



Municipal Employees' Retirement System
of Michigan

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN
ANNUAL ACTUARIAL VALUATION REPORT
LAPEER COUNTY (4403)
DECEMBER 31, 2010



June 7, 2011

The Retirement Board
Municipal Employees' Retirement System of Michigan

Ladies and Gentlemen:

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2010. The report includes the determination of liabilities and contribution rates resulting from the participation of Lapeer County in the Municipal Employees' Retirement System of Michigan ("MERS").

MERS is an agent multiple-employer public employee pension plan and is a tax-qualified plan under section 401(a) of the Internal Revenue Code (most recent letter of Favorable Determination issued June 15, 2005). MERS is an independent non-profit public corporation established by the Legislature pursuant to Public Act 220 of 1996, as amended, and is an instrumentality of the participating municipalities and courts. Lapeer County 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.

For this annual actuarial valuation, the Retirement Board adopted revised actuarial assumptions and/or methods. Please refer to page 92 for an explanation of the Board's action.

The valuation utilized information furnished by the MERS administrative staff concerning Retirement System benefits, financial transactions, and individual member information. Data was checked for consistency with the prior year, but was not otherwise audited by us.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods 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 actuarial assumptions used for this valuation produce results that we believe are reasonable. 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 on page 3.

This report may be provided only in its entirety by the municipality to other interested parties (MERS or the Actuary customarily provides the full report on request to related third parties such as the auditor for the municipality).

Please contact the Finance Department at MERS if you would like to receive future annual valuations in electronic format, instead of a printed report (800-767-2308; billingteam@mersofmich.com).

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 January 1, 2012 (2010 Valuation) and January 1, 2011 (2009 Valuation) are as follows:

Division	Minimum Required Monthly Employer Contributions @			
	Percentage of Payroll		\$ Based on Valuation Payroll	
	2010 Valuation	2009 Valuation	2010 Valuation	2009 Valuation
02 - POLC Sheriff	12.17%	11.30%	\$36,002	\$36,348
04 - S.T.A.R.S.	7.99%	7.73%	36,805	36,719
06 - CMH Union	9.21%	9.24%	18,717	18,254
10 - AFSCME	8.85%	8.80%	9,175	10,741
11 - Gnrl Non Union	6.25%	5.98%	13,100	13,451
12 - Gnrl Teamsters	8.75%	8.47%	17,749	18,815
13 - Elected & Appt. De	8.68%	7.61%	7,841	7,508
20 - COAM/POAM Disp	11.67%	11.84%	6,734	7,176
40 - MCF Non Union	13.18%	12.43%	47,104	43,139
60 - CMH Non Union	8.77%	9.19%	4,260	4,187
Total Municipality			\$197,487	\$196,338

@ The above employer contribution requirements are in addition to the member contributions, if any, shown in Table 1.

Please see the Comments on the Investment Markets on page 3.

For additional details see Table 15.

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 15). For underfunded divisions that are closed to new hires and are not linked to an open division, the computed employer dollar contribution would increase 4%-8% annually, until full funding is reached. The required employer contribution for such a closed division typically reaches its highest level about 11-12 years after the division becomes closed. Prospective benefit changes as well as Retirement System gains and losses will also affect future contribution rates.

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Executive Summary (continued)

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 2010 valuation reflects changes in actuarial assumptions and/or methods (please refer to page 92). The effects of the changes are shown in the note below Table 16 for each division. For benefit provision changes see Table 1.

2010 System Experience

Based on the smoothed Actuarial Value of Assets, the recognized rate of investment return for MERS overall was 5.7% (up from 5.3% in 2009, but 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.

2010 Funded Position

The ratio of the Valuation Assets to the Actuarial Accrued Liability for Lapeer County in aggregate is 92%; last year's ratio was 92%.

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. The following two years, 2009 and 2010, have been more stable and MERS' portfolio recovered with investment returns of over 17% and 14%, respectively. While economic worries continue to haunt investors world-wide, equity markets have rebounded, particularly in the United States. MERS maintains the 8% annual return assumption on investments in the belief that over the long term this is achievable.

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 (three-tenths, for 2008, 2009, and 2010) of the 2008 investment market losses were 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, 2010 the actuarial value of assets is 116% of market value (down from 125% in 2009). 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.

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Executive Summary (continued)

If the December 31, 2010 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 79% (instead of 92%); and ii) your total employer contribution requirement for the fiscal year starting January 1, 2012 would be \$2,970,180 (instead of \$2,369,844). 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 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 work to impose them incrementally.

Remember that only three-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 7 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 7 years (as described above).

Possible Future Changes in Actuarial Assumptions

Actuarial assumptions are reviewed every five years, and sometimes more often. The most recent review of MERS actuarial assumptions was completed in March 2010, and covered the 2004-2008 valuation years. All areas of activity were studied, and the Retirement Board adopted revised actuarial assumptions that will be reflected in this valuation (see page 92), and in the December 31, 2011 valuation. MERS expects to provide employers with general updates concerning pending revised actuarial assumptions and the ongoing effects of the financial markets.

Projections of Employer Contributions and Funded Percentage - Combined for All Divisions

The following page combines the projections for each division (see chart 17.5 for each division) into a projection for the municipality as a whole. Please refer to page 115 for a discussion of the projection. As noted there, the projection should not be used for short term budgeting purposes because the assumptions are designed to be a long term expectation of future events. For example, the projection assumes that the 10-year smoothed actuarial value of assets always reflects 8% annual investment income (which would require all of the 2008 market losses to be recouped sooner than is likely).

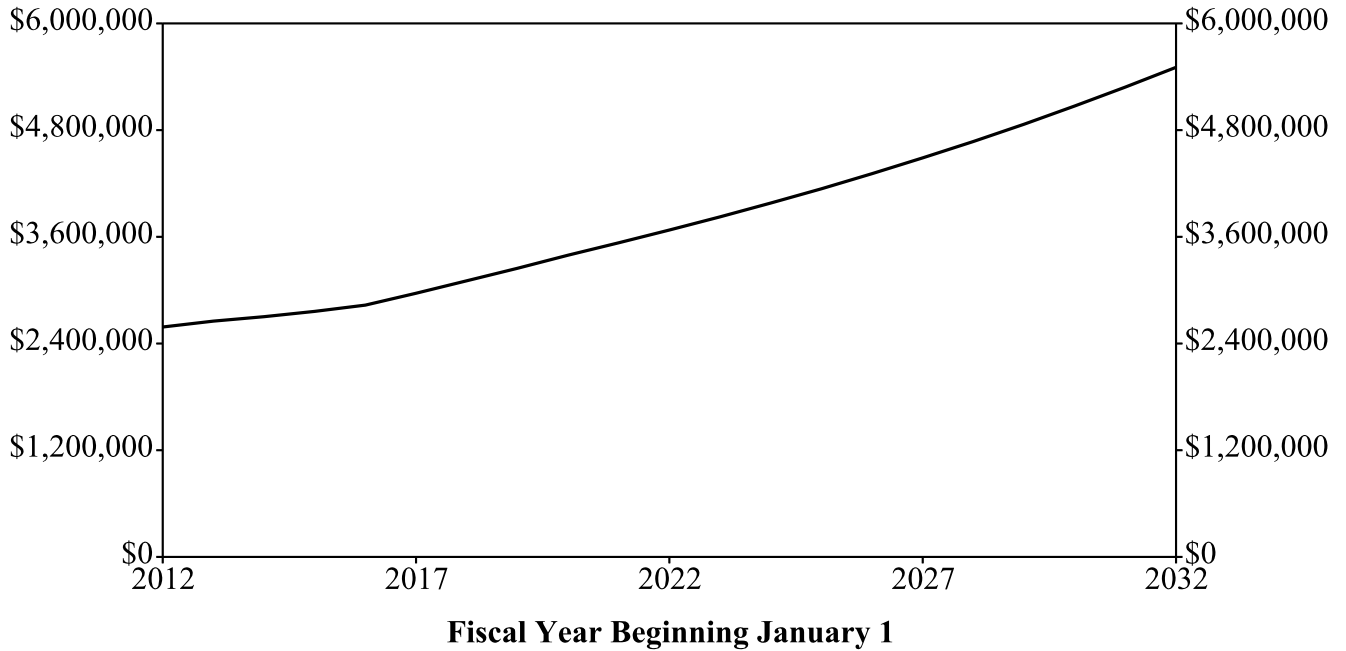
Lapeer County (4403)

Executive Summary (continued)

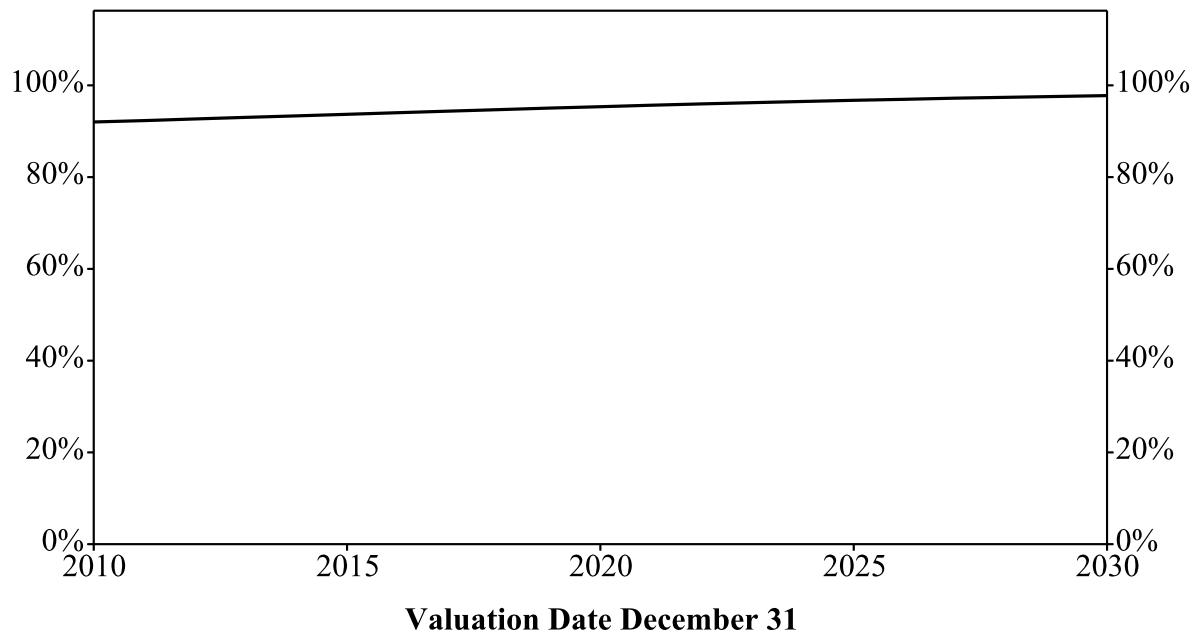
Comment on Actuarial Calculations - The projections of your future employer contributions in this report are based on the current actuarial assumptions used in the December 31, 2010 actuarial valuation. As always, your required employer contribution rate changes every year, in response to demographic changes, financial experience, benefit provision changes, etc, within your specific plan. The results of future actuarial valuations will differ from the projections, sometimes materially.

Lapeer County (4403)
Executive Summary (concluded)
All Divisions Combined

Projected Annual Employer Contributions



Projected Funded Percentage



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Table 1

Benefit Provisions Evaluated and/or Considered

Division	2010 Valuation	2009 Valuation
02 - POLC Sheriff	B-4 - 80% Max Normal Ret Age: 60 V-10 F50(25) FAC-5 2.49% Member Contrib. Act 88 Election (10/30/1970)	B-4 - 80% Max Normal Ret Age: 60 V-10 F50(25) FAC-5 2.49% Member Contrib. Act 88 Election (10/30/1970)
04 - S.T.A.R.S.	B-2 Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-2 Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)
06 - CMH Union	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)
10 - AFSCME	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)
11 - Gnrl Non Union	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)
12 - Gnrl Teamsters	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)

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Table 1 (continued)

Benefit Provisions Evaluated and/or Considered

Division	2010 Valuation	2009 Valuation
13 - Elected & Appt. D	B-4 - 80% Max Normal Ret Age: 60 V-10 FAC-5 2.53% Member Contrib. Act 88 Election (10/30/1970)	B-4 - 80% Max Normal Ret Age: 60 V-10 FAC-5 2.53% Member Contrib. Act 88 Election (10/30/1970)
20 - COAM/POAM Disp	B-3 - 80% Max Normal Ret Age: 60 V-10 F50(25) FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-3 - 80% Max Normal Ret Age: 60 V-10 F50(25) FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)
40 - MCF Non Union	B-4 - 80% Max Normal Ret Age: 60 V-10 F55(25) FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-4 - 80% Max Normal Ret Age: 60 V-10 F55(25) FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)
60 - CMH Non Union	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)	B-3 - 80% Max Normal Ret Age: 60 V-10 FAC-5 0.00% Member Contrib. Act 88 Election (10/30/1970)

MERS provides the actuary with the benefit provisions in effect in Table 1 above. Any corrections to the benefit provisions should be reported to your Regional Manager in the MERS Office of Marketing and Employer services.

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Table 2

Membership Summary

Division	2010 Valuation		2009 Valuation	
	Number	Annual Payroll*	Number	Annual Payroll*
02 - POLC Sheriff				
Active Members	74	\$3,549,868	76	\$3,860,058
Vested Former Members	12	48,232	12	48,232
Retirees and Beneficiaries	42	933,669	41	857,306
04 - S.T.A.R.S.				
Active Members	237	\$5,527,623	245	\$5,700,181
Vested Former Members	25	108,334	26	116,435
Retirees and Beneficiaries	67	368,363	60	316,631
06 - CMH Union				
Active Members	64	\$2,438,785	61	\$2,370,711
Vested Former Members	5	26,949	5	26,949
Retirees and Beneficiaries	10	101,403	10	101,403
10 - AFSCME				
Active Members	35	\$1,243,956	40	\$1,464,689
Vested Former Members	26	206,714	31	240,742
Retirees and Beneficiaries	30	281,325	24	222,960
11 - Gnrl Non Union				
Active Members	56	\$2,515,211	58	\$2,699,285
Vested Former Members	6	89,484	7	98,514
Retirees and Beneficiaries	21	227,484	19	194,525
12 - Gnrl Teamsters				
Active Members	68	\$2,434,100	74	\$2,665,630
Vested Former Members	10	95,128	8	64,337
Retirees and Beneficiaries	37	380,241	33	268,725
13 - Elected & Appt. Dept He				
Active Members	24	\$1,083,981	26	\$1,183,905
Vested Former Members	5	57,978	5	57,865
Retirees and Beneficiaries	18	259,238	18	228,636
20 - COAM/POAM Disp				
Active Members	16	\$692,364	16	\$727,271
Vested Former Members	1	2,857	1	2,857
Retirees and Beneficiaries	2	48,957	1	29,197

Lapeer County (4403)

Table 2 (continued)

Membership Summary

Division	2010 Valuation		2009 Valuation	
	Number	Annual Payroll*	Number	Annual Payroll*
40 - MCF Non Union				
Active Members	96	\$4,288,706	93	\$4,164,596
Vested Former Members	12	103,324	13	103,748
Retirees and Beneficiaries	33	425,132	31	367,045
60 - CMH Non Union				
Active Members	10	\$582,803	9	\$546,753
Vested Former Members	4	42,829	4	56,287
Retirees and Beneficiaries	4	91,125	3	77,477
Total Municipality				
Active Members	680	\$24,357,397	698	\$25,383,079
Vested Former Members	106	781,829	112	815,966
Retirees and Beneficiaries	264	3,116,937	240	2,663,905
Total Participants	1050		1050	

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

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Table 3

Active Members in the Valuation - Comparative Schedule

Valuation Date 12/31	Number	Annual Payroll	Average Pay		Average Age	Average Benefit Service*	Average Eligibility Service*
			Annual \$	% Increase			
2000	699	\$ 17,742,764	\$ 25,383	3.1%	40.7	7.7	
2001	744	20,436,078	27,468	8.2	41.2	7.6	7.6
2002	774	21,709,006	28,048	2.1	41.5	7.8	7.9
2003	807	22,301,228	27,635	(1.5)	41.1	7.5	7.6
2004	727	21,785,129	29,966	8.4	42.2	8.5	8.6
2005	705	21,929,614	31,106	3.8	42.4	9.0	9.0
2006	703	23,105,837	32,867	5.7	42.5	9.2	9.4
2007	709	24,095,799	33,986	3.4	42.8	9.4	9.5
2008	697	24,246,001	34,786	2.4	42.9	9.8	10.0
2009	698	25,383,079	36,365	4.5	43.2	10.1	10.3
2010	680	24,357,397	35,820	(1.5)	43.3	10.4	10.6

* See description on page 111.

Table 4

Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Net Transfers	New Member	End of Year
				Vested	Non-Vested			
2001	(7)			(13)	(95)		160	744
2002	(4)		(1)	(6)	(65)	(1)	107	774
2003	(8)			(8)	(87)		136	807
2004	(13)			(6)	(142)	1	80	727
2005	(14)			(4)	(95)	1	90	705
2006	(13)			(6)	(76)		93	703
2007	(11)		(1)	(7)	(62)		87	709
2008	(11)	(1)		(8)	(66)		74	697
2009	(9)	(1)		(7)	(48)		66	698
2010	(21)			(5)	(52)		60	680

Lapeer County (4403)

Table 5

Vested Former Members in the Valuation - Comparative Schedule

Valuation Date 12/31	Number	Annual Deferred Benefits	Average Age	Average Benefit Service*	Average Eligibility Service*
2000	75	\$			
2001	95	508,705	44.7	10.4	11.8
2002	86	561,406	46.8	12.0	13.5
2003	88	627,136	47.1	11.9	13.5
2004	91	575,410	47.8	11.5	13.2
2005	89	583,638	48.0	11.6	13.6
2006	95	584,050	46.9	10.7	12.7
2007	103	656,248	48.0	10.8	13.1
2008	107	750,251	48.8	11.0	13.2
2009	112	815,966	49.3	10.8	13.4
2010	106	781,829	48.7	10.8	13.4

* See description on page 111.

Table 6

Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Net Transfers	New	End of Year
2001	(1)	(1)		(8)		30	95
2002	(1)			(16)		8	86
2003	(3)			(3)		8	88
2004	(4)	(1)		(1)	(1)	10	91
2005	(4)			(1)	(2)	5	89
2006	(4)	(1)				11	95
2007	(1)	(1)		(1)		11	103
2008	(3)	(1)				8	107
2009	(4)	(1)				10	112
2010	(11)	(1)		(3)		9	106

Lapeer County (4403)

Table 7

Retirees and Beneficiaries in the Valuation - Comparative Schedule

Valuation Date 12/31	Retirees		Beneficiaries		Total Recipients		No. of Actives per Recip.	Benefits As % of Active Payroll
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2000		\$		\$	137	\$ 834,372	5.1	4.7%
2001	145	1,044,874	17	75,090	162	1,119,964	4.6	5.5
2002	149	1,084,743	18	85,648	167	1,170,391	4.6	5.4
2003	147	1,121,796	19	92,625	166	1,214,421	4.9	5.4
2004	163	1,477,261	17	88,551	180	1,565,812	4.0	7.2
2005	177	1,667,261	18	105,209	195	1,772,470	3.6	8.1
2006	190	1,892,582	19	118,122	209	2,010,704	3.4	8.7
2007	200	2,129,647	19	130,000	219	2,259,647	3.2	9.4
2008	212	2,359,922	21	151,580	233	2,511,502	3.0	10.4
2009	219	2,501,020	21	162,885	240	2,663,905	2.9	10.5
2010	245	2,966,848	19	150,089	264	3,116,937	2.6	12.8

Table 8

Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust. *	Number	Annual Benefits	Benefit Adjust. #	Number	Annual Benefits
2000	15	\$ 123,941	\$	(4)	\$ (7,640)	\$	137	\$ 834,372
2001	70	527,705		(45)	(242,120)		162	1,119,964
2002	10	67,404		(5)	(16,977)		167	1,170,391
2003	12	106,458		(13)	(54,204)	(8,224)	166	1,214,421
2004	17	357,292		(3)	(5,067)	(834)	180	1,565,812
2005	21	257,643	2,364	(6)	(45,773)	(7,576)	195	1,772,470
2006	18	272,034	400	(4)	(25,891)	(8,309)	209	2,010,704
2007	13	258,885		(3)	(9,859)	(83)	219	2,259,647
2008	18	285,317	661	(4)	(34,123)		233	2,511,502
2009	15	195,847	1,227	(8)	(44,671)		240	2,663,905
2010	32	489,843	68	(8)	(33,351)	(3,528)	264	3,116,937

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Table 9

Retirees and Beneficiaries on the Rolls as of December 31, 2010

Distribution by Type of Benefit Being Paid

Benefits Being Paid to:	Annual Benefits	
	Number	Amount
Age and service retirants	239	\$2,931,913
Non-duty disability retirants	3	11,396
Duty disability retirants	3	23,539
Beneficiaries of deceased retirants*	15	117,415
Beneficiaries of deceased members:		
Non-duty death	4	32,674
Duty death	<u>0</u>	<u>0</u>
Total Benefits Being Paid	264	\$3,116,937

* Alternate Payees, if any, are all included with beneficiaries of deceased retirants.

Lapeer County (4403)

Table 10

Reported Assets (Market Value)

Division	2010 Valuation		2009 Valuation	
	Employer And Retiree*	Employee#	Employer And Retiree*	Employee#
02 - POLC Sheriff	\$ 13,028,000	\$ 1,053,842	\$ 11,703,967	\$ 1,024,299
04 - S.T.A.R.S.	6,363,126	293,533	5,452,273	316,056
06 - CMH Union	4,178,670	74,736	3,440,800	74,527
10 - AFSCME	5,257,901	91,640	4,696,619	139,253
11 - Gnrl Non Union	7,099,618	61,491	6,180,162	61,320
12 - Gnrl Teamsters	7,073,844	53,253	6,150,470	90,724
13 - Elected & Appt. Dept H	5,485,703	314,744	4,888,163	299,579
20 - COAM/POAM Disp	1,211,241	0	952,271	30,031
40 - MCF Non Union	9,197,464	121,914	7,929,236	120,752
60 - CMH Non Union	2,239,102	26,117	1,939,712	26,044
Total Municipality	\$ 61,134,669	\$ 2,091,270	\$ 53,333,673	\$ 2,182,585
Combined Reserves	\$63,225,939		\$55,516,258	

* Reserve for Employer Contributions and Benefit Payments

Reserve for Employee Contributions

The December 31, 2010 Valuation Assets are equal to 1.162921 times the reported Market Value of assets. The derivation of Valuation Assets is described on page 120 and the detailed calculations are shown on pages 121 - 123.

Lapeer County (4403)

Table 11

Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Net Transfers*	Balance
	Employer	Member					
2001	\$ 1,564,868	\$ 107,819	\$ 2,559,535	\$ (1,037,634)	\$ (6,001)	\$ 0	\$ 35,020,726
2002	1,827,043	95,710	1,476,581	(1,144,287)	(2,467)	2,001	37,275,307
2003	2,040,153	83,626	2,917,071	(1,200,532)	(7,607)	(787,268)	40,320,750
2004	2,931,706	83,750	2,915,459	(1,358,297)	(10,950)	(276,600)	44,605,818
2005	2,351,688	139,535	2,965,938	(1,635,943)	(1,110)	58,595	48,484,521
2006	4,689,470	233,928	4,031,129	(1,879,765)	(11,276)	0	55,548,007
2007	3,268,463	153,907	4,504,185	(2,144,291)	(8,522)	0	61,321,749
2008	2,820,446	121,929	2,983,475	(2,357,504)	(5,875)	0	64,884,220
2009	3,356,569	127,565	3,719,493	(2,592,458)	(7,466)	0	69,487,923
2010	2,701,704	120,400	4,108,154	(2,887,422)	(3,985)	0	73,526,774

* 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.

