

***Report by the Board of Trustees of  
The Municipal Fire & Police Retirement System of Iowa to  
The Public Retirement Systems Committee  
November 19, 2009***

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## **INTRODUCTION**

The Board of Trustees of the Municipal Fire and Police Retirement System of Iowa (MFPRSI) respectfully submits the following report. The report is separated into eight sections.

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**I. ESTABLISHMENT, GOVERNANCE AND GOALS**

**Established:** January 1, 1992 (Act of 1990 General Assembly) – Iowa Code Chapter 411

**Governance:** Board of Trustees (9 members plus 4 legislative members) - staggered 4 year terms

Four representatives of the membership: two fire & two police representatives

- Judy Bradshaw, active police officer, DSM
- Marty Pottebaum, retired police officer, Sioux City
- June Anne Gaeta, active fire fighter, Muscatine
- Robert Hamilton, retired fire fighter, Sioux City

Four city representatives, representing the participating cities

- Jody E. Smith, West Des Moines
- Duane Pitcher, Ames
- Allen McKinley, Des Moines
- Cindy Kendall, Marshalltown

A private citizen

- Mary Bilden, Boone (CPA)

Two Senators from the Iowa Senate and two Representatives from the Iowa House.

- Senator Wally E. Horn, Cedar Rapids
- Senator Kim Reynolds, Osceola
- Representative Kerry Burt, Waterloo
- Representative Kent Sorenson, Indianola

**Legislative Goals:** Consistent Application of Statute, Reporting of Liabilities, Improve Financial Profile,  
Improve Portfolio Performance, Statutory Recommendations  
(See Exhibit One)

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**Exhibit 1**

**LEGISLATIVE GOALS**

- GOAL I.**      *Consistent Application of the Benefit Statute:*  
Result:      Programs and policies established and uniformly applied to the entire membership, including the establishment of extensive legal and judicial definitions for the plan.
- GOAL II.**      *Improve the Assessment and Reporting of Benefit Liabilities (Actuarial Valuation)*  
Result:      Actuarial assessments performed and reported annually to all parties. Periodic assessments conducted of actuarial assumptions and experience and adjustments made as warranted.
- GOAL III.**      *Strengthen the Financial Profile of the Benefit Plan*  
Result:      Funding status of the plan has fluctuated in response to investment market changes and benefit plan modifications. The plan is in a stronger financial position than the preceding eighty-seven plans.
- GOAL IV.**      *Improve the Performance on Portfolio Assets*  
Result:      Established a comprehensive investment program and systematically review and manage its activities. Performance has surpassed the actuarial assumed growth rate for most periods since inception.
- GOAL V.**      *Develop Statutory Recommendations*  
Result:      Various recommendations have been proposed to and adopted by the legislature, including:  
a) Technical changes, b) IRS Qualification, c) Escalator Program revision, d) VEBA concept,  
e) Disability Program Improvements.
-

## **II. RESPONSIBILITIES & MAJOR ACTIVITIES OF THE SYSTEM**

### ***Program Responsibilities:***

- 1) Collection of member and employer contributions,
- 2) Pre-retirement and refund counseling,
- 3) Administration of a permanent disability program,
- 4) Execution of a monthly benefit payroll,
- 5) Compliance with federal legal/tax requirements
- 6) Implementation of a diversified investment policy
- 7) Application of statutory provisions (including marital and dependent provisions)

### ***Major Program Activities:***

- 1) 1999 Review & Recommendations Concerning Disability Program
- 2) Systematic Investment Policy Revisions (asset – liability forecasting)
- 3) Annual Investment Policy Implementation and Oversight (scheduled meetings, quarterly updates)
- 4) Review and Evaluation of Goals
- 5) Examination of Actuarial Experience and Adjustment of Assumptions (Silverstone Group)
- 6) Legislative Changes (Technical advice and implementation)
- 7) Escalator Program (Annual retiree adjustment – July 2009, 3395 individuals, \$64.08 per month, 2.6%)
- 8) Federal Legislative Interest in Public Funds (Monitor and comment as warranted)
- 9) Litigation Representation (District, Appeal and Iowa Supreme Court)
- 10) Benefit & Contribution Analysis (Legislative Inquiries, Benefit Cost Analysis, DROP - April 1, 2007)
- 11) Federal PPA of 2006 (Retiree income tax exclusion, up to \$3000, for health insurance, - Sept. 2007)
- 12) Comprehensive Review of Audit Controls and Safeguards for System's Portfolios

### III. PROGRAM DESCRIPTION & STATISTICS

#### A. Membership Profile (Silverstone Group - Actuary).

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##### **Exhibit 2**                      **Membership Profile (July 1, 2009 Actuarial Report)**

###### Active Members:

|                                     |               |
|-------------------------------------|---------------|
| Number                              | 3886          |
| Average Age                         | 40.4          |
| Average Past Service                | 13.3          |
| Annual Participating Payroll: Total | \$232,872,388 |
| Annual Participating Payroll: Ave.  | \$59,926      |

###### Members & Beneficiaries in Pay Status:

|                         |               |
|-------------------------|---------------|
| Number                  | 3670          |
| Average Age             | 68.2          |
| Annual Benefit: Total   | \$107,798,784 |
| Annual Benefit: Average | \$29,373      |

###### Non-Active Members with Deferred Benefits:

|                                    |             |
|------------------------------------|-------------|
| Number                             | 315         |
| Average Age                        | 44.6        |
| Total Annual Benefits              | \$4,989,960 |
| Annual Participating Payroll: Ave. | \$15,841    |

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**III. PROGRAM DESCRIPTION & STATISTICS (Continued)**

**B. Benefit Program Description**

*Retirement Formulas (Iowa Code 411.6, effective July 1, 2000):*

|  |            |     |
|--|------------|-----|
| - Basic Service Retirement Formula (22 years of service):              | 66%        |     |
| - Additional Credit (for up to 8 years beyond 22 years – 2% per year): | <u>16%</u> |     |
| Maximum retirement formula with 30 or more years of service:           |            | 82% |
|  |            |     |
| - Basic Accidental Disability Retirement Formula (work-related)*:      | 60%        |     |
|  |            |     |
| - Basic Ordinary Disability Retirement Formula*:                       | 50%        |     |

\* An individual retiring on disability is entitled to either the disability formula or the percentage payable corresponding to the number of years of service that the individual has earned.

**C. Membership Cities: Police and Fire personnel of forty-nine Iowa 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    | Ft. Dodge         |
| Ft. Madison     | Grinnell    | Indianola*   | Iowa City | Keokuk       | Knoxville      | LeMars*      | Maquoketa* Marion |
| Marshalltown    | Mason City  | Muscatine    | Newton    | Oelwein      | Oskaloosa      | Ottumwa      | Pella*            |
| Sioux City      | Spencer     | Storm Lake   | Urbandale | Waterloo     | Waverly        | Webster City |                   |
| West Des Moines |             |              |           |              |                |              |                   |

\* denotes police department only

**III. PROGRAM DESCRIPTION AND STATISTICS (Continued)**

**D. Benefit Activity Since Creation of the System**

The following Table compares the level of benefit activity (service and disability retirements & refunds only) since the creation of the System in 1992 to the level of activity in the 87 local systems. Actual activities of the retirement System have been substantially higher due to statutory and judicially established requirements.

**Exhibit 3 Comparison of Rates of Benefit Activity**

|   | <i>Experience Prior To Consolidation<br/>(Jan. 1987 – December 1991 – 5 yrs.)</i> |                      | <i>Experience Since Consolidation<br/>(Jan. 1992 – June 2009 – 17.5 yrs.)</i> |                      |
|---|---|----------------------|---|----------------------|
|   | <i>#</i>  | <i>Avg. Per Year</i> | <i>#</i>  | <i>Avg. Per Year</i> |
| 1. <i>Service Retirements</i>                 | 223   | 44.6                 | 1176  | 67.20                |
| 2. <i>Disability Retirements(*)</i>           | 278   | 55.6                 | 743   | 42.46                |
| 3. <i>Refunds Paid</i>                        | <u>0</u>  | <u>0</u>             | <u>1089</u>   | <u>62.23</u>         |
| <i>Totals:</i>                                | 501   | 100.2                | 3008  | 171.89               |
| <i>Distribution of Disability Retirements</i> |   |                      |   |                      |
| a) <i>Accidental Disability (service)</i>     | 238   | 47.6                 | 612   | 34.97                |
| b) <i>Ordinary Disability (non-service)</i>   | <u>40</u>   | <u>8.0</u>           | <u>131</u>  | <u>7.49</u>          |
| <i>Totals:</i>                                | 278   | 55.6                 | 743   | 42.46                |

[NOTE: A review of the disability rate experienced by MFPRSI versus the rate at the 87 prior local systems shows that the rate is significantly lower under the statewide system. MFPRSI averages 13 fewer disabilities per year in comparison to the experience at the local systems, a total of 227 fewer disabilities since January 1992. The plan's liability cost is favorably impacted by this lower rate of disability.]

Exhibit Four provides a description of the System's total benefit activities.



