

# Employes' Retirement System of the City of Milwaukee

## Actuarial Valuation Report

As of January 1, 2016

August 2016





August 2, 2016

Annuity and Pension Board  
Employees' Retirement System  
of the City of Milwaukee  
789 N. Water St., #300  
Milwaukee, WI 53202

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## Certification of Actuarial Valuation

Members of the Board:

This report presents the results of the annual actuarial valuation of the assets and liabilities of the Employees' Retirement System of the City of Milwaukee ("ERS") as of January 1, 2016, prepared in accordance with Section 36-15-15 of the Milwaukee City Charter (MCC). The valuation takes into account all of the promised benefits to which members were entitled as of January 1, 2016.

Global Pension Settlement (GPS) benefits have been provided to eighteen individuals who consented to the GPS since the last valuation and, as a result, assets are transferred from the non-consenter funds in which these members previously participated to the Global Combined Fund.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, and as specified by the Charter. An amendment to the MCC was adopted by the Common Council on April 30, 2013 to establish the Stable Employer Contribution Policy. Under the Stable Employer Contribution Policy, an actuarial contribution rate is separately calculated for policeman, fireman, and general employees of the Combined Fund and is applicable for the subsequent 5-year period. These rates are established every five years following the Experience Study based on a study performed by the actuary. The actuary establishes these rates based on the actuarial assumptions adopted by the Members of the Board of the Annuity and Pension Board of the ERS and the asset smoothing, asset corridor and amortization methods as specified in the Charter. These rates are established consistent with applicable Actuarial Standards of Practice and result in a funded status at the end of five years that is at least actuarially equivalent to the contribution that would result by calculating the employer contribution rates annually under the same assumptions and methods without limiting the contributions with the Full Funding Limit, which has been eliminated. Buck Consultants has determined actuarial contribution rates under the Stable Employer Contribution Policy for policeman, fireman, and general employees of 22.63%, 24.83% and 8.48% respectively. These rates are in effect for employer contributions through January 1, 2018.

Effective May 18, 2010, the asset smoothing, asset corridor and amortization methods were added as Section 36-15-15 of the MCC. The actuarial cost method is prescribed in Section 36-15-15. Full Funding Limit (Section 36-08-6-h) was eliminated with the implementation of the Stable Employer Contribution Policy. The assumptions and methods used for this valuation are individually, and in the aggregate, reasonable and comply with generally accepted Actuarial Standards of Practice. As required under Section 36-15-14, experience reviews are performed once every five year period. This valuation was prepared on the basis of the interest, salary and demographic assumptions that were determined from the Experience Study for the period January 1, 2007 to December 31, 2011 prepared by Buck Consultants and approved by the Board for use beginning with the January 1, 2013 actuarial valuation. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions, which is scheduled to be performed before the January 1, 2018 valuation.

Actuarial Standards of Practice now require that the likelihood and extent of future mortality improvements be considered for valuations performed on or after June 30, 2011. We have reflected future mortality improvements beginning with the January 1, 2013 annual actuarial valuation.

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as: plan experience different from that anticipated by the economic and demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. An analysis of the potential range of such future differences is beyond the scope of this report.

### **Assets and Membership Data**

The individual data for members of the System as of the valuation date were reported to the actuary by the ERS. While we did not verify the data at their source, we did perform tests for internal consistency and reasonability. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the ERS. The validity of the actuarial valuation results is dependent upon the accuracy and correctness of the member data and asset information provided.

### **Financing Objective and Employer Contribution**

The results of the January 1, 2016 valuation are used to monitor the impact of the Stable Employer Contribution on the System. The Stable Employer Contribution Policy is designed to:

- (a) fully fund all current costs based on the normal contribution payable determined under the funding method irrespective of the funded status of the System, that is, the Employer Normal Cost is always funded; and
- (b) liquidate the unfunded accrued liability, if any, over the amortization period as adopted by the Board and specified in the MCC. The Board adopted a twenty- five year amortization period effective with the January 1, 2009 actuarial valuation. The period will be reduced by one year each subsequent year until the period equals the future working lifetime of employees covered by the funds. The amortization period is eighteen years as of January 1, 2016.

On this basis, the valuation indicates that the employer contribution of \$80,288,433 (payable January 31, 2017) to both the combined fund and the combined retirement & disability fund would be sufficient to provide for the payment of the promised pension and survivor benefits in accordance with the adopted funding policy.

### **Financial Results and Membership Data**

Detailed summaries of the financial results of the valuation and of the membership data used in preparing the valuation are shown in the valuation report.

### **Events During 2015 that Impacted the 2016 Results**

Results of this valuation differ from what we were projecting in last year's valuation for many reasons:

- (a) Market value return of 0.52% compared to 8.25% assumed, resulting in a lower funded ratio than expected.
- (b) On the liability side of the equation, fewer benefits were paid than anticipated while payroll increased 1.11% compared to the payroll growth assumption of 3%; average individual pay increased from last year resulting in a slightly higher unfunded liability than anticipated.

- (c) Since the January 1, 2015 actuarial valuation was completed, eighteen individuals who were eligible for ERS benefits as of June 28, 2000 – and who had not consented to GPS – have now consented.
- (d) Overall, the funded ratio was lower than anticipated as a result of the events of 2015.

Qualified actuaries completed the valuation in accordance with accepted actuarial procedures as prescribed by the Actuarial Standards Board. The qualified actuaries are members of the American Academy of Actuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice. The undersigned with actuarial designations meet the Qualification Standard to render the opinions contained in this report.

Respectfully submitted,

A handwritten signature in blue ink, appearing to be "LL" or "L. Langer".

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

A handwritten signature in blue ink, appearing to be "Chih-Hung Peng".

Kevin (Chih Hung) Peng, ASA, EA, MAAA  
Consultant, Retirement

A handwritten signature in blue ink, appearing to be "P. Tabernacki".

Patryk Tabernacki  
Senior Associate, Retirement

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# Introduction

The law governing the Employees' Retirement System (ERS) requires the Actuary, as the technical advisor to the Annuity and Pension Board, to ". . . make an annual valuation of the assets and liabilities of the funds of the retirement system." (Section 36-15-15 of the MCC). Buck Consultants, as Actuary, has completed the seventy-eighth annual actuarial valuation of the ERS as of January 1, 2016.

In this report we present the results of the January 1, 2016 valuation and the recommended employer contributions for the year ending December 31, 2016. For purposes of disclosure, the report also includes the schedule of funding progress as required specifically by Governmental Accounting Standards Board (GASB) No. 25 – only to be used for comparison of relevant Statement No. 67 information.

The valuation was completed based upon membership and financial data provided by the administrative staff of the System. The majority of the actuarial assumptions, outlined on pages 42-51 were adopted as of January 1, 2013, and are based on the experience study for the five-year period ended December 31, 2011. However, the 3.0% inflation assumption was adopted as of January 1, 2003. The projected unit credit actuarial cost method was adopted as of January 1, 1995, and is prescribed in Section 36-08 of the MCC. The actuarial asset valuation method and the amortization method were adopted as of January 1, 2010 and are prescribed in Section 36-15 of the MCC. The next experience review will be performed in time for implementation in the January 1, 2018 actuarial valuation. Where presented in some sections, references to "funded ratio" and "unfunded accrued liability" are typically measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

## Changes Since Last Year

The following changes have been made since the actuarial valuation dated January 1, 2015:

The Global Pension Settlement (GPS) provides that members enrolled through June 28, 2000, must provide written consent to the ERS in order to be eligible for the benefit enhancements of GPS. Members enrolled after June 28, 2000, are automatically participants in the Combined Fund. Since the January 1, 2015 actuarial valuation was completed, eighteen individuals who were eligible for ERS benefits as of June 28, 2000 – and who had not consented to GPS – have now consented. The January 1, 2016 valuation reflects the impact of this change.

The service retirement eligibility for the Police employees enrolled on or after December 20, 2015 has changed to

- (1) 25 years of police qualifying time AND attaining age 50, or
- (2) Attaining age 57

## Fiscal Impact of Changes

The fiscal impact of new consents to GPS is explained on page 4.

## Summary of Principal Results

Summarized below are the principal financial results for the ERS based upon the actuarial valuation as of January 1, 2016. Comparable results from the January 1, 2015 valuation are also shown.

Item	January 01, 2015	January 01, 2016
<b>Membership Data</b>		
<b>Active Members</b>		
➤ Number	10,964	10,982
➤ Total Annual Covered Payroll on the Valuation Date	\$529,939,000	\$535,802,000
➤ Average Pay	\$48,334	\$48,789
<b>Retirees and Beneficiaries</b>		
➤ Number	12,597	12,763
➤ Annual Benefit	\$315,699,000	\$328,296,000
➤ Average Benefit Payment	\$25,061	\$25,722
<b>Asset Values</b> (includes contributions receivable)		
➤ Actuarial Value	\$4,797,437,000	\$4,899,155,000
➤ Market Value	\$4,953,150,000	\$4,752,308,000
<b>Actuarially Determined Employer Contribution</b>		
	Due 1/31/2016	Due 1/31/2017
➤ Annual Cost	\$79,839,000	\$80,288,000
➤ As % of Covered Payroll	15.07%	14.98%
<b>Funded Status</b>		
➤ Accrued Liability	\$ 4,935,482,000	\$ 5,065,141,000
➤ Actuarial Value of Assets	<u>4,797,437,000</u>	<u>4,899,155,000</u>
➤ Unfunded (Overfunded) Accrued Liability	\$ 138,045,000	\$ 165,986,000
➤ Funded Ratio Based on Actuarial Value of Assets	97.2%	96.7%
➤ Accrued Liability	\$ 4,935,482,000	\$ 5,065,141,000
➤ Market Value of Assets	<u>4,953,150,000</u>	<u>4,752,308,000</u>
➤ Unfunded (Overfunded) Accrued Liability	\$ (17,668,000)	\$ 312,833,000
➤ Funded Ratio Based on Market Value of Assets	100.4%	93.8%

Summarized below are the Actuarial Funding Results as of January 1, 2016 with a breakdown between agencies.  
(in thousands)

Actuarial Liabilities	General City *	Water Department	School Board	Milwaukee Technical College	Sewerage Commission	Veolia	Wisconsin Center District	Housing Authority	Redevelopment Authority	Policemen	Firemen	Total
<b>1. Present Value of Projected Benefits</b>												
Active Members												
• Retirement Benefits	504,221	50,742	222,073	-	45,006	17,800	9,828	26,445	1,806	715,406	303,344	1,896,671
• Withdrawal Benefits	25,489	2,044	15,240	-	2,151	81	478	1,265	184	109,588	14,068	170,588
• Disability Benefits	28,087	2,520	16,475	-	2,423	354	534	1,475	176	19,234	47,090	118,368
• Death Benefits	4,670	465	2,398	-	451	167	104	256	20	2,003	820	11,354
Total	562,467	55,771	256,186	-	50,031	18,402	10,944	29,441	2,186	846,231	365,322	2,196,981
2. Inactive Members with Deferred Benefits	29,562	1,528	29,462	-	2,953	326	828	925	77	20,837	3,495	89,993
3. Retired Members and Beneficiaries Receiving Benefits	906,290	70,953	406,316	16,235	121,504	38,620	7,336	20,143	446	1,207,027	667,438	3,462,308
<b>4. Total Present Value of Projected Benefits (1. + 2. + 3.)</b>	<b>1,498,319</b>	<b>128,252</b>	<b>691,964</b>	<b>16,235</b>	<b>174,488</b>	<b>57,348</b>	<b>19,108</b>	<b>50,509</b>	<b>2,709</b>	<b>2,074,095</b>	<b>1,036,255</b>	<b>5,749,282</b>
5. Present Value of Future Normal Costs	157,590	14,548	88,401	-	14,397	2,437	3,306	8,518	913	289,823	104,208	684,141
<b>6. Total Actuarial Accrued Liability (4. - 5.)</b>	<b>1,340,729</b>	<b>113,704</b>	<b>603,563</b>	<b>16,235</b>	<b>160,091</b>	<b>54,911</b>	<b>15,802</b>	<b>41,991</b>	<b>1,796</b>	<b>1,784,272</b>	<b>932,047</b>	<b>5,065,141</b>

Normal Cost Amount	General City *	Water Department	School Board	Milwaukee Technical College	Sewerage Commission	Veolia	Wisconsin Center District	Housing Authority	Redevelopment Authority	Policemen	Firemen	Total
<b>1. Active Members</b>												
• Retirement Benefits	16,999	1,698	8,253	-	1,561	521	372	1,017	65	24,745	9,972	65,203
• Withdrawal Benefits	1,550	129	1,047	-	146	3	30	78	10	6,080	714	9,787
• Disability Benefits	1,432	131	991	-	128	11	29	80	9	991	2,235	6,037
• Death Benefits	207	20	131	-	20	5	5	13	1	95	37	534
<b>2. Total Normal Cost</b>	<b>20,188</b>	<b>1,978</b>	<b>10,422</b>	<b>-</b>	<b>1,855</b>	<b>540</b>	<b>436</b>	<b>1,188</b>	<b>85</b>	<b>31,911</b>	<b>12,958</b>	<b>81,561</b>

\* Includes Elected Officials



## **Fiscal Impact of New Consents to the Pension Settlement**

Based on data provided to the actuary, eighteen active members, inactive members, and benefit recipients (or estates) eligible for ERS benefits as of June 28, 2000, who had not consented to GPS at the time the last valuation was processed, have now consented. The change in consent status increased the Present Value of Future Benefits (PVFB) for these individuals by \$1,512,000. At the direction of the Court, the ERS has continued to accept and process GPS consent forms and additional Consenters will be included in future actuarial valuations. Benefits will not change for individuals who do not consent to GPS.

Some non-consenting members have died without leaving survivors eligible for ERS benefits, some have withdrawn from the System, and some have separated without rights to a future ERS benefit. Some non-consenting members who had separated without rights to a future ERS benefit have returned to service. Table 5 of this report provides information about Consenters and Non-Consenters included in this valuation by membership status – active member, inactive member, or benefit recipient – and by employe group – fire, police, or general.

GPS provides that the market value of the assets in the funds for Non-Consenters be divided among Consenters and Non-Consenters. The division is based on the actuarial liability covered by each fund under pre-GPS plan provisions. The required division of assets for members who consented during 2015 was calculated as of January 1, 2015 (the beginning of the year of consent). Table 7 of this report provides the necessary details.

## Contribution Requirements for Fiscal Year 2016

**Actuarially Determined Employer Contributions:** The recommended contribution for 2016 payable January 31, 2017 is allocated to the different funds and employe groups as follows:

Item	General Employes	Policemen	Firemen	Total
Combined Fund	\$ 31,483,129	33,410,152	15,250,152	\$80,143,433
Retirement Fund	0	0	0	0
Duty Disability Funds	0	0	0	0
Heart & Lung Fund	N/A	N/A	0	0
Combined Retirement & Disability Fund	131,000	14,000	0	145,000
Total Contribution	\$31,614,129	\$33,424,152	\$15,250,152	\$80,288,433
Covered Compensation	\$ 343,867,000	\$ 135,571,000	\$ 56,364,000	\$ 535,802,000
Total Contribution as a Percentage of Covered Compensation	9.2%	24.7%	27.1%	15.0%

**Member Contributions to the Funds shown on previous page:**

**Employer Paid**

For Fire and Police employees hired prior to October 3, 2011, the City makes “member contributions” each pay period to the members’ individual accounts equal to the following percentages of earnable compensation:

General Employees	5.5%
Elected officials	7.0%
Fire	7.0%
Policemen	7.0% less \$1.00 per year per policeman

Generally, for Elected Officials, General City employees, and Fire and Police employees hired on or after October 3, 2011, the City no longer makes member contributions on behalf of the employees, and the members pay their own contributions each pay period in the form of payroll deductions. For additional details please refer to member contribution section under summary of plan provision of this report.

Effective December 20, 2015 (PP1-2016), Police employees contribute 7.0% of their earnable compensation as member contributions each pay period. The City no longer pays the member contributions on behalf of these employees.

**Member Paid**

General employees enrolled after 1999 who participate in the Combined Fund contribute 1.6% of earnable compensation during their first 8 years of employment. However, members who are obligated to make the member contribution are not also required to make the 1.6% contribution (see Section 36-08-7-m).

Under state law, per 2011 Wisconsin Act 10, as interpreted through case law, employers are no longer permitted to make contributions on the members behalf (with the exception of contractually agreed upon arrangements made prior to the law’s effective date).

Certain policeman commencing in 1999 contribute \$1 per year of their longevity in rank pay to their individual account.

Fire and Police employees hired on or after October 3, 2011 contribute 7.0% of their earnable compensation as member contributions each pay period. The City no longer makes contributions on behalf of these employees.

Additionally, Police employees hired prior to October 3, 2011, contribute 7.0% of their earnable compensation as member contributions each pay period, effective December 20, 2015 (PP1-2016). The City no longer makes contributions on behalf of these employees.

General employees enrolled on or after January 1, 2014, now contribute 4% of their earnable compensation as member contributions each pay period. These employees belong to the new Tier II benefit design that has a higher retirement age and a lower service credit multiplier. Currently, only General employees and Elected Officials belong to the Tier II benefit design; Fire and Police employees still follow the Tier I benefit design. For additional details please refer to member contribution section under summary of plan provision of this report.

The members’ individual accounts are held in the Combined Fund, the Retirement Fund, and the Combined Retirement and Disability Fund.

**Funded Ratio**

The System’s funded status is measured by comparing the valuation assets with the accrued liability. The accrued liability is the present value of benefits accumulated to date under the System’s funding method and reflects future pay increases for active employees.

On this basis, the System’s funded ratio is 96.7% as of January 1, 2016. The funded ratio is based on an actuarial value of assets of \$4.899 billion and an accrued liability of \$5.065 billion.

