MFPRSI

MUNICIPAL FIRE & POLICE
RETIREMENT SYSTEM OF IOWA

Board of Trustees

Financial Evaluation Report

presented to the Iowa General Assembly
on January 9, 2017

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Executive Summary

The following is a summary of the main points included in this report as submitted to the Iowa General Assembly by the Board of Trustees of the Municipal Fire & Police Retirement System of Iowa (MFPRSI):

The Board of Trustees ("Board") of the Municipal Fire and Police Retirement System of Iowa ("MFPRSI") adopted a contribution rate for its participating cities of 25.68% effective for fiscal year 2018 at its October 2016 meeting. This is a reduction from the previous year of 0.24% and 4.73% from the peak contribution rate of 30.41% in fiscal year 2015.

Legislation will be introduced by representatives of the Board that will re-establish the State of Iowa's funding commitment made in 1976 to MFPRSI's participating employers and resume its annual contribution at the agreed upon rate of 3.79% of covered payroll. This rate would equal $10.4 million in fiscal year 2018. If enacted, this would be a dollar-for-dollar reduction to both the cities' contribution and property taxes.

The current funded status of MFPRSI is 81.4% and the market value of assets is $2.25 billion as of June 30, 2016. Funding improved from 80.9% in 2015 based largely upon actuarial experience being more favorable than assumed and adopting a new mortality table that more closely mirrors the retirement system's experience.

The Board adopted a comprehensive funding strategy for the retirement system which includes the methodology to get the funded status to 100% within a 25-year period using a level dollar closed, layered methodology starting in 2014. This strategy is expected to decrease the cities' contribution rate to the statutory minimum of 17% by 2038. The purpose for this change in methodology is to ensure the retirement system is properly funded to amortize unfunded liabilities within a period of 25 years or less.

Executive Summary

The following is a summary of the main points included in this report as submitted to the Iowa General Assembly by the Board of Trustees of the Municipal Fire & Police Retirement System of Iowa (MFPRSI):

The Board also implemented an overall communications plan to reach out to retirement system stakeholders, including state legislators, and provide information on its current activities. Included in its communications efforts in 2015 was the creation of a *Legislative Guide* which offered key statistics and facts about the retirement system. The guide was delivered in the fall of 2015.

A new mortality table was adopted by the Board in order to better match assumptions to actual experience.

A strategic planning exercise by the Board resulted in the creation of a mission statement and vision statements for the retirement system. Long-term performance goals were also created as part of the strategic plan (see Addendum 6).

The Board adopted an educational policy that emphasizes trustees, as fiduciaries of the retirement system, need to remain abreast of issues facing the pension industry in order to perform their responsibilities.

Introduction

In 2010, the Iowa General Assembly enacted HF 2518 which included provisions requiring the Board of Trustees of the Municipal Fire and Police Retirement System of Iowa ("the Board") to conduct examinations of the financial provisions of the pension plan established by Iowa Code Chapter 411 ("Chapter 411"). The Board is directed to submit reports once every two years to the Iowa General Assembly concerning any recommendations the Board develops as a result of the reviews.

Iowa Code Chapter 411.5.16:

Benefits and financing review. At least every two years, the board shall review the benefits and finances provided under this chapter. The board shall make recommendations to the general assembly concerning this review, which shall include recommendations concerning the long-term financing and benefits policy of the system.

On an ongoing basis the Board examines the following major elements of the financial provisions of the plan:

- Actuarial Policies
- Investment Policies
- Benefit Plan
- Contribution Structure

In accordance with the above statutory provisions, the Board hereby submits this report to the Iowa General Assembly.

Board of Trustees Membership

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Retired
Police Officer
Sioux City

Chair

Mary Bilden

Citizen
Boone

P. Kay Cmelik

City
Representative
Grinnell

Eric Court

Active
Police Officer
Davenport

June Anne Gaeta

Active
Firefighter
Muscatine

Frank Guihan

Retired
Firefighter
Burlington

Duane Pitcher

City
Representative
Ames

Dan Ritter

City
Representative
Des Moines

Michelle Weidner

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District 26

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New legislative appointments are due January 1, 2017

MFPRSI MUNICIPAL FIRE & POLICE RETIREMENT SYSTEM OF IOWA

Financial Components of the Retirement Plan

Actuarial Policies Financial Profile and Funding

On an ongoing basis, the Board evaluates the financial challenge as described below:

Description of the Financial Challenge – The 2007-2009 global economic crisis created a significant funding shortfall for the retirement system. Since that time, the Board of Trustees has implemented changes to the their actuarial policies and the diversification of the investment portfolio to enhance the funding of MFPRSI and improve the risk/reward ratio of its investments. As stipulated in Chapter 411, the actuarial valuation process utilized by the plan systematically responds to actuarial gains and losses by adjusting the employer contributions requirements for the retirement system.

Condition of the Retirement Plan – Current financial profile and the funded status since the recession.

Plan Net Assets (in millions) as of June 30	2016	2015	2014	2013	2012	2011
Market Value	$2,255	$2,300	$2,278	$1,964	$1,785	$1,829
Investment Return (since inception*)	7.6%	7.9%	8.1%	7.7%	7.4%	7.8%
Actuarial Liabilities	$2,868	$2,752	$2,641	$2,518	$2,494	$2,388
Funded Ratio**	81%	81%	78%	74%	74%	78%
Asset Gain (Loss) for Prior 5 years***	$(90)	$315	$464	$(294)	$(579)	$(260)
Annual Recognized Gain (Loss)	$(18)	$63	$93	$(59)	$(116)	$(54)

*Inception date – January 1, 1992. Return performance calculated by Summit Strategies.

**Based on ratio of actuarial value of assets to actuarial accrued liability as determined by SilverStone Group

***Relative to the 7.5% annual assumed rate of return

Financial Components of the Retirement Plan

Actuarial Policies Funding Concepts

The Board has adopted a funding policy (see Addendum 5 for the complete policy) that provides reasonable assurance that the cost of benefits provided to the members of MFPRSI under the provisions of Iowa Code Chapter 411 will be funded in an equitable and sustainable manner. It is the intention of the Board to follow a financing pattern that computes and requires contribution amounts which, expressed as percentages of active member payroll, will remain approximately level from year to year and from one generation of taxpayers to the next generation.