**Exhibit 4**                      **Benefit Activity by Fiscal Years**

|                       | TYPE                       | 92-94      | 95-97      | 98-00      | 01-03      | 04-07       | 2008       | 2009       | Total       |
|-----------------------|----------------------------|------------|------------|------------|------------|-------------|------------|------------|-------------|
| MEMBERS               | Service Ret.               | 140        | 238        | 152        | 253        | 270         | 64         | 59         | 1176        |
|                       | Disability Ret.            |            |            |            |            |             |            |            |             |
|                       | Accid.                     | 72         | 114        | 107        | 126        | 132         | 29         | 32         | 612         |
|                       | Ordinary                   | 11         | 29         | 23         | 26         | 31          | 4          | 7          | 131         |
|                       | Denied                     | 10         | 18         | 11         | 6          | 15          | 1          | 3          | 64          |
|                       | Vested Into Pay Status     | 19         | 23         | 26         | 41         | 74          | 21         | 10         | 214         |
| BENEFICIARY           | Service Ret.               | 50         | 76         | 81         | 75         | 125         | 24         | 28         | 459         |
|                       | Disability Ret.            |            |            |            |            |             |            |            |             |
|                       | Accid.                     | 43         | 29         | 44         | 44         | 55          | 13         | 12         | 240         |
|                       | Ordinary                   | 8          | 9          | 7          | 10         | 7           | 3          | 3          | 47          |
|                       | Vested Into Pay Status     | 5          | 6          | 7          | 10         | 16          | 3          | 4          | 51          |
|                       | Accidental Death           | 3          | 4          | 6          | 3          | 5           | 0          | 0          | 21          |
|                       | Ordinary Death             | 4          | 5          | 7          | 4          | 7           | 1          | 3          | 31          |
|                       | Dependents                 | 29         | 14         | 21         | 19         | 35          | 4          | 2          | 124         |
|                       | Lump Sum                   | 2          | 2          | 2          | 4          | 6           | 0          | 2          | 18          |
|                       | Subtotal                   | 396        | 567        | 494        | 621        | 778         | 167        | 165        | 3188        |
| OTHER                 | Marital Property Orders    |            |            |            |            |             |            |            | 529         |
|                       | Child Support Ord.         |            |            |            |            |             |            |            | 60          |
|                       | IRS      Levies            |            |            |            |            |             |            |            | 14          |
|                       | Disability Re-examinations | 7          | 16         | 16         | 19         | 31          | 5          | 6          | 100         |
|                       | Refunds                    | 108        | 149        | 204        | 180        | 313         | 80         | 55         | 1089        |
| <b>TOTAL ACTIVITY</b> |                            | <b>511</b> | <b>732</b> | <b>715</b> | <b>820</b> | <b>1122</b> | <b>252</b> | <b>226</b> | <b>4980</b> |

**III. PROGRAM DESCRIPTION & STATISTICS (Continued)**

**E. Assets and Investments**

The transfer liability from the local systems to the System at the initial transition date of January 1, 1992 was \$574,500,000 million. This dollar amount constituted the beginning asset value of the retirement System. Each of the 49 cities transferred assets to meet the liabilities as of that date or pledged future assets to meet the un-funded portion.

As of June 30, 2009 the market value of the System's assets was \$1,434,583,769, a change of \$860,083,769. Investment performance of the System's portfolio since inception of the fund has been as follows:

**Exhibit 5 Investment Return Since Inception of Consolidated System (January 2, 1992 – June 30, 2009)  
(Annualized %)**

| Fiscal Year     | 09     | 08    | 07    | 06    | 05    | 04    | 03   | 02    | 01    | 00   | 3 Yrs. | 5 Yrs. | Inception |
|-----------------|--------|-------|-------|-------|-------|-------|------|-------|-------|------|--------|--------|-----------|
| Total Portfolio | -21.76 | -2.10 | 18.90 | 13.70 | 12.30 | 18.60 | 4.50 | -2.60 | -5.70 | 9.20 | -3.90  | 3.06   | 6.80      |

The retirement System's asset allocation policy is diversified as shown in Exhibit 6 and has a performance return objective of 9.12% with an annualized rate of inflation of 2.50% and a Standard Deviation of 10.97% (as of 2009). The actuarial assumed rate of return is set at 7.50% per annum.

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**Exhibit 6****MFPRSI Asset Allocation Policy**

| <b>Allocation Policy</b>                         | <b>Target Allocations</b> |                    |                  |
|--|---------------------------|--------------------|------------------|
| US Equity  |                           | <b>30.0%</b>       |                  |
| Non-US Equity                                    |                           | <b>20.0%</b>       |                  |
| Real Estate                                      |                           | <b>10.0%</b>       |                  |
| Alternative Equity                               |                           | <b>10.0%</b>       |                  |
| <b>Total Equity Oriented Investments</b>         |                           | <b>70.00%</b>      |                  |
| US Fixed Income                                  |                           | <b>10.0%</b>       |                  |
| Tactical Fixed Income                            |                           | <b>20.0%</b>       |                  |
| Cash   |                           | <b>0.0%</b>        |                  |
| <b>Total Debt Oriented Investments</b>           |                           | <b>30.00%</b>      |                  |
| <b>Implementation Policy Detail – Components</b> | <b>Core</b>               | <b>Alternative</b> | <b>Strategic</b> |
| U.S. Equity Target                               | <b>37.5%</b>              |                    | <b>37.5%</b>     |
| International Equity Target                      | <b>25.0%</b>              |                    | <b>25.0%</b>     |
| Real Estate Target                               |                           | <b>50.0%</b>       |                  |
| Alternative Equity Target                        |                           | <b>50.0%</b>       |                  |
| Component Equity Target                          | <b>62.5%</b>              | <b>100.0%</b>      | <b>62.5%</b>     |
| Fixed Income: Core                               | <b>12.5%</b>              |                    |                  |
| Fixed Income: Core Plus/Tactical                 | <b>12.5%</b>              |                    |                  |
| Tactical Fixed Income                            | <b>12.5%</b>              |                    |                  |
| Universal Fixed Income                           |                           |                    | <b>37.5%</b>     |
| Cash Target                                      | <b>0.0%</b>               |                    | <b>0.0%</b>      |
| Component Debt Target                            | <b>37.5%</b>              |                    | <b>37.5%</b>     |

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#### **IV. CHALLENGES FACING THE RETIREMENT SYSTEM**

##### **A. *Investment Return Expectations***

The Board of Trustees periodically conducts a review of the asset-liability profile for the plan including consideration of the asset allocation policy based upon long-term expectations for the equity and debt markets. As a result thereof, the plan's equity allocation target is established at 70.0%. This policy revision was developed in conjunction with the System's investment consultant.

##### **B. *Financial Status of the Plan***

- 1) The substantive decline in the various investment markets beginning in 2007 caused a substantial decline in the funded status of the plan.
- 2) In accordance with the governing statute, the contribution rate for the cities will be increased over time to meet the actuarial determined requirement.

##### **C. *Financial Support for the Benefit Plan (State's Contribution)***

The System continues to request restoration of the full State funding for the benefits committed to in 1977, a change from the fixed dollar amount of \$2,503,510 to a rate of 3.79% of earnable compensation, estimated at \$8.5 million for Fy10. Additionally, payment by the State of the amount absorbed (plus earnings) to the plan would restore over \$40 million to the plan's assets.

##### **D. *Veteran's Reemployment Rights***

Members of the retirement System have been called to active military duty. A federal law, the Uniformed Services Employment and Reemployment Rights Act of 1994 ("USERRA"), protects the reemployment rights of these individuals. Under USERRA and Iowa Code Chapter 411 the following requirements exist:

- 1) The member shall be restored to their prior position with full pay and benefits, adjusted as if they had not been called to active duty.
- 2) The member shall be granted membership service credit by the System for the period of military service.
- 3) Contributions shall be made by the employer to the retirement plan upon the return of the member to employment for the period of military service. The contributions shall be made without interest/earnings.

- 4) The member is exempt from making the member's contributions to the retirement plan for the period of military service. Therefore, the retirement System is absorbing an additional cost for each of the returning members. As of September 2009, 176+ members have been called to active duty, of that number 59 have been called more than once. It is estimated that the cost to the System is in excess of \$700,000 in reduced contributions. Final determination of the financial cost to the System must await their return to the positions with the local police and fire departments.

**E. *Implementation of Complex Programs***

The System has a number of program initiatives underway:

- 1) Regular review of the medical protocols and activities of the medical examination network.
- 2) Evaluation and modification of the investment program, including management of the activities of the investment firms currently managing the System's portfolios.
- 3) Development of legislative reports in response to Committee member requests .
- 4) Administration of the DROP program.
- 5) Implementation of changes to federal and state tax and regulatory requirements, including the PPA of 2006.
- 6) Ongoing review of the operational controls and audit processes of the investment portfolios, as managed by the investment firms (Discussed in Section V).

## V. SAFEGUARDING OF SYSTEM'S ASSETS

In consideration of fraud disclosures within the investment community, the administration of the retirement system in consultation with the Board of Trustees undertook the following steps pertaining to the portfolios of the retirement System.

1. **Telephonic Reviews:** Conducted telephonic reviews with each investment firm which manages System assets, for the purpose of discussing internal controls and procedures. The reviews addressed the following topics:
  - a) Brokerage activities of each firm relative to the System's portfolios,
  - b) Areas of potential fraud exposure at the firm,
  - c) Controls and procedures pertaining to the management and custody of System's assets,
  - d) Obtainment of SAS 70 or similar documentation of control and audit procedures,
  - e) The submission of responses to forthcoming written communication from the System.The initial reviews revealed no apparent audit or control issues and alerted the firms to the System's strong interest.  
Status: Completed - February 26 – 27, 2009
2. **Written Inquiries:** Transmitted questionnaire to each investment firm requesting a detailed response to questions concerning controls and procedures in-place at the firm.  
Status: Transmitted - February 27, 2009 All Responses Received – April 1 Responses Evaluated - April & May
3. **Internal Responsibilities:** Established additional procedures to strengthen the management oversight of the portfolios. Reassignment of internal responsibilities to further strengthen the audit functions of the System, including the compilation of a Controls and Audit Statement for each firm  
Status: Job responsibilities expanded for each Accountant/Investment Officer and Documentation Established

## V. SAFEGUARDING OF SYSTEM'S ASSETS (Continued)

4. **Consultant Review:** Reviewed the due diligence process utilized by the System's investment consultant (Summit Strategies of St. Louis, MO.) to identify and recommend investment managers for the System. Reviewed the consultant's ongoing monitoring processes for investment managers. Discussed modification of their processes in light of the current and future expectations within the institutional community.  
Status: Process initiated February 27, 2009 Report received from Summit Strategies – March 6, 2009  
Review: Completed May 2009
5. **Onsite Review of Investment Firms:** Performed an on-site examination of each investment firm to review the firm's controls and audit procedures, as follow-up to the firms' responses received under Steps 1 and 2.  
Status: Schedule initiated in June 2009 and completed in September 2009.  
The System did not identify any substantive areas of concern following the completion of the visits and the reviews of audit controls at the individual firms.
6. **Auditor Discussion:** Reviewed audit and control requirements with the System's auditor (Deloitte Touche), including a meeting with one of the firm's specialist on private portfolios. Reviewed guidance developed by the President's Working Group on Financial Markets which delineates best practices concepts (Summer 2009).  
Status: The System is incorporating any applicable concepts from this guidance into its review processes.
7. **Future Activities:** The System is incorporating additional review requirements in its ongoing periodic oversight of the investment firms which manage the portfolios.

**VI. RECOMMENDATIONS FOR STATUTORY CHANGES – TECHNICAL  
MFPRSI (CHAPTER 411)**

The Board of Trustees has developed recommendations for technical revision to the statute, which are identified below.

