



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve

GASB STATEMENT NO. 67 REPORT

FOR THE

IOWA PUBLIC EMPLOYEES'

RETIREMENT SYSTEM

MEASUREMENT DATE: JUNE 30, 2018





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

November 7, 2018

Ms. Darla Iverson
Chief Financial Officer
Iowa Public Employees' Retirement System
7401 Register Drive
Des Moines, IA 50321

Dear Ms. Iverson:

Presented in this report is information to assist the Iowa Public Employees' Retirement System in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 67. The information is presented for the June 30, 2018 Measurement Date. The calculations in this report have been made on a basis that is consistent with our understanding of this accounting standard (GASB 67).

The annual actuarial valuation used as the basis for much of the information presented in this report was performed as of June 30, 2018. The valuation was based upon data, furnished by the Chief Executive Officer and the staff of the Iowa Public Employees' Retirement System, concerning active, inactive and retired members along with pertinent financial information. This information was reviewed for completeness and internal consistency, but was not audited by us. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised. Please see the actuarial valuation report, dated October 29, 2018, for additional details on the funding requirements for the System including actuarial assumptions and methods along with the Contribution Rate Funding Policy.

To the best of our knowledge, the information contained in this report is complete and accurate. The calculations were performed by qualified actuaries according to generally accepted actuarial principles and practices, as well as in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board. The calculations are based on the current provisions of the System and on actuarial assumptions that are internally consistent, individually reasonable based on the actual experience of the System, and, in our opinion, meet the requirements of GASB 67.



Ms. Darla Iverson
November 7, 2018
Page 2

These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

We, Patrice A. Beckham, FSA and Brent A. Banister, FSA, are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. We are available to answer any questions on the material contained in this report or to provide explanations or further details as may be appropriate.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Patrice Beckham' in a cursive script.

A handwritten signature in blue ink that reads 'Brent A. Banister' in a cursive script.

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Actuary



TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
	Summary of Principal Results	1
	Introduction	2
I	Notes to Financial Statements	4
II	Required Supplementary Information	9
 <u>Appendix</u>		
A	Required Supplementary Information Table Exhibit A – Schedule of Changes in the Employers’ Net Pension Liability	14
B	Summary of Plan Provisions	15
C	Actuarial Assumptions	22
D	Contribution Rate Funding Policy	29



REPORT OF THE ANNUAL GASB STATEMENT NO. 67

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL RESULTS

Valuation Date (VD):	June 30, 2018
Prior Measurement Date:	June 30, 2017
Measurement Date (MD):	June 30, 2018
Membership Data for Valuation:	
Retirees and Beneficiaries	120,755
Inactive Vested Members	25,693
Inactive Nonvested Members	44,330
Active Members	<u>170,376</u>
Total	361,154
Single Equivalent Interest Rate (SEIR):	
Long-Term Expected Rate of Return	7.00%
Municipal Bond Index Rate at Prior Measurement Date	3.56%
Municipal Bond Index Rate at Measurement Date	3.89%
Year in which Fiduciary Net Position is Projected to be Depleted	N/A
Single Equivalent Interest Rate at Prior Measurement Date	7.00%
Single Equivalent Interest Rate at Measurement Date	7.00%
Net Pension Liability:	
Total Pension Liability (TPL)	\$38,642,833,653
Fiduciary Net Position (FNP)	<u>32,314,588,595</u>
Net Pension Liability (NPL = TPL – FNP)	\$6,328,245,058
FNP as a percentage of TPL	83.62%



INTRODUCTION

The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), *Financial Reporting for Pension Plans*, in June 2012. The effective date for reporting under GASB 67 for the Iowa Public Employees' Retirement System was the fiscal year ending June 30, 2014. Based on the provisions of GASB 67, the Iowa Public Employees' Retirement System (IPERS or System) is a cost-sharing multiple-employer defined benefit pension plan.

This report, prepared as of June 30, 2018 (the Measurement Date), presents information to assist IPERS in meeting the requirements of GASB 67. Much of the material provided in this report is based on the data, assumptions and results of the annual funding actuarial valuation of the System performed as of June 30, 2018 (the Valuation Date). The results of that valuation were detailed in a report dated October 29, 2018.

GASB 67 discloses the Total Pension Liability (TPL) utilizing the Entry Age Normal actuarial cost method. The Net Pension Liability (NPL) is equal to the TPL minus the System's Fiduciary Net Position (FNP) (basically the fair (market) value of assets). The benefit provisions recognized in the calculation of the TPL are summarized in Appendix B.

Among the items needed for the liability calculation is the discount rate, or Single Equivalent Interest Rate (SEIR), as described by GASB 67. To determine the SEIR, the FNP must be projected, using GASB 67 guidelines, into the future for as long as there are anticipated benefits payable under the plan's provisions applicable to the members and beneficiaries of the System on the Measurement Date. If the FNP is not projected to be depleted at any point in the future, the long-term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.

If, however, the FNP is projected to be depleted at a future measurement date, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long-term expected rate of return, and the present value determined by discounting those benefits after the date of depletion by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate. The rate used, if necessary, for this purpose is the monthly average of the Bond Buyers General Obligation 20-year Municipal Bond Index Rate (formerly published monthly by the Board of Governors of the Federal Reserve System).

Our calculations indicate that the FNP is not projected to be depleted, so the Municipal Bond Index Rate is not used in the determination of the SEIR for either the June 30, 2017 or the June 30, 2018 TPL. The SEIR is 7.00%, the long-term assumed rate of return on investments in effect at the current



and Prior Measurement Dates. Please see Paragraph 31.b.(1) for more explanation of the development of the SEIR.

The FNP projections are based upon the Iowa Public Employees' Retirement System's financial status on the Measurement Date, the indicated set of methods and assumptions, and the requirements of GASB 67. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of the System, or the System's ability to make benefit payments in future years.