**Reasons for Change in the Funded Ratio**

The funded ratio based on actuarial value asset decreased from 97.2% as of January 1, 2015 to 96.7% as of January 1, 2016. The funded ratio based on market value asset decreased from 100.4% as of January 1, 2015 to 93.8% as of January 1, 2016. A reconciliation of the changes in funded ratio is as follows:

	Funded Ratio Based on	
	Actuarial Value of Asset	Market Value of Asset
January 1, 2015	97.2%	100.4%
Expected change	0.7%	0.8%
Change due to assumptions	0.0%	0.0%
Change due to asset return	-1.2%	-7.4%
Change due to liabilities	0.0%	0.0%
Change due to plan	0.0%	0.0%
Total change	-0.5%	-6.6%
January 1, 2016	96.7%	93.8%

**Schedule of Funding Progress**

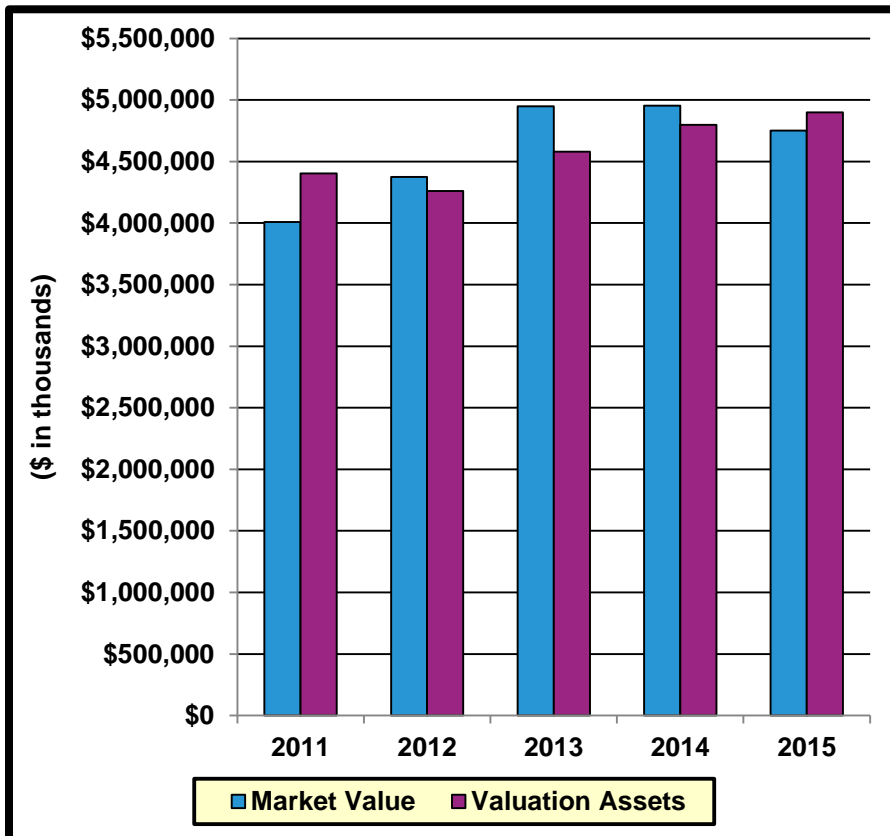
Valuation as of January 1	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
2016	\$ 4,899,155	\$ 5,065,141	\$ 165,986	96.7%	\$ 535,802	31.0%
2015	4,797,437	4,935,482	138,045	97.2%	529,939	26.0%
2014	4,580,729	4,831,689	250,960	94.8%	521,651	48.1%
2013	4,259,889	4,689,814	429,925	90.8%	523,738	82.1%
2012	4,404,635	4,587,915	183,280	96.0%	525,181	34.9%
2011	4,641,425	4,447,548	-	104.4%	538,218	0.0%
2010	4,814,402	4,269,324	-	112.8%	553,846	0.0%
2009	4,076,297	4,113,089	36,792	99.1%	536,558	6.9%
2008	5,192,000	3,958,061	-	131.2%	532,412	0.0%
2007	4,899,721	3,846,481	-	127.4%	528,854	0.0%
2006	4,556,371	3,706,198	-	122.9%	515,934	0.0%

## Rate of Return

The investment return on all System assets on a market value basis (i.e., total return including both realized and unrealized gains and losses) for the plan year ended December 31, 2015, was 0.52%. The return based on the actuarial value of assets used for determining the System's funded status was 7.00%. A five-year history of the rate of return on the actuarial value of assets and the market values of assets is shown below.

Plan Year Ended December 31	Return on Actuarial Value	Return on Market Value
2015	7.00 %	0.52 %
2014	9.91	4.72
2013	12.85	18.44
2012	0.43	13.50
2011	(0.09)	(1.93)

## Five-Year History of Market Value and Valuation Assets



**TABLE 1a - Summary Of Results Of Actuarial Valuation**

**Allocation of Total 2016 Contributions to Employee Groups  
Members in Retirement and Duty Disability Funds  
Amount Due January 31, 2017**

Group	Active Members	Covered Compensation	Fund			January 31, 2017	
			Retirement	Duty Disability	Heart & Lung	Total Due	% of Pay
General City	12	\$ 591,681	\$ -	\$ -	\$ -	\$ -	0.00%
Water Department	1	49,988	-	-	-	-	0.00%
School Board	25	631,757	-	-	-	-	0.00%
Milwaukee Technical College	-	-	-	-	-	-	-
Sewerage Commission	-	-	-	-	-	-	-
Veolia	-	-	-	-	-	-	-
Wisconsin Center District	-	-	-	-	-	-	-
Housing Authority	-	-	-	-	-	-	-
Redevelopment Authority	-	-	-	-	-	-	-
Policemen	-	-	-	-	-	-	-
Firemen	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>38</b>	<b>\$ 1,273,426</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.00%</b>

**TABLE 1b - Allocation of Total 2016 Contributions to Employee Groups**

**Members in Combined Retirement and Disability Fund  
Amount Due January 31, 2017**

Group	Active Members	Covered Compensation	Fund		January 31, 2017	
			Combined Retirement & Disability	Heart & Lung	Total Due	% of Pay
General City	19	\$ 983,344	\$ 68,380	\$ -	\$ 68,380	6.95%
Water Department	-	-	-	-	-	-
School Board*	27	792,901	55,137	-	55,137	6.95%
Milwaukee Technical College	-	-	-	-	-	-
Sewerage Commission	-	-	-	-	-	-
Veolia	-	-	-	-	-	-
Wisconsin Center District	-	-	-	-	-	-
Housing Authority	2	107,610	7,483	-	7,483	6.95%
Redevelopment Authority	-	-	-	-	-	-
Policemen	1	84,595	14,000	-	14,000	16.55%
Firemen	-	-	-	-	-	-
<b>TOTAL</b>	<b>49</b>	<b>\$ 1,968,450</b>	<b>\$ 145,000</b>	<b>\$ -</b>	<b>\$ 145,000</b>	<b>7.37%</b>

\* Breakdown of contributions for MPS by normal cost and past service portion as follow:

Payable at	January 31, 2017
Normal cost	38,670
Past service portion	16,467
<b>Total</b>	<b>55,137</b>

## TABLE 1c - Allocation of Total 2016 Contributions to Employee Groups for Combined Fund

### Employer Contribution based on Stable Employer Contribution Policy

Group	Active Members	Covered Compensation	Employer Rate**	Dollar Amount Payable***									
				January 1, 2016	June 1, 2016	July 1, 2016	August 1, 2016	September 1, 2016	October 1, 2016	November 1, 2016	December 1, 2016	January 31, 2017	
General City *	3,327	\$ 175,790,053	8.48%	\$ 14,906,996	\$ 15,407,604	\$ 15,509,725	\$ 15,612,523	\$ 15,716,002	\$ 15,820,168	\$ 15,925,023	\$ 16,030,574	\$ 16,243,778	
Water Department	297	16,204,153	8.48%	1,374,112	1,420,258	1,429,671	1,439,147	1,448,686	1,458,287	1,467,953	1,477,682	1,497,335	
School Board****	4,054	114,048,267	8.48%	9,671,293	9,996,075	10,062,329	10,129,021	10,196,156	10,263,736	10,331,764	10,400,242	10,538,564	
Milwaukee Technical College	-	-	8.48%	-	-	-	-	-	-	-	-	-	
Sewerage Commission	214	16,734,939	8.48%	1,419,123	1,466,780	1,476,502	1,486,288	1,496,139	1,506,055	1,516,037	1,526,086	1,546,382	
Veolia	44	3,406,479	8.48%	288,869	298,570	300,549	302,541	304,546	306,565	308,597	310,642	314,774	
Wisconsin Center District	78	3,975,859	8.48%	337,153	348,475	350,785	353,110	355,450	357,806	360,178	362,565	367,387	
Housing Authority	166	9,740,879	8.48%	826,027	853,766	859,425	865,121	870,855	876,627	882,437	888,286	900,100	
Redevelopment Authority	10	809,583	8.48%	68,653	70,958	71,428	71,902	72,378	72,858	73,341	73,827	74,809	
Policemen	1,911	135,486,805	22.63%	30,660,664	31,690,312	31,900,354	32,111,789	32,324,625	32,538,871	32,754,538	32,971,634	33,410,152	
Firemen	794	56,363,837	24.83%	13,995,141	14,465,126	14,561,001	14,657,511	14,754,660	14,852,453	14,950,895	15,049,989	15,250,152	
<b>TOTAL</b>	<b>10,895</b>	<b>\$ 532,560,854</b>		<b>\$ 73,548,031</b>	<b>\$ 76,017,924</b>	<b>\$ 76,521,769</b>	<b>\$ 77,028,953</b>	<b>\$ 77,539,497</b>	<b>\$ 78,053,426</b>	<b>\$ 78,570,763</b>	<b>\$ 79,091,527</b>	<b>\$ 80,143,433</b>	

\* Includes Elected Officials

\*\* Rates apply to Covered Compensation as of the beginning of the year then credited with interest to payable date

\*\*\* Actual contribution requirement will be adjusted for the actual payment date of the contribution.

\*\*\*\* Breakdown of contributions for MPS by normal cost and past service portion as follow:

Payable at	January 1, 2016	June 1, 2016	July 1, 2016	August 1, 2016	September 1, 2016	October 1, 2016	November 1, 2016	December 1, 2016	January 31, 2017
Normal cost	3,558,620	3,678,126	3,702,504	3,727,044	3,751,747	3,776,614	3,801,645	3,826,842	3,877,738
Past service portion	6,112,673	6,317,949	6,359,825	6,401,977	6,444,409	6,487,122	6,530,119	6,573,400	6,660,826
<b>Total</b>	<b>9,671,293</b>	<b>9,996,075</b>	<b>10,062,329</b>	<b>10,129,021</b>	<b>10,196,156</b>	<b>10,263,736</b>	<b>10,331,764</b>	<b>10,400,242</b>	<b>10,538,564</b>



TABLE 1c (Continued)\*\*\*\*

Allocation of Total Estimated 2017 Contributions to Employee Groups for Combined Fund  
Employer Contribution based on Stable Employer Contribution Policy

Group	Estimated Active Members	Estimated Covered Compensation	Employer Rate**	Dollar Amount Payable***											
				January 1, 2017	June 1, 2017	July 1, 2017	August 1, 2017	September 1, 2017	October 1, 2017	November 1, 2017	December 1, 2017	January 31, 2018			
General City *	3,327	\$ 181,063,755	8.48%	\$ 15,354,206	\$ 15,869,832	\$ 15,975,017	\$ 16,080,899	\$ 16,187,482	\$ 16,294,773	\$ 16,402,774	\$ 16,511,491	\$ 16,731,091			
Water Department	297	16,690,278	8.48%	1,415,336	1,462,865	1,472,561	1,482,321	1,492,146	1,502,036	1,511,991	1,522,013	1,542,255			
School Board****	4,054	117,469,715	8.48%	9,961,432	10,295,957	10,364,198	10,432,892	10,502,041	10,571,648	10,641,717	10,712,250	10,854,721			
Milwaukee Technical College	-	-	8.48%	-	-	-	-	-	-	-	-	-			
Sewerage Commission	214	17,236,987	8.48%	1,461,696	1,510,783	1,520,797	1,530,876	1,541,023	1,551,237	1,561,518	1,571,868	1,592,774			
Veolia	44	3,508,673	8.48%	297,535	307,527	309,566	311,617	313,683	315,762	317,855	319,961	324,217			
Wisconsin Center District	78	4,095,135	8.48%	347,267	358,929	361,308	363,703	366,114	368,540	370,983	373,442	378,409			
Housing Authority	166	10,033,105	8.48%	850,807	879,379	885,208	891,075	896,981	902,926	908,911	914,935	927,103			
Redevelopment Authority	10	833,870	8.48%	70,712	73,087	73,571	74,059	74,550	75,044	75,541	76,042	77,053			
Police	1,911	139,551,409	22.63%	31,580,484	32,641,021	32,857,365	33,075,143	33,294,363	33,515,037	33,737,174	33,960,783	34,412,457			
Firemen	794	58,054,752	24.83%	14,414,995	14,899,080	14,997,831	15,097,236	15,197,300	15,298,027	15,399,422	15,501,489	15,707,656			
<b>TOTAL</b>	<b>10,895</b>	<b>\$ 548,537,679</b>		<b>\$ 75,754,470</b>	<b>\$ 78,298,460</b>	<b>\$ 78,817,422</b>	<b>\$ 79,339,821</b>	<b>\$ 79,865,683</b>	<b>\$ 80,395,030</b>	<b>\$ 80,927,886</b>	<b>\$ 81,464,274</b>	<b>\$ 82,547,736</b>			

\* Includes Elected Officials

\*\* Rates apply to Covered Compensation as of the beginning of the year then credited with interest to payable date

\*\*\* Actual contribution requirement will be adjusted for the actual payment date of the contribution.

\*\*\*\* The amounts shown above are estimates of the employer contribution requirements due by January 31, 2018.

The actual employer contribution requirements due by January 31, 2018 will be based on the results of the January 1, 2017 actuarial valuation, which is scheduled to be approved at the June 2017 Board meeting.

To the extent that an employer wishes to contribute before the report is approved, the amounts above can serve as a guide. To the extent that the amount contributed is less than the final contribution requirements, the employer will be billed for the remainder, which is to be paid by the end of the year. To the extent that the amount already contributed is more than the required contribution, the employer will receive a credit, with interest, to the contribution for the next year.

\*\*\*\*\* Breakdown of contributions for MPS by normal cost and past service portion as follow:

Payable at	January 1, 2017	June 1, 2017	July 1, 2017	August 1, 2017	September 1, 2017	October 1, 2017	November 1, 2017	December 1, 2017	January 31, 2018
Normal cost	3,665,379	3,788,469	3,813,579	3,838,856	3,864,300	3,889,912	3,915,694	3,941,647	3,994,071
Past service portion	6,296,053	6,507,488	6,550,619	6,594,036	6,637,741	6,681,736	6,726,023	6,770,603	6,860,650
<b>Total</b>	<b>9,961,432</b>	<b>10,295,957</b>	<b>10,364,198</b>	<b>10,432,892</b>	<b>10,502,041</b>	<b>10,571,648</b>	<b>10,641,717</b>	<b>10,712,250</b>	<b>10,854,721</b>

**TABLE 2a - Determination of Employer Contributions to Retirement Fund**

(in thousands)

Item	General Employees	Police	Fire	Total
1. Active Members	38	-	-	38
2. Covered Compensation	\$ 1,273	\$ -	\$ -	\$ 1,273
3. Normal Cost				
a. Total	179	-	-	179
b. Estimated Member Contributions	70	-	-	70
c. Employer Normal Cost (a) - (b), not less than zero	109	-	-	109
4. Active Actuarial Accrued Liability	4,755	-	-	4,755
5. Assets				
a. Actuarial value	10,185	-	-	10,185
b. Market value (Net of Inactive Liabilities)	9,765	-	-	9,765
6. Unfunded Accrued Liability				
a. Actuarial value	(5,430)	-	-	(5,430)
b. Market value (4) - (5)	(5,010)	-	-	(5,010)
7. Amortization of UAL				
a. Actuarial value	(452)	-	-	(452)
b. Market value (Closed Amortization Years) (18 years)	(417)	-	-	(417)
8. Full Funding Limit*				
a. Actuarial value	-	-	-	-
b. Market value (3) + (6), not less than zero, with interest to 1/31/2017	-	-	-	-
9. Annual Contribution Payable January 31, 2017				
a. Actuarial value	\$ -	\$ -	\$ -	\$ -
b. Market value (3) + (7), with interest to 1/31/2017, but not more than (8)	\$ -	\$ -	\$ -	\$ -

\* The full funding limit is the contribution based on the January 1, 2016 valuation which, if made January 31, 2017, would bring the expected assets at that date equal to the expected Actuarial Accrued Liability at that date.

**TABLE 2b - Determination of Employer Contributions to Combined Retirement & Disability Fund**

(in thousands)

Item	General Employees	Police	Fire	Total
1. Active Members	48	1	-	49
2. Covered Compensation	\$ 1,884	\$ 84	\$ -	\$ 1,968
3. Normal Cost				
a. Total	203	17	-	220
b. Estimated Member Contributions	104	6	-	110
c. Employer Normal Cost (a) - (b), not less than zero	99	11	-	110
4. Active Actuarial Accrued Liability	3,567	270	-	3,837
5. Actuarial Assets				
a. Actuarial value	3,312	251	-	3,563
b. Market value (Net of Inactive Liabilities)	3,198	242	-	3,440
6. Unfunded Accrued Liability (UAL)				
a. Actuarial value	255	19	-	274
b. Market value (4) - (5)	369	28	-	397
7. Amortization of UAL				
a. Actuarial value	21	2	-	23
b. Market value (Closed Amortization Years)	31 (18 years)	2 (18 years)	-	33
8. Full Funding Limit*				
a. Actuarial value	386	33	-	419
b. Market value (3) + (6), not less than zero, with interest to 1/31/2017	510	42	-	552
9. Annual Contribution Payable January 31, 2017				
a. Actuarial value	\$ 131	\$ 14	\$ -	\$ 145
b. Market value (3) + (7), with interest to 1/31/2017, but not more than (8)	\$ 142	\$ 14	\$ -	\$ 156

\* The full funding limit is the contribution based on the January 1, 2016 valuation which, if made January 31, 2017, would bring the expected assets at that date equal to the expected Actuarial Accrued Liability at that date.

