



**MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN**  
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2014  
MADISON HEIGHTS, CITY OF (6308)



Spring, 2015

Madison Heights, City of

In care of:

Municipal Employees' Retirement System of Michigan  
1134 Municipal Way  
Lansing, Michigan 48917

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2014. The report includes the determination of liabilities and contribution rates resulting from the participation of Madison Heights, City of (6308) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is a nonprofit organization, independent from the State, that has provided retirement plans for municipal employees for more than 65 years. Madison Heights, City of is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees under the Michigan Constitution and the MERS Plan Document.

The purpose of the December 31, 2014 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning July 1, 2016
- Provide actuarial information in connection with applicable Governmental Accounting Standards Board (GASB) statements

This valuation report should not be relied upon for any other purpose. Reliance on information contained in this report by anyone for anything other than the intended purpose could be misleading.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2014 furnished by MERS. In accordance with Actuarial Standards of Practice No. 23, the data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. CBIZ Retirement Plan Services does not assume responsibility for the accuracy or completeness of the data used in this valuation.

The actuarial assumptions and methods are adopted by the MERS Retirement Board, and are reviewed every five years in an Experience Study, which will be completed in 2015. Please refer to the division-specific assumptions described in table(s) in this report, and to the Appendix on the MERS website at:

[www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2014AnnualActuarialValuation-Appendix.pdf](http://www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2014AnnualActuarialValuation-Appendix.pdf).



The actuarial assumptions used for this valuation produce results that we believe are reasonable.

To the best of our knowledge, this report is complete and accurate, was prepared in conformity with generally recognized actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and is in compliance with Act No. 220 of the Public Acts of 1996, as amended, and the MERS Plan Document as revised. All of the undersigned are members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The Retirement Board of the Municipal Employees' Retirement System of Michigan confirms that the System provides for payment of the required employer contribution as described in Section 20m of Act No. 314 of 1965 (MCL 38.1140m).

This information is purely actuarial in nature. It is not intended to serve as a substitute for legal, accounting or investment advice.

**This report was prepared at the request of the Retirement Board and may be provided only in its entirety by the municipality to other interested parties (MERS customarily provides the full report on request to associated third parties such as the auditor for the municipality). CBIZ Retirement Plan Services is not responsible for the consequences of any unauthorized use.**

You should notify MERS if you disagree with anything contained in the report or are aware of any information that would affect the results of the report that have not been communicated to us. If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, that conditions have changed since the calculations were made, that the information provided in this report is inaccurate or is in anyway incomplete, or if you need further information in order to make an informed decision on the subject matter in this report, please contact your Regional Manager at 1.800.767.MERS(6377).

Sincerely,

Alan Sonnanstine, MAAA, ASA  
Cathy Nagy, MAAA, FSA  
Jim Koss, MAAA, ASA

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## Executive Summary

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### Funded Ratio and Required Employer Contributions

The MERS Defined Benefit Plan is an agent multiple-employer plan, meaning that assets are pooled for investment purposes but separate trusts are maintained for each individual employer. Each municipality is responsible for their own plan liabilities; MERS does not borrow from one municipality's account to pay for another.

The funded ratio of a plan is the percentage of the dollar value of the accrued benefits that is covered by the actuarial value of assets.

#### Your Funded Ratio:

	12/31/2014	12/31/2013
Funded Ratio	68%	70%

Michigan Law requires that pension plans be pre-funded, meaning money is set aside now to pay for future benefits. Pension plans are usually funded by employer and employee contributions, and investment income.

How quickly a plan attains the 100% funding goal depends on many factors such as:

- The current funded ratio
- The future experience of the plan
- The amortization period

It is more important to look at the trend in the funded ratio over a period of time than at a particular point in time.

## Your Required Employer Contributions:

Your minimum required employer contributions are shown in the following table. Employee contributions, if any, are in addition to the required employer contributions.

Valuation Date:	Percentage of Payroll		Monthly \$ Based on Valuation Payroll	
	12/31/2014	12/31/2013	12/31/2014	12/31/2013
Fiscal Year Beginning:	July 1, 2016	July 1, 2015	July 1, 2016	July 1, 2015
<b>Division</b>				
01 - Non-Union and Departme	-	-	\$ 40,155	\$ 34,367
10 - Gnrl Crth	-	-	5,386	4,803
11 - Dept of Public Svcs TP	-	-	35,901	28,778
12 - AFSCME	-	-	15,088	15,302
13 - Cler Tmst	-	-	10,603	11,222
14 - Disptchrs	-	-	597	642
<b>Municipality Total</b>			<b>\$ 107,730</b>	<b>\$ 95,114</b>

Employee contribution rates reflected in the valuations are shown below:

Valuation Date:	Employee Contribution Rate	
	12/31/2014	12/31/2013
<b>Division</b>		
01 - Non-Union and Departme	2.50%	2.50%
10 - Gnrl Crth	5.54%	5.54%
11 - Dept of Public Svcs TP	4.84%	4.84%
12 - AFSCME	4.94%	4.94%
13 - Cler Tmst	2.50%	2.50%
14 - Disptchrs	2.50%	2.50%

For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate.

You may contribute more than the minimum required contributions, as these additional contributions will earn investment income, and later you may have to contribute less than otherwise. **MERS strongly encourages employers to contribute more than the minimum contribution shown above.**

Assuming that experience of the plan meets actuarial assumptions:

- To accelerate to a 100% funding ratio in 10 years, estimated monthly employer contributions for the entire employer would be \$ 144,927, instead of \$ 107,730.

If you are interested in making additional contributions, please contact MERS and they can assist you with evaluating your options.