Lapeer County (4403)

Table 12

Termination Liability as of December 31, 2010

Division	Termination Liability*	Valuation Assets	Percent Funded	Unfunded (Overfunded)
02 - POLC Sheriff Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 6,605,084 121,366 9,912,630 <u>53,158</u> \$ 16,692,238	\$ 16,376,070	98.1%	\$ 316,168
04 - S.T.A.R.S. Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 3,136,307 604,513 3,146,385 <u>37,624</u> \$ 6,924,829	\$ 7,741,169	111.8%	\$ (816,340)
06 - CMH Union Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 3,497,330 163,311 1,005,681 <u>6,543</u> \$ 4,672,865	\$ 4,946,375	105.9%	\$ (273,510)
10 - AFSCME Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 1,887,669 1,299,789 2,590,197 <u>7,999</u> \$ 5,785,654	\$ 6,221,094	107.5%	\$ (435,440)
11 - Gnrl Non Union Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 4,381,533 416,978 2,082,746 <u>710</u> \$ 6,881,967	\$ 8,327,804	121.0%	\$ (1,445,837)
12 - Gnrl Teamsters Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 3,512,490 475,344 3,290,090 <u>0</u> \$ 7,277,924	\$ 8,288,251	113.9%	\$ (1,010,327)

Lapeer County (4403)

Table 12 (continued)

Termination Liability and Present Value of Accrued Benefits as of December 31, 2010

Division	Termination Liability*	Valuation Assets	Percent Funded	Unfunded (Overfunded)
13 - Elected & Appt. D Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 4,221,180 451,815 2,308,922 <u>10,267</u> \$ 6,992,184	\$ 6,745,462	96.5%	\$ 246,722
20 - COAM/POAM Disp Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 684,608 2,388 564,915 <u>0</u> \$ 1,251,911	\$ 1,408,578	112.5%	\$ (156,667)
40 - MCF Non Union Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 7,468,224 680,171 3,770,795 <u>650</u> \$ 11,919,840	\$ 10,837,700	90.9%	\$ 1,082,140
60 - CMH Non Union Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 1,441,265 270,574 848,052 <u>0</u> \$ 2,559,891	\$ 2,634,271	102.9%	\$ (74,380)
Total Municipality Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 36,835,690 4,486,249 29,520,413 <u>116,951</u> \$ 70,959,303	\$ 73,526,774	103.6%	\$ (2,567,471)

* The Termination Liability represents the present value of benefits payable in the event that all active members terminate employment on December 31, 2010, based upon the valuation interest and mortality assumptions. Pending refunds represent expected refunds of accumulated member contributions to persons who have terminated membership before becoming eligible for pension benefits.

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Table 13

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2010

Division	Actuarial Accrued Liabilities	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
02 - POLC Sheriff				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 7,800,902	\$ 5,312,947	68.1%	\$ 2,487,955
Vested Former Members	96,699	96,699	100.0	0
Retirees and Beneficiaries	<u>9,912,630</u>	<u>9,912,630</u>	100.0	<u>0</u>
Total	\$ 17,810,231	\$ 15,322,276	86.0%	\$ 2,487,955
Reserve for Employee Contributions				
Active Members	\$ 975,969	\$ 975,969		
Vested Former Members	24,667	24,667		
Pending Refunds	<u>53,158</u>	<u>53,158</u>		
Total	\$ 1,053,794	\$ 1,053,794	100.0%	\$ 0
Division Total	\$ 18,864,025	\$ 16,376,070	86.8%	\$ 2,487,955
04 - S.T.A.R.S.				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 4,605,012	\$ 3,790,454	82.3%	\$ 814,558
Vested Former Members	513,519	513,519	100.0	0
Retirees and Beneficiaries	<u>3,146,385</u>	<u>3,146,385</u>	100.0	<u>0</u>
Total	\$ 8,264,916	\$ 7,450,358	90.1%	\$ 814,558
Reserve for Employee Contributions				
Active Members	\$ 162,193	\$ 162,193		
Vested Former Members	90,994	90,994		
Pending Refunds	<u>37,624</u>	<u>37,624</u>		
Total	\$ 290,811	\$ 290,811	100.0%	\$ 0
Division Total	\$ 8,555,727	\$ 7,741,169	90.5%	\$ 814,558
06 - CMH Union				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 3,914,685	\$ 3,708,884	94.7%	\$ 205,801
Vested Former Members	159,565	159,565	100.0	0
Retirees and Beneficiaries	<u>1,005,681</u>	<u>1,005,681</u>	100.0	<u>0</u>
Total	\$ 5,079,931	\$ 4,874,130	95.9%	\$ 205,801
Reserve for Employee Contributions				
Active Members	\$ 61,956	\$ 61,956		
Vested Former Members	3,746	3,746		
Pending Refunds	<u>6,543</u>	<u>6,543</u>		
Total	\$ 72,245	\$ 72,245	100.0%	\$ 0
Division Total	\$ 5,152,176	\$ 4,946,375	96.0%	\$ 205,801

Lapeer County (4403)

Table 13 (continued)

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2010

Division	Actuarial Accrued Liabilities	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
10 - AFSCME				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 2,366,691	\$ 2,305,580	97.4%	\$ 61,111
Vested Former Members	1,233,676	1,233,676	100.0	0
Retirees and Beneficiaries	<u>2,590,197</u>	<u>2,590,197</u>	100.0	<u>0</u>
Total	\$ 6,190,564	\$ 6,129,453	99.0%	\$ 61,111
Reserve for Employee Contributions				
Active Members	\$ 17,529	\$ 17,529		
Vested Former Members	66,113	66,113		
Pending Refunds	<u>7,999</u>	<u>7,999</u>		
Total	\$ 91,641	\$ 91,641	100.0%	\$ 0
Division Total	\$ 6,282,205	\$ 6,221,094	99.0%	\$ 61,111
11 - Gnrl Non Union				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 5,210,164	\$ 5,772,168	110.8%	\$ (562,004)
Vested Former Members	411,399	411,399	100.0	0
Retirees and Beneficiaries	<u>2,082,746</u>	<u>2,082,746</u>	100.0	<u>0</u>
Total	\$ 7,704,309	\$ 8,266,313	107.3%	\$ (562,004)
Reserve for Employee Contributions				
Active Members	\$ 55,202	\$ 55,202		
Vested Former Members	5,579	5,579		
Pending Refunds	<u>710</u>	<u>710</u>		
Total	\$ 61,491	\$ 61,491	100.0%	\$ 0
Division Total	\$ 7,765,800	\$ 8,327,804	107.2%	\$ (562,004)
12 - Gnrl Teamsters				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 4,754,314	\$ 4,469,565	94.0%	\$ 284,749
Vested Former Members	475,344	475,344	100.0	0
Retirees and Beneficiaries	<u>3,290,090</u>	<u>3,290,090</u>	100.0	<u>0</u>
Total	\$ 8,519,748	\$ 8,234,999	96.7%	\$ 284,749
Reserve for Employee Contributions				
Active Members	\$ 53,252	\$ 53,252		
Vested Former Members	0	0		
Pending Refunds	<u>0</u>	<u>0</u>		
Total	\$ 53,252	\$ 53,252	100.0%	\$ 0
Division Total	\$ 8,573,000	\$ 8,288,251	96.7%	\$ 284,749

Lapeer County (4403)

Table 13 (continued)

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2010

Division	Actuarial Accrued Liabilities	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
13 - Elected & Appt. Dept Heads Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 3,869,255	\$ 3,702,739	95.7%	\$ 166,516
Vested Former Members	422,337	422,337	100.0	0
Retirees and Beneficiaries	<u>2,308,922</u>	<u>2,308,922</u>	100.0	<u>0</u>
Total	\$ 6,600,514	\$ 6,433,998	97.5%	\$ 166,516
Reserve for Employee Contributions				
Active Members	\$ 271,719	\$ 271,719		
Vested Former Members	29,478	29,478		
Pending Refunds	<u>10,267</u>	<u>10,267</u>		
Total	\$ 311,464	\$ 311,464	100.0%	\$ 0
Division Total	\$ 6,911,978	\$ 6,745,462	97.6%	\$ 166,516
20 - COAM/POAM Disp Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 1,142,629	\$ 841,275	73.6%	\$ 301,354
Vested Former Members	2,388	2,388	100.0	0
Retirees and Beneficiaries	<u>564,915</u>	<u>564,915</u>	100.0	<u>0</u>
Total	\$ 1,709,932	\$ 1,408,578	82.4%	\$ 301,354
Reserve for Employee Contributions				
Active Members	\$ 0	\$ 0		
Vested Former Members	0	0		
Pending Refunds	<u>0</u>	<u>0</u>		
Total	\$ 0	\$ 0	0.0%	\$ 0
Division Total	\$ 1,709,932	\$ 1,408,578	82.4%	\$ 301,354
40 - MCF Non Union Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 8,769,784	\$ 6,293,916	71.8%	\$ 2,475,868
Vested Former Members	651,074	651,074	100.0	0
Retirees and Beneficiaries	<u>3,770,795</u>	<u>3,770,795</u>	100.0	<u>0</u>
Total	\$ 13,191,653	\$ 10,715,785	81.2%	\$ 2,475,868
Reserve for Employee Contributions				
Active Members	\$ 92,168	\$ 92,168		
Vested Former Members	29,097	29,097		
Pending Refunds	<u>650</u>	<u>650</u>		
Total	\$ 121,915	\$ 121,915	100.0%	\$ 0
Division Total	\$ 13,313,568	\$ 10,837,700	81.4%	\$ 2,475,868

Lapeer County (4403)

Table 13 (continued)

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2010

Division	Actuarial Accrued Liabilities	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
60 - CMH Non Union				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 1,587,702	\$ 1,489,527	93.8%	\$ 98,175
Vested Former Members	270,574	270,574	100.0	0
Retirees and Beneficiaries	<u>848,052</u>	<u>848,052</u>	100.0	<u>0</u>
Total	\$ 2,706,328	\$ 2,608,153	96.4%	\$ 98,175
Reserve for Employee Contributions				
Active Members	\$ 26,118	\$ 26,118		
Vested Former Members	0	0		
Pending Refunds	<u>0</u>	<u>0</u>		
Total	\$ 26,118	\$ 26,118	100.0%	\$ 0
Division Total	\$ 2,732,446	\$ 2,634,271	96.4%	\$ 98,175
Municipality Totals				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 44,021,138	\$ 37,687,055	85.6%	\$ 6,334,083
Vested Former Members	4,236,575	4,236,575	100.0	0
Retirees and Beneficiaries	<u>29,520,413</u>	<u>29,520,413</u>	100.0	<u>0</u>
Total	\$ 77,778,126	\$ 71,444,043	91.9%	\$ 6,334,083
Reserve for Employee Contributions				
Active Members	\$ 1,716,106	\$ 1,716,106		
Vested Former Members	249,674	249,674		
Pending Refunds	<u>116,951</u>	<u>116,951</u>		
Total	\$ 2,082,731	\$ 2,082,731	100.0%	\$ 0
Municipality Total	\$ 79,860,857	\$ 73,526,774	92.1%	\$ 6,334,083

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Table 14

Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
1996	\$ 24,214,251	\$ 19,148,536	79%	\$ 5,065,715	40%
1997	26,825,449	21,477,156	80	5,348,293	39
1998	30,510,544	24,273,909	80	6,236,635	39
1999	30,235,070	28,451,502	94	1,783,568	11
2000	35,717,216	31,832,139	89	3,885,077	22
2001	43,599,768	35,020,726	80	8,579,042	42
2002	47,793,702	37,275,307	78	10,518,395	48
2003	49,842,139	40,320,750	81	9,521,389	43
2004	53,364,956	44,605,818	84	8,759,138	40
2005	57,449,535	48,484,521	84	8,965,014	41
2006	62,191,494	55,548,007	89	6,643,487	29
2007	67,484,457	61,321,749	91	6,162,708	26
2008	72,924,490	64,884,220	89	8,040,270	33
2009	75,451,001	69,487,923	92	5,963,078	23
2010	79,860,857	73,526,774	92	6,334,083	26

Notes: Actuarial assumptions were revised for the 1997, 2000, 2004, 2008, 2009 and 2010 actuarial valuations.

Lapeer County (4403)

Table 15

Computed Employer Contributions to the Retirement System

For the Fiscal Year Beginning January 1, 2012

Division	Employer Contributions @		
	Normal Cost	Unfunded Accrued Liability #	Total Required Employer Contribution
Percentage of Payroll			
02 - POLC Sheriff	8.45%	3.72%	12.17%
04 - S.T.A.R.S.	7.20%	0.79%	7.99%
06 - CMH Union	8.77%	0.44%	9.21%
10 - AFSCME	8.59%	0.26%	8.85%
11 - Gnrl Non Union	8.59%	(2.34)%	6.25%
12 - Gnrl Teamsters	8.12%	0.63%	8.75%
13 - Elected & Appt. Dept Head	7.82%	0.86%	8.68%
20 - COAM/POAM Disp	9.40%	2.27%	11.67%
40 - MCF Non Union	10.12%	3.06%	13.18%
60 - CMH Non Union	7.91%	0.86%	8.77%
Estimated Monthly Contribution*			
02 - POLC Sheriff	\$ 24,997	\$ 11,005	\$ 36,002
04 - S.T.A.R.S.	33,166	3,639	36,805
06 - CMH Union	17,823	894	18,717
10 - AFSCME	8,905	270	9,175
11 - Gnrl Non Union	18,005	(4,905)	13,100
12 - Gnrl Teamsters	16,471	1,278	17,749
13 - Elected & Appt. Dept Head	7,064	777	7,841
20 - COAM/POAM Disp	5,424	1,310	6,734
40 - MCF Non Union	36,168	10,936	47,104
60 - CMH Non Union	3,842	418	4,260
Total Municipality	\$ 171,865	\$ 25,622	\$ 197,487
Estimated Annual Contribution*			
Total Municipality	\$ 2,062,380	\$ 307,464	\$ 2,369,844

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

* 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). See Open Divisions and Closed Divisions on page 118.

The amortization method and period are described in Table 16 for each division.

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 02 - POLC Sheriff

Table 16A

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	10.41%	\$30,795
Member Contributions	2.49	7,366
Less Potential Refunds	<u>(0.53)</u>	<u>(1,568)</u>
Net Member Contributions	1.96	5,798
Employer Normal Cost @	8.45%	\$24,997
Amortization of Unfunded Accrued Liability (28 years)	<u>3.72</u>	<u>11,005</u>
Total Long Term Contribution	12.17	36,002
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	12.17%	\$36,002 *

@ The above Employer contribution requirement is based on Member contributions of 2.49% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.80% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$91,041
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.28%
Amortization Payment:	0.16%
Total:	0.44%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 02 - POLC Sheriff

Table 17A

Computed Employer Contributions - Comparative Statement

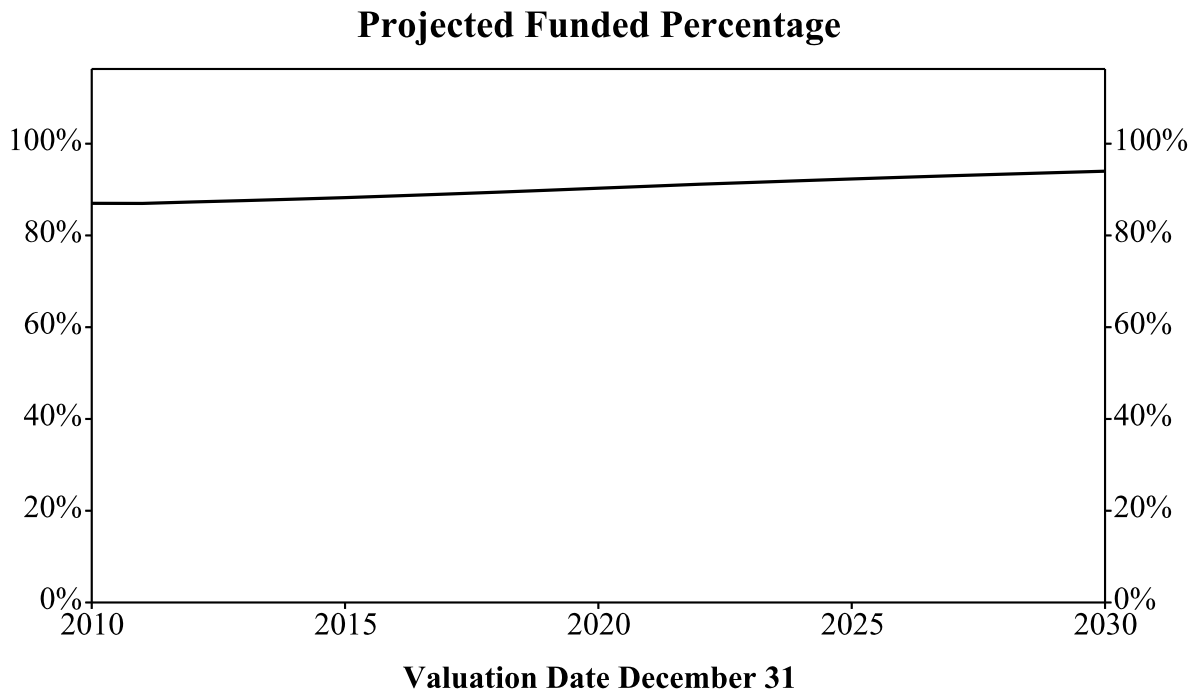
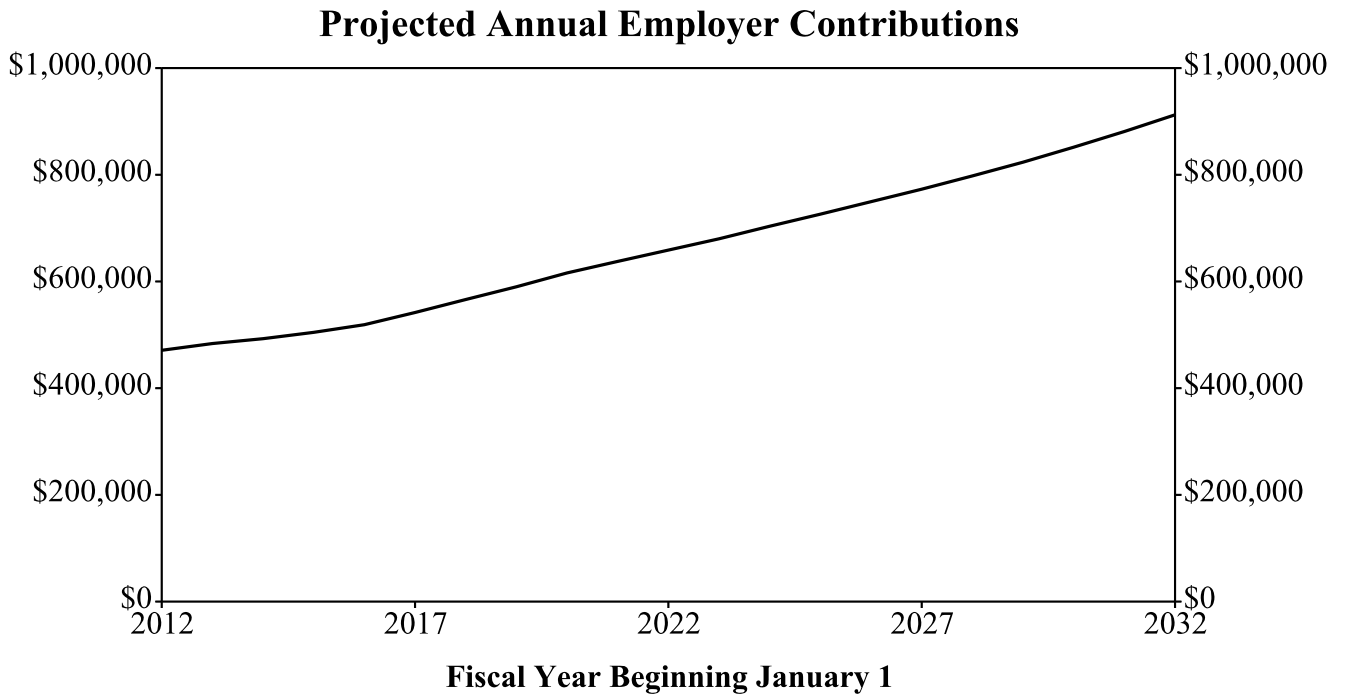
Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1996	56	\$ 1,671,253	12.05%	9.64%
1997	70	2,200,635	12.54%	12.54%
1998	75	2,501,839	11.68%	11.68%
1999	77	2,500,708	9.56%	9.56%
2000	78	2,664,776	8.97%	8.96%
2001	78	3,112,194	10.42%	10.42%
2002	77	3,200,792	10.78%	10.78%
2003	78	3,329,599	10.16%	10.16%
2004	75	3,130,218	11.58%	11.58%
2005	77	3,355,802	11.74%	11.74%
2006	78	3,492,975	10.26%	10.26%
2007	77	3,540,996	10.76%	10.76%
2008	76	3,597,122	11.88%	11.88%
2009	76	3,860,058	11.30%	11.30%
2010	74	3,549,868	12.17%	12.17%

Notes:

Actuarial assumptions were revised for the 1997 valuation.
Adoption of Benefit B-4 reflected in 1998 valuation.
Adoption of 2.49% member contributions reflected in 1998 valuation.
Actuarial assumptions were revised for the 2000 valuation.
Actuarial assumptions were revised for the 2004 valuation.
Actuarial assumptions and methods were revised for the 2008 valuation.
Actuarial assumptions were revised for the 2009 valuation.
Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 02 - POLC Sheriff
Chart 17.5A



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 02 - POLC Sheriff

Table 18A
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001	(2)			(1)	(2)		1	4	78
2002					(1)	(1)		1	77
2003				(1)	(2)			4	78
2004	(8)			(1)	(1)		1	6	75
2005	(2)				(3)			7	77
2006	(2)			(1)	(2)			6	78
2007	(5)				(1)			5	77
2008	(2)				(2)			3	76
2009	(1)				(1)			2	76
2010	(3)				(1)			2	74

Table 19A
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001	(1)	(1)					3	12
2002				(4)			2	10
2003							1	11
2004	(1)						1	11
2005				(1)	(1)			9
2006							3	12
2007							1	13
2008								13
2009	(1)							12
2010								12

Lapeer County (4403)
Division 02 - POLC Sheriff

Table 20A
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	5	\$ 87,661	\$	(1)	\$ (11,227)	\$	18	\$ 257,272
2002	1	5,964					19	263,236
2003							19	263,236
2004	9	232,904				(834)	28	495,306
2005	2	63,621	1,946				30	560,873
2006	3	81,897		(1)	(12,913)	(8,309)	32	621,548
2007	5	148,628					37	770,176
2008	2	70,045	504				39	840,725
2009	3	36,113		(1)	(19,532)		41	857,306
2010	3	85,235		(2)	(8,872)		42	933,669

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)
Division 02 - POLC Sheriff

Table 21A
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 304,752	\$ 79,183	\$ 679,419	\$ (220,166)	\$ (2,018)	\$ (171)	\$ 145,383	\$ 9,201,481
2002	288,640	80,220	366,044	(247,212)	0	(36,086)	0	9,653,087
2003	347,162	83,175	819,076	(263,236)	(4,229)	0	27	10,635,062
2004	361,796	83,750	742,062	(364,464)	0	0	1,537	11,459,743
2005	344,295	84,698	738,401	(523,913)	0	(23,087)	0	12,080,137
2006	1,203,455	88,628	969,151	(593,345)	(5,884)	(47)	47	13,742,142
2007	418,629	88,873	1,116,716	(695,500)	0	(55)	55	14,670,860
2008	374,501	91,024	643,336	(801,245)	0	0	0	14,978,476
2009	920,154	97,234	790,487	(854,446)	(342)	0	0	15,931,563
2010	433,227	90,927	837,064	(916,711)	0	0	0	16,376,070

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

Table 22A
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 11,388,140	\$ 9,201,481	81%	\$ 2,186,659	70%
2002	12,123,507	9,653,087	80	2,470,420	77
2003	12,794,115	10,635,062	83	2,159,053	65
2004	13,968,828	11,459,743	82	2,509,085	80
2005	14,846,476	12,080,137	81	2,766,339	82
2006	15,603,182	13,742,142	88	1,861,040	53
2007	16,729,281	14,670,860	88	2,058,421	58
2008	17,581,765	14,978,476	85	2,603,289	72
2009	18,248,875	15,931,563	87	2,317,312	60
2010	18,864,025	16,376,070	87	2,487,955	70

Lapeer County (4403)

Division 04 - S.T.A.R.S.