**TABLE 2c – Comparison of Stable Contribution Policy to Prior Contribution Requirement for Combined Fund**

(in thousands)

Item	General Employees	Police	Fire	Total
1. Active Members	8,190	1,911	794	10,895
2. Covered Compensation	\$ 340,710	\$ 135,487	\$ 56,364	\$ 532,561
3. Normal Cost				
a. Total	36,309	31,895	12,957	81,161
b. Estimated Member Contributions	19,988	9,484	3,945	33,417
c. Employer Normal Cost (a) - (b), not less than zero	16,321	22,411	9,012	47,744
4. Active Actuarial Accrued Liability	686,972	556,138	261,115	1,504,225
5. Assets				
a. Actuarial value	601,176	486,683	228,505	1,316,364
b. Market value (Net of Inactive Liabilities)	534,362	432,593	203,109	1,170,064
6. Unfunded Accrued Liability				
a. Actuarial value	85,796	69,455	32,610	187,861
b. Market value (4) - (5)	152,610	123,545	58,006	334,161
7. Amortization of UAL				
a. Actuarial value	7,139	5,779	2,713	15,631
b. Market value (Closed Amortization Years)	12,698 (18 years)	10,279 (18 years)	4,826 (18 years)	27,803
8. Full Funding Limit*				
a. Actuarial value	111,274	100,104	45,354	256,732
b. Market value (3) + (6), not less than zero, with interest to 1/31/2017	184,080	159,045	73,028	416,153
9. Annual Contribution Payable January 31, 2017				
a. Actuarial value	\$ 25,564	\$ 30,718	\$ 12,776	\$ 69,058
b. Market value (3) + (7), with interest to 1/31/2017, but not more than (8)	\$ 31,621	\$ 35,621	\$ 15,079	\$ 82,321
10. Employer rate as of January 1, 2016 based on				
a. Stable Employer Contribution Policy	8.48%	22.63%	24.83%	13.81%
b. Prior Contribution Requirement	6.89%	20.81%	20.80%	11.90%
c. Market Based Prior Contribution Requirement	8.52%	24.13%	24.55%	14.19%

\* The full funding limit is the contribution based on the January 1, 2016 valuation which, if made January 31, 2017, would bring the expected assets at that date equal to the expected Actuarial Accrued Liability at that date.

**TABLE 3 - Determination of Employer Contributions to Duty Disability Funds**

(in thousands)

Item	General Employees	Police	Fire	Total
1. Active Members	38	-	-	38
2. Covered Compensation	\$ 1,273	\$ -	\$ -	\$ 1,273
3. Normal Cost				
a. Total	1	-	-	1
b. Estimated Member Contributions	-	-	-	-
c. Employer Normal Cost (a) - (b), not less than zero	1	-	-	1
4. Accrued Liability				
a. Actives	23	-	-	23
b. Annuitants	-	-	-	-
c. Total	23	-	-	23
5. Actuarial Value of Assets	118	-	-	118
6. Unfunded Accrued Liability (UAL) (4) - (5)	(95)	-	-	(95)
7. Amortization of UAL (Closed Amortization Years)	(8) (18 years)	-	-	(8)
8. Full Funding Limit* (3) + (6), not less than zero, with interest to 1/31/2017	-	-	-	-
9. Annual Contribution Payable January 31, 2017 (3) + (7), with interest to 1/31/2017, but not more than (8)	\$ -	\$ -	\$ -	\$ -

\* The full funding limit is the contribution based on the January 1, 2016 valuation which, if made January 31, 2017, would bring the expected assets at that date equal to the expected Actuarial Accrued Liability at that date.

**TABLE 4 - Determination of City Contributions to Firemen’s Heart & Lung Fund**

(in thousands)

Item	Amount
1. Active Members	-
2. Covered Compensation	\$ -
3. Normal Cost	
a. Total	-
b. Estimated Member Contributions	-
c. Employer Normal Cost	-
(a) - (b), not less than zero	-
4. Accrued Liability	
a. Actives	-
b. Annuitants	-
c. Total	-
5. Actuarial Value of Assets	-
6. Unfunded Accrued Liability (UAL)	-
7. Full Funding Limit (3) + (6), not less than zero, with interest to 1/31/2017	-
8. Annual Contribution Payable January 31, 2017	\$ -

\* The full funding limit is the contribution which, if made January 31, 2017, would bring the assets at that date equal to the expected Actuarial Accrued Liability at that date.

**TABLE 5 - Member Data**

Item	12/31/2014	12/31/2015		
<b>Number of Members</b>	<b>Total</b>	<b>Vested</b>	<b>Non-Vested</b>	<b>Total</b>
<b>Active</b>				
General Employes	8,240	5,696	2,580	8,276
Policemen	1,920	1,670	242	1,912
Firemen	804	714	80	794
<b>Total Active Members</b>	<b>10,964</b>	<b>8,080</b>	<b>2,902</b>	<b>10,982</b>
<b>Inactive</b>				
Deferred Retirees/Refunds	3,277			3,336
Deferred Fire & Police Survivors	2			2
<b>Total Inactive Members</b>	<b>3,279</b>			<b>3,338</b>
<b>Benefit Recipients</b>				
Combined Fund				
General Employes	9,052			9,190
Policemen	2,248			2,267
Firemen	1,280			1,289
Combined Fund Subtotal	12,580			12,746
Retirement Fund	17			17
Duty Disability Funds				
General Employes	-			-
Firemen	-			-
Policemen	-			-
Duty Disability Funds Subtotal	-			-
Firemen's Heart & Lung Fund	-			-
<b>Total Benefit Recipients</b>	<b>12,597</b>			<b>12,763</b>
<b>TOTAL Membership</b>	<b>26,840</b>			<b>27,083</b>

Notes:

(1) Vested members have four or more years of service. Non-vested members have less than four years of service.

TABLE 5 - Member Data

(continued)

Item	12/31/2015 Membership		
	Consenters	Others	Total
<b>Number of Members</b>			
<b>Active</b>			
General Employes	8,190	86	8,276
Policemen	1,911	1	1,912
Firemen	794	-	794
<b>Total Active Members</b>	<b>10,895</b>	<b>87</b>	<b>10,982</b>
<b>Inactive</b>			
Deferred Retirees/Refunds	3,145	191	3,336
Deferred Fire & Police Survivorship Fund	2	-	2
<b>Total Inactive Members</b>	<b>3,147</b>	<b>191</b>	<b>3,338</b>
<b>Benefit Recipients</b>			
Combined Fund	12,746		12,746
Retirement Fund		17	17
Duty Disability Funds			
General Employes	-	-	-
Firemen	-	-	-
Policemen	-	-	-
Duty Disability Funds Subtotal	-	-	-
Firemen's Heart & Lung Fund	-	-	-
<b>Total Benefit Recipients</b>	<b>12,746</b>	<b>17</b>	<b>12,763</b>
<b>TOTAL Membership</b>	<b>26,788</b>	<b>295</b>	<b>27,083</b>

Notes:

- (1) In addition to the above, there are members who have separated from service without vested rights to either a pension or a refund of accumulated contributions. There is no current actuarial liability for such individuals, and their membership will be terminated if they do not return to active service within 5 years of their date of separation from ERS covered employment.
- (2) Active members who worked less than 100 hours in the prior year, but who have not officially terminated employment are included in the count of Inactives in Table 5. These members are not assumed to earn additional service credit in future years



**TABLE 5 - Member Data**

(continued)

Item	12/31/2014	12/31/2015
<b>Annual Earnings</b>		
General Employes	\$ 337,248,000	\$ 343,867,000
Policemen	136,104,000	135,571,000
Firemen	56,587,000	56,364,000
<b>Total Annual Earnings</b>	<b>\$ 529,939,000</b>	<b>\$ 535,802,000</b>
<b>Average Earnings</b>		
General Employes	\$ 40,928	\$ 41,550
Policemen	\$ 70,888	\$ 70,906
Firemen	\$ 70,382	\$ 70,987
<b>Annual Benefit Payments Currently Being Made</b>		
Combined Fund	\$ 315,556,222	\$ 328,150,928
Retirement Fund	\$ 143,079	\$ 144,736
Duty Disability Funds		
General Employes	\$ -	\$ -
Firemen	-	-
Policemen	-	-
Duty Disability Funds Subtotal	\$ -	\$ -
Firemen's Heart & Lung Fund	\$ -	\$ -
<b>Total Benefit Payments</b>	<b>\$ 315,699,301</b>	<b>\$ 328,295,664</b>

Notes:

- (1) "Annual earnings" represent a rate of pay as of the valuation date, and can be considered as the approximate average of (a) earnable compensation for the year just ended, and (b) expected earnable compensation for the year following the valuation date.
- (2) "Annual benefit payments currently being made" equal 12 times the full December monthly payment. The amounts shown include all amounts payable by the ERS, and have been reduced by workers' compensation offsets for members who are currently repaying a workers' compensation award.

## Financial Data

Information was obtained from unaudited financial statements prepared by the ERS for the year ended December 31, 2015.

The Global Pension Settlement (GPS) requires transfers between various funds as of January 1, 2015 for members who consented to GPS during 2015. This adjustment to the System's market value of assets is shown in Table 7.

**TABLE 6 - Summary of Market Value of Plan Assets as of January 1, 2016**

(in thousands)

Item	Amount
1. Market Value of Assets as of December 31, 2014	\$ 4,953,150
2. Contributions During Year	
a. Member	49,553
b. City to Employers' Reserve Fund	-
c. Employer	72,198
d. Total	121,751
3. Disbursements During Year Benefit Payments and Refunds During Year	347,888
4. Investment Return (net of Administrative Expenses)	25,295
5. Market Value of Assets as of December 31, 2015 (1) + (2d) - (3) + (4)	4,752,308
6. Average Market Value During 2015 (1) + ((2d) - (3))/2	\$ 4,840,082
7. Rate of Return (4) / (6)	0.52%

**TABLE 7 - Allocations Between Non-Consenters Who Consented to Global Settlement During 2015 and Those Who Did Not**  
**Allocation of 1/1/2015 Market Value of Assets in Proportion to 1/1/2015 Accrued Liability**  
**Allocation of 1/31/2016 Employer Contribution in Proportion to 1/1/2015 Covered Compensation**

(in thousands)

Fund	Allocation of 1/1/2015 Market Value of Assets in Funds for Non-Consenters in Proportion to 1/1/2015 Accrued Liability			Allocation of 1/31/2016 Employer Contribution to Funds for Non-Consenters in Proportion to 1/1/2015 Covered Compensation		
	Consenters in 2015	Others	Total (Audited)	Consenters in 2015	Others	Total
1. Retirement Fund	\$ 1,846	\$ 13,500	\$ 15,346	\$ -	\$ -	\$ -
2. General Employees' Duty Disability Fund	15	112	127	-	-	-
3. Fire & Police Duty Disability Fund	-	-	-	-	-	-
4. Firemen's Heart & Lung Fund	-	-	-	-	-	-
5. Combined Retirement & Disability Fund	190	3,817	4,007	3	134	137
6. Total Funds for Non-Consenters	\$ 2,051	\$ 17,429	\$ 19,480	\$ 3	\$ 134	\$ 137

Notes:

- (1) January 1, 2015 Assets allocated to members who consented to Global Settlement during 2015 are transferred to the Global Combined Fund as of January 1, 2015.
- (2) January 31, 2016 Employer Contributions allocated to members who consented to Global Settlement during 2015 are credited to the Global Combined Fund instead of to the funds for non-consenters.

**TABLE 8 - Actuarial Value of Assets as of January 1, 2016**

(in thousands)

Item	Total
1. Preliminary Actuarial Value January 1, 2015	\$ 4,796,659
2. Market Value January 1, 2015 (Unaudited)	4,953,150
3. Market Value January 1, 2016 (Unaudited)	4,752,308
4. Contributions	
(a) Member	49,553
(b) Employer	72,198
(c) Total	121,751
5. Benefits and Refunds Paid	347,888
6. Actual Market Return Net of Administrative Expenses	25,295
7. Expected Market Return based on 8-1/4% Interest	399,307
8. Excess of Actual over Expected Return	
(a) 2015	(374,012)
(b) 2014	(170,983)
(c) 2013	434,858
(d) 2012	196,296
(e) 2011	(437,672)
9. Excess Recognized in the Current Valuation*	
(a) 2015	(74,802)
(b) 2014	(34,197)
(c) 2013	86,972
(d) 2012	39,259
(e) 2011	(87,534)
(f) Total	(70,302)
10. Preliminary Value January 1, 2016 (1) + 4(c) - (5) + (7) + 9(f)	4,899,527
11. Ratio of Preliminary Value to Market Value (10) / (3)	103.10%
12. Ratio Adjusted for 80%--120% Corridor**	103.10%
13. Balance in Employers' Reserve Fund	15,292
14. Market Value Excluding Employers' Reserve Fund (3) - (13)	4,737,016
15. Actuarial Value (12) x (14) + (13)	\$ 4,899,155
16. Rate of Return on Actuarial Value of Assets	7.00%

\* The Funding Policy was changed effective with the January 1, 2009 valuation from 3 year smoothing to 5 year smoothing.

\*\* The actuarial value shall not be less than 80% nor greater than 120% of Market Value.

For a description of the development of the actuarial value of assets, refer to the relevant section of the Descriptions of Actuarial Methods and Assumptions beginning on page 43 of this report.

**TABLE 9 - Allocation of Assets Among Funds as of January 1, 2016**

(in thousands)

Fund	Market Value	Actuarial Value
1. Global Combined Fund	\$ 4,718,054	\$ 4,864,354
2. Employers' Reserve Fund	\$ 15,292	15,292
3. Retirement Fund	\$ 13,558	13,978
4. General Employes' Duty Disability Fund	\$ 114	118
5. Fire & Police Duty Disability Fund	-	-
6. Firemen's Heart & Lung Fund	-	-
7. Combined Retirement & Disability Fund	\$ 3,958	4,081
8. Securities Lending Fund	<u>1,332</u>	<u>1,332</u>
9. Total all Funds	\$ 4,752,308	\$ 4,899,155

Notes:

(1) Values shown include January 31, 2016 contributions receivable

## GABS 67/68 DISCLOSURE

The disclosure under GASB 67/68 is to be determined as of the end of the Governmental Employers' fiscal year. It is permissible for the actuary to project the total pension liability to the end of year, based on beginning of the year results; however, the actuary should take into account any significant events that occurred during the year, such as plan changes. The plan fiduciary net position under GASB 67/68 disclosure should be the actual market value of assets as of the end of the year. The Actuarial cost method for GASB 67/68 disclosure is Entry Age Normal Cost Method. The discount rate changed from 8.49% to 8.50%.

Table 10 through 15 show the required accounting and financial reporting and disclosure items for fiscal year ending 12/31/2015 prepared based on valuation as of 1/1/2015. For historical purposes, Tables 16 shows the funded status of the Actuarial Accrued Liability. Table 17 provides an actuarial balance sheet for members, comparing the Actuarial Accrued Liability to the Market Value of Assets.

**TABLE 10 - Actuarial Methods and Assumptions for GASB 67/68 Disclosure Purpose**

The total pension liability as of December 31, 2015 was determined by rolling forward the total pension liability as of January 1, 2015 to December 31, 2015 using the following actuarial methods and assumptions, applied to all periods included in the measurement. All other assumptions such as retirement rates, termination rates, and disability rates used to determine the total pension liability are set forth in "Description Of Actuarial Methods And Assumptions For Pension Funding Purpose" Section.

Valuation Date	January 1, 2015
Actuarial Cost Method	Entry Age Normal – Level Percentage of Pay
Amortization Method	For pension expense; the difference between expected and actual liability experience and changes of assumptions are amortized over the the average of the expected remaining service lives of all members. The differences between projected and actual earnings are amortized over a closed period of five years.
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	8.25% for calendar years through 2017, and 8.50% beginning with calendar year 2018
Projected Salary Increases	General City 3.0% - 7.5% Police & Fire 3.0% - 14.4%
Inflation Assumption	3.00%
Cost of Living Adjustments	Vary by Employee Group as explained in summary of plan provisions
Mortality Table	For regular retirees and for survivors, the RP-2000 Combined Mortality Table projected nine years using Scale AA. Future generational rates are projected from 2009 based on Scale AA. For duty and ordinary disability retirees, use the RP-2000 Disability Mortality Table. For death in active service, the rates are similar to those used for regular retirees and survivors with a 6-year setback.
Experience Study	The actuarial assumptions used in the December 31, 2015 valuation were based on the results of an actuarial experience study for the period January 1, 2007-December 31, 2011.

The average expected remaining years of service: The period is 4.20 years for the measurement year 2015  
 The following is a summary of the membership counts and the development of the average expected remaining years of service as of Jan. 1, 2015.

