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GASB STATEMENT NO. 67 REPORT

FOR THE

EMPLOYEES' RETIREMENT SYSTEM

OF THE

CITY OF MILWAUKEE

MEASUREMENT DATE: DECEMBER 31, 2018





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

May 29, 2019

Annuity and Pension Board
Employes' Retirement System of the City of Milwaukee
789 North Water Street, Suite 300
Milwaukee, WI 53202

Dear Members of the Board:

Presented in this report is information to assist the Employes' Retirement System of the City of Milwaukee (System) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 67 for the Measurement Date of December 31, 2018. The calculations in this report have been made on a basis that is consistent with our understanding of this accounting standard (GASB 67). Please note that the discount rate has changed from 8.24% at the Prior Measurement Date to 7.50% at the current Measurement Date.

The information in this report is based on an actuarial valuation performed by Cavanaugh Macdonald Consulting (CMC) as of January 1, 2018 with actuarial liabilities rolled forward to December 31, 2018. This valuation is used for accounting purposes and is different from the January 1, 2018 actuarial valuation presented by the prior actuary to the Annuity and Pension Board in June, 2018, which was used for funding purposes.

The valuation was based upon data, furnished by the System's staff, 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 for additional details on the funding requirements for the System including actuarial assumptions, actuarial methods, and the funding policy.



Annuity and Pension Board

May 29, 2019

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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 and individually reasonable based on the actual experience of the System. In addition, the calculations were completed in compliance with applicable law and, in our opinion, meet the requirements of GASB 67.

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, Larry Langer, ASA, and Patrice Beckham, 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, consisting of stylized initials 'LL'.

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink, reading 'Patrice Beckham' in a cursive script.

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



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REPORT OF THE ANNUAL GASB STATEMENT NO. 67

**THE EMPLOYEES' RETIREMENT SYSTEM
OF
THE CITY OF MILWAUKEE**

SUMMARY OF PRINCIPAL RESULTS

(\$ in Thousands)

Valuation Date (VD):	January 1, 2018
Prior Measurement Date:	December 31, 2017
Measurement Date (MD):	December 31, 2018
Membership Data:	
Retirees and Beneficiaries	13,196
Inactive Vested Members	2,768
Inactive Nonvested Members	367
Active Employees	<u>10,845</u>
Total	27,176
Single Equivalent Interest Rate (SEIR):	
Long-Term Expected Rate of Return	7.50%
Municipal Bond Index Rate at Prior Measurement Date	3.16%
Municipal Bond Index Rate at Measurement Date	4.13%
Year in which Fiduciary Net Position is Projected to be Depleted	N/A
Single Equivalent Interest Rate at Prior Measurement Date	8.24%
Single Equivalent Interest Rate at Measurement Date	7.50%
Net Pension Liability:	
Total Pension Liability (TPL)	\$6,289,760
Fiduciary Net Position (FNP)	<u>4,950,883</u>
Net Pension Liability (NPL = TPL – FNP)	\$1,338,877
FNP as a percentage of TPL	78.71%



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 Employees’ Retirement System of the City of Milwaukee (CMERS) was the plan year ending December 31, 2014. Based on the provisions of GASB 67, the CMERS is a cost-sharing multiple employer defined benefit pension plan.

This report, prepared as of December 31, 2018 (the Measurement Date), presents information to assist the CMERS in meeting the requirements of GASB 67 and is different from the actuarial valuation, prepared by the prior actuary for funding purposes and presented to the Annuity and Pension Board in June, 2018. The material provided in this report is based on an actuarial valuation performed by Cavanaugh Macdonald Consulting, LLC as of January 1, 2018 (the Valuation Date), with actuarial liabilities rolled forward to December 31, 2018, and plan asset information provided by the System for its fiscal year ended December 31, 2018.

GASB 67 discloses the Total Pension Liability (TPL) utilizing the Entry Age Normal actuarial cost method. If the valuation date at which the TPL is determined is before the Measurement Date, as is the case here, the TPL must be rolled forward to the Measurement Date. The Net Pension Liability (NPL) is equal to the rolled forward 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 analysis indicated that the FNP is not projected to be depleted, so the Municipal Bond Index Rate is not used in the determination of the SEIR. The SEIR for both the Measurement Date and the Prior Measurement Date use the long-term assumed rate of return on investments, 8.24% for the Prior Measurement Date and 7.50% for the current Measurement Date. Please see Paragraph 31.b.(1) for more explanation of the development of the SEIR.

The FNP projections are based upon the Employees' Retirement System of the City of Milwaukee'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 set out in GASB 67 for note disclosure and Required Supplementary Information (RSI).



SECTION I – FINANCIAL STATEMENT NOTES

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 is not provided by Cavanaugh Macdonald Consulting.

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 January 1, 2018, the date of the valuation used to determine the December 31, 2018 Total Pension Liability.

Membership

Number as of January 1, 2018	
Inactive Members Or Their Beneficiaries	13,196
Currently Receiving Benefits	
Inactive Members Entitled To But Not Yet Receiving Benefits	2,768
Inactive Nonvested Members	367
Active Members	10,845
Total	27,176

Paragraphs 30.a. (5)-(6) and Paragraphs 30.b.-f.: This information is not provided by Cavanaugh Macdonald Consulting.

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

Fiscal Year Ending December 31, 2018	
Total Pension Liability	\$ 6,289,760
Fiduciary Net Position	<u>4,950,883</u>
Net Pension Liability	\$ 1,338,877
Ratio of Fiduciary Net Position to Total Pension Liability	78.71%



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 December 31, 2018 was determined based on an actuarial valuation prepared by Cavanaugh Macdonald Consulting, as of January 1, 2018, rolled forward one year to December 31, 2018, using the following key actuarial assumptions and other inputs:

Price Inflation	2.50 percent
Wage Inflation	2.50 percent
Salary increases, including wage inflation	2.50 to 5.50 percent for General City and 4.00 to 13.40 percent for Policemen and Firemen
Long-term Rate of Return, net of investment expense, including price inflation	7.50 percent
Municipal Bond Index Rate	
Prior Measurement Date	3.16 percent
Measurement Date	4.13 percent
Year FNP is projected to be depleted	N/A
Single Equivalent Interest Rate, net of investment expense, including price inflation	
Prior Measurement Date	8.24 percent
Measurement Date	7.50 percent
Cost of Living Adjustments	Varies by employee group and decrement type (see summary of plan provisions)
Mortality	Pre-retirement mortality rates were based on the RP-2014 Healthy Non-Annuitant Mortality Table, projected generationally with Scale MP-2016. Post-retirement mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table, using 111% of rates for



males and 110% of rates for females, projected generationally with Scale MP-2016.

Disabled mortality rates were based on the RP-2014 Disabled Mortality Table, using 102% of rates for males and 98% of rates for females, projected generationally with Scale MP-2016.

The actuarial assumptions used in this valuation, other than the long-term rate of return, are based on the results of the most recent experience study covering the five-year period ending December 31, 2016 (report dated October 23, 2017). The long-term rate of return is based on analysis performed by Cavanaugh Macdonald and presented to the Board in March, 2019.

Paragraph 31.b.(1)

(a) Discount rate (SEIR): The discount rate used to measure the TPL at December 31, 2018 was 7.50 percent. The discount rate used to measure the TPL at the Prior Measurement Date was 8.24 percent.

(b) Projected cash flows: The projection of cash flows used to determine the discount rate assumed that plan contributions from members and the employers will be made as follows:

- a. Employee contribution rate: varies by group and date of hire.
 - General Employees: 5.5% if enrolled before January 1, 2014 and 4.0% if enrolled on or after January 1, 2014.
 - Elected Officials: 7.0% if enrolled before January 1, 2014 and 4.0% if enrolled on or after January 1, 2014.
 - Police Members: 7.0%
 - Fire Members: 7.0%
- b. Employer contribution rate: It was assumed that contributions from ERS agencies will be made at contractually required rates, which are actuarially determined.
- c. Administrative expenses in the prior year were projected forward with price inflation as an estimate for administrative expenses in 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 members on the Measurement Date. Therefore, the long-term expected rate of return on System investments of 7.50% was applied to all periods of projected benefit payments to determine the TPL.



The FNP projections are based upon the Employees' Retirement System of the City of Milwaukee'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 rate of return on pension plan investments was reviewed as part of the regular experience study, prepared for the System in October, 2017. Additional analysis was performed in early 2019 which resulted in a decrease in the long-term rate of return to 7.50%. 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, as developed by the System's investment consultant, for each major asset class. These ranges were combined to produce 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. This assumption is intended to be a long-term assumption (30 to 50 years) and is not generally 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 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 4.13% on the Measurement Date.
- (e) Periods of projected benefit payments:** Projected future benefit payments for all current plan members were projected through 2118.
- (f) Assumed asset allocation:** The target asset allocation and best estimates of arithmetic real rates of return for each major asset class as of the end of 2018, as provided by the System's investment consultant, Callan Associates, are summarized in the following table:



Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Global Equity	47.0%	7.3%
Fixed Income	25.0%	3.1%
Real Estate	7.7%	5.6%
Real Assets	3.3%	4.5%
Absolute Return	9.0%	2.9%
Private Equity	<u>8.0%</u>	10.6%
Total	100.0%	

*Arithmetic mean, net of investment expenses

(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 7.50 percent, as well as the NPL if it were calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or 1-percentage-point higher (8.50 percent) than the current rate.

