



MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2016
SAGINAW CO (7303)



Spring, 2017

Saginaw 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, 2016. The report includes the determination of liabilities and contribution rates resulting from the participation of Saginaw Co (7303) 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 70 years. Saginaw 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, 2016 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning October 1, 2018
- 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, 2016 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. 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-2016AnnualActuarialValuation-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

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Executive Summary

Actuarial Assumptions and Methods Adopted with the December 31, 2015 Valuations

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 changes to the assumptions and methods based on the 2015 Experience Study were first reflected in the December 31, 2015 valuations. The impact of these changes is being phased-in over a 5 year period. The phase-in allows the employer to spread the impact of the new assumptions over 5 fiscal years. This report continues to provide contributions both with and without the phase-in adjustments.

The assumptions and methods are described in the Appendix on the MERS website.

As part of the recent Experience Study, the following changes are first reflected in the December 31, 2016 annual valuation:

- The asset smoothing was changed from 10 to 5 years. The gain (loss) recognized each year will be 20% of the current year's gain (loss) plus 20% of the gain (loss) from each of the 4 preceding years. The cumulative difference between the market value and valuation assets as of December 31, 2015 will be recognized over 4 years.
- Annual changes in Unfunded Accrued Liability (UAL) will be amortized over fixed periods, creating "layers" of UAL. This will require removing and creating "layers" of UAL on an annual basis.
 - o 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.
 - o 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.

MERS created a dedicated resource page on their website for additional information on these topics (<http://www.mersofmich.com/Employer/Work-Scenarios/Unfunded-Liability>).

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:

	12/31/2016	12/31/2015
Funded Ratio	86%	90%

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. Changes to the assumptions and methods based on the 2015 Experience Study were first reflected in the December 31, 2015 valuations. The impact of these changes is being phased-in over a 5 year period. The phase-in allows the employer to spread the impact of the new assumptions over 5 fiscal years. This valuation reflects the second year of the phase-in.

Your minimum required contribution is the amount in the "Phase-in" columns. By default, MERS will invoice you the phased-in contribution amount, but strongly encourages you to contribute more than the minimum required contribution. If for 2017 your municipality is making employer contributions based on rates without the phase-in applied, contact MERS to ensure this rate is used again for 2018 and not the defaulted phase-in rates.

	Percentage of Payroll				Monthly \$ Based on Projected Payroll			
	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in
Valuation Date:	12/31/2016	12/31/2016	12/31/2015	12/31/2015	12/31/2016	12/31/2016	12/31/2015	12/31/2015
Fiscal Year Beginning:	October 1, 2018	October 1, 2018	October 1, 2017	October 1, 2017	October 1, 2018	October 1, 2018	October 1, 2017	October 1, 2017
Division								
01 - General	-	-	-	-	\$ 11,360	\$ 18,380	\$ 6,386	\$ 25,718
02 - Sheriff POAM	-	-	-	-	22,652	31,061	29,530	52,750
09 - UAW Managers	-	-	-	-	58,667	72,500	67,615	105,819
10 - UAW Professional	-	-	-	-	5,083	6,727	3,326	7,778
11 - Gnrl Local486	-	-	-	-	6,153	7,446	10,548	13,720
13 - Sheriff/Cooks	-	-	-	-	944	1,361	835	1,859
14 - Nurses	-	-	-	-	7,876	9,031	11,864	15,056
15 - Hlth Dept	-	-	-	-	18,598	22,012	25,798	35,222
16 - Elctd Commsnrs	-	-	-	-	2,188	2,815	2,838	4,574
17 - Animal Control	-	-	-	-	1,899	2,250	2,682	3,654
18 - Judges	-	-	-	-	0	0	0	0
19 - Dist Judges	-	-	-	-	3,710	4,064	5,442	6,314
20 - Sheriff FOP	-	-	-	-	840	840	908	908
21 - Shrrff/Lts/Capts	-	-	-	-	26,860	29,203	41,648	47,408
23 - P.O.A.M. Non 312	-	-	-	-	7,903	9,964	2,527	7,579
91 - Juvenile Probtn	-	-	-	-	3,929	4,433	6,401	7,789
92 - Dist Court Prob	-	-	-	-	2,897	3,332	4,559	5,759
93 - Pros Attys Union	-	-	-	-	5,663	6,707	8,259	11,135
94 - Upper Management	-	-	-	-	15,845	18,152	21,269	25,177
95 - NonUnion Mgmt	-	-	-	-	603	603	0	0
96 - UAW Para prof.	-	-	-	-	190	199	188	200
Municipality Total					\$ 203,860	\$ 251,080	\$ 252,623	\$ 378,419

Employee contribution rates reflected in the valuations are shown below:

Valuation Date:	Employee Contribution Rate	
	12/31/2016	12/31/2015
Division		
01 - General	3.88%	3.88%
02 - Sheriff POAM	4.00%	4.00%
09 - UAW Managers	3.20%	3.20%
10 - UAW Professional	0.00%	0.00%
11 - Gnrl Local486	0.00%	0.00%
13 - Sheriff/Cooks	1.00%	1.00%
14 - Nurses	0.00%	0.00%
15 - Hlth Dept	0.00%	0.00%
16 - Elctd Commsnrs	0.00%	0.00%
17 - Animal Control	0.00%	0.00%
18 - Judges	0.00%	0.00%
19 - Dist Judges	0.00%	0.00%
20 - Sheriff FOP	0.00%	0.00%
21 - Shrff/Lts/Capts	0.00%	0.00%
23 - P.O.A.M. Non 312	4.00%	4.00%
91 - Juvenile Probtn	3.45%	3.45%
92 - Dist Court Prob	3.84%	3.84%
93 - Pros Attys Union	0.00%	0.00%
94 - Upper Management	0.00%	0.00%
95 - NonUnion Mgmt	0.00%	0.00%
96 - UAW Para prof.	4.34%	4.34%

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.**

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. For example:
 - o Lower actual investment returns would result in higher required employer contributions, and vice-versa.

- o Smaller than assumed pay increases would lower required employer contributions.
- o 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.
- o Retirements at earlier ages than assumed would usually increase required employer contributions.
- o More non-vested terminations of employment than assumed would decrease required contributions.
- o More disabilities or survivor (death) benefits than assumed would increase required contributions.
- o Longer lifetimes after retirement than assumed would increase required employer contributions.

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 2016 was 5.14%.

As of December 31, 2016 the actuarial value of assets is 108% 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, 2016 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 80% (instead of 86%); and ii) your total employer contribution requirement for the fiscal year starting October 1, 2018 would be \$ 4,052,592 (instead of \$ 3,012,960).

The asset smoothing method is a powerful tool for reducing the volatility of your required employer contributions. **However, if the current 8% 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 Defined Benefit retirement plans, the plan sponsor, and the plan participants are exposed to certain risks. While risks cannot be eliminated entirely, they can be managed 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 manage the economic and demographic risks, and the contribution volatility risks. For example, the investment risk is the largest economic risk and is managed by having a balanced portfolio and a clearly defined investment strategy. Demographic risks are managed 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 managed 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. 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, 2016 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
	5.75%	6.75%	7.75%	8.75%
12/31/2016 Valuation Results				
Accrued Liability	\$ 179,182,374	\$ 162,684,511	\$ 148,676,653	\$ 136,682,175
Valuation Assets	\$ 128,382,162	\$ 128,382,162	\$ 128,382,162	\$ 128,382,162
Unfunded Accrued Liability	\$ 50,800,212	\$ 34,302,349	\$ 20,294,491	\$ 8,300,013
Funded Ratio	72%	79%	86%	94%
Monthly Normal Cost	\$ 28,205	\$ 20,974	\$ 15,538	\$ 11,445
Monthly Amortization Payment	\$ 590,274	\$ 414,743	\$ 235,542	\$ 115,959
Total Employer Contribution¹	\$ 618,479	\$ 435,717	\$ 251,080	\$ 127,404

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.

Projection Scenarios

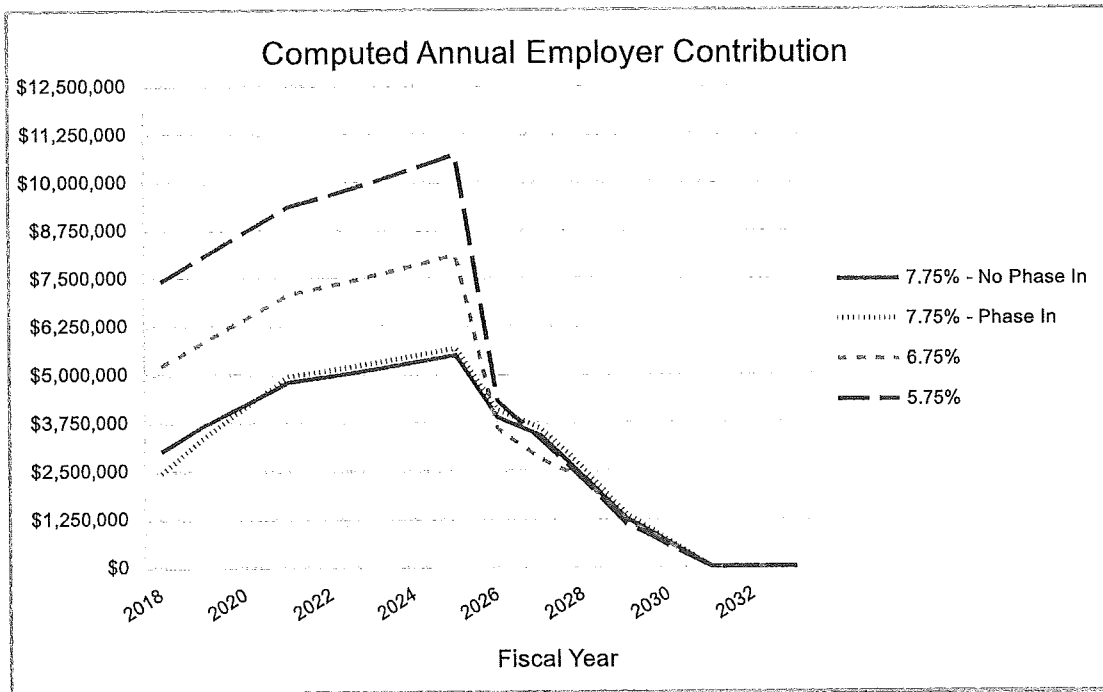
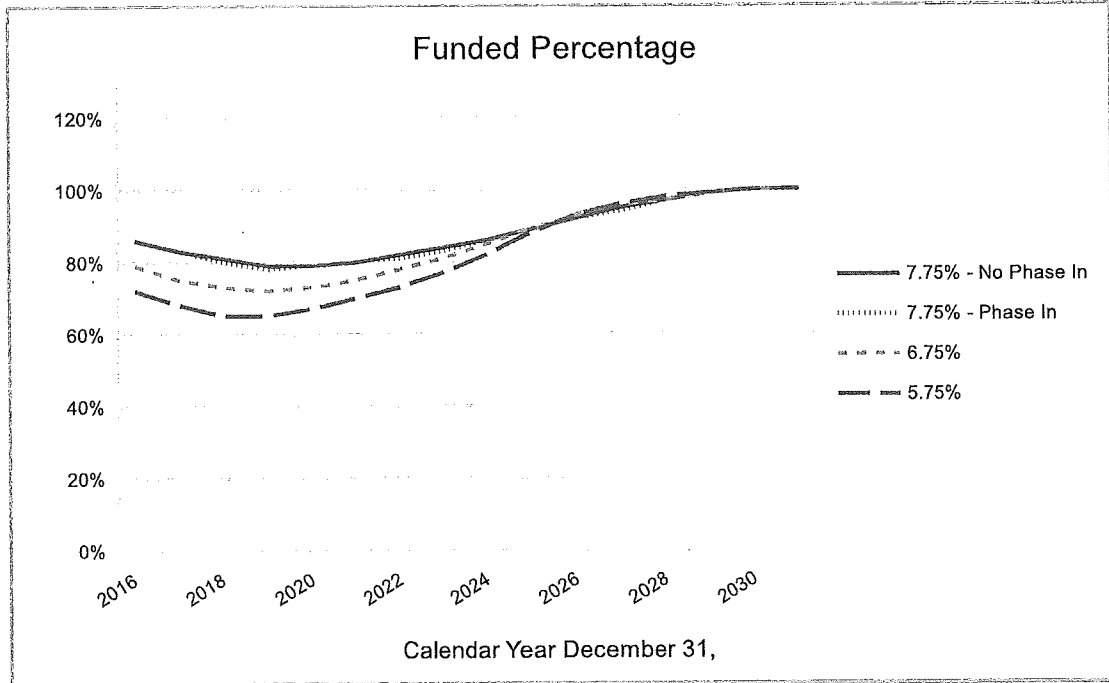
The next two pages show projections of the plan's funded ratio and computed employer contributions under the actuarial assumptions used in the valuation and alternate assumed long-term investment return scenarios. All four projections take into account the past investment losses that will continue to affect the smoothed rate of return in the short term. 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.