The sections that follow provide the results of all the necessary calculations, presented in the order laid out in GASB 67 for note disclosure and Required Supplementary Information (RSI).



SECTION I – NOTES TO FINANCIAL STATEMENTS

The material presented herein will follow the order presented in GASB 67. Paragraph numbers are provided for ease of reference.

Paragraphs 30.a. (1)-(3): This information will be supplied by the System.

Paragraph 30.a. (4): The data required regarding the membership of the System were furnished by the System. The following table summarizes the membership of the System as of June 30, 2018, the date of the valuation used to determine the June 30, 2018 TPL.

Membership

Number as of June 30, 2018	
Inactive Members Or Their Beneficiaries	120,755
Currently Receiving Benefits	
Inactive Vested Members Entitled To	25,693
But Not Yet Receiving Benefits	
Inactive Nonvested Members	44,330
Active Members	170,376
Total	361,154

Paragraphs 30.a. (5)-(6) and Paragraphs 30.b.-f.: This information will be supplied by the System.

Paragraph 31.a. (1)-(4): As stated earlier, the NPL is equal to the TPL minus the FNP. That result, as of June 30, 2018, is presented in the following table.

Fiscal Year Ending June 30, 2018	
Total Pension Liability	\$ 38,642,833,653
Fiduciary Net Position	<u>32,314,588,595</u>
Net Pension Liability	\$ 6,328,245,058
 Ratio of Fiduciary Net Position to Total Pension Liability	 83.62%



Paragraph 31.b.: This paragraph requires information to be disclosed regarding the actuarial assumptions and other inputs used to measure the TPL. The complete set of actuarial assumptions and other inputs utilized in developing the TPL are outlined in Appendix C. The TPL as of June 30, 2018 was determined based on an actuarial valuation prepared as of June 30, 2018, using the following key actuarial assumptions and other inputs:

Rate of inflation	2.60 percent
Rate of salary increases, including inflation	3.25 to 16.25 percent
Long-term Rate of Return, net of investment expense, including inflation	7.00 percent
Municipal Bond Index Rate	
Prior Measurement Date	3.56 percent
Measurement Date	3.89 percent
Year FNP is projected to be depleted	N/A
Single Equivalent Interest Rate, net of investment expense, including inflation	
Prior Measurement Date	7.00 percent
Measurement Date	7.00 percent
Post-retirement benefit increases	<ol style="list-style-type: none">1) Pre 7/1/1990 retirees: Dividend amounts are assumed to increase 2.60% per year. 2) Post 6/30/1990 retirees: A Favorable Experience Dividend (FED) reserve account was created by the legislature to help offset the negative effects of post-retirement inflation. As of the Measurement Date, there is no FED reserve account balance and no future transfers are expected to occur. Therefore, no post-retirement benefit increase is reflected for this group in the TPL.



Rates of Mortality

Mortality rates are based on the RP-2014 Generational Mortality Tables, with age setbacks and age set forwards as well as other adjustments based on different membership groups. Future mortality improvements are anticipated using Projection Scale MP-2017. Different adjustments apply to pre-retirement, post-retirement, and post-disability mortality tables. See Appendix C for more detailed descriptions.

The demographic actuarial assumptions used in the valuation are based on the results of the actuarial experience study, dated June 28, 2018, which covered the four-year period ending June 30, 2017. At the Investment Board's direction, the experience study of the System's economic assumptions, including the long-term rate of return, was accelerated one year, resulting in a full review of the economic assumptions in early 2017. The findings of the experience study on economic assumptions, along with the resulting recommendations, are included in the experience study report dated March 24, 2017.

Paragraph 31.b.(1)

- (a) **Discount rate (SEIR):** The discount rate used to measure the TPL at June 30, 2018 was 7.00 percent. There was no change since the Prior Measurement Date.

- (b) **Projected cash flows:** The projection of cash flows used to determine the discount rate assumed that plan contributions from employees and employers will be made according to the current Contribution Rate Funding Policy (see Appendix D) and that all actuarial assumptions are met in the future:
 - a. Employee contribution rate: 40% of the Required Contribution Rate for Regular and Protection Occupation membership. 50% of the Required Contribution Rate for Sheriffs and Deputies. See Appendix B for more detail.
 - b. Employer contribution rate: 60% of the Required Contribution Rate for Regular and Protection Occupation membership. 50% of the Required Contribution Rate for Sheriffs and Deputies. See Appendix B for more detail.
 - c. Administrative expenses in the prior year were projected forward with inflation as an estimate for administrative expenses in the current and future years. The portion of expenses in future years allocated to the current members was based on the proportionate share of covered payroll in each year for the remainder of the existing members to the total covered payroll for all members.

Based on those assumptions, the System's FNP was projected to be available to make all projected future benefit payments of current System members. Therefore, the long-term expected rate of return on System investments of 7.00% was applied to all periods of projected benefit payments to determine the TPL.



The FNP projections are based upon the System's financial status on the Measurement Date, the indicated set of methods and assumptions, and the requirements of GASB 67. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of the System, or the System's ability to make benefit payments in future years.

- (c) **Long-term rate of return:** The long-term expected return on plan assets is reviewed as part of regular experience studies, generally prepared every four years for the System. The Investment Board elected to accelerate the experience study of the economic assumptions by one year, performing the study in early 2017. That analysis of economic assumptions is outlined in a report dated March 24, 2017. Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data, and an analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation), along with estimates of variability and correlations for each asset class, were developed by the System's investment consultant. These ranges were combined to develop the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by investment consultants are often intended for use over a 10-year investment horizon and are not always useful in setting the long-term rate of return for funding pension plans which covers a longer timeframe. The long-term rate of return assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected real returns in future years.
- (d) **Municipal bond rate:** A municipal bond rate was not used in determining the discount rate. If it were required, the rate would be 3.89% on the Measurement Date.
- (e) **Periods of projected benefit payments:** Projected future benefit payments for all current plan members were projected through 2117.
- (f) **Assumed asset allocation:** This information will be supplied by the System.