Table 16B

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	7.20%	\$33,166
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	7.20%	\$33,166
Amortization of Unfunded Accrued Liability (28 years)	<u>0.79</u>	<u>3,639</u>
Total Long Term Contribution	7.99	36,805
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	7.99%	\$36,805 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.85% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$(30,565)
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.19%
Amortization Payment:	(0.02)%
Total:	0.17%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 04 - S.T.A.R.S.

Table 17B

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1996	172	\$ 2,237,649	5.11%	4.09%
1997	181	2,374,330	4.99%	4.99%
1998	181	2,680,601	4.33%	4.33%
1999	200	3,112,515	4.00%	4.00%
2000	219	3,467,993	4.43%	4.43%
2001	243	4,073,457	6.49%	5.53%
2002	271	4,586,259	6.82%	6.34%
2003	311	5,027,560	6.66%	6.66%
2004	255	4,799,539	6.32%	6.32%
2005	226	4,304,196	6.00%	6.00%
2006	228	4,903,116	5.98%	5.98%
2007	238	5,286,231	8.01%	8.01%
2008	239	5,520,840	8.24%	8.24%
2009	245	5,700,181	7.73%	7.73%
2010	237	5,527,623	7.99%	7.99%

Notes:

Actuarial assumptions were revised for the 1997 valuation.

Actuarial assumptions were revised for the 2000 valuation.

Actuarial assumptions were revised for the 2004 valuation.

Adoption of Benefit B-2, 2.33% Member Contributions reflected in 2005 valuation.

Adoption of 0.00% Member Contributions reflected in 2007 valuation.

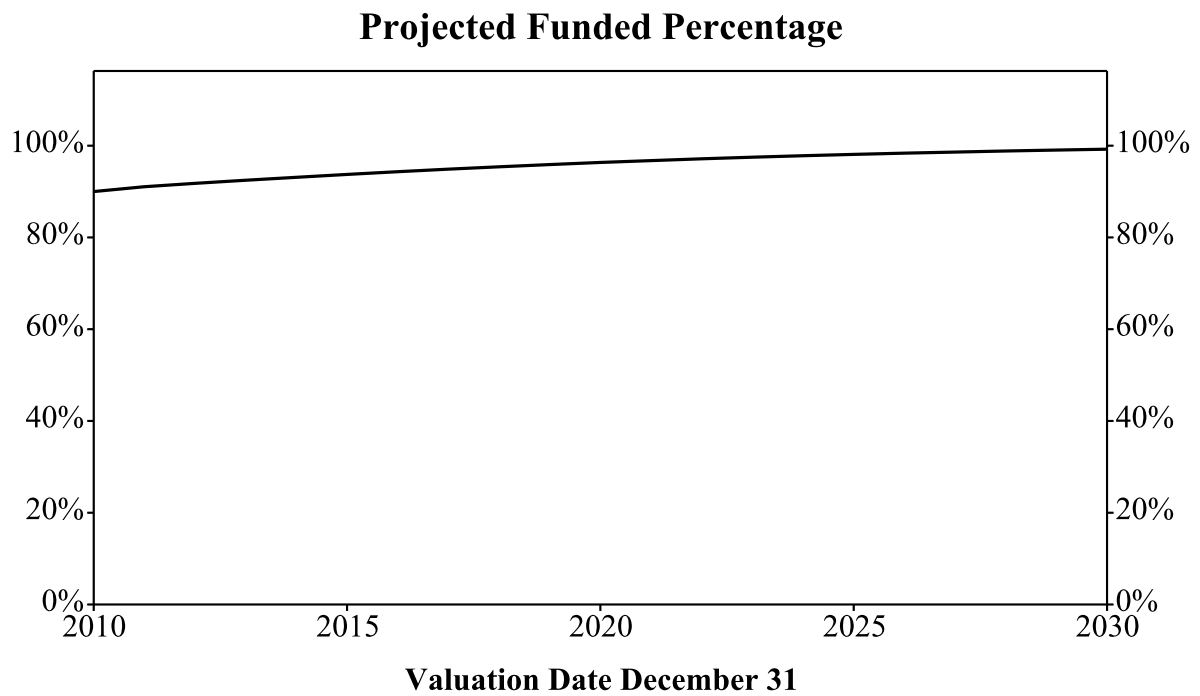
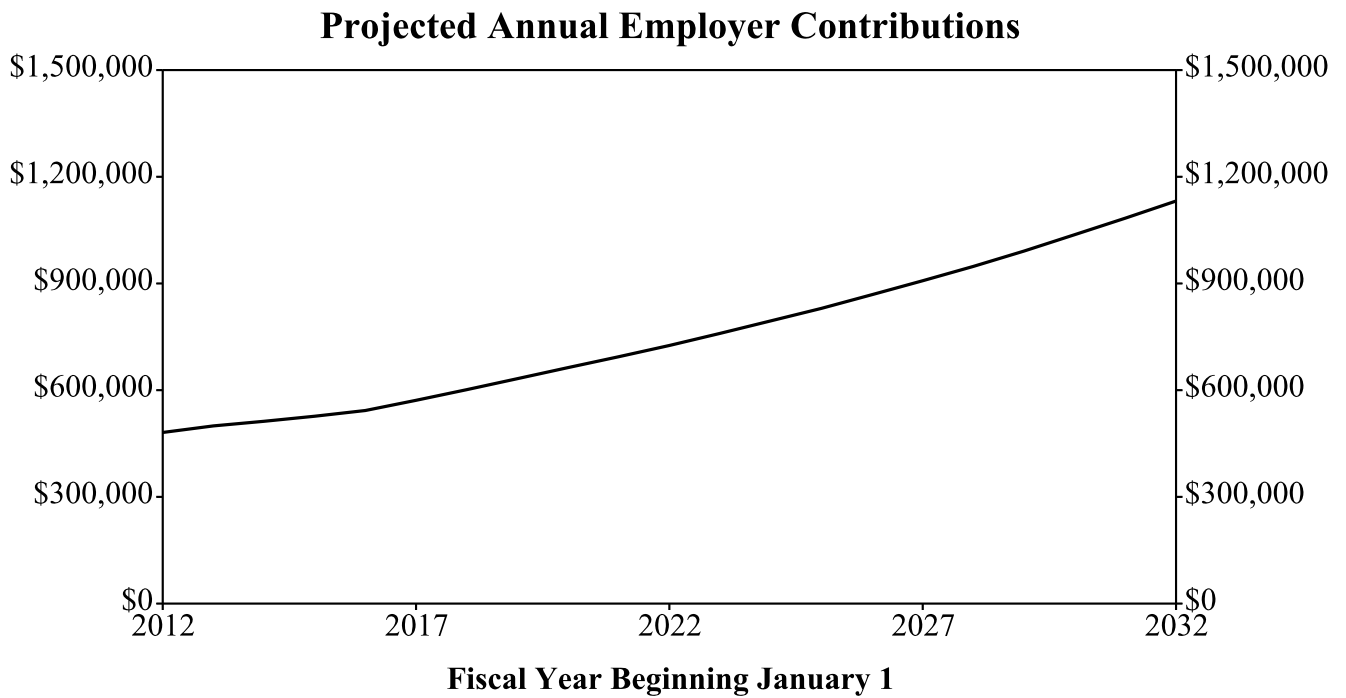
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 04 - S.T.A.R.S.
Chart 17.5B



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 04 - S.T.A.R.S.

Table 18B
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001	(1)			(5)	(56)	(3)		89	243
2002	(1)		(1)	(1)	(34)	(2)	1	66	271
2003	(3)			(2)	(37)			82	311
2004	(1)			(4)	(99)	(1)		49	255
2005	(3)			(1)	(63)	(5)		43	226
2006	(4)			(2)	(45)	(5)		58	228
2007	(2)			(3)	(39)	(1)		55	238
2008				(2)	(43)	(1)		47	239
2009	(3)				(34)	(1)		44	245
2010	(5)			(1)	(39)	(1)		38	237

Table 19B
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001				(5)			17	24
2002	(1)			(6)			1	18
2003	(2)						2	18
2004							5	23
2005	(2)						2	23
2006	(1)	(1)					4	25
2007		(1)		(1)			5	28
2008	(2)	(1)					2	27
2009	(1)							26
2010	(2)			(2)			3	25

Lapeer County (4403)
Division 04 - S.T.A.R.S.

Table 20B
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	3	\$ 12,782	\$	(1)	\$ (1,857)	\$	44	\$ 137,228
2002	5	23,900		(4)	(8,750)		45	152,378
2003	5	31,649		(1)	(3,379)		49	180,648
2004	1	10,780		(2)	(3,369)		48	188,059
2005	5	37,008		(2)	(5,682)		51	219,385
2006	5	35,136	32				56	254,553
2007	2	14,787				(83)	58	269,257
2008	2	7,113		(2)	(4,179)		58	272,191
2009	4	46,594		(2)	(2,154)		60	316,631
2010	7	55,231	29			(3,528)	67	368,363

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Division 04 - S.T.A.R.S.

Table 21B
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 163,062	\$ 0	\$ 263,857	\$ (126,145)	\$ 0	\$ (34,400)	\$ 0	\$ 3,639,276
2002	198,073	0	147,135	(148,003)	(1,800)	(1,415)	5,712	3,838,978
2003	263,199	0	336,096	(162,878)	0	0	0	4,275,395
2004	315,596	0	306,776	(178,604)	0	0	195	4,719,358
2005	306,032	28,533	312,972	(194,768)	0	(83,711)	0	5,088,416
2006	289,203	110,188	418,482	(230,290)	(3,417)	(34,170)	0	5,638,412
2007	361,817	34,572	457,687	(259,118)	(6,015)	(401)	0	6,226,954
2008	424,147	0	318,913	(267,726)	(5,394)	(23,726)	0	6,673,168
2009	434,834	0	407,115	(286,942)	(7,124)	(1,018)	0	7,220,033
2010	441,951	0	448,680	(346,568)	(3,985)	(18,942)	0	7,741,169

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

Table 22B
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 4,272,447	\$ 3,639,276	85%	\$ 633,171	16%
2002	4,782,558	3,838,978	80	943,580	21
2003	5,159,420	4,275,395	83	884,025	18
2004	5,359,047	4,719,358	88	639,689	13
2005	6,002,991	5,088,416	85	914,575	21
2006	6,591,302	5,638,412	86	952,890	19
2007	7,324,970	6,226,954	85	1,098,016	21
2008	7,953,439	6,673,168	84	1,280,271	23
2009	8,026,964	7,220,033	90	806,931	14
2010	8,555,727	7,741,169	90	814,558	15

Lapeer County (4403)

Division 06 - CMH Union

Table 16C

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	8.77%	\$17,823
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	8.77%	\$17,823
Amortization of Unfunded Accrued Liability (28 years)	<u>0.44</u>	<u>894</u>
Total Long Term Contribution	9.21	18,717
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	9.21%	\$18,717 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.83% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$8,209
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.22%
Amortization Payment:	0.03%
Total:	0.25%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 06 - CMH Union

Table 17C

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution
	Number	Annual Payroll	
1998	40	\$ 1,036,124	6.00%
1999	50	1,192,290	6.00%
2000	56	1,427,432	6.00%
2001	56	1,472,195	10.38%
2002	54	1,521,661	10.46%
2003	61	1,688,732	11.83%
2004	60	1,722,057	11.32%
2005	60	1,707,626	11.23%
2006	61	1,913,430	10.83%
2007	63	2,120,601	10.20%
2008	61	2,159,843	9.90%
2009	61	2,370,711	9.24%
2010	64	2,438,785	9.21%

Notes:

4.41% member contribution reflected in 1998 valuation to reflect employer contribution cap.

4.14% member contribution reflected in 1999 valuation to reflect employer contribution cap.

4.07% member contribution reflected in 2000 valuation to reflect employer contribution cap.

Actuarial assumptions were revised for the 2000 valuation.

Adoption of 0.00% Member Contributions reflected in 2001 valuation.

Adoption of Benefit B-3 - 80% Maximum reflected in 2003 valuation.

Actuarial assumptions were revised for the 2004 valuation.

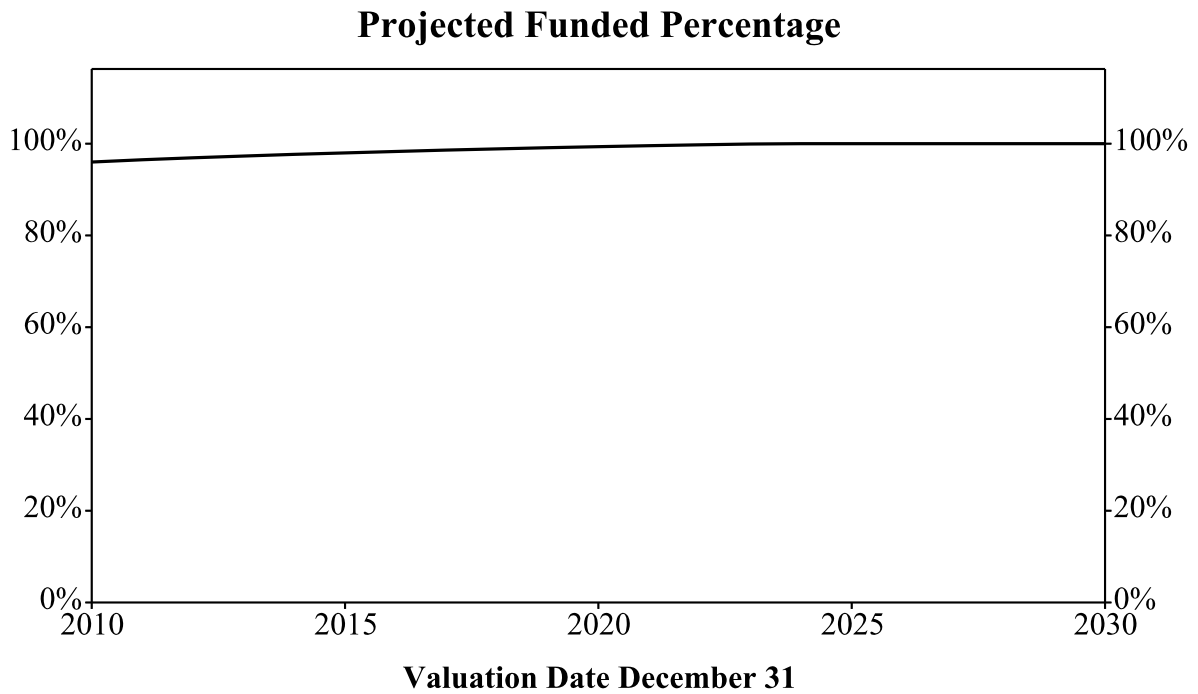
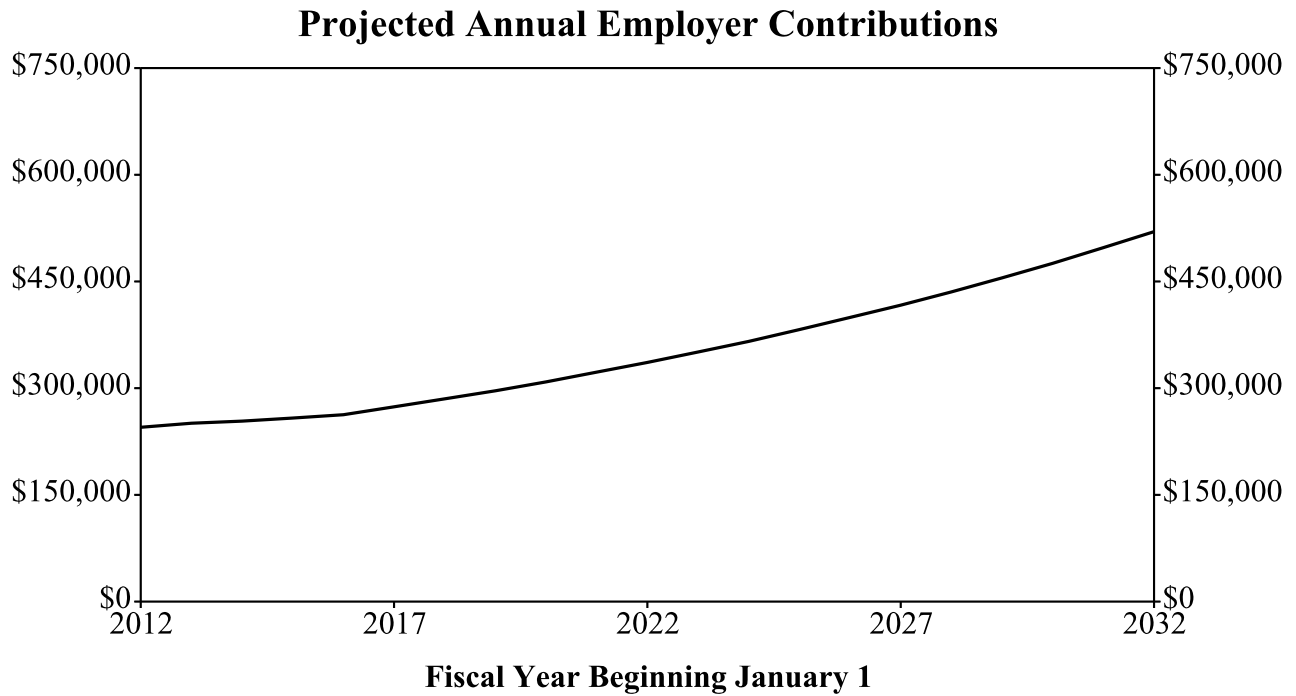
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 06 - CMH Union
Chart 17.5C



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 06 - CMH Union

Table 18C
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001				(1)	(7)	(1)		9	56
2002	(1)				(5)			4	54
2003	(1)				(6)		2	12	61
2004					(5)			4	60
2005				(1)	(7)			8	60
2006	(2)				(3)			6	61
2007			(1)		(3)			6	63
2008	(3)				(5)			6	61
2009	(1)				(1)			2	61
2010							1	2	64

Table 19C
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001							1	4
2002								4
2003								4
2004						1		5
2005	(1)						1	5
2006								5
2007								5
2008								5
2009								5
2010								5

Lapeer County (4403)

Division 06 - CMH Union

Table 20C
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001		\$	\$		\$	\$	1	\$ 8,190
2002	1	5,234					2	13,424
2003	1	6,419					3	19,843
2004							3	19,843
2005	1	3,487					4	23,330
2006	2	20,763					6	44,093
2007	1	15,150		(1)	(5,170)		6	54,073
2008	3	30,929					9	85,002
2009	1	16,401					10	101,403
2010							10	101,403

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)
Division 06 - CMH Union

Table 21C
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 132,599	\$ 19,056	\$ 87,421	\$ (8,190)	\$ (3,983)	\$ (847)	\$ 1,389	\$ 1,135,393
2002	150,863	0	76,751	(9,935)	(667)	0	0	1,352,405
2003	191,986	0	151,368	(14,494)	(3,295)	0	0	1,677,970
2004	211,795	0	134,688	(19,843)	0	0	2,586	2,007,196
2005	208,870	0	143,422	(20,715)	(1,110)	0	0	2,337,663
2006	363,038	0	202,826	(26,770)	(1,975)	0	0	2,874,782
2007	535,668	0	229,377	(56,241)	(2,507)	0	0	3,581,079
2008	244,835	0	194,358	(66,170)	(481)	0	0	3,953,621
2009	262,545	0	275,692	(91,836)	0	0	0	4,400,022
2010	324,920	0	321,037	(101,404)	0	0	1,800	4,946,375

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

Table 22C
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 1,668,023	\$ 1,135,393	68%	\$ 532,630	36%
2002	1,952,704	1,352,405	69	600,299	39
2003	2,456,685	1,677,970	68	778,715	46
2004	2,728,373	2,007,196	74	721,177	42
2005	2,977,996	2,337,663	78	640,333	37
2006	3,495,191	2,874,782	82	620,409	32
2007	4,019,542	3,581,079	89	438,463	21
2008	4,514,708	3,953,621	88	561,087	26
2009	4,760,194	4,400,022	92	360,172	15
2010	5,152,176	4,946,375	96	205,801	8

Lapeer County (4403)

Division 10 - AFSCME

Table 16D

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	8.59%	\$8,905
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	8.59%	\$8,905
Amortization of Unfunded Accrued Liability (28 years)	<u>0.26</u>	<u>270</u>
Total Long Term Contribution	8.85	9,175
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	8.85%	\$9,175 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.82% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$(3,615)
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.22%
Amortization Payment:	0.00%
Total:	0.22%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)**Division 10 - AFSCME****Table 17D****Computed Employer Contributions - Comparative Statement**

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1996	29	\$ 683,320	7.13%	5.71%
1997	45	1,025,123	7.02%	7.02%
1998	222	5,690,152	6.03%	6.02%
1999	200	5,436,198	3.57%	3.56%
2000	60	1,423,898	3.43%	3.42%
2001	55	1,626,069	11.78%	11.78%
2002	52	1,610,866	9.58%	9.58%
2003	57	1,741,260	9.15%	9.15%
2004	51	1,579,435	9.34%	9.34%
2005	55	1,759,841	9.67%	9.67%
2006	53	1,758,585	9.43%	9.43%
2007	46	1,536,793	9.34%	9.34%
2008	42	1,408,252	8.53%	8.53%
2009	40	1,464,689	8.80%	8.80%
2010	35	1,243,956	8.85%	8.85%

Notes:

Actuarial assumptions were revised for the 1997 valuation.

Actuarial assumptions were revised for the 2000 valuation.

Adoption of Benefit B-3 - 80% Maximum reflected in 2001 valuation.

Actuarial assumptions were revised for the 2004 valuation.

Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

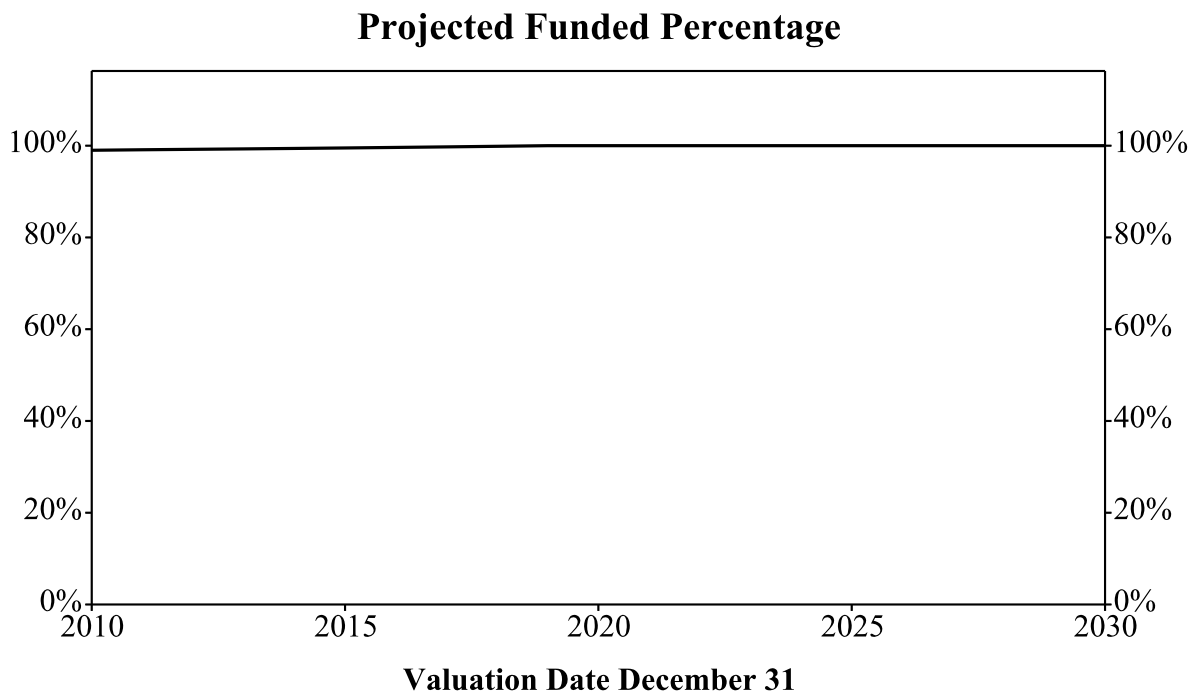
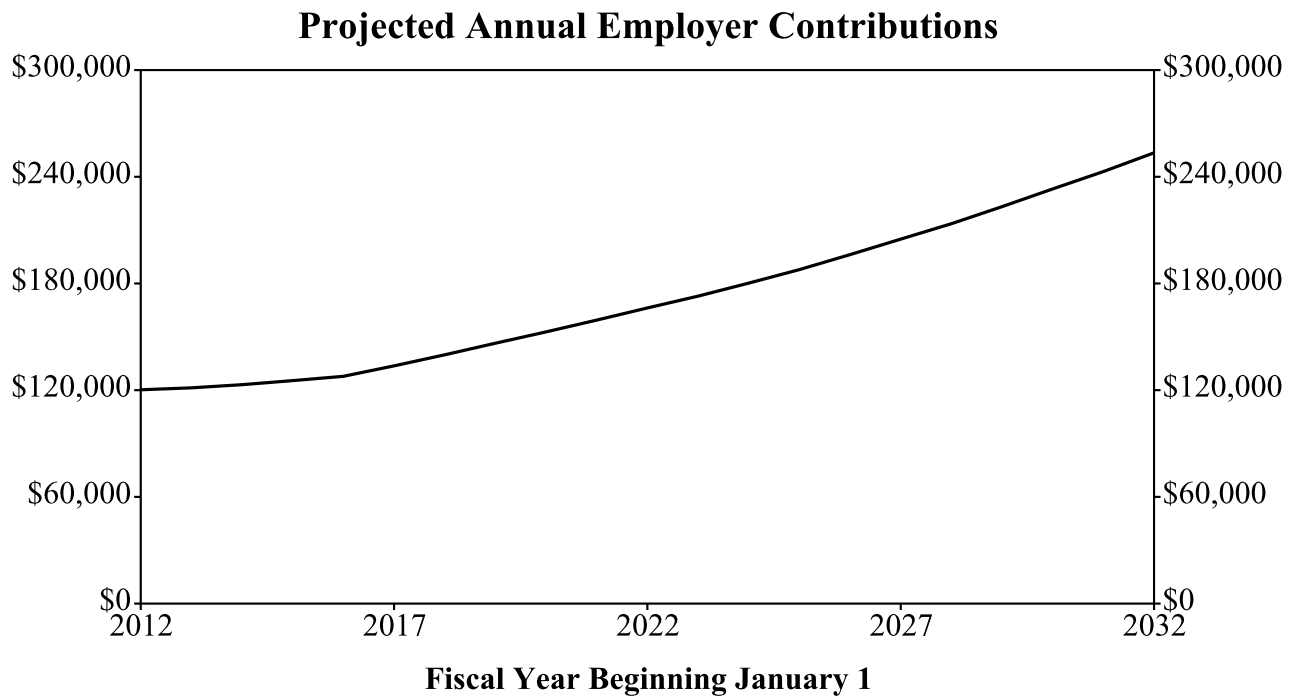
Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)

Division 10 - AFSCME

Chart 17.5D



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 10 - AFSCME

Table 18D
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001	(1)				(10)	(3)		9	55
2002				(1)	(6)	(2)	1	5	52
2003				(1)	(3)	(2)	3	8	57
2004					(10)			4	51
2005	(2)				(5)			11	55
2006	(2)				(6)	(1)		7	53
2007	(2)			(2)	(6)			3	46
2008				(2)	(5)			3	42
2009				(1)	(3)			2	40
2010	(1)			(1)	(2)	(1)			35

Table 19D
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001				(3)			3	32
2002				(2)			1	31
2003	(1)						1	31
2004	(1)				(1)			29
2005	(1)				(1)			27
2006	(1)						1	27
2007	(1)						2	28
2008							2	30
2009	(1)	(1)					3	31
2010	(6)						1	26

Lapeer County (4403)

Division 10 - AFSCME

Table 20D
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	5	\$ 26,856	\$	(15)	\$ (123,909)	\$	13	\$ 86,482
2002							13	86,482
2003	1	5,814					14	92,296
2004	1	6,702					15	98,998
2005	3	32,189	418				18	131,605
2006	3	38,450		(1)	(4,822)		20	165,233
2007	3	50,943					23	216,176
2008	1	13,216		(1)	(13,216)		23	216,176
2009	1	6,784					24	222,960
2010	7	62,506		(1)	(4,141)		30	281,325

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Division 10 - AFSCME

Table 21D
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 59,363	\$ 684	\$ 176,217	\$ (331,908)	\$ 0	\$ (1,688,778)	\$ 0	\$ 3,198,566
2002	184,424	0	105,004	(298,457)	0	(8)	851,767	4,041,296
2003	157,898	0	307,018	(91,325)	0	(103,105)	0	4,311,782
2004	163,825	0	266,705	(97,321)	0	(299,877)	6,982	4,352,096
2005	182,493	0	288,833	(115,536)	0	(906)	906	4,707,886
2006	167,388	0	382,976	(149,450)	0	(12,954)	0	5,095,846
2007	162,430	0	414,639	(198,896)	0	0	0	5,474,019
2008	265,789	0	267,028	(216,175)	0	0	0	5,790,661
2009	189,273	0	295,366	(222,394)	0	0	0	6,052,906
2010	109,848	0	318,737	(240,660)	0	(19,737)	0	6,221,094

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

Table 22D
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 4,034,639	\$ 3,198,566	79%	\$ 836,073	51%
2002	4,243,100	4,041,296	95	201,804	13
2003	4,425,830	4,311,782	97	114,048	7
2004	4,510,811	4,352,096	96	158,715	10
2005	4,985,414	4,707,886	94	277,528	16
2006	5,281,718	5,095,846	96	185,872	11
2007	5,581,134	5,474,019	98	107,115	7
2008	5,844,132	5,790,661	99	53,471	4
2009	6,169,658	6,052,906	98	116,752	8
2010	6,282,205	6,221,094	99	61,111	5

Lapeer County (4403)

Division 11 - Gnrl Non Union

Table 16E

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	8.59%	\$18,005
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	8.59%	\$18,005
Amortization of Unfunded Accrued Liability (28 years) #	<u>(1.09)</u>	<u>(2,285)</u>
Total Long Term Contribution	7.50	15,720
Overfunding Credit #	<u>(1.25)</u>	<u>(2,620)</u>
Total Employer Contribution @	6.25%	\$13,100 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.83% of pay.

* 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 this division, projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24). The negative unfunded accrued liability is amortized (spread) over 10 years, and used to reduce the employer contribution rate. The total credit is 2.34% (1.09% plus 1.25%). The additional 1.25% results from spreading the negative unfunded accrued liability over 10 years instead of 28 years.

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$10,067
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.21%
Amortization Payment:	0.03%
Total:	0.24%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)**Division 11 - Gnrl Non Union****Table 17E****Computed Employer Contributions - Comparative Statement**

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
2000	55	\$ 1,865,789	8.63%	8.62%
2001	57	2,073,211	9.97%	9.97%
2002	62	2,383,773	11.21%	11.21%
2003	71	2,692,696	11.45%	11.45%
2004	68	2,760,734	10.80%	10.80%
2005	69	2,836,445	10.82%	10.82%
2006	65	2,690,032	9.05%	9.05%
2007	64	2,771,502	9.25%	9.25%
2008	62	2,736,869	8.86%	8.86%
2009	58	2,699,285	5.98%	5.98%
2010	56	2,515,211	6.25%	6.25%

Notes:

Actuarial assumptions were revised for the 2000 valuation.

Actuarial assumptions were revised for the 2004 valuation.

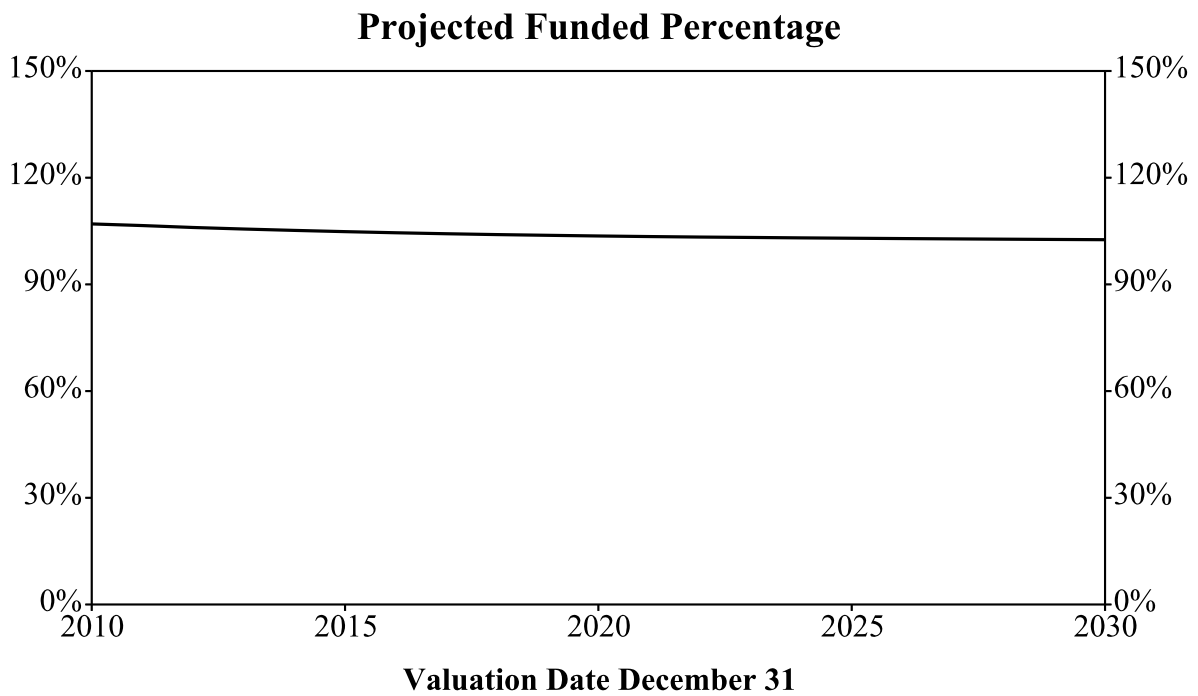
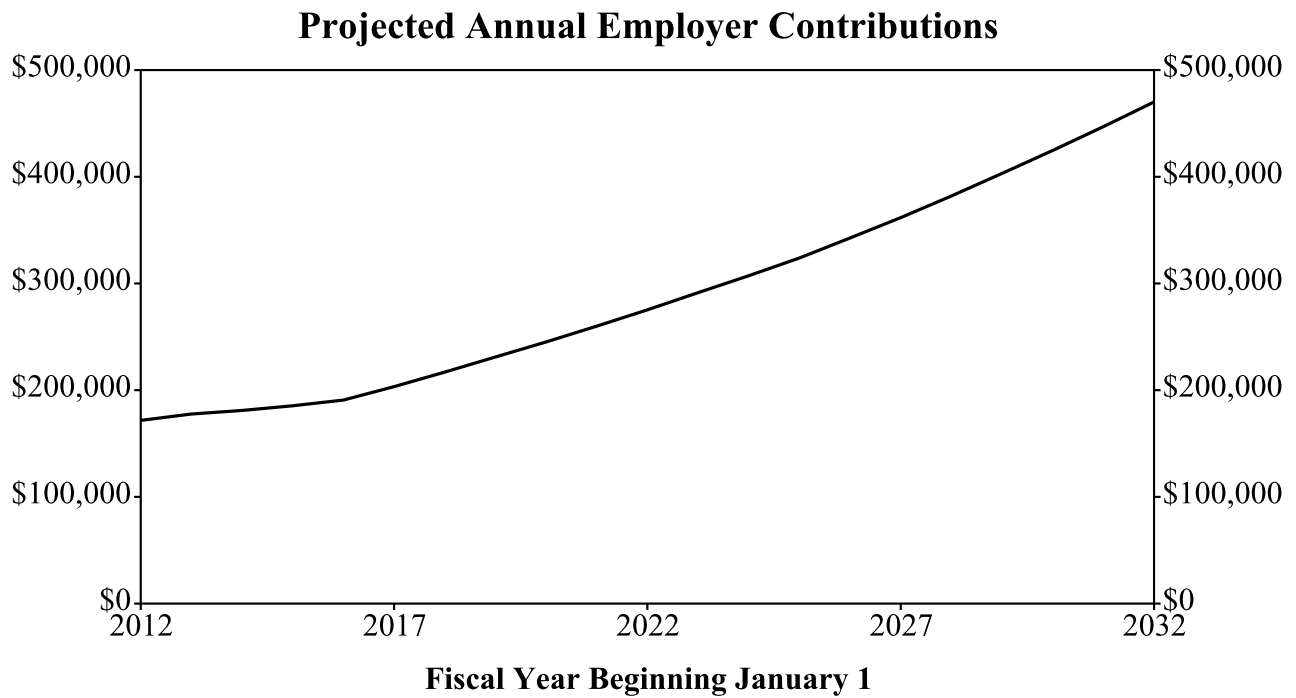
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 11 - Gnrl Non Union
Chart 17.5E



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 11 - Gnrl Non Union

Table 18E
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001				(1)	(5)	(2)	2	8	57
2002					(5)	(1)	6	5	62
2003	(2)			(1)	(2)	(2)	2	14	71
2004	(1)				(5)	(1)	1	3	68
2005				(1)	(1)	(1)		4	69
2006	(1)				(7)	(3)	2	5	65
2007					(3)			2	64
2008	(1)			(1)	(1)			1	62
2009	(1)			(3)	(2)			2	58
2010	(2)				(2)	(3)	2	3	56

Table 19E
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001							1	1
2002								1
2003							1	2
2004				(1)		1	1	3
2005							1	4
2006								4
2007							1	5
2008	(1)						1	5
2009	(1)						3	7
2010	(1)	(1)					1	6

Lapeer County (4403)

Division 11 - Gnrl Non Union

Table 20E
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	10	\$ 87,204	\$		\$	\$	10	\$ 87,204
2002							10	87,204
2003	2	38,574					12	125,778
2004	1	11,437					13	137,215
2005						(7,576)	13	129,639
2006	1	19,293					14	148,932
2007							14	148,932
2008	3	22,270					17	171,202
2009	2	23,017	306				19	194,525
2010	3	34,132		(1)	(1,173)		21	227,484

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)
Division 11 - Gnrl Non Union

Table 21E
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 108,745	\$ 0	\$ 225,783	\$ 0	\$ 0	\$ 0	\$ 570,231	\$ 2,862,813
2002	198,123	0	143,542	(14,534)	0	(276,710)	0	2,913,234
2003	245,133	0	272,291	(122,561)	0	(7,821)	49,987	3,350,263
2004	620,439	0	292,288	(130,541)	0	0	68,901	4,201,350
2005	332,735	0	290,125	(135,950)	0	(2,796)	58,668	4,744,132
2006	1,000,465	0	403,382	(139,283)	0	(373,078)	0	5,635,618
2007	304,838	0	459,486	(148,930)	0	0	0	6,251,012
2008	519,855	0	352,517	(149,830)	0	0	0	6,973,554
2009	514,519	0	508,794	(184,604)	0	0	0	7,812,263
2010	234,546	0	477,646	(197,365)	0	0	714	8,327,804

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

Table 22E
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 3,389,041	\$ 2,862,813	84%	\$ 526,228	25%
2002	4,118,763	2,913,234	71	1,205,529	51
2003	4,769,081	3,350,263	70	1,418,818	53
2004	5,359,537	4,201,350	78	1,158,187	42
2005	5,884,954	4,744,132	81	1,140,822	40
2006	5,827,279	5,635,618	97	191,661	7
2007	6,482,106	6,251,012	96	231,094	8
2008	7,197,635	6,973,554	97	224,081	8
2009	7,267,054	7,812,263	108	(545,209)	0
2010	7,765,800	8,327,804	107	(562,004)	0

Lapeer County (4403)

Division 12 - Gnrl Teamsters

Table 16F

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	8.12%	\$16,471
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	8.12%	\$16,471
Amortization of Unfunded Accrued Liability (28 years)	<u>0.63</u>	<u>1,278</u>
Total Long Term Contribution	8.75	17,749
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	8.75%	\$17,749 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.84% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$(13,337)
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.20%
Amortization Payment:	(0.02)%
Total:	0.18%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)**Division 12 - Gnrl Teamsters****Table 17F****Computed Employer Contributions - Comparative Statement**

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
2000	77	\$ 1,941,642	4.32%	4.31%
2001	82	2,317,887	9.28%	8.48%
2002	80	2,359,232	10.82%	10.42%
2003	81	2,474,188	10.50%	10.50%
2004	79	2,466,032	9.08%	9.08%
2005	79	2,475,485	8.93%	8.93%
2006	79	2,604,302	8.99%	8.99%
2007	78	2,635,934	8.83%	8.83%
2008	78	2,654,706	9.19%	9.19%
2009	74	2,665,630	8.47%	8.47%
2010	68	2,434,100	8.75%	8.75%

Notes:

Actuarial assumptions were revised for the 2000 valuation.

Adoption of Benefit B-3 - 80% Maximum reflected in 2001 valuation.

Actuarial assumptions were revised for the 2004 valuation.

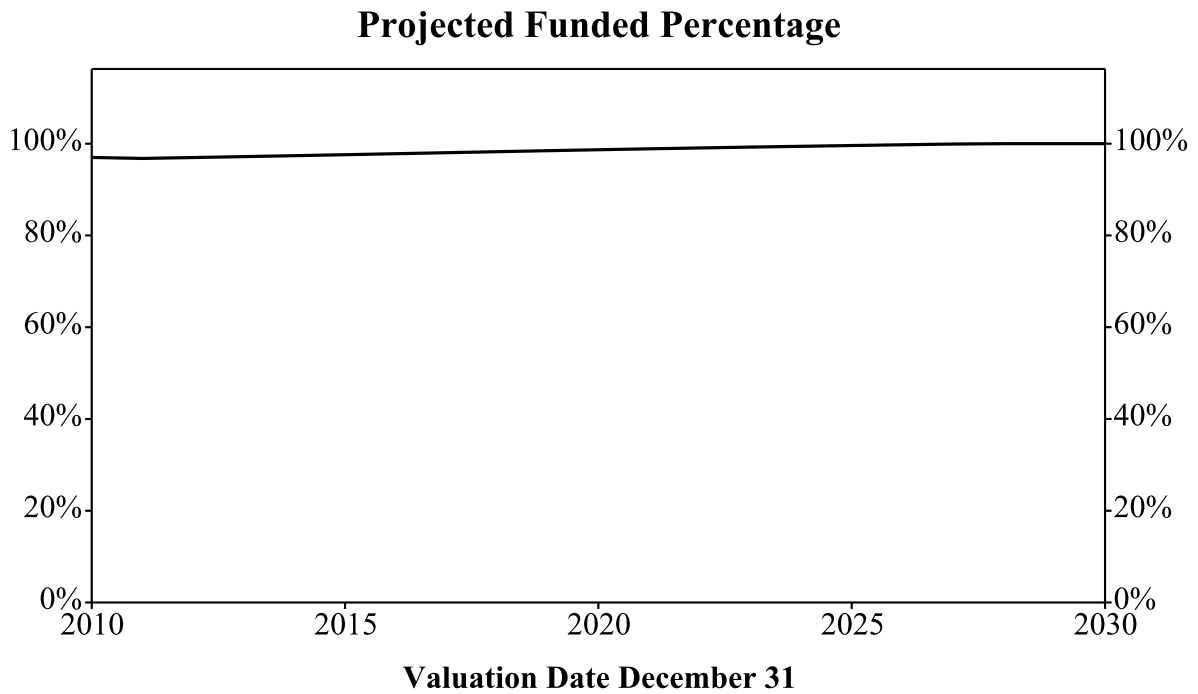
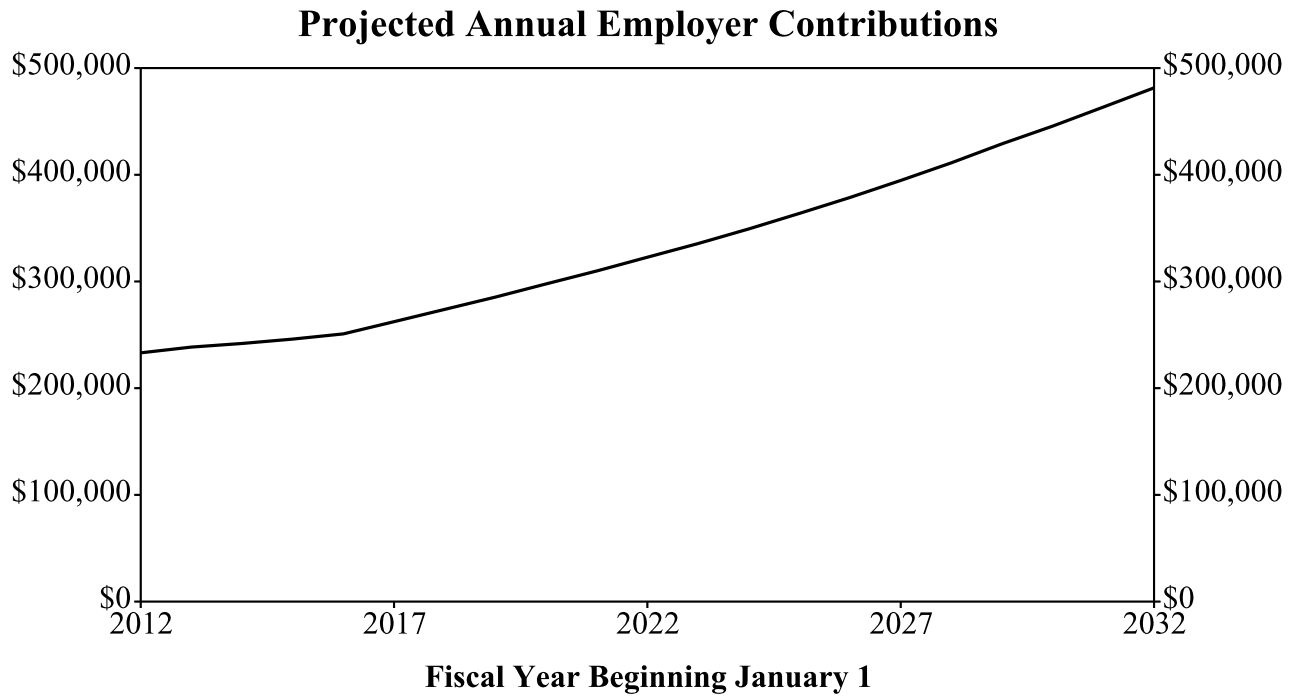
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 12 - Gnrl Teamsters
Chart 17.5F



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 12 - Gnrl Teamsters

Table 18F
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001				(2)	(3)	(1)	4	7	82
2002	(2)			(2)	(3)	(2)	2	5	80
2003	(1)				(3)			5	81
2004					(3)	(1)		2	79
2005	(2)				(3)		2	3	79
2006	(1)			(2)				3	79
2007	(1)								78
2008	(1)			(1)	(1)			3	78
2009	(1)			(2)	(2)			1	74
2010	(5)			(3)	(1)	(1)	1	3	68

Table 19F
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001							2	2
2002				(1)			2	3
2003								3
2004								3
2005								3
2006							2	5
2007								5
2008							1	6
2009							2	8
2010	(1)						3	10

Lapeer County (4403)

Division 12 - Gnrl Teamsters

Table 20F

Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	32	\$ 178,083	\$		\$	\$	32	\$ 178,083
2002	2	24,079					34	202,162
2003	1	9,006		(2)	(7,828)	(8,224)	33	195,116
2004							33	195,116
2005	4	41,505		(2)	(15,617)		35	221,004
2006	1	17,792	368	(2)	(8,156)		34	231,008
2007	1	11,377		(2)	(4,689)		33	237,696
2008	1	20,718	157				34	258,571
2009	1	15,498		(2)	(5,344)		33	268,725
2010	6	121,692		(2)	(10,176)		37	380,241

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)
Division 12 - Gnrl Teamsters

Table 21F
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 212,019	\$ 0	\$ 360,959	\$ 0	\$ 0	\$ 0	\$ 1,084,154	\$ 4,484,249
2002	162,595	85	227,262	(28,899)	0	(449,063)	0	4,396,229
2003	194,229	0	382,698	(199,970)	0	0	89,720	4,862,906
2004	258,961	0	371,812	(195,115)	(10,950)	0	254,507	5,542,121
2005	264,177	0	366,389	(196,353)	0	0	25,810	6,002,144
2006	238,645	0	488,245	(228,315)	0	0	0	6,500,719
2007	237,386	0	528,526	(228,271)	0	0	0	7,038,360
2008	238,926	0	328,517	(255,117)	0	0	0	7,350,686
2009	312,515	283	408,886	(260,467)	0	0	0	7,811,903
2010	319,884	0	465,816	(326,575)	0	0	17,223	8,288,251

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

Table 22F
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 5,077,737	\$ 4,484,249	88%	\$ 593,488	26%
2002	5,623,978	4,396,229	78	1,227,749	52
2003	5,995,767	4,862,906	81	1,132,861	46
2004	6,088,035	5,542,121	91	545,914	22
2005	6,470,881	6,002,144	93	468,737	19
2006	7,056,035	6,500,719	92	555,316	21
2007	7,510,004	7,038,360	94	471,644	18
2008	7,966,585	7,350,686	92	615,899	23
2009	8,124,274	7,811,903	96	312,371	12
2010	8,573,000	8,288,251	97	284,749	12

Lapeer County (4403)

Division 13 - Elected & Appt. Dept Heads

Table 16G

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	9.79%	\$8,843
Member Contributions	2.53	2,285
Less Potential Refunds	<u>(0.56)</u>	<u>(506)</u>
Net Member Contributions	1.97	1,779
Employer Normal Cost @	7.82%	\$7,064
Amortization of Unfunded Accrued Liability (28 years)	<u>0.86</u>	<u>777</u>
Total Long Term Contribution	8.68	7,841
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	8.68%	\$7,841 *

@ The above Employer contribution requirement is based on Member contributions of 2.53% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.78% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$55,140
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.25%
Amortization Payment:	0.29%
Total:	0.54%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 13 - Elected & Appt. Dept Heads

Table 17G

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1996	16	\$ 418,100	8.99%	7.19%
1997	16	411,075	7.68%	7.68%
1998	24	829,173	8.18%	8.18%
1999	29	931,753	7.76%	7.75%
2000	26	935,041	9.84%	9.84%
2001	26	982,512	11.22%	11.22%
2002	24	967,119	12.28%	12.28%
2003	26	976,465	12.14%	12.14%
2004	25	984,617	9.75%	9.75%
2005	25	1,012,615	10.79%	10.79%
2006	25	1,144,909	9.62%	9.62%
2007	27	1,201,441	6.82%	6.82%
2008	25	1,087,404	7.63%	7.63%
2009	26	1,183,905	7.61%	7.61%
2010	24	1,083,981	8.68%	8.68%

Notes:

Actuarial assumptions were revised for the 1997 valuation.