The projections are shown both in tabular and graphical form in total for the employer. The tables show projections for six years. The graphs show projections for fifteen years.

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					
2016	2018	\$ 148,676,653	\$ 128,382,162	86%	\$ 2,446,320
2017	2019	147,700,000	122,800,000	83%	3,370,000
2018	2020	146,300,000	117,700,000	80%	4,160,000
2019	2021	144,400,000	112,700,000	78%	4,960,000
2020	2022	142,000,000	111,500,000	79%	5,120,000
2021	2023	139,300,000	110,800,000	80%	5,290,000
NO 5-YEAR PHASE-IN					
2016	2018	\$ 148,676,653	\$ 128,382,162	86%	\$ 3,012,960
2017	2019	147,700,000	122,800,000	83%	3,670,000
2018	2020	146,300,000	117,800,000	81%	4,220,000
2019	2021	144,400,000	113,400,000	79%	4,810,000
2020	2022	142,000,000	112,500,000	79%	4,960,000
2021	2023	139,300,000	111,900,000	80%	5,130,000
6.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
NO 5-YEAR PHASE-IN					
2016	2018	\$ 162,684,511	\$ 128,382,162	79%	\$ 5,228,604
2017	2019	161,300,000	121,600,000	75%	5,840,000
2018	2020	159,500,000	116,000,000	73%	6,450,000
2019	2021	157,100,000	112,700,000	72%	7,080,000
2020	2022	154,300,000	112,900,000	73%	7,320,000
2021	2023	151,100,000	113,600,000	75%	7,560,000
5.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
NO 5-YEAR PHASE-IN					
2016	2018	\$ 179,182,374	\$ 128,382,162	72%	\$ 7,421,748
2017	2019	177,300,000	120,400,000	68%	8,070,000
2018	2020	174,900,000	114,100,000	65%	8,700,000
2019	2021	172,000,000	112,000,000	65%	9,360,000
2020	2022	168,600,000	113,400,000	67%	9,670,000
2021	2023	164,800,000	115,300,000	70%	10,000,000



**Employer Contribution Details For the Fiscal Year
Beginning October 1, 2018**

Table 1

Division	Employer Contributions ¹			Computed Employer Contribut. With Phase-In	Blended ER Rate No Phase-In ⁵	Blended ER Rate With Phase-In ⁵	Employee Contribut. Rate	Employee Contribut. Conversion Factor ²
	Normal Cost	Payment of the Unfunded Accrued Liability ⁴	Computed Employer Contribut. No Phase-In					
Percentage of Payroll								
01 - General	-	-	-	-	-	-	3.88%	
02 - Sheriff POAM	-	-	-	-	-	-	4.00%	
09 - UAW Managers	-	-	-	-	-	-	3.20%	
10 - UAW Professional	-	-	-	-	-	-	0.00%	
11 - Gnrl Local486	-	-	-	-	-	-	0.00%	
13 - Sheriff/Cooks	-	-	-	-	-	-	1.00%	
14 - Nurses	-	-	-	-	-	-	0.00%	
15 - Hlth Dept	-	-	-	-	-	-	0.00%	
16 - Elctd Commsnrs	-	-	-	-	-	-	0.00%	
17 - Animal Control	-	-	-	-	-	-	0.00%	
18 - Judges	-	-	-	-	-	-	0.00%	
19 - Dist Judges	-	-	-	-	-	-	0.00%	
20 - Sheriff FOP	-	-	-	-	-	-	0.00%	
21 - Shrrff/Lts/Cpts	-	-	-	-	-	-	0.00%	
23 - P.O.A.M. Non 312	-	-	-	-	-	-	4.00%	
91 - Juvenile Probtn	-	-	-	-	-	-	3.45%	
92 - Dist Court Prob	-	-	-	-	-	-	3.84%	
93 - Pros Attys Union	-	-	-	-	-	-	0.00%	
94 - Upper Management	-	-	-	-	-	-	0.00%	
95 - NonUnion Mgmt	-	-	-	-	-	-	0.00%	
96 - UAW Para prof.	-	-	-	-	-	-	4.34%	
Estimated Monthly Contribution³								
01 - General	\$ 1,564	\$ 16,816	\$ 18,380	\$ 11,360				
02 - Sheriff POAM	4,111	26,950	31,061	22,652				

Table 1 (continued)

Division	Employer Contributions ¹				Blended ER Rate No Phase-In ⁵	Blended ER Rate With Phase-In ⁵	Employee Contribut. Rate	Employee Contribut. Conversion Factor ²
	Normal Cost	Payment of the Unfunded Accrued Liability ⁴	Computed Employer Contribut. No Phase-In	Computed Employer Contribut. With Phase-In				
09 - UAW Managers	2,111	70,389	72,500	58,667				
10 - UAW Professional	1,798	4,929	6,727	5,083				
11 - GnrI Local486	1,020	6,426	7,446	6,153				
13 - Sheriff/Cooks	0	1,361	1,361	944				
14 - Nurses	295	8,736	9,031	7,876				
15 - Hlth Dept	657	21,355	22,012	18,598				
16 - Elctd Commsnrs	0	2,815	2,815	2,188				
17 - Animal Control	0	2,250	2,250	1,899				
18 - Judges	0	0	0	0				
19 - Dist Judges	219	3,845	4,064	3,710				
20 - Sheriff FOP	840	0	840	840				
21 - Shrrff/Lts/Capts	725	28,478	29,203	26,860				
23 - P.O.A.M. Non 312	1,575	8,389	9,964	7,903				
91 - Juvenile Probtn	0	4,433	4,433	3,929				
92 - Dist Court Prob	0	3,332	3,332	2,897				
93 - Pros Attys Union	424	6,283	6,707	5,663				
94 - Upper Management	0	18,152	18,152	15,845				
95 - NonUnion Mgmnt	0	603	603	603				
96 - UAW Para prof.	199	0	199	190				
Total Municipality	\$ 15,538	\$ 235,542	\$ 251,080	\$ 203,860				
Estimated Annual Contribution³	\$ 186,456	\$ 2,826,504	\$ 3,012,960	\$ 2,446,320				

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 (ie closed divisions), 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, 2018 fiscal year, the negative unfunded accrued liability is treated as overfunding credit and is used to reduce the contribution. 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.

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⁵ For linked divisions, the employer will be invoiced the Computed Employer Contribution with Phase-in 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 Asset Smoothing in the Executive Summary of this report.

Benefit Provisions

Table 2

01 - General: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25	50/25
	55/20	55/20
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	3.88%	3.88%
DC Plan for New Hires:	1/1/2000	1/1/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

02 - Sheriff POAM: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	25 and Out	25 and Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	4%	4%
DC Plan for New Hires:	9/30/2000	9/30/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

09 - UAW Managers: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15	55/15
	25 and Out	25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	3.20%	3.20%
DC Plan for New Hires:	3/1/1998	3/1/1998
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Table 2 (continued)

10 - UAW Professional: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25	50/25
	55/15	55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	3/1/1998	3/1/1998
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

11 - Gnrl Local486: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/20	55/20
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	9/30/2000	9/30/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

13 - Sheriff/Cooks: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25	50/25
	55/20	55/20
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	1%	1%
DC Plan for New Hires:	9/30/2000	9/30/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Table 2 (continued)

14 - Nurses: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25	50/25
	55/20	55/20
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/1999	1/1/1999
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

15 - Hlth Dept: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25	50/25
	55/20	55/20
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/1999	1/1/1999
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

16 - Elctd Commsnrs: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15	55/15
	25 and Out	25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
DC Plan for New Hires:	3/1/1998	3/1/1998
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Table 2 (continued)

17 - Animal Control: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25 55/20	50/25 55/20
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/2000	1/1/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

18 - Judges: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/1999	1/1/1999
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

19 - Dist Judges: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/1999	1/1/1999
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Table 2 (continued)

20 - Sheriff FOP: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/2000	1/1/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

21 - Shrrff/Lts/Capts: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/1999	1/1/1999
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

23 - P.O.A.M. Non 312: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	25 and Out	25 and Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	4%	4%
DC Plan for New Hires:	9/30/2000	9/30/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Table 2 (continued)

91 - Juvenile Probtn: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/20 25 and Out	55/20 25 and Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	3.45%	3.45%
DC Plan for New Hires:	9/30/2000	9/30/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

92 - Dist Court Prob: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/20 25 and Out	55/20 25 and Out
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	3.84%	3.84%
DC Plan for New Hires:	1/1/2000	1/1/2000
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

93 - Pros Attys Union: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25 55/20	50/25 55/20
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	1/1/1999	1/1/1999
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Table 2 (continued)

94 - Upper Management: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
RS50% Percentage:	50%	50%
DC Plan for New Hires:	6/20/2006	6/20/2006
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

95 - NonUnion Mgmt: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
DC Plan for New Hires:	6/20/2006	6/20/2006
Act 88:	Yes (Adopted 10/1/2005)	Yes (Adopted 10/1/2005)

96 - UAW Para prof.: Closed to new hires

	2016 Valuation	2015 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	50/25 55/15	50/25 55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	5 years	5 years
Employee Contributions:	4.34%	4.34%
DC Plan for New Hires:	6/20/2006	6/20/2006
Act 88:	Yes (Adopted 10/19/1965)	Yes (Adopted 10/19/1965)