1. ***Definition of “surviving spouse”:*** The amendment makes clear that the term “surviving spouse” is not limited to situations in which the member was in active service at the time of death.
2. ***Pre-Existing Condition - Knowledge:*** This is a technical correction to conform the language of 411.6(3) regarding knowledge of a pre-existing condition to the comparable provision of 411.6(5), for disability applications.
3. ***Ordinary death benefit – election of pension in lieu of lump sum:*** The amendment clarifies that a surviving spouse may elect a pension in lieu of the death benefit otherwise payable whether he or she is the beneficiary based on the member’s designation or by default (due to operation of the statute).
4. ***Rollovers by non-spouse beneficiaries:*** The amendment is intended to comply with the non-spouse rollover mandate of federal law (the Worker, Retiree, and Employer Recovery Act of 2008). The Act requires retirement plans to offer non-spouse beneficiaries the option to roll over a distribution to an inherited IRA. Unlike a spouse, who may roll an eligible rollover distribution to an IRA in the spouse’s own name, a non-spouse beneficiary may only do a rollover (by a direct trustee-to-trustee transfer) to an “inherited” IRA in the name of the decedent.
5. ***Military service provisions:*** The amendment is intended to comply with the Heroes Act provisions relating to death while in military service and to differential pay. The Heroes Act requires qualified plans to provide that in the event a participant dies while performing qualified military service; the participant must be treated as if he or she was an active employee at the time of death. The participant’s survivors are thus entitled to any benefits that would otherwise have been provided if the participant had returned to employment prior to death. For the System, this means that the death would be treated as an active death.



**VII. ACTUARIAL PROFILE**

**ACTUARIAL INFORMATION**

The following information describes the actuarial status of the retirement plan as of July 1, 2009 as reported by the actuary for the System (Silverstone Group) and adopted by the Board of Trustees.

- 1) Actuarial Method “Aggregate Cost Method” Amortizes costs as a level percentage of pay over remaining careers of current members. The method does not separately calculate an actuarial accrued liability.

$$\begin{array}{l}
 \text{Contribution Rate Formula} = \\
 \text{Present Value of Projected Benefits} \\
 \text{less} \\
 \text{Actuarial Value of Assets} \\
 \text{less} \\
 \text{Present Value of Future Member Contributions}
 \end{array}
 \qquad
 \begin{array}{l}
 \text{Divided by} \\
 \text{Present Value} \\
 \text{of Future Pay}
 \end{array}$$

- 2) Contribution Rate Requirement (for July 1, 2009) will be implemented effective July 1, 2010.

|   |               |
|---|---------------|
| - Estimated Earnable Compensation                               | \$232,872,388 |
| - Estimated State’s Contribution (\$)                           | \$2,503,510   |
| - Estimated State’s Contribution (%) (1977 benefit legislation) | 1.08%         |
| - Member’s Contribution Rate (fixed by statute)                 | 9.40%         |
| - Actuarial Calculated Rate for Cities                          | 19.90%        |

- 3) In accordance with Iowa Code Chapter 411.8, the cities’ contribution rate is established annually, following the completion of the actuarial valuation, at the level required to fund the plan. Iowa Code Chapter 411 specifies the cities’ contribution rate shall not be below 17%.

**VII. ACTUARIAL PROFILE (Continued)**

**4) Valuations of Assets and Liabilities (as of July 1, 2009)**

|  |                 |
|--|-----------------|
| - Market Value of Total Assets:  | \$1,434,583,769 |
| - Actuarial Value of Assets:<br>(System utilizes five year rolling average to value assets for actuarial calculation.) | \$1,897,930,971 |
| - Present Value of all Accrued Benefits: (Aggregate Cost Method)   | \$2,000,030,545 |
| - Interest Rate Assumption:  | 7.5%            |

|               |  |
|---------------|--|
| Exhibit Seven | Provides the actuary's "Retirement System Liabilities & Contributions" – Aggregate Cost Method   |
| Exhibit Eight | Provides the actuary's "Retirement System Liabilities & Contributions" - Entry Age Normal Method |
| Exhibit Nine  | Provides a summary of the actuarial experience of the plan over the last several years.          |

**Exhibit 7: "Retirement System Liabilities & Contributions" – Aggregate Cost Method**

| <b>Aggregate Cost Method (As of July 1, 2009)</b>  | <b>\$</b>     | <b>Funded %</b> | <b>City Rate</b> |
|--|---------------|-----------------|------------------|
| 1. Plan Liability – Present Value of Projected Benefits  |               |                 |                  |
| Actives  | 1,368,206,273 |                 |                  |
| Inactives  | 1,285,841,542 |                 |                  |
| Total  | 2,654,047,815 |                 |                  |
| 2. Actuarial Value of Assets   | 1,897,930,971 |                 |                  |
| 3. PV of Future Member Contributions   | 233,969,851   |                 |                  |
| 4. PV of Unfunded Future Benefits = (1)-(2)-(3)  | 522,146,993   |                 |                  |
| 5. PV of Future Payroll  | 2,489,040,963 |                 |                  |
| 6. Total (Cities plus State) Contribution Rate = (4)/(5)   | 20.98%        |                 |                  |
| 7. State Contribution as a Percent of Pay  | 1.08%         |                 |                  |
| 8. Cities Contribution Rate Prior to 17% Statutory Minimum = (6)-(7)                                   |               |                 | 19.90%           |
| (Funded Ratio = (Market Value of Assets, \$1,434,583,769 divided by Accrued Benefits, \$2,000,030,545) |               | 72.00%          |                  |

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**Exhibit 8**                      **“Retirement System Liabilities & Contributions” – Entry Age Normal Method**

| <b>Entry Age Normal Method (As of July 1, 2009)</b>   | <b>\$</b>     | <b>Funded %</b> | <b>City Rate</b> |
|---|---------------|-----------------|------------------|
| 1. Plan Liability – Present Value of Projected Benefits                                     |               |                 |                  |
| Actives   | 930,803,663   |                 |                  |
| Inactives   | 1,285,841,542 |                 |                  |
| Total   | 2,216,645,205 |                 |                  |
| 2. Actuarial Value of Assets  | 1,897,930,971 |                 |                  |
| 3. Funded Ratio = (2)/(1)   |               | 85.62%          |                  |
| 4. Unfunded Accrued Liability = (1)-(2)   | 318,714,234   |                 |                  |
| 5. 30 Year Amortization of (4)  | 25,103,189    |                 |                  |
| 6. Normal Cost  | 41,769,011    |                 |                  |
| 7. Total (Cities plus State plus Members) Contribution = (5)+(6)                            | 66,872,200    |                 |                  |
| 8. Estimated Member Contributions   | 21,890,004    |                 |                  |
| 9. Estimated State Contribution   | 2,503,510     |                 |                  |
| 10. Cities Contribution = (7)-(8)-(9)   | 42,478,686    |                 |                  |
| 11. Cities Contribution Rate Prior to 17% Minimum = (10)/(Covered Payroll of \$232,872,388) |               |                 | 18.24%           |

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## Actuarial Valuation Highlights

| Valuation as of July 1 <sup>st</sup>   | 2001                  | 2002   | 2003   | 2004   | 2005                  | 2006                  | 2007                  | 2008   | 2009    |
|--|-----------------------|--------|--------|--------|-----------------------|-----------------------|-----------------------|--|---------|
| Funded Status – ratio of market value of assets to present value of accrued benefits | 91%                   | 82%    | 80%    | 88%    | 92%                   | 97%                   | 107%                  | 99%  | 72%     |
| Asset Return · Market Value  | -5.70%                | -2.80% | 5.20%  | 18.50% | 12.20%                | 13.70%                | 18.90%                | -2.1%  | -21.81% |
| Asset Return · Actuarial Value   | 5.90%                 | 2.10%  | 0.80%  | 3.10%  | 8.70%                 | 12.70%                | 15.80%                | 10.6%  | 2.75%   |
| Benefit Improvement Assumption/Method  | —                     | —      | —      | —      | —                     | —                     | —                     | —  | —       |
|  | Mortality Increment 1 | —      | —      | —      | Mortality Increment 1 | Mortality Increment 3 | Mortality Increment 1 | Mortality Salary Disability Retirement Asset Smoothing | —       |
| Annual Contribution  |                       |        |        |        |                       |                       |                       |  |         |
| Members Contribution   | 9.35%                 | 9.35%  | 9.35%  | 9.35%  | 9.35%                 | 9.35%                 | 9.35%                 | 9.35%  | 9.40%   |
| State Contribution   | 1.77%                 | 1.63%  | 1.56%  | 1.47%  | 1.40%                 | 1.33%                 | 1.29%                 | 1.23%  | 1.08%   |
| Cities Actuarial Rate of Contribution  | 16.74%                | 20.48% | 24.92% | 28.21% | 27.75%                | 25.48%                | 18.75%                | 16.49%   | 19.90%  |
| Total – Including Actuarial Rate for Cities  | 27.86%                | 31.46% | 35.83% | 39.03% | 38.50%                | 36.16%                | 29.39%                | 27.07%   | 30.38%  |
| Total – Including 17% Minimum for Cities   | 28.12%                | 31.46% | 35.83% | 39.03% | 38.50%                | 36.16%                | 29.39%                | 27.58%   | 30.38%  |

| <i>Valuation as of July 1st</i>   | 2001         | 2002         | 2003         | 2004          | 2005          | 2006          | 2007          | 2008         | 2009       |
|---|--------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|------------|
| <b>Increment in Actuarial Rate for Cities – increase (decrease) attributed to experience, benefit changes &amp; assumption changes.</b> |              |              |              |               |               |               |               |              |            |
| <i>Experience</i>   |              |              |              |               |               |               |               |              |            |
| - Asset Return  | 3.76%        | 4.49%        | 2.82%        | -0.74%        | -3.34%        | -5.76%        | -2.34%        | 3.57%        | N/A        |
| - Actuarial Factors   | -0.16%       | -0.12%       | 0.38%        | -0.36%        | -0.79%        | -1.10%        | -1.12%        | -0.30%       | N/A        |
| - State Contribution  | 0.14%        | 0.07%        | 0.09%        | 0.07%         | 0.07%         | 0.04%         | 0.06%         | 0.15%        | N/A        |
| Benefit Improvements  | —            | —            | —            | —             | —             | -0.53%        | —             | -0.01%       | N/A        |
| Assumption/Method Changes   | —            | —            | —            | 0.57%         | 1.79%         | 0.62%         | 1.14%         | —            | N/A        |
| <b>Net Change in Cities Actuarial Rate</b>  | <b>3.74%</b> | <b>4.44%</b> | <b>3.29%</b> | <b>-0.46%</b> | <b>-2.27%</b> | <b>-6.73%</b> | <b>-2.26%</b> | <b>3.41%</b> | <b>N/A</b> |

**VIII. RESPONSE TO LEGISLATIVE REQUEST FOR ADDITIONAL INFORMATION**

The following three subjects are addressed to assist the Public Retirement Systems Committee in its deliberation concerning the plan. Information provided is as of the July 1, 2009 actuarial valuation study. Responses are shown using the Aggregate Cost actuarial methodology and the Entry Age Normal actuarial methodology, per the legislative requirement.