(\$ in Thousands)	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Total Pension Liability	\$7,045,110	\$6,289,760	\$5,661,164
Fiduciary Net Position	<u>\$4,950,883</u>	<u>\$4,950,883</u>	<u>\$4,950,883</u>
Net Pension Liability	\$2,094,227	\$1,338,877	\$710,281

Paragraph 31.c.: The TPL at December 31, 2018 is based upon an actuarial valuation prepared by Cavanaugh Macdonald Consulting, as of January 1, 2018, rolled forward one year using standard actuarial techniques. The roll-forward begins with the actuarial accrued liability at January 1, 2018, adds the annual normal cost (also called service cost), subtracts the actual benefit payments and refunds for the plan year and then applies interest to December 31, 2018 using the discount rate as of the Prior Measurement Date.



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.-c.: The required tables of schedules are provided in Appendix A.

Paragraph 32.d.: The required schedule presenting the annual money-weighted rates of return is not provided by Cavanaugh Macdonald Consulting.

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

Changes of benefit and funding terms: The following changes to the plan provisions were reflected in the valuation performed as of January 1 listed below:

- 2014: A new tier of benefits applies to members of the General Employees and Elected Officials groups that were enrolled on or after January 1, 2014. The normal retirement age is extended to age 65 or age 60 with 30 years of creditable service. The service retirement benefit is 1.6% (compared to 2.0% for those enrolled before 2014) and the pension escalator is 2% commencing on the fifth anniversary of retirement. The employee contribution rate for those hired on or after January 1, 2014 is 4% of pay (rate for those hired before 2014 is 5.5%).
- 2010: Various groups of City employees hired on or after January 1, 2010 will contribute 5.5% of their earnable compensation.
- 2009: Firefighters can select their PSO at attainment of age 49 and at least 22 years of service.



Changes in actuarial assumptions and methods:

1/1/2018 valuation:

- The investment return assumption was lowered from 8.50% beginning in 2018 to 8.00% for calendar years 2018 through 2022 and 8.25% thereafter.
- The inflation assumption was lowered from 3.00% to 2.50%.
- The payroll growth assumption was set at 2.00%.
- Salary increase assumption was lowered for General Employees. The assumption for Police and Fire was lowered for ages under 28 and increased for ages 28 and older.
- The post-retirement mortality assumption was changed to the RP-2014 Healthy Annuitant Mortality Table, using 111% of rates for males and 110% for females, with Scale MP-2016 for future mortality improvements. Disabled mortality assumption was changed to the RP-2014 Disabled Mortality Table, using 102% of rates for males and 98% of rates for females, with Scale MP-2016 for future mortality improvements. Active mortality was changed to the RP 2014 Employee Mortality Table with future mortality improvements anticipated with Scale MP-2016.
- Retirement rates were modified to better reflect the actual, observed experience.
- Termination rates were modified to better reflect the actual experience, by group.
- Disability rates, for each group, were adjusted to better fit the actual experience.
- The actuarial cost method was changed from the Projected Unit Credit to Entry Age Normal.
- The asset valuation method was changed to eliminate the 20% corridor around the market value of assets.
- The amortization of the UAAL was changed to a “layered” approach. The UAAL as of January 1, 2018 is amortized over a closed 25-year period and new pieces of UAAL resulting from actuarial gains and losses are amortized over a closed 15-year period beginning on the valuation date. Changes to the UAAL resulting from changes in actuarial methods or plan provisions are amortized over a closed 25-year period. Amortization payments for each base increase at 2.00% per year.

1/1/2013 valuation:

- The investment return assumption was changed to 8.50% for calendar years 2000 through 2012, 8.25% for calendar years 2013 through 2017 and 8.50% beginning with calendar year 2018.
- The salary increase assumptions were lowered.



- Termination rates were increased for General Employees with less than 5 years of service and decreased for all other employees.
- Retirement rates were decreased for all employees.
- Disability rates were increased for Firefighters and decreased for all other employees.
- The mortality assumption was changed to reflect future mortality improvements, thereby reflecting longer life expectancy.
- The assumption regarding selection of option was updated to reflect current experience.
- The Stable Employer Contribution Rate Policy was implemented with the January 1, 2013 valuation.
- The Full Funding Limit (Section 36-08-6-a-2) was eliminated.

1/1/2009 valuation:

- The asset valuation method was changed from three to five year smoothing and the corridor was increased from 10% to 20%.
- The amortization policy was changed to a closed 25 year period beginning January 1, 2009 and payments were changed from level dollar to level percent of payroll.



Method and assumptions used in calculations of Actuarially Determined Contributions.

The System is funded with contribution rates from employees and employers. The Actuarially Determined Contributions in the *Schedule of Employer Contributions* are calculated as of the beginning of the fiscal year in which contributions are reported.

The following actuarial methods and assumptions were used to determine the Actuarially Determined Contribution reported for the most recent Measurement Date, December 31, 2018 (based on the January 1, 2018 actuarial valuation).

Actuarial cost method	Entry age normal-level percent of pay
Amortization method	Level percent of payroll, closed
Remaining amortization period	25 years
Asset valuation method	5-year smoothing of difference between expected return on actuarial value and actual return on market value
Price Inflation	2.50 percent
Salary increase, including price inflation	General City: 2.5% to 5.5% Police & Fire: 4.0% to 13.4%
Long-term Rate of Return, net of investment expense, including price inflation	8.00 percent for calendar years 2018 through 2022 and 8.25% thereafter
Cost of Living Adjustments	Varies by employee group and decrement type (see plan provisions)
Mortality Assumption	Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant Mortality Table, using 111% of rates for males and 110% of rates for females, projected generationally with Scale MP-2016. Disabled mortality rates are based on the RP-2014 Disabled Mortality Table, using 102% of rates for males and 98% of rates for females, projected generationally using Scale MP-2016. Active mortality rates are based on the RP-2014 Employee Mortality Table, projected generationally using Scale MP-2016.

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 Actuarially Determined Contributions shown in the *Schedule of Employer Contributions*.



APPENDIX A

**REQUIRED
SUPPLEMENTARY INFORMATION**



Exhibit A

GASB 67 Paragraph 32(a) and (b) SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY (\$ in Thousands)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service Cost	\$75,119	\$77,681	\$70,377	\$70,500	\$69,693
Interest	464,845	441,811	430,745	418,874	409,899
Benefit term changes	0	0	0	0	0
Differences between expected and actual experience	(91,515)	67,154	(9,921)	(30,036)	0
Assumption changes	475,766	244,993	0	(5,206)	0
Benefit payments, including member refunds	<u>(393,526)</u>	<u>(385,331)</u>	<u>(351,303)</u>	<u>(347,888)</u>	<u>(342,569)</u>
Net change in Total Pension Liability	\$530,689	\$446,308	\$139,898	\$106,244	\$137,023
Total Pension Liability - beginning	\$5,759,071	\$5,312,763	\$5,172,865	\$5,066,621	\$4,929,598
Total Pension Liability - ending (a)	\$6,289,760	\$5,759,071	\$5,312,763	\$5,172,865	\$5,066,621
Plan Fiduciary Net Position					
Employer contributions	\$83,166	\$83,524	\$74,095	\$72,198	\$72,844
Employee contributions	32,085	32,494	35,918	49,553	43,663
Net investment income	(160,188)	787,808	383,747	34,981	238,985
Benefit payments, including member refunds	(393,526)	(385,331)	(351,303)	(347,888)	(342,569)
Administrative expenses	(7,181)	(8,637)	(8,096)	(9,686)	(10,831)
Other	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	(\$445,644)	\$509,858	\$134,361	(\$200,842)	\$2,092
Plan Fiduciary Net Position - beginning	\$5,396,527	\$4,886,669	\$4,752,308	\$4,953,150	\$4,951,058
Plan Fiduciary Net Position - ending (b)	\$4,950,883	\$5,396,527	\$4,886,669	\$4,752,308	\$4,953,150
Net Pension Liability - ending (a) - (b)	\$1,338,877	\$362,544	\$426,094	\$420,557	\$113,471
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	78.71%	93.70%	91.98%	91.87%	97.76%
Covered payroll	\$574,394	\$577,119	\$583,950	\$535,802	\$529,939
Employers' Net Pension Liability as a percentage of covered payroll	233.09%	62.82%	72.97%	78.49%	21.41%

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

Information prior to 2018 was produced by the prior actuary.



Exhibit B

GASB 67 Paragraph 32(c) SCHEDULE OF EMPLOYER CONTRIBUTIONS (\$ in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined employer contribution	\$83,166	\$83,524	\$74,095	\$72,198	\$72,844	\$79,533	\$73,159	\$0	\$0	\$60,098
Actual employer contributions	<u>83,166</u>	<u>83,524</u>	<u>74,095</u>	<u>72,198</u>	<u>72,844</u>	<u>79,533</u>	<u>73,159</u>	<u>0</u>	<u>0</u>	<u>60,098</u>
Annual contribution deficiency (excess)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>						
Covered-employee payroll	\$574,394	\$577,118	\$583,950	\$535,802	\$529,939	\$521,651	\$523,738	\$525,181	\$538,218	\$553,846
Actual contributions as a percentage of covered-employee payroll	14.48%	14.47%	12.69%	13.47%	13.75%	15.25%	13.97%	0.00%	0.00%	10.85%

Note: Information prior to 2018 was produced by the prior actuary.



APPENDIX B

SUMMARY OF MAIN BENEFIT PROVISIONS

Eligibility for Membership

Membership is optional for all Employees that were in service as of January 1, 1938. New Employees are automatically members as a condition of employment. Membership is optional for elected officials. Note that unless specifically stated, elected officials follow the same rules as General Employees.

Additionally, effective January 1, 2014, there are two tiers of benefits. Tier 1 is for General Employees enrolled prior to January 1, 2014, and all Fire and Police Employees. Tier 2 is for General Employees enrolled on or after January 1, 2014.