(g) **Sensitivity analysis:** This paragraph requires disclosure of the sensitivity of the NPL to changes in the discount rate. The following presents the NPL of the System, calculated using the discount rate of 7.00 percent, as well as the System's NPL calculated using a discount rate that is 1-percentage-point lower (6.00 percent) or 1-percentage-point higher (8.00 percent) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Total Pension Liability	\$43,354,752,768	\$38,642,833,653	\$34,690,593,035
Fiduciary Net Position	<u>\$32,314,588,595</u>	<u>\$32,314,588,595</u>	<u>\$32,314,588,595</u>
Net Pension Liability	\$11,040,164,173	\$6,328,245,058	\$2,376,004,440

Paragraph 31.c.: The TPL at June 30, 2018 is based upon an actuarial valuation prepared as of June 30, 2018.



SECTION II – REQUIRED SUPPLEMENTARY INFORMATION

There are several tables of Required Supplementary Information (RSI) that need to be included in the System's financial statements:

Paragraphs 32.a. and b.: The required schedules are provided in Appendix A.

Paragraph 32.c. and d.: This information will be supplied by the System.

Paragraph 34: The following information should be noted regarding the RSI, particularly for the Schedule of Employers' Contributions:

Changes of benefit and funding terms: The following changes to the plan provisions were made by the Iowa Legislature and reflected in the valuation performed as of the June 30 listed below:

2010: The 2010 Legislature passed House File 2518 which increased the contribution rate for Regular members and also changed the benefit structure for Regular members. These changes were:

- The combined contribution rate was increased to 13.45%, effective July 1, 2011.
- The System was given authority to set the Required Contribution Rate on an actuarial basis for fiscal years after 2012, but the contribution rate cannot vary by more than 1.0% per year.
- The benefit structure was modified by amending the definition of final average salary to the highest five years of covered wages, increasing the years of service to be vested from four to seven, and increasing the early retirement reduction from 3% per year measured from the member's first unreduced retirement age to a 6% reduction measured from age 65.

The legislation eliminated the 0.50% annual cap on the change in the contribution rate for Sheriffs and Deputies and the Protection Occupation groups which was to be effective for FY 2012. It also added a cancer and infectious disease presumption for in-service disability benefits, effective July 1, 2011.



Changes in actuarial assumptions and methods:

6/30/2018 valuation:

- Mortality assumption was changed to the family of RP-2014 Mortality Tables for all groups, with age setbacks and set forwards, as well as other adjustments. Future mortality improvements are modeled using Scale MP-2017.
- Retirement rates for Regular members were lowered to better reflect actual experience. For the Sheriffs and Deputies, the retirement assumption was modified to reflect lower retirement rates at the younger ages. For the Protection Occupation group, the retirement rates were modified both higher and lower across the age ranges.
- Disability rates were lowered for all groups to better reflect the actual experience.
- Termination rates for Regular members were adjusted to better reflect actual experience. Separate termination assumptions were adopted for the two Special Service groups and the assumptions were changed to be service-based rather than age-based.
- The probability of a vested member electing to receive a deferred benefit was adjusted for Regular members to better reflect actual experience.
- The merit component of the salary increase assumption was adjusted to better reflect actual salary increases.

6/30/2017 valuation:

- The inflation assumption decreased from 3.00% to 2.60% per year.
- The assumed rate of interest on member accounts decreased from 3.75% to 3.50% per year.
- The long-term rate of return assumption decreased from 7.50% to 7.00% per year.
- The wage growth and payroll growth assumption decreased from 4.00% to 3.25% per year.
- Salary increase assumption decreased by 0.75%.

6/30/2014 valuation:

- The inflation assumption decreased from 3.25% to 3.00% per year.
- The assumed rate of interest on member accounts was decreased from 4.00% to 3.75% per year.
- Male mortality rates for Regular members were adjusted:
 - State males were changed to the RP-2000 Healthy Annuitant Table using generational mortality projections with no age adjustment.



- School males were changed to the RP-2000 Healthy Annuitant Table using generational mortality projections with a 1-year age set back and rates decreased by 5% below age 75.
- Other males were changed to the RP-2000 Healthy Annuitant Table using generational mortality projections with no age adjustment.
- Retirement rates were reduced for Sheriffs and Deputies between the ages of 55 and 64.
- Beginning June 30, 2014, the Amortization Method amortizes the June 30, 2014 UAL as a level percentage of payroll over a closed 30-year period. Each year thereafter, changes in the UAL will result in the establishment of new amortization bases. The future bases arising from plan experience will be amortized over a closed 20-year period beginning on the date the base is established. The amortization period for changes in the UAL due to plan amendments and assumption changes will be determined by the Investment Board at the time they occur.

6/30/2011 valuation:

- Mortality rates for Regular members were changed, implementing some refinements to the rates recommended in the 2010 experience study.

6/30/2010 valuation:

- Some adjustments were made to the retiree mortality assumption to better fit the observed experience, generally lowering mortality rates.
- Retirement rates were modified to reflect the observed patterns of retirement, generally reflecting fewer retirements.
- Disability rates were lowered at most ages.
- Termination of employment rates were lowered, reflecting increased employee retention.
- The probability of terminating members leaving their contributions with IPERS and receiving a deferred retirement benefit were generally increased to reflect actual experience.
- Salary increase assumptions were modified to better reflect the observed experience. There were both increases and decreases in the rates at various durations.



