



**MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN**  
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2014  
MANISTEE CO (5101)



Spring, 2015

Manistee Co

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 Manistee Co (5101) 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. Manistee Co 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 October 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
<b>Funded Ratio</b>	75%	76%

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:	October 1, 2016	October 1, 2015	October 1, 2016	October 1, 2015
<b>Division</b>				
01 - General	-	-	\$ 0	\$ 0
02 - Sheriff/POAM	-	-	14,709	14,572
04 - MCF	10.88%	11.39%	43,179	42,960
10 - 911 Employees	6.72%	6.97%	2,416	2,676
11 - Exec Employees	-	-	13,349	12,095
12 - Elected Officials	-	-	5,480	5,186
13 - GEA & TPOAM	-	-	9,354	8,413
14 - Court Employees	-	-	18,142	18,681
20 - Sheriff/Adm	-	-	5,042	4,702
41 - Medical Facility Admin	-	40.53%	8,463	3,632
HA - AFSCME hired aft 10/01	8.79%	9.02%	591	523
HB - Sheriff POAM (POLC) af	6.61%	6.60%	1,390	986
HC - Executive after 10/1/2	8.25%	6.97%	978	450
HE - Court EEs hired af 11/	7.98%	7.34%	1,381	455
<b>Municipality Total</b>			<b>\$ 124,474</b>	<b>\$ 115,331</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 - General	0.00%	0.00%
02 - Sheriff/POAM	9.57%	7.84%
04 - MCF	3.24%	2.07%
10 - 911 Employees	2.52%	2.52%
11 - Exec Employees	2.44%	2.44%
12 - Elected Officials	4.53%	4.53%
13 - GEA & TPOAM	4.71%	4.71%
14 - Court Employees	3.28%	3.28%
20 - Sheriff/Adm	2.88%	2.88%
41 - Medical Facility Admin	0.00%	0.00%
HA - AFSCME hired aft 10/01	0.00%	0.00%
HB - Sheriff POAM (POLC) af	0.00%	0.00%
HC - Executive after 10/1/2	0.00%	0.00%

Valuation Date:	Employee Contribution Rate	
	12/31/2014	12/31/2013
Division HE - Court EEs hired af 11/	0.00%	0.00%

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

Note that employer contribution caps are in effect for Division(s): 02. For these divisions the employee contribution rate may be adjusted in order to implement the employer cap provision.

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 \$ 181,175, instead of \$ 124,474.
- To accelerate to a 100% funding ratio in 20 years, estimated monthly employer contributions for the entire employer would be \$ 127,820, instead of \$ 124,474.

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 71% (instead of 75%); and ii) your total employer contribution requirement for the fiscal year starting October 1, 2016 would be \$ 1,620,828 (instead of \$ 1,493,688).

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.

	Assumed Future Annual Smoothed Rate of Investment Return			
	Lower Future Annual Returns		Valuation Assumption	Higher Returns
	6%	7%	8%	9%
<b>12/31/2014 Valuation Results</b>				
Accrued Liability	\$ 57,745,123	\$ 51,451,239	\$ 46,145,483	\$ 41,651,105
Valuation Assets	\$ 34,481,684	\$ 34,481,684	\$ 34,481,684	\$ 34,481,684
Unfunded Accrued Liability	\$ 23,263,439	\$ 16,969,555	\$ 11,663,799	\$ 7,169,421
<b>Funded Ratio</b>	60%	67%	75%	83%
Monthly Normal Cost	\$ 98,742	\$ 73,351	\$ 53,937	\$ 39,087
Monthly Amortization Payment	\$ 104,242	\$ 82,683	\$ 59,975	\$ 35,345
<b>Total Employer Contribution<sup>1</sup></b>	\$ 211,454	\$ 165,545	\$ 124,474	\$ 86,529

<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 10/1	Actuarial Accrued Liability	Valuation Assets	Funded Percentage	Required Annual Employer Contribution <sup>1,2</sup>
<b>8% Assumed Interest Discount Rate and Future Annual Market Rate of Return</b>					
2014	2016	\$ 46,145,483	\$ 34,481,684	75%	\$ 1,628,676
2015	2017	48,242,650	35,705,500	74%	1,715,832
2016	2018	50,402,692	36,919,878	73%	1,835,852
2017	2019	52,440,524	37,958,197	72%	1,976,840
2018	2020	54,559,994	40,162,890	74%	2,035,692
<b>7% Assumed Interest Discount Rate and Future Annual Market Rate of Return</b>					
2014	2016	\$ 51,451,239	\$ 34,481,684	67%	\$ 2,166,468
2015	2017	53,730,233	35,703,500	66%	2,244,776
2016	2018	55,977,030	36,949,226	66%	2,360,708
2017	2019	58,311,312	38,645,231	66%	2,488,388
2018	2020	60,615,839	41,129,200	68%	2,563,792
<b>6% Assumed Interest Discount Rate and Future Annual Market Rate of Return</b>					
2014	2016	\$ 57,745,123	\$ 34,481,684	60%	\$ 2,769,612
2015	2017	60,248,389	35,662,600	59%	2,843,660
2016	2018	62,718,300	36,990,975	59%	2,961,340
2017	2019	65,245,856	39,321,454	60%	3,094,624
2018	2020	67,674,405	42,328,236	63%	3,182,168

<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.

<sup>2</sup> The above required annual employer contribution does not reflect future changes in the employee contribution rates due to the impact of a cap, if any, on employer contributions.