Participation in the Combined Fund

On January 19, 2001 the Combined Fund was created and was retroactive to January 1, 2000. Individuals who participate in the Combined Fund may be eligible for certain benefit enhancements which are described in this Summary of Plan Provisions. Members who enroll in the ERS after June 28, 2000, and their eligible survivors, are automatically participants in the Combined Fund. Members enrolled in the ERS on or before June 28, 2000, and their eligible survivors, participate in the Combined Fund provided that the members consented in writing to the Global Pension Settlement. Eligible survivors of members or retirees who died on or before June 28, 2000 participate in the Combined Fund provided that the eligible survivors consented in writing to the Global Pension Settlement. Members or survivors whose benefit payments ceased prior to January 1, 2000, are not eligible for benefits from the Combined Fund.

Creditable Service

Creditable service equals prior service plus membership service. Prior service includes service as an employee prior to January 1, 1938, or prior to an amendment which made the employee eligible for membership in the ERS. Membership service means service as an employee since last becoming a member, on account of which contributions are made.

- For most Employees, 2080 hours of service constitute one year of creditable service. For prevailing wage Employees (carpenters and other tradespeople) 2000 hours constitute one year. For members employed by the school board for a 10-month school year, 1600 hours of service constitute a year of creditable service. After July 2006, for members serving as firefighters, 2590 hours of service constitutes one year of creditable service. After



September 2016, for members serving as firefighters, 2756 hours of service constitutes one year of creditable service.

- Under certain conditions creditable service may be granted for periods of absence due to military service.
- For purposes of computing the service retirement allowance only, creditable service is granted for periods of eligibility for a duty disability retirement allowance.
- No more than one year of creditable service is granted for service in a single calendar year.

Imputed Service

Imputed service credit may be granted, under specified conditions, to members who consented to the Global Pension Settlement. Imputed service credit is used to calculate the amount of certain benefits, but is not used to determine eligibility for any kind of benefit. An individual may be eligible for one or more types of imputed service credit.

Eligibility for Imputed Service Credit

Only individuals participating in the Combined Fund can become eligible for the following types of imputed service credit.

- a) **Imputed military service credit:** The member must have been active in the armed forces of the United States of America prior to his or her enrollment in the ERS, and must have been honorably discharged. A member must be described as in 36-04-1-c. An individual eligible for imputed military service credit must apply for the credit.
- b) **Imputed fire and police service credit:** The member must be described as in 36-04-4-a. The member must have been in active ERS service as a fireman or policeman as of January 1, 2000, and must also retire from ERS service as a fireman or policeman, or die while a fireman or policeman eligible for protective survivorship option benefits. To be eligible, the member must retire or die as a policeman or fireman and must have attained the minimum service retirement requirements as outlined in 36-05-1.
- c) **Imputed service credit under the dissolution of the Firemen and Policemen's Survivorship Fund, (the "Fund"):** The member must be described as in 36-04-4-b. The member must have been a policeman who was an active member of the "Fund" as of January 1, 2000. If the policeman was in active ERS service as of January 1, 2000, he must either retire as a policeman on a service retirement allowance at the minimum service retirement age of 57 or after completing 25 years of creditable service as a fireman or policeman; or he must



retire on a policeman's duty disability retirement allowance and subsequently convert to a service retirement allowance. If the policeman was retired on a duty disability retirement allowance as of January 1, 2000, then he must subsequently convert to a service retirement allowance.

Benefits Affected by Imputed Service Credit

- a) Imputed military service credit and/or imputed fire and police service credit: The amount of the service retirement allowance, the conversion service retirement allowance, protective survivorship option benefits, and the extended life duty disability retirement allowance are affected. If the eligible individual is also entitled to a 5% Lump Sum Bonus, and/or an 8.6% Dissolution Bonus that is based on the affected benefit, then the imputed service credit is included in calculating the base for the bonus payment(s).
- b) Imputed service credit under the dissolution of the Firemen and Policemen's Survivorship Fund: The amount of the service retirement allowance and the conversion service retirement allowance are affected. If the service retirement allowance is affected, then the imputed service credit is included in calculating the base for the 5% Lump Sum Bonus.

See the benefit descriptions later in this summary for further details on how imputed service credit is used.

Amount of Imputed Service Credit

- a) Imputed military service credit: A period of eligible military service consists of a period of at least 90 consecutive days of active service in the armed forces of the United States prior to enrollment in the ERS. Total eligible military service equals the sum of all periods of eligible military service. Imputed military service credit equals one-third of the member's total eligible military service, to a maximum of three years of imputed military service credit.
- b) Imputed fire and police service credit: For policemen and firemen with 20 years of creditable service as a fireman or policeman - 1.5 years. For firemen with less than 20 years of creditable service as a fireman or policeman: 1.5 years times the full years of creditable fire and police service, divided by 20.
- c) Imputed service credit under the dissolution of the Firemen and Policemen's Survivorship Fund: 2 years.



Seasonal Service

Seasonal service credit may be granted under specified conditions to certain General City Employees. Seasonal service credit is used to calculate the amount of certain benefits but is not used to determine eligibility for any kind of benefit.

Eligibility for Seasonal Service Credit

In order to be eligible for seasonal service credit, a member must be a General City employee with five or more years of City service credit, and a member of one of the groups as outlined in 36-04-1-d.

Benefits Affected by Seasonal Service Credit

Seasonal service credit affects the amount of the service retirement allowance, the conversion service retirement allowance and protective survivorship option benefits. If the eligible individual is also entitled to a 5% Lump Sum Bonus that is based on the affected benefit, then the seasonal service credit is included in calculating the base for the bonus payment.

Amount of Seasonal Service Credit

Seasonal service is based on the hours worked as a City Labor-Seasonal employee and/or Playground Laborer-Seasonal employee (MPS), but limited to one year of additional service credit.

Qualifying for an ERS Benefit

Rules regarding qualifying time are encapsulated in the ERS Board Rules & Regulations, XV.G. The rules have been adopted and applied prospectively for enrollments prior to 1995, 1995 to 2001 and post 2001. All members are fully vested after attaining four years of qualifying time.

Earnable Compensation

The annual regular base salary that would be payable to a member if he or she worked the full normal working time for his or her position as described in 36-02-12. Earnable compensation for the calendar year preceding retirement may also include special pays as negotiated in labor agreements such as longevity in rank pay, (limited) variable shift assignment pay, police liaison officer pay, and/or certification pay for policemen; and emergency medical technician pay for firemen. Earnable compensation for school board Employees represented by Local 950, OEIU, also includes site differential pay.



Final Average Salary

- a) For General Employees, final average salary means the average annual earnable compensation computed on the 3 years of creditable service preceding retirement, death or separation from service during which earnable compensation was the highest.
- b) For policemen and firemen, final average salary means the average annual earnable compensation computed on the year of creditable service preceding retirement, death or separation from service during which earnable compensation was the highest.
- c) For members converting from a duty disability retirement allowance to a service retirement allowance, the service retirement allowance is computed on the basis of the current compensation of the member's position at the service retirement date.

Service Retirement

Eligibility for Service Retirement

For Tier 1 Benefits (applicable to General Employees enrolled prior to January 1, 2014 and all Fire and Police Employees), eligibility for service retirement is as defined under 36-05-01 as follows:

- a) A service retirement allowance is payable to any member who elects to retire after attaining the minimum service retirement age, which is age 60 for General Employees and age 57 for policemen and firemen.
- b) General Employees that have attained age 55 and completed 30 years of qualifying time are eligible for service retirement.
- c) Policemen who participate in the Combined Fund are eligible for service retirement at any age after attaining 25 years of fire or police qualifying time, if they were hired prior to December 20, 2015.
- d) Policemen who participate in the Combined Fund, who have attained age 50 are eligible for service retirement after completing 25 years of police qualifying time, if they were hired on/after December 20, 2015.
- e) Firemen who participate in the Combined Fund, who have attained age 49 and completed 22 years of fire or police qualifying time, are eligible for service retirement, if they were hired prior to July 30, 2016.



- f) Firemen who participate in the Combined Fund, who have attained age 52 and completed 25 years of fire qualifying time, are eligible for service retirement, if they were hired on/after July 30, 2016.
- g) Policeman and firemen who are not participants in the Combined Fund are eligible for service retirement after attaining age 52 and completing 25 years of fire or police qualifying time.

For Tier 2 Benefits (applicable to General Employees enrolled on or after January 1, 2014), eligibility for service retirement is as defined under 36-05-01 as follows:

- a) A service retirement allowance is payable to any member who elects to retire after attaining the minimum service retirement age, which is age 65 for General Employees.
- b) General Employees that have attained age 60 and completed 30 years of qualifying time are eligible for service retirement.

Amount of Service Retirement Allowance

The amount of a member's service retirement allowance under 36-05-01 is equal to the following:

- a) For General Employees, enrolled prior to January 1, 2014, 2% of final average salary for each year of creditable service, imputed military service, or seasonal service limited to 70% of final average salary. For General Employees, enrolled on or after January 1, 2014, 1.6% of final average salary for each year of creditable service, imputed military service, or seasonal service limited to 70% of final average salary.
- b) For firemen enrolled prior to March 1, 1989, and policemen enrolled prior to July 1, 1989, and who were in active service on or after January 1, 1995, 2.5% of final average salary for each year of creditable service or imputed service (of any kind).
- c) For firemen enrolled after February 28, 1989, and policemen enrolled after June 30, 1989, 2.5% of final average salary for each year of creditable service or imputed military service, limited to 90% of final average salary, plus 2.5% of final average salary for each year of imputed fire and police service or imputed service under the dissolution of the Firemen and Policemen's Survivorship Fund.
- d) For elected officials enrolled prior to January 1, 2014, 2.6% of final average salary for each year of creditable service as an elected official for years before 1996, limited to 70% of the final average salary; from 1996 forward the rate of accrual for creditable service, imputed military service, or seasonal service is 2.5% except for the mayor, who will have an accrual



rate of 2.0%, limited to 70% of the final average salary, except for elected officials who were enrolled prior to 2014 and are first elected to office on or after January 1, 2014, in which case their accrual rate is 2% for each year if they contribute 5.5% of their earnable compensation, or 2.5% for each year if they contribute 7% of their earnable compensation. For elected officials enrolled on or after January 1, 2014, 1.6% of final average salary for each year of creditable service as an elected official limited to 70% of the final average salary.