Adoption of Benefit B-3 reflected in 2000 valuation.

Actuarial assumptions were revised for the 2000 valuation.

Adoption of Benefit B-4 - 80% Maximum, 2.53% Member Contributions reflected in 2004 valuation.

Actuarial assumptions were revised for the 2004 valuation.

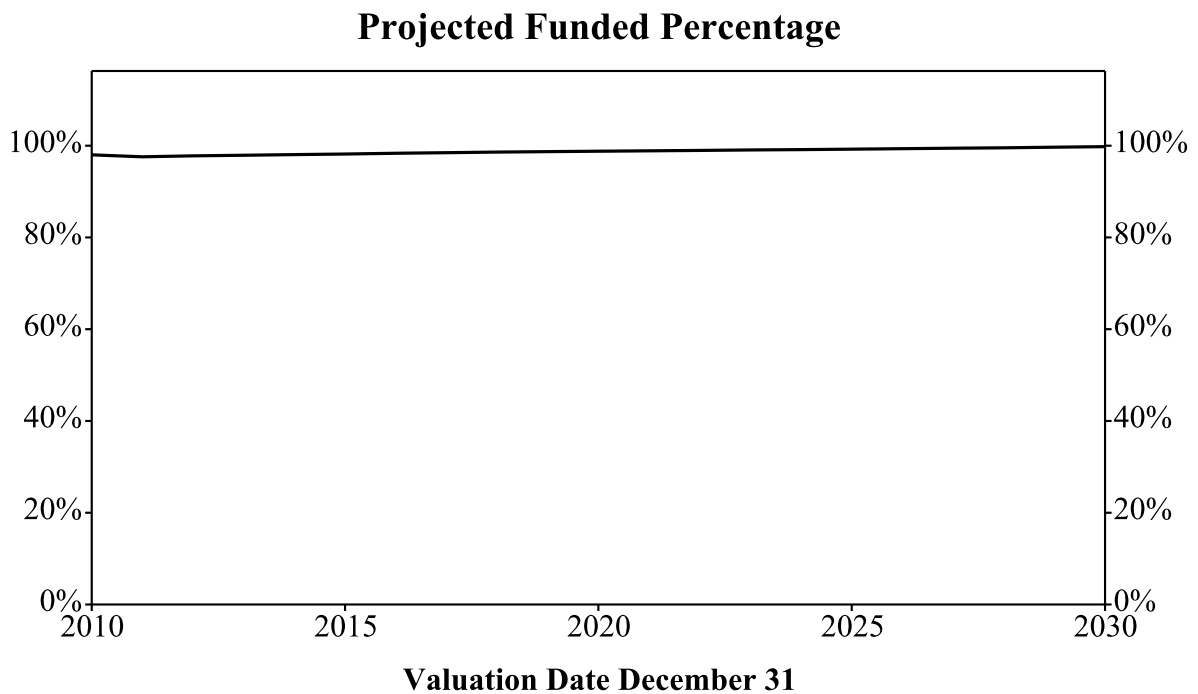
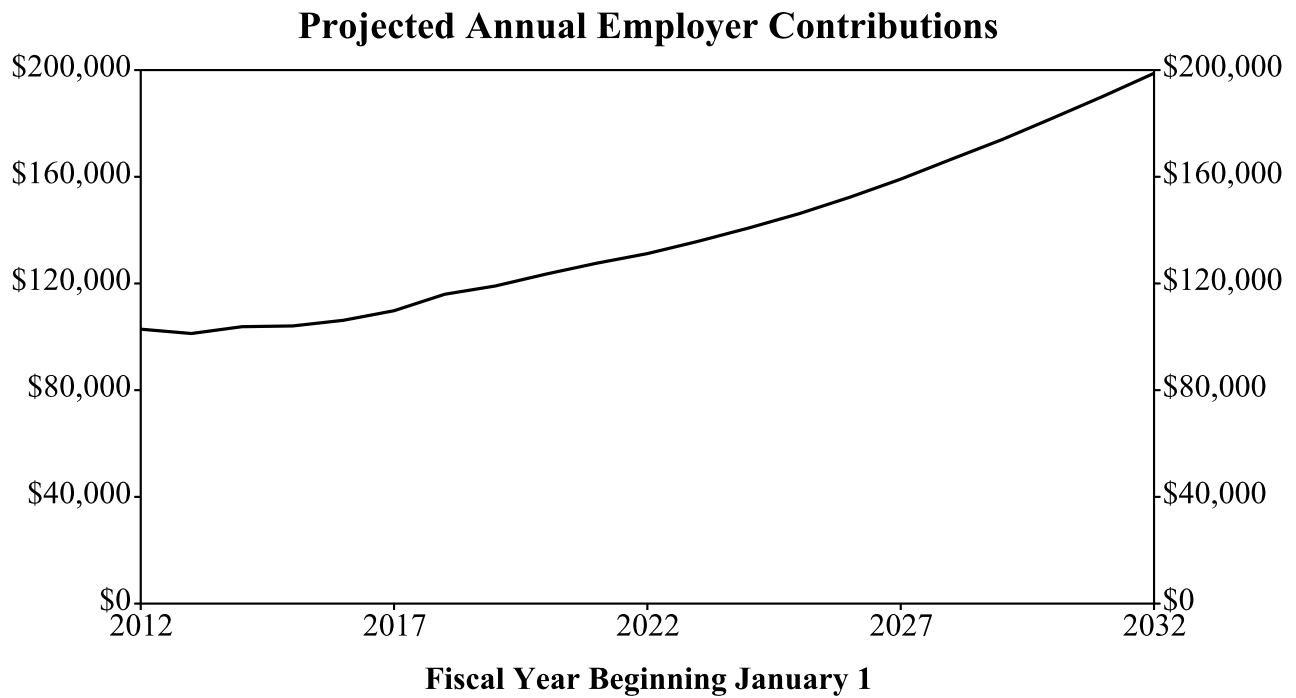
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 13 - Elected & Appt. Dept Heads
Chart 17.5G



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 13 - Elected & Appt. Dept Heads

Table 18G
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001				(1)		(2)		3	26
2002					(1)	(2)		1	24
2003				(2)				4	26
2004					(1)				25
2005	(1)							1	25
2006	(1)				(2)		3		25
2007								2	27
2008	(1)			(1)					25
2009								1	26
2010	(2)				(1)		1		24

Table 19G
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001							1	4
2002				(1)				3
2003							2	5
2004	(1)						1	5
2005								5
2006	(1)							4
2007								4
2008							1	5
2009								5
2010								5

Lapeer County (4403)

Division 13 - Elected & Appt. Dept Heads

Table 20G
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	8	\$ 35,943	\$		\$	\$	14	\$ 96,413
2002	1	8,227		(1)	(8,227)		14	96,413
2003	1	6,977		(2)	(11,703)		13	91,687
2004	1	15,260					14	106,947
2005	2	32,389					16	139,336
2006	2	53,923					18	193,259
2007							18	193,259
2008	1	43,604					19	236,863
2009				(1)	(8,227)		18	228,636
2010	2	39,591		(2)	(8,989)		18	259,238

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Division 13 - Elected & Appt. Dept Heads

Table 21G
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 100,678	\$ 0	\$ 208,583	\$ (60,470)	\$ 0	\$ (25,158)	\$ 53,652	\$ 2,873,034
2002	102,697	0	121,983	(66,461)	0	(51,142)	0	2,980,111
2003	112,273	424	243,935	(95,232)	0	0	0	3,241,511
2004	427,607	0	266,329	(91,688)	0	0	29,768	3,873,527
2005	126,005	26,304	254,186	(129,169)	0	(306)	306	4,150,853
2006	415,101	35,094	385,940	(164,218)	0	0	394,487	5,217,257
2007	599,635	30,462	417,746	(193,258)	0	0	0	6,071,842
2008	117,195	30,905	276,235	(196,892)	0	0	0	6,299,285
2009	101,416	30,048	294,645	(232,063)	0	0	0	6,493,331
2010	89,803	29,473	357,734	(224,879)	0	0	0	6,745,462

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

Table 22G
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 3,425,978	\$ 2,873,034	84%	\$ 552,944	56%
2002	3,687,613	2,980,111	81	707,502	73
2003	3,870,510	3,241,511	84	628,999	64
2004	4,269,604	3,873,527	91	396,077	40
2005	4,745,842	4,150,853	87	594,989	59
2006	5,687,804	5,217,257	92	470,547	41
2007	5,988,163	6,071,842	101	(83,679)	0
2008	6,316,152	6,299,285	100	16,867	2
2009	6,509,265	6,493,331	100	15,934	1
2010	6,911,978	6,745,462	98	166,516	15

Lapeer County (4403)

Division 20 - COAM/POAM Disp

Table 16H

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	9.40%	\$5,424
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	9.40%	\$5,424
Amortization of Unfunded Accrued Liability (28 years)	<u>2.27</u>	<u>1,310</u>
Total Long Term Contribution	11.67	6,734
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	11.67%	\$6,734 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.85% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$(9,781)
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.23%
Amortization Payment:	(0.07)%
Total:	0.16%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)**Division 20 - COAM/POAM Disp****Table 17H****Computed Employer Contributions - Comparative Statement**

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
2000	16	\$ 528,236	7.63%	7.63%
2001	16	570,200	11.73%	10.34%
2002	17	635,378	12.20%	11.50%
2003	17	638,013	12.83%	12.83%
2004	16	611,797	12.97%	12.97%
2005	16	658,457	13.07%	13.07%
2006	16	655,631	13.45%	13.45%
2007	15	639,262	13.42%	13.42%
2008	16	695,634	13.26%	13.26%
2009	16	727,271	11.84%	11.84%
2010	16	692,364	11.67%	11.67%

Notes:

Actuarial assumptions were revised for the 2000 valuation.

Actuarial assumptions were revised for the 2004 valuation.

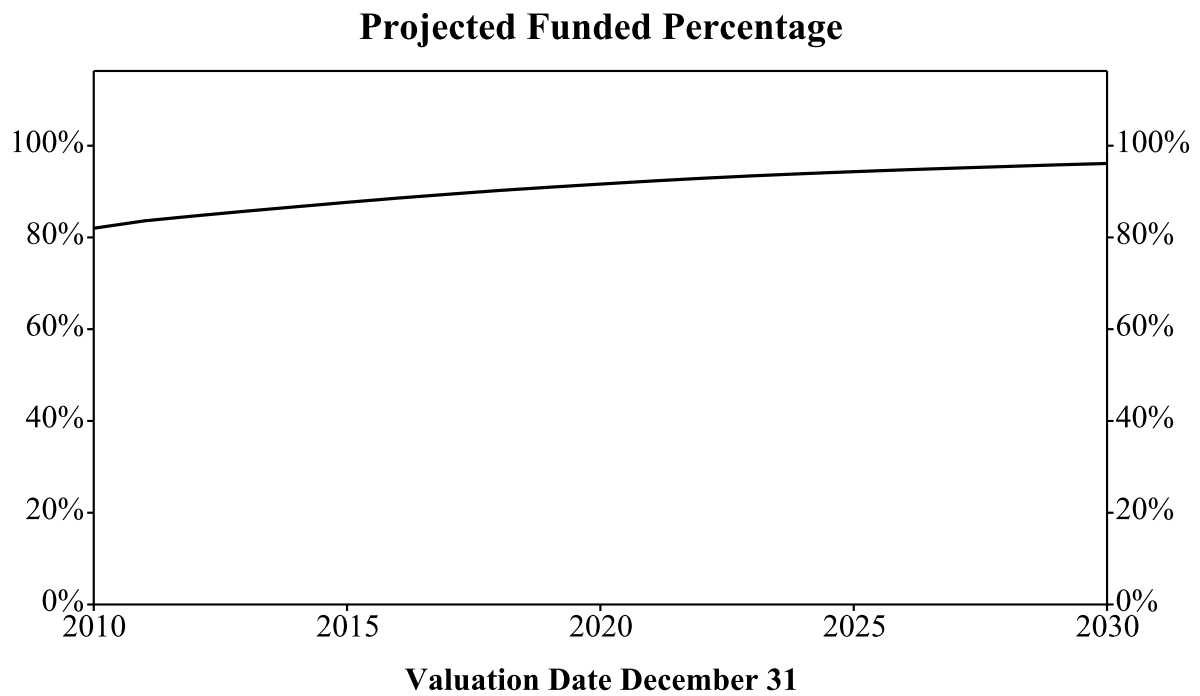
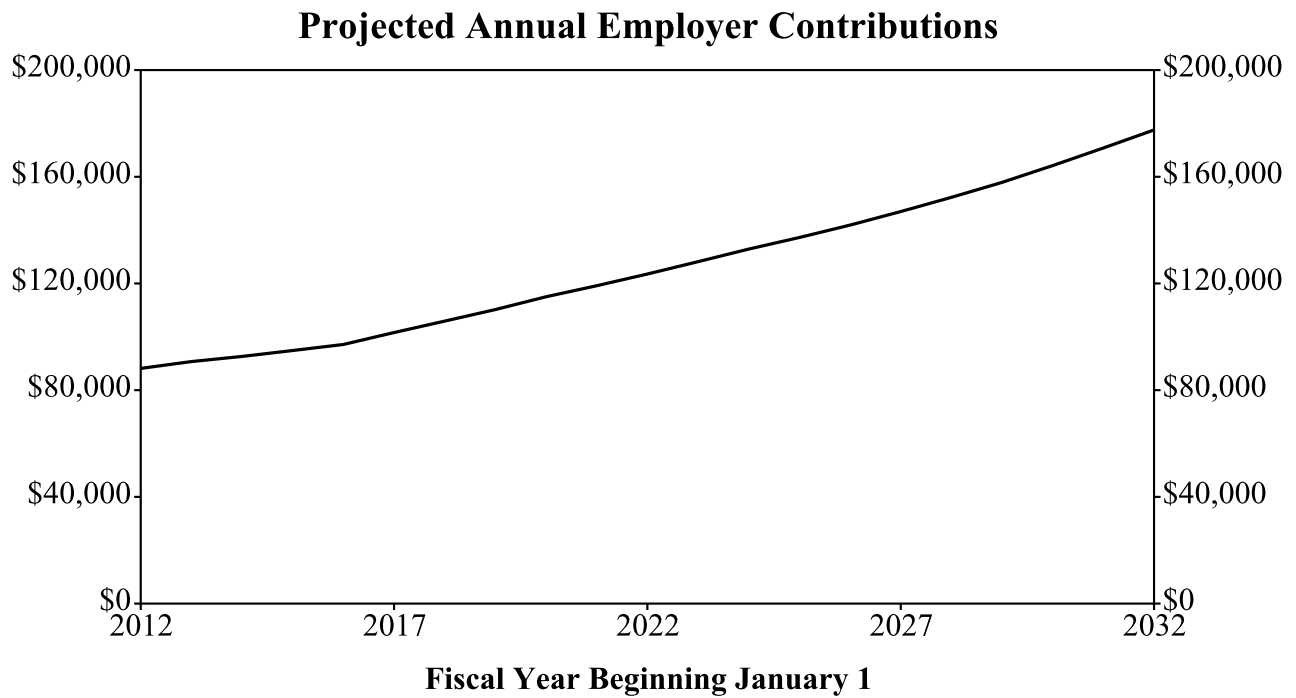
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 20 - COAM/POAM Disp
Chart 17.5H



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 20 - COAM/POAM Disp

Table 18H
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001				(1)	(1)		1	1	16
2002					(1)	(2)	1	3	17
2003				(1)				1	17
2004					(1)				16
2005									16
2006				(1)		(1)		2	16
2007					(1)				15
2008					(1)			2	16
2009									16
2010	(1)							1	16

Table 19H
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001							1	1
2002				(1)				0
2003							1	1
2004	(1)							0
2005								0
2006							1	1
2007								1
2008								1
2009								1
2010								1

Lapeer County (4403)

Division 20 - COAM/POAM Disp

Table 20H
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001		\$	\$		\$	\$	0	\$ 0
2002							0	0
2003							0	0
2004	1	29,197					1	29,197
2005							1	29,197
2006							1	29,197
2007							1	29,197
2008							1	29,197
2009							1	29,197
2010	1	19,760					2	48,957

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Division 20 - COAM/POAM Disp

Table 21H
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 38,612	\$ 0	\$ 29,372	\$ 0	\$ 0	\$ 0	\$ 135,478	\$ 320,418
2002	49,816	70	21,298	0	0	(39,128)	25,159	377,633
2003	70,180	27	47,931	0	0	(27)	0	495,744
2004	72,567	0	39,718	(14,598)	0	0	0	593,431
2005	84,480	0	41,849	(29,197)	0	0	0	690,563
2006	84,807	0	57,523	(29,197)	0	(8,455)	0	795,241
2007	89,241	0	64,650	(29,197)	0	0	0	919,935
2008	94,055	0	52,885	(29,197)	0	0	0	1,037,678
2009	128,412	0	92,623	(29,197)	0	0	0	1,229,516
2010	123,184	0	94,955	(39,077)	0	0	0	1,408,578

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

Table 22H
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 600,686	\$ 320,418	53%	\$ 280,268	49%
2002	773,255	377,633	49	395,622	62
2003	940,791	495,744	53	445,047	70
2004	1,031,023	593,431	58	437,592	72
2005	1,180,535	690,563	58	489,972	74
2006	1,305,872	795,241	61	510,631	78
2007	1,398,310	919,935	66	478,375	75
2008	1,541,693	1,037,678	67	504,015	72
2009	1,566,343	1,229,516	78	336,827	46
2010	1,709,932	1,408,578	82	301,354	44

Lapeer County (4403)

Division 40 - MCF Non Union

Table 16I

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	10.12%	\$36,168
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	10.12%	\$36,168
Amortization of Unfunded Accrued Liability (28 years)	<u>3.06</u>	<u>10,936</u>
Total Long Term Contribution	13.18	47,104
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	13.18%	\$47,104 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.80% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$73,976
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.26%
Amortization Payment:	0.11%
Total:	0.37%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 40 - MCF Non Union