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 October 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 - General	21	-	-	-		0.00%	
02 - Sheriff/POAM	24	-	-	-	14.42%	9.57%	
04 - MCF	24	6.00%	4.88%	10.88%		3.24%	0.86%
10 - 911 Employees	24	7.54%	-0.82%	6.72%		2.52%	0.88%
11 - Exec Employees	24	-	-	-	18.59%	2.44%	
12 - Elected Officials	24	-	-	-		4.53%	
13 - GEA & TPOAM	24	-	-	-	15.11%	4.71%	
14 - Court Employees	24	-	-	-	17.48%	3.28%	
20 - Sheriff/Adm	24	-	-	-		2.88%	
41 - Medical Facility A	22	-	-	-		0.00%	
HA - AFSCME hired aft 1	24	8.07%	0.72%	8.79%	15.11%	0.00%	0.80%
HB - Sheriff POAM (POLC	24	6.50%	0.11%	6.61%	14.42%	0.00%	0.86%
HC - Executive after 10	24	7.59%	0.66%	8.25%	18.59%	0.00%	0.94%
HE - Court EEs hired af	24	7.61%	0.37%	7.98%	17.48%	0.00%	0.94%
<b>Estimated Monthly Contribution<sup>3</sup></b>							
01 - General	21	\$ 0	\$ (10,562)	\$ 0			
02 - Sheriff/POAM	24	4,727	9,982	14,709			
04 - MCF	24	23,812	19,367	43,179			
10 - 911 Employees	24	2,711	(295)	2,416			
11 - Exec Employees	24	5,072	8,277	13,349			
12 - Elected Officials	24	1,149	4,331	5,480			
13 - GEA & TPOAM	24	3,636	5,718	9,354			
14 - Court Employees	24	7,677	10,465	18,142			
20 - Sheriff/Adm	24	1,026	4,016	5,042			
41 - Medical Facility A	22	0	8,463	8,463			
HA - AFSCME hired aft 1	24	543	48	591			
HB - Sheriff POAM (POLC	24	1,367	23	1,390			
HC - Executive after 10	24	900	78	978			
HE - Court EEs hired af	24	1,317	64	1,381			
<b>Total Municipality</b>		<b>\$ 53,937</b>	<b>\$ 59,975</b>	<b>\$ 124,474</b>			
<b>Estimated Annual Contribution<sup>3</sup></b>		<b>\$ 647,244</b>	<b>\$ 719,700</b>	<b>\$ 1,493,688</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 October 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

<b>01 - General: Closed to new hires</b>		
	<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>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	-	-
<b>Early Retirement (Reduced):</b>	50/25 55/15	50/25 55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)
<b>02 - Sheriff/POAM: Closed to new hires, linked to Division HB</b>		
	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	50/25	50/25
<b>Early Retirement (Reduced):</b>	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	9.57%	7.84%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)
<b>04 - MCF: Open Division</b>		
	<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>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	30 and Out	30 and Out
<b>Early Retirement (Reduced):</b>	50/25 55/15	50/25 55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	3.24%	2.07%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

Table 2 (continued)

<b>10 - 911 Employees: Open Division</b>		
	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	-	-
<b>Early Retirement (Reduced):</b>	50/25 55/15	50/25 55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	2.52%	2.52%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)
<b>11 - Exec Employees: Closed to new hires, linked to Division HC</b>		
	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/20	55/20
<b>Early Retirement (Reduced):</b>	50/25 55/15	50/25 55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	2.44%	2.44%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)
<b>12 - Elected Officials: Closed to new hires, linked to Division HD</b>		
	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/20	55/20
<b>Early Retirement (Reduced):</b>	50/25 55/15	50/25 55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	4.53%	4.53%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)
<b>13 - GEA &amp; TPOAM: Closed to new hires, linked to Division HA</b>		
	<b>2014 Valuation</b>	<b>2013 Valuation</b>
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/20	55/20
<b>Early Retirement (Reduced):</b>	50/25 55/15	50/25 55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	4.71%	4.71%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

Table 2 (continued)

**14 - Court Employees: Closed to new hires, linked to Division HE**

	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>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/20	55/20
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	3.28%	3.28%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

**20 - Sheriff/Adm: Closed to new hires, linked to Division HF**

	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>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	50/25	50/25
<b>Early Retirement (Reduced):</b>	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	2.88%	2.88%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

**41 - Medical Facility Administrator: 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>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	50/30	50/30
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>Employee Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

**HA - AFSCME hired aft 10/01/2011: Open Division, linked to Division 13**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	Hybrid Plan - 1.50% Multiplier	Hybrid Plan - 1.50% Multiplier
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	-	-
<b>Early Retirement (Reduced):</b>	-	-
<b>Final Average Compensation:</b>	3 years	3 years
<b>Employee Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)



Table 2 (continued)

**HB - Sheriff POAM (POLC) af 10/1/12: Open Division, linked to Division 02**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	Hybrid Plan - 1.50% Multiplier	Hybrid Plan - 1.50% Multiplier
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	-	-
<b>Final Average Compensation:</b>	3 years	3 years
<b>Employee Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

**HC - Executive after 10/1/2012: Open Division, linked to Division 11**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	Hybrid Plan - 1.50% Multiplier	Hybrid Plan - 1.50% Multiplier
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	-	-
<b>Early Retirement (Reduced):</b>	-	-
<b>Final Average Compensation:</b>	3 years	3 years
<b>Employee Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

**HE - Court EEs hired af 11/1/2012: Open Division, linked to Division 14**

	2014 Valuation	2013 Valuation
<b>Benefit Multiplier:</b>	Hybrid Plan - 1.50% Multiplier	Hybrid Plan - 1.50% Multiplier
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	-	-
<b>Early Retirement (Reduced):</b>	-	-
<b>Final Average Compensation:</b>	3 years	3 years
<b>Employee Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 12/8/1970)	Yes (Adopted 12/8/1970)