Participant Summary

Table 3

Division	2016 Valuation		2015 Valuation		2016 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
01 - General							
Active Employees	11	\$ 431,557	11	\$ 428,361	60.7	29.9	29.9
Vested Former Employees	14	96,128	16	107,909	54.2	12.1	12.9
Retirees and Beneficiaries	146	1,756,980	150	1,776,694	73.1		
02 - Sheriff POAM							
Active Employees	8	\$ 526,172	8	\$ 515,941	49.9	24.7	25.4
Vested Former Employees	5	32,690	6	43,586	53.8	6.5	9.4
Retirees and Beneficiaries	59	1,445,058	59	1,438,627	69.9		
09 - UAW Managers							
Active Employees	5	\$ 343,888	6	\$ 378,264	56.6	30.8	30.8
Vested Former Employees	3	55,598	4	77,317	48.6	12.6	12.6
Retirees and Beneficiaries	91	3,216,675	90	3,096,059	66.6		
10 - UAW Professional							
Active Employees	5	\$ 295,880	6	\$ 338,418	57.5	28.2	28.2
Vested Former Employees	8	40,963	12	58,283	55.2	6.9	9.0
Retirees and Beneficiaries	61	923,298	56	881,071	69.6		
11 - GnrI Local486							
Active Employees	3	\$ 151,267	3	\$ 137,587	52.6	25.8	25.8
Vested Former Employees	2	19,562	2	19,562	52.4	12.6	19.7
Retirees and Beneficiaries	12	233,565	13	257,463	65.8		
13 - Sheriff/Cooks							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	6	123,484	7	126,004	66.5		
14 - Nurses							
Active Employees	1	\$ 56,236	1	\$ 51,524	56.9	28.5	28.5
Vested Former Employees	2	23,507	3	31,248	54.3	12.4	13.2
Retirees and Beneficiaries	19	307,335	18	300,038	74.1		
15 - Hlth Dept							
Active Employees	4	\$ 129,843	6	\$ 212,736	57.3	31.0	31.0
Vested Former Employees	10	56,434	10	56,408	54.4	9.5	11.4
Retirees and Beneficiaries	69	871,945	66	818,804	72.1		
16 - Elctd Commsnrs							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	2	6,027	4	19,626	61.6	10.0	10.0
Retirees and Beneficiaries	16	163,122	15	151,541	71.0		

Table 3 (continued)

Division	2016 Valuation		2015 Valuation		2016 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
17 - Animal Control							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	5	108,647	5	108,647	59.2		
18 - Judges							
Active Employees	1	\$ 27,434	1	\$ 27,434	72.1	44.0	44.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	5	52,594	5	52,300	80.5		
19 - Dist Judges							
Active Employees	1	\$ 27,434	2	\$ 54,868	61.3	26.4	26.4
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	5	80,186	4	51,998	77.3		
20 - Sheriff FOP							
Active Employees	2	\$ 144,119	2	\$ 145,475	53.0	29.0	29.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	14	516,631	14	516,631	65.3		
21 - Shrrff/Lts/Capts							
Active Employees	1	\$ 77,865	1	\$ 72,833	45.2	24.9	24.9
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	13	545,186	13	536,585	64.6		
23 - P.O.A.M. Non 312							
Active Employees	3	\$ 226,794	3	\$ 184,022	55.1	24.5	24.5
Vested Former Employees	1	9,062	1	9,062	49.6	9.3	9.3
Retirees and Beneficiaries	18	610,817	18	598,662	63.1		
91 - Juvenile Probtrn							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	5	141,912	5	141,912	68.3		
92 - Dist Court Prob							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	2	36,258	2	36,258	53.5	15.5	17.2
Retirees and Beneficiaries	3	103,649	3	103,649	63.2		
93 - Pros Attys Union							
Active Employees	1	\$ 79,554	1	\$ 78,257	66.7	27.9	27.9
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	7	270,805	7	270,805	66.0		
94 - Upper Management							
Active Employees	0	\$ 0	1	\$ 81,689	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	10	587,346	10	590,131	65.7		

Table 3 (continued)

Division	2016 Valuation		2015 Valuation		2016 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
95 - NonUnion Mgmt							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	1	62,676	1	54,822	68.2		
96 - UAW Para prof.							
Active Employees	1	\$ 61,040	1	\$ 60,310	60.4	34.5	34.5
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	4	70,874	4	70,874	60.0		
Total Municipality							
Active Employees	47	\$ 2,579,083	53	\$ 2,767,719	56.6	28.5	28.6
Vested Former Employees	49	376,229	60	459,259	54.1	10.2	11.9
Retirees and Beneficiaries	<u>569</u>	12,192,785	<u>563</u>	11,943,317	69.9		
Total Participants	665		676				

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	2016 Valuation		2015 Valuation	
	Employer and Retiree ¹	Employee ²	Employer and Retiree ¹	Employee ²
01 - General	\$ 16,552,975	\$ 247,045	\$ 16,481,622	\$ 267,884
02 - Sheriff POAM	15,858,251	654,028	15,500,321	627,646
09 - UAW Managers	30,900,919	170,009	30,631,639	214,940
10 - UAW Professional	9,281,064	148,078	9,151,369	150,435
11 - Gnrl Local486	2,599,645	0	2,546,161	0
13 - Sheriff/Cooks	1,035,626	0	1,046,972	0
14 - Nurses	2,068,913	3,196	2,137,857	7,484
15 - Hlth Dept	6,828,665	44,051	6,901,252	48,703
16 - Elctd Commsnrs	1,168,466	1,537	1,193,737	1,524
17 - Animal Control	932,209	0	935,199	0
18 - Judges	700,474	67,276	672,979	66,709
19 - Dist Judges	433,706	0	377,659	50,036
20 - Sheriff FOP	6,409,094	58,810	6,225,804	58,314
21 - Shrff/Lts/Capts	4,243,142	51,721	4,247,185	51,285
23 - P.O.A.M. Non 312	7,534,225	192,678	7,306,024	182,058
91 - Juvenile Probtn	894,241	0	936,855	0
92 - Dist Court Prob	1,061,529	19,752	1,044,745	19,585
93 - Pros Attys Union	2,508,458	0	2,499,407	0
94 - Upper Management	4,827,480	0	4,727,597	31,840
95 - NonUnion Mgmnt	554,689	0	557,946	0
96 - UAW Para prof.	1,105,349	35,676	1,055,668	32,748
Municipality Total	\$ 117,499,120	\$ 1,693,857	\$ 116,177,998	\$ 1,811,191
Combined Reserves	\$ 119,192,977		\$ 117,989,189	

¹ Reserve for Employer Contributions and Benefit Payments

² Reserve for Employee Contributions

The December 31, 2016 valuation assets are equal to 1.077095 times the reported market value of assets (compared to 1.135382 as of December 31, 2015). 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						
2006	\$ 2,718,336		\$ 216,719	\$ 6,996,640	\$ (5,982,593)	\$ (2,893)	\$ 68,448	\$ 91,934,019
2007	3,042,832		220,975	7,437,289	(6,482,434)	(4,111)	91,996	96,240,566
2008	3,161,891		187,842	3,863,205	(7,805,116)	(3,575)	421,418	96,066,231
2009	3,106,777		134,975	2,741,524	(9,213,487)	0	144,517	92,980,537
2010	3,114,732		127,851	3,822,727	(9,373,913)	0	80,076	90,752,010
2011	4,151,136	\$ 0	122,049	3,948,807	(9,603,674)	0	114,001	89,484,329
2012	4,672,827	0	112,274	3,535,581	(9,781,816)	0	19,921	88,043,116
2013	5,342,289	0	99,342	4,817,789	(10,624,888)	0	122,127	87,799,775
2014	397,713	51,623,224	80,446	10,421,658	(11,277,194)	0	22,954	139,068,576
2015	378,427	0	70,844	5,986,477	(11,572,834)	0	31,311	133,962,801
2016	401,184	0	61,122	5,839,888	(11,882,833)	0	0	128,382,162

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, 2016

Table 6

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - General				
Active Employees	\$ 2,735,457	\$ 1,319,396	48.2%	\$ 1,416,061
Vested Former Employees	699,947	699,947	100.0%	0
Retirees And Beneficiaries	16,067,602	16,067,602	100.0%	0
Pending Refunds	<u>8,273</u>	<u>8,273</u>	100.0%	<u>0</u>
Total	\$ 19,511,279	\$ 18,095,218	92.7%	\$ 1,416,061
02 - Sheriff POAM				
Active Employees	\$ 3,965,002	\$ 1,697,751	42.8%	\$ 2,267,251
Vested Former Employees	249,171	249,171	100.0%	0
Retirees And Beneficiaries	15,837,801	15,837,801	100.0%	0
Pending Refunds	<u>570</u>	<u>570</u>	100.0%	<u>0</u>
Total	\$ 20,052,544	\$ 17,785,293	88.7%	\$ 2,267,251
09 - UAW Managers				
Active Employees	\$ 2,553,371	\$ 117,615	4.6%	\$ 2,435,756
Vested Former Employees	317,731	52,380	16.5%	265,351
Retirees And Beneficiaries	36,557,236	33,296,346	91.1%	3,260,890
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 39,428,338	\$ 33,466,341	84.9%	\$ 5,961,997
10 - UAW Professional				
Active Employees	\$ 1,648,688	\$ 1,234,462	74.9%	\$ 414,226
Vested Former Employees	308,497	308,497	100.0%	0
Retirees And Beneficiaries	8,613,123	8,613,123	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 10,570,308	\$ 10,156,082	96.1%	\$ 414,226
11 - Gnrl Local486				
Active Employees	\$ 867,909	\$ 275,872	31.8%	\$ 592,037
Vested Former Employees	131,993	131,993	100.0%	0
Retirees And Beneficiaries	2,392,200	2,392,200	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 3,392,102	\$ 2,800,065	82.5%	\$ 592,037
13 - Sheriff/Cooks				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,236,899	1,115,468	90.2%	121,431
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 1,236,899	\$ 1,115,468	90.2%	\$ 121,431

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
14 - Nurses				
Active Employees	\$ 327,659	\$ 0	0.0%	\$ 327,659
Vested Former Employees	144,008	3,196	2.2%	140,812
Retirees And Beneficiaries	2,496,362	2,228,662	89.3%	267,700
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 2,968,029	\$ 2,231,858	75.2%	\$ 736,171
15 - Hlth Dept				
Active Employees	\$ 818,848	\$ 18,981	2.3%	\$ 799,867
Vested Former Employees	405,227	21,422	5.3%	383,805
Retirees And Beneficiaries	7,986,573	7,362,165	92.2%	624,408
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 9,210,648	\$ 7,402,568	80.4%	\$ 1,808,080
16 - Elctd Commsnrs				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	63,316	0	0.0%	63,316
Retirees And Beneficiaries	1,434,745	1,260,204	87.8%	174,541
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 1,498,061	\$ 1,260,204	84.1%	\$ 237,857
17 - Animal Control				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,199,513	1,004,078	83.7%	195,435
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 1,199,513	\$ 1,004,078	83.7%	\$ 195,435
18 - Judges				
Active Employees	\$ 334,036	\$ 417,511	125.0%	\$ (83,475)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	409,429	409,429	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 743,465	\$ 826,940	111.2%	\$ (83,475)
19 - Dist Judges				
Active Employees	\$ 187,232	\$ 0	0.0%	\$ 187,232
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	663,218	467,143	70.4%	196,075
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 850,450	\$ 467,143	54.9%	\$ 383,307
20 - Sheriff FOP				
Active Employees	\$ 1,031,553	\$ 1,485,438	144.0%	\$ (453,885)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	5,481,109	5,481,109	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 6,512,662	\$ 6,966,547	107.0%	\$ (453,885)

