



MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2012
WASHTENAW CRC (8102)

Spring, 2013

Washtenaw CRC

In care of:

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

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2012. The report includes the determination of liabilities and contribution rates resulting from the participation of Washtenaw CRC (8102) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is an independent public nonprofit organization that has partnered with Michigan municipalities for more than 65 years, helping them provide safe, secure retirement plans for their employees. Washtenaw CRC is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees under the Michigan Constitution and the MERS Plan Document.

The purpose of the December 31, 2012 annual actuarial valuation is to (i) measure funding progress, (ii) establish contribution requirements for the fiscal year beginning October 1, 2014, and (iii) provide actuarial information in connection with applicable Governmental Accounting Standards Board statements. This valuation report should not be relied upon for any other purpose.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2012 furnished by MERS' administrative staff. The data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. The MERS of Michigan Actuarial Services Department 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 Retirement Board. For this annual valuation, the Retirement Board adopted some revised actuarial assumptions. 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-2012AnnualActuarialValuation-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 employees of MERS, 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).

Please review the Comments on the Investment Markets.

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 related third parties such as the auditor for the municipality).

Please contact MERS at <http://www.mersofmich.com/MERS/About-MERS/Contact-Us> if you have any questions.

Sincerely,

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

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Executive Summary

Required Employer Contributions

The computed minimum required employer contributions to the retirement system for the fiscal years beginning October 1, 2014 (2012 Valuation) and October 1, 2013 (2011 Valuation) are as follows:

Division	Percentage of Payroll		Monthly \$ Based on Valuation Payroll	
	2012 Valuation	2011 Valuation	2012 Valuation	2011 Valuation
01 - AFSCME	-	-	\$ 49,054	\$ 80,025
10 - Teamsters Local	-	19.80%	45,312	58,977
13 - Non-Union	-		34,462	
15 - Teamsters Local 10 a	0.00%		0	
Municipality Total			\$ 128,828	\$ 139,002

The above employer contribution requirements are in addition to the member contributions, if any, shown in Table 2.

It is important to note that the contribution rates shown above are not expected to remain at present levels indefinitely. If future experience were to match the valuation assumptions exactly, the computed employer rates for divisions that are open to new hires would trend over time toward the long-term cost of system benefits, known as the Normal Cost (see Table 1). For underfunded divisions that are closed to new hires and are not linked to an open division, the computed employer dollar contribution would increase 5%-9% annually for 15 years under the Option B amortization policy (for divisions first reflected as closed in the 2012 valuation). Under the Option A amortization policy, the annual increases would be larger but would only continue for 10 years.

Contribution rates will change from one year to the next as a result of changes in benefit provisions, changes in the actuarial assumptions, and experience of the plan (investment experience and demographic experience).

The 2012 valuation reflects changes in actuarial assumptions and/or methods (see the [Appendix](#)). For benefit provision changes see Table 2.

2012 System Experience

Based on the smoothed Actuarial Value of Assets (Valuation Assets), the recognized rate of investment return for MERS overall was 5.4% (less than the 8% actuarial assumption). On average this will result in increases in computed employer contributions.

Demographic experience varied by division. This reflects what actually happened to participants (active members, retirees, and vested former members) compared to what was projected by the actuarial assumptions.

2012 Funded Position

The ratio of the Valuation Assets to the Actuarial Accrued Liability for Washtenaw CRC in aggregate is 63%; last year's ratio was 64%.

Comments on the Investment Markets

The dramatic price declines across the world financial markets in 2008 led to increased volatility unlike any experienced in decades. From 2009 to 2012, financial markets experienced price appreciation driven largely by government monetary policy and a rebound in economic activities; although at a slower pace than historic past recession recoveries. MERS' portfolio recovered with average annual investment returns of over 10%. While investors world-wide continue to focus on economic concerns and market volatility, equity markets have rebounded, particularly in the United States. The S&P has rebounded 109% from the March 9, 2009 bottom to December 31, 2012.

At this time, MERS maintains the 8% annual return assumption on investments in the belief that over the long term this is achievable. For example, MERS' 30 year return was 9.3% on December 31, 2012. MERS regularly monitors the investment return assumption to make sure it is reasonable compared to long term expectations.

The actuarial value of assets (funding value), used to determine both your funded status and your required employer contribution, is based on a 10-year smoothed value of assets. Only a portion (five-tenths, for 2008 - 2012) of the 2008 investment market losses was recognized in this actuarial valuation report. This reduces the volatility of the valuation results, which affects your required employer contribution and actuarial funded percentage.