## 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 - General							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	2	6,209	4	26,335	57.6	5.7	10.2
Retirees and Beneficiaries	17	58,617	18	50,494	78.3		
02 - Sheriff/POAM							
Active Employees	20	\$ 1,026,719	22	\$ 1,093,007	41.4	12.4	12.4
Vested Former Employees	6	33,124	5	32,364	46.5	6.6	15.6
Retirees and Beneficiaries	18	266,862	17	232,812	68.4		
04 - MCF							
Active Employees	128	\$ 4,762,440	132	\$ 4,526,071	46.7	10.8	11.2
Vested Former Employees	37	167,785	36	173,045	48.6	8.6	10.6
Retirees and Beneficiaries	93	910,701	89	833,956	70.1		
10 - 911 Employees							
Active Employees	10	\$ 431,427	11	\$ 460,819	46.7	13.9	15.3
Vested Former Employees	5	56,597	4	31,308	53.6	11.9	16.4
Retirees and Beneficiaries	0	0	0	0	0.0		
11 - Exec Employees							
Active Employees	17	\$ 778,071	17	\$ 755,305	45.1	10.4	11.7
Vested Former Employees	4	49,452	3	44,414	48.4	10.2	12.4
Retirees and Beneficiaries	9	219,015	9	219,015	65.4		
12 - Elected Officials							
Active Employees	3	\$ 224,009	3	\$ 220,124	57.0	18.0	22.4
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	3	98,722	3	97,845	65.2		
13 - GEA & TPOAM							
Active Employees	25	\$ 756,257	26	\$ 767,554	54.0	14.7	14.7
Vested Former Employees	2	1,475	2	1,475	55.8	1.8	13.0
Retirees and Beneficiaries	12	167,501	12	148,893	67.8		
14 - Court Employees							
Active Employees	25	\$ 1,160,842	32	\$ 1,423,975	52.7	13.0	17.3
Vested Former Employees	8	83,976	6	92,196	53.5	10.5	12.8
Retirees and Beneficiaries	21	376,180	17	281,079	64.3		
20 - Sheriff/Adm							
Active Employees	3	\$ 187,431	4	\$ 235,773	50.2	28.6	28.6
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	4	127,712	3	94,302	58.9		

**Table 3 (continued)**

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>
41 - Medical Facility Adm							
Active Employees	0	\$ 0	1	\$ 107,541	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	2	109,685	1	88,963	68.3		
HA - AFSCME hired aft 10/							
Active Employees	5	\$ 80,788	4	\$ 69,578	54.7	1.5	1.5
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
HB - Sheriff POAM (POLC)							
Active Employees	8	\$ 252,324	6	\$ 179,423	40.3	1.2	1.2
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
HC - Executive after 10/1							
Active Employees	4	\$ 142,298	3	\$ 77,372	38.8	1.5	6.2
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
HE - Court EEs hired af 1							
Active Employees	6	\$ 207,654	2	\$ 74,441	39.1	1.1	5.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
<b>Total Municipality</b>							
<b>Active Employees</b>	<b>254</b>	<b>\$ 10,010,260</b>	<b>263</b>	<b>\$ 9,990,983</b>	<b>47.3</b>	<b>11.1</b>	<b>12.0</b>
<b>Vested Former Employees</b>	<b>64</b>	<b>398,618</b>	<b>60</b>	<b>401,137</b>	<b>49.9</b>	<b>8.7</b>	<b>12.0</b>
<b>Retirees and Beneficiaries</b>	<b>179</b>	<b>2,334,995</b>	<b>169</b>	<b>2,047,359</b>	<b>69.3</b>		
<b>Total Participants</b>	<b>497</b>		<b>492</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 - General	\$ 1,349,160	\$ 0	\$ 1,250,158	\$ 30,175
02 - Sheriff/POAM	3,152,565	665,249	3,006,470	604,501
04 - MCF	12,201,116	629,315	11,830,703	510,531
10 - 911 Employees	1,172,542	179,508	1,065,413	167,230
11 - Exec Employees	2,270,298	211,575	2,197,346	192,211
12 - Elected Officials	896,533	97,429	899,543	87,089
13 - GEA & TPOAM	2,340,215	323,293	2,195,960	316,854
14 - Court Employees	4,583,732	465,738	4,322,324	496,143
20 - Sheriff/Adm	1,557,007	88,360	1,493,661	102,902
41 - Medical Facility Administrator	292,697	0	327,405	0
HA - AFSCME hired aft 10/01/2011	8,131	0	4,247	0
HB - Sheriff POAM (POLC) af 10/1/12	22,524	0	8,495	0
HC - Executive after 10/1/2012	11,846	0	4,337	0
HE - Court EEs hired af 11/1/2012	12,991	0	3,472	0
<b>Municipality Total</b>	<b>\$ 29,871,357</b>	<b>\$ 2,660,467</b>	<b>\$ 28,609,534</b>	<b>\$ 2,507,636</b>
<b>Combined Reserves</b>	<b>\$ 32,531,824</b>		<b>\$ 31,117,170</b>	

<sup>1</sup> Reserve for Employer Contributions and Benefit Payments

<sup>2</sup> 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	\$ 873,549		\$ 115,684	\$ 1,172,511	\$ (600,645)	\$ (4,504)	\$ 0	\$ 18,266,909
2005	929,721		124,285	1,209,641	(678,110)	(342)	0	19,852,104
2006	1,068,561		189,730	1,620,885	(851,189)	(7,341)	0	21,872,750
2007	1,123,584		224,450	1,771,002	(1,045,981)	(19,857)	9,097	23,935,045
2008	1,178,188		230,119	1,182,754	(1,182,275)	(6,298)	23,222	25,360,755
2009	1,256,070		247,418	1,402,588	(1,339,391)	(9,407)	52,425	26,970,458
2010	1,536,237		276,547	1,639,656	(1,561,388)	(25,378)	0	28,836,132
2011	1,329,259	\$ 0	298,496	1,572,288	(1,763,005)	(16,612)	0	30,256,558
2012	1,253,282	0	339,894	1,458,482	(1,835,042)	(23,342)	56,346	31,506,178
2013	1,277,307	0	309,257	1,925,047	(1,979,373)	(33,091)	36,130	33,041,455
2014	1,304,362	0	407,374	1,915,524	(2,197,586)	(37,483)	48,038	34,481,684