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
21 - Shrff/Lts/Capts				
Active Employees	\$ 627,190	\$ 51,721	8.2%	\$ 575,469
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	6,719,466	4,574,254	68.1%	2,145,212
Pending Refunds	0	0	0.0%	0
Total	\$ 7,346,656	\$ 4,625,975	63.0%	\$ 2,720,681
23 - P.O.A.M. Non 312				
Active Employees	\$ 1,508,044	\$ 775,039	51.4%	\$ 733,005
Vested Former Employees	53,241	53,241	100.0%	0
Retirees And Beneficiaries	7,494,329	7,494,329	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	\$ 9,055,614	\$ 8,322,609	91.9%	\$ 733,005
91 - Juvenile Probtn				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,343,414	963,183	71.7%	380,231
Pending Refunds	0	0	0.0%	0
Total	\$ 1,343,414	\$ 963,183	71.7%	\$ 380,231
92 - Dist Court Prob				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	339,688	48,577	14.3%	291,111
Retirees And Beneficiaries	1,116,065	1,116,065	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	\$ 1,455,753	\$ 1,164,642	80.0%	\$ 291,111
93 - Pros Attys Union				
Active Employees	\$ 406,336	\$ 0	0.0%	\$ 406,336
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	2,825,805	2,701,848	95.6%	123,957
Pending Refunds	0	0	0.0%	0
Total	\$ 3,232,141	\$ 2,701,848	83.6%	\$ 530,293
94 - Upper Management				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	7,203,912	5,199,655	72.2%	2,004,257
Pending Refunds	0	0	0.0%	0
Total	\$ 7,203,912	\$ 5,199,655	72.2%	\$ 2,004,257
95 - NonUnion Mgmnt				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	649,311	597,453	92.0%	51,858
Pending Refunds	0	0	0.0%	0
Total	\$ 649,311	\$ 597,453	92.0%	\$ 51,858

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
96 - UAW Para prof.				
Active Employees	\$ 425,432	\$ 438,870	103.2%	\$ (13,438)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	790,122	790,122	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 1,215,554	\$ 1,228,992	101.1%	\$ (13,438)
Total Municipality				
Active Employees	\$ 17,436,757	\$ 7,832,656	44.9%	\$ 9,604,101
Vested Former Employees	2,712,819	1,568,424	57.8%	1,144,395
Retirees and Beneficiaries	128,518,234	118,972,239	92.6%	9,545,995
Pending Refunds	<u>8,843</u>	<u>8,843</u>	100.0%	<u>0</u>
Total Participants	\$ 148,676,653	\$ 128,382,162	86.3%	\$ 20,294,491

¹ Includes both employer and employee assets.

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

See Section 46 of the Plan Document for MERS Fiscal Responsibility policy, on the MERS website at:
<https://employerportal.mersofmich.com/SharePointFormsService/Default.aspx?Publication=MERSPlanDocument.pdf>.

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2002	\$ 99,129,201	\$ 78,295,659	79%	\$ 20,833,542
2003	104,989,442	82,375,896	78%	22,613,546
2004	109,067,562	85,338,467	78%	23,729,095
2005	116,271,363	87,919,362	76%	28,352,001
2006	121,846,675	91,934,019	75%	29,912,656
2007	125,684,383	96,240,566	77%	29,443,817
2008	135,044,418	96,066,231	71%	38,978,187
2009	136,732,789	92,980,537	68%	43,752,252
2010	137,462,228	90,752,010	66%	46,710,218
2011	138,842,567	89,484,329	64%	49,358,238
2012	139,666,340	88,043,116	63%	51,623,224
2013	142,346,636	87,799,775	62%	54,546,861
2014	142,319,348	139,068,576	98%	3,250,772
2015	149,188,929	133,962,801	90%	15,226,128
2016	148,676,653	128,382,162	86%	20,294,491

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, 2012 and 2015 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
2006	\$ 19,290,800	\$ 16,150,497	84%	\$ 3,140,303
2007	19,151,816	15,020,616	78%	4,131,200
2008	20,136,698	14,740,482	73%	5,396,216
2009	20,208,441	13,880,928	69%	6,327,513
2010	20,009,957	13,239,723	66%	6,770,234
2011	20,294,019	12,758,515	63%	7,535,504
2012	19,902,410	12,289,309	62%	7,613,101
2013	19,599,081	12,057,652	62%	7,541,429
2014	19,285,438	19,890,908	103%	(605,470)
2015	19,932,465	19,017,088	95%	915,377
2016	19,511,279	18,095,218	93%	1,416,061

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		
2006	52	\$ 1,836,864	\$ 29,798	3.88%
2007	49	1,663,682	\$ 34,152	3.88%
2008	33	1,161,510	\$ 45,027	3.88%
2009	33	1,226,665	\$ 55,451	3.88%
2010	28	1,004,444	\$ 62,454	3.88%
2011	25	939,216	\$ 78,236	3.88%
2012	23	853,425	\$ 90,848	3.88%
2013	14	516,849	\$ 108,120	3.88%
2014	13	481,646	\$ 1,886	3.88%
2015	11	428,361	\$ 25,718	3.88%
2016	11	431,557	\$ 18,380	3.88%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

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
2006	\$ 16,093,985	\$ 10,766,307	67%	\$ 5,327,678
2007	17,404,182	12,459,731	72%	4,944,451
2008	18,097,683	12,530,204	69%	5,567,479
2009	18,063,622	12,048,918	67%	6,014,704
2010	18,167,949	11,679,664	64%	6,488,285
2011	18,461,481	11,607,609	63%	6,853,872
2012	18,511,500	11,349,958	61%	7,161,542
2013	18,705,014	11,360,963	61%	7,344,051
2014	19,002,807	18,813,211	99%	189,596
2015	20,164,050	18,311,403	91%	1,852,647
2016	20,052,544	17,785,293	89%	2,267,251

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

Table 9-02: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	18	\$ 993,622	\$ 39,039	4.00%
2007	16	1,051,611	\$ 37,574	4.00%
2008	9	556,792	\$ 44,048	4.00%
2009	9	551,299	\$ 51,357	4.00%
2010	9	556,221	\$ 60,714	4.00%
2011	9	575,442	\$ 72,406	4.00%
2012	9	571,396	\$ 87,744	4.00%
2013	9	566,327	\$ 110,062	4.00%
2014	9	570,129	\$ 4,699	4.00%
2015	8	515,941	\$ 52,750	4.00%
2016	8	526,172	\$ 31,061	4.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 09 - UAW Managers

Table 8-09: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 28,210,689	\$ 18,621,355	66%	\$ 9,589,334
2007	29,073,477	22,201,445	76%	6,872,032
2008	33,655,793	23,427,965	70%	10,227,828
2009	34,503,332	22,726,869	66%	11,776,463
2010	34,834,216	22,176,771	64%	12,657,445
2011	34,545,933	21,684,388	63%	12,861,545
2012	35,308,533	21,474,996	61%	13,833,537
2013	36,644,206	22,159,800	61%	14,484,406
2014	36,649,796	36,329,218	99%	320,578
2015	38,994,658	35,022,651	90%	3,972,007
2016	39,428,338	33,466,341	85%	5,961,997

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

Table 9-09: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	35	\$ 1,958,416	\$ 73,549	3.20%
2007	31	1,823,338	\$ 51,074	3.20%
2008	19	1,138,639	\$ 82,298	3.20%
2009	19	1,215,989	\$ 101,445	3.20%
2010	18	1,183,514	\$ 116,671	3.20%
2011	17	1,055,648	\$ 131,408	3.20%
2012	16	907,495	\$ 165,447	3.20%
2013	12	745,579	\$ 213,459	3.20%
2014	10	606,318	\$ 3,814	3.20%
2015	6	378,264	\$ 105,819	3.20%
2016	5	343,888	\$ 72,500	3.20%

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 through 12/31/2019 valuations do not reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 10 - UAWProfessional

Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 10,791,050	\$ 9,182,137	85%	\$ 1,608,913
2007	10,624,411	8,526,110	80%	2,098,301
2008	10,967,405	8,098,960	74%	2,868,445
2009	11,121,208	7,664,257	69%	3,456,951
2010	11,117,976	7,365,110	66%	3,752,866
2011	11,280,242	7,230,548	64%	4,049,694
2012	11,301,354	7,063,933	63%	4,237,421
2013	10,905,024	6,712,078	62%	4,192,946
2014	10,375,412	10,926,965	105%	(551,553)
2015	10,764,715	10,561,101	98%	203,614
2016	10,570,308	10,156,082	96%	414,226

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		
2006	19	\$ 968,541	\$ 16,191	0.00%
2007	18	920,299	\$ 18,457	0.00%
2008	9	499,823	\$ 24,076	0.00%
2009	8	494,821	\$ 30,422	0.00%
2010	8	489,208	\$ 35,429	0.00%
2011	9	526,168	\$ 43,203	0.00%
2012	9	530,101	\$ 52,269	0.00%
2013	7	381,854	\$ 61,756	0.00%
2014	6	331,768	\$ 2,178	0.00%
2015	6	338,418	\$ 7,778	0.00%
2016	5	295,880	\$ 6,727	0.00%

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 through 12/31/2019 valuations do not reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 11 - Gnrl Local486

Table 8-11: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 2,504,715	\$ 1,803,532	72%	\$ 701,183
2007	2,899,137	2,034,522	70%	864,615
2008	3,076,394	2,001,772	65%	1,074,622
2009	2,975,074	1,924,910	65%	1,050,164
2010	3,037,755	1,908,266	63%	1,129,489
2011	3,067,062	1,884,508	61%	1,182,554
2012	3,075,893	1,857,645	60%	1,218,248
2013	3,202,910	1,857,577	58%	1,345,333
2014	3,333,390	3,003,686	90%	329,704
2015	3,499,114	2,890,865	83%	608,249
2016	3,392,102	2,800,065	83%	592,037

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

Table 9-11: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	12	\$ 468,009	\$ 7,171	0.00%
2007	10	404,372	\$ 7,734	0.00%
2008	6	231,803	\$ 8,774	0.00%
2009	6	237,885	\$ 8,974	0.00%
2010	5	198,973	\$ 10,041	0.00%
2011	5	198,723	\$ 11,570	0.00%
2012	5	198,311	\$ 13,264	0.00%
2013	3	112,301	\$ 16,461	0.00%
2014	3	148,770	\$ 2,300	0.00%
2015	3	137,587	\$ 13,720	0.00%
2016	3	151,267	\$ 7,446	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 13 - Sheriff/Cooks