**A. CURRENT AND PROJECTED FUNDING STATUS FOR THE PLAN, UNDER A VARIETY OF RETURN AND FINANCIAL PROFILES.**

1. Current Funded Status: Aggregate Cost: 72.0%                      Entry Age Normal: 85.6%
2. Projections under a Variety of Return & Financial Profiles (over 10 and 20 years):                      See Exhibit 10

Using three different assumptions for the annual return of the portfolio.

7.50% per year: Interest Rate Assumption used by the plan

10.00% per year: Best Case

3.75% per year: Worst Case

**EXHIBIT 10: ACTUARIAL FORECASTS (Pages 24a – 24j)**

**THREE TABLES**

|                 |                         |  |
|-----------------|-------------------------|--|
| <b>24 a - b</b> | <b>7.50% per year:</b>  | <b>Interest Rate Assumption used by the plan</b> |
| <b>24 c - d</b> | <b>10.00% per year:</b> | <b>Best Case</b>                                 |
| <b>24 e - g</b> | <b>3.75% per year:</b>  | <b>Worst Case</b>                                |

**THREE CHARTS**

|               |   |
|---------------|---|
| <b>24 - h</b> | <b>Contribution Projection: Aggregate Cost Method</b>   |
| <b>24 - i</b> | <b>Contribution Projection: Entry Age Normal Method</b> |
| <b>24 - j</b> | <b>Funding % Projection</b>                             |



## Municipal Fire Police Retirement System of Iowa

Various Investment Returns Impact on Contribution Rates

(Amounts in Thousands)

### EXHIBIT 10

**Nov-09**

**7.50% Assumption**

#### Valuation Date

Actual Prior Year Investment Return

- Market Value - Actuarial Value

Asset Values

- Market Value

- Actuarial Value

|                   | 7/1/2009  | 7/1/2010  | 7/1/2011  | 7/1/2012  | 7/1/2013  | 7/1/2014  | 7/1/2015  | 7/1/2016  | 7/1/2017  | 7/1/2018  | 7/1/2019  |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                   | N/A       | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     |
|                   | N/A       | 0.50%     | -0.10%    | -1.83%    | 0.61%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     |
| - Market Value    | 1,434,584 | 1,485,009 | 1,541,955 | 1,611,813 | 1,696,413 | 1,798,902 | 1,915,176 | 2,033,158 | 2,151,263 | 2,268,971 | 2,385,808 |
| - Actuarial Value | 1,897,931 | 1,852,089 | 1,797,725 | 1,721,088 | 1,696,413 | 1,798,902 | 1,915,176 | 2,033,158 | 2,151,263 | 2,268,971 | 2,385,808 |

#### Current Aggregate Method

Present Value of Future Benefits

Covered Payroll

Contribution Rates (% of Payroll)

- Cities

- Members

- State

- Total

|                                  |           |           |           |           |           |           |           |           |           |           |           |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Present Value of Future Benefits | 2,654,048 | 2,772,343 | 2,894,171 | 3,019,444 | 3,148,043 | 3,279,815 | 3,414,572 | 3,552,078 | 3,692,053 | 3,834,162 | 3,978,010 |
| Covered Payroll                  | 232,872   | 243,352   | 254,302   | 265,746   | 277,705   | 290,201   | 303,260   | 316,907   | 331,168   | 346,071   | 361,644   |
| - Cities                         | 19.90%    | 24.91%    | 29.92%    | 35.32%    | 38.55%    | 37.43%    | 35.98%    | 34.60%    | 33.32%    | 32.15%    | 31.06%    |
| - Members                        | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                          | 1.08%     | 1.03%     | 0.98%     | 0.94%     | 0.90%     | 0.86%     | 0.83%     | 0.79%     | 0.76%     | 0.72%     | 0.69%     |
| - Total                          | 30.38%    | 35.34%    | 40.30%    | 45.66%    | 48.85%    | 47.69%    | 46.21%    | 44.79%    | 43.48%    | 42.27%    | 41.15%    |

#### Alternate Entry Age Normal Method

Funded Status

- Actuarial Accrued Liability

- Actuarial Value Assets

- Unfunded Accrued Liability

- Funded Percentage

Contribution Rates (% of Payroll)

- Cities

- Members

- State

- Total

|                               |           |           |           |           |           |           |           |           |           |           |           |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| - Actuarial Accrued Liability | 2,216,645 | 2,317,535 | 2,421,221 | 2,527,578 | 2,636,450 | 2,747,642 | 2,860,922 | 2,976,009 | 3,092,574 | 3,210,228 | 3,328,521 |
| - Actuarial Value Assets      | 1,897,931 | 1,852,089 | 1,797,725 | 1,721,088 | 1,696,413 | 1,798,902 | 1,915,176 | 2,033,158 | 2,151,263 | 2,268,971 | 2,385,808 |
| - Unfunded Accrued Liability  | 318,714   | 465,446   | 623,496   | 806,490   | 940,037   | 948,740   | 945,746   | 942,851   | 941,311   | 941,257   | 942,713   |
| - Funded Percentage           | 85.62%    | 79.92%    | 74.25%    | 68.09%    | 64.34%    | 65.47%    | 66.94%    | 68.32%    | 69.56%    | 70.68%    | 71.68%    |
| - Cities                      | 18.24%    | 22.57%    | 26.86%    | 31.50%    | 34.30%    | 33.42%    | 32.27%    | 31.18%    | 30.17%    | 29.24%    | 28.38%    |
| - Members                     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                       | 1.08%     | 1.03%     | 0.98%     | 0.94%     | 0.90%     | 0.86%     | 0.83%     | 0.79%     | 0.76%     | 0.72%     | 0.69%     |
| - Total                       | 28.72%    | 33.00%    | 37.24%    | 41.84%    | 44.60%    | 43.68%    | 42.50%    | 41.37%    | 40.33%    | 39.36%    | 38.47%    |

Assumptions and Data

Interest Rate 7.5%

Asset and Census Data

- As of July 1, 2009

**Municipal Fire Police Retirement System of Iowa**  
 Various Investment Returns Impact on Contribution Rates  
 (Amounts in Thousands)

**EXHIBIT 10**

**7.50% Assumption**

**Valuation Date**

| Actual Prior Year Investment Return | 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  | 7/1/2029  |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| - Market Value - Actuarial Value    | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     |
| Asset Values                        | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     | 7.50%     |
| - Market Value                      | 2,501,293 | 2,614,792 | 2,725,603 | 2,832,960 | 2,935,928 | 3,033,524 | 3,124,618 | 3,208,016 | 3,282,252 | 3,345,703 |
| - Actuarial Value                   | 2,501,293 | 2,614,792 | 2,725,603 | 2,832,960 | 2,935,928 | 3,033,524 | 3,124,618 | 3,208,016 | 3,282,252 | 3,345,703 |

**Current Aggregate Method**

|                                   |           |           |           |           |           |           |           |           |           |           |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Present Value of Future Benefits  | 4,123,136 | 4,269,004 | 4,414,996 | 4,560,403 | 4,704,414 | 4,846,106 | 4,984,432 | 5,118,208 | 5,246,097 | 5,366,598 |
| Covered Payroll                   | 377,918   | 394,924   | 412,696   | 431,267   | 450,674   | 470,954   | 492,147   | 514,294   | 537,437   | 561,622   |
| Contribution Rates (% of Payroll) |           |           |           |           |           |           |           |           |           |           |
| - Cities                          | 30.05%    | 29.12%    | 28.25%    | 27.45%    | 26.71%    | 26.04%    | 25.41%    | 24.82%    | 24.28%    | 23.78%    |
| - Members                         | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                           | 0.66%     | 0.63%     | 0.61%     | 0.58%     | 0.56%     | 0.53%     | 0.51%     | 0.49%     | 0.47%     | 0.45%     |
| - Total                           | 40.11%    | 39.15%    | 38.26%    | 37.43%    | 36.67%    | 35.97%    | 35.32%    | 34.71%    | 34.15%    | 33.63%    |

**Alternate Entry Age Normal Method**

**Funded Status**

|                                   |           |           |           |           |           |           |           |           |           |           |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| - Actuarial Accrued Liability     | 3,446,933 | 3,564,863 | 3,681,627 | 3,796,442 | 3,908,420 | 4,016,554 | 4,119,710 | 4,216,608 | 4,305,810 | 4,385,704 |
| - Actuarial Value Assets          | 2,501,293 | 2,614,792 | 2,725,603 | 2,832,960 | 2,935,928 | 3,033,524 | 3,124,618 | 3,208,016 | 3,282,252 | 3,345,703 |
| - Unfunded Accrued Liability      | 945,640   | 950,071   | 956,024   | 963,482   | 972,492   | 983,030   | 995,092   | 1,008,592 | 1,023,558 | 1,040,001 |
| - Funded Percentage               | 72.57%    | 73.35%    | 74.03%    | 74.62%    | 75.12%    | 75.53%    | 75.85%    | 76.08%    | 76.23%    | 76.29%    |
| Contribution Rates (% of Payroll) |           |           |           |           |           |           |           |           |           |           |
| - Cities                          | 27.58%    | 26.85%    | 26.18%    | 25.55%    | 24.98%    | 24.45%    | 23.95%    | 23.50%    | 23.07%    | 22.68%    |
| - Members                         | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                           | 0.66%     | 0.63%     | 0.61%     | 0.58%     | 0.56%     | 0.53%     | 0.51%     | 0.49%     | 0.47%     | 0.45%     |
| - Total                           | 37.64%    | 36.88%    | 36.19%    | 35.53%    | 34.94%    | 34.38%    | 33.86%    | 33.39%    | 32.94%    | 32.53%    |