Group	Remaining service lives		
	Number	Service	Average
Retired members and survivors of deceased members currently receiving benefits	12,597	-	
Terminated members and survivors of deceased members entitled to benefits but not yet receiving benefits	3,279	-	
Active members	<u>10,964</u>	<u>112,758</u>	
Total	26,840	112,758	4.2



## TABLE 11 - Schedule of the Net Pension Liability

(in thousands)

Total pension liability	\$	5,172,865
Plan fiduciary net position		<u>4,752,308</u>
Net pension liability (asset)	\$	<u><u>420,557</u></u>

Plan fiduciary net position as a percentage of total pension liability	91.87%
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Covered employee payroll	\$	535,802
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Net pension liability (asset) as a percentage of covered employee payroll	78.49%
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Discount rate: The discount rate used to measure the total pension liability was 8.50 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from ERS agencies will be made at contractually required rates, actuarially determined. Based on those assumptions, the ERS's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. The cross over analysis produces a single rate of 8.50 percent, which reflects the long-term expected rate of return on ERS investments. Therefore, the discount rate was applied to all periods of projected benefit payments to determine the total pension liability. In the event of benefit payments not covered by the Plan's fiduciary net position, a municipal bond rate of 3.20 percent would have been used to discount the benefit payments not covered by the Plan's fiduciary net position. The 3.20 percent rate equals the S&P Municipal Bond 20-Year High Grade Rate Index (yield to maturity) at Dec. 31, 2015

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the ERS calculated using the discount rate of 8.50 percent, as well as what the ERS's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (7.50 percent) or 1-percentage-point higher (9.50 percent) than the current rate:

	1% Decrease (7.50%)	Current Discount (8.50%)	1% Increase (9.50%)
ERS's net pension liability	\$ <u>988,536</u>	<u>420,557</u>	<u>(58,335)</u>

**TABLE 12a - Development of Discount Rate- Projection of the Fiduciary Net Position**

This projection is used only for determining if the plan has a crossover point for developing the discount rate under GASB 67. For this projection, member contributions and benefit payments do not include amounts for future new members. Employer contributions include projected amounts for current members, plus amounts for new members to the extent the employer contribution rate exceeds the employer normal cost rate for the new members. Administrative expenses are based on the most recent fiscal year end, assumed to increase annually at an assumed inflation rate of 3.00 percent.

Projection of the Pension plan's Fiduciary Net Position								
Fiscal Year Ending 12/31/	Interest Rate	Projected Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Projected Benefit payments	Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2016	8.25%	4,752,308,000	30,847,516	74,969,788	348,565,636	9,686,000	381,652,494	4,881,526,162
2017	8.25%	4,881,526,162	29,718,573	76,545,831	365,270,252	9,976,580	391,630,383	5,004,174,117
2018	8.50%	5,004,174,117	28,508,086	88,609,087	381,593,983	10,275,877	413,677,811	5,143,099,241
2019	8.50%	5,143,099,241	27,323,602	87,289,164	398,259,795	10,584,154	424,658,610	5,273,526,667
2020	8.50%	5,273,526,667	26,106,742	85,855,575	414,197,274	10,901,678	434,941,460	5,395,331,492
2021	8.50%	5,395,331,492	24,956,374	84,524,363	430,531,219	11,228,729	444,481,310	5,507,533,591
2022	8.50%	5,507,533,591	23,745,805	83,034,810	447,406,538	11,565,591	453,172,216	5,608,514,293
2023	8.50%	5,608,514,293	22,490,314	81,462,295	463,566,745	11,912,558	460,933,830	5,697,921,429
2024	8.50%	5,697,921,429	21,262,593	80,014,123	478,408,307	12,269,935	467,773,757	5,776,293,661
2025	8.50%	5,776,293,661	20,103,460	78,726,574	491,945,152	12,638,033	473,740,452	5,844,280,963
2026	8.50%	5,844,280,963	18,978,653	77,576,293	504,344,767	13,017,174	478,879,585	5,902,353,552
2027	8.50%	5,902,353,552	17,881,170	76,505,687	518,512,755	13,407,689	483,104,874	5,947,924,839
2028	8.50%	5,947,924,839	16,770,724	75,421,683	530,958,506	13,809,920	486,339,130	5,981,687,950
2029	8.50%	5,981,687,950	15,673,502	74,466,991	541,547,884	14,224,218	488,654,132	6,004,710,474
2030	8.50%	6,004,710,474	14,600,043	73,584,282	552,367,273	14,650,944	490,049,950	6,015,926,531
2031	8.50%	6,015,926,531	13,554,051	72,828,063	561,379,810	15,090,472	490,525,008	6,016,363,370
2032	8.50%	6,016,363,370	12,528,790	72,136,620	569,930,513	15,543,187	490,106,534	6,005,661,615
2033	8.50%	6,005,661,615	11,459,094	71,327,448	578,128,058	16,009,482	488,748,820	5,983,059,436
2034	8.50%	5,983,059,436	10,338,280	70,386,986	586,028,742	16,489,767	486,383,839	5,947,650,032
2035	8.50%	5,947,650,032	9,319,561	69,664,576	592,762,699	16,984,460	482,992,824	5,899,879,835
2036	8.50%	5,899,879,835	8,379,411	67,953,949	596,659,929	17,493,993	478,632,412	5,840,691,684
2037	8.50%	5,840,691,684	7,447,162	66,240,149	601,334,714	18,018,813	473,267,979	5,768,293,448
2038	8.50%	5,768,293,448	6,586,058	64,696,644	603,971,864	18,559,378	466,876,880	5,683,921,788
2039	8.50%	5,683,921,788	5,766,483	63,264,896	604,584,405	19,116,159	459,559,912	5,588,812,514
2040	8.50%	5,588,812,514	4,953,006	61,756,857	604,844,356	19,689,644	451,341,538	5,482,329,916
2041	8.50%	5,482,329,916	4,158,312	60,220,440	603,141,330	20,280,333	442,238,719	5,365,525,724
2042	8.50%	5,365,525,724	3,479,421	58,923,595	599,771,067	20,888,743	432,343,773	5,239,612,702
2043	8.50%	5,239,612,702	2,868,347	57,769,200	595,270,866	21,515,405	421,730,759	5,105,194,736
2044	8.50%	5,105,194,736	2,330,731	56,774,444	589,810,648	22,160,867	410,444,733	4,962,773,128
2045	8.50%	4,962,773,128	1,835,704	55,821,213	581,999,183	22,825,693	398,581,078	4,814,186,247
2046	8.50%	4,814,186,247	1,395,758	54,924,057	572,397,896	23,510,464	386,273,318	4,660,871,020
2047	8.50%	4,660,871,020	1,055,851	54,153,178	561,966,002	24,215,778	373,607,695	4,503,505,964
2048	8.50%	4,503,505,964	788,749	53,408,432	549,947,104	24,942,252	360,668,589	4,343,482,378
2049	8.50%	4,343,482,378	578,557	52,719,861	536,331,730	25,690,519	347,575,239	4,182,333,786
2050	8.50%	4,182,333,786	419,603	52,013,650	522,002,435	26,461,235	334,417,079	4,020,720,448
2051	8.50%	4,020,720,448	304,060	51,313,576	506,670,824	27,255,072	321,263,137	3,859,675,325

**TABLE 12a - Development of Discount Rate- Projection of the Fiduciary Net Position  
(Continue)**

Projection of the Pension plan's Fiduciary Net Position								
Fiscal Year Ending 12/31/	Interest Rate	Projected Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Projected Benefit payments	Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2052	8.50%	3,859,675,325	226,218	50,632,118	490,564,914	28,072,724	308,191,782	3,700,087,805
2053	8.50%	3,700,087,805	162,276	49,879,237	473,886,186	28,914,906	295,265,181	3,542,593,407
2054	8.50%	3,542,593,407	114,343	49,095,847	456,740,682	29,782,353	282,534,644	3,387,815,207
2055	8.50%	3,387,815,207	77,868	48,213,959	439,261,651	30,675,823	270,044,353	3,236,213,912
2056	8.50%	3,236,213,912	49,224	47,257,745	421,492,652	31,596,098	257,832,457	3,088,264,588
2057	8.50%	3,088,264,588	30,247	46,232,706	403,511,896	32,543,981	245,936,291	2,944,407,955
2058	8.50%	2,944,407,955	18,319	45,133,225	385,411,118	33,520,300	234,389,032	2,805,017,112
2059	8.50%	2,805,017,112	11,466	43,947,484	367,286,659	34,525,909	223,217,676	2,670,381,170
2060	8.50%	2,670,381,170	6,873	42,638,317	349,207,747	35,561,687	212,442,119	2,540,699,045
2061	8.50%	2,540,699,045	3,001	43,762,499	331,240,289	36,628,537	202,185,027	2,418,780,746
2062	8.50%	2,418,780,746	1,441	44,924,724	313,451,176	37,727,393	192,580,636	2,305,108,978
2063	8.50%	2,305,108,978	380	46,136,133	295,893,844	38,859,215	183,668,060	2,200,160,492
2064	8.50%	2,200,160,492	98	47,386,231	278,620,781	40,024,992	175,485,115	2,104,386,163
2065	8.50%	2,104,386,163	22	48,672,823	261,671,203	41,225,741	168,068,300	2,018,230,363
2066	8.50%	2,018,230,363	0	49,985,346	245,064,602	42,462,514	161,454,056	1,942,142,650
2067	8.50%	1,942,142,650	0	51,334,636	228,809,686	43,736,389	155,680,639	1,876,611,851
2068	8.50%	1,876,611,851	0	52,731,640	212,919,292	45,048,481	150,789,472	1,822,165,190
2069	8.50%	1,822,165,190	0	54,160,255	197,416,798	46,399,935	146,823,641	1,779,332,352
2070	8.50%	1,779,332,352	0	55,628,821	182,299,673	47,791,933	143,828,582	1,748,698,149
2071	8.50%	1,748,698,149	0	57,128,629	167,563,441	49,225,691	141,853,771	1,730,891,416
2072	8.50%	1,730,891,416	0	58,662,251	153,219,407	50,702,462	140,952,237	1,726,584,036
2073	8.50%	1,726,584,036	0	60,242,329	139,283,379	52,223,536	141,180,898	1,736,500,348
2074	8.50%	1,736,500,348	0	61,854,892	125,782,223	53,790,242	142,599,533	1,761,382,308
2075	8.50%	1,761,382,308	0	63,509,516	112,755,835	55,403,949	145,269,860	1,802,001,899
2076	8.50%	1,802,001,899	0	65,206,252	100,275,687	57,066,068	149,254,403	1,859,120,799
2077	8.50%	1,859,120,799	0	66,944,602	88,421,065	58,778,050	154,614,451	1,933,480,738
2078	8.50%	1,933,480,738	0	68,733,545	77,258,451	60,541,391	161,410,545	2,025,824,986
2079	8.50%	2,025,824,986	0	70,566,709	66,854,051	62,357,633	169,702,712	2,136,882,723
2080	8.50%	2,136,882,723	0	72,449,150	57,246,788	64,228,362	179,551,426	2,267,408,150
2081	8.50%	2,267,408,150	0	74,383,304	48,477,644	66,155,213	191,019,087	2,418,177,684
2082	8.50%	2,418,177,684	0	76,370,684	40,571,708	68,139,869	204,170,615	2,590,007,406
2083	8.50%	2,590,007,406	0	78,416,382	33,539,909	70,184,065	219,075,057	2,783,774,871
2084	8.50%	2,783,774,871	0	80,519,461	27,373,731	72,289,587	235,807,250	3,000,438,263
2085	8.50%	3,000,438,263	0	82,681,685	22,036,794	74,458,275	254,450,184	3,241,075,064
2086	8.50%	3,241,075,064	0	84,905,038	17,496,116	76,692,023	275,096,849	3,506,888,813
2087	8.50%	3,506,888,813	0	87,190,865	13,706,951	78,992,784	297,851,422	3,799,231,365
2088	8.50%	3,799,231,365	0	89,542,475	10,578,046	81,362,567	322,832,745	4,119,665,972
2089	8.50%	4,119,665,972	0	91,961,864	8,035,170	83,803,444	350,176,846	4,469,966,068
2090	8.50%	4,469,966,068	0	94,451,114	6,016,815	86,317,548	380,037,078	4,852,119,897

There is no crossover point in this analysis.

After 2076, the projected Investment earnings will exceed the projected benefit payments and administrative expense

**TABLE 12b - Development of Discount Rate- Present Values of Projected Benefits**

Actuarial Present value of Projected Benefit payments									8.50%
Fiscal Year Ending	Interest Rate	Period	Projected Beginning Fiduciary Net Position	Projected Benefit Payments		Present value of Benefit payments			
				"Funded" Portion	"UnFunded" Portion	Funded Portion at 8.25~8.5%*	Unfunded Portion at 3.20%	Using a Single Discount Rate of	
12/31/	i	(a)	(b)	(d)	(e)	(f)= (d)/(1+i)^a	(g)= (e)/(1+3.20%)^a	(h)=(c)/(1+8.5%)^a	
2016	8.25%	1	4,752,308,000	348,565,636	0	322,000,588	0	321,268,327	
2017	8.25%	2	4,881,526,162	365,270,252	0	311,715,569	0	310,299,437	
2018	8.50%	3	5,004,174,117	381,593,983	0	298,753,019	0	298,780,014	
2019	8.50%	4	5,143,099,241	398,259,795	0	287,374,027	0	287,408,650	
2020	8.50%	5	5,273,526,667	414,197,274	0	275,460,001	0	275,501,486	
2021	8.50%	6	5,395,331,492	430,531,219	0	263,891,997	0	263,939,689	
2022	8.50%	7	5,507,533,591	447,406,538	0	252,751,743	0	252,805,036	
2023	8.50%	8	5,608,514,293	463,566,745	0	241,365,041	0	241,423,204	
2024	8.50%	9	5,697,921,429	478,408,307	0	229,578,423	0	229,640,662	
2025	8.50%	10	5,776,293,661	491,945,152	0	217,580,166	0	217,645,707	
2026	8.50%	11	5,844,280,963	504,344,767	0	205,589,249	0	205,657,372	
2027	8.50%	12	5,902,353,552	518,512,755	0	194,806,115	0	194,876,535	
2028	8.50%	13	5,947,924,839	530,958,506	0	183,854,382	0	183,926,382	
2029	8.50%	14	5,981,687,950	541,547,884	0	172,830,557	0	172,903,447	
2030	8.50%	15	6,004,710,474	552,367,273	0	162,473,250	0	162,546,667	
2031	8.50%	16	6,015,926,531	561,379,810	0	152,188,199	0	152,261,555	
2032	8.50%	17	6,016,363,370	569,930,513	0	142,402,089	0	142,475,019	
2033	8.50%	18	6,005,661,615	578,128,058	0	133,133,932	0	133,206,128	
2034	8.50%	19	5,983,059,436	586,028,742	0	124,380,956	0	124,452,153	
2035	8.50%	20	5,947,650,032	592,762,699	0	115,954,098	0	116,023,966	
2036	8.50%	21	5,899,879,835	596,659,929	0	107,572,775	0	107,640,834	
2037	8.50%	22	5,840,691,684	601,334,714	0	99,922,211	0	99,988,442	
2038	8.50%	23	5,768,293,448	603,971,864	0	92,498,082	0	92,562,180	
2039	8.50%	24	5,683,921,788	604,584,405	0	85,338,150	0	85,399,858	
2040	8.50%	25	5,588,812,514	604,844,356	0	78,686,491	0	78,745,761	
2041	8.50%	26	5,482,329,916	603,141,330	0	72,317,915	0	72,374,568	
2042	8.50%	27	5,365,525,724	599,771,067	0	66,280,012	0	66,333,933	
2043	8.50%	28	5,239,612,702	595,270,866	0	60,629,217	0	60,680,368	
2044	8.50%	29	5,105,194,736	589,810,648	0	55,366,899	0	55,415,279	
2045	8.50%	30	4,962,773,128	581,999,183	0	50,353,566	0	50,399,083	
2046	8.50%	31	4,814,186,247	572,397,896	0	45,643,206	0	45,685,842	
2047	8.50%	32	4,660,871,020	561,966,002	0	41,300,796	0	41,340,620	
2048	8.50%	33	4,503,505,964	549,947,104	0	37,251,139	0	37,288,182	
2049	8.50%	34	4,343,482,378	536,331,730	0	33,482,848	0	33,517,153	
2050	8.50%	35	4,182,333,786	522,002,435	0	30,035,281	0	30,066,959	
2051	8.50%	36	4,020,720,448	506,670,824	0	26,869,236	0	26,898,385	

**TABLE 12b - Development of Discount Rate- Present Values of Projected Benefits (Continue)**

Actuarial Present value of Projected Benefit payments									8.50%
Fiscal Year Ending	Interest Rate	Period	Projected Beginning Fiduciary Net Position	Projected Benefit Payments		Present value of Benefit payments			
				"Funded" Portion	"UnFunded" Portion	Funded Portion at 8.25-8.5%*	Unfunded Portion at 3.20%	Using a Single Discount Rate of	
12/31/	i	(a)	(b)	(d)	(e)	(f)= (d)/(1+i)^a	(g)= (e)/(1+3.20%)^a	(h)=(c)/(1+8.5%)^a	
2052	8.50%	37	3,859,675,325	490,564,914	0	23,977,073	0	24,003,808	
2053	8.50%	38	3,700,087,805	473,886,186	0	21,347,351	0	21,371,797	
2054	8.50%	39	3,542,593,407	456,740,682	0	18,963,125	0	18,985,412	
2055	8.50%	40	3,387,815,207	439,261,651	0	16,808,686	0	16,828,948	
2056	8.50%	41	3,236,213,912	421,492,652	0	14,865,200	0	14,883,567	
2057	8.50%	42	3,088,264,588	403,511,896	0	13,116,179	0	13,132,781	
2058	8.50%	43	2,944,407,955	385,411,118	0	11,546,371	0	11,561,334	
2059	8.50%	44	2,805,017,112	367,286,659	0	10,141,371	0	10,154,819	
2060	8.50%	45	2,670,381,170	349,207,747	0	8,886,805	0	8,898,858	
2061	8.50%	46	2,540,699,045	331,240,289	0	7,769,180	0	7,779,951	
2062	8.50%	47	2,418,780,746	313,451,176	0	6,775,981	0	6,785,580	
2063	8.50%	48	2,305,108,978	295,893,844	0	5,895,335	0	5,903,864	
2064	8.50%	49	2,200,160,492	278,620,781	0	5,116,304	0	5,123,860	
2065	8.50%	50	2,104,386,163	261,671,203	0	4,428,626	0	4,435,300	
2066	8.50%	51	2,018,230,363	245,064,602	0	3,822,645	0	3,828,521	
2067	8.50%	52	1,942,142,650	228,809,686	0	3,289,486	0	3,294,642	
2068	8.50%	53	1,876,611,851	212,919,292	0	2,821,233	0	2,825,740	
2069	8.50%	54	1,822,165,190	197,416,798	0	2,410,895	0	2,414,819	
2070	8.50%	55	1,779,332,352	182,299,673	0	2,051,872	0	2,055,274	
2071	8.50%	56	1,748,698,149	167,563,441	0	1,738,257	0	1,741,191	
2072	8.50%	57	1,730,891,416	153,219,407	0	1,464,936	0	1,467,453	
2073	8.50%	58	1,726,584,036	139,283,379	0	1,227,367	0	1,229,513	
2074	8.50%	59	1,736,500,348	125,782,223	0	1,021,562	0	1,023,379	
2075	8.50%	60	1,761,382,308	112,755,835	0	844,024	0	845,550	
2076	8.50%	61	1,802,001,899	100,275,687	0	691,802	0	693,074	
2077	8.50%	62	1,859,120,799	88,421,065	0	562,227	0	563,278	
2078	8.50%	63	1,933,480,738	77,258,451	0	452,765	0	453,625	
2079	8.50%	64	2,025,824,986	66,854,051	0	361,098	0	361,794	
2080	8.50%	65	2,136,882,723	57,246,788	0	284,982	0	285,541	
2081	8.50%	66	2,267,408,150	48,477,644	0	222,423	0	222,865	
2082	8.50%	67	2,418,177,684	40,571,708	0	171,566	0	171,912	
2083	8.50%	68	2,590,007,406	33,539,909	0	130,719	0	130,987	
2084	8.50%	69	2,783,774,871	27,373,731	0	98,329	0	98,534	
2085	8.50%	70	3,000,438,263	22,036,794	0	72,957	0	73,111	
2086	8.50%	71	3,241,075,064	17,496,116	0	53,386	0	53,501	
2087	8.50%	72	3,506,888,813	13,706,951	0	38,548	0	38,631	
2088	8.50%	73	3,799,231,365	10,578,046	0	27,418	0	27,478	
2089	8.50%	74	4,119,665,972	8,035,170	0	19,195	0	19,238	
2090	8.50%	75	4,469,966,068	6,016,815	0	13,248	0	13,278	

\*8.25% through 2017, and 8.50% beginning with calendar year 2018

\*\*There is no crossover point in this analysis.