As of December 31, 2012 the actuarial value of assets is 114% of market value (down from 121% in 2011). This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 8% investment return assumption.

If the December 31, 2012 valuation results were based on market value on that date instead of 10-year smoothed funding value: i) the funded percent of your entire municipality would be 55% (instead of 63%); and ii) your total employer contribution requirement for the fiscal year starting October 1, 2014 would be \$ 1,831,776 (instead of \$ 1,545,936). If the investment markets do not fully make up for the 2008 losses, employer contribution requirements may rise. MERS' investment strategy employs diversification using various asset categories (stocks, bonds, and to a smaller extent real estate, commodities and private equity) to capture as much of the upside return as possible while managing acceptable risk. If contribution increases do become necessary, MERS would attempt to implement them incrementally.

Remember that only five-tenths of the 2008 market losses are reflected in this actuarial valuation report. As was true for past market downturns, MERS expects the markets to continue to rebound. By the time the 2008 market losses would be fully recognized (over the following 5 years), future market gains are expected to partly or fully offset 2008 market losses. This smoothing method is a powerful tool for reducing the volatility of your required employer contributions. However, if the financial markets do not rebound, the result would be gradual increases in your employer contribution requirement over the next 5 years (as described above).

Employer Contribution Details

For the Fiscal Year Beginning October 1, 2014

Table 1

Division	Amort. Period for Unfund. Liab. ^{4,5}	Employer Contributions ¹			Blended Employer Contribut. ⁷	GASB ARC ⁶	Member Contribut. Conversion Factor ²
		Normal Cost	Unfunded Accrued Liability	Total Required Employer Contribut.			
Percentage of Payroll							
01 - AFSCME	26	-	-	-	17.41%		
10 - Teamsters Local	26	-	-	-			
13 - Non-Union	26	-	-	-			
15 - Teamsters Local 10	26	-1.93%	0.07%	0.00%	17.41%		
Estimated Monthly Contribution ³							
01 - AFSCME	26	\$ 3,183	\$ 45,871	\$ 49,054			
10 - Teamsters Local	26	15,040	30,272	45,312			
13 - Non-Union	26	11,168	23,294	34,462			
15 - Teamsters Local 10	26	(138)	5	0			
							0.82%
Total Municipality		\$ 29,253	\$ 99,442	\$ 128,828			
Estimated Annual Contribution ³		\$ 351,036	\$ 1,193,304	\$ 1,545,936			

¹ The above Employer contribution requirements are in addition to the Member contributions, if any, shown in Table 2.

² If Member contributions are increased/decreased by 1.00% of pay, the Employer contribution requirement will decrease/increase by the Member Contribution Conversion Factor.

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

⁴ If projected assets exceed projected liabilities as of the beginning of the October 1, 2014 fiscal year, the negative unfunded accrued liability is amortized (spread) over 10 years. This amortization is used to reduce the employer contribution rate. Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions to not add across.

⁵ If the division is closed to new hires, with new hires not covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the amortization period will decrease as follows: Under Amortization Option A, the period will decrease by 2 years each valuation year, until a minimum 5-year amortization is attained. Under Amortization Option B, the period will decrease by 2 years each valuation year, until reaching 15 years. Thereafter, the period will reduce by 1 year each valuation year, until a minimum 5-year amortization is attained. This will result in amortization payments that increase faster than the usual 4.5% each year. If the division is closed to new hires, with new hires (and transfers) covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the standard open division amortization period will apply.

⁶ For reporting and disclosure purposes under Statement Nos. 25 and 27 of the Governmental Accounting Standards Board, the annual required contribution (ARC) for this division is based on a 30 year level dollar amortization.

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

Please see the Comments on the Investment Markets.

Benefit Provisions

Table 2

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

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Member Contributions:	8%	5%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

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

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Member Contributions:	8%	5%
Act 88:	Yes (Adopted 7/19/1966)	Yes (Adopted 7/19/1966)

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

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	-
Normal Retirement Age:	60	-
Vesting:	8 years	-
Early Retirement (Unreduced):	55/25	-
Early Retirement (Reduced):	50/25	-
	55/15	-
Final Average Compensation:	3 years	-
COLA for Future Retirees:	2.50% (Non-Compound)	-
Member Contributions:	8%	-
Act 88:	Yes (Adopted 7/19/1966)	-

Table 2 (continued)**15 - Teamsters Local 10 aft 9/1/12: Open Division, linked to Division 10**

