MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN

ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2015

WASHTENAW CRC (8102)

Spring, 2016

Washtenaw CRC

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, 2015. The report includes the determination of liabilities and contribution rates resulting from the participation of Washtenaw CRC (8102) 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. Washtenaw CRC 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, 2015 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning October 1, 2017
- 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, 2015 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. The most recent study was completed in 2015, and this December 31, 2015 valuation report reflects changes in assumptions and methods. 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-2015AnnualActuarialValuation-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,

Cathy Nagy, MAAA, FSA
Jim Koss, MAAA, ASA
Curtis Powell, MAAA, EA
Alan Sonnanstine, MAAA, ASA

TABLE OF CONTENTS

Executive Summary

New Actuarial Assumptions and Methods

The actuarial assumptions and methods are adopted by the MERS Retirement Board, and are reviewed every five years in an Experience Study. The Experience Study is a comprehensive, detailed analysis that reviews MERS' funding policy and compares actual experience with the current actuarial assumptions; the study recommends adjustments as necessary. The most recent study was completed in 2015, and this December 31, 2015 valuation report reflects several changes in actuarial assumptions.

The main assumption and method changes were:

- The mortality table was adjusted to reflect longer lifetimes.
- The assumed annual rate of investment return, net of all expenses, was lowered from 8% to 7.75%.
- The asset smoothing was changed from 10 to 5 years.
- The amortization period was moved to a fixed period amortization for the December 31, 2014 annual valuations.
    - The period will continue to gradually decrease for both open and closed divisions until the current unfunded accrued liability (UAL) is completely paid off.
    - Moving to this type of "fixed period amortization" means that all unfunded liabilities will be fully funded by a specific date in the future.
    - Once the amortization period drops below 15 years (10 years for closed divisions), any future liability and asset gains or losses will be spread over a 15-year fixed period for open divisions and a 10-year fixed period for closed divisions — creating "layers" of UAL on an annual basis.
    - This transparent method allows tracking of what changed your UAL, and sets a fixed period in time in which that UAL change will be fully funded.

Various other actuarial assumptions were revised, but the revisions had a smaller impact than the two assumption changes above (first two bullets). For a summary of all of the actuarial assumptions and methods, please refer to the division-specific assumptions described on the last page of this report, and to the Appendix.

The new amortization period layers and the new 5-year asset smoothing do not impact this 2015 annual valuation, other than the 6 year projections. These method changes will first impact the December 31, 2016 annual valuations.

The impacts of the assumption changes on the funded ratio and the required employer contributions are displayed on the next few pages. While these changes in assumptions will mean larger liabilities and contributions than anticipated by the prior assumptions for most employers, they will ensure each employer makes reasonable progress towards funding the unfunded liabilities of the employer. When discussing changes in assumptions it is important to remember that, although the assumptions used impact the annual contributions, the true cost of the plan will be based on what will actually happen in the future – independent of the assumptions used. MERS recognizes that many municipalities are already taking steps to reduce their UAL. The MERS Board approved a “phase in” of the total impact of the assumption changes over the next 5 years (impacting fiscal years beginning 2017 – 2021) as an option for you. Of course, if the employer pays less in the first 4 years, they will likely have to pay somewhat more in later years.

MERS created a dedicated resource page on their website, www.mersofmich.com, regarding this topic, with links to frequently asked questions, upcoming events and additional details.

Impacts from the Assumption Changes

The new actuarial assumptions changed your December 31, 2015 percent funded from 59% to 56%, a change of -3%.

The new assumptions changed your total monthly employer contribution requirement, before any phase-in, from $166,871 to $194,607, a change of $27,736 (a 17% increase). Under the 5-year phase-in the first year increase is instead 3% (from $166,871 to $172,419 monthly).

Additional detail is shown on the following pages.

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 accounts 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:

For comparison purposes, we have included your December 31, 2015 funded ratio if it had been calculated under the previous assumptions. Note: Your actual funded level as of December 31, 2015 is the amount listed under the new assumptions.

	New Assumptions	Previous Assumptions	
	12/31/2015	12/31/2015	12/31/2014
Funded Ratio	56%	59%	59%

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 computed employer contributions are shown in the following table. Employee contributions, if any, are in addition to the computed employer contributions. Note: Your minimum required contribution is the amount listed under the new assumptions, with phase-in. For comparison purposes, we have included your computed employer contribution if it had been calculated under the previous assumptions.