Financial Components of the Retirement Plan

Actuarial Policies Actuarial Actions

In 2013 the Board adopted new actuarial methods to ensure the Unfunded Accrued Liabilities (UAL) will be paid off within a 25-year period. The action the Board took was to change the methodology to amortize the UAL over 25 years using a level-dollar, closed layered basis. The net effect of this action is that more contributions will be paid into the Fund earlier to amortize the UAL using level-dollar and that using a closed, layered amortization method will actually require the UAL to be paid off over a 25-year period. As a result of this action by the Board, the retirement system's actuary has projected that MFPRSI will be around 90% funded by 2030-2031.

July 1, 2016 Actuarial Valuation Report:

Following review with MFPRSI's actuary, the Board adopted the city contribution rate of 25.68% to be effective July 1, 2017 (see Addendum 1 for a list of participating cities).

Additionally, the Board received and examined actuarial projections displaying a forecast of city contribution rates and funding progress over a twenty-five year period. The twenty-five year forecast of the city contribution rates utilized an investment return assumption of 7.5% (see Addendeum 2 for the contribution projections).

Financial Components of the Retirement Plan

Actuarial Policies Actuarial Actions

In order to verify the standards of practice and the accuracy of the actuarial products provided to the retirement system, the Board may periodically contract with an actuarial firm, other than the retained actuary, to conduct an actuarial audit. The purpose of the audit and the resulting report is to provide the Board with an independent assessment of the quality of the work of the retained actuary with respect to both process and reasonableness of assumptions and recommendations.

The most recent actuarial audit was performed in Fiscal Year 2015 when the Board hired Gabriel, Roeder, Smith & Company to perform an actuarial audit of the processing and reporting produced by the retirement system's actuarial services provider, SilverStone Group. The audit took six months and included a full replication of the June 30, 2014, actuarial valuation. The results of Gabriel, Roeder, Smith & Company's review were that the valuation produced by SilverStone was an accurate reflection of MFPRSI's actuarial position and that they found no serious conditions in either SilverStone Group's processing or the Board's actuarial assumptions.

Financial Components of the Retirement Plan

Actuarial Policies Actuarial Actions

After a review by the actuarial services provider, SilverStone Group, and extensive conversations by the Board, a change to the retirement system's mortality table was made in 2016. The RP 2000 Blue Collar Combined Health Mortality Table with males set-back two years, and females set-forward one year, and disabled participants set-forward one year (male only rates) with no projection of future mortality improvement was approved to be used starting with the Fiscal Year 2016 valuation report. This table, provided by the Society of Actuaries (SOA), more accurately reflects MFPRSI's actual mortality experience from the years 2005 to 2015 than the previous mortality tables.

It is anticipated the SOA will produce a new mortality table in 2017 that will be based on experience derived from public pension plans across the United States. MFPRSI provided its mortality experience to the SOA as part of this study and will seriously consider adopting the new tables for use in actuarial valuations when they become available.

Previously, the actuary utilized a mix of 1/12 of the SOA's 1971 Group Annuity Mortality Table (male and female) and 11/12 of the SOA's static 1994 Group Annuity Mortality Table (male and female) with no projection of future mortality improvement.

Financial Components of the Retirement Plan

Investment Policies

Current Allocation Policy, Performance, and Risk Expectation

The investment program and policies are continuously reviewed by the Board. The reviews included a comprehensive asset allocation/liability study performed by MFPRSI's investment consultant. The Board evaluated a series of investment allocation policy alternatives, in the context of the current financial profile of the plan. A revised policy was adopted in April 2016.

The Board will continue to review portfolio performance and will make allocations within the policy.

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

Performance and Risk Expectation	
Plan Performance %	7.6%
Risk (Standard Deviation) %	12.2%

Performance expectation and risk projection based on Summit Strategies' 2015 assumptions.

The Board is planning to conduct another asset allocation study beginning in early 2017.

Financial Components of the Retirement Plan

Investment Policies Asset / Liability Study

Beginning in July 2012 and concluding in February 2014, the Board worked with its investment consultant on the review of an Asset/Liability study. The result of this study was the inclusion of two new asset classes in the portfolio. The Board elected to initiate investment in Emerging Markets Debt securities and Master Limited Partnerships in order to further diversify the overall portfolio to limit potential losses from economic and market downturns.

