contributions	$4,451,423	$3,978,089
Investment Income	$45,717	$41,719
Receivable from Brokers for Unsettled Trades, Net	$1,153,782	$3,543,162
Total Receivables	$5,650,922	$7,562,970
Other Assets	$114,339	$143,148
Total Assets	$2,567,811,841	$2,459,862,697
Pension Related Deferred Outflows	$240,777	$325,323
Liabilities		
Benefits and Refunds Payable	$14,542,877	$16,184,765
Investment Management Expenses Payable	$2,583,622	$2,249,603
Administrative Expenses Payable	$402,949	$393,485
Net Pension Liability Attributed to IPERS	$819,626	$794,389
Payable to Brokers for Unsettled Trades, Net	$46,123	$3,561,526
Total Liabilities	$18,395,197	$23,183,768
Pension Related Deferred Inflows	$29,434	$108,141
Plan Net Position Restricted for Pension Benefits	$2,549,627,987	$2,436,896,111

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION AS OF JUNE 30, 2018, AND 2017

Additions	2018	2017
Contributions:		
Member	$27,493,680	$26,625,022
Employer	$74,641,639	$73,411,163
State Appropriations	$0	$0
Total Contributions	$102,135,319	$100,036,185
Investment Income:		
Interest	$5,489,957	$2,923,848
Dividends	$17,108,447	$20,757,172
Net Appreciation in Fair Value of Investments	$180,336,503	$254,088,496
Net Investment Income from Investment Activity	$202,934,907	$277,769,516
Less Investment Expenses:		
Management Fees and Other	$19,752,809	$17,957,476
Net Investment Income	$183,182,098	$259,812,040
Other Income	$11,533	$1,910
Total Additions	$285,328,950	$359,850,135
Deductions		
Benefits Payments	$169,075,775	$162,588,755
Refund Payments	$1,588,087	$982,831
Administrative Expenses	$1,820,546	$1,806,317
Disability Expenses	$112,666	$122,513
Total Deductions	$172,597,074	$165,500,416
Net Increase	$112,731,876	$194,349,719
Plan Net Position Restricted for Pension Benefits		
Net Position - Beginning	$2,436,896,111	$2,242,546,392
Net Position - Ending	$2,549,627,987	$2,436,896,111

See notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

1. Plan Description. 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 ("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 (the "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 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, 2018, MFPRSI was comprised of 49 cities covering 4,003 active members; 367 terminated members entitled to benefits; and 4,107 retired firefighters, police officers, bailiffs, and eligible beneficiaries across Iowa.

Funding by Members - 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 percent of earnable compensation for the years ended June 30, 2018, and 2017.

Funding by Employers - Employer contribution rates are based upon an actuarially determined normal contribution rate and adopted by the Board. The required, actuarially determined contributions are calculated on the basis of the entry age normal method as adopted by the Board 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 1 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 percent of earnable compensation. The contribution rate was 25.68 percent and 25.92 percent for the years ended June 30, 2018, and 2017, 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 percent of earnable compensation. The state therefore is considered to be a non-employer contributing entity in accordance with the provisions of the Governmental Accounting Standards Board Statement No. 67 (GASB 67) – Financial Reporting for Pension Plans. There were no state appropriations for the years ended June 30, 2018, and 2017.

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 the retirement system's benefit provisions for the years ended June 30, 2018, and 2017:

Retirement - Members with 4 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 4 to 22 years of service based on the ratio of years completed to years required (i.e., 22 years). Members with less than 4 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 3 years of compensation. The average of these 3 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 (2 percent for each additional year of service, up to a maximum of 8 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 5 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 5 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 (i.e., "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 Program (DROP) - Active members, at least 55 years of age, with 22 or more years of service have the option to participate in DROP. DROP is an arrangement whereby a member who is otherwise eligible to retire and commence benefits opts to continue to work. 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 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 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 DROP is $14,063,000 as of June 30, 2018, and $15,980,000 as of June 30, 2017.

Net Pension Liability of the Retirement System - The components of the net pension liability of the retirement system at June 30, 2018, and 2017, were as follows:

	2018	2017
Total Pension Liability	$3,145,031,474	$3,023,371,171
Plan Fiduciary Net Position	$(2,549,627,987)	$(2,436,896,111)
MFPRSI's Net Pension Liability	$595,403,487	$586,475,060
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	81.07%	80.60%

Actuarial Assumptions - The total pension liability was determined by an actuarial valuation as of June 30, 2018, and 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary Increases	3.75% to 15.11%, including inflation
Investment Rate of Return	7.50%, net of pension plan investment expense

Mortality rates as of June 30, 2018, 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 percent of Scale BB beginning in 2017.

Mortality rates as of June 30, 2017, were based on RP 2000 Blue Collar Combined Healthy table with males set-back two years, females set-forward one year and disabled set-forward one year (male only rates), with five years projection of future mortality improvement with Scale BB.

The actuarial assumptions used in the June 30, 2018, and 2017, valuations were based on the results of an actuarial experience study for the period of July 1, 2007, to June 30, 2017.

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 September 30, 2016, are summarized in the table on the next page:

Asset Class	Long-Term Expected Real Rate of Return
Large Cap	5.5%
Small Cap	5.8%
International Large Cap	7.3%
Emerging Markets	9.0%
Emerging Market Debt	6.3%
Private Non-Core Real Estate	8.0%
Master Limited Partnerships (MLPs)	9.0%
Private Equity	9.0%
Core-Plus Fixed Income	3.3%
Private Core Real Estate	6.0%
Tactical Asset Allocation	6.4%

Discount rate - The discount rate used to measure the total pension liability was 7.5 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 MFPRSI's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the retirement system'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 MFPRSI's 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 the net pension liability of MFPRSI, calculated using the discount rate of 7.5 percent, as well as what MFPRSI's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.5 percent) or 1 percentage point higher (8.5 percent) than the current rate:

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
MFPRSI's Net Pension Liability	$993,410,396	$595,403,487	$265,867,144

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 funds, 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 funds 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 retirement system'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. MFPRSI'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, 2018:

Asset Class	Target Allocation
Core Investments	40%
Strategic Investments	35%
Private Markets	15%
Real Assets	10%
Total	100%

Rate of Return - For the years ended June 30, 2018, and 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 7.59 percent and 11.72 percent, 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 and Unavailable Revenue - 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 thus, 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 it will not be recognized as an inflow of resources (i.e., 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 MFPRSI's deposits may not be returned in the event of a bank failure. The table below presents a summary of cash balances of the retirement system at June 30, 2018, and 2017:

	2018	2017
Insured	$250,000	$250,000
Uninsured and Uncollateralized	$58,425,988	$25,387,539
Bank Balance	$58,675,988	$25,637,539

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

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, and Emerging Markets) -

- Securities issued by and the obligations of or guaranteed by the United States of America or U.S.A. 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 - The currency positions of the retirement system 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 (e.g., euro) in which MFPRSI has determined to invest its assets. The currency assets of the retirement system are represented within the individual portfolios of the investment managers, which have mandates, which include international bonds or stocks. The benchmark against which these managers run the portfolios shall include 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 (i.e., "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; which include swaps, futures and options, based upon interest rates, currencies, equities, and commodities; and
b. Standardized contracts sold on exchanges (i.e., 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, 2018, and 2017, MFPRSI was invested in fund of funds commingled investments, which can be broken down into the following asset classes:

	2018	2017
Investments - at Fair Value		
U.S. Equity Securities	$206,728,819	$185,356,750
Foreign Equity Securities	$172,344,888	$139,744,143
Fixed Income	$177,736,689	$106,596,775
Alternative Investments	$32,539,528	$31,348,243
Short-Term Investments and Currency Positions	$24,135,464	$17,810,430
Total Fund-of-Funds Commingled Investments	$613,485,388	$480,856,341

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, 2018, and 2017, are as follows:

2018

Quality Rating	Fair Value	Percentage of Portfolio
AAA	$665,873	0.34%
AA	$124,921,010	64.40%
A	$13,989,650	7.21%
BBB	$35,614,246	18.36%
BB	$18,132,527	9.35%
NR	$649,670	0.33%
Total Fixed Income Securities	$193,972,976	100%

2017

Quality Rating	Fair Value	Percentage of Portfolio
AAA	$1,030,424	0.40%
AA	$160,077,049	61.47%
A	$8,320,589	3.20%
BBB	$21,060,148	8.09%
BB	$68,141,466	26.17%
B	$726,812	0.28%
CCC	$1,043,153	0.40%
Total Fixed Income Securities	$260,399,641	100%

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 counter-party, 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 counter-party or the counter-party'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 the retirement system to select master custodian banks to provide custody of its assets. MFPRSI has arranged for Wells Fargo Bank to act as the master custodian bank. The master custodian bank may hold the retirement system'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 MFPRSI'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, 2018.

Investment Type	Fair Value	Duration
Short-Term	$4,016,275	0.0121
Fixed Income	$131,767,740	4.7282
Commingled	$62,205,236	5.1206
Total Fair Value	$197,989,251	
Portfolio Modified Duration		4.7558

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 change in interest rates. A duration of 8 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, 2018, to invest approximately $278,000,000 in certain private equity, real estate partnerships, and real estate commingled funds.

Fair Value Measurements – MFPRSI categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principals. 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 following fair value hierarchy table.

In instances where inputs used to measure fair value fall into different levels in the following 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 judgment and considers factors specific to each asset or liability.

On the table on the following page, 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, 2018, 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.

The fair value of Cash Collateral at June 30, 2018, was determined primarily based on Level 3 inputs. Wells Fargo estimates the fair value of these investments using its own estimates using pricing models, discounted cash flow methodologies, or similar techniques taking into account the characteristics of the asset. As of June 30, 2018, the balance of cash collateral was $0.