After 2076, the projected Investment earnings will exceed the projected benefit payments and administrative expense

**TABLE 13 - Schedule of Changes in the Net Pension Liability**

Total pension liability		
Service cost	\$	70,500
Interest		418,874
Changes in benefit items		0
Differences between expected and actual experience		(30,036)
Changes of assumptions		(5,206)
Benefit payments including refunds of member contributions		<u>(347,888)</u>
Net change in total pension liability		106,244
Total pension liability - beginning		<u>5,066,621</u>
Total pension liability - ending	\$	<u><u>5,172,865</u></u>
Plan fiduciary net position		
Contributions - employer	\$	72,198
Contributions - member		49,553
Net investment income		34,981
Benefit payments, including refunds of member contributions		<u>(347,888)</u>
Administrative expense		(9,686)
Other		<u>0</u>
Net change in plan fiduciary net pension		(200,842)
Plan fiduciary net position - beginning		<u>4,953,150</u>
Plan fiduciary net position - ending	\$	<u><u>4,752,308</u></u>
Net pension liability (asset) - ending	\$	<u><u>420,557</u></u>

**TABLE 14 - Schedule of Contributions**

Last 10 Fiscal Years (Dollar Amounts in thousands)	Fiscal Year Ending December 31									
	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
Actuarially Determined Contributions	\$ 72,198	\$ 72,844	\$ 79,533	\$ 73,159	0	0	\$ 60,098	0	0	0
Contributions in relation to the actuarially determined contribution	72,198	72,844	79,533	73,159	0	0	60,098	0	0	0
Contribution deficiency (excess)	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>
Covered employee payroll	\$ 535,802	\$ 529,939	\$ 521,651	\$ 523,738	\$ 525,181	\$ 538,218	\$ 553,846	\$ 536,558	\$ 532,412	\$ 528,854
Contributions as a percentage of covered-employee payroll	13.47%	13.75%	15.25%	13.97%	0.00%	0.00%	10.85%	0.00%	0.00%	0.00%

GASB 67 is applicable for fiscal years ending 2014 and later.

The information presented above was determined as part of the actuarial valuation as of one year prior to the dates indicated (i.e., the contribution determined by the valuation completed as of January 1, 2015 was contributed for the fiscal year ending December 31, 2015).

**TABLE 15 – GASB68 Information**

**Collective Pension Expense**

(\$ in thousands)

Item	Measurement Year Ending Dec. 31, 2015	Measurement Year Ending Dec. 31, 2014
<b>Pension Expense</b>		
Service cost	\$ 70,500	\$ 69,693
Interest cost on total pension liability	418,874	409,899
Projected earnings on plan investments	(398,907)	(398,690)
Contributions - Member	(49,553)	(43,663)
Administrative expense	9,686	10,831
Current period	-	-
Plan changes	-	-
Changes in assumptions	(1,240)	-
Differences between expected and actual liab. experience	(7,152)	-
Difference between projected and actual earnings	72,786	31,941
Recognition of prior years'	-	-
Deferred outflows	31,941	-
Deferred inflows	-	-
Other changes in fiduciary net position	-	-
Pension expense	146,935	80,011



**TABLE 15 –GASB68 Information (Continue)**

**Details of the recognized and deferred inflows and outflows of resources**

**Amortization of Changes in Assumptions**

**(\$ in thousands)**

Measurement Year	2014	2015	Outflows	Inflows	Total
Amount Established	-	(5,206)			
Recognition Period	4.09	4.20			
Annual Recognition	-	(1,240)			
Amount Recognized					
2014	-	-	-	-	-
2015	-	(1,240)	-	(1,240)	(1,240)
2016	-	(1,240)	-	(1,240)	(1,240)
2017	-	(1,240)	-	(1,240)	(1,240)
2018	-	(1,240)	-	(1,240)	(1,240)
2019	-	(246)	-	(246)	(246)
2020	-	-	-	-	-
Deferred Balance					
2014	-	-	-	-	-
2015	-	(3,966)	-	(3,966)	(3,966)
2016	-	(2,726)	-	(2,726)	(2,726)
2017	-	(1,486)	-	(1,486)	(1,486)
2018	-	(246)	-	(246)	(246)
2019	-	-	-	-	-

**TABLE 15 – GASB68 Information (Continue)**

**Details of the recognized and deferred inflows and outflows of resources**

**Amortization of Difference between Actual and Expected Experience  
(\$ in thousands)**

Measurement Year	2014	2015	Outflows	Inflows	Total
Amount Established	-	(30,036)			
Recognition Period	4.09	4.20			
Annual Recognition	-	(7,152)			
Amount Recognized					
2014	-	-	-	-	-
2015	-	(7,152)	-	(7,152)	(7,152)
2016	-	(7,152)	-	(7,152)	(7,152)
2017	-	(7,152)	-	(7,152)	(7,152)
2018	-	(7,152)	-	(7,152)	(7,152)
2019	-	(1,428)	-	(1,428)	(1,428)
2020	-	-	-	-	-
Deferred Balance					
2014	-	-	-	-	-
2015	-	(22,884)	-	(22,884)	(22,884)
2016	-	(15,732)	-	(15,732)	(15,732)
2017	-	(8,580)	-	(8,580)	(8,580)
2018	-	(1,428)	-	(1,428)	(1,428)
2019	-	-	-	-	-

**TABLE 15 – GASB68 Information (Continue)**

**Details of the recognized and deferred inflows and outflows of resources**

**Amortization of Difference between Projected and Actual Earnings  
(\$ in thousands)**

Measurement Year	2014	2015	Outflows	Inflows	Total
Amount Established	159,705	363,926			
Recognition Period	5.00	5.00			
Annual Recognition	31,941	72,786			
Amount Recognized					
2014	31,941	-	31,941	-	31,941
2015	31,941	72,786	104,727	-	104,727
2016	31,941	72,786	104,727	-	104,727
2017	31,941	72,786	104,727	-	104,727
2018	31,941	72,786	104,727	-	104,727
2019	-	72,782	72,782	-	72,782
2020	-	-	-	-	-
Deferred Balance					
2014	127,764	-	127,764	-	127,764
2015	95,823	291,140	386,963	-	386,963
2016	63,882	218,354	282,236	-	282,236
2017	31,941	145,568	177,509	-	177,509
2018	-	72,782	72,782	-	72,782
2019	-	-	-	-	-

**TABLE 15 – GASB68 Information (Continue)**

**Schedule of Pension Amounts by Employer**

**(\$ in thousands)**

Employees' Retirement System Schedule of Pension Amounts by Employer As of and for the year ended (\$ in thousands)	Deferred Outflows of Resources						Deferred Inflows of Resources					Pension Expense		
	12/31/2015 Net Pension Liability (asset)	Difference Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Difference Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization Deferred Amount from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Pension Expense
General City	84,361	-	77,623	-	58	77,681	4,590	-	796	44	5,430	29,474	11	29,485
Water Department	7,652	-	7,041	-	90	7,131	416	-	72	69	557	2,673	(21)	2,652
School Board	53,735	-	49,443	-	534	49,977	2,924	-	507	588	4,019	18,774	139	18,913
Milwaukee Area Technical College	28	-	26	-	1	27	2	-	-	2	2	10	-	10
Sewerage Commission	8,075	-	7,430	-	16	7,446	439	-	76	1	516	2,821	-	2,821
Veolia	2,006	-	1,846	-	115	1,961	109	-	19	84	212	701	(27)	674
Wisconsin Center	1,873	-	1,723	-	25	1,748	102	-	18	11	131	654	(6)	648
Housing Authority	4,904	-	4,513	-	127	4,640	267	-	46	81	394	1,714	(30)	1,684
Redevelopment Authority	521	-	479	-	37	516	28	-	5	34	67	182	(9)	173
Policemen	176,752	-	162,632	-	455	163,087	9,619	-	1,666	841	12,126	61,754	200	61,954
Firemen	80,650	-	74,207	-	1,080	75,287	4,388	-	761	785	5,934	28,178	(257)	27,921
<b>Total for All Entities</b>	<b>\$ 420,557</b>	<b>-</b>	<b>386,963</b>	<b>-</b>	<b>2,538</b>	<b>389,501</b>	<b>22,884</b>	<b>-</b>	<b>3,966</b>	<b>2,538</b>	<b>29,388</b>	<b>146,935</b>	<b>-</b>	<b>146,935</b>

**TABLE 16- January 1, 2016 Valuation Funded Status on Actuarial and Market Value of Assets**

(\$ in thousands)

Fund	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Market Value of Assets (MVA)	Unfunded Actuarial Accrued Liability Based on AVA ( UAAL)	Unfunded Actuarial Accrued Liability Based on MVA ( UAAL)	Percent Funded Based on AVA	Percent Funded Based on MVA
1. Global Combined Fund	\$ 5,052,215	\$ 4,864,354	\$ 4,718,054	\$ 187,861	\$ 334,161	96.3%	93.4%
2. Employers' Reserve Fund	-	15,292	15,292	(15,292)	(15,292)	N/A	N/A
3. Retirement Fund	8,548	13,978	13,558	(5,430)	(5,010)	163.5%	158.6%
4. General Employes' Duty Disability Fund	23	118	114	(95)	(91)	513.0%	495.7%
5. Fire & Police Duty Disability Fund	-	-	-	-	-	N/A	N/A
6. Firemen's Heart & Lung Fund	-	-	-	-	-	N/A	N/A
7. Combined Retirement & Disability Fund	4,355	4,081	3,958	274	397	93.7%	90.9%
8. Securities Lending Fund	-	1,332	1,332	(1,332)	(1,332)	N/A	N/A
8. Total All Funds	\$ 5,065,141	\$ 4,899,155	\$ 4,752,308	\$ 165,986	\$ 312,833	96.7%	93.8%

**TABLE 17 - Actuarial Balance Sheet for Members at January 1, 2016**

(in thousands)

Item	2015	2016
<b>Assets:</b>		
Market Value of Assets	\$ 4,953,150	\$ 4,752,308
Market Adjustment	(155,713)	146,847
Actuarial Value of Assets	\$ 4,797,437	\$ 4,899,155
Present Value of Future Anticipated Contributions	138,045	165,986
Financial Resources for Actuarial Accrued Liability	\$ 4,935,482	\$ 5,065,141
<b>Liabilities:</b>		
Actuarial Accrued Liability		
Annuitants	\$ 3,344,604	\$ 3,462,308
Inactive Members		
Member Contributions	66,394	68,215
Employer Financed Portion	23,357	21,778
Active Members		
Member Contributions	510,917	512,752
Employer Financed Portion	990,210	1,000,088
Total Liabilities	\$ 4,935,482	\$ 5,065,141

# Description Of Actuarial Methods And Assumptions For Pension Funding Purpose

## **Actuarial Cost Method**

The method of financing the System is prescribed in Section 36-08 of the MCC.

### **Method: Projected Unit Credit**

Under the Projected Unit Credit Method, the Normal Cost for a year is the Actuarial Present Value (APV) of the benefits expected to be earned in that year, based on pay projected to separation from ERS. The Actuarial Accrued Liability (AAL) is the APV of all benefits earned to the beginning of the year. The UAAL, under this method, is the AAL over the Actuarial Value of Assets. The total Employer contribution is the sum of the Employer portion of the Normal Cost (Total Normal Cost less expected member contributions) plus an amount to amortize the UAAL over a period equal to the future working lifetime of employees covered by the Funds from the valuation date as a level dollar amount.

If the Actuarial Value of Assets exceeds the sum of the AAL and the Employer portion of the Normal Cost, there is no Employer contribution required for that year.

### **Asset Values**

Two asset values appear in this report. A description of each and a brief explanation of where they are used are as follows:

#### **Market Value**

The market value of assets is the value of investments if they were to be sold currently. The market value of assets is used to develop the actuarial value of assets. (See Table 6.)

## **Actuarial Value**

The actuarial value of the assets in the Employers' Reserve Fund is equal to the market value of assets.

The actuarial value of assets for the remaining funds is a smoothed value of assets. The smoothed value is developed in Table 8 of this report. The numbers in parentheses denote the item number in Table 8. Under this method, we start with the Preliminary Actuarial Value of Assets from the prior valuation (1). We then develop an actual market return (6) and an expected market return based on 8.25% (7). The difference between this actual and expected amount is captured each year and reported (8). We amortize, or divide, the difference over the past five years as an amount to recognize each year (9). The preliminary actuarial value for the current valuation (10) becomes the preliminary actuarial value from the prior year (1) plus non-investment cash flows (contributions (4) less benefits and refunds (5)) plus the expected return on the market value of assets at 8.25% (7) and the current year's amortization (9). The preliminary actuarial value (10) divided by the market value at year end (3) results in a ratio (11). The ratio shall not be less than 80% or more than 120% of the market value. If it is, a final adjustment to the preliminary actuarial value (9) will be made accordingly (12) to develop the final actuarial value (15).

The actuarial value of assets is used in the determination of the Employer's actuarial contribution requirements. (See Tables 2-4.)

## **Amortization Method**

Closed; Level Percent of Pay; Pay assumed to grow 3% per year

## **Remaining Amortization Period**

18 years as of January 1, 2016

## **Other Considerations**

Where necessary for determination of separate contributions, assets allocable to various groups were estimated.



**Actuarial Assumptions**

**Adopted Effective January 1, 2013 (except as noted)**

**Interest Rate and Inflation**

Interest: 8.50% return for calendar years 2000 through 2012, 8.25% for calendar years 2013 through 2017, and 8.50% beginning with calendar year 2018 (adopted 1/1/2013)  
Inflation: 3.0% per annum (adopted 1/1/2003)

**Salary Increases**

Career average of 3.8% per annum for general employes and 4.5% per annum for police and fire, compounded annually (adopted 1/1/2013). Representative values are as follows:

<b>Age</b>	<b>General</b>	<b>Fire and Police</b>
25	6.9%	10.5%
30	5.8	6.7
35	4.8	4.8
40	3.9	3.7
45	3.3	3.3
50	3.0	3.1
55	3.0	3.0
60	3.0	3.0
65	3.0	3.0

Annual increases of 3% per annum are assumed for policemen, firemen, and general employes on duty disability. (The increases for duty disabled fire and police affect both current duty disability benefits and future service retirement or extended life conversion benefits. The increases for general employes affect only service retirement conversion benefits.)