**Assumptions and Data**

Interest Rate 7.5%

Asset and Census Data

- As of July 1, 2009

**Municipal Fire Police Retirement System of Iowa**  
 Various Investment Returns Impact on Contribution Rates  
 (Amounts in Thousands)

**EXHIBIT 10**

**Nov-09**

**10.00% Assumption**

| Valuation Date                           | 7/1/2009  | 7/1/2010  | 7/1/2011  | 7/1/2012  | 7/1/2013  | 7/1/2014  | 7/1/2015  | 7/1/2016  | 7/1/2017  | 7/1/2018  | 7/1/2019  |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Actual Prior Year Investment Return      |           |           |           |           |           |           |           |           |           |           |           |
| - Market Value - Actuarial Value         | N/A       | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    |
| Asset Values                             | N/A       | 0.87%     | 0.83%     | -0.24%    | 2.87%     | 10.12%    | 10.09%    | 10.08%    | 10.08%    | 10.10%    | 10.11%    |
| - Market Value                           | 1,434,584 | 1,520,213 | 1,617,175 | 1,731,855 | 1,865,853 | 2,022,139 | 2,196,363 | 2,376,020 | 2,559,565 | 2,746,616 | 2,936,690 |
| - Actuarial Value                        | 1,897,931 | 1,859,130 | 1,821,922 | 1,772,709 | 1,785,648 | 1,935,958 | 2,103,278 | 2,275,228 | 2,450,514 | 2,628,957 | 2,810,207 |
| <b>Current Aggregate Method</b>          |           |           |           |           |           |           |           |           |           |           |           |
| Present Value of Future Benefits         | 2,654,048 | 2,772,343 | 2,894,171 | 3,019,444 | 3,148,043 | 3,279,815 | 3,414,572 | 3,552,078 | 3,692,053 | 3,834,162 | 3,978,010 |
| Covered Payroll                          | 232,872   | 243,352   | 254,302   | 265,746   | 277,705   | 290,201   | 303,260   | 316,907   | 331,168   | 346,071   | 361,644   |
| Contribution Rates (% of Payroll)        |           |           |           |           |           |           |           |           |           |           |           |
| - Cities                                 | 19.90%    | 24.64%    | 29.03%    | 33.51%    | 35.55%    | 33.02%    | 30.18%    | 27.47%    | 24.88%    | 22.43%    | 20.09%    |
| - Members                                | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                                  | 1.08%     | 1.03%     | 0.98%     | 0.94%     | 0.90%     | 0.86%     | 0.83%     | 0.79%     | 0.76%     | 0.72%     | 0.69%     |
| - Total                                  | 30.38%    | 35.07%    | 39.41%    | 43.85%    | 45.85%    | 43.28%    | 40.41%    | 37.66%    | 35.04%    | 32.55%    | 30.18%    |
| <b>Alternate Entry Age Normal Method</b> |           |           |           |           |           |           |           |           |           |           |           |
| Funded Status                            |           |           |           |           |           |           |           |           |           |           |           |
| - Actuarial Accrued Liability            | 2,216,645 | 2,317,535 | 2,421,221 | 2,527,578 | 2,636,450 | 2,747,642 | 2,860,922 | 2,976,009 | 3,092,574 | 3,210,228 | 3,328,521 |
| - Actuarial Value Assets                 | 1,897,931 | 1,859,130 | 1,821,922 | 1,772,709 | 1,785,648 | 1,935,958 | 2,103,278 | 2,275,228 | 2,450,514 | 2,628,957 | 2,810,207 |
| - Unfunded Accrued Liability             | 318,714   | 458,405   | 599,299   | 754,869   | 850,802   | 811,684   | 757,644   | 700,781   | 642,060   | 581,271   | 518,314   |
| - Funded Percentage                      | 85.62%    | 80.22%    | 75.25%    | 70.13%    | 67.73%    | 70.46%    | 73.52%    | 76.45%    | 79.24%    | 81.89%    | 84.43%    |
| Contribution Rates (% of Payroll)        |           |           |           |           |           |           |           |           |           |           |           |
| - Cities                                 | 18.24%    | 22.34%    | 26.11%    | 29.97%    | 31.77%    | 29.70%    | 27.39%    | 25.16%    | 23.05%    | 21.04%    | 19.13%    |
| - Members                                | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                                  | 1.08%     | 1.03%     | 0.98%     | 0.94%     | 0.90%     | 0.86%     | 0.83%     | 0.79%     | 0.76%     | 0.72%     | 0.69%     |
| - Total                                  | 28.72%    | 32.77%    | 36.49%    | 40.31%    | 42.07%    | 39.96%    | 37.62%    | 35.35%    | 33.21%    | 31.16%    | 29.22%    |

Assumptions and Data  
 Interest Rate 7.5%  
 Asset and Census Data  
 - As of July 1, 2009

**Municipal Fire Police Retirement System of Iowa**

Various Investment Returns Impact on Contribution Rates

(Amounts in Thousands)

**EXHIBIT 10**

**10.00% Assumption**

| Valuation Date                                | 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  | 7/1/2029  |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Actual Prior Year Investment Return           | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    | 10.00%    |
| - Market Value - Actuarial Value Asset Values | 10.13%    | 10.15%    | 10.17%    | 10.18%    | 10.20%    | 10.20%    | 10.21%    | 10.21%    | 10.21%    | 10.22%    |
| - Market Value                                | 3,129,308 | 3,323,803 | 3,519,450 | 3,720,749 | 3,931,168 | 4,150,875 | 4,380,003 | 4,618,649 | 4,866,862 | 5,124,638 |
| - Actuarial Value                             | 2,993,842 | 3,179,222 | 3,365,652 | 3,557,614 | 3,758,484 | 3,968,322 | 4,187,186 | 4,415,131 | 4,652,191 | 4,898,361 |

**Current Aggregate Method**

|                                   |           |           |           |           |           |           |           |           |           |           |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Present Value of Future Benefits  | 4,123,136 | 4,269,004 | 4,414,996 | 4,560,403 | 4,704,414 | 4,846,106 | 4,984,432 | 5,118,208 | 5,246,097 | 5,366,598 |
| Covered Payroll                   | 377,918   | 394,924   | 412,696   | 431,267   | 450,674   | 470,954   | 492,147   | 514,294   | 537,437   | 561,622   |
| Contribution Rates (% of Payroll) |           |           |           |           |           |           |           |           |           |           |
| - Cities                          | 17.87%    | 17.00%    | 17.00%    | 17.00%    | 17.00%    | 17.00%    | 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%     |
| - State                           | 0.66%     | 0.63%     | 0.61%     | 0.58%     | 0.56%     | 0.53%     | 0.51%     | 0.49%     | 0.47%     | 0.45%     |
| - Total                           | 27.93%    | 27.03%    | 27.01%    | 26.98%    | 26.96%    | 26.93%    | 26.91%    | 26.89%    | 26.87%    | 26.85%    |

**Alternate Entry Age Normal Method**

|                                   |           |           |           |           |           |           |           |           |           |           |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Funded Status                     |           |           |           |           |           |           |           |           |           |           |
| - Actuarial Accrued Liability     | 3,446,933 | 3,564,863 | 3,681,627 | 3,796,442 | 3,908,420 | 4,016,554 | 4,119,710 | 4,216,608 | 4,305,810 | 4,385,704 |
| - Actuarial Value Assets          | 2,993,842 | 3,179,222 | 3,365,652 | 3,557,614 | 3,758,484 | 3,968,322 | 4,187,186 | 4,415,131 | 4,652,191 | 4,898,361 |
| - Unfunded Accrued Liability      | 453,091   | 385,641   | 315,975   | 238,828   | 149,936   | 48,232    | (67,476)  | (198,523) | (346,381) | (512,657) |
| - Funded Percentage               | 86.86%    | 89.18%    | 91.42%    | 93.71%    | 96.16%    | 98.80%    | 101.64%   | 104.71%   | 108.04%   | 111.69%   |
| Contribution Rates (% of Payroll) |           |           |           |           |           |           |           |           |           |           |
| - Cities                          | 17.32%    | 17.00%    | 17.00%    | 17.00%    | 17.00%    | 17.00%    | 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%     |
| - State                           | 0.66%     | 0.63%     | 0.61%     | 0.58%     | 0.56%     | 0.53%     | 0.51%     | 0.49%     | 0.47%     | 0.45%     |
| - Total                           | 27.38%    | 27.03%    | 27.01%    | 26.98%    | 26.96%    | 26.93%    | 26.91%    | 26.89%    | 26.87%    | 26.85%    |

**Assumptions and Data**

Interest Rate 7.5%

Asset and Census Data

- As of July 1, 2009

**Municipal Fire Police Retirement System of Iowa**  
 Various Investment Returns Impact on Contribution Rates  
 (Amounts in Thousands)

**EXHIBIT 10**

**Nov-09**

**3.75% Assumption**

| Valuation Date                        | 7/1/2009  | 7/1/2010  | 7/1/2011  | 7/1/2012  | 7/1/2013  | 7/1/2014  | 7/1/2015  | 7/1/2016  | 7/1/2017  | 7/1/2018  |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Actual Prior Year Investment Return - |           |           |           |           |           |           |           |           |           |           |
| Market Value - Actuarial Value        |           |           |           |           |           |           |           |           |           |           |
| Asset Values                          | N/A       | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     |
|                                       | N/A       | -0.07%    | -1.48%    | -4.16%    | -2.74%    | 3.58%     | 3.64%     | 3.68%     | 3.71%     | 3.71%     |
| - Market Value                        | 1,434,584 | 1,432,218 | 1,432,455 | 1,442,251 | 1,464,206 | 1,502,218 | 1,552,769 | 1,604,605 | 1,656,114 | 1,706,788 |
| - Actuarial Value                     | 1,897,931 | 1,841,531 | 1,762,099 | 1,646,636 | 1,570,430 | 1,609,730 | 1,662,506 | 1,717,378 | 1,772,410 | 1,826,810 |