Table 8-13: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 985,858	\$ 1,015,896	103%	\$ (30,038)
2007	1,171,090	819,506	70%	351,584
2008	1,326,516	804,034	61%	522,482
2009	1,329,109	732,077	55%	597,032
2010	1,326,847	703,697	53%	623,150
2011	1,226,506	630,201	51%	596,305
2012	1,219,383	613,436	50%	605,947
2013	1,207,932	610,762	51%	597,170
2014	1,236,883	1,260,847	102%	(23,964)
2015	1,277,816	1,188,713	93%	89,103
2016	1,236,899	1,115,468	90%	121,431

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 December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	5	\$ 157,360	\$ 863	1.00%
2007	5	193,655	\$ 3,466	1.00%
2008	2	65,922	\$ 4,017	1.00%
2009	2	71,599	\$ 4,737	1.00%
2010	2	69,882	\$ 5,273	1.00%
2011	1	36,711	\$ 5,144	1.00%
2012	1	36,820	\$ 6,023	1.00%
2013	1	36,441	\$ 7,000	1.00%
2014	0	0	\$ 0	0.00%
2015	0	0	\$ 1,859	1.00%
2016	0	0	\$ 1,361	1.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 14 - Nurses

Table 8-14: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 3,203,370	\$ 2,379,270	74%	\$ 824,100
2007	2,969,253	2,449,313	82%	519,940
2008	2,935,889	2,476,099	84%	459,790
2009	2,921,768	2,359,304	81%	562,464
2010	2,910,479	2,239,647	77%	670,832
2011	2,928,508	2,091,845	71%	836,663
2012	2,910,595	1,948,813	67%	961,782
2013	2,922,195	1,835,982	63%	1,086,213
2014	2,884,099	2,626,807	91%	257,292
2015	3,001,013	2,435,782	81%	565,231
2016	2,968,029	2,231,858	75%	736,171

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		
2006	6	\$ 308,972	\$ 7,474	0.00%
2007	6	288,478	\$ 4,989	0.00%
2008	3	146,401	\$ 3,965	0.00%
2009	3	155,484	\$ 5,462	0.00%
2010	3	152,204	\$ 6,892	0.00%
2011	2	102,584	\$ 8,985	0.00%
2012	2	102,354	\$ 11,906	0.00%
2013	1	50,662	\$ 16,120	0.00%
2014	1	50,699	\$ 278	0.00%
2015	1	51,524	\$ 15,056	0.00%
2016	1	56,236	\$ 9,031	0.00%

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 through 12/31/2019 valuations do not reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 15 - Hlth Dept

Table 8-15: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 7,919,060	\$ 6,494,700	82%	\$ 1,424,360
2007	8,229,526	6,315,433	77%	1,914,093
2008	8,626,232	6,194,171	72%	2,432,061
2009	8,646,444	5,925,674	69%	2,720,770
2010	8,720,667	5,763,585	66%	2,957,082
2011	8,636,783	5,571,562	65%	3,065,221
2012	8,573,513	5,489,782	64%	3,083,731
2013	8,770,805	5,461,552	62%	3,309,253
2014	8,828,631	8,332,651	94%	495,980
2015	9,191,875	7,890,854	86%	1,301,021
2016	9,210,648	7,402,568	80%	1,808,080

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		
2006	29	\$ 949,862	\$ 15,552	0.00%
2007	27	928,261	\$ 17,031	0.00%
2008	17	570,302	\$ 21,152	0.00%
2009	17	590,015	\$ 24,674	0.00%
2010	15	528,044	\$ 28,366	0.00%
2011	14	499,392	\$ 32,648	0.00%
2012	14	494,260	\$ 38,031	0.00%
2013	8	255,145	\$ 48,902	0.00%
2014	7	238,745	\$ 1,400	0.00%
2015	6	212,736	\$ 35,222	0.00%
2016	4	129,843	\$ 22,012	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 16 - Elctd Commsnrs

Table 8-16: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 1,487,088	\$ 1,946,036	131%	\$ (458,948)
2007	1,484,242	1,189,434	80%	294,808
2008	1,516,883	1,109,081	73%	407,802
2009	1,510,587	1,002,216	66%	508,371
2010	1,522,345	940,103	62%	582,242
2011	1,520,974	876,994	58%	643,980
2012	1,503,643	816,921	54%	686,722
2013	1,490,242	780,672	52%	709,570
2014	1,470,430	1,448,212	99%	22,218
2015	1,532,560	1,357,078	89%	175,482
2016	1,498,061	1,260,204	84%	237,857

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

Table 9-16: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	7	\$ 98,454	\$ 0	0.00%
2007	4	60,095	\$ 2,347	0.00%
2008	2	32,688	\$ 3,179	0.00%
2009	2	32,236	\$ 4,108	0.00%
2010	1	15,959	\$ 5,259	0.00%
2011	1	15,884	\$ 6,318	0.00%
2012	1	16,099	\$ 7,947	0.00%
2013	0	0	\$ 10,167	0.00%
2014	0	0	\$ 0	0.00%
2015	0	0	\$ 4,574	0.00%
2016	0	0	\$ 2,815	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 17 - Animal Control

Table 8-17: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 929,221	\$ 664,803	72%	\$ 264,418
2007	1,037,974	728,184	70%	309,790
2008	927,730	743,634	80%	184,096
2009	944,706	747,042	79%	197,664
2010	970,773	758,479	78%	212,294
2011	982,208	761,323	78%	220,885
2012	1,016,933	765,397	75%	251,536
2013	1,029,536	785,421	76%	244,115
2014	1,103,126	1,081,161	98%	21,965
2015	1,213,107	1,061,808	88%	151,299
2016	1,199,513	1,004,078	84%	195,435

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

Table 9-17: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	3	\$ 119,466	\$ 2,437	0.00%
2007	2	90,340	\$ 2,671	0.00%
2008	2	82,737	\$ 1,870	0.00%
2009	2	87,243	\$ 2,118	0.00%
2010	2	89,687	\$ 2,448	0.00%
2011	2	86,834	\$ 2,761	0.00%
2012	2	94,539	\$ 3,567	0.00%
2013	2	92,542	\$ 3,993	0.00%
2014	2	107,496	\$ 608	0.00%
2015	0	0	\$ 3,654	0.00%
2016	0	0	\$ 2,250	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 18 - Judges

Table 8-18: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 1,118,328	\$ 1,046,406	94%	\$ 71,922
2007	1,122,311	890,135	79%	232,176
2008	870,777	674,588	77%	196,189
2009	899,069	660,996	74%	238,073
2010	891,720	658,389	74%	233,331
2011	879,354	637,313	73%	242,041
2012	867,918	616,065	71%	251,853
2013	865,307	605,018	70%	260,289
2014	837,054	854,423	102%	(17,369)
2015	764,963	839,828	110%	(74,865)
2016	743,465	826,940	111%	(83,475)

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

Table 9-18: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	3	\$ 82,302	\$ 1,439	0.00%
2007	3	82,302	\$ 1,857	0.00%
2008	2	54,868	\$ 1,469	0.00%
2009	2	56,978	\$ 1,754	0.00%
2010	1	27,434	\$ 1,861	0.00%
2011	1	27,538	\$ 2,135	0.00%
2012	1	27,168	\$ 2,493	0.00%
2013	1	28,489	\$ 3,002	0.00%
2014	1	27,434	\$ 0	0.00%
2015	1	27,434	\$ 0	0.00%
2016	1	27,434	\$ 0	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 19 - Dist Judges

Table 8-19: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 1,078,351	\$ 876,742	81%	\$ 201,609
2007	1,087,270	853,927	79%	233,343
2008	1,102,321	854,101	77%	248,220
2009	1,211,493	862,841	71%	348,652
2010	1,186,822	882,320	74%	304,502
2011	1,192,004	906,515	76%	285,489
2012	798,085	932,821	117%	(134,736)
2013	783,928	657,120	84%	126,808
2014	772,769	515,133	67%	257,636
2015	811,675	485,597	60%	326,078
2016	850,450	467,143	55%	383,307

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

Table 9-19: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	3	\$ 82,302	\$ 2,151	0.00%
2007	3	82,302	\$ 2,139	0.00%
2008	3	82,302	\$ 2,372	0.00%
2009	3	85,467	\$ 2,918	0.00%
2010	3	82,302	\$ 2,695	0.00%
2011	3	82,614	\$ 2,802	0.00%
2012	2	54,336	\$ 0	0.00%
2013	2	56,978	\$ 1,898	0.00%
2014	2	54,868	\$ 4,741	0.00%
2015	2	54,868	\$ 6,314	0.00%
2016	1	27,434	\$ 4,064	0.00%

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 through 12/31/2019 valuations do not reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 20 - Sheriff FOP

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 7,838,478	\$ 5,142,627	66%	\$ 2,695,851
2007	7,450,313	6,104,070	82%	1,346,243
2008	8,118,694	6,319,592	78%	1,799,102
2009	8,174,582	6,279,416	77%	1,895,166
2010	8,296,149	6,136,690	74%	2,159,459
2011	7,424,929	5,643,842	76%	1,781,087
2012	7,465,796	5,584,843	75%	1,880,953
2013	6,621,436	5,017,221	76%	1,604,215
2014	6,614,575	7,267,704	110%	(653,129)
2015	6,566,960	7,134,874	109%	(567,914)
2016	6,512,662	6,966,547	107%	(453,885)

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

Table 9-20: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	12	\$ 968,028	\$ 24,393	0.00%
2007	11	721,835	\$ 12,663	0.00%
2008	8	556,083	\$ 16,958	0.00%
2009	8	582,929	\$ 19,012	0.00%
2010	7	506,113	\$ 21,267	0.00%
2011	5	367,338	\$ 17,700	0.00%
2012	5	359,760	\$ 20,868	0.00%
2013	3	208,483	\$ 19,039	0.00%
2014	3	215,514	\$ 1,529	0.00%
2015	2	145,475	\$ 908	0.00%
2016	2	144,119	\$ 840	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 21 - Shrff/Lts/Capts

Table 8-21: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 3,723,126	\$ 2,156,666	58%	\$ 1,566,460
2007	3,836,042	2,889,583	75%	946,459
2008	4,139,263	2,948,289	71%	1,190,974
2009	4,201,089	2,861,615	68%	1,339,474
2010	4,236,423	2,755,217	65%	1,481,206
2011	5,020,206	3,121,737	62%	1,898,469
2012	5,092,140	3,068,826	60%	2,023,314
2013	6,598,786	3,763,079	57%	2,835,707
2014	6,608,487	5,097,274	77%	1,511,213
2015	7,282,536	4,880,405	67%	2,402,131
2016	7,346,656	4,625,975	63%	2,720,681

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

Table 9-21: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	3	\$ 219,058	\$ 11,067	0.00%
2007	2	143,928	\$ 6,217	0.00%
2008	1	71,891	\$ 8,361	0.00%
2009	1	79,413	\$ 10,273	0.00%
2010	1	77,857	\$ 11,983	0.00%
2011	3	222,991	\$ 19,204	0.00%
2012	3	228,719	\$ 22,391	0.00%
2013	3	216,478	\$ 36,561	0.00%
2014	3	212,881	\$ 19,519	0.00%
2015	1	72,833	\$ 47,408	0.00%
2016	1	77,865	\$ 29,203	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 23 - P.O.A.M. Non 312