## How and Why Do These Numbers Change?

In a defined benefit plan contributions vary from one annual actuarial valuation to the next as a result of the following:

- Changes in benefit provisions (see Table 2)
- Changes in actuarial assumptions and methods (see the [Appendix](#))
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions

Actuarial valuations do not affect the ultimate cost of the plan; the benefit payments (current and future) determine the cost of the plan. Actuarial valuations only affect the timing of the contributions into the plan. Because assumptions are for the long term, plan experience will not match the actuarial assumptions in any given year (except by coincidence). Each annual actuarial valuation will adjust the required employer contributions up or down based on the prior year's actual experience.

## Comments on the Investment Markets

At this time, MERS maintains the 8% annual return assumption on investments in the belief that over the long-term this is achievable. For example, MERS' 30 year return was 9.17% on December 31, 2014. The MERS portfolio returned 6.49% in 2014; the two year (10.54%), three year (10.73%), four year (8.48%), and five year (9.59%) returns all exceed the 8% annual return assumption. When comparing these actual returns to the 8% net return assumption, deduct roughly .25% from these actual returns to reflect administrative expenses. It has now been seven years since the peak of the financial crisis and the stock market decline still weighs down MERS' medium term returns. This was a one in fifty year event comparable only to the Stock Market Crash of 1929 during the Great Depression. The stock market and economy have stabilized since 2008 and are on the long road to recovery. MERS regularly monitors the investment return assumption to make sure it is reasonable compared to long term expectations.

The actuarial value of assets, used to determine both your funded ratio and your required employer contribution, is based on a 10-year smoothed value of assets. Only a portion (seven-tenths, for 2008 through 2014) of the 2008 investment market losses was recognized in this actuarial valuation report. This reduces the volatility of the valuation results, which affects your required employer contribution and funded ratio. The smoothed actuarial rate of return for 2014 was 5.90%.

As of December 31, 2014 the actuarial value of assets is 106% of market value. This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 8% investment return assumption.

If the December 31, 2014 valuation results were based on market value on that date instead of 10-year smoothed funding value: i) the funded percent of your entire municipality would be 64% (instead of

68%); and ii) your total employer contribution requirement for the fiscal year starting July 1, 2016 would be \$ 1,437,156 (instead of \$ 1,292,760).

The asset smoothing method is a powerful tool for reducing the volatility of your required employer contributions. **However, if the current 6% difference between the smoothed value and the market value of assets is not made up, the result would be gradual increases in your employer contribution requirement over the next few years (to around the levels described above).**

## Risk Characteristics of Defined Benefit Plans

It is important to understand that retirement plans, by their nature, are exposed to certain risks. While risks cannot be eliminated entirely, they can be mitigated through various strategies. Below are a few examples of risk (this is not an all-inclusive list):

- Economic - investment return, wage inflation, etc.
- Demographic - longevity, disability, retirement, etc.
- Plan Sponsor and Employees - contribution volatility, attract/retain employees, etc.

The MERS Retirement Board adopts certain assumptions and methods to mitigate the economic and demographic risks, and the contribution volatility risks. For example, the investment risk is the largest economic risk and is mitigated by having a balanced portfolio and a clearly defined investment strategy. Demographic risks vary based on the age of the workforce and are mitigated by preparing special studies called experience studies on a regular basis to determine if the assumptions used are reasonable compared to the experience. Risk may be mitigated through a plan design that provides benefits that are sustainable in the long run. An Experience Study is completed every five years to review the assumptions and methods. The next Experience Study will be completed in 2015.

## Alternate Scenarios to Estimate the Potential Volatility of Results ("What If Scenarios")

The calculations in this report are based on assumptions about long-term economic and demographic behavior. These assumptions will never materialize in a given year, except by coincidence. Therefore the results will vary from one year to the next. The volatility of the results depends upon the characteristics of the plan. For example:

- Open divisions that have substantial assets compared to their active employee payroll will have more volatile employer contribution rates due to investment return fluctuations.
- Open divisions that have substantial accrued liability compared to their active employee payroll will have more volatile employer contribution rates due to demographic experience fluctuations.
- Small divisions will have more volatile contribution patterns than larger divisions because statistical fluctuations are relatively larger among small populations.
- Shorter amortization periods result in more volatile contribution patterns.

The analysis in this section is intended to review the potential volatility of the actuarial valuation results. It is important to note that calculations in this report are mathematical estimates based upon

assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation to the next, sometimes significantly depending on the group's size.

Many assumptions are important in determining the required employer contributions.

For example:

- Lower investment returns would result in higher required employer contributions, and vice-versa.
- Smaller than projected pay increases would lower required employer contributions.
- Reductions in the number of active employees would lower required contribution dollars, but would usually increase the contribution rate expressed as a percentage of (the now lower) payroll.
- Retirements at earlier ages than projected would usually increase required employer contributions.
- More non-vested terminations of employment than projected would decrease required contributions.
- More disabilities or survivor (death) benefits than projected would increase required contributions.
- Longer lifetimes after retirement than projected would increase required employer contributions.

In the table below, we show the impact of varying one actuarial assumption: the future annual rate of investment return. Lower investment returns would result in higher required employer contributions, and vice-versa.

The relative impact of each investment return scenario below will vary from year to year, as the participant demographics change. The impact of each scenario should be analyzed for a given year, not from year to year. The results in the table are based on the December 31, 2014 valuation, and are for the municipality in total, not by division.