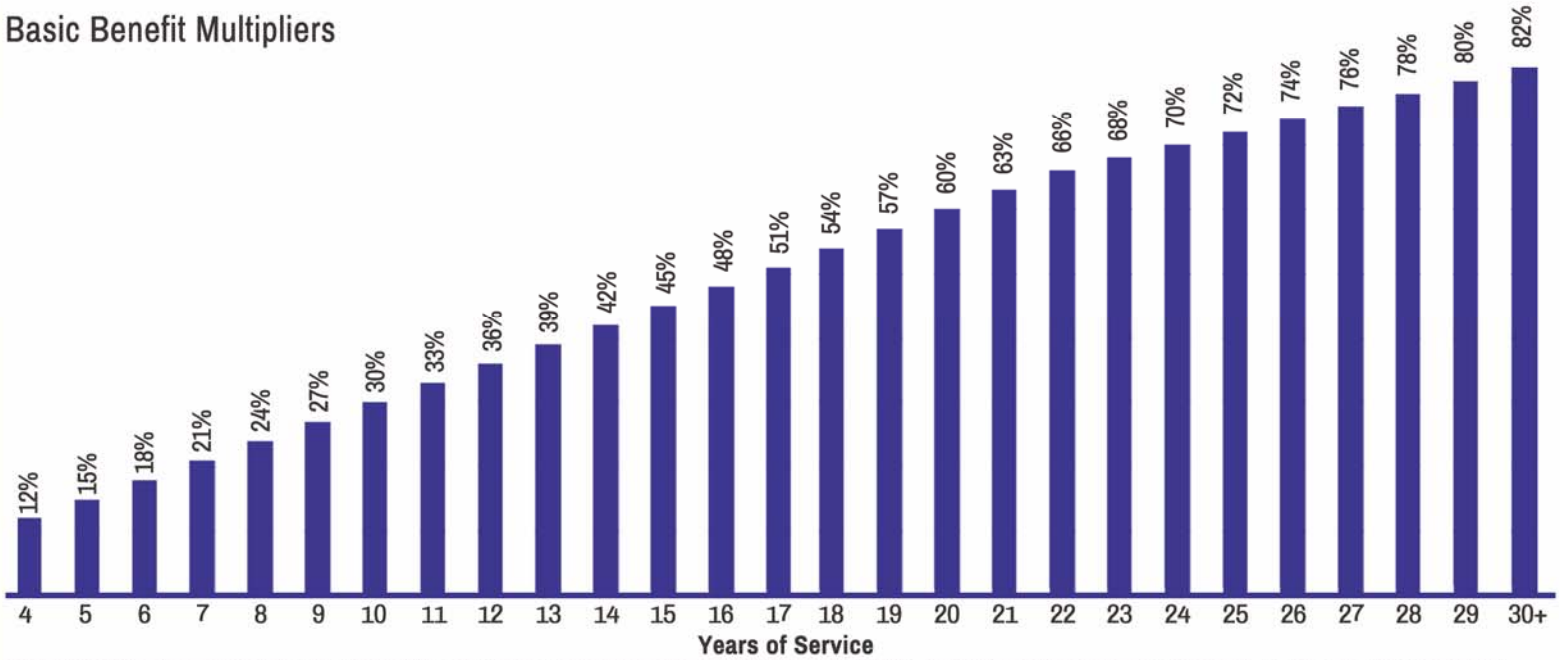
- The investment portfolio reached a low of $1.3 billion as of the end of March 2009. The portfolio currently stands at its highest ever level of assets, $2.3 billion. This return exceeds the Board's assumed rate of return of 7.5% and has pushed the retirement system's funded status from 74% in 2012 to 81% in 2016.

- Since our inception in 1992, MFPRSI's investment portfolio has earned an anualized return of 7.57%, exceeding the Board's assumed 7.5% rate of return.

Financial Components of the Retirement Plan

Benefit Plan

On an ongoing basis, the Board is provided with statistical information concerning the benefit plan as established by Chapter 411 for permanent, full-time police and fire personnel in the forty-nine participating cities.



Active members become vested at the completion of 4 years of service and are eligible to earn 12% of earnable compensation at retirement. From year 5 to year 22, an additional 3% of earnable compensation per year may be earned. For each year of service beyond 22, an additional 2% may be earned. The maximum benefit is 82% of the average final compensation. Basic service retirement eligibility begins when reaching age 55 and 22 years of service.

Financial Components of the Retirement Plan

Retirement Eligibility Age

At or after age **55** but not to exceed age **65**

Disability Benefits

Accidental:

the greater of **60%** of the average final compensation or service retirement

Ordinary:

the greater of **50%** of the average final compensation or 25% if fewer than 5 years of service

Benefit Plan

Annual Escalator

Eligible retirees and beneficiaries benefits are adjusted annually on July 1 by the following:

1. Previous monthly benefit multiplied by **1.5%** and
2. An additional dollar amount based on the following incremental steps:

$35 Retired at least 20 years

$30 Retired at least 15 years, but fewer than 20 years

$25 Retired at least 10 years, but fewer than 15 years

$20 Retired at least 5 years, but fewer than 10 years

$15 Retired fewer than 5 years

Death Benefits

Accidental:
Pension equal to **50%** of average compensation, plus 6% child benefit

Ordinary:
Pension equal to **40%** of average compensation, plus 6% child benefit

Lump Sum:
$100,000 if member's death is due to traumatic injury on duty

Membership

Active Members:
Full-time police and fire personnel with a covered employer

Retires & Beneficiaries:
Retired members and beneficiaries upon the death of the retired member

Terminated Vested Benefits

If terminated employment prior to age 55 or with fewer than 22 years of service, the member retires under the service formula; however, the member is not eligible for annual escalation.

Refund of Contributions

Upon termination, a member may withdraw his or her contributions with interest calculated for the period of membership and the member forfeits any rights to monthly pension payments.

Vesting

Members become eligible to receive monthly benefits upon retirement as a result of completing at least 4 years of service or reaching age 55 while performing membership service.

Financial Components of the Retirement Plan

Benefit Plan
Deferred Retirement Option Plan (DROP)

A distribution option within the qualified defined benefit pension plan (Chapter 411 plan), the DROP is an arrangement whereby a member who is otherwise eligible to retire and commence benefits under a defined benefit pension plan opts to continue to work.

If the MFPRSI member elects to participate in the DROP, funds are credited to a separate account for the member, and the member's additional compensation and years of service are not taken into account under the defined benefit plan formula.

The member's retirement benefit is "frozen" at the rate it would have been had the member retired when he or she entered the DROP arrangement, and pension amounts that would have otherwise been paid to the member are paid into the DROP account.

The member's DROP account is paid to the member when the member eventually retires after a specified period.

When the member enrolls in the DROP, the member is signing a contract indicating that the member will retire at the end of the selected DROP period. The DROP was designed to be actuarially cost neutral

DROP Benefit Formula	
52% of service retirement when first eligible (age 55 & 22 years of service)	52%
2% for each month DROP entry is delayed for the next 24 months	48%
Total maximum of service retirement benefit	100%

Financial Components of the Retirement Plan

Benefit Plan Development

The development of the benefit plan and the evolution of the changes since the inception of the consolidated retirement system:

1. In November 1998, the Iowa General Assembly received a comprehensive report on the comparability of the pension benefit plans for public safety workers in Iowa's public retirement systems. The study was conducted in response to a mandate from the Iowa General Assembly.
2. The current benefit formula was adopted by the Iowa General Assembly in an effort to establish parity between the benefit plans for these classes of workers. The changes made for Chapter 411 occurred in 2000.
3. The membership is provided the Chapter 411 retirement plan without additional Social Security coverage. This condition traces its history back to the inception of the Chapter 411 plan in 1934 and the later adoption of Social Security coverage for Iowa's public workers in 1953. Public workers covered by an existing retirement plan, as of the date of Iowa's adoption of Social Security coverage (1953), were not eligible by Federal law for Social Security coverage.
4. An important component of the benefit plan is the disability program which serves as a substitute for long-term workers' compensation benefits. Pending approval of disability by MFPRSI and per the 411 code, the employers are responsible for 100% of pay, benefits, and medical costs related to on-the-job injuries for covered members. After disability has been approved, employers are responsible for lifetime medical costs for the disabling illness or injury and MFPRSI is responsible for benefit pay.