**Early and Normal Retirement**

Illustrative rates of retirement are as follows:

Age at Beginning of Year	Early Retirement	Normal Retirement				
	General Employees	General Employees		Firemen	Police	
		Males	Females		Not in Combined Fund	In Combined Fund
42						10%
43						10
44						16
45						16
46						16
47						16
48				5%		16
49				8		19
50				8		20
51				10	44%	20
52				15	44	25
53				15	24	25
54		40%	26%	25	24	25
55	2%	50	30	25	24	25
56	2	35	20	25	40	25
57	2	32	18	25	35	25
58	2	30	28	30	35	25
59	2	22	23	35	35	25
60		21	19	45	35	25
61		25	20	50	35	25
62		30	25	50	50	50
63		26	19	100	100	100
64		20	19	100	100	100
65		23	25	100	100	100
66		23	23	100	100	100
67		20	19	100	100	100
68		20	13	100	100	100
69		20	13	100	100	100
70		100	100	100	100	100

### **Survivor Benefits and Duty Disability Child Allotments**

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

<b>Member's Age at Death or Disability</b>	<b>Number of Dependent Children</b>	<b>Age of Youngest Child</b>
20	0	N/A
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	N/A

The percentage of retiring employes assumed to elect option 3, the subsidized 50% option, is 25% for males and 15% for females. The percentage of general employes 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 incurred in the performance of duty:

- General Employees: 5% (Adopted 1/1/1998)
- Police & Fire: 10%. In addition, amongst firemen, 25% of duty deaths are assumed to occur under the Heart and Lung Law. (Adopted 1/1/2003)

**Duty Disabilities**

Employee Group	Percentage of Disabilities	Percentage of Duty Disabilities Assumed		Assumption Adopted January 1
	Incurred in the Performance of Duty	Eligible For The 90% Benefit	Under The Heart & Lung Law	
General	20.0%	N/A	N/A	1998
Police other than MPA	75.0%	5.0%	N/A	2008
MPA enrolled on or before 4/18/2005	75.0%	5.0%	N/A	2008
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

**Imputed Military Service**

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

General Employes: 10%  
 Police: 13%  
 Fire: 13%

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

**Illustrative Rates of Termination  
 for General Employes, Firemen, and Policemen**

Age	Less than 5 Years' Service		At least 5 Years' Service	
	Males	Females	Males	Females
<b>General Employes</b>				
20	13.55%	18.50%	-	-
25	12.25	18.55	9.75%	11.00%
30	8.70	12.90	5.32	6.50
35	8.20	12.00	5.53	5.59
40	6.75	8.00	3.47	6.50
45	7.00	7.10	2.30	3.59
50	6.40	6.60	1.83	2.60
55	5.25	6.00	1.53	2.80
60	-	-	-	-
<b>Fire and Police</b>				
20	8.20%	7.40%	-	-
25	3.10	6.20	1.92%	3.33%
30	2.20	5.90	1.62	4.77
35	2.70	5.30	1.57	2.69
40	4.40	4.40	1.29	1.39
45	5.40	4.40	1.54	2.18
50	8.80	4.40	5.79	9.57
55	10.00	4.40	-	-
60	-	-	-	-

**Seasonal Service Credit**

The following percentage of eligible members are assumed to receive one year of seasonal 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**

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 (adopted 1/1/2007).

Active members who worked less than 100 hours in the prior year, but who have not officially terminated employment are included in the count of Inactives in Table 5. These members are not assumed to earn additional service credit in future years.

**Illustrative Rates of Disability, and Remarriage  
for General Employes, Firemen, and Policemen**

Age	Disability	Remarriage
<b>General Employes</b>		
20	0.050%	14.46%
25	0.050	9.45
30	0.060	5.94
35	0.077	4.02
40	0.146	2.80
45	0.180	1.75
50	0.284	0.96
55	0.585	0.26
60	0.077	-
65	0.200	-
<b>Fire</b>		
20	0.06%	14.46%
25	0.136	9.45
30	0.28	5.94
35	0.76	4.02
40	1.2	2.80
45	1.2	1.75
50	1.35	0.96
55	1.35	0.26
60	1.35	-
65	1.35	-
<b>Police</b>		
20	0.03%	14.46%
25	0.03	9.45
30	0.1	5.94
35	0.17	4.02
40	0.21	2.80
45	0.21	1.75
50	0.21	0.96
55	0.21	0.26
60	0.21	-
65	0.21	-

**Illustrative Rates of Mortality, Disability Mortality, and Disability Recovery  
for General Employees, Firemen, and Policemen**

For regular retirees and for survivors, the RP-2000 Combined Mortality Table projected nine years using Scale AA. Future generational rates are projected from 2009 based on Scale AA. For duty and ordinary disability retirees, use the RP-2000 Disability Mortality Table. For death in active service, the rates are similar to those used for regular retirees and survivors with a 6-year setback.

Age	Disability Recovery	
	Males	Females
20	14.950%	14.950%
25	9.940	9.940
30	4.880	4.880
35	6.920	6.920
40	2.830	2.830
45	1.700	1.700
50	0.450	0.450
55	--	--



# Summary of Plan 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. 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. Please note that unless specifically stated, elected officials follow the same rules as General employees.

## **Participation in the Combined Fund**

On January 19, 2001 the Combined Fund was created, 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 employe prior to January 1, 1938, or prior to an amendment which made the employe eligible for membership in the System. Membership service means service as an employe since last becoming a member, on account of which contributions are made.

- (a) For most employees, 2080 hours of service constitute one year of creditable service. For prevailing wage employes (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.
- (b) Under certain conditions creditable service may be granted for periods of absence due to military service.
- (c) For purposes of computing the service retirement allowance only, creditable service is granted for periods of eligibility for a duty disability retirement allowance.
- (d) 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 employe 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 employe and/or Playground Laborer-Seasonal employe (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 employes represented by Local 950, OEIU, also includes site differential pay.

### **Final Average Salary**

- (a) For general employes, 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.

### **Eligibility for Service Retirement**

For Tier 1 Benefits (applicable to General employes enrolled prior to January 1, 2014 and all Fire and Police employes), 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 employes and age 57 for policemen and firemen.
- (b) General employes 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.
- (d) 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.

- (e) 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 employes 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 employes.
- (b) General employes that have attained age 60 and completed 30 years of qualifying time are eligible for service retirement.

Please note that effective December 20, 2015, service retirement eligibility criteria for the Police employes in the Milwaukee Police Association enrolled on or after December 20, 2015 has changed. Affected members of the Police will now be eligible for a service retirement with (1) 25 years of police qualifying time AND attaining age 50 or (2) attaining age 57.

### **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 employes, 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 employes, 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.

### **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.

### **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 employes, 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. There are certain diseases that are considered presumptive for purposes of duty disabilities.

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 employes, 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 employes 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 employes who do not participate in the Combined Fund, duty disability benefits, and survivor benefits paid to beneficiaries of general employes who elect an optional form of payment and die while disabled, are paid from (i) the General Employes 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**

- (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**

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 employes 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 employes 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 employes 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**

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):

- (a) The member's surviving spouse
- (b) The member's children until their 21st birthday
- (c) 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:

- (a) General Employes - 5.5% (tier 1 – enrolled prior to January 1, 2014)  
4.0% (tier 2 – enrolled on or after January 1, 2014)
- (b) Firemen and Policemen - 7.0%
- (c) 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 members 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**

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.

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.

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.

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.)

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.)

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.)

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 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> increases will not be less than 1.5%, and the 5<sup>th</sup> 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.)

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.)

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 employe 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 employes.
- (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 2<sup>nd</sup> 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 2<sup>nd</sup> 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 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> anniversary is a 1.5% increase. An increase which takes effect on the 5<sup>th</sup> 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 employes receive an increase of 2% on the fifth anniversary of their retirement and on each anniversary that follows, but only for service retirement.



Benefits are charged to the Combined Fund.

### **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**

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 on the 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.

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.

**Exhibit 1 - Age/Service Distributions**

**Active Membership – General City Employees**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	26 \$35,397	1 \$33,464								27 \$35,326
25-29	135 \$42,536	25 \$43,136	1 \$39,133							161 \$42,608
30-34	172 \$46,371	72 \$50,100	26 \$47,327	1 \$38,210						271 \$47,424
35-39	161 \$46,083	107 \$52,844	68 \$54,995	26 \$49,929						362 \$50,032
40-44	91 \$42,695	75 \$53,107	62 \$56,436	86 \$53,365	13 \$57,205	1 \$55,680				328 \$51,086
45-49	105 \$43,967	98 \$47,667	87 \$51,302	124 \$56,959	80 \$60,762	28 \$54,755	3 \$47,317			525 \$52,095
50-54	94 \$42,125	66 \$47,194	72 \$50,121	96 \$56,212	102 \$59,918	93 \$62,017	57 \$62,497	23 \$51,035		603 \$54,220
55-59	67 \$45,673	57 \$46,318	58 \$52,475	78 \$53,972	83 \$59,477	120 \$59,963	100 \$64,740	45 \$61,966	4 \$55,390	612 \$56,487
60-64	29 \$46,515	50 \$44,665	41 \$54,507	43 \$54,089	40 \$62,377	63 \$63,617	62 \$66,398	18 \$76,785	13 \$60,853	359 \$58,316
Over 64	6 \$49,415	19 \$50,628	23 \$55,073	20 \$50,748	15 \$52,282	8 \$75,867	5 \$68,325	5 \$53,920	9 \$82,116	110 \$57,105
<b>Total</b>	886 \$44,272	570 \$49,084	438 \$52,798	474 \$54,717	333 \$59,856	313 \$61,236	227 \$64,478	91 \$61,692	26 \$67,373	3,358 \$52,819

**Active Membership – Water Department**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>										
25-29	12 \$46,468	3 \$38,639								15 \$44,903
30-34	13 \$43,956	3 \$53,732	2 \$51,195							18 \$46,390
35-39	9 \$43,902	5 \$58,940	7 \$57,006	2 \$71,694						23 \$53,576
40-44	10 \$42,642	10 \$53,090	8 \$52,805	2 \$65,193						30 \$50,338
45-49	12 \$41,940	13 \$44,807	9 \$53,388	5 \$55,862	8 \$60,839	2 \$75,454				49 \$50,677
50-54	10 \$43,463	11 \$46,039	13 \$54,095	6 \$55,382	5 \$62,522	13 \$66,131	11 \$66,859			69 \$56,295
55-59	7 \$41,074	4 \$44,575	2 \$71,212	2 \$50,084	8 \$53,975	18 \$65,902	14 \$67,872	3 \$52,156		58 \$59,192
60-64	4 \$43,677	4 \$41,774	2 \$41,888	3 \$78,747	5 \$76,019	5 \$57,122	2 \$82,921	3 \$73,840		28 \$61,246
Over 64	1 \$37,576		1 \$65,073	2 \$44,329		2 \$85,472	1 \$67,807	1 \$57,595		8 \$60,957
<b>Total</b>	78 \$43,440	53 \$47,868	44 \$54,520	22 \$59,566	26 \$61,970	40 \$66,335	28 \$68,547	7 \$62,226		298 \$54,544

**Active Membership – School Board**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	87 \$24,421									87 \$24,421
25-29	351 \$23,791	7 \$26,432								358 \$23,843
30-34	300 \$26,696	50 \$28,527	8 \$34,353							358 \$27,123
35-39	244 \$26,272	94 \$26,250	37 \$29,729	26 \$38,124	1 \$40,422					402 \$27,387
40-44	228 \$27,404	91 \$24,136	78 \$28,893	32 \$39,799	11 \$45,934					440 \$28,357
45-49	214 \$26,668	120 \$23,408	118 \$26,741	99 \$35,171	40 \$36,181	15 \$48,626	1 \$67,177			607 \$28,661
50-54	181 \$25,616	106 \$28,454	135 \$23,128	123 \$29,451	98 \$37,589	45 \$46,140	22 \$52,962	5 \$46,286		715 \$30,146
55-59	129 \$25,570	81 \$24,973	128 \$24,521	146 \$29,700	91 \$32,263	59 \$41,421	17 \$48,978	16 \$44,271	2 \$83,082	669 \$29,721
60-64	70 \$22,947	42 \$20,930	91 \$25,424	70 \$29,433	43 \$30,447	20 \$45,264	11 \$49,546	4 \$59,719	1 \$37,295	352 \$28,111
Over 64	31 \$23,753	23 \$17,692	30 \$19,710	18 \$36,329	8 \$32,232	3 \$20,484	3 \$28,773	1 \$22,567	1 \$70,428	118 \$24,467
<b>Total</b>	1,835 \$25,682	614 \$25,096	625 \$25,520	514 \$31,945	292 \$34,862	142 \$43,776	54 \$49,932	26 \$46,200	4 \$68,472	4,106 \$28,123



**Active Membership – Milwaukee Technical College**

**Number and Average Annual Salary  
As of December 31, 2015**

None as of As of December 31, 2015.

**Active Membership – Sewerage Commission**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	1 \$56,352									1 \$56,352
25-29	15 \$55,583	2 \$69,451								17 \$57,215
30-34	15 \$63,416	7 \$73,669								22 \$66,678
35-39	8 \$60,047	9 \$83,031	5 \$67,767	1 \$62,669						23 \$70,833
40-44	5 \$82,147	10 \$76,858	6 \$83,074							21 \$79,893
45-49	1 \$92,445	5 \$85,577	9 \$82,298	3 \$117,466		2 \$66,694				20 \$87,340
50-54	3 \$61,802	3 \$89,277	8 \$81,457	2 \$102,156	5 \$80,679	10 \$73,209	2 \$66,269			33 \$78,098
55-59	4 \$92,028	2 \$76,684	4 \$106,780	4 \$119,267	2 \$59,517	9 \$69,976	9 \$74,041	2 \$73,917		36 \$83,019
60-64	2 \$45,585	1 \$98,853	2 \$57,054	6 \$105,170	2 \$58,067	7 \$92,455	3 \$77,210	6 \$113,268		29 \$89,990
Over 64	1 \$94,556	2 \$89,697	5 \$76,635	1 \$62,147	1 \$100,687	1 \$93,674		1 \$96,064		12 \$84,141
<b>Total</b>	55 \$64,802	41 \$80,433	39 \$80,872	17 \$105,271	10 \$73,925	29 \$77,108	14 \$73,610	9 \$102,611		214 \$78,201

Active Membership – Veolia

Number and Average Annual Salary  
As of December 31, 2015

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25										
25-29										
30-34										
35-39										
40-44										
45-49					1					1
					\$63,023					\$63,023
50-54					2	5				7
					\$69,510	\$73,706				\$72,507
55-59				1	8	9	6	1		25
				\$79,793	\$77,585	\$73,046	\$82,123	\$70,374		\$76,840
60-64					1	5	3	2		11
					\$83,006	\$78,445	\$82,247	\$96,471		\$83,174
Over 64										
<b>Total</b>				1	12	19	9	3		44
				\$79,793	\$75,477	\$74,640	\$82,164	\$87,772		\$77,420

**Active Membership – Wisconsin Center District**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>										
25-29	2 \$43,088	1 \$38,849								3 \$41,675
30-34		3 \$51,848	1 \$44,490							4 \$50,009
35-39	6 \$51,044	3 \$46,584	3 \$43,755							12 \$48,107
40-44	5 \$45,660	1 \$77,632	1 \$47,061	1 \$50,824						8 \$50,477
45-49	2 \$32,110	2 \$31,441	1 \$49,751	1 \$79,381	1 \$73,121	1 \$58,568				8 \$48,490
50-54	2 \$13,731	1 \$20,268	2 \$51,349	3 \$68,185	1 \$46,857		1 \$38,544			10 \$44,038
55-59	2 \$46,963	2 \$41,872	2 \$51,922	4 \$77,442	1 \$47,805	2 \$53,311	1 \$46,835	1 \$100,065		15 \$59,507
60-64	4 \$29,869	5 \$39,940	1 \$50,970	1 \$189,037	1 \$46,835	1 \$38,299		1 \$107,323		14 \$53,689
Over 64		2 \$9,974	1 \$80,360	1 \$96,838						4 \$49,287
<b>Total</b>	23 \$40,253	20 \$39,916	12 \$50,870	11 \$84,582	4 \$53,655	4 \$50,872	2 \$42,690	2 \$103,694		78 \$50,973

**Active Membership – Housing Authority**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total	
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
Under 25	3 \$37,306										3 \$37,306
25-29	2 \$52,434	3 \$45,311									5 \$48,160
30-34	6 \$41,975	2 \$42,508									8 \$42,108
35-39	7 \$44,109	5 \$51,756	3 \$53,451	1 \$64,651							16 \$49,534
40-44	8 \$41,209	5 \$51,754	1 \$51,643	2 \$48,297							16 \$46,042
45-49	5 \$41,883	6 \$52,748	7 \$67,034	8 \$60,742		1 \$65,113					27 \$57,266
50-54	7 \$48,970	5 \$65,687	3 \$47,731	6 \$66,056	4 \$79,102	4 \$71,457	4 \$77,290	3 \$73,138			36 \$65,043
55-59	2 \$52,668	3 \$50,853	1 \$67,654	7 \$71,361	2 \$51,778	4 \$73,178	2 \$67,937	1 \$94,095	1 \$73,949		23 \$66,316
60-64	3 \$36,432	12 \$59,385	4 \$66,155	3 \$87,285	4 \$75,233	2 \$96,017				1 \$50,811	29 \$65,247
Over 64		1 \$46,971	1 \$59,454	1 \$66,043	1 \$75,427		1 \$76,616				5 \$64,902
<b>Total</b>	43 \$43,579	42 \$54,657	20 \$60,808	28 \$66,819	11 \$72,393	11 \$75,971	7 \$74,521	4 \$78,377	2 \$62,380		168 \$58,622

Active Membership – Redevelopment Authority

Number and Average Annual Salary  
As of December 31, 2015

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25										
25-29										
30-34			1 \$84,571							1 \$84,571
35-39		2 \$53,311		1 \$74,004						3 \$60,209
40-44		1 \$48,757								1 \$48,757
45-49			2 \$107,303							2 \$107,303
50-54					1 \$98,487					1 \$98,487
55-59		1 \$99,419			1 \$83,117					2 \$91,268
60-64										
Over 64										
<b>Total</b>		4 \$63,700	3 \$99,726	1 \$74,004	2 \$90,802					10 \$80,958