Table 17I

Computed Employer Contributions - Comparative Statement

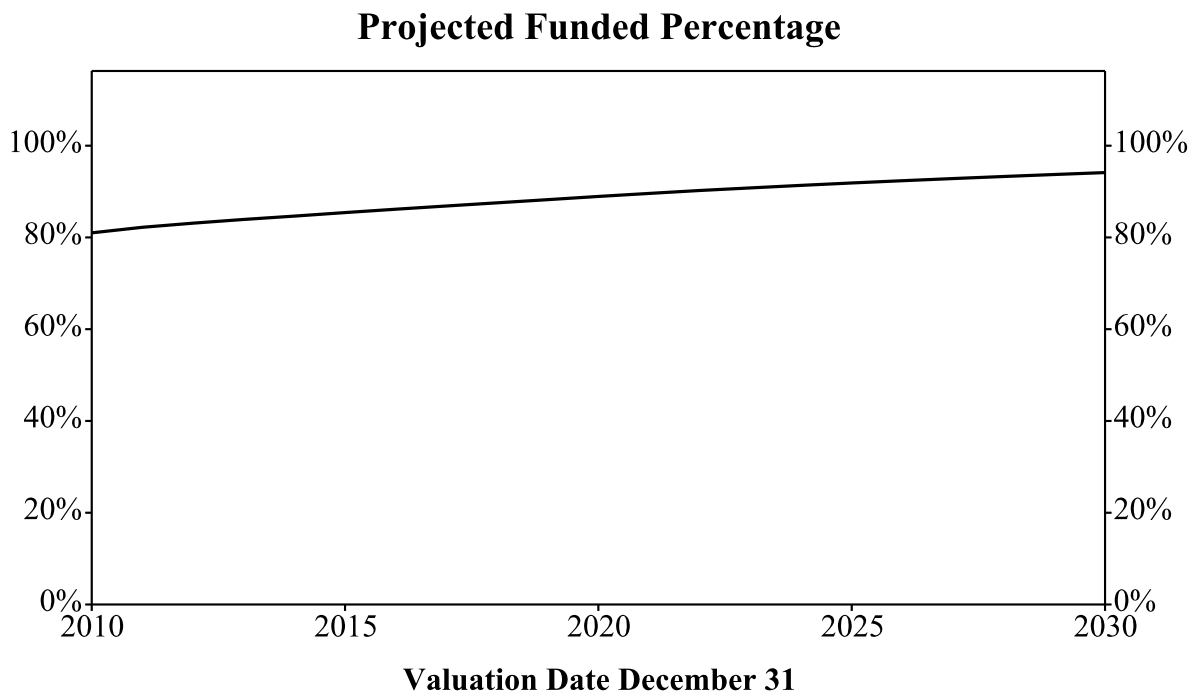
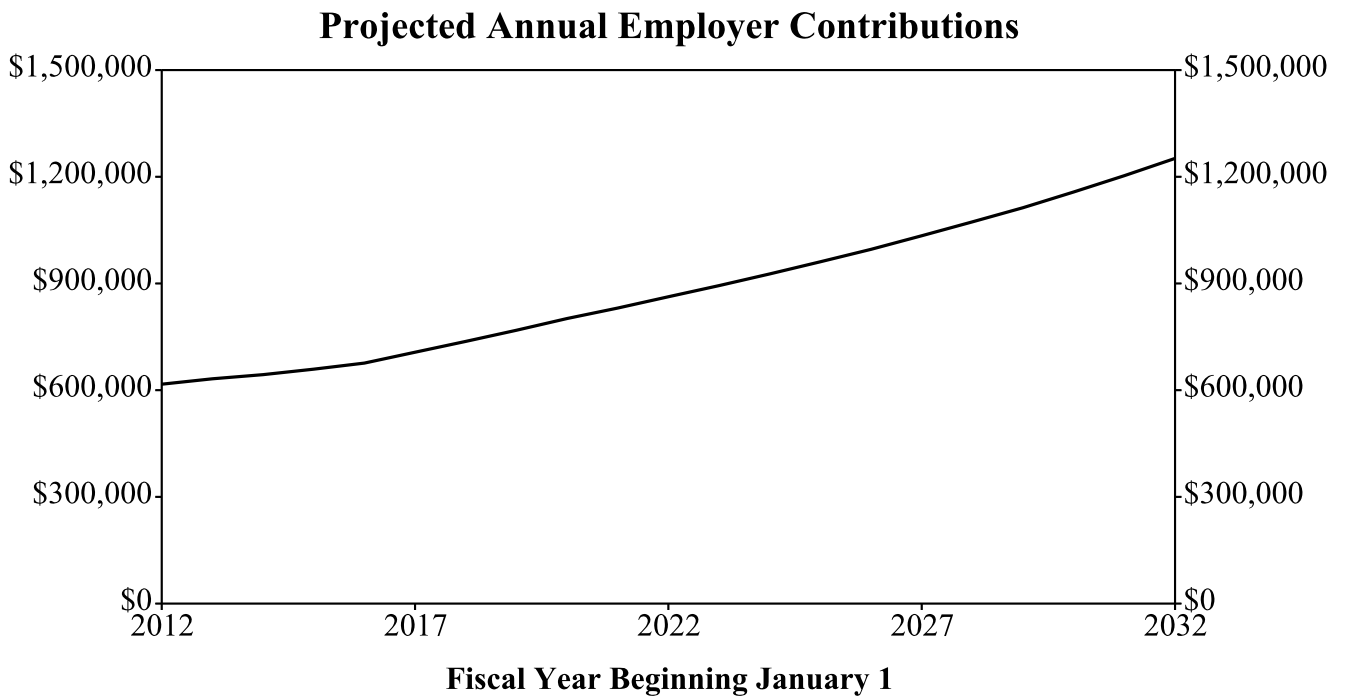
Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1996	70	\$ 1,845,584	10.96%	8.77%
1997	71	1,912,143	10.49%	10.49%
1998	71	2,060,205	12.65%	12.64%
1999	70	2,112,132	11.49%	11.49%
2000	76	2,255,302	10.99%	10.99%
2001	92	3,008,513	11.85%	11.85%
2002	97	3,238,875	12.12%	12.12%
2003	97	3,367,434	12.00%	12.00%
2004	90	3,355,870	11.37%	11.37%
2005	89	3,344,614	10.75%	10.75%
2006	89	3,450,225	10.70%	10.70%
2007	92	3,840,560	10.71%	10.71%
2008	89	3,855,445	12.49%	12.49%
2009	93	4,164,596	12.43%	12.43%
2010	96	4,288,706	13.18%	13.18%

Notes:

Actuarial assumptions were revised for the 1997 valuation.
 Adoption of Benefit B-3 reflected in 1998 valuation.
 Elimination of Benefit F55 (30 years) reflected in 1998 valuation.
 Adoption of Benefit F55 (25 years) reflected in 1998 valuation.
 Actuarial assumptions were revised for the 2000 valuation.
 Actuarial assumptions were revised for the 2004 valuation.
 Adoption of Benefit B-4 - 80% Maximum reflected in 2008 valuation.
 Actuarial assumptions and methods were revised for the 2008 valuation.
 Actuarial assumptions were revised for the 2009 valuation.
 Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 40 - MCF Non Union
Chart 17.5I



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 40 - MCF Non Union

Table 18I
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001	(2)				(9)		3	24	92
2002				(1)	(9)	(1)	2	14	97
2003	(1)				(5)			6	97
2004	(3)			(1)	(17)		2	12	90
2005	(4)			(1)	(13)		5	12	89
2006					(11)		5	6	89
2007	(1)			(2)	(9)		1	14	92
2008	(3)	(1)		(1)	(8)		1	9	89
2009	(2)	(1)			(5)		1	11	93
2010	(2)				(6)		1	10	96

Table 19I
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001								8
2002							1	9
2003				(1)				8
2004		(1)					2	9
2005							1	10
2006	(1)							9
2007							2	11
2008							1	12
2009							1	13
2010				(1)				12

Lapeer County (4403)

Division 40 - MCF Non Union

Table 20I
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	3	\$ 30,378	\$	(1)	\$ (7,269)	\$	16	\$ 142,709
2002							16	142,709
2003	1	8,019					17	150,728
2004	3	51,012					20	201,740
2005	4	47,444		(1)	(12,840)		23	236,344
2006	1	4,780					24	241,124
2007	1	18,000					25	259,124
2008	5	77,422		(1)	(16,728)		29	319,818
2009	3	51,440	921	(1)	(5,134)		31	367,045
2010	2	58,048	39				33	425,132

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Division 40 - MCF Non Union

Table 21I
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 333,965	\$ 0	\$ 344,746	\$ (125,626)	\$ 0	\$ 0	\$ 44,209	\$ 4,635,665
2002	359,730	0	223,238	(142,708)	0	(5,712)	2,000	5,072,213
2003	398,795	0	477,590	(142,708)	(83)	0	4,493	5,810,300
2004	437,010	0	426,297	(171,741)	0	0	3	6,501,869
2005	390,724	0	438,957	(208,584)	0	0	83,711	7,206,677
2006	397,743	18	592,055	(237,139)	0	0	34,170	7,993,524
2007	408,620	0	650,011	(253,122)	0	0	401	8,799,434
2008	487,254	0	446,974	(293,394)	0	0	23,726	9,463,994
2009	431,166	0	529,198	(349,464)	0	0	1,018	10,075,912
2010	517,795	0	634,932	(409,881)	0	0	18,942	10,837,700

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

Table 22I
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 5,931,469	\$ 4,635,665	78%	\$ 1,295,804	43%
2002	6,605,965	5,072,213	77	1,533,752	47
2003	7,404,878	5,810,300	78	1,594,578	47
2004	7,965,551	6,501,869	82	1,463,682	44
2005	8,199,330	7,206,677	88	992,653	30
2006	9,041,058	7,993,524	88	1,047,534	30
2007	9,974,903	8,799,434	88	1,175,469	31
2008	11,401,936	9,463,994	83	1,937,942	50
2009	12,140,501	10,075,912	83	2,064,589	50
2010	13,313,568	10,837,700	81	2,475,868	58

Lapeer County (4403)

Division 60 - CMH Non Union

Table 16J

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning January 1, 2012

Contribution for	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Total Normal Cost	7.91%	\$3,842
Member Contributions	0.00	0
Less Potential Refunds	<u>0.00</u>	<u>0</u>
Net Member Contributions	0.00	0
Employer Normal Cost @	7.91%	\$3,842
Amortization of Unfunded Accrued Liability (28 years)	<u>0.86</u>	<u>418</u>
Total Long Term Contribution	8.77	4,260
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Employer Contribution @	8.77%	\$4,260 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay. If Member contributions are increased/decreased by 1.00% of pay, the Employer long term contribution requirement (based on a 28 year amortization) will decrease/increase by 0.78% of pay.

* 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).

Only applies if projected assets exceed projected liabilities as of the beginning of the January 1, 2012 fiscal year (see Table 24).

Note: Changes in actuarial assumptions and/or methods were reflected in the December 31, 2010 actuarial valuation. The effects of the changes are shown below:

Increase in Actuarial Accrued Liabilities:	\$6,650
Increase in Computed Long Term Employer Contribution As a Percentage of Active Member Payroll	
Normal Cost:	0.21%
Amortization Payment:	0.07%
Total:	0.28%

Please see the Comments on the Investment Markets on page 3.

Lapeer County (4403)

Division 60 - CMH Non Union

Table 17J

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1998	14	\$ 676,299	10.21%	10.21%
1999	14	591,518	10.01%	10.01%
2000	11	532,640	11.37%	11.36%
2001	9	410,158	16.33%	16.33%
2002	10	387,133	16.57%	16.57%
2003	8	365,281	17.51%	17.51%
2004	8	374,830	17.13%	17.13%
2005	9	474,533	15.00%	15.00%
2006	9	492,632	10.17%	10.17%
2007	9	522,479	9.68%	9.68%
2008	9	529,886	11.12%	11.12%
2009	9	546,753	9.19%	9.19%
2010	10	582,803	8.77%	8.77%

Notes:

Actuarial assumptions were revised for the 2000 valuation.

Adoption of Benefit B-3 - 80% Maximum reflected in 2001 valuation.

Actuarial assumptions were revised for the 2004 valuation.

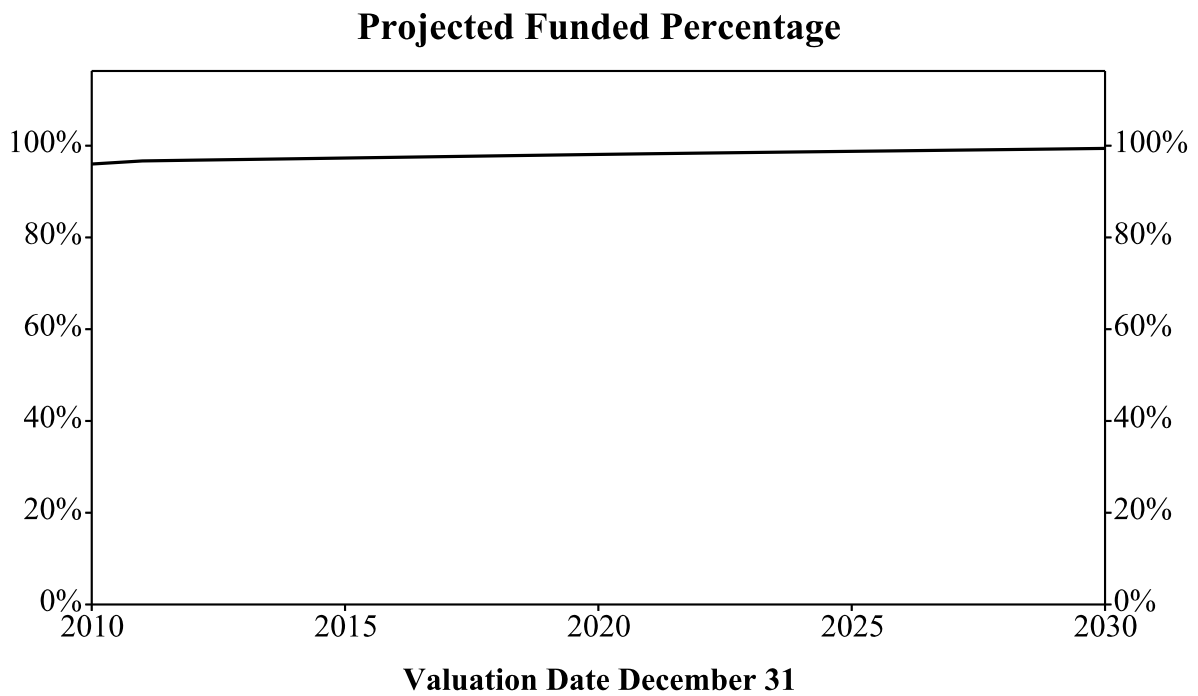
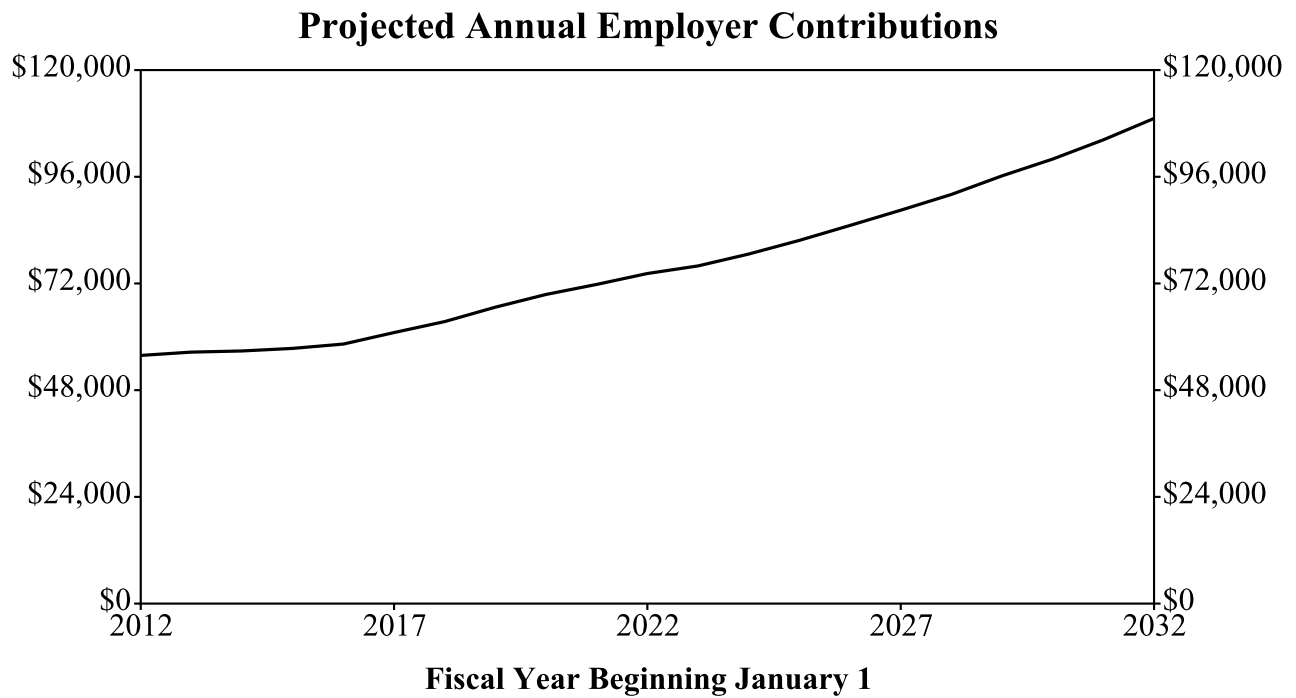
Actuarial assumptions and methods were revised for the 2008 valuation.

Actuarial assumptions were revised for the 2009 valuation.

Actuarial assumptions and methods were revised for the 2010 valuation.

The most recent 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Lapeer County (4403)
Division 60 - CMH Non Union
Chart 17.5J



Note: Please refer to page 115 for a discussion of the projection.

Lapeer County (4403)

Division 60 - CMH Non Union

Table 18J
Flow of Active Membership

Year Ended 12/31	Retired	Disabled	Died (Survivor Benefit)	Other Termination		Transfer		New Member	End of Year
				Vested	Non-Vested	Out	In		
2001	(1)			(1)	(1)		1		9
2002				(1)		(1)	1	2	10
2003						(2)			8
2004									8
2005								1	9
2006									9
2007									9
2008									9
2009				(1)				1	9
2010								1	10

Table 19J
Flow of Vested Former Members

Year Ended 12/31	Retired	Return To Work	Died (Survivor Benefit)	Forfeit Benefit	Transfer		New	End of Year
					Out	In		
2001							1	2
2002							1	3
2003								3
2004								3
2005								3
2006								3
2007								3
2008								3
2009							1	4
2010	(1)						1	4

Lapeer County (4403)

Division 60 - CMH Non Union

Table 20J
Flow of Retirees and Beneficiaries

Year Ended 12/31	Added to Rolls			Removed from Rolls			Year End	
	Number@	Annual Benefits	Benefit Adjust.*	Number	Annual Benefits	Benefit Adjust.#	Number	Annual Benefits
2001	4	\$ 68,798	\$		\$	\$	5	\$ 93,391
2002							5	93,391
2003							5	93,391
2004							5	93,391
2005				(1)	(11,634)		4	81,757
2006							4	81,757
2007							4	81,757
2008							4	81,757
2009				(1)	(4,280)		3	77,477
2010	1	13,648					4	91,125

@ Includes beneficiaries of retirees who died during the year.

* Includes where applicable E, E-1, and E-2 benefits, and corrections.

Includes where applicable C-2 and Accelerated Option benefits, and corrections.

Lapeer County (4403)

Division 60 - CMH Non Union

Table 21J
Flow of Valuation Assets (Actuarial Value)

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Transfer*		Balance
	Employer	Member				Out	In	
2001	\$ 61,384	\$ 0	\$ 98,348	\$ (35,942)	\$ 0	\$ 0	\$ 156,115	\$ 1,294,538
2002	55,820	17	47,317	(73,890)	0	(81,432)	300	1,242,670
2003	59,298	0	89,734	(93,392)	0	0	0	1,298,310
2004	62,110	0	85,358	(93,392)	0	0	2,741	1,355,127
2005	111,877	0	90,804	(81,758)	0	0	0	1,476,050
2006	529,625	0	130,549	(81,758)	0	0	0	2,054,466
2007	150,199	0	165,347	(81,758)	0	0	0	2,288,254
2008	53,889	0	102,712	(81,758)	0	0	0	2,363,097
2009	61,735	0	116,687	(81,045)	0	0	0	2,460,474
2010	106,546	0	151,553	(84,302)	0	0	0	2,634,271

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

Table 22J
Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Accrued Liabilities	Valuation Assets	Funded Percent	Unfunded Accrued Liability	UAL as Percent of Annual Payroll
2001	\$ 1,985,999	\$ 1,294,538	65%	\$ 691,461	169%
2002	1,896,787	1,242,670	66	654,117	169
2003	1,995,961	1,298,310	65	697,651	191
2004	2,084,147	1,355,127	65	729,020	194
2005	2,155,116	1,476,050	68	679,066	143
2006	2,302,053	2,054,466	89	247,587	50
2007	2,476,044	2,288,254	92	187,790	36
2008	2,606,445	2,363,097	91	243,348	46
2009	2,637,873	2,460,474	93	177,399	32
2010	2,732,446	2,634,271	96	98,175	17

Lapeer County (4403)

Table 23

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, 2010 actuarial valuation. The entry age normal actuarial method was used to determine the disclosure entries.

GASB 25 Information (as of 12/31/2010)

Actuarial Accrued Liability

Retirees and beneficiaries currently receiving benefits	\$29,520,413
Terminated employees (vested former members) not yet receiving benefits	4,486,249
Non-vested terminated employees (pending refunds of accumulated member contributions)	116,951
Current employees - Accumulated employee contributions including allocated investment income	1,716,106
Employer financed	<u>44,021,138</u>
Total Actuarial Accrued Liability	\$79,860,857
Net Assets Available for Benefits at Actuarial Value	<u>73,526,774</u>
(Market Value is \$63,225,939)	
Unfunded (Overfunded) Actuarial Accrued Liability	\$6,334,083

GASB 27 Information (as of 12/31/2010)

Fiscal Year Beginning	January 1, 2012
Annual Required Contribution (ARC)	\$ 2,369,844*
Amortization Factor Used - Underfunded Liabilities (28 years)	0.055889
Amortization Factor Used - Overfunded Liabilities (10 years)	0.119963

* 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 January 1, 2012) times the computed employer contribution rate(s) shown in Tables 15 and 16. The ARC shown here is the sum of the ARC's calculated separately for each division.

Lapeer County (4403)

Table 24

Development of Projected Unfunded Accrued Liability At Beginning of Fiscal Year (January 1, 2012)

Division	Unfunded Accrued Liability 12/31/2010	Employer Normal Cost	Expected Employer Contrib.	Interest	Unfunded Accrued Liability 1/1/2012	Projected Fiscal Year Payroll
02 - POLC Sheri	\$ 2,487,955	\$ 313,462	\$ (419,186)	\$ 194,807	\$ 2,577,038	\$ 3,876,545
04 - S.T.A.R.S.	814,558	415,898	(446,513)	63,940	847,883	6,036,302
06 - CMH Union	205,801	223,506	(235,484)	15,985	209,808	2,663,214
10 - AFSCME	61,111	111,664	(114,394)	4,780	63,161	1,358,431
11 - Gnrl Non U	(562,004)	225,779	(157,178)	(42,216)	(535,619)	2,746,673
12 - Gnrl Teams	284,749	206,543	(215,446)	22,424	298,270	2,658,099
13 - Elected &	166,516	88,582	(86,203)	13,416	182,311	1,183,734
20 - COAM/POAM	301,354	68,011	(85,665)	23,402	307,102	756,078
40 - MCF Non Un	2,475,868	453,548	(557,075)	193,928	2,566,269	4,683,374
60 - CMH Non Un	98,175	48,174	(55,970)	7,542	97,921	636,435

The unfunded accrued liability as of December 31, 2010 (see Table 13) is projected to the beginning of the fiscal year for which employer contributions are being calculated (January 1, 2012). This allows the 2010 valuation to take into account the expected future contributions that are based on past valuations. This projection process will result in more stable computed contribution rates, and was first used for the December 31, 2004 actuarial valuations.

The projected unfunded accrued liability is amortized over the appropriate period (see Table 16 for each division) to determine the amortization payment. For divisions that will have no new hires this is the dollar amortization payment. For divisions that are open to new hires this payment is divided by the projected fiscal year payroll to determine the amortization payment as a percentage of active member payroll. The resulting amortization contributions are displayed in Table 16 for each division.

Lapeer County (4403)

Table 25

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 your Regional Manager in the MERS Office of Marketing and Employer Services.

Division 01 - Library

Provisions by Date

7/1/2001	Member Contribution Rate 1.88%
7/1/2001	Benefit B-3 (80% max)
4/1/1996	Benefit B-2
2/1/1987	Member Contribution Rate 0.00%
4/6/1978	Exclude Temporary Employees
1/1/1973	Benefit C-1 (Old)
10/30/1970	Covered by Act 88
6/1/1966	10 Year Vesting
6/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
6/1/1966	Benefit C (Old)
6/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
	Fiscal Month - January

Division 02 - POLC Sheriff

Provisions by Date

1/1/1999	Member Contribution Rate 2.49%
1/1/1999	Benefit B-4 (80% max)
1/1/1994	Benefit B-3 (80% max)
1/1/1991	Benefit B-2
1/1/1991	Benefit F50 (With 25 Years of Service)
1/1/1988	Benefit C-2/Base B-1
6/1/1985	Member Contribution Rate 0.00%
1/1/1981	Benefit F55 (With 25 Years of Service)
1/1/1981	Member Contribution Rate 5.00%
4/6/1978	Exclude Temporary Employees
1/1/1973	Benefit C-1 (Old)
10/30/1970	Covered by Act 88
6/1/1966	10 Year Vesting
6/1/1966	Benefit C (Old)
6/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
6/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
	Fiscal Month - January

Lapeer County (4403)

Table 25 (continued)

Benefit Provision History

Division 04 - S.T.A.R.S.