Method and assumptions used in calculations of actuarially determined contributions.

The actuarially determined contributions in the Schedule of Employers' Contributions are calculated annually on each valuation date (June 30), and apply to the fiscal year beginning one year after the valuation.

The following actuarial methods and assumptions (from the June 30, 2016 actuarial valuation) were used to determine the actuarially determined employer contribution reported for Fiscal Year End 2018 in that schedule:

Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll, closed
Amortization period	Initial base established June 30, 2014 over a closed 30 year period. A new base is established in each subsequent year equal to the difference in actual versus expected experience. The new base is amortized over a new, closed 20 year period commencing on the date it is established.
Asset valuation method	Expected value plus 25% of difference between market value and expected value.
Rate of Inflation	3.00 percent
Payroll increase rate	4.00 percent
Rate of salary increases, including inflation	4.00 to 17.00 percent
Long-term Rate of Return, net of investment expense, including inflation	7.50 percent



Post-retirement benefit increases

1) Pre 7/1/1990 retirees: Dividend amounts are assumed to increase 3.00% per year.

2) Post 6/30/1990 retirees: A Favorable Experience Dividend (FED) reserve account was created by the legislature to help offset the negative effects of post-retirement inflation. As of the Measurement Date, there is no FED reserve account balance and no future transfers are expected to occur. Therefore, no post-retirement benefit increase is reflected for this group in the TPL.

Rates of mortality

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

Please see the information presented earlier in regard to Paragraph 34 for detailed information on the benefit changes and assumption changes that may have impacted the Employer Actuarially Determined Contributions shown in the Schedule of Employers' Contributions.



APPENDIX A– REQUIRED SUPPLEMENTARY INFORMATION TABLE

Exhibit A

**GASB 67 Paragraph 32(a) and (b)
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY**

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	\$862,716,803	\$822,363,095	\$801,587,441	\$775,968,193	\$710,882,930
Interest	2,548,179,239	2,523,074,401	2,433,180,831	2,334,357,588	2,229,800,454
Benefit term changes	0	0	0	0	0
Differences between expected and actual experience	(131,727,462)	36,106,061	(95,355,071)	47,305,303	41,027,658
Assumption changes	34,635,401	1,432,643,482	0	0	214,545,272
Benefit payments, including member refunds	(2,111,352,357)	(1,993,554,157)	(1,889,982,785)	(1,791,768,441)	(1,812,184,860)
Net change in Total Pension Liability	\$1,202,451,624	\$2,820,632,882	\$1,249,430,416	\$1,365,862,643	\$1,384,071,454
Total Pension Liability - beginning	\$37,440,382,029	\$34,619,749,147	\$33,370,318,731	\$32,004,456,088	\$30,620,384,634
Total Pension Liability - ending (a)	\$38,642,833,653	\$37,440,382,029	\$34,619,749,147	\$33,370,318,731	\$32,004,456,088
Plan Fiduciary Net Position					
Employer contributions	\$716,752,781	\$704,766,114	\$684,664,998	\$656,911,160	\$639,001,548
Employee contributions	481,405,756	473,354,932	459,854,052	441,213,236	429,195,536
Service purchases	4,629,646	4,271,054	32,147,862	17,475,633	14,324,144
Net investment income, including net securities lending income	2,458,968,900	3,279,743,723	624,853,651	1,080,045,104	3,904,373,624
Benefit payments, including member refunds	(2,111,352,357)	(1,993,554,157)	(1,889,982,785)	(1,791,768,441)	(1,812,184,860)
Administrative expenses	(14,753,842)	(15,898,996)	(14,938,951)	(12,591,756)	(14,866,128)
Net change in Plan Fiduciary Net Position	\$1,535,650,884	\$2,452,682,670	(\$103,401,173)	\$391,284,936	\$3,159,843,864
Plan Fiduciary Net Position – beginning*	\$30,778,937,711	\$28,326,433,656	\$28,429,834,829	\$28,038,549,893	\$24,878,706,029
Plan Fiduciary Net Position - ending (b)	\$32,314,588,595	\$30,779,116,326	\$28,326,433,656	\$28,429,834,829	\$28,038,549,893
Net Pension Liability - ending (a) - (b)	\$6,328,245,058	\$6,661,265,703	\$6,293,315,491	\$4,940,483,902	\$3,965,906,195
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	83.62%	82.21%	81.82%	85.19%	87.61%
Covered payroll	\$7,983,219,527	\$7,863,160,443	\$7,556,515,720	\$7,326,348,141	\$7,099,277,280
Employers' Net Pension Liability as a percentage of covered payroll	79.27%	84.71%	83.28%	67.43%	55.86%

Note: Schedule is intended to show 10-year trend. Additional years will be reported as they become available.

* The beginning Fiduciary Net Position for FY2018 has been restated by (\$178,615) for the Regular membership and in total due to GASB 75 requirements.



APPENDIX B— SUMMARY OF PLAN PROVISIONS

Chapter 97B of the Iowa code sets out the IPERS provisions, which are briefly summarized as follows:

Participation: In general, the System covers people in non-federal public employment within the State of Iowa. Membership is mandatory if a person is in covered employment. Exceptions to this are set out in the law. Notable exceptions are those covered by another public system in Iowa (such as judges, state patrol, and policemen and firemen in cities having civil service), employees of the Regents' institutions, and employees of the community colleges who elect alternative coverage.

Service Credit: A member will receive membership credit for service rendered after July 4, 1953 (special rules apply to service before this date). Service is counted to the complete quarter of a calendar year. A member will not receive credit for more than four quarters of service in a calendar year regardless of the number of employers reporting covered wages for that member. A calendar year is the 12-month period beginning January 1 and ending December 31.

Members may purchase service under specified conditions. To make such a purchase, the member must pay the actuarial cost of such service.