	Percentage of Payroll				Monthly $ Based on Valuation Payroll			
	New Assumptions		Previous Assumptions		New Assumptions		Previous Assumptions	
	Phase-in	Full Impact			Phase-in	Full Impact		
Valuation Date:	12/31/2015	12/31/2015	12/31/2015	12/31/2014	12/31/2015	12/31/2015	12/31/2015	12/31/2014
Fiscal Year Beginning:	October 1, 2017	October 1, 2017	October 1, 2017	October 1, 2016	October 1, 2017	October 1, 2017	October 1, 2017	October 1, 2016
Division								
01 - AFSCME	-	-	-	-	$ 67,326	$ 75,578	$ 65,262	$ 60,405
10 - Teamsters Local	-	-	-	-	59,368	68,056	57,194	64,551
12 - AFSCME after 5/1/2012	0.00%	0.00%	0.00%	0.00%	0	0	0	0
13 - Non-Union	-	-	-	-	45,725	50,973	44,415	42,516
14 - Non-Union after 1/1/20	0.00%	0.00%	0.00%	0.00%	0	0	0	0
15 - Teamsters Local 10 aft	0.00%	0.00%	0.00%	0.00%	0	0	0	0
Municipality Total					**$ 172,419**	**$ 194,607**	**$ 166,871**	**$ 167,472**

Under the new assumptions, both the full impact and the phased in employer contribution requirements are shown in the table above. The phase in allows the employer to spread the increase of the new actuarial assumptions over 5 fiscal years. By default, MERS will invoice you the phased in contribution amount. However, MERS strongly encourages employers to contribute more than the minimum required contribution, including paying the full amount of the impact of the changes, if possible.

Employee contribution rates reflected in the valuations are shown below:

	Employee Contribution Rate	
Valuation Date:	12/31/2015	12/31/2014
Division		
01 - AFSCME	8.00%	8.00%
10 - Teamsters Local	8.00%	8.00%
12 - AFSCME after 5/1/2012	10.00%	10.00%
13 - Non-Union	8.00%	8.00%
14 - Non-Union after 1/1/20	10.00%	10.00%
15 - Teamsters Local 10 aft	10.00%	10.00%

The employer may contribute more than the minimum required contributions, as these additional contributions will earn investment income and may result in lower future contribution requirements.

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 $ 332,483, instead of $ 194,607.
- To accelerate to a 100% funding ratio in 20 years, estimated monthly employer contributions for the entire employer would be $ 210,088, instead of $ 194,607.

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 Asset Smoothing

The actuarial value of assets, used to determine both your funded ratio and your required employer contribution, is based on a smoothed value of assets (10-year smoothing prior to 2016; 5-year smoothing beginning in 2016). A smoothing method reduces the volatility of the valuation results, which affects your required employer contribution and funded ratio. The smoothed actuarial rate of return for 2015 was 5.21%.

As of December 31, 2015 the actuarial value of assets is 113% of market value. This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 7.75% investment return assumption.

If the December 31, 2015 valuation results were based on market value on that date instead of smoothed funding value: i) the funded percent of your entire municipality would be 49% (instead of

56%); and ii) your total employer contribution requirement for the fiscal year starting October 1, 2017 would be $ 2,655,804 (instead of $ 2,335,284).

The asset smoothing method is a powerful tool for reducing the volatility of your required employer contributions. **However, if the current 13% 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 2020.

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, 2015 valuation, and are for the municipality in total, not by division. These results do not reflect a 5-year phase in of the impact of the new actuarial assumptions.

	Assumed Future Annual Smoothed Rate of Investment Return			
	Lower Future Annual Returns		Valuation Assumption	Higher Returns
12/31/2015 Valuation Results	**5.75%**	**6.75%**	**7.75%**	**8.75%**
Accrued Liability	$ 81,555,670	$ 72,093,078	$ 64,206,935	$ 57,598,929
Valuation Assets	$ 35,893,360	$ 35,893,360	$ 35,893,360	$ 35,893,360
Unfunded Accrued Liability	$ 45,662,310	$ 36,199,718	$ 28,313,575	$ 21,705,569
Funded Ratio	44%	50%	56%	62%
Monthly Normal Cost	$ 80,016	$ 50,977	$ 29,212	$ 12,779
Monthly Amortization Payment	$ 222,042	$ 192,548	$ 165,395	$ 138,846
Total Employer Contribution[1]	$ 302,058	$ 243,525	$ 194,607	$ 151,625

[1] 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.