Investments Measured at Fair Value on a Recurring Basis

Investments by Fair Value Level	Balance at June 30, 2018	Fair Value Measurement Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Debt Securities:				
U.S. Treasury Securities	$29,122,510	$29,122,510	$0	$0
Mortgage-Related Securities	$45,962,944	$0	$45,962,944	$0
Government-Related Securities	$4,118,371	$0	$4,118,371	$0
Corporate Securities	$52,563,915	$0	$52,563,915	$0
Total Debt Securities	$131,767,740	$29,122,510	$102,645,230	$0
Equity Securities:				
Master Limited Partnerships (MLPs)	$104,099,614	$104,099,614	$0	$0
Preferred Stock	$1,355,000	$1,355,000	$0	$0
Total Equity Securities	$105,454,614	$105,454,614	$0	$0
Total Investments by Fair Value Level	$237,222,354	$134,577,124	$102,645,230	$0
Investments Measured at the Net Asset Value (NAV)				
Domestic Equity Funds	$347,641,687			
International Equity Funds	$375,064,871			
Global Equity Funds	$14,995,478			
Global Bond Funds	$56,901,493			
Emerging Debt Funds	$5,303,743			
Real Estate Funds	$264,088,351			
Private Equity Funds	$516,856,484			
Multi-Strategy Hedge Funds	$48,827,803			
Fund-of-Funds Commingled Investments	$613,485,388			
Real Estate Held as Investment	$5,383,706			
Total Investments Measured at the NAV	$2,248,549,004			
Total Investments Measured at Fair Value	$2,485,771,358			

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 are as follows:

Investments Measured at the Net Asset Value (NAV) (Dollars in millions)

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Domestic Equity Funds	$348	$0	Daily	1-5 Days
International Equity Funds	$375	$0	Daily, Monthly	1 week/15th
Global Equity Funds	$15	$0	Daily	2 Days
Global Bond Funds	$57	$0	Daily	1 Day
Emerging Debt Funds	$5	$0	Monthly	3 Days
Real Estate Funds	$264	$47	N/A	N/A
Private Equity Funds	$517	$231	N/A	N/A
Multi-Strategy Hedge Funds	$49	$0	Monthly	2 Weeks
Fund-of-Funds Commingled Investments	$614	$0	Daily	1 Day
Real Estate held as Investment	$5	$0	N/A	N/A
Total Investments Measured at the NAV	$2,249			

MFPRSI does not anticipate restrictions, other than those outlined in the table, on the ability to sell individual investments at the measurement date. Additionally, the retirement system 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, 2018, and 2017, MFPRSI 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. MFPRSI does not purchase derivatives with borrowed funds and does not allow the leveraging of the portfolios.

The retirement system'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 Retirement System (IPERS).

IPERS Plan Description - IPERS membership is mandatory for employees of MFPRSI. Employees of MFPRSI are provided with pensions 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 or 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. Refer to the plan documents for 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 – Effective July 1, 2012, as a result of a 2010 law change, 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 1 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 the Investment Board.

In fiscal year 2018, pursuant to the required rate, regular members contributed 5.95 percent of pay and MFPRSI contributed 8.93 percent for a total rate of 14.88 percent. MFPRSI's total contributions to IPERS for the year ended June 30, 2018, were $79,670.

IPERS Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - At June 30, 2018, MFPRSI reported a liability of $819,626 for its proportionate share of the IPERS net pension liability. The IPERS net pension liability was measured as of June 30, 2017, and the IPERS total pension liability used to calculate the IPERS net pension liability was determined by an actuarial valuation as of that date. MFPRSI's proportion of the IPERS net pension liability was based on MFPRSI's share of contributions to the pension plan relative to the contributions of all IPERS participating employers. At June 30, 2017, MFPRSI's proportion was 0.012415 percent, which was a decrease from 0.012738, its proportion measured as of June 30, 2016.

For the year ended June 30, 2018, MFPRSI recognized pension expense of $110,746. At June 30, 2018, 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	$7,525	$7,101
Changes of Assumptions	$142,413	$0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	$0	$8,560
Changes in Proportion and Differences between MFPRSI Contributions and Proportionate Share of Contributions	$11,169	$13,773
MFPRSI Contributions Subsequent to the Measurement Date of June 30, 2017	$79,670	$0
Total	$240,777	$29,434

Deferred outflows of resources related to pensions resulting from MFPRSI contributions subsequent to the measurement date of $79,670 will be recognized as a reduction of the net pension liability in the year ended June 30, 2018. Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

2019	$17,806	2022	$1,037
2020	$59,968	2023	$8,741
2021	$33,979	Thereafter	$10,142

There were no non-employer contributing entities at IPERS.

IPERS Actuarial Assumptions – The total pension liability in the June 30, 2017, 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% per annum.
Rates of Salary Increases (Effective June 30, 2017)	3.25% to 16.25% average, including inflation. Rates vary by membership group.
Long-Term Investment Rate of Return (Effective June 30, 2017)	7.00%, compounded annually, net of investment expense, including inflation.

IPERS' actuarial assumptions used in the June 30, 2017, valuation were based on the results of actuarial experience studies with dates corresponding to those listed above.

Mortality rates were based on the RP-2000 Generational Mortality Tables, with age setbacks and age set forwards as well as other adjustments based on different membership groups. Future mortality improvements are anticipated using Projection Scale AA. Different adjustments apply to pre-retirement, post-retirement, and post-disability mortality tables.

The long-term expected rate of return on plan assets is reviewed as part of regular experience studies, prepared every four years for IPERS. The Investment Board elected to accelerate the experience study of the economic assumptions by one year, performing the study in early 2017. That recent analysis of economic assumptions is outlined in a report dated March 24, 2017. Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data, and an analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense, and inflation), along with estimates of variability and correlations for each asset class, were developed by IPERS' investment consultant. These ranges were combined to develop the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the table on the next page:

Asset Class	IPERS Target Allocation	IPERS Long-Term Expected Real Rate of Return
U.S. Equity	24.0%	6.25%
International Equity	16.0%	6.71%
Core-Plus Fixed Income	27.0%	2.25%
Public Credit	3.5%	3.46%
Public Real Assets	7.0%	3.27%
Cash	1.0%	(0.31)%
Private Equity	11.0%	11.15%
Private Real Assets	7.5%	4.18%
Private Credit	3.0%	4.25%
Total	100.0%	

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 IPERS' Net Pension Liability to Changes in the Discount Rate – The following presents MFPRSI's proportionate share of IPERS' net pension liability calculated using the discount rate of 7.0 percent, as well as what MFPRSI's proportionate share of IPERS' net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.0 percent) or 1 percentage point higher (8.0 percent) than the current rate.

	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
MFPRSI's Proportionate Share of IPERS' Net Pension Liability	$1,350,416	$819,626	$373,662

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, 2018, MFPRSI reported payables to the defined benefit pension plan of $6,427 for legally required employer contributions and $4,282 for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS.

At June 30, 2017, 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, 2016, MFPRSI reported payables to the defined benefit pension plan of $6,250 for legally required employer contributions and $4,164 for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS.

At June 30, 2015, MFPRSI reported payables to the defined benefit pension plan of $6,094 for legally required employer contributions and $4,060 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 (2016 - 2018, continued on next page)

Total Pension Liability	2018	2017	2016
Service Cost	$56,128,110	$53,423,772	$51,366,130
Interest	$224,678,250	$213,069,288	$205,836,959
Difference between Expected and Actual Experience	$(9,748,387)	$12,891,275	$7,643,609
Changes of Assumptions	$21,266,192	$39,751,096	$(10,467,574)
Benefit Payments, including Refunds	$(170,663,862)	$(163,571,586)	$(156,566,482)
Net Change in Total Pension Liability	$121,660,303	$155,563,845	$97,812,642
Total Pension Liability - Beginning	$3,023,371,171	$2,867,807,326	$2,769,994,684
Total Pension Liability - Ending	$3,145,031,474	$3,023,371,171	$2,867,807,326
Plan Fiduciary Net Position			
Contributions - Employer	$74,641,639	$73,411,163	$75,254,727
Contributions - Member	$27,493,680	$26,625,022	$25,455,597
Net Investment Income	$183,182,098	$259,812,040	$164,100
Benefit Payments, including Refunds	$(170,663,862)	$(163,571,586)	$(156,566,482)
Administrative Expense	$(1,781,886)	$(1,767,657)	$(1,728,951)
Other	$(139,793)	$(159,263)	$(212,954)
Net Change in Plan Fiduciary Net Position	$112,731,876	$194,349,719	$(57,633,963)
Plan Fiduciary Net Position - Beginning	$2,436,896,111	$2,242,546,392	$2,300,180,355
Plan Fiduciary Net Position - Ending	$2,549,627,987	$2,436,896,111	$2,242,546,392
MFPRSI's Net Pension Liability (Asset) - Ending	$595,403,487	$586,475,060	$625,260,934

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

Schedule of Changes in MFPRSI's Net Pension Liability (2012-2015, continuation of previous page)