**Current Aggregate Method**

|                                   |           |           |           |           |           |           |           |           |           |           |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Present Value of Future Benefits  | 2,654,048 | 2,772,343 | 2,894,171 | 3,019,444 | 3,148,043 | 3,279,815 | 3,414,572 | 3,552,078 | 3,692,053 | 3,834,162 |
| Covered Payroll                   | 232,872   | 243,352   | 254,302   | 265,746   | 277,705   | 290,201   | 303,260   | 316,907   | 331,168   | 346,071   |
| Contribution Rates (% of Payroll) |           |           |           |           |           |           |           |           |           |           |
| - Cities                          | 19.90%    | 25.32%    | 31.22%    | 37.94%    | 42.79%    | 43.52%    | 43.76%    | 43.92%    | 44.01%    | 44.09%    |
| - Members                         | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                           | 1.08%     | 1.03%     | 0.98%     | 0.94%     | 0.90%     | 0.86%     | 0.83%     | 0.79%     | 0.76%     | 0.72%     |
| - Total                           | 30.38%    | 35.75%    | 41.60%    | 48.28%    | 53.09%    | 53.78%    | 53.99%    | 54.11%    | 54.17%    | 54.21%    |

**Alternate Entry Age Normal Method**

**Funded Status**

|                               |           |           |           |           |           |           |           |           |           |           |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| - Actuarial Accrued Liability | 2,216,645 | 2,317,535 | 2,421,221 | 2,527,578 | 2,636,450 | 2,747,642 | 2,860,922 | 2,976,009 | 3,092,574 | 3,210,228 |
| - Actuarial Value Assets      | 1,897,931 | 1,841,531 | 1,762,099 | 1,646,636 | 1,570,430 | 1,609,730 | 1,662,506 | 1,717,378 | 1,772,410 | 1,826,810 |
| - Unfunded Accrued Liability  | 318,714   | 476,004   | 659,122   | 880,942   | 1,066,020 | 1,137,912 | 1,198,416 | 1,258,631 | 1,320,164 | 1,383,418 |
| - Funded Percentage           | 85.62%    | 79.46%    | 72.78%    | 65.15%    | 59.57%    | 58.59%    | 58.11%    | 57.71%    | 57.31%    | 56.91%    |

**Contribution Rates (% of Payroll)**

|           |        |        |        |        |        |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| - Cities  | 18.24% | 22.91% | 27.97% | 33.70% | 37.87% | 38.56% | 38.84% | 39.03% | 39.18% | 39.30% |
| - Members | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  |
| - State   | 1.08%  | 1.03%  | 0.98%  | 0.94%  | 0.90%  | 0.86%  | 0.83%  | 0.79%  | 0.76%  | 0.72%  |
| - Total   | 28.72% | 33.34% | 38.35% | 44.04% | 48.17% | 48.82% | 49.07% | 49.22% | 49.34% | 49.42% |

**Assumptions and Data**

|                       |           |           |           |           |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Interest Rate 7.5%    | 2,749,149 | 2,871,683 | 2,997,876 | 3,127,638 | 3,260,845 | 3,397,339 | 3,536,924 | 3,679,358 | 3,824,348 |
| Asset and Census Data |           |           |           |           |           |           |           |           |           |
| - As of July 1, 2009  |           |           |           |           |           |           |           |           |           |

**Municipal Fire Police Retirement System of Iowa**  
 Various Investment Returns Impact on Contribution Rates  
 (Amounts in Thousands)

**EXHIBIT 10**

**3.75% Assumption**

| Valuation Date                           | 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 -    |           |           |           |           |           |           |           |           |           |           |
| Market Value - Actuarial Value           |           |           |           |           |           |           |           |           |           |           |
| Asset Values                             | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     | 3.75%     |
|  | 3.71%     | 3.70%     | 3.69%     | 3.67%     | 3.66%     | 3.64%     | 3.62%     | 3.61%     | 3.58%     | 3.56%     |
| - Market Value                           | 1,756,077 | 1,803,579 | 1,848,730 | 1,890,979 | 1,929,716 | 1,964,173 | 1,993,590 | 2,017,030 | 2,033,557 | 2,042,084 |
| - Actuarial Value                        | 1,879,839 | 1,931,006 | 1,979,706 | 2,025,350 | 2,067,287 | 2,104,706 | 2,136,795 | 2,162,562 | 2,181,007 | 2,190,977 |
| <b>Current Aggregate Method</b>          |           |           |           |           |           |           |           |           |           |           |
| Present Value of Future Benefits         | 3,978,010 | 4,123,136 | 4,269,004 | 4,414,996 | 4,560,403 | 4,704,414 | 4,846,106 | 4,984,432 | 5,118,208 | 5,246,097 |
| Covered Payroll                          | 361,644   | 377,918   | 394,924   | 412,696   | 431,267   | 450,674   | 470,954   | 492,147   | 514,294   | 537,437   |
| Contribution Rates (% of Payroll)        |           |           |           |           |           |           |           |           |           |           |
| - Cities                                 | 44.13%    | 44.15%    | 44.15%    | 44.11%    | 44.05%    | 43.95%    | 43.83%    | 43.68%    | 43.49%    | 43.26%    |
| - Members                                | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                                  | 0.69%     | 0.66%     | 0.63%     | 0.61%     | 0.58%     | 0.56%     | 0.53%     | 0.51%     | 0.49%     | 0.47%     |
| - Total                                  | 54.22%    | 54.21%    | 54.18%    | 54.12%    | 54.03%    | 53.91%    | 53.76%    | 53.59%    | 53.38%    | 53.13%    |
| <b>Alternate Entry Age Normal Method</b> |           |           |           |           |           |           |           |           |           |           |
| <b>Funded Status</b>                     |           |           |           |           |           |           |           |           |           |           |
| - Actuarial Accrued Liability            | 3,328,521 | 3,446,933 | 3,564,863 | 3,681,627 | 3,796,442 | 3,908,420 | 4,016,554 | 4,119,710 | 4,216,608 | 4,305,810 |
| - Actuarial Value Assets                 | 1,879,839 | 1,931,006 | 1,979,706 | 2,025,350 | 2,067,287 | 2,104,706 | 2,136,795 | 2,162,562 | 2,181,007 | 2,190,977 |
| - Unfunded Accrued Liability             | 1,448,682 | 1,515,927 | 1,585,157 | 1,656,277 | 1,729,155 | 1,803,714 | 1,879,759 | 1,957,148 | 2,035,601 | 2,114,833 |
| - Funded Percentage                      | 56.48%    | 56.02%    | 55.53%    | 55.01%    | 54.45%    | 53.85%    | 53.20%    | 52.49%    | 51.72%    | 50.88%    |
| Contribution Rates (% of Payroll)        |           |           |           |           |           |           |           |           |           |           |
| - Cities                                 | 39.40%    | 39.47%    | 39.52%    | 39.54%    | 39.54%    | 39.50%    | 39.44%    | 39.35%    | 39.22%    | 39.06%    |
| - Members                                | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     | 9.40%     |
| - State                                  | 0.69%     | 0.66%     | 0.63%     | 0.61%     | 0.58%     | 0.56%     | 0.53%     | 0.51%     | 0.49%     | 0.47%     |
| - Total                                  | 49.49%    | 49.53%    | 49.55%    | 49.55%    | 49.52%    | 49.46%    | 49.37%    | 49.26%    | 49.11%    | 48.93%    |
| <b>Assumptions and Data</b>              |           |           |           |           |           |           |           |           |           |           |
| Interest Rate 7.5%                       | 3,971,549 | 4,120,552 | 4,270,878 | 4,421,973 | 4,573,196 | 4,723,813 | 4,872,985 | 5,019,754 | 5,163,036 | 5,301,606 |
| Asset and Census Data                    |           |           |           |           |           |           |           |           |           |           |
| - As of July 1, 2009                     |           |           |           |           |           |           |           |           |           |           |

**Municipal Fire Police Retirement System of Iowa**  
 Various Investment Returns Impact on Contribution Rates  
 (Amounts in Thousands)

**EXHIBIT 10**

|                                       |                 |
|---------------------------------------|-----------------|
| Valuation Date                        | <u>7/1/2029</u> |
| Actual Prior Year Investment Return - |                 |
| Market Value - Actuarial Value        |                 |
| Asset Values                          | <u>3.75%</u>    |
|                                       | 3.53%           |
| <br>                                  |                 |
| - Market Value                        | 2,041,362       |
| - Actuarial Value                     | 2,191,144       |

**Current Aggregate Method**

|                                   |           |
|-----------------------------------|-----------|
| Present Value of Future Benefits  | 5,366,598 |
| Covered Payroll                   | 561,622   |
| Contribution Rates (% of Payroll) |           |
| - Cities                          | 42.99%    |
| - Members                         | 9.40%     |
| - State                           | 0.45%     |
| - Total                           | 52.84%    |

**Alternate Entry Age Normal Method**

|                                   |           |
|-----------------------------------|-----------|
| Funded Status                     |           |
| - Actuarial Accrued Liability     | 4,385,704 |
| - Actuarial Value Assets          | 2,191,144 |
| - Unfunded Accrued Liability      | 2,194,560 |
| - Funded Percentage               | 49.96%    |
| Contribution Rates (% of Payroll) |           |
| - Cities                          | 38.87%    |
| - Members                         | 9.40%     |
| - State                           | 0.45%     |
| - Total                           | 48.72%    |