REGULAR MEMBERS:

Average Salary: The average of the member's highest three years of covered wages. Effective July 1, 2012 the average of a member's highest five years of covered wages, but not less than the member's highest three years as of June 30, 2012, if vested at that time.

Age and Service Requirements for Benefits:

Normal Retirement	Earliest of the first day of the month of the member's 65 th birthday, age 62 with 20 years of service or Rule of 88 (age plus service equals/exceeds 88), with a minimum of age 55.
Early Retirement	First day of any month starting with the month of the member's 55 th birthday but preceding the normal retirement date.
Inactive Vested Benefit	Four years of service (seven years effective July 1, 2012). Prior to July 1, 2005 inactive members could become eligible for a vested benefit merely by reaching age 55.
Pre-retirement Death Benefit	Upon death of a member before benefits have started.
Disability Benefit	Upon meeting requirements to be vested, if the active or inactive member begins receiving federal Social Security disability or Railroad Retirement disability benefits.



APPENDIX B— SUMMARY OF PLAN PROVISIONS

Retirement Benefits:

Normal Retirement An annuity equal to 2% of Average Salary for each year of service up to 30 years plus 1% of AS for each of the next 5 years of service. Maximum years of service recognized for benefit accrual purposes is 35 with a resulting maximum benefit of 65% of Average Salary.

Early Retirement An annuity, determined in the same manner as for normal retirement. However, a reduction of 0.25% per month is applied for each month the benefit commences prior to normal retirement age (based on service at early retirement). Effective July 1, 2012, the reduction changed to 0.50% per month and applies to each month that the benefit commences before age 65. Transition rules apply if members have service both before and after July 1, 2012.

Pre-retirement Death Benefits Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.

Disability Benefits An annuity, payable immediately, equal to the Normal Retirement Benefit without an early retirement adjustment.

Termination Benefits:

Less than four* years of Service (Nonvested) A refund of all of the member's accumulated contributions.

Four* or more years of Service (Vested) At the member's election either:

- (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 30) of the employer's contributions with interest, or
- (2) a deferred benefit determined in the same manner as for normal retirement. Payments can begin at normal or early retirement.

* Effective July 1, 2012 seven years of service for those not vested at that time.

Form of Annuity: The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).



APPENDIX B— SUMMARY OF PLAN PROVISIONS

Optional Forms of Payment:

Option 1: The member specifies a dollar amount, in \$1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

Option 3: After the member's death, all benefits cease.

Option 4: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

Option 5: If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

Option 6: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

Actuarial Equivalent Lump Sum Payment:

If a vested member is entitled to receive a benefit and it is less than \$50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.

Post-retirement Benefit Increases:

Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.



APPENDIX B— SUMMARY OF PLAN PROVISIONS

Favorable Experience Dividend (FED): For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:
(December’s Monthly benefit) X (12 months) X (Rate) X
(Full calendar years retired) = FED

Source of Funds:

Regular Membership:

Contribution Rates			
Time Period	Employees**	Employer	Total
Prior to 7/1/07	3.70%	5.75%	9.45%
7/1/07 – 6/30/08	3.90%	6.05%	9.95%
7/1/08 – 6/30/09	4.10%	6.35%	10.45%
7/1/09 – 6/30/10	4.30%	6.65%	10.95%
7/1/10 – 6/30/11	4.50%	6.95%	11.45%
7/1/11 – 6/30/12	5.38%	8.07%	13.45%
7/1/12 and later	Determined by Contribution Rate Funding Policy*		

*Change in contribution rate cannot exceed 1.0% per year.

**Employee rate is 40% of total contribution rate.

SHERIFFS/DEPUTIES AND PROTECTION OCCUPATION:

Average Salary: The average of the member’s highest three years of covered wages

Age and Service Requirements for Benefits:

Normal Retirement Generally age 55. However, a member of the Sheriffs and Deputy Sheriffs may retire at age 50 with 22 years of service.



APPENDIX B— SUMMARY OF PLAN PROVISIONS

Inactive Vested Benefit	Four years of service. Prior to July 1, 2005 inactive members could become eligible for vested benefits merely by reaching age 55.
Pre-retirement Death Benefit	Upon death of a member before benefits have started.
Disability Benefit	Upon meeting requirements to be vested, (i) if the active or inactive member begins receiving federal Social Security or Railroad Retirement disability benefits, or (ii) upon being determined by IPERS to be disabled under the provisions of Iowa Code section 97B.50A. The disability benefits under Iowa Code section 97B.50A must be applied for through IPERS within one (1) year after termination of employment. Benefits under Iowa Code section 97B.50A may be paid for in-service disability or ordinary disability.
Retirement Benefits:	
Normal Retirement	60% of Average Salary after completion of 22 years of service, plus an additional 1.5% of Average Salary for years of service greater than 22 but not more than 30. Maximum formula is 72% of Average Salary.
Pre-retirement Death Benefit	Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.
Disability Benefits	An annuity, payable immediately, equal to the Normal Retirement Benefit, without an adjustment. The benefit is the greater of the Normal Retirement Benefit and either 50% (for ordinary disability) or 60% (for in-service disability) of Average Salary.
Termination Benefits:	
Less than four years of Service (Non-vested)	A refund of all of the member's accumulated contributions.
Four or more years of Service (Vested)	At the member's election either: <ol style="list-style-type: none">(1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 22) of the employer's contributions with interest, or(2) a deferred benefit determined in the same manner as for normal retirement. Payments begin at normal retirement.



APPENDIX B— SUMMARY OF PLAN PROVISIONS

Form of Annuity: The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).

Optional Forms of Payment: *Option 1:* The member specifies a dollar amount, in \$1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

Option 3: After the member's death, all benefits cease.