Funds Charged with Service Retirement Allowance

For individuals participating in the Combined Fund, service retirement allowance payments are charged to the Combined Fund. For all other individuals, the service retirement allowance is charged to (i) the Retirement Fund if the member's enrollment date is prior to February 1, 1996, and (ii) the Combined Retirement and Disability Fund if the member enrolled on or after February 1, 1996.

Ordinary Disability Retirement Allowance

Eligibility for Ordinary Disability Retirement Allowance

A member who the medical council certifies is mentally or physically incapacitated for further performance of duty that such incapacity is likely to be permanent and that such member should be retired, is eligible for the ordinary disability retirement allowance. The ordinary disability allowance is not payable if the member qualifies for the duty disability allowance.

Amount of Ordinary Disability Retirement Allowance

Imputed service credit and seasonal service credit are not used in any part of the calculation of the Ordinary Disability Retirement Allowance. The "service retirement allowance" referred to below is calculated based on creditable service only.

- a) For General Employees, 90% of the service retirement allowance based on creditable service to date of disability retirement, but no less than 25% of final average salary, provided such amount does not exceed 90% of the retirement allowance payable had the member continued in service to the minimum service retirement age.
- b) For policemen and firemen hired after January 1, 1971, who have 5 years of service, 25% of final average salary plus 2% thereof for each year of creditable service in excess of 5 years up to a maximum of 50% of final average salary.



- c) For policemen and firemen hired before January 1, 1971, the greater of the benefit described in (a), or the benefit described in (b).
- d) The benefit is payable for life while the member remains disabled, except that for General Employees with less than 10 years of qualifying time, the duration is limited to one-fourth (1/4) of the period of the service accrued to the date of disability.
- e) Members receiving benefits for life may elect reduced benefits under an optional form of payment in order to provide a death benefit to a designated beneficiary.

Funds Charged with Ordinary Disability Retirement Allowance

Ordinary disability retirement allowance payments are charged to the Combined Fund if the eligible individual is a participant in the Combined Fund. Otherwise, the allowance is charged to (i) the Retirement Fund, if the member's enrollment date is before February 1, 1996, and (ii) the Combined Retirement and Disability Fund, if the member's enrollment date is on or after February 1, 1996.

Duty Disability Retirement Allowance

Eligibility for Duty Disability Retirement Allowance

If a member becomes permanently and totally incapacitated for duty as a result of the performance of his duty, and his mental or physical incapacitation is medically certified, such member is eligible for a duty disability retirement allowance. Unless the member is beyond his/her conversion age, in which case the member would be eligible for an extended lifetime Duty Disability benefit. The medical certification is made by the Medical Council for General Employees, for members of the MPA enrolled after June 28, 2005, and for members of the MPFFA enrolled after December 13, 2005 with disability based on a mental injury. For all other members, the medical certification is made by the Medical Panel, except as indicated below. There are certain diseases that are considered presumptive for purposes of duty disabilities.

All new duty disability applications are reviewed by the Medical Council effective June 19, 2016 for MPA members, effective January 1, 2016 for MPSO members, and effective July 29, 2016 for MPFFA members.

Effective July 14, 2015, a new state law was enacted related to duty disability benefits for mental injuries (section 62.624 Wis. Stat.). The ERS may only provide a duty disability benefit for a mental injury if the following criteria are met:



- a) The mental injury resulted from a situation of greater dimensions than the day-to-day mental stresses and tension and post-traumatic stress that all similarly situated Employees must experience as part of the employment, *and*
- b) The employer certifies that the mental injury is a duty-related injury.

Only if a duty-related mental injury has occurred, can the duty disability application be forwarded to the Medical Panel or Medical Council for the examination and requisite certification.

Amount of Duty Disability Related Benefits

Imputed service credit and seasonal service credit are not used when calculating a duty disability retirement allowance. Imputed service credit or seasonal service credit is used when calculating the conversion service retirement allowance referred to in paragraphs (a) - (c) below. Eligibility for imputed military service credit depends upon the date of the conversion, not upon the date of the duty disability retirement.

- a) For General Employees, the duty disability retirement allowance equals 75% of the member's final average salary. Members receive the allowance, while disability continues, until the later of age 65, or for a period of 5 years, at which time they convert to a service retirement allowance. General Employees receiving duty disability benefits may elect reduced benefits under an optional form of payment in order to provide a death benefit to a designated beneficiary.
- b) For firemen and policemen, the duty disability retirement allowance is 75% of the current annual salary for the position held by the member at retirement, plus \$40 per month for each child younger than age 18 (up to a maximum of 20% of the member's salary). In certain cases of extreme disability, when approved by a panel of physicians, the disability allowance will be 90% of such salary. Duty disability benefits paid to firemen on account of heart and lung disease are at the 75% level. In the event of the death of a policeman or fireman receiving a 75% or 90% disability allowance, 70% or 75%, respectively, of the amount of the member's allowance shall be paid to the member's spouse during her lifetime.

The 90% duty disability allowances are payable for life. For policemen enrolled on or after January 1, 1990, and firemen enrolled on or after December 17, 1989, the 75% duty disability allowances are payable until the earlier of attainment of age 57, or completion of 25 years of service and attainment of age 52, at which time the member must either convert to a service retirement allowance or irrevocably elect to receive a recalculated duty disability allowance, referred to as an extended life duty disability allowance, as described in (c), below. Different conversion age requirements apply to policemen enrolled prior to



January 1, 1990, and firemen enrolled prior to December 17, 1989, as discussed in (d), below. A fireman or policeman who becomes duty disabled on or after his conversion age may choose between a service retirement or extended life duty disability retirement.

- c) The extended life duty disability allowance referred to in (b), above, equals the lesser of the conversion service retirement allowance, or 75% of the current annual salary, provided further that the benefit will not be less than 57% of current annual salary for a fireman, or 60% of current annual salary for a policeman. “Current annual salary” here refers to the salary at the conversion age, for the position held by the member at the time of injury. The extended life duty disability allowance is payable for life and, unlike the duty disability allowance, is a fixed amount that does not change after the conversion age, notwithstanding any cost of living adjustments. Firemen or policemen receiving extended life duty disability benefits may elect reduced benefits under an optional form of payment in order to provide a death benefit to a designated beneficiary. Their spouses are not eligible to receive the 70% benefit payable to surviving spouses of firemen and policemen who die while in receipt of the 75% duty disability benefit.
- d) For policemen enrolled prior to January 1, 1990, and firemen enrolled prior to December 17, 1989, the conversion age determination depends upon the member’s enrollment date and whether or not the member signed the DeBraska II release form.

Under Charter Ordinance 980130 Substitute 2 (DeBraska I), duty disabled firemen and policemen who retired on duty disability before October 17, 1992, have a conversion age equal to the greater of the conversion age in effect when they were enrolled, or the conversion age in effect at the time of their disability retirement.

Under Charter Ordinance 000789 (DeBraska II), duty disabled firemen and policemen who signed the DeBraska II release form are subject to the following conversion requirements: (i) members retired on duty disability prior to February 8, 1972, will receive duty disability benefits for life; (ii) members enrolled prior to February 8, 1972, who are either policemen who retired on duty disability on or after August 1, 1985, or firemen who retired on duty disability on or after March 1, 1984, will have a conversion age of 63; (iii) members enrolled on or after February 8, 1972, who retired on duty disability on or after October 17, 1992, will not be required to convert to service retirement prior to the conversion age requirements that were in effect when they enrolled; and (iv) for all other members who signed the DeBraska II release form, there is no difference between the conversion requirements of Charter Ordinance 980130 Substitute 2, and Charter Ordinance 000789. In general, only members who were duty disabled prior to January 1, 2001 were given the opportunity to sign the DeBraska II release form.



Under the Charter Ordinance (which reflects the Rehrauer decision) firemen and policemen who retire (or previously retired) on duty disability and who did not sign the DeBraska II release form will convert at the highest conversion age agreed upon during their employment (Section 36-05-3). Members who enrolled prior to February 8, 1972, who are either policemen who retired on duty disability on or after November 1, 1976, or firemen who retired on duty disability on or after October 1, 1977, will receive duty disability for life if they did not sign the DeBraska II release form, and will have a conversion age of 63 if they did sign the DeBraska II release form.

Funds Charged with Duty Disability Related Benefits

- a) For participants in the Combined Fund, duty disability benefits paid to members, benefits paid to survivors of members who die while duty disabled, child allotment payments, conversion service retirement benefits, and extended life duty disability benefits are paid from the Combined Fund.
- b) For General Employees who do not participate in the Combined Fund, duty disability benefits, and survivor benefits paid to beneficiaries of General Employees who elect an optional form of payment and die while disabled, are paid from (i) the General Employees Duty Disability Fund if the member's enrollment date is prior to February 1, 1996, and (ii) the Combined Retirement and Disability Fund if the member's enrollment date is on or after February 1, 1996.
- c) For members who do not participate in the Combined Fund, benefits paid after conversion to either a service retirement allowance or an extended life disability benefit are charged to (i) the Retirement Fund if the member's enrollment date is prior to February 1, 1996, and (ii) the Combined Retirement and Disability Fund if the member's enrollment date is on or after February 1, 1996.