	2012 Valuation	2011 Valuation
Benefit Multiplier:	1.50% Multiplier (no max)	-
Normal Retirement Age:	60	-
Vesting:	8 years	-
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25	-
	55/15	-
Final Average Compensation:	3 years	-
Member Contributions:	10%	-
Act 88:	Yes (Adopted 7/19/1966)	-

Membership Summary

Table 3

Division	2012 Valuation		2011 Valuation		2012 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
01 - AFSCME							
Active Members	12	\$ 622,022	37	\$ 2,483,583	46.5	14.9	15.0
Vested Former Members	4	56,391	5	65,141	51.3	11.3	14.9
Retirees and Beneficiaries	64	1,825,936	64	1,823,242	68.8		
10 - Teamsters Local							
Active Members	61	\$ 2,893,084	72	\$ 3,574,366	44.2	12.0	12.0
Vested Former Members	7	92,887	4	34,450	39.7	12.0	12.0
Retirees and Beneficiaries	64	1,233,661	65	1,224,762	69.4		
13 - Non-Union							
Active Members	29	\$ 2,174,643		\$	46.0	15.7	16.1
Vested Former Members	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	2	54,674			45.5		
15 - Teamsters Local 10 a							
Active Members	3	\$ 85,643		\$	33.9	0.1	0.1
Vested Former Members	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	0	0			0.0		
Total Municipality							
Active Members	105	\$ 5,775,392	109	\$ 6,057,949	44.7	13.0	13.1
Vested Former Members	11	149,278	9	99,591	43.9	11.8	13.1
Retirees and Beneficiaries	130	3,114,271	129	3,048,004	68.7		
Total Participants	246		247				

¹ Annual payroll for active members; annual deferred benefits payable for vested former members; 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	2012 Valuation		2011 Valuation	
	Employer and Retiree ¹	Employee ²	Employer and Retiree ¹	Employee ²
01 - AFSCME	\$ 11,408,041	\$ 700,183	\$ 12,655,577	\$ 2,134,661
10 - Teamsters Local	11,725,586	1,993,080	11,322,333	2,046,275
13 - Non-Union	2,300,185	1,590,243		
15 - Teamsters Local 10 aft 9/1/12	1	1,211		
Municipality Total	\$ 25,433,813	\$ 4,284,717	\$ 23,977,910	\$ 4,180,936
Combined Reserves	\$ 29,718,530		\$ 28,158,846	

¹ Reserve for Employer Contributions and Benefit Payments

² Reserve for Employee Contributions

The December 31, 2012 valuation assets are equal to 1.143563 times the reported market value of assets (compared to 1.205815 as of December 31, 2011). 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	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Net Transfers	Valuation Asset Balance
	Employer	Member					
2002	\$ 213,485	\$ 326,691	\$ 670,206	\$ (1,153,471)	\$ (2,990)	\$ 38,592	\$ 22,566,839
2003	610,255	343,342	1,706,909	(1,321,588)	(57,520)	0	23,848,237
2004	633,502	344,996	1,605,791	(1,411,831)	(928)	110,198	25,129,965
2005	823,729	384,400	1,611,583	(1,501,217)	(6,802)	0	26,441,658
2006	928,690	385,502	2,133,643	(1,570,990)	(17,342)	0	28,301,161
2007	1,025,670	409,658	2,300,084	(1,681,321)	(17,942)	30,512	30,367,822
2008	1,020,277	399,404	1,375,815	(1,848,350)	(23,743)	133,132	31,424,357
2009	999,677	389,171	1,411,659	(1,957,355)	(57,544)	2,379	32,212,344
2010	1,081,091	376,022	1,703,123	(2,219,607)	0	0	33,152,973
2011	1,254,614	367,855	1,663,103	(2,478,514)	(9,255)	3,583	33,954,359
2012	1,294,677	412,193	1,422,687	(3,071,397)	(27,507)	0	33,985,012