Table 8-23: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 6,213,655	\$ 4,197,151	68%	\$ 2,016,504
2007	7,012,471	5,036,379	72%	1,976,092
2008	7,722,879	4,916,106	64%	2,806,773
2009	7,814,124	4,806,309	62%	3,007,815
2010	7,823,108	4,753,523	61%	3,069,585
2011	8,097,500	4,756,597	59%	3,340,903
2012	8,231,285	4,703,619	57%	3,527,666
2013	8,167,289	4,754,827	58%	3,412,462
2014	8,428,134	8,683,821	103%	(255,687)
2015	8,798,885	8,501,834	97%	297,051
2016	9,055,614	8,322,609	92%	733,005

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

Table 9-23: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	13	\$ 656,257	\$ 15,580	4.00%
2007	12	693,801	\$ 15,523	4.00%
2008	6	338,658	\$ 20,886	4.00%
2009	6	337,939	\$ 23,350	4.00%
2010	5	284,169	\$ 25,079	4.00%
2011	5	306,129	\$ 30,712	4.00%
2012	4	237,691	\$ 36,232	4.00%
2013	3	177,391	\$ 39,992	4.00%
2014	3	209,708	\$ 1,607	4.00%
2015	3	184,022	\$ 7,579	4.00%
2016	3	226,794	\$ 9,964	4.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 91 - Juvenile Probtn

Table 8-91: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 1,261,699	\$ 836,077	66%	\$ 425,622
2007	1,315,958	973,577	74%	342,381
2008	1,323,310	986,068	75%	337,242
2009	1,327,127	941,592	71%	385,535
2010	1,320,595	900,679	68%	419,916
2011	1,310,998	865,255	66%	445,743
2012	1,301,493	834,828	64%	466,665
2013	1,355,111	803,258	59%	551,853
2014	1,329,960	1,159,578	87%	170,382
2015	1,370,230	1,063,688	78%	306,542
2016	1,343,414	963,183	72%	380,231

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

Table 9-91: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	2	\$ 95,194	\$ 3,019	3.45%
2007	1	48,971	\$ 2,198	3.45%
2008	1	50,064	\$ 2,533	3.45%
2009	1	52,846	\$ 3,226	3.45%
2010	1	52,266	\$ 3,837	3.45%
2011	1	51,702	\$ 4,573	3.45%
2012	1	51,587	\$ 5,584	3.45%
2013	0	0	\$ 8,077	0.00%
2014	0	0	\$ 708	0.00%
2015	0	0	\$ 7,789	3.45%
2016	0	0	\$ 4,433	3.45%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 92 - Dist Court Prob

Table 8-92: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 1,021,853	\$ 773,736	76%	\$ 248,117
2007	1,007,781	832,132	83%	175,649
2008	1,057,842	839,559	79%	218,283
2009	1,133,694	885,407	78%	248,287
2010	1,225,491	934,868	76%	290,623
2011	1,262,745	947,183	75%	315,562
2012	1,282,916	960,227	75%	322,689
2013	1,372,272	983,234	72%	389,038
2014	1,383,026	1,249,209	90%	133,817
2015	1,444,757	1,208,421	84%	236,336
2016	1,455,753	1,164,642	80%	291,111

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

Table 9-92: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	3	\$ 155,943	\$ 2,248	3.84%
2007	3	143,756	\$ 1,636	3.84%
2008	3	151,163	\$ 2,460	3.84%
2009	3	160,314	\$ 2,730	3.84%
2010	2	104,454	\$ 3,065	3.84%
2011	2	105,580	\$ 3,753	3.84%
2012	2	105,362	\$ 4,351	3.84%
2013	1	51,382	\$ 6,009	3.84%
2014	1	51,225	\$ 1,124	3.84%
2015	0	0	\$ 5,759	3.84%
2016	0	0	\$ 3,332	3.84%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 93 - Pros Attys Union

Table 8-93: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 2,402,518	\$ 1,695,880	71%	\$ 706,638
2007	2,584,877	2,003,804	78%	581,073
2008	2,386,680	1,765,640	74%	621,040
2009	2,500,001	1,932,219	77%	567,782
2010	2,652,842	2,097,445	79%	555,397
2011	2,720,200	2,235,267	82%	484,933
2012	2,878,247	2,309,542	80%	568,705
2013	2,927,625	2,350,397	80%	577,228
2014	3,139,907	2,967,524	95%	172,383
2015	3,255,535	2,837,782	87%	417,753
2016	3,232,141	2,701,848	84%	530,293

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

Table 9-93: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	7	\$ 534,234	\$ 8,550	0.00%
2007	7	551,261	\$ 7,159	0.00%
2008	6	477,852	\$ 7,647	0.00%
2009	6	500,867	\$ 7,327	0.00%
2010	5	414,075	\$ 6,855	0.00%
2011	5	412,512	\$ 6,823	0.00%
2012	3	244,413	\$ 7,809	0.00%
2013	3	240,880	\$ 9,648	0.00%
2014	1	77,264	\$ 635	0.00%
2015	1	78,257	\$ 11,135	0.00%
2016	1	79,554	\$ 6,707	0.00%

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 through 12/31/2019 valuations do not reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 94 - Upper Management

Table 8-94: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 4,217,347	\$ 5,134,184	122%	\$ (916,837)
2007	4,519,896	3,617,934	80%	901,962
2008	5,028,892	3,379,599	67%	1,649,293
2009	5,179,666	3,516,958	68%	1,662,708
2010	5,154,390	3,669,725	71%	1,484,665
2011	6,173,163	4,072,092	66%	2,101,071
2012	6,589,694	4,139,270	63%	2,450,424
2013	7,316,333	3,999,761	55%	3,316,572
2014	7,188,840	5,658,834	79%	1,530,006
2015	7,504,816	5,403,779	72%	2,101,037
2016	7,203,912	5,199,655	72%	2,004,257

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

Table 9-94: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	7	\$ 719,880	\$ 583	0.00%
2007	7	785,865	\$ 10,830	0.00%
2008	5	560,090	\$ 13,724	0.00%
2009	5	617,645	\$ 13,939	0.00%
2010	5	546,310	\$ 12,434	0.00%
2011	4	436,254	\$ 18,185	0.00%
2012	2	247,615	\$ 19,828	0.00%
2013	1	82,006	\$ 27,409	0.00%
2014	1	81,719	\$ 11,256	0.00%
2015	1	81,689	\$ 25,177	0.00%
2016	0	0	\$ 18,152	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 95 - NonUnion Mgmnt

Table 8-95: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 439,948	\$ 294,920	67%	\$ 145,028
2007	448,612	374,535	83%	74,077
2008	642,217	361,625	56%	280,592
2009	645,988	336,850	52%	309,138
2010	649,049	308,581	48%	340,468
2011	653,894	289,480	44%	364,414
2012	655,605	271,515	41%	384,090
2013	653,599	259,933	40%	393,666
2014	653,574	658,895	101%	(5,321)
2015	591,916	633,482	107%	(41,566)
2016	649,311	597,453	92%	51,858

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

Table 9-95: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	1	\$ 60,395	\$ 1,358	0.00%
2007	1	62,066	\$ 686	0.00%
2008	0	0	\$ 1,580	0.00%
2009	0	0	\$ 1,839	0.00%
2010	0	0	\$ 2,117	0.00%
2011	0	0	\$ 2,436	0.00%
2012	0	0	\$ 2,793	0.00%
2013	0	0	\$ 3,153	0.00%
2014	0	0	\$ 0	0.00%
2015	0	0	\$ 0	0.00%
2016	0	0	\$ 603	0.00%

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 through 12/31/2019 valuations do **not** reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 96 - UAW Para prof.

Table 8-96: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	\$ 1,115,536	\$ 755,097	68%	\$ 360,439
2007	1,253,744	920,196	73%	333,548
2008	1,384,320	894,662	65%	489,658
2009	1,421,665	884,139	62%	537,526
2010	1,406,675	879,528	63%	527,147
2011	1,163,858	911,555	78%	252,303
2012	1,179,404	951,370	81%	228,034
2013	1,208,005	983,468	81%	224,537
2014	1,193,010	1,242,515	104%	(49,505)
2015	1,225,283	1,235,768	101%	(10,485)
2016	1,215,554	1,228,992	101%	(13,438)

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

Table 9-96: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2006	6	\$ 229,016	\$ 3,152	4.34%
2007	4	166,460	\$ 2,398	4.34%
2008	2	91,310	\$ 3,225	4.34%
2009	2	96,885	\$ 3,674	4.34%
2010	2	94,620	\$ 3,655	4.34%
2011	2	102,928	\$ 1,881	4.34%
2012	2	100,721	\$ 1,925	4.34%
2013	1	59,758	\$ 1,950	4.34%
2014	1	59,728	\$ 173	4.34%
2015	1	60,310	\$ 200	4.34%
2016	1	61,040	\$ 199	4.34%

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 through 12/31/2019 valuations do not reflect the phase-in 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 7.

See the Benefit Provision History on page 78 for past benefit provision changes.

Division 01 - General

Table 10-01: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 915,377	4	\$ 836,670	8	\$ 123,432
Gain/Loss	12/31/2016	562,167	10	640,613	10	78,360
Total				\$ 1,477,283		\$ 201,792

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 02 - Sheriff POAM

Table 10-02: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 1,852,647	4	\$ 1,678,010	8	\$ 247,560
Gain/Loss	12/31/2016	544,142	10	620,072	10	75,840
Total				\$ 2,298,082		\$ 323,400

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 09 - UAW Managers

Table 10-09: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 3,972,007	4	\$ 3,579,577	8	\$ 528,108
Gain/Loss	12/31/2016	2,271,173	10	2,588,096	10	316,560
Total				\$ 6,167,673		\$ 844,668

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 10 - UAW Professional

Table 10-10: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 203,614	4	\$ 193,564	8	\$ 28,560
Gain/Loss	12/31/2016	219,419	10	250,037	10	30,588
Total				\$ 443,601		\$ 59,148

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 11 - Gnrl Local486

Table 10-11: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 608,249	5	\$ 576,063	9	\$ 76,908
Gain/Loss	12/31/2016	1,439	10	1,640	10	204
Total				\$ 577,703		\$ 77,112

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 13 - Sheriff/Cooks

Table 10-13: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 89,103	5	\$ 84,375	9	\$ 11,268
Gain/Loss	12/31/2016	36,326	10	41,395	10	5,064
Total				\$ 125,770		\$ 16,332

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 14 - Nurses

Table 10-14: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 565,231	4	\$ 512,593	8	\$ 75,624
Gain/Loss	12/31/2016	209,518	10	238,754	10	29,208
Total				\$ 751,347		\$ 104,832

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 15 - Hlth Dept

Table 10-15: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 1,301,021	4	\$ 1,179,679	8	\$ 174,048
Gain/Loss	12/31/2016	589,825	10	672,130	10	82,212
Total				\$ 1,851,809		\$ 256,260

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 16 - Elctd Commsnrs

Table 10-16: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 175,482	4	\$ 158,589	8	\$ 23,400
Gain/Loss	12/31/2016	74,461	10	84,851	10	10,380
Total				\$ 243,440		\$ 33,780