**Active Membership – General Employes**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>	117 \$27,463	1 \$33,464								118 \$27,514
<b>25-29</b>	517 \$30,320	41 \$41,293	1 \$39,133							559 \$31,141
<b>30-34</b>	506 \$35,097	137 \$43,438	38 \$45,705	1 \$38,210						682 \$37,368
<b>35-39</b>	435 \$35,219	225 \$42,973	123 \$47,717	57 \$46,212	1 \$40,422					841 \$39,873
<b>40-44</b>	347 \$33,223	193 \$40,746	156 \$43,412	123 \$49,925	24 \$52,039	1 \$55,680				844 \$39,822
<b>45-49</b>	339 \$33,017	244 \$36,353	233 \$41,088	240 \$48,924	130 \$53,316	49 \$54,500	4 \$52,282			1,239 \$41,315
<b>50-54</b>	297 \$32,278	192 \$37,781	233 \$35,759	236 \$43,035	218 \$50,973	170 \$59,353	97 \$61,270	31 \$52,408		1,474 \$43,486
<b>55-59</b>	211 \$34,187	150 \$35,536	195 \$35,504	242 \$41,374	196 \$47,339	221 \$56,616	149 \$64,421	69 \$58,922	7 \$65,953	1,440 \$45,414
<b>60-64</b>	112 \$30,803	114 \$37,637	141 \$35,900	126 \$45,272	96 \$49,284	103 \$62,801	81 \$65,505	34 \$83,012	15 \$58,613	822 \$47,097
<b>Over 64</b>	39 \$29,871	47 \$34,365	61 \$40,099	43 \$46,106	25 \$48,728	14 \$66,643	10 \$57,236	8 \$55,728	10 \$80,948	257 \$43,532
<b>Total</b>	2,920 \$32,912	1,344 \$39,115	1,181 \$39,588	1,068 \$45,328	690 \$50,088	558 \$58,656	341 \$63,429	142 \$63,088	32 \$67,198	8,276 \$41,550

**Active Membership – Policemen**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	52 \$51,395	13 \$58,521								65 \$52,820
25-29	77 \$57,428	64 \$67,637	13 \$70,607							154 \$62,783
30-34	89 \$55,474	128 \$70,191	57 \$70,919	12 \$74,817						286 \$65,950
35-39	20 \$55,859	74 \$69,806	125 \$71,605	46 \$72,825	12 \$74,056					277 \$70,296
40-44	9 \$50,745	31 \$69,904	112 \$71,345	120 \$74,051	83 \$78,344	3 \$77,462				358 \$73,283
45-49	4 \$51,815	12 \$68,605	52 \$70,120	107 \$72,261	223 \$77,026	39 \$81,009				437 \$74,931
50-54	2 \$55,237	5 \$69,648	19 \$72,062	27 \$71,401	125 \$75,009	46 \$78,655	8 \$77,766	1 \$105,053		233 \$75,009
55-59			8 \$68,911	12 \$69,731	41 \$72,896	15 \$76,122	7 \$84,735	2 \$83,795		85 \$73,875
60-64					5 \$69,810	1 \$68,899	2 \$80,085	2 \$76,800		10 \$73,172
Over 64		1 \$151,825				3 \$82,849		1 \$93,726	2 \$86,511	7 \$95,303
<b>Total</b>	253 \$55,033	328 \$69,299	386 \$71,161	324 \$72,933	489 \$76,241	107 \$79,151	17 \$80,908	6 \$86,661	2 \$86,511	1,912 \$70,906



**Active Membership – Firemen**

**Number and Average Annual Salary  
As of December 31, 2015**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 25	33 \$48,738									33 \$48,738
25-29	13 \$50,405	6 \$68,359	10 \$72,517							29 \$61,745
30-34	30 \$50,645	35 \$67,740	35 \$72,241	11 \$74,292						111 \$65,188
35-39	20 \$52,803	28 \$67,652	16 \$72,191	48 \$74,320	8 \$73,101					120 \$68,813
40-44	8 \$50,295	13 \$68,391	21 \$69,903	55 \$76,194	22 \$76,203					119 \$72,492
45-49	3 \$51,553	7 \$66,337	10 \$71,832	43 \$73,482	96 \$75,136	16 \$75,462				175 \$73,815
50-54	1 \$117,255		4 \$72,470	15 \$73,281	46 \$74,698	58 \$76,742	15 \$77,557			139 \$75,949
55-59		1 \$139,774		5 \$70,168	10 \$72,413	20 \$76,795	20 \$80,048	6 \$89,867		62 \$78,884
60-64			1 \$84,266		1 \$72,777	2 \$75,313	1 \$77,849	1 \$94,160		6 \$79,946
Over 64										
<b>Total</b>	108 \$51,049	90 \$68,539	97 \$71,846	177 \$74,492	183 \$74,904	96 \$76,510	36 \$78,949	7 \$90,480		794 \$70,987

**Exhibit 2 - Detailed Tabulations of the Data**

**TABLE 1**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Age as of December 31, 2015  
General Employees**

Age	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
20	2	\$ 50,609	5	\$ 141,735	7	\$ 192,344
21	2	73,879	2	58,803	4	132,682
22	6	191,445	11	260,847	17	452,292
23	11	337,397	26	653,019	37	990,416
24	17	605,408	36	873,509	53	1,478,917
25	36	1,235,000	54	1,531,914	90	2,766,914
26	35	1,045,233	69	2,028,746	104	3,073,979
27	53	1,784,971	64	1,660,111	117	3,445,082
28	37	1,266,002	69	1,938,616	106	3,204,618
29	57	2,241,808	85	2,675,212	142	4,917,020
30	45	1,748,077	87	2,726,060	132	4,474,137
31	55	2,456,614	79	2,563,398	134	5,020,012
32	65	2,812,449	67	2,062,425	132	4,874,874
33	59	2,805,211	71	2,381,162	130	5,186,373
34	71	3,168,869	83	2,760,802	154	5,929,671
35	55	2,311,207	78	2,702,984	133	5,014,191
36	71	2,931,599	95	3,569,538	166	6,501,137
37	74	3,598,291	97	3,566,737	171	7,165,028
38	81	3,752,174	112	4,047,504	193	7,799,678
39	73	3,222,701	105	3,830,044	178	7,052,745
40	63	2,879,031	83	2,436,065	146	5,315,096
41	82	3,968,187	98	3,010,984	180	6,979,171
42	65	3,554,471	84	3,005,686	149	6,560,157
43	72	3,370,768	92	2,944,718	164	6,315,486
44	87	4,380,247	118	4,059,944	205	8,440,191
45	114	5,598,877	129	4,402,214	243	10,001,091
46	120	5,808,104	135	4,821,126	255	10,629,230
47	107	5,381,347	121	4,006,518	228	9,387,865
48	120	5,883,370	142	4,785,455	262	10,668,825
49	127	6,345,133	124	4,156,874	251	10,502,007
50	122	6,156,874	136	4,308,725	258	10,465,599
51	122	6,043,928	148	5,042,882	270	11,086,810
52	126	6,449,780	159	6,052,416	285	12,502,196
53	146	7,553,248	187	6,854,826	333	14,408,074
54	155	8,837,822	173	6,798,076	328	15,635,898
55	165	9,094,781	149	5,787,998	314	14,882,779
56	131	6,983,684	150	5,223,400	281	12,207,084
57	144	7,839,346	169	6,499,591	313	14,338,937
58	136	7,479,720	139	4,816,433	275	12,296,153
59	120	6,727,912	137	4,943,377	257	11,671,289

**TABLE 1**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Age as of December 31, 2015  
General Employees**

Age	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
60	122	\$ 6,647,892	95	\$ 3,881,307	217	\$ 10,529,199
61	101	5,871,891	114	3,578,794	215	9,450,685
62	75	4,534,268	90	3,581,886	165	8,116,154
63	60	3,261,763	56	2,149,630	116	5,411,393
64	45	2,635,011	64	2,571,395	109	5,206,406
65	33	1,913,819	38	1,201,101	71	3,114,920
66	17	1,110,380	29	775,976	46	1,886,356
67	21	1,271,722	20	902,156	41	2,173,878
68	12	643,319	9	293,072	21	936,391
69	9	489,653	13	424,466	22	914,119
70	7	554,146	8	237,682	15	791,828
71	3	137,996	3	76,976	6	214,972
72	4	172,241	3	50,251	7	222,492
73	4	286,243	3	48,182	7	334,425
74	2	127,226	4	105,417	6	232,643
75			3	77,798	3	77,798
76	1	68,530			1	68,530
77			1	8,475	1	8,475
78	1	14,897	1	37,295	2	52,192
79			1	42,080	1	42,080
80			4	76,001	4	76,001
81			1	18,900	1	18,900
82			1	13,122	1	13,122
93	1	8,486			1	8,486
<b>Total</b>	<b>3,747</b>	<b>\$ 187,725,057</b>	<b>4,529</b>	<b>\$ 156,142,436</b>	<b>8,276</b>	<b>\$ 343,867,493</b>

**TABLE 2**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Years of Credited Service as Of December 31, 2015  
General Employes**

Years of Service	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
0	246	\$ 9,103,490	387	\$ 11,914,112	633	\$ 21,017,602
1	374	13,574,148	599	15,077,414	973	28,651,562
2	274	10,545,643	370	9,685,375	644	20,231,018
3	170	7,478,030	160	5,711,944	330	13,189,974
4	158	7,267,466	182	5,746,611	340	13,014,077
5	133	6,737,602	186	6,292,128	319	13,029,730
6	125	5,344,671	149	4,183,667	274	9,528,338
7	113	5,208,370	138	4,408,962	251	9,617,332
8	103	4,953,812	149	4,767,239	252	9,721,051
9	116	6,068,096	132	4,605,991	248	10,674,087
10	123	6,437,332	110	3,649,856	233	10,087,188
11	80	4,130,946	130	4,213,359	210	8,344,305
12	84	3,785,146	134	3,908,350	218	7,693,496
13	90	4,374,760	155	4,714,213	245	9,088,973
14	118	6,496,888	157	5,042,941	275	11,539,829
15	110	5,847,254	158	5,912,603	268	11,759,857
16	87	4,502,794	115	4,090,641	202	8,593,435
17	79	4,908,758	108	3,795,853	187	8,704,611
18	107	5,785,481	93	3,200,008	200	8,985,489
19	125	7,022,080	86	3,345,041	211	10,367,121
20	105	5,342,561	96	3,818,437	201	9,160,998
21	71	3,864,495	56	2,279,109	127	6,143,604
22	63	3,571,027	58	2,503,828	121	6,074,855
23	53	3,129,738	56	2,642,967	109	5,772,705
24	84	5,043,427	48	2,364,964	132	7,408,391
25	89	5,989,496	64	2,886,368	153	8,875,864
26	74	4,295,793	57	3,285,220	131	7,581,013
27	50	3,359,156	52	2,483,011	102	5,842,167
28	43	2,926,718	45	2,483,005	88	5,409,723
29	43	2,880,724	41	2,140,316	84	5,021,040
30	66	4,066,575	54	3,115,223	120	7,181,798
31	51	3,671,651	26	1,530,997	77	5,202,648
32	29	1,925,884	35	2,301,762	64	4,227,646
33	23	1,432,670	23	1,424,993	46	2,857,663
34	23	1,670,258	11	489,184	34	2,159,442
35	20	1,508,992	35	1,848,508	55	3,357,500
36	16	1,110,442	25	1,558,999	41	2,669,441
37	9	633,442	16	925,907	25	1,559,349
38	6	444,355	5	290,849	11	735,204
39	3	235,102	7	401,917	10	637,019

**TABLE 2**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Years of Credited Service as of December 31, 2015  
General Employees**

Years of Service	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
40	2	\$ 168,728	5	\$ 267,933	7	\$ 436,661
41	3	286,374	5	296,543	8	582,917
42	1	150,043	4	191,828	5	341,871
43	3	269,868	2	83,766	5	353,634
44			1	44,104	1	44,104
45			1	50,733	1	50,733
47	1	63,448			1	63,448
48			1	51,894	1	51,894
49	1	111,323			1	111,323
50			1	75,919	1	75,919
52			1	37,844	1	37,844
<b>Total</b>	<b>3,747</b>	<b>\$ 187,725,057</b>	<b>4,529</b>	<b>\$ 156,142,436</b>	<b>8,276</b>	<b>\$ 343,867,493</b>

**TABLE 3**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Age as of December 31, 2015  
Policemen**

Age	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
21	4	\$ 229,958		\$	4	\$ 229,958
22	15	698,693	2	85,044	17	783,737
23	20	1,060,698	2	102,457	22	1,163,155
24	20	1,140,439	2	115,998	22	1,256,437
25	16	1,041,028	5	324,254	21	1,365,282
26	18	1,210,052	2	109,413	20	1,319,465
27	26	1,691,846			26	1,691,846
28	23	1,457,911	6	380,137	29	1,838,048
29	48	2,855,560	10	598,404	58	3,453,964
30	43	2,693,858	12	790,057	55	3,483,915
31	53	3,460,293	9	644,724	62	4,105,017
32	51	3,389,017	4	278,007	55	3,667,024
33	54	3,591,282	11	754,783	65	4,346,065
34	41	2,714,743	8	545,042	49	3,259,785
35	43	3,010,064	15	1,003,979	58	4,014,043
36	48	3,397,769	11	753,156	59	4,150,925
37	43	3,026,516	15	1,047,388	58	4,073,904
38	47	3,325,677	6	466,463	53	3,792,140
39	42	2,940,753	7	500,295	49	3,441,048
40	48	3,406,354	12	878,155	60	4,284,509
41	57	4,068,405	8	606,834	65	4,675,239
42	59	4,259,826	10	739,711	69	4,999,537
43	72	5,392,390	15	1,134,470	87	6,526,860
44	66	4,906,260	11	842,973	77	5,749,233
45	81	5,989,807	15	1,085,668	96	7,075,475
46	73	5,428,499	20	1,483,078	93	6,911,577
47	79	6,054,901	21	1,613,042	100	7,667,943
48	75	5,619,539	22	1,665,851	97	7,285,390
49	45	3,341,029	6	463,531	51	3,804,560
50	52	3,900,442	13	969,348	65	4,869,790
51	43	3,202,608	9	694,197	52	3,896,805
52	38	2,805,267	10	794,785	48	3,600,052
53	27	2,007,817	5	368,610	32	2,376,427
54	31	2,346,119	5	387,903	36	2,734,022
55	26	1,890,928	1	68,645	27	1,959,573
56	17	1,285,116	7	524,420	24	1,809,536
57	14	1,066,270	1	71,576	15	1,137,846
58	10	736,705	2	138,530	12	875,235
59	6	428,129	1	69,066	7	497,195

**TABLE 3**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Age as Of December 31, 2015  
Policemen**

Age	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
60	2	\$ 159,578	1	\$ 69,256	3	\$ 228,834
62	2	140,058	1	68,899	3	208,957
63	1	76,917	2	146,950	3	223,867
64			1	70,061	1	70,061
65			1	76,326	1	76,326
66	1	77,273			1	77,273
67	1	93,726			1	93,726
68	2	236,094			2	236,094
69	1	94,947			1	94,947
71	1	88,753			1	88,753
<b>Total</b>	1,585	\$ 112,039,914	327	\$ 23,531,486	1,912	\$ 135,571,400



**TABLE 4**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Years of Credited Service as of December 31, 2015  
Policemen**

Years of Service	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
0	62	\$ 3,505,867	9	\$ 450,831	71	\$ 3,956,698
1	45	2,088,662	7	325,488	52	2,414,150
2	67	3,627,188	8	429,212	75	4,056,400
3	36	2,255,507	8	504,744	44	2,760,251
4	10	668,311	1	67,493	11	735,804
5	40	2,612,629	4	249,256	44	2,861,885
6	9	588,731	3	191,986	12	780,717
7	34	2,342,602	2	136,703	36	2,479,305
8	122	8,597,024	17	1,213,286	139	9,810,310
9	81	5,667,639	16	1,130,054	97	6,797,693
10	70	4,914,827	15	1,061,847	85	5,976,674
11	36	2,521,092	6	428,168	42	2,949,260
12	41	2,916,970	13	917,853	54	3,834,823
13	79	5,576,793	13	941,197	92	6,517,990
14	89	6,447,347	24	1,742,161	113	8,189,508
15	61	4,295,256	15	1,064,891	76	5,360,147
16	34	2,501,158	11	777,417	45	3,278,575
17	53	3,876,573	9	651,928	62	4,528,501
18	35	2,529,068	10	776,545	45	3,305,613
19	82	6,136,381	14	1,021,233	96	7,157,614
20	79	6,036,101	18	1,405,623	97	7,441,724
21	75	5,549,135	19	1,390,092	94	6,939,227
22	58	4,478,104	17	1,313,190	75	5,791,294
23	69	5,199,196	20	1,529,570	89	6,728,766
24	107	8,193,329	27	2,187,586	134	10,380,915
25	48	3,711,837	10	772,612	58	4,484,449
26	22	1,858,044	5	393,604	27	2,251,648
27	8	652,026	1	70,203	9	722,229
28	7	532,628	2	171,051	9	703,679
29	3	237,798	1	69,323	4	307,121
30	6	528,284			6	528,284
31	4	278,400			4	278,400
32	4	339,166			4	339,166
34	2	160,525	1	69,066	3	229,591
35	2	181,379	1	77,273	3	258,652
36	1	90,316			1	90,316
38	1	77,273			1	77,273
39	1	93,726			1	93,726
46	1	\$ 88,753		\$	1	88,753
47	1	84,269			1	84,269
<b>Total</b>	<b>1,585</b>	<b>\$ 112,039,914</b>	<b>327</b>	<b>\$ 23,531,486</b>	<b>1,912</b>	<b>\$ 135,571,400</b>