**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 - General				
Active Employees	\$ 0	\$ 922,937	0.0%	\$ (922,937)
Vested Former Employees	51,086	51,086	100.0%	0
Retirees And Beneficiaries	456,002	456,002	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	<b>\$ 507,088</b>	<b>\$ 1,430,025</b>	<b>282.0%</b>	<b>\$ (922,937)</b>
02 - Sheriff/POAM				
Active Employees	\$ 2,778,965	\$ 894,537	32.2%	\$ 1,884,428
Vested Former Employees	253,913	253,913	100.0%	0
Retirees And Beneficiaries	2,886,843	2,886,843	100.0%	0
Pending Refunds	<u>11,349</u>	<u>11,349</u>	100.0%	<u>0</u>
Total	<b>\$ 5,931,070</b>	<b>\$ 4,046,642</b>	<b>68.2%</b>	<b>\$ 1,884,428</b>
04 - MCF				
Active Employees	\$ 8,654,613	\$ 4,675,778	54.0%	\$ 3,978,835
Vested Former Employees	801,513	801,513	100.0%	0
Retirees And Beneficiaries	8,077,429	8,077,429	100.0%	0
Pending Refunds	<u>44,729</u>	<u>44,729</u>	100.0%	<u>0</u>
Total	<b>\$ 17,578,284</b>	<b>\$ 13,599,449</b>	<b>77.4%</b>	<b>\$ 3,978,835</b>
10 - 911 Employees				
Active Employees	\$ 1,075,426	\$ 1,108,489	103.1%	\$ (33,063)
Vested Former Employees	324,315	324,315	100.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	<u>284</u>	<u>284</u>	100.0%	<u>0</u>
Total	<b>\$ 1,400,025</b>	<b>\$ 1,433,088</b>	<b>102.4%</b>	<b>\$ (33,063)</b>
11 - Exec Employees				
Active Employees	\$ 1,724,871	\$ 187,041	10.8%	\$ 1,537,830
Vested Former Employees	323,674	323,674	100.0%	0
Retirees And Beneficiaries	2,109,602	2,109,602	100.0%	0
Pending Refunds	<u>10,312</u>	<u>10,312</u>	100.0%	<u>0</u>
Total	<b>\$ 4,168,459</b>	<b>\$ 2,630,629</b>	<b>63.1%</b>	<b>\$ 1,537,830</b>
12 - Elected Officials				
Active Employees	\$ 923,491	\$ 132,490	14.3%	\$ 791,001
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	921,047	921,047	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	<b>\$ 1,844,538</b>	<b>\$ 1,053,537</b>	<b>57.1%</b>	<b>\$ 791,001</b>

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
<b>13 - GEA &amp; TPOAM</b>				
Active Employees	\$ 2,339,056	\$ 1,277,368	54.6%	\$ 1,061,688
Vested Former Employees	10,376	10,376	100.0%	0
Retirees And Beneficiaries	1,521,833	1,521,833	100.0%	0
Pending Refunds	<u>13,574</u>	<u>13,574</u>	100.0%	<u>0</u>
<b>Total</b>	<b>\$ 3,884,839</b>	<b>\$ 2,823,151</b>	<b>72.7%</b>	<b>\$ 1,061,688</b>
<b>14 - Court Employees</b>				
Active Employees	\$ 3,168,327	\$ 1,177,484	37.2%	\$ 1,990,843
Vested Former Employees	538,099	538,099	100.0%	0
Retirees And Beneficiaries	3,630,607	3,630,607	100.0%	0
Pending Refunds	<u>5,930</u>	<u>5,930</u>	100.0%	<u>0</u>
<b>Total</b>	<b>\$ 7,342,963</b>	<b>\$ 5,352,120</b>	<b>72.9%</b>	<b>\$ 1,990,843</b>
<b>20 - Sheriff/Adm</b>				
Active Employees	\$ 1,118,533	\$ 364,290	32.6%	\$ 754,243
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,379,695	1,379,695	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
<b>Total</b>	<b>\$ 2,498,228</b>	<b>\$ 1,743,985</b>	<b>69.8%</b>	<b>\$ 754,243</b>
<b>41 - Medical Facility Administrator</b>				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	917,999	310,240	33.8%	607,759
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
<b>Total</b>	<b>\$ 917,999</b>	<b>\$ 310,240</b>	<b>33.8%</b>	<b>\$ 607,759</b>
<b>HA - AFSCME hired aft 10/01/2011</b>				
Active Employees	\$ 13,473	\$ 8,618	64.0%	\$ 4,855
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
<b>Total</b>	<b>\$ 13,473</b>	<b>\$ 8,618</b>	<b>64.0%</b>	<b>\$ 4,855</b>
<b>HB - Sheriff POAM (POLC) af 10/1/12</b>				
Active Employees	\$ 27,066	\$ 23,874	88.2%	\$ 3,192
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
<b>Total</b>	<b>\$ 27,066</b>	<b>\$ 23,874</b>	<b>88.2%</b>	<b>\$ 3,192</b>
<b>HC - Executive after 10/1/2012</b>				
Active Employees	\$ 18,074	\$ 12,556	69.5%	\$ 5,518
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
<b>Total</b>	<b>\$ 18,074</b>	<b>\$ 12,556</b>	<b>69.5%</b>	<b>\$ 5,518</b>