Total Pension Liability	2015	2014	2013	2012
Service Cost	$49,893,939	$48,020,046	$47,487,380	$45,660,053
Interest	$196,289,405	$187,172,397	$185,532,855	$177,678,499
Difference between Expected and Actual Experience	$15,374,059	$(1,248,941)	$(22,020,082)	$14,628,549
Changes of Assumptions	$17,508,411	$32,616,664	$(49,002,711)	$0
Benefit Payments, including Refunds	$(150,026,306)	$(143,833,568)	$(137,617,880)	$(132,611,997)
Net Change in Total Pension Liability	$129,039,508	$122,726,598	$24,379,562	$105,355,104
Total Pension Liability - Beginning	$2,640,955,176	$2,518,228,578	$2,493,849,016	$2,388,493,912
Total Pension Liability - Ending	$2,769,994,684	$2,640,955,176	$2,518,228,578	$2,493,489,016
Plan Fiduciary Net Position				
Contributions - Employer	$79,748,943	$76,917,460	$65,327,766	$62,661,684
Contributions - Member	$24,622,310	$24,054,541	$23,358,844	$23,419,864
Net Investment Income	$69,833,569	$358,680,682	$229,592,075	$4,057,940
Benefit Payments, including Refunds	$(150,026,306)	$(143,833,568)	$(137,617,880)	$(132,611,997)
Administrative Expense	$(1,680,944)	$(1,553,740)	$(1,523,477)	$(1,606,072)
Other	$(744,140)	$(75,070)	$(99,223)	$(98,573)
Net Change in Plan Fiduciary Net Position	$21,723,432	$314,190,305	$179,038,105	$(44,177,154)
Plan Fiduciary Net Position - Beginning	$2,278,456,923	$1,964,266,618	$1,785,228,513	$1,829,405,667
Plan Fiduciary Net Position - Ending	$2,300,180,355	$2,278,456,923	$1,964,266,618	$1,785,228,513
MFPRSI's Net Pension Liability (Asset) - Ending	$469,814,329	$362,498,253	$553,961,960	$708,620,503

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

Schedule of MFPRSI's Net Pension Liability (2016-2018, continued on the table below)

	2018	2017	2016
Total Pension Liability	$3,145,031,474	$3,023,371,171	$2,867,807,326
Plan Fiduciary Net Position	$2,549,627,987	$2,436,896,111	$2,242,546,392
MFPRSI's Net Pension Liability (Asset)	$595,403,487	$586,475,060	$625,260,934
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	81.07%	80.60%	78.20%
Actuarial Projected Covered Payroll	$290,660,576	$283,222,057	$270,986,891
MFPRSI's Net Pension Liability (Asset) as a Percentage of Covered Payroll	204.84%	207.07%	230.73%

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

Schedule of MFPRSI's Net Pension Liability (2012-2015, continuation of table above)

	2015	2014	2013	2012
Total Pension Liability	$2,769,994,684	$2,640,955,176	$2,518,228,578	$2,493,849,016
Plan Fiduciary Net Position	$2,300,180,355	$2,278,456,923	$1,964,266,618	$1,785,228,513
MFPRSI's Net Pension Liability (Asset)	$469,814,329	$362,498,253	$553,961,960	$708,620,503
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	83.04%	86.27%	78.00%	71.59%
Actuarial Projected Covered Payroll	$262,260,060	$255,370,044	$250,107,112	$250,047,187
MFPRSI's Net Pension Liability (Asset) as a Percentage of Covered Payroll	179.14%	141.95%	221.49%	283.39%

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

Schedule of MFPRSI's Contributions (2016-2018, continued on table below)

	2018	2017	2016
Actuarially Determined Contribution	$74,641,639	$73,411,163	$75,254,727
Contributions in Relation to the Actuarially Determined Contribution	$74,641,639	$73,411,163	$75,254,727
Contribution Deficiency (Excess)	$0	$0	$0
Reported Covered Payroll	$290,660,576	$283,222,057	$270,986,891
Contributions as a Percentage of Covered-Employee Payroll	25.68%	25.92%	27.77%

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available..

Schedule of MFPRSI's Contributions (2015-2012, continuation of table above)

	2015	2014	2013	2012
Actuarially Determined Contribution	$79,748,943	$76,917,460	$65,327,766	$61,911,684
Contributions in Relation to the Actuarially Determined Contribution	$79,748,943	$76,917,460	$65,327,766	$61,911,684
Contribution Deficiency (Excess)	$0	$0	$0	$0
Reported Covered Payroll	$262,260,060	$255,370,044	$250,107,112	$250,047,187
Contributions as a Percentage of Covered-Employee Payroll	30.41%	30.12%	26.12%	24.76%

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

Schedule of Investment Returns (Last 10 Fiscal Years)

Fiscal Year	Annual Money-Weighted Rate of Return, Net of Investment Expense	Fiscal Year	Annual Money-Weighted Rate of Return, Net of Investment Expense
2018	7.59%	2013	13.10%
2017	11.72%	2012	(0.27)%
2016	0.02%	2011	23.34%
2015	3.02%	2010	11.48%
2014	17.97%	2009	(21.80)%

Schedule of MFPRSI's Proportionate Share of the Net Pension Liability (Iowa Public Retirement System Last Four 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-Employee 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 to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

Schedule of MFPRSI's Contributions (Last Five 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)	$0	$0	$0	$0	$0
Reported Covered Payroll	$892,161	$988,443	$902,363	$877,346	$851,989
Contribution as a Percentage of Covered Payroll	8.93%	8.93%	8.93%	8.93%	8.93%

GASB Statement No. 68 requires to present 10 years of information; however, until a 10-year trend is compiled, MFPRSI will present information for those years in which information is available.

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, 2018
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%
Projected Salary Increases	3.75% to 15.11%
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
Contribution Rate History
Actuarial Report Highlights

Actuarial Highlights

82%
Funded Status

24.41%
Cities' Contribution Rate for Fiscal Year 2019

ACTUARIAL VALUATION'S PURPOSE

Provided by SilverStone Group

The actuarial data in this section was determined by MFPRSI's actuarial services provider, SilverStone Group ("SilverStone"). The information in this report 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, 2018, 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, 2018, member census data as of July 1, 2018, 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 Iowa Code;
2. To determine the funded status of MFPRSI; 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 SilverStone.

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, 2019.

Contribution Rate Formula (Effective July 1, 2019)

Preliminary Total Contribution.

1.	Annual Normal Cost	$53,017,674
2.	Estimated Member Contributions	$28,427,509
3.	Unfunded Actuarial Accrued Liability Amortization Payment	$49,233,288
4.	Total (Cities + State) Contributions = [(1) - (2) + (3)]	$73,823,453

Cities' Contribution

5.	Preliminary Total Contribution = (4)	$73,823,453
6.	Estimated State Contribution	$0
7.	Preliminary Cities' Contribution = (5) - (6)	$73,823,453
8.	Covered Payroll	$302,420,313
9.	Cities' Contribution as a Percent of Payroll = (7) / (8)	24.41%

Minimum required contribution rate for cities is 17.00%

The cities' contribution equals $73,820,798, the greater of step 9 or 17.00% (the minimum required contribution rate for cities) multiplied by step 8.

Starting with the normal contribution rate effective in 2017 of 26.02 percent and ending with the normal contribution rate adopted in 2018 of 24.41 percent, explanations for the year-over-year changes are discussed below.

Year-Over-Year Changes to the Participating Cities' Contribution Rate.

July 1, 2017, normal contribution rate effective July 1, 2018	26.02%
Effect of state contribution	0.00%
MFPRSI experience more favorable than assumed	(0.81)%
Investment experience more favorable than assumed	(0.17%)
Changes in MFPRSI provisions	0.00%
Changes in actuarial cost method	0.00%
Changes in actuarial assumptions	(0.63)%
July 1, 2018, normal contribution rate effective July 1, 2019	24.41%

State Contribution. The State of Iowa's contribution remained unchanged at $0 for both 2017 and 2018.

MFPRSI Experience More Favorable than Assumed. The following set of factors contributed to creating a more favorable actuarial experience than was expected:

- The rate of overall salary increases of membership proved to be less than what was expected. Members between the ages of 20-24 experienced slightly lower wage increases while all other members experienced significantly lower wage increases.
- The rate of withdrawal by active members due to reasons other than death, retirement, or disability were slightly higher than expected; however, members up to the age of 35 withdrew at a lower rate while members above the age of 35 withdrew at a higher rate.
- Overall, disability retirements were lower in number than what was expected. Ordinary disabilities occurred much less frequently than accidental disabilities and were closer to expectations as compared to accidental disabilities.
- Retirements for members age 55 exceeded what was expected while the rate of retirements for members between the ages of 56 and 64 was lower.
- Accidental deaths were significantly higher than what was assumed. Ordinary deaths, meanwhile were significantly lower than assumed.
- Participation in DROP (deferred retirement option plan) was significantly lower than expected while the rate of premature withdrawals from DROP was in line with expectations.
- The rates of death of retired members and beneficiaries were lower than what had been assumed.

The total effect of these experiences lessened the year-over-year contribution rate by 81 basis points.

Investment Experience More Favorable than Assumed. The investment portfolio returned 7.6 percent for the fiscal year, beating the retirement system's actuarial assumed rate of return of 7.5 percent. This out-performance reduced the year-over-year contribution rate by 17 basis points.

Changes in MFPRSI Provisions. There were no changes in MFPRSI's benefit provisions from the prior year valuation.

Changes in Actuarial Cost Method. No changes were made to the retirement system's actuarial cost methodology.

Changes in Actuarial Assumptions. The Board and its actuary participated in a 10-year review of the retirement system's experience. The study revealed that several of the actuarial assumptions were not in line with what membership of MFPRSI actually experienced. Therefore, the Board adopted the following changes to its set of actuarial assumptions:

- Change salary increases 5.0 percent lower for ages 25 to 34, 10 percent lower for ages 35 to 44, and set to 4.0 percent for ages 45 to 49 and 3.75 percent for ages 50 and over for active members.
- For active members, change withdrawal rates to be 50 percent higher for ages 40 to 44 and set to 1.0 percent for ages 45 and over.
- Change retirement rates to 60 percent for age 55 and decrease retirement rates for ages 56 to 64 for active members.
- Additionally, for active members, decrease ordinary mortality rates by 50 percent and increase accidental mortality rates by 50 percent.
- Decrease ordinary disability rates by 10 percent and decrease accidental disability rates by 30 percent for active members ages 45 and over.
- Lower DROP participation rates to 50 percent for ages 55 to 56 for active members.
- Change the post-retirement mortality assumption to the RP 2014 Blue Collar Healthy Annuitant Mortality Table with certain adjustments and generational projection of future mortality improvement with 50 percent of Scale BB beginning in 2017. RP 2014 Blue Collar Healthy Annuitant Mortality Table and Scale BB are considered interim tables to be used until the Society of Actuaries releases a new set of mortality tables and mortality improvement rates specifically for public employee retirement systems. The Board will consider adopting these mortality measures when they are available, which is expected to be in 2019.