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

Actuarial Accrued Liabilities and Valuation Assets As of December 31, 2012

Table 6

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - AFSCME				
Active Members	\$ 2,039,806	\$ 449,809	22.1%	\$ 1,589,997
Vested Former Members	314,658	139,383	44.3%	175,275
Retirees And Beneficiaries	21,043,328	13,217,055	62.8%	7,826,273
Pending Refunds	<u>40,270</u>	<u>40,270</u>	100.0%	<u>0</u>
Total	\$ 23,438,062	\$ 13,846,517	59.1%	\$ 9,591,545
10 - Teamsters Local				
Active Members	\$ 7,409,334	\$ 1,746,674	23.6%	\$ 5,662,660
Vested Former Members	252,261	195,249	77.4%	57,012
Retirees And Beneficiaries	14,202,390	13,695,078	96.4%	507,312
Pending Refunds	<u>51,158</u>	<u>51,158</u>	100.0%	<u>0</u>
Total	\$ 21,915,143	\$ 15,688,159	71.6%	\$ 6,226,984
13 - Non-Union				
Active Members	\$ 7,590,568	\$ 3,597,929	47.4%	\$ 3,992,639
Vested Former Members	0	0	0.0%	0
Retirees And Beneficiaries	851,021	851,021	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 8,441,589	\$ 4,448,950	52.7%	\$ 3,992,639
15 - Teamsters Local 10 aft 9/1/12				
Active Members	\$ 2,416	\$ 1,386	57.4%	\$ 1,030
Vested Former Members	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 2,416	\$ 1,386	57.4%	\$ 1,030
Total Municipality				
Active Members	\$ 17,042,124	\$ 5,795,798	34.0%	\$ 11,246,326
Vested Former Members	566,919	334,632	59.0%	232,287
Retirees and Beneficiaries	36,096,739	27,763,154	76.9%	8,333,585
Pending Refunds	<u>91,428</u>	<u>91,428</u>	100.0%	<u>0</u>
Total Participants	\$ 53,797,210	\$ 33,985,012	63.2%	\$ 19,812,198
The following results show the combined accrued liabilities and assets for each set of linked divisions. These results are already included in the table above.				
Linked Divisions 15, 10				
Active Members	\$ 7,411,750	\$ 1,748,060	23.6%	\$ 5,663,690
Vested Former Members	252,261	195,249	77.4%	57,012
Retirees and Beneficiaries	14,202,390	13,695,078	96.4%	507,312
Pending Refunds	<u>51,158</u>	<u>51,158</u>	100.0%	<u>0</u>
Total	\$ 21,917,559	\$ 15,689,545	71.6%	\$ 6,228,014

¹ Includes both employer and member assets.

Please see the Comments on the Investment Markets.

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

http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/sec_43c.pdf.

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities	UAL as Percent of Annual Payroll
1998	\$ 18,438,631	\$ 17,646,975	96%	\$ 791,656	16%
1999	19,652,841	19,916,285	101%	(263,443)	0%
2000	21,954,492	21,416,609	98%	537,883	10%
2001	23,152,354	22,474,326	97%	678,028	12%
2002	27,539,205	22,566,839	82%	4,972,366	82%
2003	31,276,579	23,848,237	76%	7,428,342	109%
2004	33,025,576	25,129,965	76%	7,895,611	114%
2005	36,027,271	26,441,658	73%	9,585,613	127%
2006	37,585,945	28,301,161	75%	9,284,784	120%
2007	40,947,934	30,367,822	74%	10,580,112	139%
2008	44,643,807	31,424,357	70%	13,219,450	171%
2009	45,511,537	32,212,344	71%	13,299,193	178%
2010	48,576,366	33,152,973	68%	15,423,393	214%
2011	53,061,415	33,954,359	64%	19,107,056	315%
2012	53,797,210	33,985,012	63%	19,812,198	343%

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

GASB 25 and GASB 27 Information

The following information has been prepared to provide the information necessary to comply with GASB Statements Number 25 and 27. Statement 25 is effective for fiscal years beginning after June 15, 1996 and Statement 27 is effective for fiscal years beginning after June 15, 1997.

All entries and the annual employer contribution amount were based on the actuarial methods and assumptions used in the December 31, 2012 actuarial valuation. The entry age normal actuarial method was used to determine the disclosure entries.

GASB 25 Information (as of 12/31/2012)

Actuarial Accrued Liability

Retirees and beneficiaries currently receiving benefits	\$ 36,096,739
Terminated employees (vested former members) not yet receiving benefits	566,919
Non-Vested terminated employees (pending refunds of accumulated member contributions)	91,428
Current employees -	
Accumulated employee contributions including allocated investment income	3,787,171
Employer financed	<u>13,254,953</u>
Total Actuarial Accrued Liability	\$ 53,797,210
Net Assets Available for Benefits at Actuarial Value	\$ <u>33,985,012</u>
(Market Value is 29,718,530)	
Unfunded (Overfunded) Actuarial Accrued Liability	\$ 19,812,198

GASB 27 Information (as of 12/31/2012)

Fiscal Year Beginning	October 1, 2014
Annual Required Contribution (ARC)	\$ 1,545,936 ¹

¹ Based on valuation payroll (based on projected fiscal year payroll for divisions that will have no new hires). For divisions that are open to new hires the actual required contribution will be based on current monthly payroll (during the fiscal year beginning October 1, 2014) times the computed employer contribution rate(s) shown in Table 1. The ARC shown here is the sum of the ARC's calculated separately for each division.