12/31/2014 Valuation Results	Assumed Future Annual Smoothed Rate of Investment Return				
	Lower Future Annual Returns		Valuation Assumption	Higher Returns	
	6%	7%		8%	9%
Accrued Liability	\$ 46,719,331	\$ 42,159,995	\$ 38,278,641	\$ 34,954,617	
Valuation Assets	\$ 26,006,213	\$ 26,006,213	\$ 26,006,213	\$ 26,006,213	
Unfunded Accrued Liability	\$ 20,713,118	\$ 16,153,782	\$ 12,272,428	\$ 8,948,404	
<b>Funded Ratio</b>	56%	62%	68%	74%	
Monthly Normal Cost	\$ 37,424	\$ 27,832	\$ 20,437	\$ 14,753	
Monthly Amortization Payment	\$ 133,654	\$ 110,394	\$ 87,293	\$ 64,401	
<b>Total Employer Contribution<sup>1</sup></b>	\$ 171,078	\$ 138,226	\$ 107,730	\$ 80,564	

<sup>1</sup> If assets exceed accrued liabilities for a division, the division's amortization payment is negative and is used to reduce the division's employer contribution requirement. If the overfunding credit is larger than the normal cost, the division's full credit is included in the municipality's amortization payment above but the division's total contribution requirement is zero. This can cause the displayed normal cost and amortization payment to not add up to the displayed total employer contribution.

## Five Year Projection Scenarios

The following table illustrates the plan's projected liabilities and required employer contributions for the next five fiscal years, under three actuarial assumptions and future economic scenarios. All three scenarios take into account the 2008 financial losses that will continue to affect the smoothed rate of return for the next three years.

Valuation Year Ending 12/31	Fiscal Year Beginning 7/1	Actuarial Accrued Liability	Valuation Assets	Funded Percentage	Required Annual Employer Contribution <sup>1</sup>
<b>8% Assumed Interest Discount Rate and Future Annual Market Rate of Return</b>					
2014	2016	\$ 38,278,641	\$ 26,006,213	68%	\$ 1,292,760
2015	2017	38,885,000	25,959,000	67%	1,452,070
2016	2018	39,368,000	25,908,000	66%	1,659,540
2017	2019	39,928,000	25,846,000	65%	1,959,760
2018	2020	40,324,000	26,662,000	66%	2,079,080
<b>7% Assumed Interest Discount Rate and Future Annual Market Rate of Return</b>					
2014	2016	\$ 42,159,995	\$ 26,006,213	62%	\$ 1,658,712
2015	2017	42,778,000	25,929,000	61%	1,821,880
2016	2018	43,300,000	26,018,000	60%	2,037,140
2017	2019	43,789,000	26,374,000	60%	2,339,420
2018	2020	44,153,000	27,419,000	62%	2,479,760
<b>6% Assumed Interest Discount Rate and Future Annual Market Rate of Return</b>					
2014	2016	\$ 46,719,331	\$ 26,006,213	56%	\$ 2,052,936
2015	2017	47,360,000	25,908,000	55%	2,227,760
2016	2018	47,770,000	26,138,000	55%	2,459,350
2017	2019	48,270,000	26,876,000	56%	2,787,020
2018	2020	48,520,000	28,286,000	58%	2,928,180

<sup>1</sup> For an employer with any open divisions, this column will include the impact of projected increases in total payroll from 2014 to the applicable fiscal year. This will cause the projected contribution for the fiscal year beginning in 2016 to be higher than the Estimated Annual Contribution shown in Table 1.

The first scenario provides an estimate of required employer contributions based on current actuarial assumptions, and a projected 8% market return. The other scenarios may be useful if the municipality chooses to budget more conservatively, and make contributions in addition to the minimum requirements. The 7% and 6% projections provide an indication of the potential required employer contribution if MERS were to realize investment returns of 7% and 6% over the long-term.

## Employer Contribution Details

### For the Fiscal Year Beginning July 1, 2016

Table 1

Division	Amort. Period for Unfund. Liab. <sup>4,5</sup>	Employer Contributions <sup>1</sup>			Blended Employer Contribut. <sup>7</sup>	Employee Contribution Rate <sup>6</sup>	Employee Contribut. Conversion Factor <sup>2</sup>
		Normal Cost	Unfunded Accrued Liability	Total Required Employer Contribut.			
<b>Percentage of Payroll</b>							
01 - Non-Union and Depa	18	-	-	-		2.50%	
10 - Gnrl Crth	12	-	-	-		5.54%	
11 - Dept of Public Svc	12	-	-	-		4.84%	
12 - AFSCME	18	-	-	-		4.94%	
13 - Cler Tmst	18	-	-	-		2.50%	
14 - Disptchrs	19	-	-	-		2.50%	
<b>Estimated Monthly Contribution<sup>3</sup></b>							
01 - Non-Union and Depa	18	\$ 7,896	\$ 32,259	\$ 40,155			
10 - Gnrl Crth	12	1,261	4,125	5,386			
11 - Dept of Public Svc	12	4,666	31,235	35,901			
12 - AFSCME	18	1,231	13,857	15,088			
13 - Cler Tmst	18	3,805	6,798	10,603			
14 - Disptchrs	19	1,578	(981)	597			
<b>Total Municipality</b>		<b>\$ 20,437</b>	<b>\$ 87,293</b>	<b>\$ 107,730</b>			
<b>Estimated Annual Contribution<sup>3</sup></b>		<b>\$ 245,244</b>	<b>\$ 1,047,516</b>	<b>\$ 1,292,760</b>			

<sup>1</sup> The above employer contribution requirements are in addition to the employee contributions, if any.

<sup>2</sup> If employee contributions are increased/decreased by 1.00% of pay, the employer contribution requirement will decrease/increase by the Employee Contribution Conversion Factor. The conversion factor is usually under 1%, because employee contributions may be refunded at termination of employment, and not used to fund retirement pensions. Employer contributions will all be used to fund pensions.