For a comprehensive review of the changes to the benefit plan, see Addendum 3.

Financial Components of the Retirement Plan

Contribution Structure

The contribution structure of MFPRSI provides for the funding of the benefit plan in response to the periodic actuarial valuations of the plan's funding requirements.

Since the inception of the plan design in 1934, the membership has contributed at various rates established by the Iowa General Assembly in the plan document (i.e., Chapter 411).

Throughout the existence of the retirement plan, the statute has stipulated that the employing cities provide the additional monies to fund the plan through regular contributions. The annual actuarial valuation of the retirement plan's assets and liabilities determines the employers' contribution rate for the ensuing fiscal year. Upon submittal by MFPRSI's actuary and following its review, the Board is statutorily required to adopt the rate.

In addition, the State of Iowa (the "State") made a commitment to assist in funding the plan in conjunction with the passage of a benefit increase in 1976. Initially, the State committed to pay an annual contribution equal to 3.79% of total member payroll to the plan. In 1992, a statutory change was made to require the State to make a flat dollar contribution to the plan annually. This amount began at a level of approximately $2.9 million per year, but gradually was reduced over time due to budget hardships. As of fiscal year 2013, the State completely stopped making a contribution to the retirement plan, thus obligating the cities to pay the entire required employer contribution.

The State's decision to reduce and now eliminate its contribution commitment to MFPRSI has had a substantial financial impact on the participating cities. The plan has calculated that the reduction in the State's contribution from its original commitment has required the cities to contribute an additional $87 million over the past 24 years (see Addendum 4). The Board strongly believes that the State should uphold its contribution commitment to the plan.

Financial Components of the Retirement Plan

Contribution Structure

One final piece of the contribution structure is the method of allocating contribution increases due to benefit changes as spelled out in Iowa Code Section 411.8(1)(f)(8). The statute indicates that MFPRSI's actuary determine the increased cost of the benefit and calculate the new contribution rate to be paid.

If the cost of the new benefit level, which is called the Normal Cost, exceeds the statutory rates for employer and employee then the additional cost is to be paid by the member until the employee contribution reaches 11.35%. Additional costs above the amount are to be allocated 60% employer and 40% employee. Since 1992, the Board has not had to allocate additional costs due to benefit changes to member contributions because the ongoing Normal Cost of the plan has been less than the statutory contribution rates.

Currently, the Normal Cost of the plan as a percentage of participating payroll is 18.84% compared to the total statutory combined contribution rate of 26.4%.

Summary: Current Contribution Structure	
1. Employee rate	Fixed by statute at 9.40%
2. Employer rate	As determined by annual actuarial valuation (minimum of 17%)
3. State contribution	Presently, 0.0%

Board Summary

In accordance with Iowa Code Section 411.5.16, the Board of Trustees submits the following recommendations for consideration of the Iowa General Assembly:

1. The State of Iowa adhere to the funding commitment it made in 1976 to the plan's participating employers and resume its annual contribution to MFPRSI at the agreed upon rate of 3.79% of payroll which in fiscal year 2018 would equal an amount of $10.4 million.

2. No statutory changes are recommended at this time to the MFPRSI actuarial or investment policies.

3. No statutory changes are recommended to the level of benefits provided in Chapter 411.

The Board of Trustees recognizes that the plan sponsor is the Iowa General Assembly. The Board will continue to work diligently to meet its fiduciary duty to carry out the plan document in the best interests of the membership and the employers.

In the context thereof, the Board of Trustees respectfully comments to the Iowa General Assembly that the content and scope of the benefit plan and contribution structure rests with the Iowa General Assembly and not with the Board of Trustees.

Addendum 1

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.

Addendum 2

25-Year Projection

Forecast of Contribution Rates and Funded Status (Amounts in thousands)

Municipal Fire & Police Retirement System of Iowa

Forecast of Contribution Rates and Funded Status
(Amounts in Thousands)

Valuation Date	7/1/2016	7/1/2017	7/1/2018	7/1/2019	7/1/2020	7/1/2021	7/1/2022	7/1/2023	7/1/2024	7/1/2025	7/1/2026	7/1/2027	7/1/2028
Actual Prior Year													
Investment Return on Assets													
- Market Value	N/A	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
- Actuarial Value	N/A	7.55%	6.71%	5.07%	6.06%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Covered Payroll	283,640	294,985	306,637	318,750	331,340	344,428	358,033	372,175	386,876	402,158	418,043	434,556	451,721
Current Entry Age Normal Method 25-Year Amortization Period of UAL Level Dollar, Closed Layered Amortization													
Actuarial Accrued Liability	2,867,807	2,974,076	3,082,564	3,193,107	3,305,540	3,419,670	3,535,271	3,652,082	3,762,277	3,872,239	3,981,516	4,089,602	4,195,929
Asset Values													
- Market Value	2,242,546	2,340,441	2,440,756	2,542,691	2,652,151	2,769,394	2,892,331	3,017,508	3,144,734	3,273,752	3,403,553	3,533,729	3,663,864
- Actuarial Value	2,333,945	2,439,934	2,528,829	2,576,735	2,652,151	2,769,394	2,892,331	3,017,508	3,144,734	3,273,752	3,403,553	3,533,729	3,663,864
Funded Ratio (Actuarial Value Assets)	81.38%	82.04%	82.04%	80.70%	80.23%	80.98%	81.81%	82.62%	83.59%	84.54%	85.48%	86.41%	87.32%
Contribution Rates (% of Payroll)													
- Cities	25.68%	25.24%	26.66%	27.96%	28.49%	28.01%	27.55%	27.10%	26.49%	25.90%	25.34%	24.80%	24.28%
- Members	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%
- State	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
- Total	35.08%	34.64%	36.06%	37.36%	37.89%	37.41%	36.95%	36.50%	35.89%	35.30%	34.74%	34.20%	33.68%
Actual Cities Contribution Rate	25.92%	25.68%	25.24%	26.66%	27.96%	28.49%	28.01%	27.55%	27.10%	26.49%	25.90%	25.34%	24.80%