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 17 - Animal Control

Table 10-17: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 151,299	4	\$ 126,704	8	\$ 18,696
Gain/Loss	12/31/2016	59,574	10	67,887	10	8,304
Total				\$ 194,591		\$ 27,000

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 18 - Judges

Table 10-18: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ (74,865)	10	\$ (89,385)	10	\$ (10,932)
Gain/Loss	12/31/2016	(3,474)	10	(3,959)	10	(480)
Total				\$ (93,344)		\$ (11,412)

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 19 - Dist Judges

Table 10-19: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 326,078	5	\$ 271,847	9	\$ 36,300
Gain/Loss	12/31/2016	70,576	10	80,424	10	9,840
Total				\$ 352,271		\$ 46,140

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 20 - Sheriff FOP

Table 10-20: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ (567,914)	10	\$ (703,374)	10	\$ (86,028)
Gain/Loss	12/31/2016	162,145	10	184,771	10	22,596
Total				\$ (518,603)		\$ (63,432)

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 21 - Shrff/Lts/Capts

Table 10-21: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 2,402,131	5	\$ 2,111,639	9	\$ 281,928
Gain/Loss	12/31/2016	429,068	10	488,941	10	59,808
Total				\$ 2,600,580		\$ 341,736

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 23 - P.O.A.M. Non 312

Table 10-23: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 297,051	5	\$ 285,993	9	\$ 38,184
Gain/Loss	12/31/2016	448,278	10	510,832	10	62,484
Total				\$ 796,825		\$ 100,668

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 91 - Juvenile Probtrn

Table 10-91: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 306,542	4	\$ 270,030	8	\$ 39,840
Gain/Loss	12/31/2016	95,806	10	109,175	10	13,356
Total				\$ 379,205		\$ 53,196

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 92 - Dist Court Prob

Table 10-92: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 236,336	4	\$ 199,680	8	\$ 29,460
Gain/Loss	12/31/2016	75,529	10	86,068	10	10,524
Total				\$ 285,748		\$ 39,984

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 93 - Pros Attys Union

Table 10-93: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 417,753	4	\$ 371,582	8	\$ 54,816
Gain/Loss	12/31/2016	147,625	10	168,225	10	20,580
Total				\$ 539,807		\$ 75,396

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 94 - Upper Management

Table 10-94: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ 2,101,037	9	\$ 2,124,653	11	\$ 240,468
Gain/Loss	12/31/2016	(175,560)	11	(200,058)	11	(22,644)
Total				\$ 1,924,595		\$ 217,824

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 95 - NonUnion Mgmt

Table 10-95: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Gain/Loss	12/31/2016	51,885	10	59,125	10	7,236
Total				\$ 59,125		\$ 7,236

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

Division 96 - UAW Para prof.
Table 10-96: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance	Original Amortization Period**	Amounts for Fiscal Year Beginning 10/1/2018		
				Outstanding UAL Balance*	Amortization Period**	Amortization Payment
Initial	12/31/2015	\$ (10,485)	10	\$ (8,829)	10	\$ (1,080)
Gain/Loss	12/31/2016	(3,726)	10	(4,246)	10	(516)
Total				\$ (13,075)		\$ (1,596)

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the [Appendix](#) on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

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:	12/31/2016
Measurement Date of Total Pension Liability (TPL):	12/31/2016

At 12/31/2016, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	569
Inactive employees entitled to but not yet receiving benefits:	49
Active employees:	<u>47</u>
	665

Total Pension Liability as of 12/31/2015 measurement date:	\$ 145,954,971
Total Pension Liability as of 12/31/2016 measurement date:	\$ 145,505,305
Service Cost for the year ending on the 12/31/2016 measurement date:	\$ 343,667

Change in the Total Pension Liability due to:

- Benefit changes ¹ :	\$ 0
- Differences between expected and actual experience ² :	\$ (125,333)
- Changes in assumptions ² :	\$ 0

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):	0
Covered employee payroll: (Needed for Required Supplementary Information)	\$ 2,579,083

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 12/31/2016:	\$ 13,464,546	-	\$ (11,552,385)

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

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
5/1/2006	Member Contribution Rate 3.88%
5/1/2006	Benefit B-4 (80% max)
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/2000	DC Adoption Date 01-01-2000
5/1/1996	Benefit F50 (With 25 Years of Service)
5/1/1996	Benefit F55 (With 20 Years of Service)
1/1/1995	Benefit F55 (With 25 Years of Service)
1/1/1993	6 Year Vesting
1/1/1993	Benefit B-3 (80% max)
9/1/1990	Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1988	Benefit C-2/Base B-1
1/1/1988	Member Contribution Rate 0.00%
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
4/1/1982	Member Contribution Rate 4.00%
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
1/1/1967	Benefit C-1 (Old)
10/19/1965	Covered by Act 88
1/1/1959	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1959	10 Year Vesting
1/1/1959	Benefit C (Old)
1/1/1959	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
	Fiscal Month - October

02 - Sheriff POAM

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/2001	E2 2.5% COLA for future retirees (01/01/1995)
9/30/2000	DC Adoption Date 09-30-2000
4/1/2000	Member Contribution Rate 4.00%
1/1/2000	E2 2.4% COLA for future retirees (01/01/1995)
4/1/1995	Benefit B-4 (80% max)
4/1/1995	Member Contribution Rate 7.09%

02 - Sheriff POAM

1/1/1995	25 Years & Out
1/1/1995	E2 2.5% COLA for future retirees (01/01/1995)
1/1/1992	6 Year Vesting
1/1/1992	Benefit B-3 (80% max)
1/1/1992	Benefit F50 (With 25 Years of Service)
9/1/1990	Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1989	Benefit B-2
1/1/1989	Member Contribution Rate 0.00%
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1983	Member Contribution Rate 4.00%
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
1/1/1967	Benefit C-1 (Old)
10/19/1965	Covered by Act 88
1/1/1959	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1959	10 Year Vesting
1/1/1959	Benefit C (Old)
1/1/1959	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
	Fiscal Month - October

09 - UAW Managers

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
1/1/2006	E2 2.5% COLA for future retirees (06/01/2005)
12/1/2005	Member Contribution Rate 3.20%
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
3/1/1998	DC Adoption Date 03-01-1998
1/1/1998	25 Years & Out
1/1/1998	Benefit F55 (With 15 Years of Service)
1/1/1994	Benefit F55 (With 20 Years of Service)
1/1/1993	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1993	6 Year Vesting
1/1/1993	Benefit B-4 (80% max)
1/1/1993	Benefit F50 (With 25 Years of Service)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1983	Member Contribution Rate 0.00%
4/1/1982	Member Contribution Rate 4.00%
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)

09 - UAW Managers

12/8/1972 Blanket Resolution (All Service)
 10/19/1965 Covered by Act 88
 Fiscal Month - October

10 - UAW Professional

12/1/2016 Service Credit Purchase Estimates - Yes
 4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
 10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/05/2002)
 3/1/1998 DC Adoption Date 03-01-1998
 1/1/1998 Benefit F55 (With 15 Years of Service)
 1/1/1993 Benefit F50 (With 25 Years of Service)
 1/1/1993 Benefit B-3 (80% max)
 9/1/1990 Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
 9/1/1990 Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
 1/1/1990 6 Year Vesting
 1/1/1990 Benefit B-2
 1/1/1990 Benefit F55 (With 20 Years of Service)
 1/1/1989 Flexible E 2% COLA Adopted (01/01/1989)
 1/1/1988 Flexible E 2% COLA Adopted (01/01/1988)
 1/1/1987 Benefit FAC-5 (5 Year Final Average Compensation)
 1/1/1987 10 Year Vesting
 1/1/1987 Benefit C-2/Base B-1
 1/1/1987 Benefit F55 (With 25 Years of Service)
 1/1/1987 Member Contribution Rate 0.00%
 1/1/1987 Flexible E 2% COLA Adopted (01/01/1987)
 4/1/1982 Member Contribution Rate 4.00%
 12/8/1972 Blanket Resolution (All Service)
 10/19/1965 Covered by Act 88
 Fiscal Month - October

11 - Gnrl Local486

12/1/2016 Service Credit Purchase Estimates - Yes
 4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
 10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
 9/30/2000 DC Adoption Date 09-30-2000
 4/1/1996 Benefit B-3 (80% max)
 4/1/1996 Benefit F55 (With 20 Years of Service)
 4/1/1996 6 Year Vesting
 1/1/1994 Benefit C-2/Base B-1
 1/1/1994 Benefit F55 (With 25 Years of Service)
 9/1/1990 Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
 9/1/1990 Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
 1/1/1989 Flexible E 2% COLA Adopted (01/01/1989)
 1/1/1988 Flexible E 2% COLA Adopted (01/01/1988)
 9/1/1987 Member Contribution Rate 0.00%

11 - Gnrl Local486

1/1/1987 Flexible E 2% COLA Adopted (01/01/1987)
 1/1/1985 10 Year Vesting
 1/1/1985 Benefit C-1 (Old)
 1/1/1985 Flexible E 2% COLA Adopted (01/01/1985)
 1/1/1985 Benefit FAC-5 (5 Year Final Average Compensation)
 1/1/1982 Member Contribution Rate 4.00%
 1/1/1980 Flexible E 2% COLA Adopted (01/01/1980)
 12/8/1972 Blanket Resolution (All Service)
 10/19/1965 Covered by Act 88
 Fiscal Month - October

13 - Sheriff/Cooks

12/1/2016 Service Credit Purchase Estimates - Yes
 4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
 10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
 10/1/2001 Benefit B-4 (80% max)
 10/1/2001 Member Contribution Rate 1.00%
 9/30/2000 DC Adoption Date 09-30-2000
 3/1/2000 Benefit F50 (With 25 Years of Service)
 1/1/1994 6 Year Vesting
 1/1/1994 Benefit B-3 (80% max)
 1/1/1994 Benefit F55 (With 20 Years of Service)
 9/1/1990 Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
 1/1/1989 Flexible E 2% COLA Adopted (01/01/1989)
 1/1/1988 Flexible E 2% COLA Adopted (01/01/1988)
 9/1/1987 Benefit FAC-5 (5 Year Final Average Compensation)
 9/1/1987 10 Year Vesting
 9/1/1987 Benefit C-2/Base B-1
 9/1/1987 Benefit F55 (With 25 Years of Service)
 9/1/1987 Member Contribution Rate 0.00%
 1/1/1987 Flexible E 2% COLA Adopted (01/01/1987)
 1/1/1985 Flexible E 2% COLA Adopted (01/01/1985)
 1/1/1980 Flexible E 2% COLA Adopted (01/01/1980)
 12/8/1972 Blanket Resolution (All Service)
 10/19/1965 Covered by Act 88
 Fiscal Month - October

14 - Nurses

12/1/2016 Service Credit Purchase Estimates - Yes
 4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
 1/1/1999 DC Adoption Date 01-01-1999
 4/1/1996 Benefit F50 (With 25 Years of Service)
 1/1/1993 Benefit B-3 (80% max)
 1/1/1991 6 Year Vesting
 1/1/1991 Benefit B-2