Six Year Projection Scenarios

The table on the following page illustrates the plan's projected liabilities and computed employer contributions for the next six fiscal years, under the new actuarial assumptions and under three future economic/assumption scenarios. All four projections take into account the past financial losses that will continue to affect the smoothed rate of return for the next four years. Under the 7.75% scenarios, two sets of projections are shown:

- Based on the phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. This projects your minimum required contribution.
- Based on no phase-in of the increased contribution requirements.

The 7.75% scenarios provide an estimate of computed employer contributions based on current actuarial assumptions, and a projected 7.75% market return. The other two scenarios may be useful if the municipality chooses to budget more conservatively, and make contributions in addition to the minimum requirements. The 6.75% and 5.75% projections provide an indication of the potential required employer contribution if MERS were to realize investment returns of 6.75% and 5.75% over the long-term.

Valuation Year Ending 12/31	Fiscal Year Beginning 10/1	Actuarial Accrued Liability	Valuation Assets	Funded Percentage	Computed Annual Employer Contribution
7.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
WITH 5-YEAR PHASE-IN					
2015	2017	$ 64,206,935	$ 35,893,360	56%	$ 2,069,028
2016	2018	66,321,724	36,128,340	55%	2,306,484
2017	2019	68,609,135	36,636,180	53%	2,548,620
2018	2020	70,922,655	37,099,601	52%	2,800,092
2019	2021	73,226,333	37,631,214	51%	3,058,236
2020	2022	75,509,884	39,353,135	52%	3,162,660
NO 5-YEAR PHASE-IN					
2015	2017	$ 64,206,935	$ 35,893,360	56%	$ 2,335,284
2016	2018	66,321,724	36,128,340	55%	2,487,324
2017	2019	68,609,135	36,710,527	54%	2,647,008
2018	2020	70,922,655	37,442,767	53%	2,819,916
2019	2021	73,226,333	38,157,602	52%	3,005,460
2020	2022	75,509,884	40,000,044	53%	3,108,108
6.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
NO 5-YEAR PHASE-IN					
2015	2017	$ 72,093,078	$ 35,893,360	50%	$ 2,922,300
2016	2018	74,376,429	35,786,063	48%	3,073,668
2017	2019	76,825,740	36,168,301	47%	3,230,112
2018	2020	79,292,718	37,150,420	47%	3,401,292
2019	2021	81,739,493	38,084,412	47%	3,589,308
2020	2022	84,155,161	40,172,305	48%	3,698,280
5.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
NO 5-YEAR PHASE-IN					
2015	2017	$ 81,555,670	$ 35,893,360	44%	$ 3,624,696
2016	2018	84,026,099	35,443,692	42%	3,782,436
2017	2019	86,654,649	35,662,825	41%	3,944,160
2018	2020	89,291,013	37,025,244	42%	4,118,616
2019	2021	91,895,102	38,309,114	42%	4,313,076
2020	2022	94,455,427	40,601,772	43%	4,448,280

Employer Contribution Details (Without a 5-year Phase-In)
For the Fiscal Year Beginning October 1, 2017

Table 1

Division	Amort. Period for Unfund. Liab.[4,5]	Employer Contributions[1]			Blended Employer Contribut.[6]	Employee Contribution Rate	Employee Contribut. Conversion Factor[2]
		Normal Cost	Unfunded Accrued Liability	Total Computed Employer Contribut.			
Percentage of Payroll							
01 - AFSCME	23	-	-	-	111.72%	8.00%	
10 - Teamsters Local	23	-	-	-	19.41%	8.00%	
12 - AFSCME after 5/1/2	23	-0.88%	0.88%	0.00%	111.72%	10.00%	0.81%
13 - Non-Union	23	-	-	-	20.46%	8.00%	
14 - Non-Union after 1/	23	-1.48%	1.48%	0.00%	20.46%	10.00%	0.79%
15 - Teamsters Local 10	23	-0.79%	0.79%	0.00%	19.41%	10.00%	0.83%
Estimated Monthly Contribution[3]							
01 - AFSCME	23	$ 2,601	$ 72,977	$ 75,578			
10 - Teamsters Local	23	15,966	52,090	68,056			
12 - AFSCME after 5/1/2	23	(270)	270	0			
13 - Non-Union	23	12,849	38,124	50,973			
14 - Non-Union after 1/	23	(958)	958	0			
15 - Teamsters Local 10	23	(976)	976	0			
Total Municipality		**$ 29,212**	**$ 165,395**	**$ 194,607**			
Estimated Annual Contribution[3]		**$ 350,544**	**$ 1,984,740**	**$ 2,335,284**			

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

2 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.