<sup>3</sup> For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll. See description of Open Divisions and Closed Divisions in the [Appendix](#).

<sup>4</sup> If projected assets exceed projected liabilities as of the beginning of the July 1, 2016 fiscal year, the negative unfunded accrued liability is amortized (spread) over 10 years. This amortization is used to reduce the employer contribution rate. Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions to not add across.

<sup>5</sup> If the division is closed to new hires, with new hires not covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the amortization period will decrease as follows: Under Amortization Option A, the period will decrease by 2 years each valuation year, until it reaches 6 or 5 years. Then it decreases by 1 year each valuation year until the UAL is paid off. Under Amortization Option B, the period will decrease by 2 years each valuation year, until it reaches 16 or 15 years. Thereafter, the period will reduce by 1 year each valuation year, until the UAL is paid off. This will result in amortization payments that increase faster than the usual 4.5% each year. If the division is closed to new hires, with new hires (and transfers) covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the standard open division amortization period will apply.

<sup>6</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate.

<sup>7</sup> For linked divisions, the employer will be invoiced the Total Required Employer Contribution rate shown above for each linked division (a contribution rate for the open division; a contribution dollar for the closed-but-linked division), unless the employer elects to contribute the Blended Employer Contribution rate shown above, by contacting MERS at 800-767-2308.

**Please see the Comments on the Investment Markets.**

## Benefit Provisions

**Table 2**

**01 - Non-Union and Department Heads: Closed to new hires**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	3 years	3 years
<b>Employee Contributions:</b>	2.50%	2.50%
<b>DC Plan for New Hires:</b>	7/1/2010	7/1/2010
<b>Act 88:</b>	Yes (Adopted 2/9/1970)	Yes (Adopted 2/9/1970)

**10 - Gnrl Crth: Closed to new hires**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	2.00% Multiplier (no max)	2.00% Multiplier (no max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	50/25	50/25
	55/15	55/15
<b>Early Retirement (Reduced):</b>	-	-
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	5.54%	5.54%
<b>DC Plan for New Hires:</b>	10/1/2006	10/1/2006
<b>Act 88:</b>	Yes (Adopted 2/9/1970)	Yes (Adopted 2/9/1970)

**11 - Dept of Public Svcs TPOAM: Closed to new hires**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	4.84%	4.84%
<b>DC Plan for New Hires:</b>	8/1/2006	8/1/2006
<b>Act 88:</b>	Yes (Adopted 2/9/1970)	Yes (Adopted 2/9/1970)

**Table 2** (continued)**12 - AFSCME: Closed to new hires**

	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	4.94%	4.94%
<b>DC Plan for New Hires:</b>	7/1/2010	7/1/2010
<b>Act 88:</b>	Yes (Adopted 2/9/1970)	Yes (Adopted 2/9/1970)

**13 - Cler Tmst: Closed to new hires**

	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.00% Multiplier (no max)	2.00% Multiplier (no max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	2.50%	2.50%
<b>DC Plan for New Hires:</b>	7/1/2010	7/1/2010
<b>Act 88:</b>	Yes (Adopted 2/9/1970)	Yes (Adopted 2/9/1970)

**14 - Disptchrs: Closed to new hires**

	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.00% Multiplier (no max)	2.00% Multiplier (no max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	2.50%	2.50%
<b>DC Plan for New Hires:</b>	9/1/2010	9/1/2010
<b>Act 88:</b>	Yes (Adopted 2/9/1970)	Yes (Adopted 2/9/1970)

## Participant Summary

**Table 3**

Division	2014 Valuation		2013 Valuation		2014 Valuation		
	Number	Annual Payroll <sup>1</sup>	Number	Annual Payroll <sup>1</sup>	Average Age	Average Benefit Service <sup>2</sup>	Average Eligibility Service <sup>2</sup>
01 - Non-Union and Depart							
Active Employees	11	\$ 892,963	10	\$ 834,038	51.0	15.0	17.8
Vested Former Employees	2	73,817	3	76,571	50.2	14.0	14.0
Retirees and Beneficiaries	22	736,279	22	685,873	71.5		
10 - Gnrl Crth							
Active Employees	6	\$ 306,656	6	\$ 309,969	50.1	19.2	21.8
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	8	146,361	8	146,361	70.6		
11 - Dept of Public Svcs							
Active Employees	16	\$ 911,310	18	\$ 941,118	47.6	19.7	19.7
Vested Former Employees	4	41,876	4	62,748	56.3	14.8	16.0
Retirees and Beneficiaries	40	806,725	39	753,177	67.0		
12 - AFSCME							
Active Employees	3	\$ 201,718	6	\$ 414,844	45.4	17.9	20.3
Vested Former Employees	6	77,113	6	77,113	49.6	10.9	16.6
Retirees and Beneficiaries	20	491,485	19	469,635	69.4		
13 - Cler Tmst							
Active Employees	15	\$ 686,863	18	\$ 819,952	52.2	20.2	20.2
Vested Former Employees	9	67,878	8	57,292	50.2	9.5	13.9
Retirees and Beneficiaries	32	454,612	33	459,919	72.1		
14 - DispTchrs							
Active Employees	5	\$ 245,316	6	\$ 275,605	41.7	14.4	14.4
Vested Former Employees	4	37,073	4	37,073	45.3	11.4	17.1
Retirees and Beneficiaries	1	13,799	1	13,799	62.6		
<b>Total Municipality</b>							
<b>Active Employees</b>	<b>56</b>	<b>\$ 3,244,826</b>	<b>64</b>	<b>\$ 3,595,526</b>	<b>49.1</b>	<b>18.3</b>	<b>19.2</b>
<b>Vested Former Employees</b>	<b>25</b>	<b>297,757</b>	<b>25</b>	<b>310,797</b>	<b>50.3</b>	<b>11.4</b>	<b>15.4</b>
<b>Retirees and Beneficiaries</b>	<b>123</b>	<b>2,649,261</b>	<b>122</b>	<b>2,528,764</b>	<b>69.7</b>		
<b>Total Participants</b>	<b>204</b>		<b>211</b>				

<sup>1</sup> Annual payroll for active employees; annual deferred benefits payable for vested former employees; annual benefits being paid for retirees and beneficiaries.