Ordinary Death Benefit

Eligibility and Amount of Ordinary Death Benefit

- a) In the event of death of a member while in service, a death benefit equal to the sum of the member's accumulated contributions, plus if the member has one or more years of active service, one-half his final average salary is payable to the designated beneficiary. Optional forms of payment of such benefit to the beneficiary are provided. If the member had elected a protective survivorship option – and duty death benefits are not payable – such option will become effective and the ordinary death benefit will not be payable. If a duty death benefit is payable the ordinary death benefit will not be paid.



- b) Unless the member elects an optional death benefit, the death benefit subsequent to retirement is the amount remaining, if any, of the member's contributions with interest to retirement less the sum of the allowance payments made prior to the member's death.

Funds Charged with Ordinary Death Benefits

Ordinary death benefits paid on behalf of a participant in the Combined Fund are charged to the Combined Fund. Otherwise, ordinary death benefits are charged to (i) the Retirement Fund if the member's enrollment date is prior to February 1, 1996, and (ii) the Combined Retirement and Disability Fund if the member's enrollment date is on or after February 1, 1996.

Protective Survivorship Option

Eligibility and Amount of Protective Survivorship Option

Firemen may elect a Protective Survivorship Option (PSO) during the 6 months that precede the earlier of attainment of age 49 and completion of 22 years of qualifying time as a fireman or policeman, or age 52 and 25 years of qualifying time as a fireman or policeman, or age 57. Policemen may elect a Protective Survivorship Option (PSO) during the 6 months that precede the earlier of attainment of age 57, or completion of 25 years of qualifying time as a policeman or fireman. Firemen and policemen who fail to elect a PSO during the eligible period are deemed to have elected an Option 2 PSO with the spouse as the named beneficiary.

General Employees who enrolled prior to January 1, 2014, may elect a PSO during the 6 months that precede the earlier of attainment of age 60 or completion of 30 years of qualifying time and attainment of age 55. General Employees who enrolled on or after January 1, 2014, may elect a PSO during the 6 months that precede the earlier of attainment of age 65, or completion of 30 years of qualifying time and attainment of age 60.

Firemen and policemen are allowed to reselect a PSO if they marry, or divorce, and to select a different option and/or beneficiary at retirement, if they wish. As of June 5, 2012, General Employees may also reselect a PSO if they marry, or divorce, or select a different option and/or beneficiary at retirement.

The PSO may be canceled if the joint annuitant predeceases the member before retirement; or if the member is divorced from the joint annuitant before retirement.

Under a PSO, if a member eligible to retire on a service retirement allowance dies prior to retirement, benefits begin to the named beneficiary just as if the member retired under such option



immediately prior to his or her death, except that imputed service credit arising from the dissolution of the Firemen and Policemen's Survivorship Fund will not be used in the calculation of the PSO benefit. If a fireman eligible for PSO coverage dies prior to age 49, benefits for the named beneficiary will be deferred until the date the fireman would have attained age 49. Imputed military service, imputed fire and police service, and seasonal service credit may be used in the calculation of the deferred PSO benefit.

In all cases where the requirements are met for both a PSO benefit and a duty death benefit, the duty death benefit will be payable in lieu of the PSO.

Funds Charged with PSO Benefits

PSO benefits for participants in the Combined Fund are charged to the Combined Fund. Benefits for individuals who do not participate in the Combined Fund are charged to (i) the Retirement Fund if the member's enrollment date is prior to February 1, 1996, and (ii) the Combined Retirement and Disability Fund if the member's enrollment date is on or after February 1, 1996.

Duty Death Benefits

Eligibility and Amount of Duty Death Benefits

In the event the member's death occurs in the performance of his duty, a lump sum payment equal to the member's accumulated contributions, plus an annuity of 60% of such deceased member's final average salary will be paid to one of the following (payable in this order):

- The member's surviving spouse
- The member's children until their 21st birthday
- The member's dependent parents

Death of a fireman that is due to heart or lung disease is considered a duty death.

Funds Charged with Duty Death Benefits

Benefits payable to participants in the Combined Fund are charged to the Combined Fund. Heart & Lung duty death benefits payable to individuals who are not participants in the Combined Fund are charged to the Heart & Lung Fund. Duty death benefits (other than Heart & Lung) payable to individuals who are not participants in the Combined Fund are charged to (i) the Retirement Fund for members whose enrollment dates are prior to February 1, 1996; and (ii) the Combined Retirement and Disability Fund for members whose enrollment dates are on or after February 1, 1996.



Member Contributions

Member contribution rates are the following percentages of annual salary:

General Employees	5.5% (tier 1 – enrolled prior to January 1, 2014) 4.0% (tier 2 – enrolled on or after January 1, 2014)
Firemen and Policemen-	7.0%
Elected Officials	7.0% (tier 1 – enrolled prior to January 1, 2014 and elected to an office prior to January 1, 2014; if enrolled prior to January 1, 2014, and elected or the first time to an office on or after January 1, 2014, and employee was paying contributions prior to being elected, employee pays contributions at the rate they were paying prior to becoming an elected official; if enrolled prior to January 1, 2014, and elected or the first time to an office on or after January 1, 2014, and employer was picking up contributions on behalf of the employee prior to being elected, employer pays 7.0%) 4.0% (tier 2 – enrolled on or after January 1, 2014)

Under state law, per 2011 Wisconsin Act 10, participating employers are no longer permitted to make contributions on the member's behalf (with the exception of contractually agreed upon arrangements).

Member contributions made for or by participants in the Combined Fund are credited to the Combined Fund. Member contributions made for or by individuals who are not participants in the Combined Fund are credited to (i) the Retirement Fund for members whose enrollment dates are prior to February 1, 1996; and (ii) the Combined Retirement and Disability Fund for members whose enrollment dates are on or after February 1, 1996.



Pension Escalators

Several different pension escalators are paid by the ERS as listed and described under section 36-05-1(h). They are as follows:

- Fire and Police \$50 Escalator

Eligible Groups and Amounts

- a) Firemen in Local 215 who retired under a service retirement allowance between March 1, 1990, and December 31, 1992; members of the Milwaukee Police Association (MPA) who retired under a service retirement allowance between January 1, 1990, and December 31, 1992; members of the Milwaukee Police Supervisors Organization who retired under a service retirement allowance between January 1, 1991, and December 31, 1992; and firemen in Local 215 or members of the MPA who elect a deferred retirement allowance after separating from service between January 1, 1993, and December 31, 1994, with 25 years of service; are eligible for a pension escalator which increases their allowance by \$50 per month on the 4th, 7th, and 10th anniversary of retirement.
- b) Members who both retired on duty disability and converted from duty disability to service retirement during the eligibility period are eligible for the escalators on the 4th, 7th, and 10th anniversaries of their conversion dates.
- c) The surviving spouses of eligible retirees, or of members who died during the eligibility period, are eligible provided that the member elected an optional benefit at retirement – or elected a protective survivorship option (PSO) prior to retirement – with the spouse as beneficiary. The member’s surviving spouse receives increases on the member’s 4th, 7th, and 10th anniversary of retirement (or spouse’s retirement date in the case of a PSO) with the amount of the escalator adjusted to reflect the option elected by the member.

Funds Charged with Duty Death Benefits

Fire and Police \$50 escalators paid to participants in the Combined Fund are charged to the Combined Fund.

Fire and Police \$50 escalators paid to individuals who are not participants in the Combined Fund are charged to the Retirement Fund.



- January 1996 Catch-up COLA for pre-October, 1987 Retirees

Eligible Group

- a) General Employees that attained the minimum service retirement age and retired with a service retirement allowance prior to October 1, 1987, or who retired on a duty disability allowance and converted to a service retirement allowance prior to October 1, 1987.
- b) Firemen and policemen who retired prior to October 1, 1987, who became eligible to retire on service retirement at age 57, or after attaining age 52 and completing 25 years of service. Also, firemen and policemen who retired on a duty disability allowance and converted to a service retirement allowance prior to October 1, 1987.
- c) Surviving spouses of eligible retirees, or of members who elected a PSO and died prior to October 1 1987, after naming their spouse as the designated beneficiary under Option 2, Option 3, or Option 4 with a percentage to the beneficiary.

Timing and Amount of Increase

The catch-up COLA was a permanent increase in the ERS monthly benefit which was granted effective January 1, 1996. The increase was an amount equal to (i) the total ERS benefit in payment, multiplied by the greater of (ii) the total percentage change in the cost of living for each full calendar month between the 8th anniversary of service retirement and October 1, 1995, and (iii) the total percentage change required to bring the member's allowance to 60% of its full inflation adjusted value considering inflation for the period from retirement to October 1, 1995. The percentage change in the cost of living was measured by the increase in the CPI-U, U.S. Cities, as reported by the U.S. Department of Labor, Bureau of Labor Statistics.

When the catch-up COLA was calculated, the factor was not applied to supplemental, pass through benefits, which are paid by the ERS but are not a liability of the ERS. These pass through benefits, which appear on the pension payroll data supplied to the actuary, are part of an old guaranteed minimum program. The ERS is a paying agent for these benefits, but is reimbursed by the City for all such payments.



Funds Charged

Catch-up COLA amounts paid to participants in the Combined Fund are charged to the Combined Fund. Catch-up COLA amounts paid to individuals who are not participants in the Combined Fund are charged to the Retirement Fund.

- 2% Escalator for pre-1993 Retirees

Eligible Group

- a) General Employees that attained the minimum service retirement age and retired with a service retirement allowance prior to January 1, 1993, or who retired on a duty disability allowance and converted to a service retirement allowance prior to January 1, 1993.
- b) Firemen and policemen who retired prior to January 1, 1993, who became eligible to retire on service retirement at age 57, or after attaining age 52 and completing 25 years of service. Also, firemen and policemen who retired on a duty disability allowance and converted to a service retirement allowance prior to January 1, 1993.
- c) Surviving spouses of eligible members who elected Option 3 with the spouse as the beneficiary, or of members who died prior to January 1, 1993 after electing an Option 3 PSO with the spouse as the beneficiary.