3 For divisions that are open to new hires, estimated contributions are based on projected fiscal year payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts. 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.

4 If projected assets exceed projected liabilities as of the beginning of the October 1, 2017 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.

5 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 3.75% 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.

6 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.

Note that the Employer Contribution Details shown in Table 1 do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 1 above. The contribution requirements including the 5-year phase-in are shown on page 8.

Please see the Comments on Asset Smoothing.

Benefit Provisions

Table 2

01 - AFSCME: Closed to new hires, linked to Division 12

	2015 Valuation	2014 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	8%	8%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

10 - Teamsters Local: Closed to new hires, linked to Division 15

	2015 Valuation	2014 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	8%	8%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

12 - AFSCME after 5/1/2012: Open Division, linked to Division 01

	2015 Valuation	2014 Valuation
Benefit Multiplier:	1.50% Multiplier (no max)	1.50% Multiplier (no max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	3 years	3 years
Employee Contributions:	10%	10%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

Table 2 (continued)

13 - Non-Union: Closed to new hires, linked to Division 14

	2015 Valuation	2014 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	8%	8%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

14 - Non-Union after 1/1/2012: Open Division, linked to Division 13

	2015 Valuation	2014 Valuation
Benefit Multiplier:	1.50% Multiplier (no max)	1.50% Multiplier (no max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	3 years	3 years
Employee Contributions:	10%	10%
Act 88:	Yes (Adopted 7/18/1966)	Yes (Adopted 7/18/1966)

15 - Teamsters Local 10 aft 9/1/12: Open Division, linked to Division 10

	2015 Valuation	2014 Valuation
Benefit Multiplier:	1.50% Multiplier (no max)	1.50% Multiplier (no max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	3 years	3 years
Employee Contributions:	10%	10%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

Participant Summary

Table 3

Division	2015 Valuation		2014 Valuation		2015 Valuation		
	Number	Annual Payroll[1]	Number	Annual Payroll[1]	Average Age	Average Benefit Service[2]	Average Eligibility Service[2]
01 - AFSCME							
Active Employees	8	$ 467,437	9	$ 527,878	50.0	18.5	18.8
Vested Former Employees	5	66,598	4	56,391	55.1	11.3	14.1
Retirees and Beneficiaries	63	1,907,761	64	1,886,471	71.3		
10 - Teamsters Local							
Active Employees	47	$ 2,594,229	55	$ 3,257,319	46.2	14.7	14.7
Vested Former Employees	7	99,067	6	85,365	44.9	12.9	12.9
Retirees and Beneficiaries	64	1,359,097	65	1,345,579	69.8		
12 - AFSCME after 5/1/201							
Active Employees	6	$ 262,979	6	$ 273,828	36.5	1.6	1.6
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
13 - Non-Union							
Active Employees	28	$ 2,195,846	26	$ 2,103,603	46.9	16.8	17.3
Vested Former Employees	1	33,330	1	33,330	42.3	16.6	16.6
Retirees and Beneficiaries	7	266,404	7	260,037	56.1		
14 - Non-Union after 1/1/							
Active Employees	8	$ 443,855	4	$ 222,983	31.6	1.3	1.9
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
15 - Teamsters Local 10 a							
Active Employees	29	$ 1,142,670	18	$ 666,880	38.7	1.4	1.4
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
Total Municipality							
Active Employees	**126**	**$ 7,107,016**	**118**	**$ 7,052,491**	**43.5**	**10.9**	**11.0**
Vested Former Employees	**13**	**198,995**	**11**	**175,086**	**48.6**	**12.6**	**13.7**
Retirees and Beneficiaries	**134**	**3,533,262**	**136**	**3,492,087**	**69.8**		
Total Participants	**273**		**265**				

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

2 Description can be found under Miscellaneous and Technical Assumptions in the Appendix.

Reported Assets (Market Value)