<sup>2</sup> Description can be found under Miscellaneous and Technical Assumptions in the [Appendix](#).

## Reported Assets (Market Value)

**Table 4**

Division	2014 Valuation		2013 Valuation	
	Employer and Retiree <sup>1</sup>	Employee <sup>2</sup>	Employer and Retiree <sup>1</sup>	Employee <sup>2</sup>
01 - Non-Union and Department Heads	\$ 5,372,585	\$ 124,811	\$ 5,269,705	\$ 64,993
10 - Gnrl Crth	1,493,113	177,778	1,494,923	160,437
11 - Dept of Public Svcs TPOAM	7,208,004	423,130	7,205,684	419,639
12 - AFSCME	3,528,815	140,529	3,719,124	186,431
13 - Cler Tmst	5,010,875	185,407	5,006,336	169,164
14 - Disptchrs	848,676	21,899	802,623	14,767
<b>Municipality Total</b>	<b>\$ 23,462,068</b>	<b>\$ 1,073,554</b>	<b>\$ 23,498,395</b>	<b>\$ 1,015,431</b>
<b>Combined Reserves</b>	<b>\$ 24,535,622</b>		<b>\$ 24,513,826</b>	

1 Reserve for Employer Contributions and Benefit Payments

2 Reserve for Employee Contributions

The December 31, 2014 valuation assets are equal to 1.059937 times the reported market value of assets (compared to 1.061840 as of December 31, 2013). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the [Appendix](#).

## Flow of Valuation Assets

**Table 5**

Year Ended 12/31	Employer Contributions		Employee Contributions	Investment Income	Benefit Payments	Employee Contribution Refunds	Net Transfers	Valuation Asset Balance
	Required	Additional						
2004	\$ 482,846		\$ 76,364	\$ 1,511,128	\$ (1,346,317)	\$ (6,436)	\$ 0	\$ 23,897,237
2005	537,515		62,351	1,489,401	(1,520,666)	(7,281)	0	24,458,557
2006	577,333		61,632	1,937,949	(1,641,503)	(2,139)	0	25,391,829
2007	668,249		65,339	2,054,668	(1,638,877)	0	0	26,541,208
2008	671,925		60,985	1,102,980	(1,734,081)	(4,983)	(3,514)	26,634,520
2009	682,056		59,268	990,212	(1,791,304)	(5,649)	0	26,569,103
2010	729,975		56,090	1,238,090	(2,045,599)	0	0	26,547,659
2011	769,629	\$ 0	92,448	1,177,872	(2,287,911)	0	0	26,299,697
2012	735,318	97,628	148,561	1,058,049	(2,360,656)	0	0	25,978,597
2013	839,178	141,000	136,395	1,431,930	(2,493,847)	(3,492)	0	26,029,761
2014	969,840	0	134,964	1,421,442	(2,554,256)	(3,658)	8,120	26,006,213

Notes:

Transfers in and out are usually related to the transfer of participants between municipalities, and to employer and employee payments for service credit purchases (if any) that the governing body has approved.

Additional employer contributions, if any, are shown separately starting in 2011. Prior to 2011, additional contributions are combined with the required employer contributions.

In the actuarial valuation additional employer contributions are combined with required contributions and used to reduce computed future required employer contributions.

## Actuarial Accrued Liabilities and Valuation Assets

### As of December 31, 2014

Table 6

Division	Actuarial Accrued Liability	Valuation Assets <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - Non-Union and Department Heads				
Active Employees	\$ 3,174,729	\$ 106,862	3.4%	\$ 3,067,867
Vested Former Employees	575,707	8,565	1.5%	567,142
Retirees And Beneficiaries	7,063,357	5,711,466	80.9%	1,351,891
Pending Refunds	0	0	0.0%	0
Total	\$ 10,813,793	\$ 5,826,893	53.9%	\$ 4,986,900
10 - Gnrl Crth				
Active Employees	\$ 1,070,829	\$ 590,240	55.1%	\$ 480,589
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,176,734	1,176,734	100.0%	0
Pending Refunds	4,065	4,065	100.0%	0
Total	\$ 2,251,628	\$ 1,771,039	78.7%	\$ 480,589
11 - Dept of Public Svcs TPOAM				
Active Employees	\$ 3,318,910	\$ 358,576	10.8%	\$ 2,960,334
Vested Former Employees	347,684	64,571	18.6%	283,113
Retirees And Beneficiaries	8,037,733	7,665,244	95.4%	372,489
Pending Refunds	130	130	100.0%	0
Total	\$ 11,704,457	\$ 8,088,521	69.1%	\$ 3,615,936
12 - AFSCME				
Active Employees	\$ 676,306	\$ 79,526	11.8%	\$ 596,780
Vested Former Employees	454,925	45,011	9.9%	409,914
Retirees And Beneficiaries	4,937,355	3,749,591	75.9%	1,187,764
Pending Refunds	15,145	15,145	100.0%	0
Total	\$ 6,083,731	\$ 3,889,273	63.9%	\$ 2,194,458
13 - Cler Tmst				
Active Employees	\$ 2,322,575	\$ 1,227,106	52.8%	\$ 1,095,469
Vested Former Employees	391,257	391,257	100.0%	0
Retirees And Beneficiaries	3,884,535	3,884,535	100.0%	0
Pending Refunds	4,834	4,834	100.0%	0
Total	\$ 6,603,201	\$ 5,507,732	83.4%	\$ 1,095,469
14 - Disptchrs				
Active Employees	\$ 521,284	\$ 622,208	119.4%	\$ (100,924)
Vested Former Employees	151,842	151,842	100.0%	0
Retirees And Beneficiaries	145,319	145,319	100.0%	0
Pending Refunds	3,386	3,386	100.0%	0
Total	\$ 821,831	\$ 922,755	112.3%	\$ (100,924)