Timing and Amount of Increase

The first increase occurs with the later of the January 1996 installment or the installment next following the 8th anniversary of the member's service retirement date (or the 8th anniversary of the surviving spouse's retirement date in the case of a PSO). Thereafter, increases occur annually on the anniversary of the first increase.

The first increase is 2% of the total ERS benefit in payment. That is, the monthly benefit to which the increase is applied includes \$50 fire and police escalators, and the January, 1996 catch-up COLA amount, if any, but it excludes supplemental pass through payments, if any. Increases after the first are also 2%, and are compounded -- that is, they are applied to the total ERS benefit in payment, including all prior increases, and again, excluding any supplemental pass through payments. (The benefit initially payable to an eligible spouse upon the member's death includes 50% of any increases in payment at the member's death.)



Funds Charged

2% escalators paid to participants in the Combined Fund are charged to the Combined Fund. 2% escalators paid to individuals who are not participants in the Combined Fund are charged to the Retirement Fund.

- CPI Escalator for post-1992 Fire and Police Retirees who don't Participate in the Combined Fund and Pre-2000 CPI Escalator for post-1992 Fire and Police Retirees who do Participate in the Combined Fund

Eligible Group

- a) Firemen and policemen in active service on or after January 1, 1993, who become eligible to retire on service retirement at age 57 or after attaining age 52 and completing 25 years of service.
- b) Firemen and policemen who retire on either a 75% Fire & Police duty disability benefit or a Heart & Lung duty disability benefit (i) between January 1, 1993, and December 31, 1994, and thereafter convert to service retirement; or (ii) on or after January 1, 1995, and who are eligible to elect between service retirement and extended life duty disability benefits at their conversion age.
- c) Police in active service on or after January 1, 1995, who separate with 25 years of service and elect a deferred retirement allowance.
- d) Surviving spouses of eligible members who elect Option 2 or 3, or who elect Option 4 with a percentage to the spouse, or who elect a PSO with a percentage to the spouse.

Timing and Amount of Increase

For members who retired on service retirement between January 1, 1993, and December 31, 1994; or who retired on duty disability between January 1, 1993, and December 31, 1994, and later convert to service retirement; and for eligible surviving spouses of members who died prior to retirement between January 1, 1993, and December 31, 1994, with PSO coverage in effect; the first increase occurs for March of the year following the first full calendar year of service retirement. For all others, the first increase occurs one full year after the member's service retirement date. Thereafter, increases occur annually on the anniversary of the first increase.



The monthly benefit is increased by an amount equal to (i) the total allowance for the preceding December (including all prior increases), multiplied by the lesser of (ii) 3%, and (iii) the increase in the CPI-U, U.S. Cities Average, for the calendar year preceding the increase. (The benefit initially payable to an eligible spouse upon the member's death includes a proportionate share of any increases in payment at the member's death, based on the option elected.)

Funds Charged

Benefits payable to participants in the Combined Fund are charged to the Combined Fund. For individuals who are not participants in the Combined Fund: (i) benefits are charged to the Retirement Fund for members whose enrollment dates are prior to February 1, 1996; and (ii) benefits are charged to the Combined Retirement and Disability Fund for members whose enrollment dates are on or after February 1, 1996.

- Post-1999 CPI Escalator for post-1992 Fire and Police Retirees who Participate in the Combined Fund

Eligible Group

The eligible group is restricted to individuals who were firemen and policemen who retired on duty disability between October 17, 1992, and December 31, 1992; or who were in active service on or after January 1, 1993, who either retire as firemen or policemen, or who die in active service as firemen or policemen; and their eligible surviving spouses. The types of benefits that receive the CPI escalator include:

- a) The service retirement allowance and ordinary disability retirement allowance.
- b) Benefits paid to members after the duty disability conversion age: the conversion service retirement allowance or the extended life duty disability retirement allowance.
- c) Benefits paid to members after separation from service: the deferred retirement allowance, early retirement allowance, involuntary separation allowance, or the ERS allowance paid under the County transfer or State reciprocity provisions.
- d) The spouse survivor allowance paid to the surviving spouse of an eligible member who elects Option 2 or 3, or who elects Option 4 with a percentage to the spouse, or who elects a PSO with a percentage to the spouse.
- e) The fire and police or heart & lung duty disability surviving spouse allowance.



- f) The duty death surviving spouse allowance.

Timing and Amount of Increases that occur after 1999

- a) The first post-1999 increase occurs the later of March 2000 and March of the year following the first full calendar year of retirement for: members who retired on service retirement or ordinary disability between January 1, 1993, and December 31, 1994; or who convert to service retirement after a period of duty disability which commenced between January 1, 1993, and December 31, 1994; or who separated from service between January 1, 1993, and December 31, 1994, and subsequently retire on a deferred, early, involuntary separation, or County transfer/ State reciprocity allowance; eligible spouse survivors of such members, including PSO spouse survivors when the member died between January 1, 1993, and December 31, 1994; duty death surviving spouses of members who died between January 1, 1993, and December 31, 1994; and duty disability surviving spouses where both the member's duty disability retirement date and duty disabled death date were between January 1, 1993, and December 31, 1994.
- b) The first post-1999 increase occurs the later of the year 2000 anniversary or the first anniversary of the member's date of death for: duty disability surviving spouses where the member's duty disability death date is on or after January 1, 1995.
- c) For all others, the first post-1999 increase occurs the later of the year 2000 anniversary or the first anniversary of the member's retirement or pre-retirement death. (Note: this group includes members who retired on duty disability between October 17, 1992, and December 31, 1994, who subsequently elect an extended life duty disability retirement allowance, and members who retired on duty disability between October 17, 1992, and December 31, 1992, who subsequently convert to service retirement.)

Thereafter, increases occur annually on the anniversary of the first post-1999 increase.

The monthly benefit is increased by an amount equal to (i) the total allowance for the preceding December (including all prior increases), multiplied by the lesser of (ii) 3%, and (iii) the increase in the CPI-U, U.S. Cities Average, for the calendar year preceding the increase. If the member retired on duty disability between October 17, 1992, and December 31, 1992, and subsequently converts to service retirement, then the 2nd, 3rd, and 4th increases will not be less than 1.5%, and the 5th and subsequent increases will not be less than 2%. (The benefit initially payable to an eligible spouse upon the member's



death includes a proportionate share of any increases in payment at the member's death, based on the option elected.)

Funds Charged

The CPI escalator is charged to the Combined Fund.

- 2% Guarantee for Fire and Police CPI Escalator for Participants in Combined Fund

The eligible group is restricted to firemen and policemen who retire on service retirement, their spouse survivors, and PSO spouse survivors. In addition, firemen members of Local 215 and policemen members of the MPA must have been in active service on or after January 1, 1998; policemen members of the MPSO must have been in active service on or after January 1, 1999; and non-represented firemen and policemen must have been in active service on or after January 1, 2000. The benefit is a guarantee that the CPI Escalator will not be less than 2% per annum.

- 2% Escalator for post-1992 General Employee Retirees who do Not Participate in Combined Fund

Eligible Group

- a) General Employees who retire on a service retirement allowance on or after January 1, 1993 who have either (i) attained age 60, or (ii) completed 30 years of service and attained age 55.
- b) General Employees receiving a duty disability retirement allowance who convert to service retirement on or after January 1, 1993.
- c) Spouses of eligible members who either elect Option 3 at retirement with the spouse as beneficiary, or who die after electing an Option 3 PSO with the spouse as beneficiary.

Timing and Amount of Increase

The first increase occurs with the installment next following the 8th anniversary of the member's service retirement or conversion to service retirement date (or the 8th anniversary of the surviving spouse's retirement date in the case of a PSO). Thereafter, increases occur annually on the anniversary of the first increase.

Each increase is 2%, and increases after the first are compounded -- that is, they are applied to the total benefit in payment, including all prior increases. (The benefit initially payable



to an eligible spouse upon the member's death includes 50% of any increases in payment at the member's death.)

Funds Charged

For members whose enrollment dates are prior to February 1, 1996, the 2% escalator for post-1992 general employee retirees is paid from the Retirement Fund. For members whose enrollment dates are on or after February 1, 1996, the 2% escalator for post-1992 general employee retirees is paid from the Combined Retirement and Disability Fund.

- Post-1999 1.5% / 2% Escalator for General Employee Retirees and for Pre-1993 Fire and Police Retirees who Participate in the Combined Fund

Eligible Group

The eligible group includes (i) pre-1993 retirees and surviving spouses who are not eligible for either the 2% Escalator for pre-1993 retirees, or the Post-1999 CPI Escalator for post-1992 fire and police retirees; and (ii) post-1992 general employee retirees and their surviving spouses. The types of benefits that receive the 1.5%/2% escalator include:

- a) The service retirement allowance and ordinary disability retirement allowance for all members, and the duty disability retirement allowance for General Employees.
- b) Benefits paid to members after the duty disability conversion age: the conversion service retirement allowance for all members or the extended life duty disability retirement allowance for fire and police.
- c) Benefits paid to members after separation from service: the deferred retirement allowance, early retirement allowance, involuntary separation allowance, or the ERS allowance paid under the County transfer or State reciprocity provisions.
- d) The spouse survivor allowance paid to the surviving spouse of an eligible member who elects Option 2 or 3, or who elects Option 4 with a percentage to the spouse, or who elects a PSO with a percentage to the spouse.
- e) The fire and police or heart & lung duty disability surviving spouse allowance.
- f) The duty death surviving spouse allowance.