**TABLE 5**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Age as of December 31, 2015  
Firemen**

Age	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
21	11	\$ 568,869	2	\$ 104,424	13	\$ 673,293
22	13	635,696	1	52,097	14	687,793
23	6	247,275			6	247,275
27	2	120,231			2	120,231
28	7	373,011	2	115,717	9	488,728
29	18	1,181,634			18	1,181,634
30	16	1,025,212			16	1,025,212
31	22	1,386,013	1	84,635	23	1,470,648
32	22	1,425,030			22	1,425,030
33	26	1,738,492			26	1,738,492
34	23	1,507,575	1	68,932	24	1,576,507
35	23	1,519,811	1	69,090	24	1,588,901
36	27	1,849,455			27	1,849,455
37	24	1,672,823	1	54,880	25	1,727,703
38	20	1,399,970			20	1,399,970
39	24	1,691,528			24	1,691,528
40	16	1,083,551	2	127,184	18	1,210,735
41	21	1,497,209			21	1,497,209
42	18	1,329,244			18	1,329,244
43	18	1,260,330			18	1,260,330
44	43	3,257,847	1	71,184	44	3,329,031
45	39	2,790,654			39	2,790,654
46	34	2,574,211	2	185,070	36	2,759,281
47	30	2,222,847	1	68,918	31	2,291,765
48	37	2,712,730	1	68,918	38	2,781,648
49	30	2,225,320	1	68,884	31	2,294,204
50	27	1,951,993	3	225,850	30	2,177,843
51	32	2,413,733	2	154,584	34	2,568,317
52	35	2,660,373			35	2,660,373
53	24	1,894,727	2	146,692	26	2,041,419
54	14	1,108,893			14	1,108,893
55	16	1,217,693	1	96,937	17	1,314,630
56	17	1,311,355	1	94,165	18	1,405,520
57	12	1,033,710			12	1,033,710
58	9	689,879			9	689,879
59	6	447,074			6	447,074
60	3	234,892			3	234,892
61	1	72,777			1	72,777
62	1	94,160			1	94,160
63	1	77,849			1	77,849
<b>Total</b>	<b>768</b>	<b>\$ 54,505,676</b>	<b>26</b>	<b>\$ 1,858,161</b>	<b>794</b>	<b>\$ 56,363,837</b>

**TABLE 6**

**The Number and Annual Salaries  
Of Members in Active Service Distributed By  
Years of Credited Service as of December 31, 2015  
Firemen**

Years of Service	Men		Women		Totals	
	Number	Compensation	Number	Compensation	Number	Compensation
0	20	\$ 1,015,065	3	\$ 156,521	23	\$ 1,171,586
1	10	436,775			10	436,775
2	22	1,005,426	1	46,282	23	1,051,708
3	24	1,260,645			24	1,260,645
4	26	1,482,953	2	109,654	28	1,592,607
5	30	1,953,078			30	1,953,078
6	45	3,158,701			45	3,158,701
7	1	67,052			1	67,052
8	12	876,971			12	876,971
9	2	112,734			2	112,734
10	11	762,774	1	69,435	12	832,209
11	22	1,579,770			22	1,579,770
12	19	1,404,084	1	84,635	20	1,488,719
13	32	2,281,145	1	72,410	33	2,353,555
14	10	714,822			10	714,822
15	40	2,927,123	1	68,932	41	2,996,055
16	30	2,233,752	1	69,090	31	2,302,842
17	29	2,164,622			29	2,164,622
18	25	1,869,105	1	68,526	26	1,937,631
19	48	3,616,134	2	167,771	50	3,783,905
20	51	3,769,308			51	3,769,308
21	33	2,410,903			33	2,410,903
22	56	4,220,532	4	275,571	60	4,496,103
23	23	1,787,335	1	77,849	24	1,865,184
24	13	1,008,536	2	157,326	15	1,165,862
25	39	2,919,735			39	2,919,735
26	14	1,114,813	1	68,884	15	1,183,697
27	2	155,698			2	155,698
28	38	2,905,934	1	85,733	39	2,991,667
29			1	94,165	1	94,165
30	8	650,912	1	88,440	9	739,352
31	15	1,141,411			15	1,141,411
32	6	469,048	1	96,937	7	565,985
33	4	317,568			4	317,568
34	1	77,849			1	77,849
35	4	335,025			4	335,025
36	1	131,827			1	131,827
37	1	93,734			1	93,734
38	1	72,777			1	72,777
<b>Total</b>	<b>768</b>	<b>\$ 54,505,676</b>	<b>26</b>	<b>\$ 1,858,161</b>	<b>794</b>	<b>\$ 56,363,837</b>

TABLE 7A

The Number and Annual Benefits Payable To  
 Consenting General Employes From The Combined Fund  
 As Of December 31, 2015

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
8			1	\$ 2,630	1	\$ 2,630
11			1	2,241	1	2,241
15			1	1,922	1	1,922
18			1	1,922	1	1,922
19			1	5,157	1	5,157
21			1	5,785	1	5,785
23			1	8,879	1	8,879
24			3	11,232	3	11,232
25			2	8,283	2	8,283
26			2	5,182	2	5,182
28			4	24,064	4	24,064
29			2	20,124	2	20,124
30			2	6,031	2	6,031
31			1	5,198	1	5,198
32			2	6,323	2	6,323
33			2	9,385	2	9,385
34			1	6,889	1	6,889
35			2	4,391	2	4,391
36			1	2,994	1	2,994
37			5	32,781	5	32,781
38			3	11,468	3	11,468
39	1	7,195	1	2,195	2	9,390
40	1	44,173	3	13,195	4	57,368
41	6	97,329	2	11,314	8	108,643
42	1	22,402	4	49,185	5	71,587
43	1	29,141	1	5,157	2	34,298
44	2	22,356	2	6,793	4	29,149
45	4	35,911	4	21,361	8	57,272
46	4	60,819	2	29,832	6	90,651
47	10	113,517	2	18,491	12	132,008
48	2	24,454	6	55,621	8	80,075
49	5	85,844	2	8,436	7	94,280
50	4	38,759	4	39,066	8	77,825
51	4	61,330	5	59,835	9	121,165
52	9	117,548	3	77,760	12	195,308
53	12	165,752	4	27,914	16	193,666
54	16	250,684	7	107,112	23	357,796
55	21	508,357	10	185,772	31	694,129
56	66	1,828,393	5	57,052	71	1,885,445
57	70	1,863,151	12	160,368	82	2,023,519
58	76	2,341,411	13	178,241	89	2,519,652
59	126	3,732,307	6	80,546	132	3,812,853
60	181	4,260,231	10	212,955	191	4,473,186
61	272	5,429,712	23	362,517	295	5,792,229
62	325	6,399,834	23	345,238	348	6,745,072
63	323	5,977,408	20	324,980	343	6,302,388
64	387	7,540,695	10	160,250	397	7,700,945
65	434	8,741,466	23	347,706	457	9,089,172
66	429	8,860,200	21	268,023	450	9,128,223
67	407	8,428,622	20	258,449	427	8,687,071

**TABLE 7A**

**The Number and Annual Benefits Payable To  
Consenting General Employes From The Combined Fund  
As Of December 31, 2015**

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
68	386	\$ 8,419,422	24	\$ 320,690	410	\$ 8,740,112
69	385	7,676,734	29	420,307	414	8,097,041
70	244	5,111,599	26	463,475	270	5,575,074
71	253	5,339,418	19	192,363	272	5,531,781
72	211	4,585,628	30	526,609	241	5,112,237
73	236	4,382,974	38	631,187	274	5,014,161
74	191	3,857,749	41	765,697	232	4,623,446
75	192	3,634,681	27	499,809	219	4,134,490
76	168	2,987,469	30	435,535	198	3,423,004
77	176	2,791,058	36	607,875	212	3,398,933
78	209	3,960,907	36	487,254	245	4,448,161
79	181	3,404,090	46	608,218	227	4,012,308
80	145	2,070,254	45	682,078	190	2,752,332
81	159	2,724,262	41	580,660	200	3,304,922
82	135	1,835,125	44	655,052	179	2,490,177
83	164	2,483,325	48	635,010	212	3,118,335
84	167	2,611,520	40	507,972	207	3,119,492
85	147	2,449,207	57	616,299	204	3,065,506
86	114	1,670,951	55	628,027	169	2,298,978
87	120	1,560,039	53	650,561	173	2,210,600
88	103	1,402,489	53	636,344	156	2,038,833
89	120	1,624,370	51	566,123	171	2,190,493
90	93	1,303,356	37	369,945	130	1,673,301
91	83	1,074,783	38	428,618	121	1,503,401
92	60	727,717	35	337,196	95	1,064,913
93	52	480,692	26	215,609	78	696,301
94	40	568,043	23	152,585	63	720,628
95	34	304,015	18	172,639	52	476,654
96	17	106,093	11	83,526	28	189,619
97	11	93,902	12	91,025	23	184,927
98	14	105,000	5	29,588	19	134,588
99	2	34,655	4	20,714	6	55,369
100	4	13,113	5	50,178	9	63,291
101	1	2,432	1	5,080	2	7,512
102	1	12,906	1	4,914	2	17,820
106	1	16,407			1	16,407
129						
<b>Total</b>	<b>7,818</b>	<b>\$ 148,515,386</b>	<b>1,372</b>	<b>\$ 17,737,007</b>	<b>9,190</b>	<b>\$ 166,252,393</b>

**TABLE 7B**

**The Number and Annual Benefits Payable To  
Consenting Firemen From The Combined Fund  
As Of December 31, 2015**

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
27			1	\$ 3,547	1	\$ 3,547
33	1	48,942			1	48,942
38	2	91,749			2	91,749
39	2	105,872			2	105,872
42	1	27,051			1	27,051
43	3	155,295			3	155,295
44	4	194,035			4	194,035
45	1	58,293			1	58,293
46	4	159,930	1	57,329	5	217,259
47	10	519,691			10	519,691
48	6	327,974			6	327,974
49	5	240,073			5	240,073
50	10	508,553	2	90,924	12	599,477
51	10	509,738	1	19,880	11	529,618
52	13	714,058	1	35,142	14	749,200
53	17	910,880			17	910,880
54	14	759,955			14	759,955
55	24	1,200,072			24	1,200,072
56	23	1,284,334			23	1,284,334
57	30	1,653,978	3	141,277	33	1,795,255
58	50	2,604,833	3	85,799	53	2,690,632
59	49	2,689,204	1	36,889	50	2,726,093
60	49	2,635,217	1	35,669	50	2,670,886
61	46	2,444,561	6	186,505	52	2,631,066
62	42	2,220,766	4	119,442	46	2,340,208
63	39	2,154,233	5	85,956	44	2,240,189
64	27	1,422,294	3	90,366	30	1,512,660
65	25	1,267,042			25	1,267,042
66	27	1,492,477	3	67,535	30	1,560,012
67	33	1,881,845	1	6,592	34	1,888,437
68	32	1,707,319	7	124,834	39	1,832,153
69	50	3,051,661	7	213,086	57	3,264,747
70	26	1,450,441	3	121,298	29	1,571,739
71	18	970,810	7	187,561	25	1,158,371
72	27	1,241,459	4	130,568	31	1,372,027
73	36	1,846,404	9	241,844	45	2,088,248
74	31	1,737,911	7	273,672	38	2,011,583
75	17	899,304	6	153,348	23	1,052,652
76	20	961,639	5	94,217	25	1,055,856
77	18	879,745	3	109,640	21	989,385
78	15	628,519	8	168,758	23	797,277
79	12	648,337	8	198,437	20	846,774

**TABLE 7B**

**The Number and Annual Benefits Payable To  
Consenting Firemen From The Combined Fund  
As Of December 31, 2015**

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
80	21	\$ 993,995	11	\$ 280,661	32	\$ 1,274,656
81	9	394,024	10	270,408	19	664,432
82	12	509,878	8	168,415	20	678,293
83	10	401,175	11	291,599	21	692,774
84	16	664,836	11	200,903	27	865,739
85	27	1,028,731	18	361,963	45	1,390,694
86	12	548,020	18	396,109	30	944,129
87	18	690,534	15	298,227	33	988,761
88	9	314,516	18	444,008	27	758,524
89	9	325,979	8	164,554	17	490,533
90	1	21,928	9	150,526	10	172,454
91	7	256,971	2	17,011	9	273,982
92	4	124,376			4	124,376
93	3	85,386	4	51,546	7	136,932
94	2	69,936	1	22,688	3	92,624
95	3	87,313			3	87,313
96	1	4,683			1	4,683
97	1	19,842	1	3,600	2	23,442
<b>Total</b>	<b>1,034</b>	<b>\$ 52,848,617</b>	<b>255</b>	<b>\$ 6,202,333</b>	<b>1,289</b>	<b>\$ 59,050,950</b>

TABLE 7C

The Number and Annual Benefits Payable To  
 Consenting Policemen From The Combined Fund  
 As Of December 31, 2015

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
13		\$	1	\$ 14,213	1	\$ 14,213
14			1	10,542	1	10,542
15			1	14,213	1	14,213
18			1	13,768	1	13,768
19			2	27,569	2	27,569
27			1	13,768	1	13,768
31			1	10,542	1	10,542
32			1	49,341	1	49,341
33	1	60,054			1	60,054
35	1	50,606			1	50,606
37	3	176,877			3	176,877
38	3	148,767			3	148,767
39	1	50,126			1	50,126
40	4	188,995			4	188,995
41	1	50,437			1	50,437
42	2	107,105	1	43,662	3	150,767
43	4	200,063	1	8,687	5	208,750
44	5	215,825	3	99,228	8	315,053
45	6	315,847			6	315,847
46	5	249,150	1	8,687	6	257,837
47	10	628,001			10	628,001
48	12	651,685			12	651,685
49	16	902,395			16	902,395
50	21	1,063,005	2	62,849	23	1,125,854
51	13	728,657	3	91,246	16	819,903
52	21	1,131,576			21	1,131,576
53	28	1,601,353	1	39,170	29	1,640,523
54	22	1,357,144	3	103,511	25	1,460,655
55	30	1,714,720	3	89,698	33	1,804,418
56	40	2,344,072	3	89,947	43	2,434,019
57	54	2,917,453	3	93,401	57	3,010,854
58	48	2,477,280	3	74,337	51	2,551,617
59	60	3,335,856	2	33,775	62	3,369,631
60	57	3,200,341	6	204,120	63	3,404,461
61	66	3,413,493	4	221,205	70	3,634,698
62	64	3,364,537	5	141,734	69	3,506,271
63	72	3,935,171	4	217,476	76	4,152,647
64	53	2,767,229	6	300,487	59	3,067,716
65	52	3,195,007	8	268,551	60	3,463,558
66	68	3,642,240	7	299,412	75	3,941,652
67	62	3,450,767	6	163,279	68	3,614,046
68	90	5,281,348	6	264,343	96	5,545,691
69	70	3,834,694	16	493,632	86	4,328,326
70	55	3,067,935	8	212,397	63	3,280,332



**TABLE 7C**

**The Number and Annual Benefits Payable To  
Consenting Policemen From The Combined Fund  
As Of December 31, 2015**

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
71	49	\$ 2,709,353	12	\$ 449,378	61	\$ 3,158,731
72	55	2,766,454	12	441,607	67	3,208,061
73	70	3,334,000	19	603,972	89	3,937,972
74	44	2,240,603	12	327,789	56	2,568,392
75	45	2,238,481	11	269,870	56	2,508,351
76	50	2,175,505	8	206,435	58	2,381,940
77	37	1,614,432	10	259,423	47	1,873,855
78	34	1,466,167	11	329,554	45	1,795,721
79	27	1,107,748	11	332,335	38	1,440,083
80	31	1,332,357	21	580,952	52	1,913,309
81	27	1,130,026	14	280,284	41	1,410,310
82	18	658,472	21	463,163	39	1,121,635
83	19	658,878	27	550,486	46	1,209,364
84	28	1,042,036	18	466,213	46	1,508,249
85	23	847,405	23	476,138	46	1,323,543
86	22	740,492	23	428,591	45	1,169,083
87	20	804,577	18	323,012	38	1,127,589
88	23	840,649	23	407,050	46	1,247,699
89	15	532,294	19	317,257	34	849,551
90	7	200,314	13	152,439	20	352,753
91	7	160,649	7	95,065	14	255,714
92	6	168,430	7	109,927	13	278,357
93	9	191,781	5	59,600	14	251,381
94	3	77,723	4	43,476	7	121,199
95	2	50,378	5	76,279	7	126,657
96	1	27,030	3	33,797	4	60,827
97			2	21,976	2	21,976
98	1	22,729	1	3,953	2	26,682
<b>Total</b>	<b>1,793</b>	<b>\$ 90,958,774</b>	<b>474</b>	<b>\$ 11,888,811</b>	<b>2,267</b>	<b>\$ 102,847,585</b>

**TABLE 8**

**The Number and Annual Benefits Payable To  
Non-Consenters From The Retirement Fund  
As Of December 31, 2015**

Age	Members		Beneficiaries		Totals	
	Number	Annuities	Number	Annuities	Number	Annuities
55	1	\$ 9,683		\$	1	\$ 9,683
63	1	1,813	1	7,743	2	9,556
65	1	24,489			1	24,489
67	1	3,588			1	3,588
71	1	5,296			1	5,296
72	1	2,748			1	2,748
73	1	17,091			1	17,091
75	1	18,620			1	18,620
78	1	482			1	482
81	1	1,254			1	1,254
83	1	3,474	1	9,714	2	13,188
84			1	10,446	1	10,446
86	1	9,537			1	9,537
87	1	8,084			1	8,084
99	1	10,674			1	10,674
<b>Total</b>	14	\$ 116,833	3	\$ 27,903	17	\$ 144,736

## Exhibit 3 - Reconciliation of Membership Data

Reconciliation of Membership Data  
From January 1, 2015 to January 1, 2016

	Active Members	Inactive Members	Benefit Recipients			Total
			Disableds	Service Retirees	Beneficiaries	
Number as of January 1, 2015	10,964	3,279	961	9,512	2,124	26,840
New participants	972	4	0	0	125	1,101
Vested terminations	(424)	424	0	0	0	0
Non-vested with Member Contribution	0	38	0	0	0	38
Retirements	(413)	(155)	29	547	0	8
Return to work	64	(49)	0	0	0	15
Refund/Withdrawal	(168)	(187)	0	0	0	(355)
Death	(13)	(12)	(70)	(320)	(145)	(560)
Data corrections	<u>0</u>	<u>(4)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(4)</u>
Number as of January 1, 2016	10,982	3,338	920	9,739	2,104	27,083