**Table 6 (continued)**

Division	Actuarial Accrued Liability	Valuation Assets <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
<b>Total Municipality</b>				
Active Employees	\$ 11,084,633	\$ 2,984,518	26.9%	\$ 8,100,115
Vested Former Employees	1,921,415	661,246	34.4%	1,260,169
Retirees and Beneficiaries	25,245,033	22,332,889	88.5%	2,912,144
Pending Refunds	<u>27,560</u>	<u>27,560</u>	100.0%	<u>0</u>
<b>Total Participants</b>	<b>\$ 38,278,641</b>	<b>\$ 26,006,213</b>	<b>67.9%</b>	<b>\$ 12,272,428</b>

<sup>1</sup> Includes both employer and employee assets.

**Please see the Comments on the Investment Markets.**

See the MERS Fiscal Responsibility Policy on the MERS website at:

[http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/sec\\_43c.pdf](http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/sec_43c.pdf).

## Actuarial Accrued Liabilities - Comparative Schedule

**Table 7**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2000	\$ 21,598,476	\$ 21,383,316	99%	\$ 215,160
2001	22,938,928	22,391,959	98%	546,969
2002	23,826,929	22,303,419	94%	1,523,510
2003	25,520,723	23,179,652	91%	2,341,071
2004	27,642,742	23,897,237	86%	3,745,505
2005	28,414,461	24,458,557	86%	3,955,904
2006	29,681,342	25,391,829	86%	4,289,513
2007	31,205,728	26,541,208	85%	4,664,520
2008	32,402,367	26,634,520	82%	5,767,847
2009	32,752,091	26,569,103	81%	6,182,988
2010	34,126,156	26,547,659	78%	7,578,497
2011	35,497,987	26,299,697	74%	9,198,290
2012	36,066,667	25,978,597	72%	10,088,070
2013	37,260,900	26,029,761	70%	11,231,139
2014	38,278,641	26,006,213	68%	12,272,428

Notes: Actuarial assumptions were revised for the 2000, 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

## Division 01 - Non-Union and Department Heads

**Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 7,604,876	\$ 5,844,620	77%	\$ 1,760,256
2005	7,622,671	5,931,958	78%	1,690,713
2006	8,019,042	6,088,847	76%	1,930,195
2007	8,274,109	6,309,434	76%	1,964,675
2008	8,685,702	6,286,268	72%	2,399,434
2009	8,038,466	5,658,718	70%	2,379,748
2010	8,479,273	5,680,461	67%	2,798,812
2011	9,002,861	5,618,427	62%	3,384,434
2012	9,210,025	5,577,487	61%	3,632,538
2013	10,121,532	5,664,596	56%	4,456,936
2014	10,813,793	5,826,893	54%	4,986,900

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

**Table 9-01: Required Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Required Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2004	15	\$ 1,186,288	18.76%	0.00%
2005	15	1,184,003	18.53%	0.00%
2006	15	1,206,690	19.59%	0.00%
2007	14	1,182,345	20.01%	0.00%
2008	14	1,174,358	22.90%	0.00%
2009	14	1,202,689	23.37%	0.00%
2010	12	1,031,825	\$ 24,020	0.00%
2011	11	972,440	\$ 26,338	2.50%
2012	11	989,346	\$ 28,727	2.50%
2013	10	834,038	\$ 34,367	2.50%
2014	11	892,963	\$ 40,155	2.50%

<sup>1</sup> For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

<sup>2</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

**Division 10 - Gnrl Crth****Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 1,280,890	\$ 1,189,588	93%	\$ 91,302
2005	1,344,080	1,245,869	93%	98,211
2006	1,410,541	1,326,493	94%	84,048
2007	1,510,707	1,413,469	94%	97,238
2008	1,613,659	1,449,675	90%	163,984
2009	1,979,624	1,791,716	91%	187,908
2010	2,014,257	1,776,297	88%	237,960
2011	2,082,999	1,767,933	85%	315,066
2012	2,129,740	1,745,763	82%	383,977
2013	2,209,968	1,757,727	80%	452,241
2014	2,251,628	1,771,039	79%	480,589

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

**Table 9-10: Required Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Required Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2004	9	\$ 396,370	7.25%	3.04%
2005	8	369,204	7.18%	3.04%
2006	8	378,402	7.00%	3.04%
2007	7	346,669	\$ 1,940	3.04%
2008	7	354,953	\$ 2,943	3.04%
2009	7	358,201	\$ 2,996	3.04%
2010	6	309,465	\$ 3,312	3.04%
2011	6	305,279	\$ 3,495	5.54%
2012	6	307,811	\$ 4,094	5.54%
2013	6	309,969	\$ 4,803	5.54%
2014	6	306,656	\$ 5,386	5.54%