Table 4

Division	2015 Valuation		2014 Valuation	
	Employer and Retiree[1]	Employee[2]	Employer and Retiree[1]	Employee[2]
01 - AFSCME	$ 9,966,455	$ 650,188	$ 11,433,738	$ 608,203
10 - Teamsters Local	12,287,722	2,226,071	13,447,475	2,200,895
12 - AFSCME after 5/1/2012	545	44,626	1,919	32,235
13 - Non-Union	4,302,585	1,887,300	4,124,798	1,624,146
14 - Non-Union after 1/1/2012	(220)	59,627	689	22,328
15 - Teamsters Local 10 aft 9/1/12	1,839	186,728	5,211	88,316
Municipality Total	**$ 26,558,926**	**$ 5,054,540**	**$ 29,013,830**	**$ 4,576,123**
Combined Reserves	**$ 31,613,466**		**$ 33,589,953**	

[1] Reserve for Employer Contributions and Benefit Payments

[2] Reserve for Employee Contributions

The December 31, 2015 valuation assets are equal to 1.135382 times the reported market value of assets (compared to 1.059937 as of December 31, 2014). 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						
2005	$ 823,729		$ 384,400	$ 1,611,583	$ (1,501,217)	$ (6,802)	$ 0	$ 26,441,658
2006	928,690		385,502	2,133,643	(1,570,990)	(17,342)	0	28,301,161
2007	1,025,670		409,658	2,300,084	(1,681,321)	(17,942)	30,512	30,367,822
2008	1,020,277		399,404	1,375,815	(1,848,350)	(23,743)	133,132	31,424,357
2009	999,677		389,171	1,411,659	(1,957,355)	(57,544)	2,379	32,212,344
2010	1,081,091		376,022	1,703,123	(2,219,607)	0	0	33,152,973
2011	1,254,614	$ 0	367,855	1,663,103	(2,478,514)	(9,255)	3,583	33,954,359
2012	1,196,592	98,085	412,193	1,422,687	(3,071,397)	(27,507)	0	33,985,012
2013	1,312,738	138,262	511,983	1,939,321	(3,147,741)	(40,154)	0	34,699,421
2014	1,524,120	165,000	601,645	1,960,971	(3,322,657)	(25,266)	0	35,603,234
2015	1,584,072	0	583,963	1,704,025	(3,486,376)	(95,558)	0	35,893,360

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.

The investment income column reflects the recognized investment income based on the smoothed value of assets. It does not reflect the market value investment return in any given year.

Actuarial Accrued Liabilities and Valuation Assets
As of December 31, 2015

Table 6

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - AFSCME				
Active Employees	$ 2,213,983	$ 446,015	20.1%	$ 1,767,968
Vested Former Employees	539,578	163,507	30.3%	376,071
Retirees And Beneficiaries	21,930,632	11,403,758	52.0%	10,526,874
Pending Refunds	40,665	40,665	100.0%	0
Total	**$ 24,724,858**	**$ 12,053,945**	**48.8%**	**$ 12,670,913**
10 - Teamsters Local				
Active Employees	$ 9,221,198	$ 1,946,624	21.1%	$ 7,274,574
Vested Former Employees	385,252	212,401	55.1%	172,851
Retirees And Beneficiaries	15,898,639	14,252,628	89.6%	1,646,011
Pending Refunds	67,046	67,046	100.0%	0
Total	**$ 25,572,135**	**$ 16,478,699**	**64.4%**	**$ 9,093,436**
12 - AFSCME after 5/1/2012				
Active Employees	$ 47,484	$ 51,286	108.0%	$ (3,802)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 47,484**	**$ 51,286**	**108.0%**	**$ (3,802)**
13 - Non-Union				
Active Employees	$ 9,576,781	$ 2,995,530	31.3%	$ 6,581,251
Vested Former Employees	111,242	111,242	100.0%	0
Retirees And Beneficiaries	3,921,112	3,921,112	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 13,609,135**	**$ 7,027,884**	**51.6%**	**$ 6,581,251**
14 - Non-Union after 1/1/2012				
Active Employees	$ 46,933	$ 64,263	136.9%	$ (17,330)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	3,187	3,187	100.0%	0
Total	**$ 50,120**	**$ 67,450**	**134.6%**	**$ (17,330)**
15 - Teamsters Local 10 aft 9/1/12				
Active Employees	$ 176,790	$ 187,683	106.2%	$ (10,893)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	26,413	26,413	100.0%	0
Total	**$ 203,203**	**$ 214,096**	**105.4%**	**$ (10,893)**