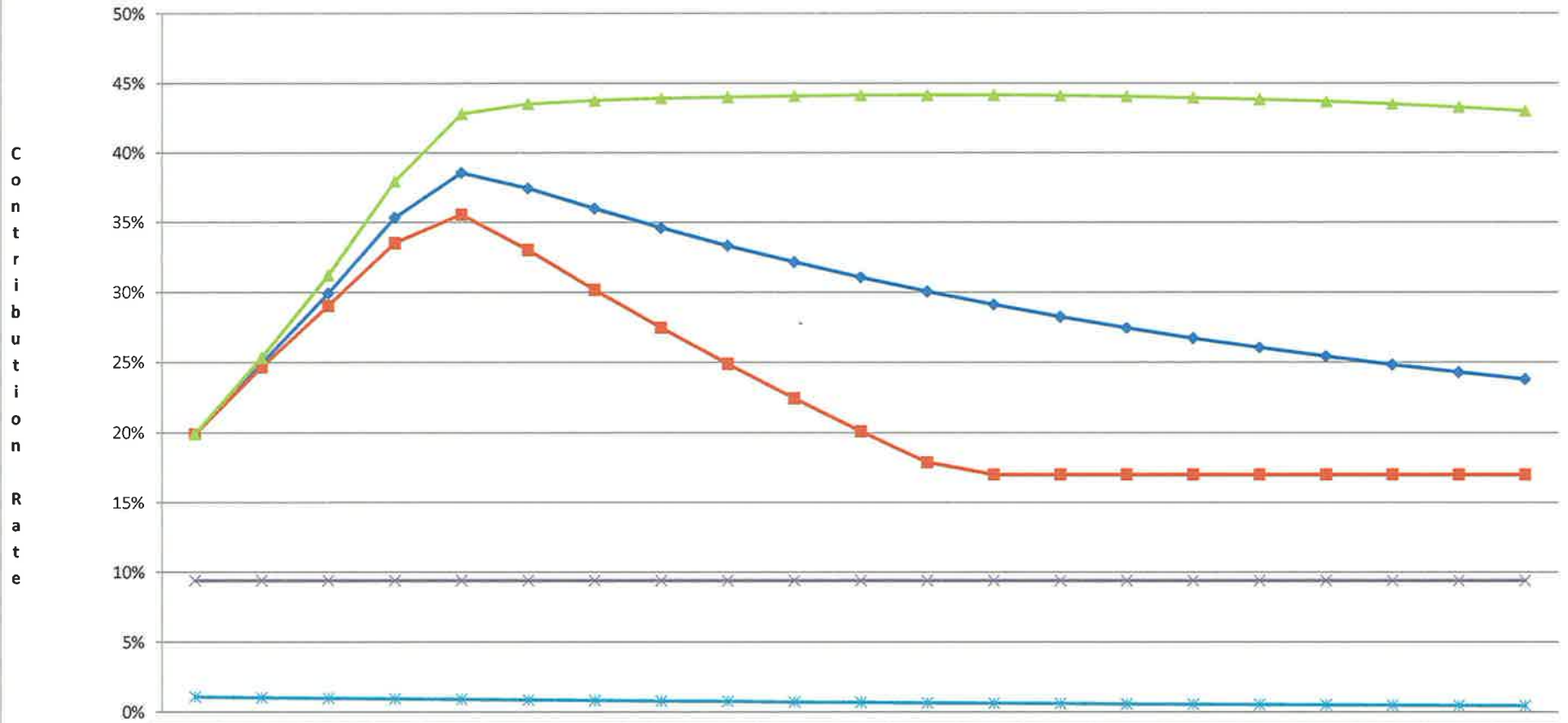
**Assumptions and Data**

Interest Rate 7.5% 5,434,078

Asset and Census Data

- As of July 1, 2009

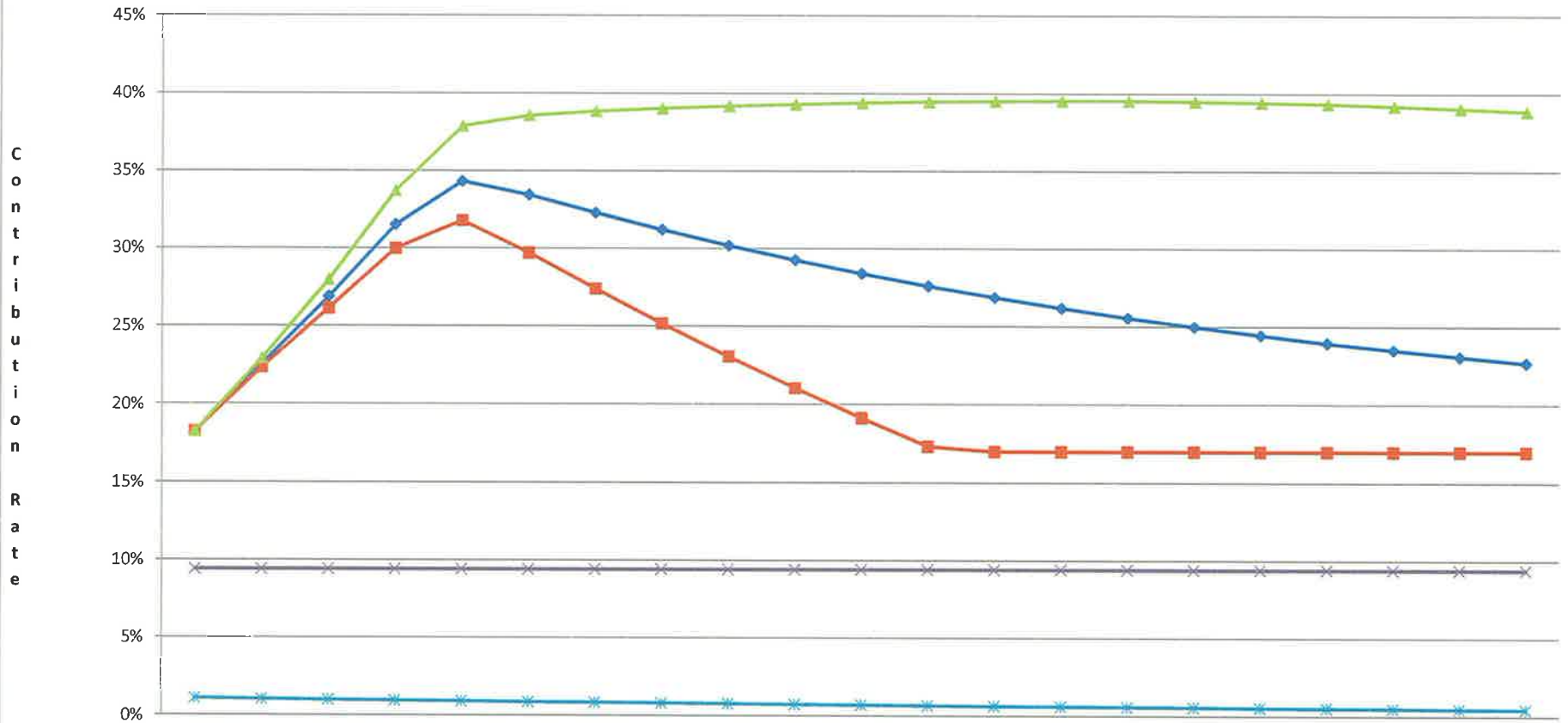
**Projected Contribution Rates Based On Annualized Investment Return Assumptions  
(Aggregate Method)**



|                 | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   | 2025   | 2026   | 2027   | 2028   | 2029   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| ◆ City w/7.50%  | 19.90% | 24.91% | 29.92% | 35.32% | 38.55% | 37.43% | 35.98% | 34.60% | 33.32% | 32.15% | 31.06% | 30.05% | 29.12% | 28.25% | 27.45% | 26.71% | 26.04% | 25.41% | 24.82% | 24.28% | 23.78% |
| ■ City w/10.00% | 19.90% | 24.64% | 29.03% | 33.51% | 35.55% | 33.02% | 30.18% | 27.47% | 24.88% | 22.43% | 20.09% | 17.87% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% |
| ▲ City w/3.75%  | 19.90% | 25.32% | 31.22% | 37.94% | 42.79% | 43.52% | 43.76% | 43.92% | 44.01% | 44.09% | 44.13% | 44.15% | 44.15% | 44.11% | 44.05% | 43.95% | 43.83% | 43.68% | 43.49% | 43.26% | 42.99% |
| × Member        | 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%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  |
| * State         | 1.08%  | 1.03%  | 0.98%  | 0.94%  | 0.90%  | 0.86%  | 0.83%  | 0.79%  | 0.76%  | 0.72%  | 0.69%  | 0.66%  | 0.63%  | 0.61%  | 0.58%  | 0.56%  | 0.53%  | 0.51%  | 0.49%  | 0.47%  | 0.45%  |