<sup>1</sup> For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

<sup>2</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

## Division 11 - Dept of Public Svcs TPOAM

**Table 8-11: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 9,401,713	\$ 8,526,652	91%	\$ 875,061
2005	9,640,698	8,638,820	90%	1,001,878
2006	10,061,921	8,887,396	88%	1,174,525
2007	10,438,648	9,206,357	88%	1,232,291
2008	10,780,891	9,161,812	85%	1,619,079
2009	10,290,554	8,502,821	83%	1,787,733
2010	10,634,653	8,300,780	78%	2,333,873
2011	10,798,179	8,192,100	76%	2,606,079
2012	10,921,274	8,075,242	74%	2,846,032
2013	11,218,116	8,096,873	72%	3,121,243
2014	11,704,457	8,088,521	69%	3,615,936

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

**Table 9-11: Required Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Required Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2004	35	\$ 1,559,486	8.75%	3.09%
2005	30	1,339,492	10.42%	2.34%
2006	29	1,374,577	10.95%	2.34%
2007	29	1,461,577	\$ 14,063	2.34%
2008	28	1,433,600	\$ 18,318	2.34%
2009	27	1,334,228	\$ 18,423	2.34%
2010	21	1,027,989	\$ 20,370	2.34%
2011	20	1,047,392	\$ 22,156	4.84%
2012	18	904,241	\$ 24,466	4.84%
2013	18	941,118	\$ 28,778	4.84%
2014	16	911,310	\$ 35,901	4.84%

<sup>1</sup> For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

<sup>2</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

**Division 12 - AFSCME****Table 8-12: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 4,104,867	\$ 3,456,523	84%	\$ 648,344
2005	4,230,783	3,563,323	84%	667,460
2006	4,333,119	3,748,631	87%	584,488
2007	4,718,282	3,957,761	84%	760,521
2008	4,851,889	3,978,310	82%	873,579
2009	5,195,434	4,109,828	79%	1,085,606
2010	5,647,986	4,356,935	77%	1,291,051
2011	6,077,256	4,318,993	71%	1,758,263
2012	6,195,017	4,222,690	68%	1,972,327
2013	6,313,706	4,147,075	66%	2,166,631
2014	6,083,731	3,889,273	64%	2,194,458

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

**Table 9-12: Required Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Required Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2004	12	\$ 740,431	11.47%	2.44%
2005	12	743,357	11.49%	2.44%
2006	10	637,287	11.16%	2.44%
2007	9	615,532	12.95%	2.44%
2008	10	681,062	14.45%	2.44%
2009	10	683,363	16.61%	2.44%
2010	10	648,391	\$ 10,539	2.44%
2011	9	618,088	\$ 12,432	4.94%
2012	6	394,205	\$ 13,283	4.94%
2013	6	414,844	\$ 15,302	4.94%
2014	3	201,718	\$ 15,088	4.94%

<sup>1</sup> For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

<sup>2</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

**Division 13 - Cler Tmst****Table 8-13: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 4,892,108	\$ 4,492,488	92%	\$ 399,620
2005	5,175,417	4,646,673	90%	528,744
2006	5,387,984	4,847,823	90%	540,161
2007	5,669,599	5,098,949	90%	570,650
2008	5,820,235	5,160,464	89%	659,771
2009	6,621,959	5,855,179	88%	766,780
2010	6,750,943	5,722,160	85%	1,028,783
2011	6,877,043	5,634,859	82%	1,242,184
2012	6,890,158	5,542,972	80%	1,347,186
2013	6,641,782	5,495,553	83%	1,146,229
2014	6,603,201	5,507,732	83%	1,095,469

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

**Table 9-13: Required Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Required Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2004	34	\$ 1,400,901	10.27%	0.00%
2005	29	1,187,967	11.32%	0.00%
2006	28	1,195,420	11.20%	0.00%
2007	30	1,318,856	11.06%	0.00%
2008	29	1,311,602	11.99%	0.00%
2009	29	1,330,765	12.64%	0.00%
2010	23	1,029,122	\$ 12,383	0.00%
2011	21	952,124	\$ 12,117	2.50%
2012	20	913,203	\$ 12,910	2.50%
2013	18	819,952	\$ 11,222	2.50%
2014	15	686,863	\$ 10,603	2.50%

<sup>1</sup> For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

<sup>2</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

## Division 14 - Disptchrs

**Table 8-14: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 358,288	\$ 387,366	108%	\$ (29,078)
2005	400,812	431,914	108%	(31,102)
2006	468,735	492,639	105%	(23,904)
2007	594,383	555,238	93%	39,145
2008	649,991	597,991	92%	52,000
2009	626,054	650,841	104%	(24,787)
2010	599,044	711,026	119%	(111,982)
2011	659,649	767,385	116%	(107,736)
2012	720,453	814,443	113%	(93,990)
2013	755,796	867,937	115%	(112,141)
2014	821,831	922,755	112%	(100,924)

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

**Table 9-14: Required Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Required Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2004	10	\$ 405,912	7.37%	0.00%
2005	9	387,594	6.85%	0.00%
2006	9	398,221	6.96%	0.00%
2007	9	421,851	7.71%	0.00%
2008	9	414,190	9.45%	0.00%
2009	8	382,404	8.10%	0.00%
2010	6	295,262	4.49%	0.00%
2011	6	294,722	\$ 644	2.50%
2012	6	296,804	\$ 978	2.50%
2013	6	275,605	\$ 642	2.50%
2014	5	245,316	\$ 597	2.50%

<sup>1</sup> For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

<sup>2</sup> For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

## GASB 68 Information

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The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. Statement 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at [www.mersofmich.com](http://www.mersofmich.com).