14 - Nurses

1/1/1991	Benefit F55 (With 20 Years of Service)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1989	Benefit C-2/Base B-1
1/1/1989	Benefit F55 (With 25 Years of Service)
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1988	10 Year Vesting
1/1/1988	Member Contribution Rate 0.00%
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1982	Member Contribution Rate 4.00%
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88 Fiscal Month - October

15 - Hlth Dept

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/1999	DC Adoption Date 01-01-1999
12/1/1996	Benefit F50 (With 25 Years of Service)
1/1/1993	Benefit B-3 (80% max)
9/1/1990	Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1990	6 Year Vesting
1/1/1990	Benefit B-2
1/1/1990	Benefit F55 (With 20 Years of Service)
1/1/1990	Member Contribution Rate 0.00%
1/1/1988	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1988	10 Year Vesting
1/1/1988	Benefit C-2/Base B-1
1/1/1988	Benefit F55 (With 25 Years of Service)
4/1/1982	Member Contribution Rate 4.00%
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88 Fiscal Month - October

16 - Elctd Commsnrs

12/1/2016	Service Credit Purchase Estimates - Yes
3/1/1998	DC Adoption Date 03-01-1998
1/1/1998	25 Years & Out
1/1/1998	Benefit F55 (With 15 Years of Service)
1/1/1995	Benefit FAC-3 (3 Year Final Average Compensation)

16 - Elctd Commsnrs

1/1/1995	E2 2.5% COLA for future retirees (01/01/1995)
1/1/1993	Benefit B-4 (80% max)
1/1/1993	Benefit F50 (With 25 Years of Service)
1/1/1993	Benefit F55 (With 20 Years of Service)
1/1/1991	Member Contribution Rate 0.00%
9/1/1990	Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1990	6 Year Vesting
1/1/1990	Benefit B-2
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Member Contribution Rate 4.00%
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88
	Fiscal Month - October

17 - Animal Control

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/2001	Benefit F50 (With 25 Years of Service)
1/1/2000	DC Adoption Date 01-01-2000
1/1/1994	6 Year Vesting
1/1/1994	Benefit B-3 (80% max)
1/1/1994	Benefit F55 (With 20 Years of Service)
1/1/1992	10 Year Vesting
1/1/1992	Benefit C-2/Base B-1
1/1/1992	Benefit F55 (With 25 Years of Service)
1/1/1992	Member Contribution Rate 0.00%
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1989	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1984	Member Contribution Rate 4.00%
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88
	Fiscal Month - October

18 - Judges

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2001	E2 2.5% COLA for future retirees (04/01/2001)
1/1/1999	DC Adoption Date 01-01-1999
1/1/1998	25 Years & Out
1/1/1998	Benefit F55 (With 15 Years of Service)
1/1/1994	Benefit B-4 (80% max)
1/1/1994	Benefit F50 (With 25 Years of Service)
9/1/1990	Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/03/1991)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/03/1991)
1/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1990	6 Year Vesting
1/1/1990	Benefit B-2
1/1/1990	Benefit F55 (With 20 Years of Service)
1/1/1990	Member Contribution Rate 0.00%
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Member Contribution Rate 4.00%
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88
	Fiscal Month - October

19 - Dist Judges

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2001	E2 2.5% COLA for future retirees (04/01/2001)
1/1/1999	DC Adoption Date 01-01-1999
1/1/1998	25 Years & Out
1/1/1998	Benefit F55 (With 15 Years of Service)
1/1/1994	Benefit B-4 (80% max)
1/1/1994	Benefit F50 (With 25 Years of Service)
9/1/1990	Temporary 2.25% Multiplier (no max) (09/01/1990 - 01/01/1991)
9/1/1990	Temporary Benefit F55 (With 20 Years of Service) (09/01/1990 - 01/01/1991)
1/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1990	6 Year Vesting
1/1/1990	Benefit B-2
1/1/1990	Benefit F55 (With 20 Years of Service)
1/1/1990	Member Contribution Rate 0.00%
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Member Contribution Rate 4.00%
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)

19 - Dist Judges

10/19/1965 Covered by Act 88
Fiscal Month - October

20 - Sheriff FOP

12/1/2016 Service Credit Purchase Estimates - Yes
2/15/2011 Non-Standard Transfer Rules
4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/2000 25 Years & Out
1/1/2000 Benefit F55 (With 15 Years of Service)
1/1/2000 DC Adoption Date 01-01-2000
1/1/1994 Benefit B-4 (80% max)
5/1/1992 6 Year Vesting
5/1/1992 Benefit B-3 (80% max)
5/1/1992 Benefit F50 (With 25 Years of Service)
1/1/1991 Benefit B-2
1/1/1989 Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988 Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987 Flexible E 2% COLA Adopted (01/01/1987)
1/1/1986 Member Contribution Rate 0.00%
1/1/1985 Flexible E 2% COLA Adopted (01/01/1985)
1/1/1983 Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1983 10 Year Vesting
1/1/1983 Benefit C-2/Base B-1
1/1/1983 Benefit F55 (With 25 Years of Service)
1/1/1983 Member Contribution Rate 4.00%
1/1/1980 Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972 Blanket Resolution (All Service)
10/19/1965 Covered by Act 88
Fiscal Month - October

21 - Shriff/Lts/Capts

12/1/2016 Service Credit Purchase Estimates - Yes
4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/2001 25 Years & Out
1/1/2001 Benefit F55 (With 15 Years of Service)
1/1/2001 E2 2.5% COLA for future retirees (01/01/2001)
1/1/1999 DC Adoption Date 01-01-1999
1/1/1994 Benefit B-4 (80% max)
5/1/1992 6 Year Vesting
5/1/1992 Benefit B-3 (80% max)
5/1/1992 Benefit F50 (With 25 Years of Service)
5/1/1992 Member Contribution Rate 0.00%
1/1/1991 Benefit FAC-5 (5 Year Final Average Compensation)

21 - Shrff/Lts/Capts

1/1/1991	10 Year Vesting
1/1/1991	Benefit B-2
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
1/1/1980	Flexible E 2% COLA Adopted (01/01/1980)
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88
	Fiscal Month - October

23 - P.O.A.M. Non 312

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
9/30/2000	DC Adoption Date 09-30-2000
12/1/1999	25 Years & Out
12/1/1999	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/1999	6 Year Vesting
12/1/1999	Benefit B-4 (80% max)
12/1/1999	Member Contribution Rate 4.00%
12/1/1999	E2 2.5% COLA for future retirees (12/01/1999)
12/8/1972	Blanket Resolution (All Service)
10/19/1965	Covered by Act 88
	Fiscal Month - October

91 - Juvenile Probtn

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2008	Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
6/1/2005	Benefit B-4 (80% max)
6/1/2005	Member Contribution Rate 3.45%
10/1/2002	Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
10/1/2001	25 Years & Out
9/30/2000	DC Adoption Date 09-30-2000
1/1/1994	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1994	6 Year Vesting
1/1/1994	Benefit B-3 (80% max)
1/1/1994	Benefit F50 (With 25 Years of Service)
1/1/1994	Benefit F55 (With 20 Years of Service)
1/1/1994	Member Contribution Rate 0.00%
1/1/1989	Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985	Flexible E 2% COLA Adopted (01/01/1985)
12/8/1972	Blanket Resolution (All Service)

91 - Juvenile Probtn

10/19/1965 Covered by Act 88
Fiscal Month - October

92 - Dist Court Prob

12/1/2016 Service Credit Purchase Estimates - Yes
4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
3/1/2006 Benefit B-4 (80% max)
3/1/2006 Member Contribution Rate 3.84%
10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
10/1/2001 25 Years & Out
1/1/2000 DC Adoption Date 01-01-2000
12/1/1996 Benefit F50 (With 25 Years of Service)
12/1/1996 Benefit F55 (With 20 Years of Service)
1/1/1994 Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1994 6 Year Vesting
1/1/1994 Benefit B-3 (80% max)
1/1/1994 Benefit F55 (With 25 Years of Service)
1/1/1994 Member Contribution Rate 0.00%
1/1/1989 Flexible E 2% COLA Adopted (01/01/1989)
1/1/1988 Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987 Flexible E 2% COLA Adopted (01/01/1987)
1/1/1985 Flexible E 2% COLA Adopted (01/01/1985)
12/8/1972 Blanket Resolution (All Service)
10/19/1965 Covered by Act 88
Fiscal Month - October

93 - Pros Attys Union

12/1/2016 Service Credit Purchase Estimates - Yes
10/1/2002 Temporary 20 Years & Out (10/01/2002 - 12/03/2002)
1/1/1999 DC Adoption Date 01-01-1999
11/1/1995 6 Year Vesting
10/1/1995 Benefit FAC-5 (5 Year Final Average Compensation)
10/1/1995 10 Year Vesting
10/1/1995 Benefit B-3 (80% max)
10/1/1995 Benefit F50 (With 25 Years of Service)
10/1/1995 Benefit F55 (With 20 Years of Service)
10/1/1995 Member Contribution Rate 0.00%
12/8/1972 Blanket Resolution (All Service)
10/19/1965 Covered by Act 88
Fiscal Month - October

94 - Upper Management

12/1/2016 Service Credit Purchase Estimates - Yes
6/20/2006 DC Adoption Date 06-20-2006
1/1/2000 E2 2.5% COLA for future retirees (02/01/1999)

94 - Upper Management

2/1/1999 Member Contribution Rate 0.00%
 2/1/1999 Benefit F55 (With 15 Years of Service)
 2/1/1999 25 Years & Out
 2/1/1999 Benefit FAC-3 (3 Year Final Average Compensation)
 2/1/1999 Benefit RS 50 (50% Post-Ret. Spouse Benefits)
 2/1/1999 6 Year Vesting
 2/1/1999 Benefit B-4 (80% max)
 12/8/1972 Blanket Resolution (All Service)
 10/19/1965 Covered by Act 88
 Fiscal Month - October

95 - NonUnion Mgmnt

12/1/2016 Service Credit Purchase Estimates - Yes
 6/20/2006 DC Adoption Date 06-20-2006
 1/1/2006 E2 2.5% COLA for future retirees (10/01/2005)
 10/1/2005 Benefit F55 (With 15 Years of Service)
 10/1/2005 Member Contribution Rate 0.00%
 10/1/2005 Blanket Resolution (All Service)
 10/1/2005 Covered by Act 88
 10/1/2005 25 Years & Out
 10/1/2005 Benefit FAC-5 (5 Year Final Average Compensation)
 10/1/2005 6 Year Vesting
 10/1/2005 Benefit B-4 (80% max)
 Fiscal Month - October

96 - UAW Para prof.

12/1/2016 Service Credit Purchase Estimates - Yes
 4/1/2008 Temporary 20 Years & Out (04/01/2008 - 10/01/2008)
 6/20/2006 DC Adoption Date 06-20-2006
 4/1/2006 Benefit FAC-5 (5 Year Final Average Compensation)
 4/1/2006 6 Year Vesting
 4/1/2006 Benefit B-4 (80% max)
 4/1/2006 Benefit F50 (With 25 Years of Service)
 4/1/2006 Benefit F55 (With 15 Years of Service)
 4/1/2006 Member Contribution Rate 4.34%
 10/19/1965 Covered by Act 88
 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	1.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	80%

Miscellaneous and Technical Assumptions

Loads -- None.

Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Accelerated to 15-Year Amortization