**Table 6 (continued)**

<b>Division</b>	<b>Actuarial Accrued Liability</b>	<b>Valuation Assets<sup>1</sup></b>	<b>Percent Funded</b>	<b>Unfunded (Overfunded) Accrued Liabilities</b>
HE - Court EEs hired af 11/1/2012				
Active Employees	\$ 13,377	\$ 13,770	102.9%	\$ (393)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	<b>\$ 13,377</b>	<b>\$ 13,770</b>	<b>102.9%</b>	<b>\$ (393)</b>
<b>Total Municipality</b>				
<b>Active Employees</b>	<b>\$ 21,855,272</b>	<b>\$ 10,799,232</b>	<b>49.4%</b>	<b>\$ 11,056,040</b>
<b>Vested Former Employees</b>	<b>2,302,976</b>	<b>2,302,976</b>	<b>100.0%</b>	<b>0</b>
<b>Retirees and Beneficiaries</b>	<b>21,901,057</b>	<b>21,293,298</b>	<b>97.2%</b>	<b>607,759</b>
<b>Pending Refunds</b>	<b><u>86,178</u></b>	<b><u>86,178</u></b>	<b>100.0%</b>	<b><u>0</u></b>
<b>Total Participants</b>	<b>\$ 46,145,483</b>	<b>\$ 34,481,684</b>	<b>74.7%</b>	<b>\$ 11,663,799</b>
The following results show the combined accrued liabilities and assets for each set of linked divisions. These results are already included in the table above.				
Linked Divisions HB, 02				
Active Employees	\$ 2,806,031	\$ 918,411	32.7%	\$ 1,887,620
Vested Former Employees	253,913	253,913	100.0%	0
Retirees and Beneficiaries	2,886,843	2,886,843	100.0%	0
Pending Refunds	<u>11,349</u>	<u>11,349</u>	100.0%	<u>0</u>
Total	<b>\$ 5,958,136</b>	<b>\$ 4,070,516</b>	<b>68.3%</b>	<b>\$ 1,887,620</b>
Linked Divisions HC, 11				
Active Employees	\$ 1,742,945	\$ 199,597	11.5%	\$ 1,543,348
Vested Former Employees	323,674	323,674	100.0%	0
Retirees and Beneficiaries	2,109,602	2,109,602	100.0%	0
Pending Refunds	<u>10,312</u>	<u>10,312</u>	100.0%	<u>0</u>
Total	<b>\$ 4,186,533</b>	<b>\$ 2,643,185</b>	<b>63.1%</b>	<b>\$ 1,543,348</b>
Linked Divisions HA, 13				
Active Employees	\$ 2,352,529	\$ 1,285,986	54.7%	\$ 1,066,543
Vested Former Employees	10,376	10,376	100.0%	0
Retirees and Beneficiaries	1,521,833	1,521,833	100.0%	0
Pending Refunds	<u>13,574</u>	<u>13,574</u>	100.0%	<u>0</u>
Total	<b>\$ 3,898,312</b>	<b>\$ 2,831,769</b>	<b>72.6%</b>	<b>\$ 1,066,543</b>
Linked Divisions HE, 14				
Active Employees	\$ 3,181,704	\$ 1,191,254	37.4%	\$ 1,990,450
Vested Former Employees	538,099	538,099	100.0%	0
Retirees and Beneficiaries	3,630,607	3,630,607	100.0%	0
Pending Refunds	<u>5,930</u>	<u>5,930</u>	100.0%	<u>0</u>
Total	<b>\$ 7,356,340</b>	<b>\$ 5,365,890</b>	<b>72.9%</b>	<b>\$ 1,990,450</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	\$ 15,322,368	\$ 12,861,632	84%	\$ 2,460,736
2001	17,304,572	14,180,756	82%	3,123,816
2002	18,936,031	15,068,096	80%	3,867,935
2003	20,679,808	16,710,314	81%	3,969,494
2004	22,701,054	18,266,909	80%	4,434,145
2005	24,390,467	19,852,104	81%	4,538,363
2006	27,629,462	21,872,750	79%	5,756,712
2007	31,065,279	23,935,045	77%	7,130,234
2008	33,375,896	25,360,755	76%	8,015,141
2009	34,479,961	26,970,458	78%	7,509,503
2010	36,592,533	28,836,132	79%	7,756,401
2011	39,228,060	30,256,558	77%	8,971,502
2012	41,258,320	31,506,178	76%	9,752,142
2013	43,329,826	33,041,455	76%	10,288,371
2014	46,145,483	34,481,684	75%	11,663,799

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

## Division 01 - General

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 866,209	\$ 1,396,515	161%	\$ (530,306)
2005	861,372	1,391,511	162%	(530,139)
2006	739,318	1,435,762	194%	(696,444)
2007	762,484	1,476,381	194%	(713,897)
2008	724,670	1,474,886	204%	(750,216)
2009	691,759	1,472,592	213%	(780,833)
2010	623,477	1,327,578	213%	(704,101)
2011	609,042	1,332,163	219%	(723,121)
2012	609,550	1,335,265	219%	(725,715)
2013	564,145	1,359,509	241%	(795,364)
2014	507,088	1,430,025	282%	(922,937)

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	1	\$ 7,560	0.00%	0.00%
2005	1	8,318	0.00%	0.00%
2006	1	8,121	0.00%	0.00%
2007	1	9,656	0.00%	0.00%
2008	1	9,040	0.00%	0.00%
2009	1	8,640	0.00%	0.00%
2010	1	8,640	0.00%	0.00%
2011	1	8,520	0.00%	0.00%
2012	1	11,187	0.00%	0.00%
2013	0	0	\$ 0	0.00%
2014	0	0	\$ 0	0.00%

<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 02 - Sheriff/POAM

### Table 8-02: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 2,850,500	\$ 2,365,399	83%	\$ 485,101
2005	2,965,186	2,474,431	83%	490,755
2006	3,268,713	2,664,131	82%	604,582
2007	3,805,191	2,739,311	72%	1,065,880
2008	3,894,810	2,745,255	70%	1,149,555
2009	4,016,871	2,889,651	72%	1,127,220
2010	4,209,382	3,096,990	74%	1,112,392
2011	4,552,496	3,309,956	73%	1,242,540
2012	5,087,061	3,596,243	71%	1,490,818
2013	5,468,332	3,834,273	70%	1,634,059
2014	5,931,070	4,046,642	68%	1,884,428

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

### Table 9-02: 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	23	\$ 889,610	11.25%	1.33%
2005	22	855,823	11.24%	1.33%
2006	24	976,582	11.80%	1.33%
2007	24	1,070,070	12.00%	5.91%
2008	24	1,045,353	12.00%	7.91%
2009	25	1,121,135	12.00%	7.72%
2010	25	1,145,538	12.00%	7.54%
2011	25	1,173,102	12.00%	7.84%
2012	24	1,195,594	\$ 13,782	7.54%
2013	22	1,093,007	\$ 14,572	7.84%
2014	20	1,026,719	\$ 14,709	9.57%

<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 04 - MCF

**Table 8-04: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 7,869,705	\$ 7,226,089	92%	\$ 643,616
2005	8,494,618	7,803,105	92%	691,513
2006	10,249,703	8,597,858	84%	1,651,845
2007	12,025,114	9,693,514	81%	2,331,600
2008	12,956,859	10,284,029	79%	2,672,830
2009	13,070,921	10,968,020	84%	2,102,901
2010	14,101,940	11,647,589	83%	2,454,351
2011	15,101,655	12,165,558	81%	2,936,097
2012	15,684,070	12,579,145	80%	3,104,925
2013	16,420,741	13,104,416	80%	3,316,325
2014	17,578,284	13,599,449	77%	3,978,835