The cumulative effect of these assumption changes reduced the year-over-year contribution rate by 63 basis points.

CONTRIBUTION RATE HISTORY

Contribution Rate 1993* - 2020.

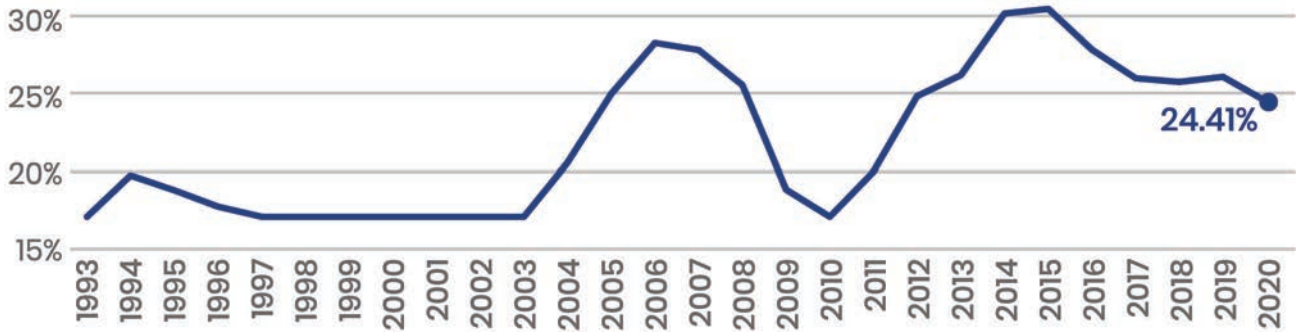
Fiscal Year	Rate	Fiscal Year	Rate
1993*	17.00%	2007	27.75%
1994	19.66%	2008	25.48%
1995	18.71%	2009	18.75%
1996	17.66%	2010#	17.00%
1997#	17.00%	2011	19.90%
1998#	17.00%	2012	24.76%
1999#	17.00%	2013	26.12%
2000#	17.00%	2014	30.12%
2001#	17.00%	2015	30.41%
2002#	17.00%	2016	27.77%
2003#	17.00%	2017	25.92%
2004	20.48%	2018	25.68%
2005	24.92%	2019	26.02%
2006	28.21%	2020	24.41%

*MFPRSI's first fiscal year operated January 1, 1992, to June 30, 1993 . In all subsequent years the fiscal year began July 1.

#Rate certified at 17.00%, the minimum as required by statute.

MFPRSI's fiscal year runs July 1 to June 30. The fiscal year name coincides with the year as of June 30 (i.e., "fiscal year 2020" covers July 1, 2019, to June 30, 2020).

Contribution Rate History - Fiscal Years Beginning July 1.



ACTUARIAL REPORT HIGHLIGHTS

As of July 1,	2018	2017	2016
Cities' Recommended Contribution	$73,820,798	$77,081,123	$72,838,723
Normal Contribution Rate	24.41%	26.02%	25.68%
Plan Assets			
Market Value	$2,549,627,987	$2,436,896,111	$2,242,546,392
Actuarial Value	$2,578,863,993	$2,461,161,417	$2,333,944,800
Prior Year Investment Return			
Market Value	7.63%	11.75%	0.01%
Actuarial Value	7.75%	8.37%	6.88%
Actuarial Accrued Liability	$3,145,031,474	$3,023,371,171	$2,867,807,326
Funded Ratio*	82.00%	81.40%	81.38%
Annual Participating Payroll	$302,420,313	$296,237,982	$283,639,887
Annual Normal Cost	$53,017,674	$56,128,110	$53,423,772
Percent of Payroll	17.53%	18.95%	18.84%
Annual Pension Benefits			
Service Retirement	$91,350,744	$87,272,844	$82,955,208
Disabled Retirement	$48,742,116	$47,563,392	$45,967,620
Vested Retirement	$7,194,492	$6,677,184	$6,196,356
Beneficiaries	$20,299,872	$19,008,288	$17,580,996
Total	$167,587,224	$160,521,708	$152,700,180
Number of Members			
Active	4,003	3,968	3,926
Disabled	1,130	1,136	1,132
Retirees and Beneficiaries	2,977	2,909	2,854
Vested Terminated	367	356	341
Total	8,477	8,369	8,253

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

Actuarial Value of Assets - Year Ending June 30, 2018.

1. Actuarial Value of Assets at July 1, 2017	$2,461,161,417
2. Contributions for 2017 Plan Year (Members, Cities, and State)	$102,135,319
3. Benefit Distributions and Refunds for 2017 Plan Year	$(170,663,862)
4. Non-Investment Expenses	
a. Administrative Expenses	$(1,781,886)
b. Disability Expenses	$(112,666)
c. Other Expenses	$(38,660)
d. Total	$(1,933,212)
5. Expected Return on Market Value of Assets for Year at 7.5%	$180,172,661
6. Asset Gains/(Losses) for Prior 5 Plan Years	

	(I) Asset Gain or (Loss)	Years Recognized	Years Remaining	(II) Recognition Percentage	(I) x (II) Recognized Amount
a. 2017	$3,020,970	1	4	20%	$604,194
b. 2016	$94,033,500	2	3	20%	$18,806,700
c. 2015	$(170,219,375)	3	2	20%	$(34,043,875)
d. 2014	$(99,921,132)	4	1	20%	$(19,984,226)
e. 2013	$213,044,387	5	0	20%	$42,608,877
f. Total					$7,991,670

7. Asset Gains/(Losses) to be Recognized = (6f)	$7,991,670
8. Actuarial Value of Assets at July 1, 2018 = (1) + (2) + (3) + (4d) + (5) + (7)	$2,578,863,993
9. Market Value of Assets at July 1, 2018	$2,549,627,987
10. Ratio of Actuarial Value to Market Value at July 1, 2018 = (8) / (9)	101.15%

Unfunded Actuarial Accrued Liability.

As of July 1,	2018	2017
1. Actuarial Accrued Liability Before Changes		
a. Active Members		
Service Retirements/DROP	$1,067,066,625	$1,020,290,100
Ordinary Disability	$22,226,869	$21,749,952
Accidental Disability	$143,914,112	$140,341,729
Ordinary Death	$5,639,698	$5,540,299
Accidental Death	$3,780,805	$3,594,165
Withdrawal	$21,266,361	$21,331,124
Total Active	$1,263,894,470	$1,212,847,369
b. Inactive Members		
Members Receiving Benefits	$1,817,397,840	$1,729,713,546
Deferred Vested Terminations	$42,020,495	$40,711,355
Refund of Member Contributions Due	$452,477	$347,805
Total Inactive	$1,859,870,812	$1,770,772,706
c. Total Actuarial Accrued Liability	$3,123,765,282	$2,983,620,075
2. Actuarial Value of Plan Assets	$2,578,863,993	$2,461,161,417
3. Unfunded Actuarial Accrued Liability Before Changes = [Excess of (1) over (2)]	$544,901,289	$522,458,658
4. Change in Unfunded Actuarial Accrued Liability		
a. Change in System Provisions	$0	$0
b. Change in Actuarial Assumptions	$21,266,192	$39,751,096
5. Unfunded Actuarial Accrued Liability After Changes	$566,167,481	$562,209,754

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 retirement 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 MFPRSI's assets exceeds (is less than) the assumed investment return.

The actuarial accrued liability is increased if there are amendments that revise benefits payable from MFPRSI. The actuarial accrued liability may be increased or decreased as the result of retirement system experience or if there are changes in the actuarial assumptions used to determine annual contributions

Unfunded Accrued Liability Payments.

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

Charge Bases

Initial Amortization Base	Initial Term - Years	Remaining Term on Valuation Date	Amortization Payment
$657,280,700	25	20	$54,851,250
$32,616,664	25	21	$2,721,919
$17,508,411	25	22	$1,461,108
$21,275,521	25	23	$1,775,480
$39,751,096	25	24	$3,317,300
$21,266,192	25	25	$1,774,702
		Total	$65,901,759

Credit Bases

Initial Amortization Base	Initial Term - Years	Remaining Term on Valuation Date	Amortization Payment
$101,748,328	25	21	$8,491,080
$64,447,420	25	22	$5,378,253
$10,467,521	25	23	$873,538
$7,154,241	25	24	$597,034
$15,920,159	25	25	$1,328,566
		Total	$16,668,471
		Net Amortization Payment	$49,233,288

The chart on the previous page documents the amortization bases established for the retirement system and displays other values associated with determining the unfunded accrued liability payment.

One of the components included to determine the recommended contribution is the unfunded accrued liability payment. The unfunded accrued liability 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 MFPRSI's 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 MFPRSI's experience more or less favorable than expected.

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 MFPRSI's provisions, is displayed on the chart below.

Actuarial Present Value of Accrued Benefits on July 1, 2017	$2,746,600,998
Change in Present Value of Accrued Benefits from July 1, 2017 to July 1, 2018, due to:	
Additional benefits accumulated	$76,096,014
Interest due to passage of time	$199,710,879
Benefits paid	$(170,663,862)
Change in assumptions	$42,071,876
Change in MFPRSI provisions	$0
Actuarial Present Value of Accrued Benefits on July 1, 2018	$2,893,815,905

Actuarial Gain / Loss.