Assumptions and Data					
Interest Rate	7.5%	Non-Investment Expense Growth	4.0%	October 3, 2016	
Active Members		Census Data		SilverStone Group	
- Population Growth	0.2%	- As of July 1, 2016			
- Average Age	41.2	Asset Data			
- Average Service	13.8	- As of July 1, 2016			

Addendum 2

25-Year Projection

Forecast of Contribution Rates and Funded Status (Amounts in thousands)

Municipal Fire & Police Retirement System of Iowa

Forecast of Contribution Rates and Funded Status
(Amounts in Thousands)

Valuation Date	7/1/2029	7/1/2030	7/1/2031	7/1/2032	7/1/2033	7/1/2034	7/1/2035	7/1/2036	7/1/2037	7/1/2038	7/1/2039	7/1/2040	7/1/2041
Actual Prior Year													
Investment Return on Assets													
- Market Value	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
- Actuarial Value	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Covered Payroll	469,564	488,112	507,392	527,434	548,268	569,924	592,436	615,837	640,163	665,449	691,735	719,058	747,461
Current Entry Age Normal Method 25-Year Amortization Period of UAL Level Dollar, Closed Layered Amortization													
Actuarial Accrued Liability	4,299,864	4,400,700	4,497,652	4,589,846	4,676,315	4,755,989	4,827,684	4,890,095	4,941,784	4,981,166	5,006,500	5,015,872	5,017,198
Asset Values													
- Market Value	3,793,451	3,921,921	4,048,640	4,172,851	4,293,817	4,410,615	4,522,277	4,627,737	4,725,754	4,815,024	4,894,046	4,939,432	4,971,215
- Actuarial Value	3,793,451	3,921,921	4,048,640	4,172,851	4,293,817	4,410,615	4,522,277	4,627,737	4,725,754	4,815,024	4,894,046	4,939,432	4,971,215
Funded Ratio (Actuarial Value Assets)	88.22%	89.12%	90.02%	90.91%	91.82%	92.74%	93.67%	94.63%	95.63%	96.66%	97.75%	98.48%	99.08%
Contribution Rates (% of Payroll)													
- Cities	23.78%	23.29%	22.83%	22.38%	21.95%	21.54%	21.14%	20.76%	20.39%	17.00%	17.00%	17.00%	17.00%
- Members	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%
- State	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
- Total	33.18%	32.69%	32.23%	31.78%	31.35%	30.94%	30.54%	30.16%	29.79%	26.40%	26.40%	26.40%	26.40%
Actual Cities Contribution Rate	24.28%	23.78%	23.29%	22.83%	22.38%	21.95%	21.54%	21.14%	20.76%	20.39%	17.00%	17.00%	17.00%

Assumptions and Data				
Interest Rate	7.5%	Non-Investment Expense Growth	4.0%	October 3, 2016
Active Members		Census Data		SilverStone Group
- Population Growth	0.2%	- As of July 1, 2016		
- Average Age	41.2	Asset Data		
- Average Service	13.8	- As of July 1, 2016		

Addendum 3

Benefit & Contribution Changes 1976-2016

1976

Section 411.20 was added to the Code in 1976 providing for an appropriation from the State to be used to finance "the costs of benefits provided…" Those benefit enhancements were as follows:

- enhancement of service retirement benefit to equal 50% of average final compensation;
- enhancement of ordinary disability benefit to provide a benefit equal to 25% of average final compensation for a member with less than 5 years of service;
- enhancement of ordinary death benefit to extend that benefit (the member's accumulated contributions plus an amount equal to 50% of the final year's earnable compensation) to vested members; and,
- transfers between cities

1992

The 1992 legislation amended § 411.8(1)(f)(8) to provide that, beginning July 1, 1996, the members' contribution rate would be increased "as necessary to cover any increase in cost to the system resulting from statutory changes which are enacted by any session of the general assembly meeting after July 1, 1991, if the increase cannot be absorbed within the contribution rates otherwise established pursuant to this paragraph," subject to a maximum employee contribution rate of 11.3%. After the employee contribution reaches 11.3%, the cost of such statutory changes was to be split 60/40 between the members and the cities, with the cities paying 60% of the cost.

Year, beginning July	City Rate	Member Rate	Service Allowance for 22 Years
1992	Minimum of 17%	6.1%	56%
1993	Minimum of 17%	7.1%	58%
1994	Minimum of 17%	8.1%	60%
1995	Minimum of 17%	9.1%	60%

Addendum 3

Benefit & Contribution Changes 1976-2016

1994

The chapter was amended to eliminate provisions that discriminated based on age (e.g. higher contribution rates for members over age 55 and lack of additional credit for service past age 55). The member contribution rate was increased by .25% to cover the cost of eliminating age discrimination. This resulted in the following rates:

Year, beginning July	City Rate	Member Rate
1994	Minimum of 17%	July 1, 1994, to December 31, 1994: 8.1% January 1, 1995, to June 30, 1995: 8.35%
1995	Minimum of 17%	9.35%

As before, after the employee contribution reached 11.3%, the cost of such statutory changes was split 60/40 between the members and the cities.

1996

The escalation provisions of § 411.6(12) were amended to provide for a formula rather than escalating benefits based on salary increases for the applicable position in each retired member's department. There was no amendment to the contribution rates since the actuary determined the cost of the amendment could be absorbed within the existing rates in effect at that time.

Addendum 3

Benefit & Contribution Changes 1976-2016

1998

Section 411.6(4) was amended to provide for an ordinary disability pension equal to the greater of 50% of average final compensation or the amount the member would have received if the member had attained age 55, regardless of whether the member had 22 years of service.