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

**Table 9-04: 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	160	\$ 3,957,423	7.91%	0.00%
2005	162	4,246,291	7.98%	0.00%
2006	147	4,521,201	9.48%	1.09%
2007	140	4,698,734	10.16%	1.09%
2008	150	4,948,211	10.84%	1.09%
2009	155	4,988,760	10.12%	1.09%
2010	166	5,446,601	10.37%	1.09%
2011	164	5,512,443	9.95%	1.79%
2012	150	5,046,655	10.54%	2.07%
2013	132	4,526,071	11.39%	2.07%
2014	128	4,762,440	10.88%	3.24%

<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 - 911 Employees

**Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 472,560	\$ 362,417	77%	\$ 110,143
2005	525,814	425,553	81%	100,261
2006	615,270	502,473	82%	112,797
2007	720,834	585,087	81%	135,747
2008	817,655	664,918	81%	152,737
2009	854,423	812,535	95%	41,888
2010	938,807	975,230	104%	(36,423)
2011	1,086,257	1,084,705	100%	1,552
2012	1,174,771	1,184,073	101%	(9,302)
2013	1,294,055	1,308,870	101%	(14,815)
2014	1,400,025	1,433,088	102%	(33,063)

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	10	\$ 358,901	8.49%	2.52%
2005	10	352,135	8.35%	2.52%
2006	11	387,106	8.43%	2.52%
2007	11	410,300	8.82%	2.52%
2008	11	425,346	9.16%	2.52%
2009	11	437,482	7.61%	2.52%
2010	11	448,872	6.19%	2.52%
2011	11	463,095	7.05%	2.52%
2012	11	464,434	6.73%	2.52%
2013	11	460,819	6.97%	2.52%
2014	10	431,427	6.72%	2.52%

<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 - Exec Employees

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 1,693,650	\$ 1,140,847	67%	\$ 552,803
2005	1,858,680	1,291,514	69%	567,166
2006	2,104,166	1,444,167	69%	659,999
2007	2,500,478	1,720,662	69%	779,816
2008	2,788,124	1,936,487	69%	851,637
2009	3,211,291	2,157,213	67%	1,054,078
2010	3,278,546	2,275,482	69%	1,003,064
2011	3,529,663	2,364,102	67%	1,165,561
2012	3,769,364	2,446,624	65%	1,322,740
2013	3,914,884	2,537,327	65%	1,377,557
2014	4,168,459	2,630,629	63%	1,537,830

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	14	\$ 590,281	12.68%	2.44%
2005	15	649,310	12.35%	2.44%
2006	10	458,324	15.57%	2.44%
2007	12	556,571	15.37%	2.44%
2008	17	742,830	14.58%	2.44%
2009	19	794,052	15.98%	2.44%
2010	18	807,660	15.99%	2.44%
2011	18	806,819	17.03%	2.44%
2012	17	795,876	\$ 12,324	2.44%
2013	17	755,305	\$ 12,095	2.44%
2014	17	778,071	\$ 13,349	2.44%

<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 - Elected Officials

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 783,789	\$ 484,360	62%	\$ 299,429
2005	855,121	560,973	66%	294,148
2006	922,024	651,056	71%	270,968
2007	1,059,238	718,005	68%	341,233
2008	1,126,015	756,764	67%	369,251
2009	1,155,370	812,393	70%	342,977
2010	1,215,266	877,694	72%	337,572
2011	1,341,349	941,492	70%	399,857
2012	1,423,344	924,598	65%	498,746
2013	1,757,853	1,047,645	60%	710,208
2014	1,844,538	1,053,537	57%	791,001

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	4	\$ 227,001	13.23%	4.53%
2005	4	235,763	12.86%	4.53%
2006	4	242,835	12.30%	4.53%
2007	3	202,975	15.51%	4.53%
2008	3	210,143	16.02%	4.53%
2009	3	215,059	15.48%	4.53%
2010	3	219,128	15.21%	4.53%
2011	2	158,524	20.20%	4.53%
2012	1	101,700	\$ 3,038	4.53%
2013	3	220,124	\$ 5,186	4.53%
2014	3	224,009	\$ 5,480	4.53%

<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 - GEA & TPOAM

### Table 8-13: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 2,447,502	\$ 1,656,186	68%	\$ 791,316
2005	2,693,735	1,861,029	69%	832,706
2006	2,954,578	2,083,855	71%	870,723
2007	2,876,309	2,097,872	73%	778,437
2008	3,101,910	2,175,229	70%	926,681
2009	3,140,019	2,230,121	71%	909,898
2010	3,264,650	2,360,063	72%	904,587
2011	3,436,020	2,500,608	73%	935,412
2012	3,571,455	2,628,676	74%	942,779
2013	3,602,669	2,668,206	74%	934,463
2014	3,884,839	2,823,151	73%	1,061,688

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	39	\$ 944,687	12.17%	3.56%
2005	37	914,912	12.44%	3.56%
2006	35	944,223	12.58%	3.56%
2007	36	977,433	11.96%	3.56%
2008	32	890,442	13.58%	3.56%
2009	32	857,407	14.09%	3.56%
2010	31	870,042	13.98%	3.56%
2011	29	822,796	\$ 9,516	3.56%
2012	28	828,770	\$ 9,031	4.71%
2013	26	767,554	\$ 8,413	4.71%
2014	25	756,257	\$ 9,354	4.71%

<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 - Court Employees

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 3,398,022	\$ 2,073,043	61%	\$ 1,324,979
2005	3,598,963	2,354,082	65%	1,244,881
2006	4,135,910	2,717,068	66%	1,418,842
2007	4,538,473	3,049,991	67%	1,488,482
2008	4,887,832	3,364,001	69%	1,523,831
2009	5,331,403	3,793,544	71%	1,537,859
2010	5,915,663	4,267,875	72%	1,647,788
2011	6,422,241	4,538,489	71%	1,883,752
2012	6,724,479	4,794,736	71%	1,929,743
2013	7,009,083	5,116,441	73%	1,892,642
2014	7,342,963	5,352,120	73%	1,990,843