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
Total Municipality				
Active Employees	**$ 21,283,169**	**$ 5,691,401**	**26.7%**	**$ 15,591,768**
Vested Former Employees	**1,036,072**	**487,150**	**47.0%**	**548,922**
Retirees and Beneficiaries	**41,750,383**	**29,577,498**	**70.8%**	**12,172,885**
Pending Refunds	**137,311**	**137,311**	**100.0%**	**0**
Total Participants	**$ 64,206,935**	**$ 35,893,360**	**55.9%**	**$ 28,313,575**
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 12, 01				
Active Employees	$ 2,261,467	$ 497,301	22.0%	$ 1,764,166
Vested Former Employees	539,578	163,507	30.3%	376,071
Retirees and Beneficiaries	21,930,632	11,403,758	52.0%	10,526,874
Pending Refunds	40,665	40,665	100.0%	0
Total	**$ 24,772,342**	**$ 12,105,231**	**48.9%**	**$ 12,667,111**
Linked Divisions 15, 10				
Active Employees	$ 9,397,988	$ 2,134,307	22.7%	$ 7,263,681
Vested Former Employees	385,252	212,401	55.1%	172,851
Retirees and Beneficiaries	15,898,639	14,252,628	89.6%	1,646,011
Pending Refunds	93,459	93,459	100.0%	0
Total	**$ 25,775,338**	**$ 16,692,795**	**64.8%**	**$ 9,082,543**
Linked Divisions 14, 13				
Active Employees	$ 9,623,714	$ 3,059,793	31.8%	$ 6,563,921
Vested Former Employees	111,242	111,242	100.0%	0
Retirees and Beneficiaries	3,921,112	3,921,112	100.0%	0
Pending Refunds	3,187	3,187	100.0%	0
Total	**$ 13,659,255**	**$ 7,095,334**	**51.9%**	**$ 6,563,921**

[1] Includes both employer and employee assets.

Please see the Comments on Asset Smoothing.

See the MERS Fiscal Responsibility Policy on the MERS website at:
http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/MERSPlanDocument_Section46.pdf .

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2001	$ 23,152,354	$ 22,474,326	97%	$ 678,028
2002	27,539,205	22,566,839	82%	4,972,366
2003	31,276,579	23,848,237	76%	7,428,342
2004	33,025,576	25,129,965	76%	7,895,611
2005	36,027,271	26,441,658	73%	9,585,613
2006	37,585,945	28,301,161	75%	9,284,784
2007	40,947,934	30,367,822	74%	10,580,112
2008	44,643,807	31,424,357	70%	13,219,450
2009	45,511,537	32,212,344	71%	13,299,193
2010	48,576,366	33,152,973	68%	15,423,393
2011	53,061,415	33,954,359	64%	19,107,056
2012	53,797,210	33,985,012	63%	19,812,198
2013	56,410,071	34,699,421	62%	21,710,650
2014	60,498,904	35,603,234	59%	24,895,670
2015	64,206,935	35,893,360	56%	28,313,575

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Division 01 - AFSCME

Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2005	$ 20,159,883	$ 13,820,103	69%	$ 6,339,780
2006	21,122,864	14,860,031	70%	6,262,833
2007	22,999,898	16,036,414	70%	6,963,484
2008	24,822,258	16,502,929	66%	8,319,329
2009	25,246,453	16,769,525	66%	8,476,928
2010	26,906,819	17,027,549	63%	9,879,270
2011	30,059,221	17,834,291	59%	12,224,930
2012	23,438,062	13,846,517	59%	9,591,545
2013	23,489,989	13,218,841	56%	10,271,148
2014	23,527,041	12,763,699	54%	10,763,342
2015	24,724,858	12,053,945	49%	12,670,913

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-01: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2005	65	$ 3,927,038	14.70%	5.00%
2006	65	4,065,772	14.66%	5.00%
2007	58	3,820,781	16.46%	5.00%
2008	54	3,635,388	19.92%	5.00%
2009	51	3,433,789	21.14%	5.00%
2010	45	2,993,391	26.06%	5.00%
2011	37	2,483,583	$ 80,025	5.00%
2012	12	622,022	$ 49,054	8.00%
2013	9	518,408	$ 54,763	8.00%
2014	9	527,878	$ 60,405	8.00%
2015	8	467,437	$ 75,578	8.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 valuation do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 8.