Section 411.6(2) was amended to increase the service retirement allowance for years 23 – 30 from 0.6% of compensation to 1.5% of compensation, thus increasing the maximum benefit for 30 years of service from 64.8% of compensation to 72% of compensation.

There was no amendment to the contribution rates since the actuary determined the cost of the amendment could be absorbed within the existing rates in effect at that time.

2000

Section 411.6(2) was amended to increase the service retirement pension from 60% of compensation to 66% of compensation.

Section 411.6(2) was amended to increase the service retirement allowance for years 23 – 30 from 1.5% of compensation to 2% of compensation, thus increasing the maximum benefit for 30 years of service from 72% of compensation to 82% of compensation.

Section 411.6(15), the line of duty death benefit was added.

There was no amendment to the contribution rates since the actuary determined the cost of the amendment could be absorbed within the existing rates in effect at that time.

Addendum 3

Benefit & Contribution Changes 1976-2016

2006

Section 411.6C was added to provide for the DROP program.

The contribution rate was not increased since the DROP program was designed to be actuarially cost neutral. Section 411.6C(5) provides, however, that if the actuary determines in its annual valuation that the DROP has resulted in an increased actuarial cost to the retirement system, then the members' rate will be increased accordingly, notwithstanding any provision of § 411.8 to the contrary.

2009

Section 411.1 and § 411.6(5) were amended to provide a presumption of job-relatedness for certain cancers and infectious diseases. The member contribution rate was increased by .05% to cover the cost of the expanded presumption. This resulted in the following rates:

Year, beginning July	City Rate	Member Rate
2009	Minimum of 17%	9.40%

Addendum 4

Impact of Elimination of State Contributions

Actual impact on MFPRSI due to elimination of State contributions as of July 1, 2016

FISCAL YEAR	MFPRSI COVERED PAYROLL	PRIOR STATUTORY COMMITMENT 3.79 % OF COVERED PAYROLL	REVISED STATUTORY CONTRIBUTION FROM STATE	STATE SHORTFALL IN DOLLARS	STATE SHORTFALL IN PERCENTAGES	CITIES RATE FOR YEAR	IMPACT ON CITIES RATE	IMPACT ON CITIES PROPERTY TAXES	IMPACT ON PLAN	CONTRIBUTION IMPACT ON PLAN DOLLARS
1993	$115,334,259	$4,371,168	$2,942,726	$1,428,442	1.24%	17.00%	0.00%	$0	1.24%	$1,428,442
1994	$119,251,347	$4,519,626	$2,942,724	$1,576,902	1.32%	19.66%	1.32%	$1,576,902	0.00%	$0
1995	$123,826,722	$4,693,033	$2,942,724	$1,750,309	1.41%	18.71%	1.41%	$1,750,309	0.00%	$0
1996	$128,174,026	$4,857,796	$2,942,724	$1,915,072	1.49%	17.66%	0.66%	$845,949	0.83%	$1,069,123
1997	$134,721,583	$5,105,948	$2,942,724	$2,163,224	1.61%	17.00%	0.00%	$0	1.61%	$2,163,224
1998	$140,849,965	$5,338,214	$2,942,724	$2,395,490	1.70%	17.00%	0.00%	$0	1.70%	$2,395,490
1999	$147,031,641	$5,572,499	$2,942,724	$2,629,775	1.79%	17.00%	0.00%	$0	1.79%	$2,629,775
2000	$153,939,399	$5,834,303	$2,942,724	$2,891,579	1.88%	17.00%	0.00%	$0	1.88%	$2,891,579
2001	$164,623,840	$6,239,244	$2,942,724	$3,296,520	2.00%	17.00%	0.00%	$0	2.00%	$3,296,520
2002	$166,018,043	$6,292,084	$2,816,189	$3,475,895	2.09%	17.00%	0.00%	$0	2.09%	$3,475,895
2003	$173,140,899	$6,562,040	$2,816,189	$3,745,851	2.16%	17.00%	0.00%	$0	2.16%	$3,745,851
2004	$180,390,246	$6,836,790	$2,745,784	$4,091,006	2.27%	20.48%	2.27%	$4,091,006	0.00%	$0
2005	$186,919,429	$7,084,246	$2,745,784	$4,338,462	2.32%	24.92%	2.32%	$4,338,462	0.00%	$0
2006	$196,143,062	$7,433,822	$2,745,784	$4,688,038	2.39%	28.21%	2.39%	$4,688,038	0.00%	$0
2007	$206,385,084	$7,821,995	$2,745,784	$5,076,211	2.46%	27.75%	2.46%	$5,076,211	0.00%	$0
2008	$213,039,324	$8,074,190	$2,745,784	$5,328,406	2.50%	25.48%	2.50%	$5,328,406	0.00%	$0
2009	$223,752,299	$8,480,212	$2,704,597	$5,775,615	2.58%	18.75%	1.75%	$3,915,665	0.83%	$1,859,950
2010	$232,872,388	$8,825,864	$2,253,158	$6,572,706	2.82%	17.00%	0.00%	$0	2.82%	$6,572,706
2011	$242,481,190	$9,190,037	$1,500,000	$7,690,037	3.17%	19.90%	2.90%	$7,031,955	0.27%	$658,083
2012	$248,869,746	$9,432,163	$750,000	$8,682,163	3.49%	24.76%	3.49%	$8,682,163	0.00%	$0
2013	$258,518,051	$9,797,834	$0	$9,797,834	3.79%	26.12%	3.79%	$9,797,834	0.00%	$0
2014	$258,425,211	$9,794,315	$0	$9,794,315	3.79%	30.12%	3.79%	$9,794,315	0.00%	$0
2015	$266,265,413	$10,091,459	$0	$10,091,459	3.79%	30.41%	3.79%	$10,091,459	0.00%	$0
2016	$273,319,323	$10,358,802	$0	$10,358,802	3.79%	27.77%	3.79%	$10,358,802	0.00%	$0
TOTAL FISCAL YEARS TO DATE				**$119,554,114**				**$87,367,477**		**$32,186,637**
ACTUALS								**WITH EARNINGS OF PLAN**		**$86,373,328**

Notes: 1992 Legislation: State contribution changed from 3.79% to fixed dollar amount. 2010 Legislation: State contribution eliminated. Statutory contribution rates: Cities – 17.00% minimum; Members – 9.4% fixed.