Option 4: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

Option 5: If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

Option 6: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

Level Income Payment Option: A Level Income payment alternative is authorized for members of the Sheriffs and Deputies group and the Protection Occupation group. This alternative applies to all IPERS retirement options listed above except Option 6. The Level Income payment alternative permits a member to receive a relatively level income both before and after age 62 when benefits from IPERS and Social Security are combined. Higher IPERS benefits are paid prior to age 62. When the member reaches



APPENDIX B— SUMMARY OF PLAN PROVISIONS

age 62, the member's IPERS benefit is permanently reduced. This amount is determined when the member retires and is not recomputed based on the actual Social Security benefit.

Actuarial Equivalent Lump Sum Payment: If a vested member is entitled to receive a benefit and it is less than \$50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.

Post-retirement Benefit Increases: Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.

Favorable Experience Dividend (FED): For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:

$(\text{December's Monthly benefit}) \times (12 \text{ months}) \times (\text{Rate}) \times (\text{Full calendar years retired}) = \text{FED}$

Source of Funds:

Sheriffs and Deputies: Determined by Contribution Rate Funding Policy. Employees contribute 50% and employers contribute 50%.

Protection Occupation: Determined by Contribution Rate Funding Policy. Employees contribute 40% and employers contribute 60%.



APPENDIX C– ACTUARIAL ASSUMPTIONS

ECONOMIC ASSUMPTIONS:

Rate of Inflation (effective June 30, 2017)

2.60% per annum

Rate of Crediting Interest on Contribution Balances (effective June 30, 2017)

3.50% per annum, compounded annually

Rate of Investment Return (effective June 30, 2017)

7.00% per annum, compounded annually, net of expenses.

Wage Growth Assumption (effective June 30, 2017)

3.25% per annum based on 2.60% inflation assumption and 0.65% real wage inflation.

Payroll Increase Assumption (effective June 30, 2017)

3.25% per year

Cost of Living Adjustments Assumption (effective June 30, 2017)

2.60% for members who retired before July 1, 1990. No cost-of-living adjustments are assumed to be granted to future retirees

DEMOGRAPHIC ASSUMPTIONS:

Rates of Mortality

Pre-Retirement (effective June 30, 2018)

State

Male	RP-2014 Employee Table, Generational using MP-2017, setback 4 years
Female	RP-2014 Employee Table, Generational using MP-2017, setback 4 years

School

Male	RP-2014 Employee Table, Generational using MP-2017, setback 4 years
Female	RP-2014 Employee Table, Generational using MP-2017, setback 8 years

Other

Male	RP-2014 Employee Table, Generational using MP-2017, setback 3 years
Female	RP-2014 Employee Table, Generational using MP-2017, setback 4 years

Sheriffs/Deputies and Protection Occupation

Male	RP-2014 Employee Table, Generational using MP-2017, setback 3 years
Female	RP-2014 Employee Table, Generational using MP-2017, setback 4 years

5% of active deaths are assumed to be service related for non-regular members.



APPENDIX C– ACTUARIAL ASSUMPTIONS

Post-Retirement (effective June 30, 2018)

State	RP-2014 Healthy Annuitant, Generational using MP-2017
Male	8.5% increase in rates above age 75
Female	No age adjustment
School	RP-2014 Healthy Annuitant, Generational using MP-2017
Male	2 Year setback, 10% decrease in rates below age 75, 20% increase above age 75
Female	2 Year setback, 25% decrease below age 75, 10% increase above age 75
Other	RP-2014 Healthy Annuitant, Generational using MP-2017
Male	1 Year set forward, 10% decrease below age 75, 8% increase above age 75
Female	1 Year setback, 10% decrease below age 75, 5% increase above age 75
Sheriffs/Deputies and Protection Occupation	RP-2014 Healthy Annuitant, Generational using MP-2017
Male	1 Year set forward, 10% increase above age 75
Female	No age adjustment
Beneficiaries:	Same as members
Disabled Members	RP-2014 Disabled Mortality, Generational using MP-2017
Male	3 Year age set forward
Female	5 Year age set forward

Retirement Rates (effective June 30, 2018)

Upon meeting the requirements for early retirement, the following rates apply to Regular Members:

<u>Age</u>	<u>Assumed Retirement Rates – Early</u>		
	<u>State</u>	<u>School</u>	<u>Other</u>
55	5.0%	6.0%	4.0%
56	5.0%	6.0%	4.0%
57	5.0%	6.0%	4.0%
58	5.0%	7.0%	4.0%
59	5.0%	8.0%	5.0%
60	5.0%	10.0%	5.0%
61	15.0%	15.0%	10.0%
62	15.0%	15.0%	15.0%
63	15.0%	15.0%	15.0%
64	15.0%	15.0%	15.0%



APPENDIX C– ACTUARIAL ASSUMPTIONS

Upon reaching the requirements for normal retirement (unreduced benefits), the following rates apply:

Assumed Retirement Rates – Select Unreduced			
<u>Age</u>	<u>State</u>	<u>School</u>	<u>Other</u>
55	20.0%	25.0%	20.0%
56	15.0%	25.0%	20.0%
57	15.0%	25.0%	17.0%
58	15.0%	25.0%	20.0%
59	15.0%	25.0%	20.0%
60	15.0%	25.0%	17.0%
61	20.0%	33.0%	20.0%
62	40.0%	40.0%	30.0%
63	35.0%	30.0%	25.0%
64	30.0%	30.0%	30.0%
65	30.0%	30.0%	30.0%