Timing and Amount of Increases that occur after 1999

- a) The first post-1999 increase occurs for January 2000 for eligible Option 2 and 4 spouse survivors of members retired on a service retirement allowance or a conversion service retirement allowance - and for eligible Option 2 and 4 PSO spouse survivors - when the member's date of retirement or pre-retirement death was prior to January 1988.



- b) The first post-1999 increase occurs the later of the year 2000 anniversary or the 2nd anniversary of the member's date of death for: duty disability surviving spouses of firemen and policemen.
- c) For all others, the first post-1999 increase occurs the later of the year 2000 anniversary or the 2nd anniversary of the member's retirement or pre-retirement death.

Thereafter, increases occur annually on the anniversary of the first increase.

All increases for the group described in paragraph (a) are 2% increases. For paragraphs (b) and (c), an increase which takes effect on the 2nd, 3rd, or 4th anniversary is a 1.5% increase. An increase which takes effect on the 5th or subsequent anniversary is a 2% increase. Increases after the first one are compounded -- that is, they are applied to the total benefit in payment, including all prior increases. (The benefit initially payable to an eligible spouse upon the member's death includes the spouse's proportionate share of any increases in payment at the member's death, based on the option elected.)

Tier 2 Employees receive an increase of 2% on the fifth anniversary of their retirement and on each anniversary that follows, but only for service retirement.

Fire and Police Survivorship Benefits Prior to the Global Pension Settlement

The survivors of firemen or policemen who die in active service or while in receipt of a disability allowance may be entitled to a survivorship benefit. The survivorship benefit is payable to the spouse of the deceased member provided the spouse has one or more eligible children in her care. Eligible children include unmarried children who are either under the age of 18, or are over age 18, but who suffer from a disability which commenced before the age of 18. The amount of the survivorship benefit for a death occurring in 2000 is \$600 monthly for the spouse and one child or for two or more eligible children. If there is no surviving widow and only one child, the benefit is \$300. Upon attainment of age 57, \$300 is payable to the spouse for her lifetime. Benefits payable to a spouse cease on remarriage and benefits payable in respect of children cease on attainment of age 18 (unless disabled prior to age 18) or marriage. For member deaths that occurred prior to 2000 the monthly amount payable depends upon the plan provisions in effect at the member's death.

Fire and Police Survivorship Benefits for Survivors Participating in the Combined Fund

Survivors of firemen or policemen who died prior to 2000 while in active service or while retired on disability (and contributing to the Fire and Police Survivorship Fund) may be entitled to a survivorship benefit. The survivorship benefit is payable to the spouse of the deceased member provided the spouse has one or more eligible children in her care. For participants in the Combined



Fund, the amount of the survivorship benefit for a death occurring prior to 2000 is \$600 monthly for the spouse and one child under age 18, or for two or more children under age 18. If there is no surviving widow and only one child, the benefit is \$300. The monthly amount payable to a disabled child over the age of 18 depends upon the plan provisions in effect at the member's death. Upon attainment of age 57, \$300 is payable to the spouse for her lifetime. Benefits payable to a spouse cease on remarriage and benefits payable in respect of children cease on attainment of age 18 (unless disability commenced prior to age 18) or marriage.

Survivorship Benefits for Participants in the Combined Fund are charged to the Combined Fund.

Separation Benefits

Eligibility and Amounts

Should a member separate from service, and no other benefit is payable, such a member will possibly be entitled to one of the options outlined below. Additional eligibility information about Separation Benefits is provided under 36-05-6.

- a) If the member has less than four years of creditable service, a refund of member contributions (not paid by the member's employer). Interest at 4.0% per annum on the 4%, 5.5%, or 7% member paid contributions is also payable.
- b) If the member has four years of creditable service, a deferred allowance payable at the minimum service retirement age.
- c) A refund of the member contributions and interest, including contributions paid on the member's behalf, is payable to (i) General Employees after 4 years of creditable service, or (ii) firemen or policemen after 10 years of creditable service.
- d) If the member's service is involuntarily terminated, or the member terminates voluntarily after attaining age 55 and completing 15 years of creditable service, such member may elect to receive a deferred allowance at the minimum service retirement age, or an immediate allowance that is the actuarial equivalent of the deferred allowance.
- e) If the member has 25 years of qualifying time as a fireman or policeman, and is not participating in the Combined Fund, a deferred allowance payable at age 52.
- f) If the member is a fireman with 25 years of qualifying time as a fireman or policeman, had not attained age 49 at the date of separation from service, and is participating in the Combined Fund, a deferred allowance payable at age 52.



Imputed service credit and seasonal service credit are not used when calculating separation benefits.

Funds Charged with Separation Benefits

Benefits paid to participants in the Combined Fund are charged to the Combined Fund. Separation benefits paid to individuals not participating in the Combined Fund are charged to (i) the Retirement Fund if the member's enrollment date is prior to February 1, 1996, and (ii) the Combined Fund if the member's enrollment date is on or after February 1, 1996.

Lump Sum Bonus Payments

Under the Global Pension Settlement, various lump sum bonus payments may be made to eligible individuals participating in the Combined Fund. An individual may be eligible for one or more types of lump sum bonus payments.

Eligibility for Lump Sum Bonus Payments

Only individuals participating in the Combined Fund can become eligible for the following types of lump sum bonus payments. In addition, the following conditions apply to the individual lump sum bonuses.

- a) 5% lump sum bonus: Members who are inactive as of January 1, 2000, will become eligible at the time that their deferred retirement allowance commences.

Members in active service as of January 1, 2000, will become eligible when they first retire.

If a member in active service as of January 1, 2000, dies prior to retirement and the member's surviving spouse is eligible for either a surviving spouse duty death benefit (including Heart & Lung duty death) or a PSO spouse survivor benefit then the surviving spouse is eligible for this bonus payment.

Only one 5% lump sum bonus will be paid on account of an individual member. Thus, if a member receiving a duty disability retirement allowance receives a 5% lump sum bonus on account of the duty disability benefit, then the member will not be eligible for an additional 5% lump sum bonus at the time of conversion.

- b) 8.6% lump sum bonus: A fireman or policeman in active service as of January 1, 2000, who (i) retires as a fireman or policeman on a service retirement allowance; or (ii) converts to



service retirement or elects an extended life duty disability retirement allowance after retiring as a fireman or policeman on duty disability; (iii) attains age 63 while in receipt of an ordinary disability retirement allowance or a lifetime Fire & Police or Heart & Lung duty disability retirement allowance, is eligible for this bonus so long as the member did not receive 2 years of imputed service credit under the dissolution of the Firemen and Policemen's Survivorship Fund; (iv) or retires as a fireman or policeman on an extended life duty disability.

If a fireman or policeman in active service as of January 1, 2000, dies prior to retirement and the member's surviving spouse is eligible for either a surviving spouse duty death benefit (including Heart & Lung duty death) or a PSO spouse survivor benefit then the surviving spouse is eligible for this bonus payment.

A fireman or policeman retired on disability as of January 1, 2000, who is also an active member of the Firemen and Policemen's Survivorship Fund as of January 1, 2000 - under age 57 at 1/1/2000, and made all required contributions to the Survivorship Fund – is eligible for this bonus if he (i) converts to service retirement or elects an extended life duty disability retirement allowance; or (ii) is ineligible to convert to service retirement and attains age 63 while in receipt of the disability retirement allowance; provided that he (iii) did not receive 2 years of imputed service credit under the dissolution of the Firemen and Policemen's Survivorship Fund.

Amount of Lump Sum Bonus Payments

Age factors are used in the 5% lump sum bonus and the 8.6% lump sum bonus calculations. The age factors for these bonus payments are contained in s. 36-05-11-a.

- a) 5% lump sum bonus: For members who are either inactive or active as of January 1, 2000, who retire in the future, the bonus payment equals 5% times their initial annual retirement allowance times a factor based on attained age on the retirement date. The retirement allowance used in the bonus calculation is to be reduced for early retirement, if applicable, but is not to be reduced for any optional election the member might have made under s. 36-05-7.

If a member in active service as of January 1, 2000 dies prior to retirement and the member's surviving spouse is eligible for this bonus payment, then the bonus will equal 5% times the spouse's initial annual benefit times a factor based on the spouse's attained age when the benefit commences.



- b) 8.6% lump sum bonus: In the explanation that follows, whenever an annual allowance is used in calculating a bonus due to a member, the allowance used is the allowance that would be paid if the member did not elect an option under s. 36-05-7.

For members who retire on service retirement: 8.6% times the annual service retirement allowance times a factor based on attained age at retirement.

For surviving spouses who receive either a PSO benefit or a duty death benefit: 8.6% times the initial annual allowance payable to the spouse times a factor based on the spouse's attained age when the benefit commences.

For a member who is retired on duty disability as of January 1, 2000 - or who retires on duty disability thereafter - and who is eligible to convert to service retirement: 8.6% times the annual conversion service retirement allowance earned as of the conversion age times a factor based on attained age at conversion.

For a member who is retired on disability as of January 1, 2000 – or who retired on disability thereafter – who is ineligible to convert to service retirement, and who is age 63 or younger at the later of 1/1/2000 or the disability retirement date: 8.6% times the “hypothetical” annual conversion service retirement allowance earned at age 63 times the attained age factor for age 63. The “hypothetical” allowance is calculated as if the member were eligible to convert at age 63.

For a member who retires on disability after January 1, 2000, who is older than age 63 at the disability retirement date: 8.6% times the annual disability allowance payable when the allowance commences times a factor based on the member's attained age at retirement.

Funds Charged

The 5% lump sum bonus and the 8.6% lump sum bonus are paid from the Combined Fund.