Provisions by Date

5/1/2007	Member Contribution Rate 0.00%
10/1/2005	Benefit B-2
10/1/2005	Member Contribution Rate 2.33%
1/1/1987	Member Contribution Rate 0.00%
1/1/1973	Benefit C-1 (Old)
10/30/1970	Covered by Act 88
6/1/1966	10 Year Vesting
6/1/1966	Benefit C (Old)
6/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
6/1/1966	Fiscal Month - January
6/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%

Division 06 - CMH Union

Provisions by Date

4/1/2003	Benefit B-3 (80% max)
5/1/2001	Member Contribution Rate 0.00%
1/1/2001	Member Contribution Rate 4.14%
1/1/2000	Member Contribution Rate 4.41%
1/1/1999	Member Contribution Rate 0.23%
11/1/1998	10 Year Vesting
11/1/1998	Benefit FAC-5 (5 Year Final Average Compensation)
11/1/1998	Member Contribution Rate 0.00%
11/1/1998	Benefit B-2
4/6/1978	Exclude Temporary Employees
10/30/1970	Covered by Act 88
	Fiscal Month - January

Division 10 - AFSCME

Provisions by Date

1/1/2000	Benefit B-3 (80% max)
3/1/1991	Benefit B-2
1/1/1986	Member Contribution Rate 0.00%
1/1/1986	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1986	10 Year Vesting
10/30/1970	Covered by Act 88
	Fiscal Month - January

Lapeer County (4403)

Table 25 (continued)

Benefit Provision History

Division 11 - Gnrl Non Union

Provisions by Date

12/31/2000	Benefit B-3 (80% max)
12/1/1990	Benefit B-2
1/1/1986	10 Year Vesting
1/1/1986	Member Contribution Rate 0.00%
1/1/1986	Benefit FAC-5 (5 Year Final Average Compensation)
4/6/1978	Exclude Temporary Employees
10/30/1970	Covered by Act 88
	Fiscal Month - January

Division 12 - Gnrl Teamsters

Provisions by Date

1/1/2000	Benefit B-3 (80% max)
1/1/1991	Benefit B-2
1/1/1986	10 Year Vesting
1/1/1986	Member Contribution Rate 0.00%
1/1/1986	Benefit FAC-5 (5 Year Final Average Compensation)
4/6/1978	Exclude Temporary Employees
10/30/1970	Covered by Act 88
	Fiscal Month - January

Division 13 - Elected & Appt. Dept Heads

Provisions by Date

1/1/2005	Member Contribution Rate 2.53%
1/1/2005	Benefit B-4 (80% max)
1/1/2001	Benefit B-3 (80% max)
12/1/1990	Benefit B-2
6/1/1985	10 Year Vesting
6/1/1985	Member Contribution Rate 0.00%
6/1/1985	Benefit FAC-5 (5 Year Final Average Compensation)
4/6/1978	Exclude Temporary Employees
10/30/1970	Covered by Act 88
	Fiscal Month - January

Division 20 - COAM/POAM Disp

Provisions by Date

12/31/2000	Benefit F50 (With 25 Years of Service)
12/31/2000	Member Contribution Rate 0.00%
12/31/2000	Benefit B-3 (80% max)
12/31/2000	Benefit FAC-5 (5 Year Final Average Compensation)

Lapeer County (4403)

Table 25 (continued)

Benefit Provision History

Division 20 - COAM/POAM Disp

Provisions by Date

12/31/2000 10 Year Vesting
4/6/1978 Exclude Temporary Employees
10/30/1970 Covered by Act 88
Fiscal Month - January

Division 40 - MCF Non Union

Provisions by Date

1/1/2008 Benefit B-4 (80% max)
1/1/1999 Benefit F55 (With 25 Years of Service)
1/1/1999 Benefit B-3 (80% max)
1/1/1991 10 Year Vesting
1/1/1991 Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1991 Benefit F55 (With 30 Years of Service)
1/1/1991 Member Contribution Rate 0.00%
1/1/1991 Benefit B-2
10/30/1970 Covered by Act 88
6/1/1966 Fiscal Month - January

Division 60 - CMH Non Union

Provisions by Date

5/1/2001 Benefit B-3 (80% max)
11/1/1998 Member Contribution Rate 0.00%
11/1/1998 Benefit B-2
11/1/1998 Benefit FAC-5 (5 Year Final Average Compensation)
11/1/1998 10 Year Vesting
4/6/1978 Exclude Temporary Employees
10/30/1970 Covered by Act 88
Fiscal Month - January

APPENDIX

SUMMARY OF

PLAN PROVISIONS

AND

ACTUARIAL ASSUMPTIONS

AND

ACTUARIAL FUNDING METHOD

AS OF DECEMBER 31, 2010

FOR THE

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM

OF MICHIGAN

INTRODUCTION

An actuarial valuation is the mathematical process that estimates plan liabilities and employer contribution requirements for purposes of financing the retirement system. This process is repeated annually to update the liabilities and contribution requirements for changes in member census and plan features, and to reflect actual plan experience in the process. The valuation reflects the present provisions of the Municipal Employees' Retirement Act of 1984, as amended by 1996 Public Act 220 (as amended), as embodied in the MERS Plan Document (as revised). The specific benefit provisions in effect for each municipality are listed in Table 1 in the results section of the report.

In addition to utilizing current membership and financial data, an actuarial valuation requires the use of a series of assumptions regarding uncertain future events. The assumptions and methods used in the December 31, 2010 actuarial valuation are those adopted by the Retirement Board. The actuarial assumptions were last revised as of December 31, 2010 to reflect the results of the study of plan experience covering the period from December 31, 2003 through December 31, 2008.

There have been no changes in the funding method which was adopted by the Retirement Board commencing with the December 31, 1993 valuations. The basic funding method is entry age normal and employer contribution amounts are developed as a level percentage of payroll.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). Gabriel, Roeder, Smith & Company is an independent firm of consultants and actuaries.

Details on MERS plan provisions, actuarial assumptions, and actuarial methodology follow this section.

ASSUMPTION AND METHOD CHANGES FOR THE DECEMBER 31, 2010 ACTUARIAL VALUATION

The December 31, 2010 actuarial valuation reflects the following changes in the actuarial assumptions and methods:

- Temporary lower wage inflation assumption (see page 105).
- New assumption related to increases in final average compensation for some municipalities (see page 106)
- The standard amortization period for positive unfunded accrued liabilities is maintained at 28 years.

The effects of these changes are shown in the note below Table 16 for each division.

SUMMARY OF PLAN PROVISIONS - DEFINED BENEFIT PLAN *

The benefits summarized in this section are intended only as general information regarding the Municipal Employees' Retirement System of Michigan. They are not a substitute for Act. No. 220 of the Public Acts of 1996, and the MERS Plan Document as revised. If any conflict occurs between the information in this summary and Act. No. 220 of the Public Acts of 1996, as amended, or the MERS Plan Document, as revised, the provisions of Act. No. 220 and the MERS Plan Document govern.

Eligibility for Retirement (Plan Section 10)

Age 60 with 10 or more years of credited service (reduced to 8 or 6 years if either Benefit V-8 or V-6, respectively, is adopted).

Age 55 with 15 or more years of credited service (reduced benefit unless Benefit F55 is adopted).

Age 50 with 25 or more years of credited service (reduced benefit unless Benefit F50 is adopted).

The retirement allowance is reduced $\frac{1}{2}$ of 1% for each complete month that the retirement date precedes the age at which full normal retirement benefits are available. The reduction may be partially or fully waived by adopting Benefit F55 and/or Benefit F50 and/or Benefit F(N).

Optional Retirement Programs (Unreduced Benefits) (Plan Section 10)

Benefit F50 - Age 50 with a required period of credited service of either 25 or 30 years.

Benefit F55 - Age 55 with a required period of credited service of 15, 20, 25 or 30 years.

Benefit F(N) - Any age with a required period of credited service of either 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 or 30 years.

Mandatory Retirement

None.

Deferred Retirement (Plan Section 12)

Termination of membership before age 60 other than by retirement or death, after 10 years of credited service (8 or 6 years if Benefit V-8 or V-6 is adopted). Retirement allowance begins upon application filed with MERS and satisfaction of the eligibility requirements for retirement. The deferred retirement allowance is computed in the same manner as a service retirement allowance, based on the benefit program in effect as of the date of termination of membership.

Rights to an allowance are forfeited if the member's accumulated contributions are refunded after termination of employment.

** Please see page 100 for a description of the Hybrid Plan.*

Service Retirement Allowance (Plan Sections 13-19)

Credited service at time of termination of membership is multiplied by:

- Benefit A - 1.0% of a member's final average compensation (FAC). Benefit A may not be adopted after January 2, 1986.
- Benefit C New - 1.3% of FAC.
- Benefit C Old - Sum of 1.0% times the first \$4,200 of FAC, plus 1.5% times the portion of FAC over \$4,200. Benefit C Old may not be adopted after January 2, 1986.
- Benefit C-1 New - 1.5% of FAC.
- Benefit C-1 Old - Sum of 1.2% times the first \$4,200 of FAC, plus 1.7% times the portion of FAC over \$4,200. Benefit C-1 Old may not be adopted after January 2, 1986.
- Benefit B-1 - 1.7% of FAC.
- Benefit C-2 - 2.0% of FAC, payable until attainment of the age at which unreduced Social Security benefits are available (currently age 66 for normal retirement, gradually increasing to age 67). Upon attainment of this age, the benefit reverts to the basic Benefit A, C New, C Old, C-1 New, C-1 Old or B-1.
- Benefit B-2 - 2.0% of FAC.
- Benefit B-3 - 2.25% of FAC, with a maximum benefit of 80% of FAC.
- Benefit B-4 - 2.5% of FAC, with a maximum benefit of 80% of FAC.

Maximum Benefit Payable by MERS (Plan Section 55)

The maximum benefit that may be paid by MERS is governed by Section 415 of the Internal Revenue Code (see page 103). Benefits in excess of the maximum benefit will be paid by the MERS Excess Benefit Plan under Plan Section 55A.

Act 88 (Reciprocal Retirement Act, 1961 P.A. 88)

If the municipality has elected to come under the provision of Act 88 (see Table 1), service with former and future public employers in Michigan may be used to satisfy the service eligibility conditions of MERS. MERS maintains a statewide Act 88 adoption list:

www.mersofmich.com/images/stories/Forms/Member/form_77.pdf

Final Average Compensation (Plan Sections 2A(6) and 2A(11))

MERS plan benefits are based on a member's final average compensation (FAC), subject to the dollar compensation limits under Section 401(a)(17) of the Internal Revenue Code (see page 103). For this purpose, final average compensation means one-fifth of the aggregate amount of compensation (as defined in the MERS Plan Document, Section 2A(6)) paid to a member during the period of 5 consecutive years of the member's credited service in which the aggregate compensation paid is highest, known as FAC-5. Adoption of Benefit FAC-3 results in final average compensation being averaged over 3 years, instead of 5 years.

Disability Retirement Allowance (Plan Section 24)

Total and permanent disability while employed by a participating municipality and after meeting the vesting requirement of the benefit program. The service requirement is waived if the disability is the natural and proximate result of duty-connected causes.

The allowance is computed in the same manner as a service retirement allowance, except that the reduction for retirement before age 60 is not applied.

If disability is due to duty-connected causes, the amount of the retirement allowance shall not be less than 25% of the member's final average compensation.

Adoption of optional Benefit Program D-2 will provide a retirement allowance for a duty-connected disability that is the greater of:

- (i) 25% of the member's final average compensation; or
- (ii) A benefit based on 10 years of credited service in addition to the member's actual period of service, provided the total years of service do not exceed the greater of 30 years or the member's actual period of service.

Non-Duty Death Allowance (Plan Sections 26 and 28)

If a member or vested former member with the minimum years of service required to be vested dies before retirement, a monthly survivor allowance may be payable.

If the member is married, the spouse is the automatic beneficiary unless the spouse, in writing, declines a benefit in favor of another named beneficiary.

A contingent survivor beneficiary (named in an Option II Contingent Beneficiary Designation form filed with MERS) will receive a retirement allowance computed in the same manner as a service retirement allowance, based on service and final average compensation at death, but reduced to reflect an Option II (100% joint and survivor) election. The reduction for retirement before age 60 is not applied. Payment of a retirement allowance to the contingent survivor beneficiary of a deceased member commences immediately. Payment of a retirement allowance to the contingent survivor beneficiary of a deceased vested former member commences on the date the member would have first satisfied eligibility for retirement with an unreduced service retirement allowance.

If there is no named beneficiary and the member leaves a spouse, the spouse will receive an Option II survivor allowance. Payment of a retirement allowance to the surviving spouse of a deceased member commences immediately. Payment of a retirement allowance to the surviving spouse of a deceased vested former member commences on the date the member would have first satisfied eligibility for retirement for an unreduced service retirement allowance. The amount of a surviving spouse's retirement allowance shall be 85% of the deceased member's or deceased vested former member's accrued retirement allowance computed in the same manner as a service retirement allowance, based on service and final average compensation at time of death.

The amount of a surviving spouse's benefit is always the larger of i) the benefit computed as a contingent survivor beneficiary, and ii) the 85% of accrued retirement allowance benefit described above.

If there is no named beneficiary and no retirement allowance being paid to a surviving spouse, unmarried children under age 21 will be paid an equal share of 50% of the deceased member's or deceased vested former member's accrued retirement allowance. The reduction for retirement before age 60 is not applied.

If no retirement allowance becomes payable at death, the member's accumulated contributions, if any, are paid to the beneficiary or to the decedent's estate.

Duty-Connected Death Allowance (Plan Section 27)

A duty death allowance, computed in the same manner as a non-duty death allowance, may be payable to a spouse or children if death occurs as the natural and proximate result of performance of duty with a participating municipality. The vesting requirement is waived, and the minimum benefit is 25% of the deceased member's final average compensation.

Adoption of optional Benefit Program D-2 will provide a retirement allowance for a duty-connected death that is the greater of:

- (i) 25% of the member's final average compensation; or
- (ii) A benefit based on 10 years of credited service in addition to the member's actual period of service, provided the total years of service do not exceed the greater of 30 years or the member's actual period of service.

Member Contributions (Plan Sections 32 and 35)

Each member contributes a percent of annual compensation, as selected by the municipality, on the member's annual compensation up to the compensation limit under Section 401(a)(17) of the Internal Revenue Code (see page 103). Any percentage from 0% to 10% (in 0.1% increments) may be selected. A 3%/5% contribution program was available prior to 1985 and may be continued (until any new benefit programs are adopted), but not adopted, after 1984. Under this program the member contributes 3% of the first \$4,200 of annual compensation and 5% of portions of annual compensation over \$4,200. Interest is credited to accumulated member contributions each December 31 (and reflected in the Annual Member Statement provided to each member) at a rate determined by MERS, currently the one-year U.S. Treasury Bill rate determined as of each December 31. The interest rate credited for the 12-month period ending on the valuation date was 0.28%.

If a member leaves the employ of the municipality, or dies, without a retirement allowance or other benefit payable on his/her account, the member's accumulated contributions plus interest (as described above) are refunded with spousal consent, to the member, if living, or to the member's surviving spouse, if any, or to a named beneficiary (after spousal consent, if applicable).

Note for MERS' Defined Contribution Program (Plan Section 19A): The Annual Actuarial Valuation addresses assets and liabilities for participation under MERS' Defined Benefit Programs. MERS' Defined Contribution Program (Benefit Program DC), which first became available for adoption in late 1997, is not addressed in the valuation results as it is not a defined benefit program.

Post-Retirement Adjustments (Plan Sections 20-22)

Benefit E – provides a one-time benefit increase to present retirants and beneficiaries. The amount of the increase is equal to a fixed percentage of the present benefit, or a fixed dollar amount times the number of years since the later of retirement or the date specified in the resolution. Benefit E may be readopted from time to time.

Benefit E-1 – provides automatic 2.5% annual non-compounded benefit increases to persons (and their beneficiaries) retired before the effective date of Benefit E-1. Such increases are further limited to increases in the Consumer Price Index (CPI) if Benefit E-1 was adopted before January 1, 1999. For all adoptions or readoptions after that date, the increase is an automatic 2.5% non-compounded increase without any CPI limitation.

Benefit E-2 – provides automatic 2.5% annual non-compounded benefit increases to persons (and their beneficiaries) retired on or after the effective date of Benefit E-2. Such increases are further limited to increases in the Consumer Price Index (CPI) if Benefit E-2 was adopted before January 1, 1999. For all adoptions or readoptions after that date, the increase is an automatic 2.5% non-compounded increase without any CPI limitation.

Death-After-Retirement Surviving Spouse Benefit (Plan Sections 23 and 23A)

A retiring member electing form of payment SL (straight life retirement allowance) is normally paid a lifetime retirement allowance, with payments terminating at death. The retiring member could provide benefits to a surviving spouse or another named beneficiary (see below) by electing Option II (100% continuation to beneficiary) or Option II-A (75% continuation to beneficiary) or Option III (50% continuation to beneficiary). A surviving spouse is automatically the beneficiary to an Option II, IIA or III allowance unless the spouse, in writing, relinquishes the benefit to the member electing a straight life allowance or to another named beneficiary. Electing these alternate forms of payment would lower the retiring member's retirement allowance.

If Benefit Program RS50% is adopted, a member retiring on or after the effective date of Benefit RS50% may elect form of payment SL and still provide a 50% survivor benefit to the member's spouse. To be eligible for a surviving spouse benefit, the retiring member and spouse must have been married to each other both at the time of death and during the full one-year period just before retirement.

DROP+ Delayed Retirement Option Partial Lump Sum (Plan Section 10(6))

Any member who is eligible to retire with full, immediate retirement benefits has the option to:

- (i) Retire immediately and receive a monthly benefit payable immediately, or
- (ii) Delay his or her retirement date and continue to work.

If the member is covered by Benefit Program DROP+ and the member retires at least 12 months after first becoming eligible for unreduced benefits, at actual retirement the member *has the option* to receive a partial lump sum and a reduced monthly benefit:

- (i) The member can elect a lump sum equal to 12, 24, 36, 48, or 60 times the member's monthly accrued benefit (if the member has delayed retirement at least that many months).
- (ii) For each 12 months included in the lump sum, the member's lifetime benefit is reduced by the DROP+ Percentage adopted by the employer. The employer can adopt any of the following DROP+ reduction percentages: 4%, 5%, 6%, 7%, or 8%.

SUMMARY OF PLAN PROVISIONS - HYBRID PLAN *

The benefits summarized in this section are intended only as general information regarding the Municipal Employees' Retirement System of Michigan. They are not a substitute for Act. No. 220 of the Public Acts of 1996, and the MERS Plan Document as revised. If any conflict occurs between the information in this summary and Act. No. 220 of the Public Acts of 1996, as amended, or the MERS Plan Document, as revised, the provisions of Act. No. 220 and the MERS Plan Document govern.

Part I - Defined Benefit Portion of Hybrid Plan

Eligibility for Retirement (Plan Section 19B)

Age 60 and 6 or more years of service.

Optional Retirement Programs (Unreduced Benefits) (Plan Section 10)

None

Mandatory Retirement

None

Deferred Retirement (Plan Sections 12 and 19B)

Termination of membership before age 60 other than death, after 6 years of credited service. Retirement allowances begin upon application filed with MERS, at age 60 or later. The deferred retirement allowance is computed in the same manner as a service retirement allowance, based on the final average compensation and years of service at termination.

Service Retirement Allowance (Plan Section 19B)

Credited service at time of termination is multiplied by:

Hybrid 1.0%	1.0% of a member's final average compensation (FAC)
Hybrid 1.25%	1.25% of FAC
Hybrid 1.5%	1.5% of FAC

** Please see page 93 for a description of the Defined Benefit Plan.*

Maximum Benefit Payable by MERS (Plan Section 55)

The maximum benefit that may be paid by MERS is governed by Section 415 of the Internal Revenue Code (see page 103). Benefits in excess of the maximum benefit will be paid by the MERS Excess Benefit Plan under Plan Section 55A.

Act 88 (Reciprocal Retirement Act, 1961 P.A. 88)

If the municipality has elected to come under the provision of Act 88 (see Table 1), service with former and future public employers in Michigan may be used to satisfy the service eligibility conditions of MERS. MERS maintains a statewide Act 88 adoption list:

http://www.mersofmich.com/images/stories/Forms/Member/form_77.pdf

Final Average Compensation (Plan Sections 2A(6), 2A(11) and 19(B))

Computed under defined benefit plan Benefit Program FAC-3.

Disability Retirement Allowance (Plan Section 24)

Benefits are the same as under the defined benefit plan, except that optional Benefit Program D-2 does not apply.

Non-Duty Death Allowance (Plan Sections 26 and 28)

Benefits are the same as under the defined benefit plan.

Duty-Connected Death Allowance (Plan Section 27)

Benefits are the same as under the defined benefit plan, except that optional Benefit Program D-2 does not apply.

Member Contributions (Plan Section 19B)

None

Post-Retirement Adjustments (Plan Sections 20-22)

None

Death-After-Retirement Surviving Spouse Benefit (Plan Sections 23 and 23A)

The same optional forms of payment are available as under the defined benefit plan, except that optional Benefit Program RS50% does not apply.

DROP+ Delayed Retirement Option Partial Lump Sum (Plan Section 10(6))

None

Part II - Defined Contribution Portion of Hybrid Plan

Employer Contributions (Plan Section 19B)

Contribution Amount - Any percentage of compensation allowed by federal law.

Vesting Schedule - One of the following vesting schedules for employer contributions can be adopted by the employer:

1. Immediate vesting upon participation, or
2. 100% vesting after stated years (participant is 100% vested after not to exceed maximum 5 years of service ("cliff" vesting)), or
3. Graded vesting percentages per year of service, not to exceed maximum 6 years of service for 100% vesting, nor be less than certain stated minimums

Member Contributions (Plan Section 19B)

Contribution Amount - Any amount allowed by federal law and subject to procedures established by the Retirement Board.

Vesting Schedule - 100% immediate vesting

Municipal Employees' Retirement System of Michigan IRC Section 415(b)(1)(A) Benefit Dollar Limits - 2011

The limits are based on the retiree's age at retirement. The limit at ages 62-65 is indexed with inflation, in \$5,000 increments. The limits at earlier ages are then increased proportionately. The limit applies to the retiree's or beneficiary's employer-financed straight life benefit, except in the case of an Option II, IIA, or III election with the retiree's spouse as named beneficiary, in which case the limit applies to the employer-financed portion of the reduced joint and survivor benefit.

Age at Retirement	General Employees	Police and Fire Members #
35	\$ 35,498	\$ 195,000
36	37,513	195,000
37	39,655	195,000
38	41,934	195,000
39	44,361	195,000
40	46,947	195,000
41	49,705	195,000
42	52,648	195,000
43	55,793	195,000
44	59,154	195,000
45	62,753	195,000
46	66,608	195,000
47	70,744	195,000
48	75,185	195,000
49	79,961	195,000
50	85,103	195,000
51	90,649	195,000
52	96,639	195,000
53	103,118	195,000
54	110,140	195,000
55	117,764	195,000
56	126,057	195,000
57	135,094	195,000
58	144,963	195,000
59	155,763	195,000
60	167,610	195,000
61	180,638	195,000
62	195,000	195,000
63	195,000	195,000
64	195,000	195,000
65 & older	195,000	195,000

Requires that the member have at least 15 years of police, fire, and/or armed forces service as defined in the final regulations issues on April 5, 2007. Otherwise, use the limits for general members.

IRC Section 401(a)(17) Compensation Limit - 2011

For 2011 the IRC Section 401(a)(17) limit is \$245,000. This limit is indexed with inflation in \$5,000 increments.

ACTUARIAL ASSUMPTIONS

Actuarial Assumptions

To calculate MERS contribution requirements, assumptions are made about future events that could affect the amount and timing of benefits to be paid and the assets to be accumulated. The economic and demographic assumptions include:

- An assumed rate of investment return that is used to discount liabilities and project what plan assets will earn.
- A mortality table projecting the number of members who will die before retirement and the duration of benefit payments after retirement.
- Assumed retirement rates projecting when members will retire and commence receiving retirement benefits.
- A set of withdrawal and disability rates to estimate the number of members who will leave the work force before retirement.
- Assumed rates of pay increase to project member compensation in future years.

The actuarial assumptions used in connection with this December 31, 2010 actuarial valuation are unchanged from the December 31, 2009 valuation assumptions, with the exceptions noted on page 92. The actuarial assumptions currently utilized are summarized below and on the following pages.

Interest Rate

Funding plan benefits involves the accumulation of assets to pay benefits in the future. These assets are invested and the net rate of investment earnings is a significant factor in determining the contributions required to support the ultimate cost of benefits. For the 2010 actuarial valuation, the net long-term investment yield is assumed to be 8%. This assumption was first used for the December 31, 1981 actuarial valuations.