Expected Unfunded Accrued Liability

1. Expected Actuarial Accrued Liability	
Actuarial Accrued Liability on July 1, 2017	$3,023,371,171
Normal Cost	$56,128,110
Benefit Distributions	$(170,663,862)
Interest on Above at 7.50% to June 30, 2018	$224,678,250
Total	$3,133,513,669
2. Expected Assets	
Actuarial Value of Assets on July 1, 2017	$2,461,161,417
Contributions	$102,135,319
Benefit Distributions and Non-Investment Expenses	$(172,597,074)
Interest On / Above at 7.50% to June 30, 2018	$181,992,559
Total	$2,572,692,221
3. Expected Unfunded Actuarial Accrued Liability on June 30, 2018 = (1) - (2)	$560,821,448

Actual Unfunded Actuarial Accrued Liability

1. Actuarial Accrued Liability Before Changes	$3,123,765,282
2. Actuarial Value of Assets	$2,578,863,993
3. Actual Unfunded Actuarial Accrued Liability on July 1, 2018	$544,901,289

Actuarial Gain or (Loss)

1. Expected Unfunded Actuarial Accrued Liability	$560,821,448
2. Actual Unfunded Actuarial Accrued Liability	$544,901,289
3. Actuarial Gain or (Loss) for 2018 Fiscal Year	$15,920,159

Actuarial Present Value of Accrued Benefits.

As of July 1,	2018	2017
1. Present Value of Vested Accrued Benefits		
a. Present Value of Vested Accrued Benefits for Active Members	$954,040,512	$913,217,482
b. Present Value of Benefits for Terminated Members	$42,214,760	$41,294,293
c. Present Value of Benefits for Service Retirees, Beneficiaries, and Disabled Retirees	$1,862,532,799	$1,758,560,217
Total	$2,858,788,071	$2,713,071,992
2. Present Value of Accrued Non-Vested Benefits	$35,027,834	$33,529,006
3. Present Value of All Accrued Benefits = (1) + (2)	$2,893,815,905	$2,746,600,998
4. Market Value of Assets	$2,549,627,987	$2,436,896,111
5. Ratio of Market Value of Assets to the Present Value of All Accrued Benefits = (4) / (3)	88.11%	88.72%
6. Ratio of Market Value of Assets to the Present Value of Vested Accrued Benefits = (4) / (1)	89.19%	89.82%

INVESTMENTS

Investment Consultant's Report
Performance
Overview

Investments Highlights

7.6%

1-Year Return

7.7%

Return Since Inception

INVESTMENT CONSULTANT'S REPORT

Provided by Phineas Troy, CFA, Vice President
Summit Strategies Group

As of June 30, 2018, MFPRSI's aggregate portfolio totaled $2.56 billion after earning a positive 7.6 percent investment return, net of fees, for the fiscal year. Investors saw global economic markets continue to show strong expansion for the period of July 1, 2017, to June 30, 2018, with global gross domestic product (GDP) growth remaining above recent trend. While investment market returns were positive for the overall 12-month fiscal year period as global stocks (measured by the Morgan Stanley Capital International All-Country World Index Investable Market Index - MSCI ACWI IMI) returned 11.1 percent, market and portfolio performance were quite different in the last half of calendar year 2017 compared to the first half of 2018.

Continued rising growth and positive economic data characterized 2017 capping one of the strongest years for the global economy since the 2008-2009 financial crisis. Rising corporate sales and earnings growth, high consumer and business confidence, and ongoing central bank accommodation pushed global equity indices to new all-time highs. The MSCI ACWI IMI extended its streak of consecutive monthly gains to 14 in December, the longest since the inception of the index in 1994. For the first time in its history, the Standard & Poor's 500 (S&P 500) index did not have a negative monthly return for an entire year.

Despite strong domestic equity performance, international markets still outperformed the United States for the first time in five years supported by their strengthening fundamentals. For the last six months of 2017, U.S. stocks (i.e., the Russell 3000 Index) returned 11.2 percent, international developed stocks (i.e., the Morgan Stanley Capital International Europe Australasia and Far East index - MSCI EAFE) returned 9.9 percent, and international emerging markets (i.e., Morgan Stanley Capital International Emerging Markets index - MSCI EM) returned 15.9 percent.

As economic progress continued to improve in 2018, trade news entered the discussion in the new calendar year and became a primary source of equity market fluctuations. Economic reports during the first two quarters of 2018 indicated global expansion remained intact with growth accelerating. However, trade tensions continued to make headlines, and the U.S. announced tariffs on billions of Chinese goods, and China retaliated in-kind.

While the implemented tariffs made up a small percentage of U.S. imports and GDP, financial markets remained focused on trade developments and continued to elevate stock prices with continued tensions, particularly in international markets. Following 2017, which saw global equities gain each month amid record low volatility, market swings returned toward more normal levels in 2018. MSCI ACWI IMI was basically flat during the first six months of the year with calendar year-to-date loss for the index at negative 0.2 percent. Much of this loss came from the international markets, which was a thematic reversal from 2017. For the first six months of 2018, the Russell 3000 Index returned 3.2 percent, MSCI EAFE returned negative 2.4 percent, and MSCI EM returned negative 6.7 percent.

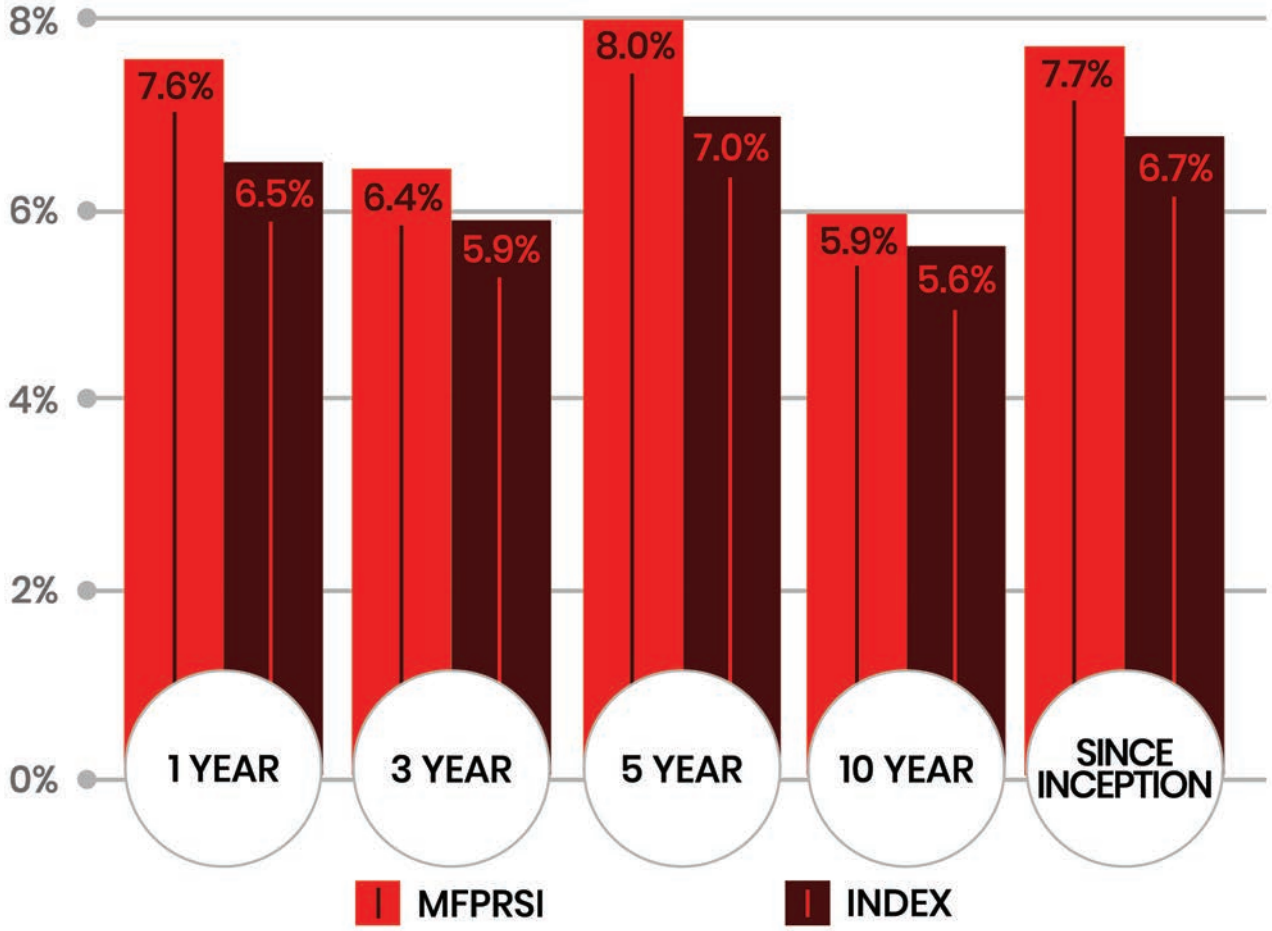
In the fixed income environment, the progress in the domestic labor market and overall economy prompted the Federal Reserve, the central banking system of the U.S., to raise short-term interest rates by 25 basis points (0.25 percent) three separate times over the last 12 months. This put downward pressures on current bond prices, and the Bloomberg Barclays U.S. Aggregate Bond Index returned negative 0.4 percent for the one-year period ending June 30, 2018.