Actuarial Valuation Date: 12/31/2014

Measurement Date of Total Pension Liability (TPL): 12/31/2014

At 12/31/2014, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	123
Inactive employees entitled to but not yet receiving benefits:	25
Active employees:	56
	204

Covered employee payroll: (Needed for Required Supplementary Information) \$ 3,244,826

Total Pension Liability as of 12/31/2013 measurement date: \$ 36,658,063

Total Pension Liability as of 12/31/2014 measurement date: \$ 37,399,663

Service Cost for the year ending on the 12/31/2014 measurement date: \$ 365,655

Change in the Total Pension Liability due to:

- Benefit changes <sup>1</sup> :	\$ 0
- Differences between expected and actual experience <sup>2</sup> :	\$ 0
- Changes in assumptions <sup>2</sup> :	\$ 0

Average expected remaining service lives of all employees (active and inactive): 2

<sup>1</sup> A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

<sup>2</sup> Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease <u>(7.25%)</u>	Current Discount <u>Rate (8.25%)</u>	1% Increase <u>(9.25%)</u>
Change in Net Pension Liability as of 12/31/2014:	\$ 3,731,597	-	\$ (3,201,136)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

## Benefit Provision History

The following benefit provision history is provided by MERS. Any corrections to this history or discrepancies between this information and information displayed elsewhere in the valuation report should be reported to MERS. All provisions are listed by date of adoption.

### 01 - Non-Union and Department Heads

8/1/2011	Member Contribution Rate 2.50%
7/1/2010	DC Adoption Date 07-01-2010
7/1/1995	Benefit B-4 (80% max)
1/1/1987	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1987	2.25% Multiplier (no max)
1/1/1987	Benefit F55 (With 15 Years of Service)
1/1/1985	Benefit C-2/Base B-1
7/1/1984	Member Contribution Rate 0.00%
7/1/1975	Benefit C-1 (Old)
2/9/1970	Covered by Act 88
7/1/1956	Benefit C (Old)
7/1/1956	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
7/1/1956	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1956	10 Year Vesting
	Fiscal Month - July

### 10 - Gnrl Crth

8/1/2011	Member Contribution Rate 5.54%
10/1/2006	DC Adoption Date 10-01-2006
7/1/1998	Benefit B-2
7/1/1998	Benefit F50 (With 25 Years of Service)
7/1/1998	Member Contribution Rate 3.04%
7/1/1990	Benefit C-2/Base B-1
7/1/1990	Benefit F55 (With 15 Years of Service)
7/1/1984	Member Contribution Rate 0.00%
7/1/1975	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1975	10 Year Vesting
7/1/1975	Benefit C-1 (Old)
2/9/1970	Covered by Act 88
	Fiscal Month - July

### 11 - Dept of Public Svcs TPOAM

8/1/2011	Member Contribution Rate 4.84%
4/1/2010	Temporary 30 Years & Out (04/01/2010 - 06/30/2010)
8/1/2006	DC Adoption Date 08-01-2006
1/1/2005	Member Contribution Rate 2.34%
7/1/2004	Benefit B-3 (80% max)
7/1/2004	Member Contribution Rate 3.09%
1/1/1994	Benefit B-2
1/1/1994	Benefit F55 (With 15 Years of Service)

**11 - Dept of Public Svcs TPOAM**

1/1/1994	Member Contribution Rate 1.50%
1/1/1987	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1987	10 Year Vesting
1/1/1987	Benefit C-2/Base B-1
7/1/1984	Member Contribution Rate 0.00%
2/9/1970	Covered by Act 88
	Fiscal Month - July

**12 - AFSCME**

8/1/2011	Member Contribution Rate 4.94%
7/1/2010	DC Adoption Date 07-01-2010
7/1/2004	Member Contribution Rate 2.44%
8/1/2003	Benefit B-3 (80% max)
8/1/2003	Member Contribution Rate 3.26%
7/1/2003	Member Contribution Rate 0.82%
6/1/1998	Benefit B-2
6/1/1998	Member Contribution Rate 1.63%
7/1/1987	Benefit C-2/Base B-1
7/1/1987	Benefit F55 (With 15 Years of Service)
7/1/1984	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1984	10 Year Vesting
7/1/1984	Member Contribution Rate 0.00%
2/9/1970	Covered by Act 88
	Fiscal Month - July

**13 - Cler Tmst**

8/1/2011	Member Contribution Rate 2.50%
7/1/2010	DC Adoption Date 07-01-2010
7/1/2004	Member Contribution Rate 0.00%
7/1/2003	Member Contribution Rate 0.90%
1/1/1994	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1994	10 Year Vesting
1/1/1994	Benefit B-2
1/1/1994	Benefit F55 (With 15 Years of Service)
1/1/1994	Member Contribution Rate 1.80%
2/9/1970	Covered by Act 88
	Fiscal Month - July

**14 - Disptchrs**

12/1/2011	Member Contribution Rate 2.50%
9/1/2010	DC Adoption Date 09-01-2010
12/1/2003	Benefit B-2
7/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1990	10 Year Vesting
7/1/1990	Benefit C-2/Base B-1

**14 - Disptchrs**

7/1/1990      Benefit F55 (With 15 Years of Service)  
7/1/1990      Member Contribution Rate 0.00%  
2/9/1970      Covered by Act 88  
                  Fiscal Month - July

## Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

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Details on MERS plan provisions, actuarial assumptions, and actuarial methodology can be found in the [Appendix](#). Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

### Increase in Final Average Compensation

Division	FAC Increase Assumption
All Divisions	3.00%

### Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	80%

### Miscellaneous and Technical Assumptions

Loads – None.

### Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Option A