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	30	\$ 1,066,478	14.93%	3.28%
2005	35	1,257,413	14.01%	3.28%
2006	34	1,253,205	15.15%	3.28%
2007	34	1,378,853	14.93%	3.28%
2008	35	1,468,586	14.88%	3.28%
2009	36	1,515,890	14.66%	3.28%
2010	36	1,543,725	15.29%	3.28%
2011	36	1,524,043	16.34%	3.28%
2012	36	1,526,060	\$ 19,955	3.28%
2013	32	1,423,975	\$ 18,681	3.28%
2014	25	1,160,842	\$ 18,142	3.28%

<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 20 - Sheriff/Adm

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 1,347,162	\$ 993,234	74%	\$ 353,928
2005	1,394,032	1,060,087	76%	333,945
2006	1,460,355	1,153,422	79%	306,933
2007	1,884,275	1,440,780	76%	443,495
2008	2,187,117	1,588,242	73%	598,875
2009	2,115,719	1,518,250	72%	597,469
2010	2,146,704	1,548,938	72%	597,766
2011	2,253,644	1,592,306	71%	661,338
2012	2,308,192	1,629,893	71%	678,299
2013	2,375,062	1,695,294	71%	679,768
2014	2,498,228	1,743,985	70%	754,243

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

Table 9-20: 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	4	\$ 191,987	15.86%	2.88%
2005	4	191,599	15.10%	2.88%
2006	4	200,457	14.17%	2.88%
2007	5	243,343	16.10%	2.88%
2008	6	286,767	19.27%	2.88%
2009	4	229,462	22.36%	2.88%
2010	4	230,387	22.12%	2.88%
2011	4	235,776	23.32%	2.88%
2012	4	237,370	25.05%	2.88%
2013	4	235,773	\$ 4,702	2.88%
2014	3	187,431	\$ 5,042	2.88%

<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 41 - Medical Facility Administrator

**Table 8-41: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	\$ 733,857	\$ 415,303	57%	\$ 318,554
2005	886,758	455,348	51%	431,410
2006	888,604	423,986	48%	464,618
2007	892,883	413,442	46%	479,441
2008	890,904	370,944	42%	519,960
2009	892,185	316,139	35%	576,046
2010	898,098	458,693	51%	439,405
2011	895,693	427,179	48%	468,514
2012	904,083	385,792	43%	518,291
2013	899,992	347,652	39%	552,340
2014	917,999	310,240	34%	607,759

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

**Table 9-41: 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	1	\$ 106,540	21.00%	0.00%
2005	1	63,466	45.82%	0.00%
2006	1	91,308	35.93%	0.00%
2007	1	99,058	35.66%	0.00%
2008	1	94,500	39.23%	0.00%
2009	1	104,165	38.93%	0.00%
2010	1	107,776	30.92%	0.00%
2011	1	108,352	33.02%	0.00%
2012	1	119,622	35.22%	0.00%
2013	1	107,541	40.53%	0.00%
2014	0	0	\$ 8,463	0.00%

<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 HA - AFSCME hired aft 10/01/2011

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2013	4,466	4,510	101%	(44)
2014	13,473	8,618	64%	4,855

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

**Table 9-HA: 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		
2011	0	\$ 0	0.00%	0.00%
2013	4	69,578	9.02%	0.00%
2014	5	80,788	8.79%	0.00%

<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 HB - Sheriff POAM (POLC) af 10/1/12

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2012	\$ 1,951	\$ 1,133	58%	\$ 818
2013	8,802	9,020	103%	(218)
2014	27,066	23,874	88%	3,192

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

**Table 9-HB: 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		
2012	1	\$ 31,595	5.80%	0.00%
2013	6	179,423	6.60%	0.00%
2014	8	252,324	6.61%	0.00%

<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 HC - Executive after 10/1/2012

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2013	4,925	4,605	94%	320
2014	18,074	12,556	70%	5,518

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

**Table 9-HC: 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		
2013	3	77,372	6.97%	0.00%
2014	4	142,298	8.25%	0.00%

<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 HE - Court EEs hired af 11/1/2012

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

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2013	4,817	3,687	77%	1,130
2014	13,377	13,770	103%	(393)

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

**Table 9-HE: 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		
2013	2	74,441	7.34%	0.00%
2014	6	207,654	7.98%	0.00%

<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:	179
Inactive employees entitled to but not yet receiving benefits:	64
Active employees:	<u>254</u>
	497

Covered employee payroll: (Needed for Required Supplementary Information)	\$	10,010,260
Total Pension Liability as of 12/31/2013 measurement date:	\$	42,697,303
Total Pension Liability as of 12/31/2014 measurement date:	\$	44,951,712
Service Cost for the year ending on the 12/31/2014 measurement date:	\$	1,017,187

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): 4

<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 (7.25%)	Current Discount Rate (8.25%)	1% Increase (9.25%)
Change in Net Pension Liability as of 12/31/2014:	\$ 5,088,039	-	\$ (4,315,185)

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 - General

7/1/1996	Benefit B-2
9/1/1992	Temporary 6 Year Vesting (09/01/1992 - 11/03/1992)
1/1/1992	8 Year Vesting
4/15/1986	Day of work defined as 4 Hours a Day for All employees.
1/1/1984	Member Contribution Rate 0.00%
12/8/1970	Covered by Act 88
12/1/1970	Benefit C-1 (Old)
12/1/1964	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/1964	10 Year Vesting
12/1/1964	Benefit C (Old)
12/1/1964	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
12/1/1964	Fiscal Month - January