In this environment, a hypothetical portfolio of 60 percent global stocks and 40 percent domestic bonds (a "60/40" allocation) would have earned a 6.5 percent return for the year, lagging MFPRSI's investment return goal by 1.1 percent. During this period of strong economic and earnings growth, global equities were the clear winners in the investment landscape. MFPRSI's investment portfolio was significantly more diversified than a traditional 60/40 allocation, with much less public equity exposure.

Even with this more diversified approach, MFPRSI was able to outperform over the fiscal year due to positive absolute performance from both public market areas of the portfolio (the investment portfolio's Core Investments returned 6.3 percent and Strategic Investments produced 6.2 percent) and very strong performance from the portfolio's Alternative Investments (11.0 percent). Also of note is the strong relative out-performance by many of MFPRSI's individual investment managers over their respective benchmarks, net of fees.

Overall, June 30, 2017, through June 30, 2018, was a period of strong economic activity and continued growth in the global corporate sector. This dynamic led to strong equity returns, which certainly benefited the retirement system. Going forward, Summit believes the ability to capitalize on this strong return environment while still providing diversification from traditional stocks and bonds as market prices experience short-term volatility will be a significant benefit to MFPRSI.

PERFORMANCE



Inception date is January 1, 1992. The Index is 60% Morgan Stanley Capital International All Countries World Index Investable Market Index (MSCI ACWI IMI) and 40% Barclays Capital Aggregate index. 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 & Objectives* 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 & Objectives* 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 & Objectives* 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 style. The success of any individual investment style tends to be cyclical, and diversification is one tool to help reduce overexposure to any one asset class. For example, growth equities may outperform value equities over several consecutive time periods and then revert over several consecutive time periods. Diversification beneficially limits exposure to each asset class during time periods when they are out of favor with investors.

Ultimately, investment markets are cyclical and no single investment style or asset class will perpetually outperform over the long term. Investment styles come in and out of fashion and using this logic, MFPRSI diversifies its investment portfolio in order to minimize risk. Performance at the total investment fund level, therefore, avoids dependency on any one style of investment.

Overall, 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 differentiate 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. Typically, most investors shy away from risk as no investor wants to lose money on an investment. This is prudent behavior to avoid losing money. However, the rule of thumb towards risk is that the higher the risk, the better the return.

MFPRSI and Summit 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.

Simply investing in low-risk or no-risk assets (e.g., certificates of deposit whose one-year interest rates are typically below 3 percent) would make it difficult for the investment portfolio to achieve the 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, in the retirement system's case, is the average 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; meanwhile, the higher the standard deviation, the farther its actual returns tend to be from its average returns.

In its measurement dated December 31, 2016, Summit reported the retirement system's standard deviation for its investment portfolio at 12.5 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 Summit 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.

Allocation Terminology. The retirement system's investment portfolio is separated into four main categories:

Core Investments are comprised of a diversified mix of global public equity and debt portfolios. The aggregate Core Investments' 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.

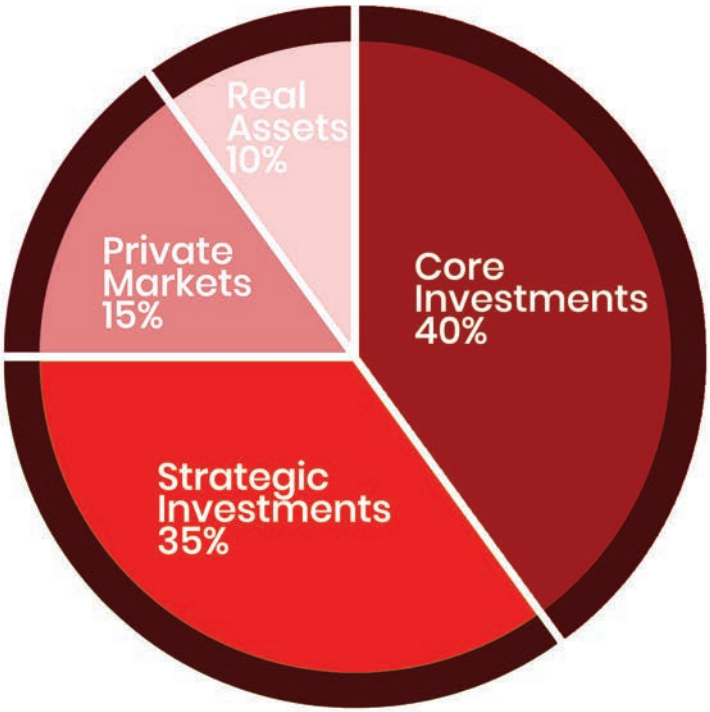
Strategic Investments are comprised of multi-asset investment managers that invest in global securities, including but not limited to: public debt, public equity, real assets, private market investments, currencies, derivatives, and cash. The intent of the Strategic Investments is to outperform a specified composite index on both an absolute and risk-adjusted basis over a full-market cycle. Individual managers in the Strategic Investments 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.

The indices for Core and Strategic Investments are determined and regularly reviewed by the Board in an attempt to meet or exceed MFPRSI's actuarial assumed rate of return over time.

Private Markets refer to various investment managers who invest in private market opportunities, including but not limited to: venture, buyout, opportunistic, secondary market, debt-related, and direct investment. These opportunities will consist of investing in private companies that do not offer equity and fixed income securities on public markets.

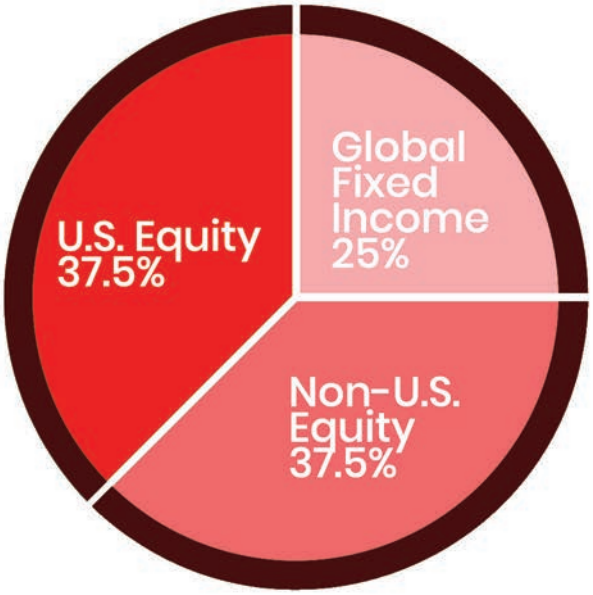
Real Assets consist primarily of real estate and may also include, but is not limited to, other real assets, such as infrastructure, commodities, or energy-related investments. Real assets may be domestic or international, and may be either liquid, marketable investments, or private market investments.

Total Fund Allocation.



Core Investments Allocation.

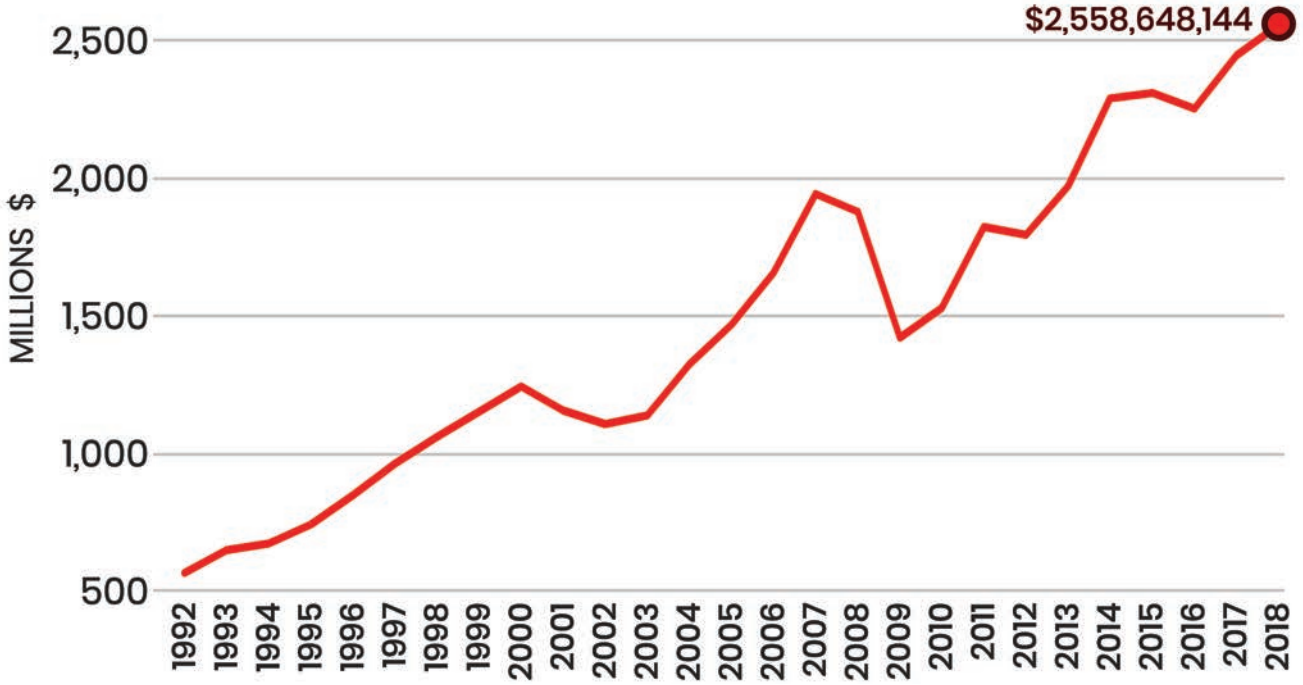
Strategic Investments Allocation.