Assumed Retirement Rates – Ultimate Unreduced			
<u>Age</u>	<u>State</u>	<u>School</u>	<u>Other</u>
55	15.0%	20.0%	12.0%
56	15.0%	20.0%	12.0%
57	15.0%	20.0%	12.0%
58	15.0%	20.0%	12.0%
59	15.0%	21.0%	12.0%
60	15.0%	23.0%	15.0%
61	20.0%	28.0%	20.0%
62	40.0%	35.0%	30.0%
63	30.0%	30.0%	20.0%
64	30.0%	30.0%	25.0%
65	30.0%	45.0%	40.0%
66	30.0%	35.0%	30.0%
67	20.0%	25.0%	20.0%
68	20.0%	25.0%	20.0%
69	35.0%	40.0%	40.0%
70	100.0%	100.0%	100.0%



APPENDIX C– ACTUARIAL ASSUMPTIONS

<u>Age</u>	Assumed Retirement Rates	
	<u>Sheriffs and Deputies</u>	<u>Protection Occupation</u>
50	17.0%	
51	15.0%	
52	15.0%	
53	15.0%	
54	15.0%	
55	15.0%	25.0%
56	15.0%	10.0%
57	15.0%	10.0%
58	15.0%	10.0%
59	15.0%	10.0%
60	15.0%	10.0%
61	15.0%	15.0%
62	30.0%	30.0%
63	30.0%	25.0%
64	30.0%	25.0%
65	100.0%	100.0%

Terminated vested members are assumed to retire at age 62 (55 for Sheriffs/Deputies and Protection Occupation groups).

For Regular membership, retired reemployed members are assumed to retire at a rate of 25% per year until age 80 when all are assumed to retire.

All retirees are assumed to elect a modified cash refund annuity (Option 2).

Rates of Disablement (effective June 30, 2018)

<u>Age</u>	Assumed Rates					
	Males			Females		
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>State</u>	<u>School</u>	<u>Other</u>
27	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%
32	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%
37	0.030%	0.034%	0.030%	0.030%	0.030%	0.030%
42	0.050%	0.056%	0.050%	0.040%	0.040%	0.040%
47	0.100%	0.098%	0.110%	0.070%	0.070%	0.070%
52	0.180%	0.142%	0.260%	0.180%	0.130%	0.160%
57	0.260%	0.230%	0.500%	0.310%	0.190%	0.280%
62	0.340%	0.318%	0.720%	0.500%	0.260%	0.400%



APPENDIX C– ACTUARIAL ASSUMPTIONS

Assumed Rates
Sheriffs/Deputies
Protection Occupation

<u>Age</u>	<u>Rate</u>
27	0.130%
32	0.130%
37	0.130%
42	0.150%
47	0.200%
52	0.240%
57	0.320%
62	0.430%

Rates of Termination of Employment (effective June 30, 2018)

Regular Membership

<u>Years of Service</u>	<u>Male</u>			<u>Female</u>		
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>State</u>	<u>School</u>	<u>Other</u>
1	11.00%	14.20%	19.00%	11.00%	14.20%	19.99%
5	4.75%	6.60%	7.50%	4.75%	6.60%	8.35%
10	2.25%	2.70%	4.10%	2.25%	2.70%	4.93%
15	1.60%	1.70%	2.64%	1.60%	1.70%	3.36%
20	1.10%	1.20%	2.10%	1.10%	1.20%	2.66%
25	0.80%	1.00%	1.60%	0.80%	1.00%	1.98%
30	0.80%	1.00%	1.10%	0.80%	1.00%	1.30%

Sheriffs/Deputies and Protection Occupation

<u>Age</u>	<u>Sheriffs/Deputies</u>	<u>Protection Occupation</u>
1	4.00%	10.00%
5	1.00%	6.50%
10	1.00%	3.50%
15	1.00%	2.20%
20	1.00%	1.45%
25	1.00%	1.00%
30	1.00%	1.00%



APPENDIX C– ACTUARIAL ASSUMPTIONS

Probability of Electing a Deferred Vested Benefit (effective June 30, 2018)

<u>Years of Service</u>	<u>Regular Membership</u>					
	<u>Male</u>			<u>Female</u>		
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>State</u>	<u>School</u>	<u>Other</u>
5	62.0%	74.0%	62.0%	56.0%	80.0%	70.0%
10	71.0%	79.0%	71.0%	62.0%	80.0%	73.0%
15	76.0%	84.0%	76.0%	72.0%	85.0%	80.0%
20	81.0%	89.0%	81.0%	82.0%	90.0%	85.0%
25	86.0%	94.0%	86.0%	92.0%	95.0%	90.0%
30	90.0%	95.0%	90.0%	100.0%	100.0%	90.0%

<u>Years of Service</u>	<u>Rate</u>
5	53.0%
10	65.0%
15	85.0%
20	95.0%
25	100.0%
30	100.0%

Rates of Salary Increase* (effective June 30, 2018)

<u>Years of Service</u>	<u>Annual Increase</u>			
	<u>State</u>	<u>School</u>	<u>Other</u>	<u>Sheriffs/Deputies and Protection Occupation</u>
1	14.25%	16.25%	14.25%	16.25%
5	7.75%	5.75%	5.35%	5.75%
10	5.50%	4.55%	4.55%	4.55%
15	4.45%	3.75%	4.05%	4.05%
20	3.85%	3.40%	3.75%	3.75%
25	3.60%	3.25%	3.65%	3.75%
30	3.35%	3.25%	3.65%	3.25%
35+	3.25%	3.25%	3.25%	3.25%

* Includes 3.25 % wage growth



APPENDIX C– ACTUARIAL ASSUMPTIONS

TECHNICAL VALUATION PROCEDURES

Data Procedures

In-pay members:

If a birth date is not available, the member is assumed to be 80. If a retirement date is also not available, the member is assumed to have retired at 65.

If a beneficiary birth date is needed but not supplied, husbands are assumed to be 3 years older than wives.

Not in-pay members:

If a birth date is not available, the member is assumed to be the average age of the members with the same status.