### 02 - Sheriff/POAM

1/1/2014	Member Contribution Rate 9.57%
1/1/2013	Member Contribution Rate 7.84%
1/1/2012	Member Contribution Rate 7.54%
1/1/2011	Member Contribution Rate 7.72%
1/1/2010	Member Contribution Rate 7.91%
1/1/2009	Member Contribution Rate 5.91%
1/1/2008	Member Contribution Rate 4.77%
1/1/2007	E2 2.5% COLA for future retirees (07/01/2006)
7/1/2006	Member Contribution Rate 4.82%
7/1/2001	Member Contribution Rate 1.33%
10/1/1999	Member Contribution Rate 1.24%
7/1/1999	Member Contribution Rate 0.00%
10/1/1998	Benefit B-4 (80% max)
10/1/1998	Member Contribution Rate 2.88%
1/1/1997	Temporary Benefit B-4 (80% max) (01/01/1997 - 04/03/1997)
1/1/1995	8 Year Vesting
1/1/1995	Benefit B-2
1/1/1990	Blanket Resolution (All Service)
1/1/1988	Benefit C-2/Base C-1 (Old)
1/1/1988	Benefit F50 (With 25 Years of Service)
4/15/1986	Day of work defined as 4 Hours a Day for All employees.
1/1/1984	Member Contribution Rate 0.00%
12/8/1970	Covered by Act 88
12/1/1970	Benefit C-1 (Old)
12/1/1964	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/1964	10 Year Vesting

**02 - Sheriff/POAM**

12/1/1964	Benefit C (Old)
12/1/1964	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
12/1/1964	Fiscal Month - January

**04 - MCF**

1/1/2014	Member Contribution Rate 3.24%
1/1/2013	Member Contribution Rate 2.29%
1/1/2012	Member Contribution Rate 2.07%
6/1/2011	Member Contribution Rate 1.79%
4/1/2006	Member Contribution Rate 1.09%
2/1/2006	Benefit B-2
1/1/2001	30 Years & Out
1/1/2001	6 Year Vesting
1/1/2001	Benefit B-1
4/1/1986	Member Contribution Rate 0.00%
12/8/1970	Covered by Act 88
12/1/1970	Benefit C-1 (Old)
12/1/1964	10 Year Vesting
12/1/1964	Benefit C (Old)
12/1/1964	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
12/1/1964	Fiscal Month - January
12/1/1964	Benefit FAC-5 (5 Year Final Average Compensation)

**10 - 911 Employees**

7/1/2000	Benefit B-4 (80% max)
7/1/2000	Member Contribution Rate 2.52%
9/1/1997	Benefit B-2
1/1/1992	8 Year Vesting
4/15/1986	Day of work defined as 4 Hours a Day for All employees.
1/1/1984	Member Contribution Rate 0.00%
12/8/1970	Covered by Act 88
12/1/1964	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/1964	10 Year Vesting
12/1/1964	Benefit C-1 (Old)
12/1/1964	Fiscal Month - January

**11 - Exec Employees**

10/1/1998	Benefit FAC-5 (5 Year Final Average Compensation)
10/1/1998	8 Year Vesting
10/1/1998	Benefit B-4 (80% max)
10/1/1998	Benefit F55 (With 20 Years of Service)
10/1/1998	Member Contribution Rate 2.44%
12/8/1970	Covered by Act 88
12/1/1964	Fiscal Month - January

**12 - Elected Officials**

10/1/1998	Benefit FAC-5 (5 Year Final Average Compensation)
10/1/1998	8 Year Vesting
10/1/1998	Benefit B-4 (80% max)
10/1/1998	Benefit F55 (With 20 Years of Service)
10/1/1998	Member Contribution Rate 4.53%
12/8/1970	Covered by Act 88
12/1/1964	Fiscal Month - January

**13 - GEA & TPOAM**

1/1/2012	Member Contribution Rate 4.71%
7/1/1999	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1999	8 Year Vesting
7/1/1999	Benefit B-4 (80% max)
7/1/1999	Benefit F55 (With 20 Years of Service)
7/1/1999	Member Contribution Rate 3.56%
12/8/1970	Covered by Act 88
12/1/1964	Fiscal Month - January

**14 - Court Employees**

7/1/2000	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/2000	8 Year Vesting
7/1/2000	Benefit B-4 (80% max)
7/1/2000	Benefit F55 (With 20 Years of Service)
7/1/2000	Member Contribution Rate 3.28%
12/8/1970	Covered by Act 88
12/1/1964	Fiscal Month - January

**20 - Sheriff/Adm**

1/1/1999	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1999	8 Year Vesting
1/1/1999	Benefit B-4 (80% max)
1/1/1999	Benefit F50 (With 25 Years of Service)
1/1/1999	Member Contribution Rate 2.88%
12/8/1970	Covered by Act 88
12/1/1964	Fiscal Month - January

**41 - Medical Facility Administrator**

1/1/1998	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1998	6 Year Vesting
1/1/1998	Benefit B-2
1/1/1998	Benefit F50 (With 30 Years of Service)
1/1/1998	Member Contribution Rate 0.00%
12/8/1970	Covered by Act 88
12/1/1964	Fiscal Month - January

**HA - AFSCME hired aft 10/01/2011**

10/1/2011	Pickup
10/1/2011	Loans
10/1/2011	Rollovers
10/1/2011	Benefit FAC-3 (3 Year Final Average Compensation)
10/1/2011	6 Year Vesting
10/1/2011	1.5% Multiplier
12/8/1970	Covered by ACT 88
12/1/1964	Fiscal Month - January

**HB - Sheriff POAM (POLC) af 10/1/12**

10/1/2012	Pickup
10/1/2012	Loans
10/1/2012	Rollovers
10/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
10/1/2012	6 Year Vesting
10/1/2012	Day of work defined as 4 Hours a Day for All employees.
10/1/2012	1.5% Multiplier
10/1/2012	Benefit F55 (With 25 Years of Service)
12/8/1970	Covered by ACT 88
12/1/1964	Fiscal Month - January

**HC - Executive after 10/1/2012**

10/1/2012	Pickup
10/1/2012	Loans
10/1/2012	Rollovers
10/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
10/1/2012	6 Year Vesting
10/1/2012	1.5% Multiplier
12/8/1970	Covered by ACT 88
12/1/1964	Fiscal Month - January

**HE - Court EEs hired af 11/1/2012**

11/1/2012	Pickup
11/1/2012	Loans
11/1/2012	Rollovers
11/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
11/1/2012	6 Year Vesting
11/1/2012	1.5% Multiplier
12/8/1970	Covered by ACT 88
12/1/1964	Fiscal Month - January

## 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	1.00%

### Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	110%

### Miscellaneous and Technical Assumptions

Loads – None.

### Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Option A