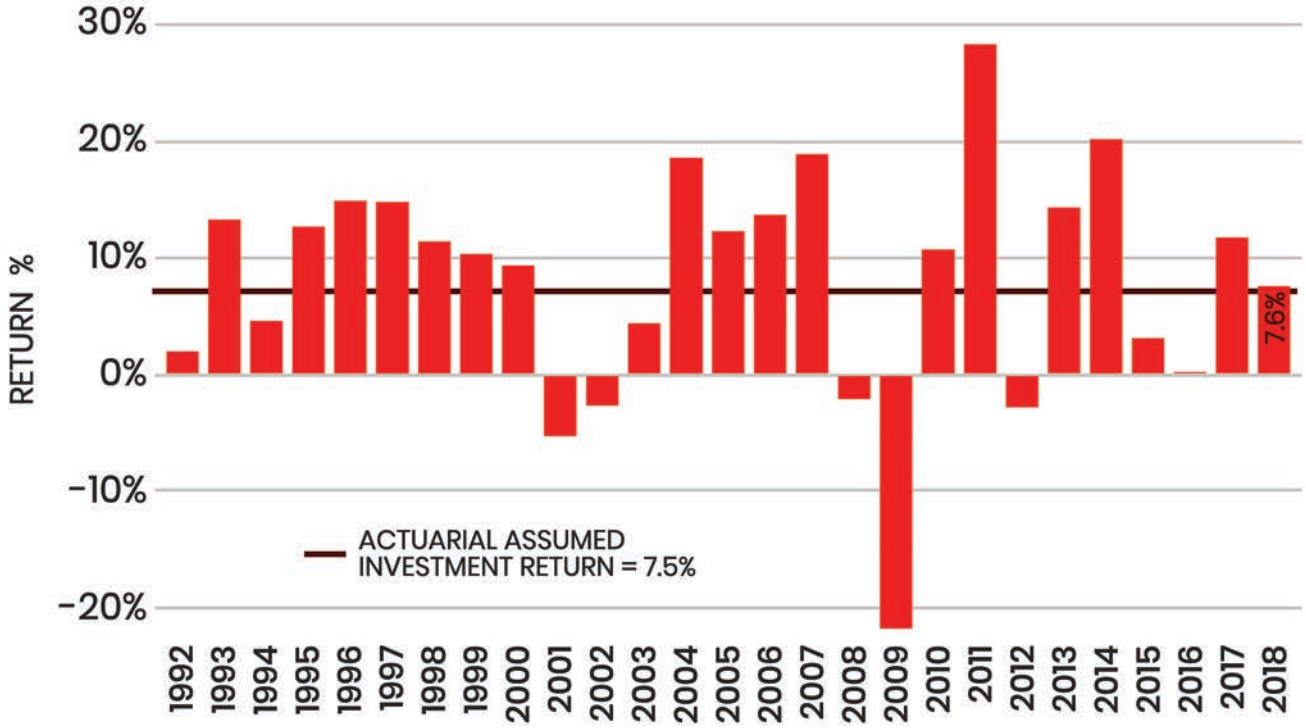
Caveats:

1. In the absence of suitable opportunities within a specific market, the funds will be directed to other components within the debt or equity categories. Due to the fluctuations of market values, positioning within five percent of the target will constitute compliance with the policy.
2. Reviews of the allocation policy occur periodically allowing the Board to consider the effect of any changes in market conditions or the expectations for the retirement system.

Growth of Net Investment Portfolio Assets for Fiscal Years Ended June 30.



Annual Investment Returns for Fiscal Years Ended June 30.



BENEFITS

Description of Benefit Plan
Optional Forms of Retirement
DROP - Deferred Retirement Option Plan
Membership Data

Benefits Highlights

Service Retirement Age: **55** with **22** years of service

Service benefit amount based upon a percentage of member's earnable compensation and years of service

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. The other forms of benefits, with the exception of vested retirement and the deferred retirement option program (DROP), 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 vested or a full service retirement.

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. **Basic Benefit.** The member receives a lifetime monthly benefit. Upon the member's passing, the surviving spouse is entitled to 50 percent of the member's gross benefit. If there is no surviving spouse, the benefit ends. Please visit www.mfprsi.org for more information about the basic benefit.

   The optional forms of payment 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 and 75 Percent Survivor Annuity Benefit.** The designated beneficiary receives 75 percent of the gross amount of the member's payment at the time of the member's passing. The beneficiary receives this amount for his or her lifetime.

   Upon the passing of the beneficiary, the benefit ends. If the beneficiary passes prior to the member, the benefit ends with the passing of the member.

3. **Joint and 75 Percent Survivor Annuity with Pop-up.** The designated beneficiary will receive, for the duration of his or her lifetime, 75 percent of the member's gross retirement allowance at the time of the member's passing.

   If the designated beneficiary passes prior to the member, the member's retirement allowance is increased to the amount of the service retirement allowance under the basic benefit, and no survivor benefit is payable following the passing of the member.

4. **Joint and 100 Percent Survivor Annuity Benefit.** The designated beneficiary receives 100 percent of the gross amount of the member's payment at the time of the member's passing. The beneficiary receives this amount for the duration of his or her lifetime. Upon the passing of the beneficiary, the benefit ends.

   If the beneficiary passes prior to the member, the benefit ends with the passing of the member.

5. **Joint and 100 Percent Survivor Annuity with Pop-up.** Following the member's passing, the designated beneficiary will receive, for the duration of his or her lifetime, 100 percent of the member's gross retirement allowance.

   If the designated beneficiary passes prior to the member, the member's retirement allowance is increased to the amount of the service retirement allowance under the basic benefit, and no survivor benefit is payable following the passing of the member.

6. **Single-Life Annuity with Designated Lump Sum Benefit.** Upon the passing of the member, a pre-designated lump sum is paid to the designated beneficiary (or beneficiaries) and the benefit ends.

   If the beneficiary passes prior to the member, the lump sum is paid to the member's estate.

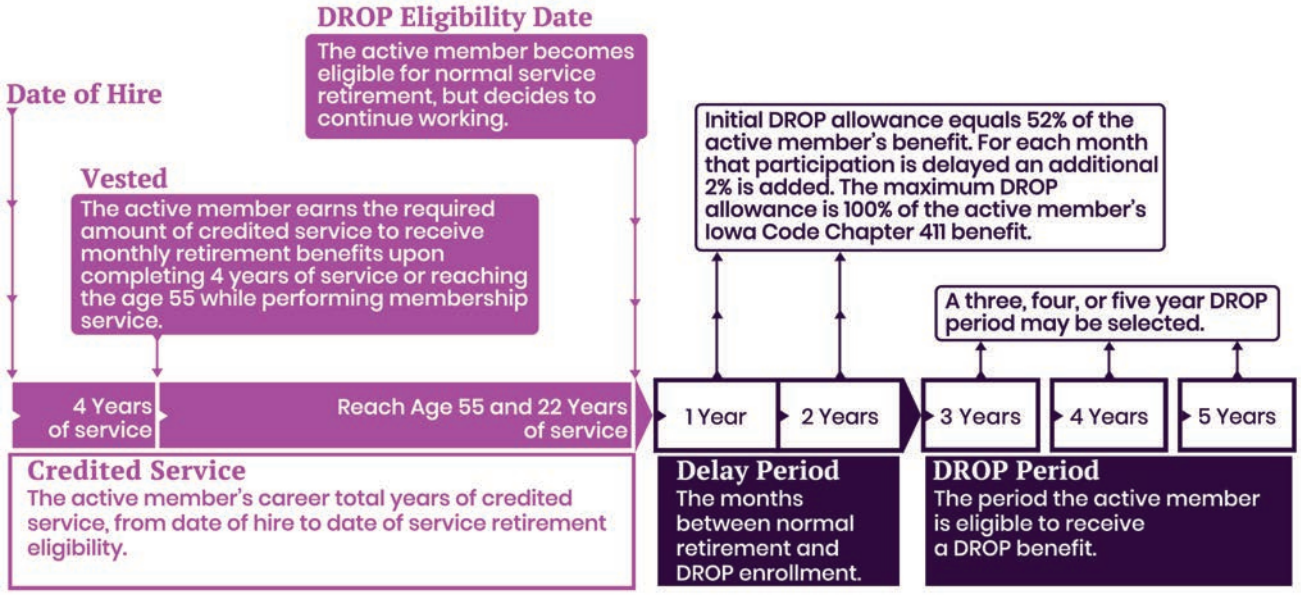
7. **Straight-Life Annuity Benefit.** Following the member's passing, no further benefits are payable.

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. 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.



MEMBERSHIP DATA

Retirement System Membership Profile.