GASB 27 Information (Used in the 12/31/2012 Annual Actuarial Valuation)

Amortization Factors Used to Compute Employer Contribution Requirements Used for Funding Calculations and Most ARC Calculations (see below) (Payments Increase 4.5% per Year)

Amortization Factor Used - Underfunded or Overfunded Liabilities (5 years)	0.221706
Amortization Factor Used - Underfunded or Overfunded Liabilities (6 years)	0.187731
Amortization Factor Used - Underfunded or Overfunded Liabilities (7 years)	0.163488
Amortization Factor Used - Underfunded or Overfunded Liabilities (8 years)	0.145330
Amortization Factor Used - Underfunded or Overfunded Liabilities (9 years)	0.131227
Amortization Factor Used - Underfunded or Overfunded Liabilities (10 years)	0.119963
Amortization Factor Used - Underfunded or Overfunded Liabilities (11 years)	0.110763
Amortization Factor Used - Underfunded or Overfunded Liabilities (12 years)	0.103112
Amortization Factor Used - Underfunded or Overfunded Liabilities (13 years)	0.096652
Amortization Factor Used - Underfunded or Overfunded Liabilities (14 years)	0.091128
Amortization Factor Used - Underfunded or Overfunded Liabilities (15 years)	0.086353
Amortization Factor Used - Underfunded or Overfunded Liabilities (16 years)	0.082185
Amortization Factor Used - Underfunded or Overfunded Liabilities (17 years)	0.078519
Amortization Factor Used - Underfunded or Overfunded Liabilities (18 years)	0.075270
Amortization Factor Used - Underfunded or Overfunded Liabilities (19 years)	0.072372
Amortization Factor Used - Underfunded or Overfunded Liabilities (20 years)	0.069773
Amortization Factor Used - Underfunded or Overfunded Liabilities (21 years)	0.067430
Amortization Factor Used - Underfunded or Overfunded Liabilities (22 years)	0.065308
Amortization Factor Used - Underfunded or Overfunded Liabilities (23 years)	0.063378
Amortization Factor Used - Underfunded or Overfunded Liabilities (24 years)	0.061616
Amortization Factor Used - Underfunded or Overfunded Liabilities (25 years)	0.060002
Amortization Factor Used - Underfunded or Overfunded Liabilities (26 years)	0.058519

Amortization Factor Used to Compute the GASB Annual Required Contribution (ARC) For Divisions that are Closed to New Hires

(and new hires are not covered by MERS DB or Hybrid provisions in a linked division)

If Division is Less than 100% Funded, and Uses a Funding Period over 15 Years

Amortization Factor Used - Underfunded Liabilities (30 year level \$)	0.085453
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Assumptions: Continuous Payments; Interest at 8% Per Year

Benefit Provision History

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

01 - AFSCME

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

10 - Teamsters Local

9/1/2012	Member Contribution Rate 8.00%
1/1/2003	E2 2.5% COLA for future retirees (07/01/2002)
11/1/2002	Member Contribution Rate 5.00%
6/1/1999	Benefit B-3 (80% max)
1/1/1999	8 Year Vesting
7/1/1996	Benefit B-2
7/1/1996	Member Contribution Rate 5.30%
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1991	E Cola Adoption Date 01-01-1991
1/1/1991	E Cola Increase Amount 2
1/1/1991	E Cola Increase Type Percent
8/1/1987	10 Year Vesting
8/1/1987	Benefit FAC-3 (3 Year Final Average Compensation)
8/1/1987	Benefit C-2/Base B-1
8/1/1987	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
8/1/1987	Benefit F55 (With 25 Years of Service)

Benefit Provision History

10 - Teamsters Local

5/6/1975	Exclude Temporary Employees
7/19/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

13 - Non-Union

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

15 - Teamsters Local 10 aft 9/1/12

9/1/2012	8 Year Vesting
9/1/2012	Benefit FAC-3 (3 Year Final Average Compensation)
9/1/2012	Exclude Temporary Employees
9/1/2012	Benefit C-1 (New)
9/1/2012	A day of work is defined as 8 hours in a day
9/1/2012	Member Contribution Rate 10.00%
7/19/1966	Covered by Act 88
7/1/1947	Fiscal Month - October

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

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

Increase in Final Average Compensation

Division	FAC Increase Assumption
All Divisions	5.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	80%

Miscellaneous and Technical Assumptions

Loads – None.