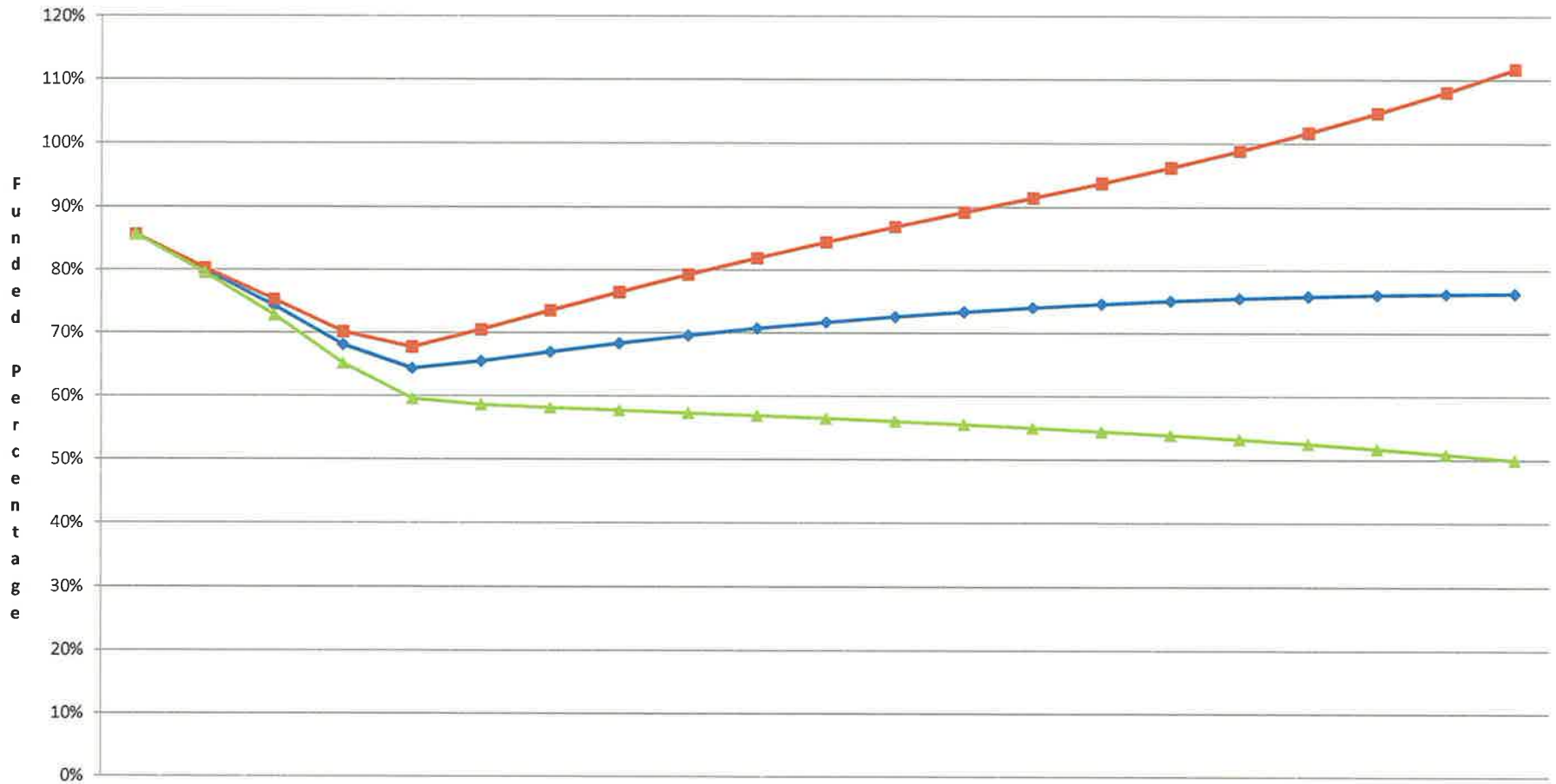


**Projected Contribution Rates Based On Annualized Investment Return Assumptions  
(Entry Age Normal)**



|                 | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   | 2025   | 2026   | 2027   | 2028   | 2029   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| ◆ City w/7.50%  | 18.24% | 22.57% | 26.86% | 31.50% | 34.30% | 33.42% | 32.27% | 31.18% | 30.17% | 29.24% | 28.38% | 27.58% | 26.85% | 26.18% | 25.55% | 24.98% | 24.45% | 23.95% | 23.50% | 23.07% | 22.68% |
| ■ City w/10.00% | 18.24% | 22.34% | 26.11% | 29.97% | 31.77% | 29.70% | 27.39% | 25.16% | 23.05% | 21.04% | 19.13% | 17.32% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% | 17.00% |
| ▲ City w/3.75%  | 18.24% | 22.91% | 27.97% | 33.70% | 37.87% | 38.56% | 38.84% | 39.03% | 39.18% | 39.30% | 39.40% | 39.47% | 39.52% | 39.54% | 39.54% | 39.50% | 39.44% | 39.35% | 39.22% | 39.06% | 38.87% |
| × Member        | 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%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  | 9.40%  |
| * State         | 1.08%  | 1.03%  | 0.98%  | 0.94%  | 0.90%  | 0.86%  | 0.83%  | 0.79%  | 0.76%  | 0.72%  | 0.69%  | 0.66%  | 0.63%  | 0.61%  | 0.58%  | 0.56%  | 0.53%  | 0.51%  | 0.49%  | 0.47%  | 0.45%  |

**Projected Funded Percentage Based On Annualized Investment Return Assumptions  
(Entry Age Normal Method)**



|          | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   | 2025   | 2026    | 2027    | 2028    | 2029    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| ◆ 7.50%  | 85.62% | 79.92% | 74.25% | 68.09% | 64.34% | 65.47% | 66.94% | 68.32% | 69.56% | 70.68% | 71.68% | 72.57% | 73.35% | 74.03% | 74.62% | 75.12% | 75.53% | 75.85%  | 76.08%  | 76.23%  | 76.29%  |
| ■ 10.00% | 85.62% | 80.22% | 75.25% | 70.13% | 67.73% | 70.46% | 73.52% | 76.45% | 79.24% | 81.89% | 84.43% | 86.86% | 89.18% | 91.42% | 93.71% | 96.16% | 98.80% | 101.64% | 104.71% | 108.04% | 111.69% |
| ▲ 3.75%  | 85.62% | 79.46% | 72.78% | 65.15% | 59.57% | 58.59% | 58.11% | 57.71% | 57.31% | 56.91% | 56.48% | 56.02% | 55.53% | 55.01% | 54.45% | 53.85% | 53.20% | 52.49%  | 51.72%  | 50.88%  | 49.96%  |

**B. AN ASSESSMENT OF THE ACTUARIAL BENEFIT PLAN LIABILITIES AND CONTRIBUTION COSTS OF THE PLAN**

**Contribution Rates:**

**Employee: 9.40%**

**Employer: Actuarially determined each year (minimum of 17%)  
- current fiscal year: 17.0% - fiscal year 2011: 19.9%**

**State Contribution: Fixed dollar amount - \$2.5 million**

**Total Present Value of Future Benefits (Total Liabilities): \$2,654,047,815**

**Distribution of Current Liabilities: Liabilities(\$)** and **Contribution Costs (%)**

**See Exhibit 11**

- 1. Base Retirement Formula (22 years – 66%) - per year of service**
- 2. Additional Eight Year Formula (8 years – 16%) - per year of service**
- 3. Disability Benefits**
- 4. Refund Program**
- 5. Death Benefits**
- 6. Cost of Living Adjustment (escalator)**

**EXHIBIT 11: DISTRIBUTION OF LIABILITIES AND CONTRIBUTION COSTS - AGGREGATE COST METHOD**

| Distribution of Benefits as of July 1, 2009   | Liabilities<br>(Present Value of<br>Future Benefits)<br>\$ | Contribution<br>Rate* | Contribution<br>Rate** |
|---|--|-----------------------|------------------------|
|   |  | %                     | %                      |
| <b>Active Members</b>                         |  |                       |                        |
| Base Retirement Formula (22 years – 66%)      |  |                       |                        |
| - per year of service                         | 34,116,504   | 0.39                  | 0.76                   |
| - total                                       | 750,563,096  | 8.59                  | 16.67                  |
| Additional Eight Year Formula (8 years – 16%) |  |                       |                        |
| - per year of service                         | 19,909,461   | 0.23                  | 0.44                   |
| - total                                       | 159,275,687  | 1.82                  | 3.54                   |
| Disability                                    | 187,772,051  | 2.15                  | 4.17                   |
| Refund/withdrawal                             | 26,622,664   | 0.31                  | 0.59                   |
| Death   | 13,396,786   | 0.15                  | 0.29                   |
| COLA (escalator)                              | 230,575,989  | 2.64                  | 5.12                   |
| <b>Inactive Members</b>                       |  |                       |                        |
| Current Benefit                               | 1,057,350,027  | 12.10                 | n/a                    |
| COLA (escalator)                              | 228,491,515  | 2.62                  | n/a                    |
| <b>Total All</b>                              | <b>\$2,654,047,815</b>                                     | <b>30.38%</b>         | <b>30.38%</b>          |

\*Contribution rate allocated in proportion of each benefits liability to total of all members' liability.

\*\*Contribution rate allocated in proportion of each benefits liability to total of active only members' liability.

**EXHIBIT 11 (Continued)**

**- Entry Age Normal Cost Method**

| Distribution of Benefits As of July 1, 2009          | Liabilities<br>(Present Value of<br>Future Benefits)<br>\$ | Contribution<br>Rate* | Contribution<br>Rate** |
|--|--|-----------------------|------------------------|
|  | %  | %                     |                        |
| <b>Active Members</b>                                |  |                       |                        |
| <b>Base Retirement Formula (22 years – 66%)</b>      |  |                       |                        |
| - per year of service                                | 24,270,436   | 0.31                  | 0.75                   |
| - total  | 533,949,581  | 6.92                  | 16.48                  |
| <b>Additional Eight Year Formula (8 years – 16%)</b> |  |                       |                        |
| - per year of service                                | 14,017,005   | 0.18                  | 0.43                   |
| - total  | 112,136,039  | 1.45                  | 3.46                   |
| <br>   |  |                       |                        |
| <b>Disability</b>                                    | 105,698,576  | 1.37                  | 3.26                   |
| <br>   |  |                       |                        |
| <b>Refund/withdrawal</b>                             | 11,452,179   | 0.15                  | 0.35                   |
| <br>   |  |                       |                        |
| <b>Death</b>   | 7,141,361  | 0.09                  | 0.22                   |
| <br>   |  |                       |                        |
| <b>COLA (escalator)</b>                              | 160,425,927  | 2.08                  | 4.95                   |
| <br>   |  |                       |                        |
| <b>Inactive Members</b>                              |  |                       |                        |
| <b>Current Benefit</b>                               | 1,057,350,027  | 13.70                 | n/a                    |
| <br>   |  |                       |                        |
| <b>COLA (escalator)</b>                              | 228,491,515  | 2.96                  | n/a                    |
| <br>   |  |                       |                        |
| <b>Total All</b>                                     | <b>\$2,216,645,205</b>                                     | <b>28.72%</b>         | <b>28.72%</b>          |

\*Contribution rate allocated in proportion of each benefits liability to total of all members' liability.

\*\*Contribution rate allocated in proportion of each benefits liability to total of active only members' liability.

## C. RESPONSE TO LEGISLATIVE INQUIRY CONCERNING RESTORATION OF A FAVORABLE FUNDING STATUS

### Current Financial Profile

The current financial profile is the result of the recent negative investment returns which occurred during the widespread financial markets decline and resulting deep global recession. A depiction of the financial profile of the plan overtime is shown on Exhibit 9.

### Discussion of the Future

- A. Under the current statutory provisions, restoration of a favorable funded status will be dependent upon the following:
1. Capital Markets providing investment returns which, cumulatively meet or surpass the 7.5% assumed return per year.
  2. Receipt of revenues from contributions which annually meet the actuarial required levels.
- B. Conditions which could impact the funded status and the future contribution rates include the following:
1. Investment Returns: The impact of three different investment return scenarios is shown in Exhibit 10.
  2. Plan Design: The liabilities of the plan can be evaluated in relationship to the specific benefit provisions, as shown in Exhibit 11. Key benefit provisions of the plan include the following:
    - Retirement formula per year for first 22 years: 3% per year
    - Retirement formula per year for additional 8 years: 2% per year
    - Eligibility age for retirement: Age 55
    - Cost of living adjustment (escalator) formula: 1.5% and step increase (age 55 with 22 years)

3. **Alternative Plan Design:**

Modifications to the current plan design would impact the financial profile of the plan and the contribution requirements in the future. The plan document (Iowa Code Chapter 411) would need to be altered to implement such modifications. Guidance from the legislature is necessary prior to the actuarial valuation of any changes.

4. **Contribution Restrictions:**

Placing a limit on the level of future contributions would reduce the funded status of the plan, and would increase future funding requirements. Guidance from the legislature is necessary prior to the actuarial valuation of any changes.