Active Members	As of July 1, 2018	Year Over Year Increase/ (Decrease)
Number	4,003	35
Average Age (in years)	41.0	0.0
Average Past Service (in years)	13.7	0.0
Average Annual Compensation	$75,548	$891
Terminated-Vested Members with Deferred Benefits		
Number*	367	11
Average Age (in years)	43.6	(0.3)
Average Annual Benefit	$17,756	$410
Members and Beneficiaries in Pay Status		
Number	4,107	62
Average Age (excluding children, in years)	69.9	0.2
Average Annual Benefit	$40,805	$1,121

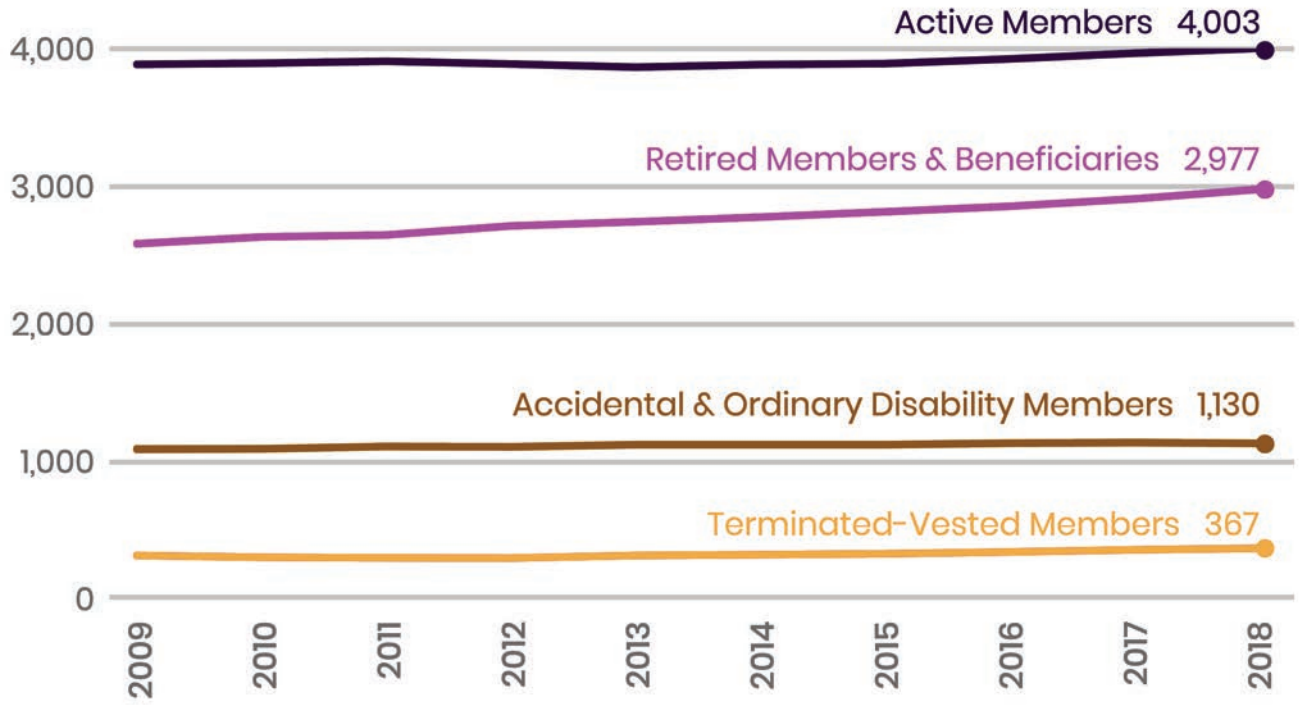
* Excludes 42 terminated non-vested members in 2017 and 56 terminated non-vested members in 2018 who had not received a refund of contributions as of the end of each fiscal year.

Participating Cities.

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

*Police department only.

Membership by Type - Past 10 Fiscal Years ended June 30.



Service Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
55 - 59	126	$8,211,504	$65,171
60 - 64	317	$20,168,064	$63,622
65 - 69	397	$23,426,820	$59,010
70 - 74	327	$18,344,928	$56,101
75 - 79	235	$11,438,448	$48,674
80 - 84	132	$5,304,708	$40,187
85 and Over	123	$4,456,272	$36,230
Total	1,657	$91,350,744	$55,130

Accidental Disability Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 40	14	$567,528	$40,538
40 - 49	67	$2,727,300	$40,706
50 - 59	157	$7,230,252	$46,053
60 - 69	322	$15,405,228	$47,842
70 - 79	267	$11,414,112	$42,749
80 and Over	108	$4,157,688	$38,497
Total	935	$41,502,108	$44,387

Ordinary Disability Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 40	12	$325,176	$27,098
40 - 49	26	$872,196	$33,546
50 - 59	37	$1,302,192	$35,194
60 - 69	64	$2,708,004	$42,313
70 - 79	43	$1,623,096	$37,746
80 and Over	13	$409,344	$31,488
Total	195	$7,240,008	$37,128

Beneficiary (Spouse) Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 50	25	$739,908	$29,596
50 - 59	43	$1,023,864	$23,811
60 - 69	162	$4,245,780	$26,209
70 - 79	281	$6,401,364	$22,781
80 and Over	371	$7,558,872	$20,374
Total	882	$19,969,788	$22,641

Beneficiary (Children) Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 12	10	$48,504	$4,850
12 - 17	17	$94,296	$5,547
18 and Over	26	$187,284	$7,203
Total	53	$330,084	$6,228

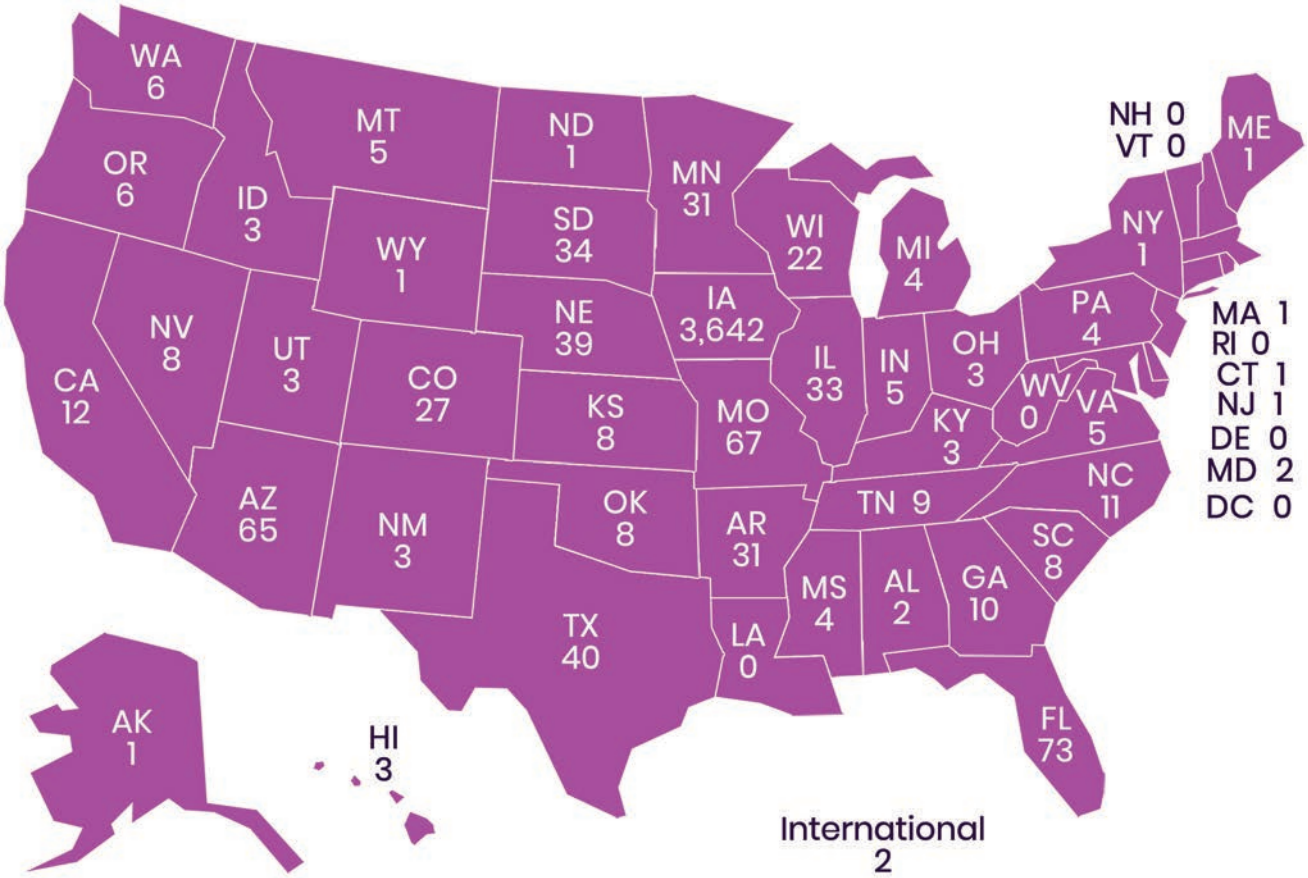
Vested Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
55 - 59	96	$2,143,704	$22,330
60 - 69	179	$3,578,436	$19,991
70 - 79	83	$1,241,784	$14,961
80 and Over	27	$230,568	$8,540
Total	385	$7,194,492	$18,687

Terminated-Vested Benefits.

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 40	129	$1,616,304	$12,529
40 - 49	136	$2,622,900	$19,286
50 and Over	102	$2,277,216	$22,326
Total	367	$6,516,420	$17,756

Number of Benefit Payments by State as of June 30, 2018.



Terminology.

Active members - Members of MFPRSI with wages reported for the last quarter of each fiscal year.

Non-active members - Members of MFPRSI who are retired from service as a firefighter or police officer from a participating city and receiving benefit payments as of the final month of each fiscal year.

Retired members and beneficiaries - Members of the retirement system who were paid benefits in the final month of each fiscal year.

Accidental disability and ordinary disability - Members who either received an accidental disability payment or an ordinary disability payment, respectively.

Terminated (or "term") vested - Former members of MFPRSI who have left the retirement system after achieving vested status (i.e., four years of employment as a firefighter or police officer with a participating city employer), but before reaching eligibility for a service retirement as of the final month of each fiscal year.

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 and deputy director.

MFPRSI Annual Report Fiscal Year 2018 was prepared by MFPRSI staff using data gathered from various sources including MFPRSI's actuarial services provider, SilverStone Group, investment consultant, Summit Strategies Group, and communications consultant, Wixted & Co. The stories on pages 10-15 were written by Jordan Rose, communications advisor with Wixted & Co.

The firm of Eide Bailly, LLP, conducted an audit for the period ending June 30, 2018. A copy of the audit report has been provided to each of the employing cities and is viewable at www.mfprsi.org. The report is 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
Photo on pages 6-7 - Dronography Iowa
Printing - Colorfx