See the Benefit Provision History on page 32 for past benefit provision changes.

Division 10 - Teamsters Local

Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2005	$ 15,867,388	$ 12,621,555	80%	$ 3,245,833
2006	16,463,081	13,441,130	82%	3,021,951
2007	17,948,036	14,331,408	80%	3,616,628
2008	19,821,549	14,921,428	75%	4,900,121
2009	20,265,084	15,442,819	76%	4,822,265
2010	21,669,547	16,125,424	74%	5,544,123
2011	23,002,194	16,120,068	70%	6,882,126
2012	21,915,143	15,688,159	72%	6,226,984
2013	22,804,143	16,204,782	71%	6,599,361
2014	25,030,931	16,586,286	66%	8,444,645
2015	25,572,135	16,478,699	64%	9,093,436

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-10: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2005	84	$ 3,641,810	11.05%	5.00%
2006	87	3,659,808	10.70%	5.00%
2007	81	3,800,298	11.58%	5.00%
2008	83	4,088,339	14.13%	5.00%
2009	82	4,025,294	14.37%	5.00%
2010	85	4,197,136	15.30%	5.00%
2011	72	3,574,366	19.80%	5.00%
2012	61	2,893,084	$ 45,312	8.00%
2013	57	2,937,787	$ 49,694	8.00%
2014	55	3,257,319	$ 64,551	8.00%
2015	47	2,594,229	$ 68,056	8.00%

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

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 valuation do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 8.

See the Benefit Provision History on page 32 for past benefit provision changes.

Division 12 - AFSCME after 5/1/2012

Table 8-12: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2013	11,601	14,877	128%	(3,276)
2014	33,203	36,201	109%	(2,998)
2015	47,484	51,286	108%	(3,802)

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-12: Computed Employer Contributions - Comparative Schedule

Valuation Date	Active Employees		Computed Employer	Employee Contribution
December 31	Number	Annual Payroll	Contribution[1]	Rate[2]
2011	0	$ 0	0.00%	0.00%
2013	5	213,801	0.00%	10.00%
2014	6	273,828	0.00%	10.00%
2015	6	262,979	0.00%	10.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 valuation do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 8.

See the Benefit Provision History on page 32 for past benefit provision changes.

Division 13 - Non-Union

Table 8-13: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2012	$ 8,441,589	$ 4,448,950	53%	$ 3,992,639
2013	10,069,051	5,221,323	52%	4,847,728
2014	11,797,278	6,093,518	52%	5,703,760
2015	13,609,135	7,027,884	52%	6,581,251

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-13: Computed Employer Contributions - Comparative Schedule

Valuation Date	Active Employees		Computed	Employee
		Annual	Employer	Contribution
December 31	Number	Payroll	Contribution[1]	Rate[2]
2012	29	$ 2,174,643	$ 34,462	8.00%
2013	30	2,214,002	$ 37,083	8.00%
2014	26	2,103,603	$ 42,516	8.00%
2015	28	2,195,846	$ 50,973	8.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 valuation do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 8.

See the Benefit Provision History on page 32 for past benefit provision changes.

Division 14 - Non-Union after 1/1/2012

Table 8-14: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2013	3,390	4,449	131%	(1,059)
2014	17,289	24,397	141%	(7,108)
2015	50,120	67,450	135%	(17,330)

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-14: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2013	1	47,621	0.00%	10.00%
2014	4	222,983	0.00%	10.00%
2015	8	443,855	0.00%	10.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 valuation do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 8.

See the Benefit Provision History on page 32 for past benefit provision changes.

Division 15 - Teamsters Local 10 aft 9/1/12

Table 8-15: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2012	$ 2,416	$ 1,386	57%	$ 1,030
2013	31,897	35,149	110%	(3,252)
2014	93,162	99,133	106%	(5,971)
2015	203,203	214,096	105%	(10,893)

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-15: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2012	3	$ 85,643	0.00%	10.00%
2013	11	363,934	0.00%	10.00%
2014	18	666,880	0.00%	10.00%
2015	29	1,142,670	0.00%	10.00%

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

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 valuation do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 8.

See the Benefit Provision History on page 32 for past benefit provision changes.