Addendum 4

Impact of Elimination of State Contributions

Impact on MFPRSI of State eliminated contributions if cost is passed to cities due to non-availability of margin in the plan for the next 10 years as of July 1, 2016

FISCAL YEAR	MFPRSI COVERED PAYROLL	PRIOR STATUTORY COMMITMENT 3.79 % OF COVERED PAYROLL	REVISED STATUTORY CONTRIBUTION FROM STATE	STATE SHORTFALL IN DOLLARS	STATE SHORTFALL IN PERCENTAGES	CITIES RATE FOR YEAR	IMPACT ON CITIES RATE	IMPACT ON CITIES PROPERTY TAXES	IMPACT ON PLAN	CONTRIBUTION IMPACT ON PLAN DOLLARS
PROJECTED COST IMPACT TO CITIES AND PLAN FOR NEXT 10 YEARS										
2017	$283,639,887	$10,700,000	$0	$10,700,000	3.79%	25.92%	3.79%	$10,700,000	0.00%	$0
2018	$294,985,000	$11,200,000	$0	$11,200,000	3.79%	25.68%	3.79%	$11,200,000	0.00%	$0
2019	$306,637,000	$11,600,000	$0	$11,600,000	3.79%	25.24%	3.79%	$11,600,000	0.00%	$0
2020	$318,750,000	$12,100,000	$0	$12,100,000	3.79%	26.66%	3.79%	$12,100,000	0.00%	$0
2021	$331,340,000	$12,600,000	$0	$12,600,000	3.79%	27.96%	3.79%	$12,600,000	0.00%	$0
2022	$344,428,000	$13,100,000	$0	$13,100,000	3.79%	28.49%	3.79%	$13,100,000	0.00%	$0
2023	$358,033,000	$13,600,000	$0	$13,600,000	3.79%	28.01%	3.79%	$13,600,000	0.00%	$0
2024	$372,175,000	$14,100,000	$0	$14,100,000	3.79%	27.55%	3.79%	$14,100,000	0.00%	$0
2025	$386,876,000	$14,700,000	$0	$14,700,000	3.79%	27.10%	3.79%	$14,700,000	0.00%	$0
2026	$402,158,000	$15,200,000	$0	$15,200,000	3.79%	26.49%	3.79%	$15,200,000	0.00%	$0
TOTAL FUTURE FISCAL YEARS			**$0**	**$128,900,000**				**$128,900,000**		**$0**
PROJECTION	**FY 2017 - FY 2026**	**ESTIMATED**								

Notes: 1992 Legislation: State contribution changed from 3.79% to fixed dollar amount. 2010 Legislation: State contribution eliminated. Statutory contribution rates: Cities – 17.00% minimum; Members – 9.4% fixed.

Addendum 5

Funding Policy

The Board has adopted a funding policy that provides reasonable assurance that the cost of benefits provided to the members of MFPRSI under the provisions of Iowa Code Chapter 411 will be funded in an equitable and sustainable manner. It is the intention of the Board to follow a financing pattern that computes and requires contribution amounts which, expressed as percentages of active member payroll, will remain approximately level from year to year and from one generation of taxpayers to the next generation.

Chapter 411 requires the Board to undertake certain actions in order to ensure the proper funding of the retirement system. Section 411.5 directs the Board to have the actuary conduct an Experience Study every five years. This same section also requires that the Board certify an annual Actuarial Valuation report that includes the cities' contribution rates to be paid. As part of these reports, Section 411.8 indicates the Board is responsible for adopting the actuarial cost method to be used in the valuation as well as each of the demographic and economic assumptions necessary to produce valuation reports that most accurately reflect the actual experience of the plan and the actuary's expectations regarding future year experience.

Addendum 5

Funding Policy

In carrying out the funding requirements of Chapter 411 the Board has undertaken the following steps to ensure the sound actuarial condition of the Fund:

- The Entry Age Normal Actuarial Cost Method has been adopted to determine recommended contributions in the annual valuation reports. This method determines the normal cost of MFPRSI benefits which is expressed as a uniform percent of active member payroll. This percentage reflects the ongoing cost to provide the membership with service retirement benefits, disability benefits, survivor benefits, and administrative services.

- In addition to calculating the Normal Cost of the Plan in the annual actuarial valuation, the actuary must also calculate the Unfunded Accrued Liability (UAL) to be amortized. Currently, the Board has adopted a 25-year period during which the existing UAL is to be amortized. This 25-year amortization is calculated using a level dollar amount on a closed layered basis. The net effect of the Board's decision is that more money will be paid in to the Fund earlier to amortize the UAL in comparison to using the level percent of payroll method. Also, using the closed period means that the UAL will actually be paid off over 25 years. Finally, by layering any annual change in the UAL, we will avoid spikes in the amounts to be paid off at the end of each 25-year amortization period.

- Each annual actuarial valuation shall reflect the value of MFPRSI's assets as of June 30 and membership data as of July 1. The timing of the presentation of the report results to the Board will normally occur at the October Board meeting. Should changes in the report be required, the actuary will need to complete the revisions in time to present the report to the Board for final adoption at the November Board meeting.

- In adopting the annual actuarial valuation report, the Board certifies both the cities' and the members' contribution rates which are presented as a percentage of active member payroll. These rates are communicated to the participating cities and the membership as soon as practical after the Board meeting. In addition, the Board certifies the alternative actuarial valuation report which is created using the specifications included in Iowa Code Chapter 97D.5 and is provided to the General Assembly.

- Contribution rates that are certified from the actuarial valuation report are effective the following fiscal year beginning on July 1. The administration is responsible for ensuring the correct contribution rates have been used by the employers when reporting payroll results and that the amounts contributed are promptly deposited to the credit of the Fund.