Benefits Not Valued

Best practice supports use of a three to five-year amortization period for amortization of liabilities generated by early retirement incentives such as the Bonus Year. While it is not clear whether a member retired due to an incentive, best practice would indicate that the additional liabilities generated by the Bonus Year should be amortized over a shorter period more in line with the period of payroll saving anticipated to be generated by the window. We recommend that the Bonus Year liabilities be isolated and amortized over a period not to exceed five years.



APPENDIX C

STATEMENT OF ACTUARIAL ASSUMPTIONS

Assumptions are based on the experience investigation prepared as of December 31, 2016 and adopted by the Board of Trustees on October 23, 2017 for use beginning with the January 1, 2018 actuarial valuation. The interest rate of 7.50% was adopted by the Board of Trustees on April 29, 2019.

Long-term Assumed Rate of Return: 7.50% per annum, compounded annually.

Inflation: 2.50% per annum.

Cost of Living Adjustments (COLA): For retirees whose COLA is defined as the lesser of 3.00% and CPI-U, the assumed COLA is 2.50% per annum.

Payroll Growth for UAAL amortization: UAAL amortization payments increase at 2.00% per annum.

Illustrative Rates of Salary Increase:

Age	Salary Increases	
	General Employees	Firemen and Policemen
25	4.93%	9.47%
30	3.79	7.72
35	3.78	5.78
40	2.89	4.68
45	2.50	4.28
50	2.50	4.08
55	2.50	4.00
60	2.50	4.00
65	2.50	4.00

Annual increases of 2.50% per annum is assumed for Policemen, Firemen and General Employees on duty disability. The increases for duty disabled Firemen and Policemen affect both current duty disability benefits and future service retirement or extended life conversion benefits. The increases for General Employees affect only service retirement conversion benefits.

Deaths After Retirement: For regular retirees and survivors, the RP-2014 Healthy Annuitant Mortality Table, using 111% of rates for males and 110% of rates for females, projected generationally using Scale MP-2016, was used. For duty and ordinary disability retirees, the RP-2014 Disability Mortality Table, using 102% of rates for males and 98% of rates for females, projected generationally using Scale MP-2016, was used.

Deaths Prior to Retirement: For death in active service, the RP-2014 Non-annuitant Mortality Table projected generationally with Scale MP-2016 was used.



Mortality Projection: All mortality rates are projected using generational improvement with Scale MP-2016.

Illustrative Rates of Termination:

Age	<u>Less than 5 Years of Service</u>		<u>At least 5 Years of Service</u>	
	Males	Females	Males	Females
<u>General Employees</u>				
20	17.62%	24.05%	13.00%	14.30%
25	15.93	24.12	12.68	14.30
30	11.31	16.77	6.92	8.45
35	10.66	15.60	7.19	7.27
40	8.78	10.40	4.51	8.45
45	9.10	9.23	2.99	4.67
50	8.32	8.58	2.38	3.38
55	6.83	7.80	1.99	3.64
60	-	-	-	-
<u>Firemen and Policemen</u>				
20	6.15%	5.55%	-	-
25	2.33	4.65	1.34%	2.33%
30	2.75	7.38	1.13	3.34
35	3.38	6.63	1.10	1.88
40	4.40	4.40	0.90	0.97
45	5.40	4.40	1.08	1.53
50	8.80	4.40	4.05	6.70
55	10.00	4.40	-	-
60	-	-	-	-

All terminations are assumed to be involuntary.

Members who terminate vested are assumed to take a refund if it is more valuable than their deferred benefit. Regular interest credited on contribution account balances is assumed to be 4.0%.



Illustrative Rates of Early and Normal Retirement:

Age	Early Retirement		Normal Retirement			
	General Employees	General Employees		Firemen	Policemen	
		Males	Females	All	Not in Combined Fund	In Combined Fund
42						10%
43						25
44						25
45						25
46						32
47						32
48				10%		32
49				13		25
50				13		25
51				13	44%	25
52				18	44	25
53				18	24	25
54		35%	26%	20	24	25
55	4%	45	26	25	24	25
56	4	30	17	25	40	25
57	4	27	15	30	35	25
58	4	27	20	35	35	25
59	4	22	20	35	35	25
60	4	19	19	35	35	25
61	4	19	20	50	35	25
62	4	28	25	50	50	50
63	4	20	18	100	100	100
64	4	20	18	100	100	100
65		30	25	100	100	100
66		30	30	100	100	100
67		18	20	100	100	100
68		18	20	100	100	100
69		18	20	100	100	100
70		100	100	100	100	100



Illustrative Rates of Disability:

Age	Disability Rates		
	General Employees	Firemen	Policemen
20	0.050%	0.064%	0.030%
25	0.050	0.136	0.030
30	0.060	0.280	0.100
35	0.077	0.760	0.187
40	0.131	0.960	0.231
45	0.162	0.960	0.231
50	0.256	1.080	0.210
55	0.527	1.080	0.210
60	0.077	1.080	0.210
65	0.200	1.080	0.210

Elected officials are assumed to become disabled at the same rate as General Employees.

Duty Disabilities:

Employee Group	Percentage of Disabilities	Percentage of Duty Disabilities Assumed		
	Incurred in the Performance of Duty	Eligible For The 90% Benefit	Under The Heart & Lung Law	Assumption Adopted January 1
General Employees	10.0%	N/A	N/A	2018
Police other than MPA	70.0%	5.0%	N/A	2018
MPA enrolled on or before 4/18/2005	70.0%	5.0%	N/A	2018
MPA enrolled after 4/18/2005	62.5%	7.5%	N/A	2008
Fire other than MPFFA	90.0%	5.0%	15.0%	2008
MPFFA enrolled on or before 10/3/2005	90.0%	5.0%	15.0%	2008
MPFFA enrolled after 10/3/2005	81.2%	6.9%	20.8%	2008

Upon reaching their service conversion date, 100% of Policemen and Firemen who become duty disabled are assumed to convert to a service retirement benefit.



Marriage Assumption and Duty Disability Child Allotments:

It is assumed that female spouses are three years younger than males. In absence of evidence to the contrary, it is assumed that 85% of General Employees and 95% of Policemen and Firemen are married, with dependent children, described by the following table:

Member's Age at Death or Disability	Number of Dependent Children	Age of Youngest Child
20	0.0	-
25	1.5	1
30	2.5	2
35	2.5	5
40	2.5	8
45	2.0	11
50	1.5	14
55	1.0	15
60 and Over	0.0	-

The percentage of retiring employees assumed to elect option 3, the subsidized 50% option, is 25% for males and 15% for females. The percentage of General Employees assumed electing the 100% PSO option before retirement is 40% for males and 15% for females. For Firemen and Policemen, 95% are assumed to elect the 100% PSO option before retirement.

Duty Deaths:

The following percentages of deaths in active service are assumed to incur in the performance of duty:

- General Employees: 5%
- Police & Fire: 10%. In addition, amongst firemen, 25% of duty deaths are assumed to occur under the Heart and Lung Law.

Imputed Military Service:

The following percentages of eligible members are assumed to earn 1 year of imputed military service credit:

- General Employees: 10%
- Police: 13%
- Fire: 13%

These percentages are based on troop strength statistics from the Department of Defense website. (Adopted 1/1/2003)



Seasonal Service Credit: The following percentages of eligible members are assumed to receive one year of seasonable service credit:

Member's Union or Bargaining Group	Percentage with Seasonal Service	Assumption Adopted January 1
District Council 48, AFSCME	27.09%	2005
Fire Equipment Dispatchers Local 494, IBEW	0.00%	2006
Electrical Group Local 494, IBEW	31.00%	2006
Machine Shop Local 494, IBEW	12.00%	2005
Bridge Operators Local 195, IBEW	28.57%	2005
Joint 129/48 Local 139, IOUE & DC48	100.00%	2005
Machinists Local 510, IAM	5.00%	2005
Sanitation Local 61, LIUNA	98.06%	2005
TEAM (Techs, Eng, Archs of Milw)	5.00%	2005
MBCTC (Bricklayers, Carpenters, Cement Masons, Painters, Iron Workers)	10.00%	2005
Police Sworn Management, Police Civilian Management, Managers, Elected Officials (except mayor)	3.13%	2005
Non-represented in the Police Department and General City non-represented	5.00%	2005

Miscellaneous

Future Service Accrual: For members active on the valuation date, credited service in each future year is assumed to be the greater of credited service earned in the year prior to the valuation, or the average of the three highest years of service credit out of the five years that preceded the valuation date. New hires are assumed to accrue a full year of service in each future year (adopted 1/1/2007).

Annualized Compensation: For active members, their prior year reported compensation amount is annualized based on their Future Service Accrual and further increased by a leap year adjustment factor of 1.0034 ($26.089285 \div 26$).

Deemed Inactives: Active members who worked less than 100 hours in the prior year, but who have not officially terminated employment are treated as Inactives. These members are not assumed to earn additional service credit in future years.

Decrement Timing: All withdrawals, deaths, disabilities, and retirements are assumed to occur mid-year.



Liability for Inactive Members: The data provided for inactive members does not contain all the elements to calculate the member's deferred benefit. The deferred benefit amounts for these members are estimated using the member's life-to-date earnings and assumed salary increases. For terminated members who are missing a termination date on their record, it is assumed that they terminated at age 35. The actuary is collecting data so that future members' deferred benefits can be estimated.

Administrative Expenses: Based on the most recent fiscal year end.

Normal Cost: Normal cost rate reflects the impact of new entrants during the year

Changes Since Prior Valuation: The investment return assumption was changed from 8.00% for calendar years 2018 through 2022 and 8.25% beginning in 2023, to 7.50% for all years. For GASB purposes, the prior year investment return assumption was 8.24%. Note that assumptions that have been added to this section since the last valuation date are not new assumptions, but rather documentation of assumptions already being used.