GASB 68 Information

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 .

Actuarial Valuation Date:	12/31/2015
Measurement Date of Total Pension Liability (TPL):	12/31/2015

At 12/31/2015, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	134
Inactive employees entitled to but not yet receiving benefits:	13
Active employees:	126
	273

Total Pension Liability as of 12/31/2014 measurement date:	$	58,854,311
Total Pension Liability as of 12/31/2015 measurement date:	$	62,444,634
Service Cost for the year ending on the 12/31/2015 measurement date:	$	896,737

Change in the Total Pension Liability due to:

- Benefit changes[1]:	$	0
- Differences between expected and actual experience[2]:	$	(1,453,980)
- Changes in assumptions[2]:	$	2,984,784

[1] A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

[2] 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.

Average expected remaining service lives of all employees (active and inactive):		5
Covered employee payroll: (Needed for Required Supplementary Information)	$	7,107,016

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

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Change in Net Pension Liability as of 12/31/2015:	$ 7,542,405	-	$ (6,324,747)

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 - AFSCME

5/1/2012	Member Contribution Rate 8.00%
1/1/2003	E2 2.5% COLA for future retirees (07/01/2002)
11/1/2002	Member Contribution Rate 5.00%
6/1/1999	Benefit B-3 (80% max)
1/1/1999	8 Year Vesting
7/1/1996	Benefit B-2
7/1/1996	Member Contribution Rate 5.30%
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
11/8/1990	Blanket Resolution (All Service)
7/1/1987	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/1987	Benefit C-2/Base B-1
7/1/1987	Benefit F55 (With 25 Years of Service)
5/6/1975	Exclude Temporary Employees
8/1/1966	Benefit C-1 (Old)
7/19/1966	Covered by Act 88
7/1/1947	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1947	10 Year Vesting
7/1/1947	Benefit C (Old)
7/1/1947	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%
7/1/1947	Fiscal Month - October

10 - Teamsters Local

9/1/2012	Member Contribution Rate 8.00%
1/1/2003	E2 2.5% COLA for future retirees (07/01/2002)
11/1/2002	Member Contribution Rate 5.00%
6/1/1999	Benefit B-3 (80% max)
1/1/1999	8 Year Vesting
7/1/1996	Benefit B-2
7/1/1996	Member Contribution Rate 5.30%
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
8/1/1987	Benefit FAC-3 (3 Year Final Average Compensation)
8/1/1987	10 Year Vesting
8/1/1987	Benefit C-2/Base B-1
8/1/1987	Benefit F55 (With 25 Years of Service)
8/1/1987	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%
5/6/1975	Exclude Temporary Employees
7/19/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

12 - AFSCME after 5/1/2012

5/1/2012	Benefit C-1 (New)
5/1/2012	Member Contribution Rate 10.00%
10/1/2011	Day of work defined as 8 Hours a Day for All employees.
10/1/2011	Benefit FAC-3 (3 Year Final Average Compensation)
10/1/2011	Exclude Temporary Employees
10/1/2011	8 Year Vesting
10/1/2011	Benefit B-3 (80% max)
10/1/2011	Member Contribution Rate 5.00%
7/19/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

13 - Non-Union

1/1/2012	E2 2.5% COLA for future retirees (01/01/2012)
1/1/2012	Day of work defined as 8 Hours a Day for All employees.
1/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2012	Exclude Temporary Employees
1/1/2012	8 Year Vesting
1/1/2012	Benefit B-3 (80% max)
1/1/2012	Benefit F55 (With 25 Years of Service)
1/1/2012	Member Contribution Rate 8.00%
7/19/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

14 - Non-Union after 1/1/2012

5/1/2012	Day of work defined as 8 Hours a Day for All employees.
5/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
5/1/2012	Exclude Temporary Employees
5/1/2012	8 Year Vesting
5/1/2012	Benefit C-1 (New)
5/1/2012	Member Contribution Rate 10.00%
7/18/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

15 - Teamsters Local 10 aft 9/1/12

9/1/2012	Day of work defined as 8 Hours a Day for All employees.
9/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
9/1/2012	Exclude Temporary Employees
9/1/2012	8 Year Vesting
9/1/2012	Benefit C-1 (New)
9/1/2012	Member Contribution Rate 10.00%
7/19/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

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	6.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	71%

Miscellaneous and Technical Assumptions

Loads – None.