Addendum 5

Funding Policy

Section 411.5(10) requires the Board to conduct an actuarial investigation at least once every five years into the various assumptions employed in MFPRSI's annual valuation reports. This investigation is otherwise known as the Analysis of System Experience. The purpose of this analysis is to compare the various actuarial assumptions adopted by the Board to the actual experience of the membership and identify the differences between them over a set period of time which has been determined to be 10 years. The actuarial assumptions to be analyzed are as follows:

1. Investment Return on Assets
2. Active Annual Salary Increases
3. Active Withdrawals
4. Active Ordinary Disability Retirements
5. Active Accidental Disability Retirements
6. Active Service Retirements
7. Active Ordinary Deaths
8. Active Accidental Deaths
9. Active DROP Participation
10. Active DROP Premature Withdrawals
11. Inactive Deaths for Service Retirements
12. Inactive Deaths for Beneficiaries
13. Inactive Deaths for Disability Retirements

Addendum 5

Funding Policy

Along with the actuary's expectations for future year experience, the Analysis of System Experience will serve as the basis for determination by the Board regarding whether or not demographic or economic assumptions should be modified for future valuation reports. The most recent 5-year study was performed in fiscal year 2013. The next study is scheduled to be performed in fiscal year 2018 unless the actuary determines that there is a need to review the assumptions sooner.

The Board has adopted a policy of asset smoothing in order to lessen the short-term impact of investment return volatility on the calculation of the cities' contribution rates and the retirement system's funded status. As part of the valuation report calculations, the actuary determines an actuarial value of assets. This amount deviates from the market value of assets by smoothing in gains and losses of the actual annual fiscal year investment return relative to the assumed rate of return which is presently 7.5%. The amounts that are greater or lesser than the assumed rate of return are smoothed in over a five-year period or 20% annually. At the end of the five years, the entire gain or loss is recognized in the computation of the actuarial value of assets. By using a method of smoothing investment gains and losses over five years, the variations of cities' contribution rates are minimized to assist the cities with the preparation of the annual budgeting process.

Addendum 5

Funding Policy

The success of the Board achieving the goal of this policy to fund the retirement system in an equitable and sustainable manner relies heavily on the performance of the Board's actuarial consultant. Therefore, the work of the actuary in connection with this policy shall conform to actuarial standards of practice for public employee retirement plans promulgated by the Actuarial Standards Board and shall satisfy the requirements of the Governmental Accounting Standards Board with respect to the development of information needed by MFPRSI and by the participating employers for financial reporting purposes.

In order to verify the standards of practice and the accuracy of the actuarial products provided to the retirement system, the Board may periodically contract with an actuarial firm, other than the retained actuary, to conduct an actuarial audit. The purpose of the audit and the resulting report is to provide the Board with an independent assessment of the quality of the work of the retained actuary with respect to both process and reasonableness of assumptions and recommendations.

The most recent actuarial audit was performed in Fiscal Year 2015 when the Board hired Gabriel, Roeder, Smith & Company to perform an actuarial audit of the processing and reporting produced by the retirement system's actuarial services provider, SilverStone Group. The audit took six months and included a full replication of the June 30, 2014, actuarial valuation. The results of Gabriel, Roeder, Smith & Company's review were that the valuation produced by SilverStone was an accurate reflection of MFPRSI's actuarial position and that they found no serious conditions in either SilverStone Group's processing or the Board's actuarial assumptions.

Addendum 6

Strategic Planning

The Board adopted the following Mission Statement:

The System 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.

The Board also adopted the following Vision Statement to further define and delineate its adopted Mission Statement:

Comprehensive:
Adequacy of retirement and disability benefits 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:
Managing the system and the investment portfolio in a timely, professional, cost effective and customer-oriented manner. Obtaining top quality management services 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:
Stable and secure retirement benefits and funding policy 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 system shall be economically and politically durable. Economically, the system should sustain progress toward 100% funded status while maintaining employer contributions on a consistent basis at 30% or less of covered payroll. Significant year-to-year variability in funding requirements should be avoided for both members and cities. Once full funded status is achieved, benefit or contribution changes should take into consideration necessary buffers against inevitable financial market downturns.

Addendum 6

Strategic Planning

In an effort to meet and exceed its objective, the Board created a strategic plan to define long-term missions, goals, and the means by which MFPRSI will measure its successes. Two goals, obtaining top quality management services for a cost that is mid-range for comparable retirement systems and achieving top-quartile investment returns for similarly sized plans, were investigated.

In performing its research MFPRSI compared the retirement plan's investment costs with all similarly sized public retirement systems in the U.S. This analysis proved that the amount of money MFPRSI pays to administer the investment portfolio is $215 per member and exactly at the median among 9 peers with comparable characteristics.

	Date	Active Members	Receiving Benefits	Total Members	Admin. Costs	Admin. Cost per Member
Median		12,360	6,331	19,778	$2,029,087	$215
MFPRSI	6/30/2015	3,892	3,935	7,827	$1,680,944	$215

Data set includes 9 U.S. public pension plans for public safety officers as of June 30, 2015.

Addendum 6

Strategic Planning

Meanwhile, the data compiled when comparing the returns of our investment portfolio with similarly sized retirement plans in the U.S. proved that our investment returns ranked in the top quartile across longer periods of time while ranking at the median for our 1-year return.

Asset Allocation

	Investment Managers	Public Equity	Fixed Income	Private Equity	Real Assets	Hedge Funds	Cash / Other
Median	28	51%	24%	8%	14%	5%	0%
MFPRSI	**27**	**55%**	**20%**	**15%**	**10%**	**0%**	**0%**

Investment Returns (Net of Fees)

	1 Year		3 Year		5 Year		10 Year		Total Fund Size (000)
	Return	Rank	Return	Rank	Return	Rank	Return	Rank	
Top Quartile	3.5%	5	11.2%	3.75	11.1%	4.75	7.0%	4	
Median Quartile	3.0%	7.5	10.9%	7	10.7%	7.5	6.6%	6.5	$2,300,000
Bottom Quartile	1.9%	11.3	10.0%	10.25	9.6%	12.3	6.0%	8.25	
MFPRSI	**3.1%**	**7**	**11.3%**	**3**	**11.2%**	**4**	**6.9%**	**5**	**$2,300,000**

Data set includes 20 similarly sized U.S. public pension plans as of June 30, 2015.