If gender is not provided, regular members are assumed to be female and Sheriffs/Deputies and Protection Occupation members are assumed to be male.

Salaries for first year members are annualized based on the number of quarters with wages.

Membership Transfers

IPERS provides a code in the valuation data to indicate that a member is in a membership group (regular, Sheriffs and Deputies and Protection Occupation) different from that on the prior valuation date. The actuarial liability for these members is calculated under the assumptions and provisions of the prior membership group. A preliminary funded ratio (before asset transfer) is determined for the three membership groups. Assets are then transferred from the prior to the current membership group based on the funded ratio of the prior group times the actuarial liability of the member in the prior group. Then, the members are revalued in the current membership group for purposes of valuation calculations.

Other Valuation Procedures

No actuarial accrued liability in excess of the unclaimed member contribution balance is held for nonvested, inactive members. Inactive vested members who have died are treated in the same manner.

The wages used in the projection of benefits and liabilities are considered earnings for the current year ending June 30, increased by the salary scale.

The calculations for the actuarial contribution rate are determined as of mid-year. This is a reasonable estimate since contributions are made throughout the year.

The projected IRC Section 415 limit for active participants was not valued. The impact was assumed to be *de minimus*.

The compensation limitation under IRC Section 401(a)(17) is considered in this valuation.

No future additions to, or payments from, the Favorable Experience Dividend Reserve Account or the Active Member Supplemental Accounts are reflected in the valuation.



APPENDIX D – CONTRIBUTION RATE FUNDING POLICY

Background:

IPERS is charged with setting a “Required Contribution Rate” for each membership category within IPERS that will discharge its liabilities. Iowa Code §97B.11(3)(d) provides the basic framework for implementing this charge by stating:

The Required Contribution Rate that is set by the system for a membership category shall be the contribution rate the system actuarially determines, based upon the most recent actuarial valuation of the system and using the actuarial methods, assumptions, and funding policy approved by the Investment Board, is the rate required by the system to discharge its liabilities as a percentage of the covered wages of members in that membership category. However, the Required Contribution Rate set by the system for members in regular service for a fiscal year shall not vary by more than one percentage point from the Required Contribution Rate for the prior fiscal year.

Goal:

To establish policy and procedures in setting contribution rates that combined with investment income will fund the benefits specified in Chapter 97B of the Iowa Code.

To move towards fully funding the benefits (100 percent or greater funded ratio) in as expeditious manner as is reasonable within the guidelines acknowledged herein.

Procedure:

The Investment Board shall retain a consulting actuary to conduct an annual actuarial valuation of assets and liabilities. The consulting actuary shall use the entry age normal cost method and all other actuarial assumptions and methods approved by the Investment Board.

In the annual valuation process, the consulting actuary shall calculate an Actuarial Contribution Rate and a Required Contribution Rate pursuant to this policy. Each shall be calculated as a level percent of pay.

There is a one-year lag between the completion of an annual actuarial valuation report and the fiscal year to which the contribution rates calculated therein are applied. Therefore, the Actuarial Contribution Rate and the Required Contribution Rate declared in the annual valuation process are applicable to the fiscal year immediately following the completion of the valuation report (for example the rates declared in the report presented to the Investment Board in December 2013 are applicable to the rates for the fiscal year beginning July 1, 2014).

Actuarial Contribution Rate (ACR):

1. ACR is the combined employer and employee contribution rate that is the minimum rate necessary to fund the benefits using the actuarial assumptions and methods approved by the Investment Board.
2. A separate ACR shall be determined for each membership group within IPERS according to this policy.
3. The ACR shall consist of:
 - a. Normal cost and an amortization payment (not less than zero) of any unfunded actuarial liability.
 - b. Normal cost may only be offset by a negative amortization payment after a membership group has attained a funded ratio of 110 percent or greater for 3 consecutive years.



APPENDIX D – CONTRIBUTION RATE FUNDING POLICY

Required Contribution Rate:

1. The Required Contribution Rate is the combined employer and employee rate payable pursuant to this policy and Iowa Code §97B.11(3)(d).
2. The Required Contribution Rate shall be determined by comparing the ACR determined in the annual valuation process to the Required Contribution Rate of the previous year.
 - a. If the ACR is less than the previous Required Contribution Rate by fewer than 50 basis points, then the Required Contribution Rate shall remain unchanged from the previous year.
 - b. If the ACR is less than the previous Required Contribution Rate by 50 basis points or more, then the Required Contribution Rate shall be lowered by 50 basis points provided the funded ratio of the membership group is 95 percent or higher.
 - c. If the ACR is greater than the Required Contribution Rate of the previous year, then the Required Contribution Rate shall be:
 - i. Increased to be equal to ACR for Sheriffs and Deputies.
 - ii. Increased to be equal to ACR for Protection Occupation Members.
 - iii. Increased to be equal to ACR for Regular Members, or one percentage point greater than the prior year's Required Contribution Rate, whichever is smaller.

Policy Guidelines:

In adopting actuarial assumptions and methods to be used in setting contribution rates, the Investment Board shall strive to provide a balance among the following:

1. Stability in contribution rates (such as use of smoothing and amortization schedules that do not produce dramatic swings in the required contributions from year to year).
2. Disciplined funding approach (such as requiring full payment of normal cost and an amortization payment towards the unfunded actuarial liability and deferring decreases in contribution rates until strong funded ratios are attained).
3. Interperiod equity (such as shortening the amortization schedule when reasonable and amortization of retroactive benefit enhancements over a reasonable time period such as the average working lifetime for active members and the average life expectancy of retired members).
4. Support an affordable, sustainable plan (in consultation with the Benefits Advisory Committee review affordability of required contribution rates and/or the benefit provisions).
5. At a minimum, this policy will be reviewed in conjunction with the quadrennial experience study.