The reader should note that, given that the actuarial value of assets is currently 16% higher than the market value, meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 8% investment return assumption.

Please see the Comments on the the Investment Markets on page 3 .

Pay Increases

Because benefits are based on a member's final average compensation, it is necessary to make an assumption with respect to each member's estimated pay progression. The pay increase assumption used in the actuarial valuation projects annual pay increases of 4.5% (1% for calendar years 2011-2014) plus a percentage based on an age-related scale to reflect merit, longevity and promotional pay increases.

The pay increase assumption for selected ages is shown below. The 4.5% long-term wage inflation assumption was first used for the December 31, 1997 actuarial valuations. The merit and longevity pay increase assumption was first used for the December 31, 2004 actuarial valuations.

Age	Base (Wage Inflation)#	Merit and Longevity	Total Percentage Increase in Pay
20	4.50%	8.40%	12.90%
25	4.50	5.33	9.83
30	4.50	3.26	7.76
35	4.50	2.05	6.55
40	4.50	1.30	5.80
45	4.50	0.81	5.31
50	4.50	0.52	5.02
55	4.50	0.30	4.80
60	4.50	0.00	4.50

For calendar years 2011, 2012, 2013 and 2014, the wage inflation assumption is 1%, instead of 4.5%. This assumption was first used for the December 31, 2010 actuarial valuations.

Inflation

Although no specific price inflation assumption is needed for this valuation, the 4.5% long-term wage inflation assumption would be consistent with a price inflation of 3% to 4%.

Payroll Growth

For divisions that are open to new hires, the number of active members is projected to remain constant, and the total payroll is projected to increase 4.5% annually in the long term (1% annually for calendar years 2011 - 2014). This assumption was first used for the December 31, 1997 actuarial valuations.

Increase in Final Average Compensation

The 1999-2003 and 2004-2008 experience studies determined that for some retirees of some municipalities, the actual final average compensation (FAC) at retirement was larger than would be expected based on reported annual pays and FAC's for the years just before retirement. Some possible sources for the differences are:

- Lump sum payments for unused paid time off. Unused sick leave payouts have been excluded from FAC since the mid 1970s. However, since that time it has become popular to combine sick and vacation time into paid time off, which is included in the FAC. Consequently, the lump sums that are includible in FAC have grown over the years.
- Extra overtime pay during the final year of employment. Our studies only reflect any increase in overtime during the final year, not any increase that occurs during the full 3 to 5 year averaging period.

We analyzed the variation among municipalities. The amount of unexpected FAC increase varies quite a bit between municipalities. Some municipalities show no sign of FAC loading, while other municipalities show increases above the average increase. This is presumably the result of different personnel policies among municipalities.

The Retirement Board adopted new FAC assumptions to be first used for the December 31, 2010 annual actuarial valuations. These assumptions reflect an FAC load of 0% to 4% for each municipality, based on the municipality's experience. The FAC increase assumption(s) for your municipality are shown in the table below.

Division	FAC Increase Assumption
All divisions	3.00%

Withdrawal Rates

The withdrawal rates are used to estimate the number of employees at each age that are expected to terminate employment before qualifying for retirement benefits. The withdrawal rates do not apply to members eligible to retire, and do not include separation on account of death or disability. The assumed rates of withdrawal applied in the current valuation are based on years of service, and scaled up or down according to each division's experience.

Division	Withdrawal Rate Scaling Factor
All divisions	110%

The base withdrawal rates (see the table below) are multiplied by the scaling factor to obtain the assumed withdrawal rates.

Sample rates of withdrawal from active employment, before application of the scaling factor, are shown below. These rates were first used for the December 31, 2008 actuarial valuations.

Sample Years of Service	% of Active Members Withdrawing Within the Next Year
0	20.00%
1	17.00
2	14.00
3	11.00
4	9.00
5	6.50
10	5.00
15	3.70
20	3.00
25	2.70
30	2.60
34 and over	2.40

Retirement Rates

A schedule of retirement rates is used to measure the probability of eligible members retiring during the next year. The retirement rates for Normal Retirement are determined by each member's replacement index at the time of retirement. The replacement index is defined as the approximate percentage of the member's pay (after reducing for MERS member contributions) that will be replaced by the member's benefit at retirement. The index is calculated as:

$$\text{Replacement Index} = 100 \times \text{Accrued Benefit} \div [\text{Pay less Member Contributions}]$$

Retirement rates for Early (reduced) Retirement are determined by the member's age at early retirement.

The revised Normal Retirement rates below were first used for the December 31, 2009 actuarial valuations. The Early Retirement rates were first used for the December 31, 2004 actuarial valuations.

NORMAL RETIREMENT

Sample Replacement Index	Percent of Eligible Active Members Retiring Within Next Year
5	5%
10	11
15	16
20	19
25	20
30	20
35	20
40	20
45	20
50	20
55	21
60	22
65	24
70	24
75	28
80	32
85	38
90	45
95	48
100+	50

EARLY RETIREMENT - REDUCED BENEFIT

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year
50	2%
51	2
52	3
53	5
54	8
55	4
56	4
57	4
58	6
59	8

Disability Rates

Disability rates are used in the valuation to estimate the incidence of member disability in future years.

The assumed rates of disablement at various ages are shown below. These rates were first used for the December 31, 2004 actuarial valuations.

Sample Ages	Percent Becoming Disabled Within Next Year
20	0.02%
25	0.02
30	0.02
35	0.06
40	0.06
45	0.11
50	0.24
55	0.41
60	0.41
65	0.41

85% of the disabilities are assumed to be non-duty and 15% of the disabilities are assumed to be duty related. For those plans which have adopted disability provision D-2, 70% of the disabilities are assumed to be non-duty and 30% are assumed to be duty related.

Mortality Table

In estimating the amount of the reserves required at the time of retirement to pay a member's benefit for the remainder of his or her lifetime, it is necessary to make an assumption with respect to the probability of surviving to retirement and the life expectancy after retirement.

The mortality table used to project the mortality experience of plan members is a 50% Male - 50% Female blend of the 1994 Group Annuity Mortality Table. For disabled retirees, the regular mortality table is used with a 10-year set forward in ages to reflect the higher expected mortality rates of disabled members. These mortality tables were first used for the December 31, 2004 actuarial valuations.

90% of active member deaths are assumed to be non-duty deaths and 10% of the deaths are assumed to be duty related.

The life expectancies and mortality rates projected for **non-disabled** members are shown below for selected ages:

Age	Expected Years of Life Remaining	Mortality Rates
20	61.55	0.04%
25	56.68	0.05
30	51.82	0.06
35	46.97	0.07
40	42.13	0.09
45	37.34	0.13
50	32.60	0.20
55	27.98	0.34
60	23.53	0.62
65	19.40	1.16
70	15.66	1.87
75	12.24	2.99
80	9.25	5.07

The life expectancies and mortality rates projected for **disabled** members are shown below for selected ages:

Age	Expected Years of Life Remaining	Mortality Rates
20	51.82	0.06%
25	46.97	0.07
30	42.13	0.09
35	37.34	0.13
40	32.60	0.20
45	27.98	0.34
50	23.53	0.62
55	19.40	1.16
60	15.66	1.87
65	12.24	2.99
70	9.25	5.07
75	6.81	8.25
80	4.85	13.46

Miscellaneous and Technical Assumptions

Loads	- None
Marriage Assumptions	- 70% of males and 70% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing	- Beginning of valuation year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Pay Adjustment	- None.
Decrement Timing	- Decrements of all types are assumed to occur mid-year.
Future Service	- Members are assumed to earn 1.0 years of service in each future year.
Eligibility Testing	- Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Benefit Service	- Exact fractional service is used to determine the amount of benefit payable. Benefit service is the service used in the benefit formula.
Eligibility Service	- The larger of reported Eligibility Service and reported Vesting Service was used as eligibility service in the valuation. Eligibility service is the service used to meet the conditions for retirement, and is generally equal to or larger than benefit service.
Decrement Relativity	- Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation	- Disability and withdrawal do not operate during retirement eligibility.
Normal Form of Payment	- Future retiring members are assumed to elect:

<u>Form of Payment</u>	<u>Percentage</u>
SL	40%
II	30
IIA	10
III	15
IV	5

Incidence of Contributions	- Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
Maximum Compensation	- The dollar compensation limits under Section 401(a)(17) of the Internal Revenue Code are projected to increase 4.5% annually. No member or employer contributions are projected to be made on the portion of any member's annual compensation in excess of the IRC Section 401(a)(17) limit for the year.

Miscellaneous and Technical Assumptions (continued)

- Maximum Benefit - The dollar benefit limitations under Section 415 of the Internal Revenue Code are projected to increase 4.5% annually. Employee divisions 02, 20-29 (Police), 05 and 50-59 (Fire) are presumed eligible for the public safety benefit limits. No benefits in excess of the IRC section 415 limits are projected to be paid, except as provided under the Qualified Excess Benefit Arrangement, Plan Section 55A.
- Member Contribution Interest - The interest rate credited on member contributions is the one-year Treasury Bill rate as of December 31, determined annually. The long-term rate assumed in the valuation is 4%, which is consistent with the 3% to 4% price inflation assumption.
- DROP+ Assumptions - Each eligible member is assumed to make the DROP+ election with the most valuable combination of lump sum and reduced monthly benefit.
- The retirement probabilities on page 108 are used for members who are *not* covered by Benefit Program DROP+. For members covered by Benefit Program DROP+, it is assumed that retirement will be delayed long enough to become eligible for at least 4 years worth of DROP+ lump sum.

ACTUARIAL FUNDING METHOD

The Retirement Board has adopted funding methodology for the Retirement System to achieve the following major objectives:

- Develop level required contribution rates as a percentage of payroll (for divisions that are open to new hires);
- Finance benefits earned by present employees on a current basis;
- Accumulate assets to enhance members' benefit security;
- Produce investment earnings on accumulated assets to help meet future benefit costs;
- Make it possible to estimate the long-term actuarial cost of proposed amendments to System provisions; and
- Assist in maintaining the Retirement System's long-term financial viability.

The basic funding objective is a level pattern of cost as a percentage of pay throughout each member's working lifetime. The funding method used in this actuarial valuation – the entry age normal cost method – is intended to i) meet this objective, and ii) result in a relatively level long-term contribution requirement as a percentage of pay. This actuarial method was first used for the December 31, 1993 actuarial valuations.

Under the entry age normal cost method, the total actuarially-determined contribution requirement is equal to the sum of the normal cost plus the payment required to fund the unfunded actuarial accrued liability over a period of years. Funding or amortizing the unfunded actuarial accrued liability includes a payment toward the liability (principal) plus a payment to reflect the time value of money (interest).

Normal Cost

In general terms, the normal cost is the cost of benefit rights accruing on the basis of current service. Technically, the normal cost rate is the level percentage-of-pay contribution required each year, with respect to each member, to accumulate over his or her projected working lifetime the reserves needed to meet the cost of earned benefits. The normal cost represents the ultimate cost of the Retirement System, if the unfunded liability is paid up and the actual experience of the System conforms to the assumptions.

Actuarial Accrued Liability

The total actuarial present value of future benefits is computed using the valuation's actuarial assumptions. Subtracting the present value of future normal costs results in the actuarial accrued liability.

The total actuarial accrued liability essentially represents the amount that would have been accumulated as of December 31, 2010, if contributions sufficient to meet the normal costs of the Retirement System had been made each year in the past, benefit provisions had always been the same as current benefit provisions, and actual past experience had always conformed to current actuarial assumptions. If assets equaled the total accrued liability, there would be no unfunded liability and future contribution requirements would consist solely of the calculated normal cost rates.

Amortization of Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability is projected to the beginning of the fiscal year for which employer contributions are being calculated (see page 86 for a description of the projection). The projected unfunded accrued liability is then amortized by level percent of payroll contributions over a period of years. Active member payroll is assumed to increase 4.5% a year for the purpose of determining the level percent contributions.

The standard amortization period to fund the unfunded liability is 28 years for positive unfunded liabilities in the 2010 valuation. This period will be reduced by one year in each of the next eight annual valuations, reaching 20 years in the 2018 valuation. Beginning with the 2019 valuation the 20 year period will be reestablished with each annual valuation. Section 20m of Act No. 314 of the Public Acts of 1965 as amended (MCL 38.1140m) requires that the amortization period not exceed 30 years.

The standard amortization period for negative unfunded liabilities is 10 years, with the 10 year period reestablished with each annual actuarial valuation.

For divisions that are closed to new hires, and the new hires are not covered by MERS defined benefit or hybrid provisions (in a linked division, as discussed on page 118), the otherwise applicable MERS-wide standard amortization period for positive unfunded liabilities in effect in the valuation year in which the division is closed is decreased annually by 2 years until the period reaches 5 years. At that point, the amortization period will remain at 5 years.

Shorter amortization periods may be elected by a municipality (but not shorter than 5 years for

negative unfunded liabilities).

Table 16 in the results section of this report indicates the current length of the amortization period for each division. Note that when the 10 year amortization is used for negative unfunded liabilities, Table 16 reports the amortization in two parts: i) a long term credit based on the long term amortization period (usually the standard amortization period described above), plus ii) an overfunding credit resulting from using a 10 year amortization.

In calculating the annual required contribution (ARC) for reporting and disclosure purposes under Statement Nos. 25 and 27 of the Governmental Accounting Standards Board, the following amortization methods are used:

- A level percentage of payroll amortization is used, based on the amortization periods described in the previous paragraph and based on the assumption that payroll increases 4.5% per year.
- For divisions that are less than 100% funded and are closed to new hires (and new hires are not covered by MERS defined benefit or hybrid provisions in a linked division, as discussed on page 118), a 30-year level dollar amortization is used, if it results in a higher amortization payment.

Termination Liability

The termination liability represents the value of the benefits that have been earned as of the valuation date based on final average compensation and benefit service as of the valuation date. All active members are assumed to terminate employment on the valuation date. Vested and non-vested active members are assumed to retire at the first age when the member would be eligible for unreduced deferred retirement benefits, assuming no continued employment after the valuation date (non-vested benefits are assumed to commence at age 60).

Projections of Employer Contributions and Funded Percentage

The 20-year projections of employer contributions and funded percentages displayed in Chart 17.5 are based on the following assumptions:

- All demographic assumptions will be met during the projection period, including the assumption that active members' pays increase in accordance with the pay increase assumption (see page 105). If the number of active members remains constant, projected total active member payroll will increase about 4.5% annually (1% annually for calendar years 2011-2014), the wage inflation assumption. For open divisions (an open division is open to newly hired employees), this projected payroll growth results

in increasing employer contributions even when the employer contribution rate is stable or slowly declining.

- The actuarial value of assets will earn the assumed 8% return each year during the projection period (**see Comments on the Investment Markets on page 3**).
- There will be no benefit changes during the projection period.
- The employer contributions through January 1, 2012 are not affected, and are based on previous annual actuarial valuations.
- For open divisions (new hires are added to the division), the number of active members is assumed to remain constant. However, if an open division is linked to a division that will have no new hires (whose new hires, transfers and rehires enter the open division - see page 118), the total number of active members in the linked divisions (combined) is assumed to remain constant. For closed divisions (no new hires), the number of active members is assumed to gradually decline to zero, based on the assumptions for retirement, disability, termination, and death.

The projected contribution amounts should not be used for short term budgeting purposes because the assumptions are designed to be a long term expectation of future events. These projections illustrate the long term pattern of employer contributions under current funding policies. A projection of contribution rates for budgeting purposes would require additional short-term actuarial analysis, which is beyond the scope of this report.

Most open division projections (an open division is open to newly hired employees, transfers and rehires - see page 118) will show a very gradual change, up or down, in the funded percentage toward 100% funding. For divisions that are currently less than 100% funded, the reader may be surprised at how long it takes to approach 100% funding. This happens because the standard amortization period for unfunded accrued liabilities, after declining to 20 years in the 2018 annual actuarial valuations, will be reset each year thereafter to a new 20 year period. This results in more stable employer contribution rates, but also a very gradual approach to 100% funding. Additional employer contributions would accelerate the funding progress.

A closed division (no new hires) that is not linked to an open division (see page 118 for a discussion of linked divisions) and is less than 100% funded will have a projected employer contribution that increases each year for the first 11-12 years after closure. This results in a more rapid amortization of unfunded accrued liabilities and a more rapid increase in the division's funded percentage. This is necessary to ensure that the division has adequate assets to pay benefits. However, the closed division's funded percentage may start to decline several years after all the members have retired. Once the average age of the retiree-only division reaches the late 70's or older, the 5-year

amortization period may result in insufficient assets to cover the pension payout. This issue was reviewed in the 2004-2008 study of MERS experience, and beginning with the December 31, 2011 valuation, a minimum contribution will become effective, based on cash flow needs. The projections in this report reflect the minimum contribution requirement, if applicable, in fiscal years starting in 2013 and later.

A few open divisions will see a decline in the funded percentage. This is usually an open division with a very small number of active members (often only one) and a much larger number of retirees. Because the division is open to new hires, the standard amortization period is used. For many years this may result in a declining funded percentage, before the funded percentage begins to head up toward 100% funding. The minimum contribution requirement based on cash flow needs (see previous paragraph) will keep the funded percentage from going negative. However, such a division should be considered a candidate for either merging with a different division, or an accelerated funding schedule.

A division with no new hires that is linked to an open division within the same employee classification (with new hires, transfers and rehires – see page 118 for a discussion of linked divisions) will typically show a projected funded percentage that declines and may even become negative. This is an expected condition, because the standard open division amortization policy applies to a division with no new hires that is linked to an open division. The linked division with no new hires is allowed to share the assets of the linked open division. The division with no new hires alone will run out of assets; however, the combined linked divisions will not run out of assets and the combined funded percentage will head towards 100%. For a linked division the projections also show a dashed line that represents the combined projection of all the linked divisions.

A small number of divisions currently have negative assets, and a negative funded percentage. These are generally divisions for which many or most of the employees have been transferred to a different division, with the bulk of the assets also being transferred to the other division. Negative assets means the division is temporarily borrowing from better funded divisions within the same municipality. The minimum contribution requirement based on cash flow needs will result in a positive funded percentage by 2014 or 2015. However such a division should be considered a candidate for either merging with a different division, or an accelerated funding schedule.

Some divisions are so well funded that no future employer contributions will be needed; assuming that there are no major changes in the covered participants, benefit provisions are not changed, and the actuarial assumptions are met. Assets substantially exceed present liabilities. The funded percentage will continue to increase during the projection period. Such a division may be a

candidate for a reallocation of assets among other divisions, if appropriate.

For divisions that are affected by employer contribution rate caps, the projections of employer contributions in Chart 17.5 do not reflect the impact of the employer cap provision. Member contribution rates are assumed to remain constant at the rates shown in Table 1. The projected employer contribution rate is allowed to move up or down, as needed, to adequately fund the benefit obligations. In other words, projection of the future impact of the employer cap provision is beyond the scope of the Chart 17.5 projections. Future annual actuarial valuation reports will, of course, reflect (in the results) the application of the then-current employer cap provision.

Open Divisions and Closed Divisions

Open divisions will include the future new hires within an employee classification (bargaining unit). Rehired members will also become members of the open division. Members transferred to the employee classification will also become members of the open division, unless the Alternate Transfer Provision is adopted by the municipality. In the latter case, each transferring member is given a choice of entering the open division or a closed division within the employee classification (if there are still active members in the closed division, and the closed division is of the same type - defined benefit, hybrid, or defined contribution - as the division from which the member transferred).

There may also be one or more divisions within the employee classification that no longer accept new hires. These are generally referred to as closed divisions, but in some situations are linked to the open division with the new hires (for actuarial valuation purposes - see Linked Divisions below). Note that a division is also treated like a closed division if the division has no active members reported as of the valuation date.

Linked Divisions

The closed division funding policy described at the bottom of page 114 was adopted by the Retirement Board (Amortization Policy for Closed Divisions Within Open Municipalities, as revised by the Retirement Board on March 9, 2010). The purpose is to ensure that a defined benefit (DB) division that is closed to new hires does not run out of money. Funding the unfunded liabilities over the MERS standard amortization period will likely deplete a closed division's assets before the death of the last participant in the division. Assets cannot be shared between the closed DB division and a defined contribution (DC) plan covering the new hires, or a non-MERS DB plan covering the new hires, even if the employees are part of the same employee classification (bargaining unit).

However, if the new hires, transfers and rehires are covered by a new tier of benefits in the MERS

DB Plan (including the DB portion of the MERS Hybrid Plan), there can be a sharing of employer assets between the DB division with no new hires (with the old benefit structure) and the DB/Hybrid division covering the new hires within the same employee classification. The employer can avoid the required more rapid amortization of the unfunded liabilities by putting new hires into a MERS DB or MERS Hybrid division, instead of a DC plan or non-MERS DB plan.

If a division with no new hires is “linked” to an open MERS DB division, this is indicated in Table 1, in the footnote to Table 16, and in the projections in Chart 17.5. Both the linked divisions will use the standard open division funding policy.

ASSET VALUATION METHOD

The actuarial value of assets is determined on the basis of a method that calculates expected investment income at the valuation rate of return and adds a portion of the difference between the expected investment income and actual investment income earned on a market value basis. The difference in investment income between expected return and market return is recognized over a 10-year period at the rate of 10% per year. This asset valuation method was first adopted for the December 31, 2005 valuation, and is applied as follows:

Actuarial Value equals:

- (a) Actuarial value of assets from the previous actuarial valuation, plus
- (b) Aggregate employer and member contributions since the last valuation, minus
- (c) Benefit payments and refunds of member contributions since the last valuation, plus
- (d) Estimated investment income at the 8% valuation interest rate, plus
- (e) Portion of gain (loss) recognized in the current valuation.

For the above purpose, gain (loss) is defined as the excess during the period of the investment return on the market value of assets over the expected investment income. The portion recognized in the valuation is 10% of the current year's gain (loss) plus 10% of the gain (loss) from each of the 9 preceding years. The cumulative difference between the market value and valuation assets as of December 31, 2005 is recognized over 9 years.

During 2010, the approximate net investment return on average total assets at actuarial value (determined as the actuarial value of investment income divided by the average actuarial value of assets during the year) was 5.74%. The corresponding amounts for 2009, 2008, 2007 and 2006 were 5.30%, 4.73%, 8.12%, and 8.14%, respectively.

For the December 31, 2010 valuation, the actuarial value of assets is equal to 116.29% of market value (compared to 125.17%, 139.15%, 98.85%, and 98.62% in 2009, 2008, 2007, and 2006, respectively). This percentage is applied to each division's reported market value of assets to estimate the actuarial value of assets for the division. The chart on page 121 provides the details of the derivation of the actuarial value of assets for the retirement system in the aggregate.

The reader should note that, given that the actuarial value of assets is currently 16% higher than the market value, meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 8% investment return assumption.

Please see the Comments on the Investment Markets on page 3 .

Municipal Employees' Retirement System of Michigan
Derivation of Actuarial Value of Assets

Valuation Date December 31:	2001	2002	2003	2004	2005
1. Beginning of Year Assets					
a) Market Value	\$ 3,788,886,471	\$ 3,647,820,869	\$ 3,285,304,333	\$ 4,071,997,180	\$ 4,619,201,287
b) Valuation Assets	3,791,423,339	4,034,377,419	4,134,404,645	4,459,492,020	4,732,208,229
2. End of Year Market Value Assets	3,647,820,869	3,285,304,333	4,071,997,180	4,619,201,287	4,906,288,690
3. Net Additions to Market Value					
a) Net Contributions	154,103,475	167,427,558	223,450,393	223,057,268	277,589,524
b) Net Investment Income = (3d) - (3a) - (3c)	(93,269,286)	(324,926,459)	792,139,959	577,562,751	288,223,418
c) Benefit Payments	(201,899,791)	(205,017,635)	(228,897,505)	(253,415,912)	(278,725,539)
d) Total Additions to Market Value = (2) - (1a)	(141,065,602)	(362,516,536)	786,692,847	547,204,107	287,087,403
4. Average Valuation Assets = (1b) + .5x[(3a) + (3c)]	3,767,525,181	4,015,582,381	4,131,681,089	4,444,312,698	4,731,640,222
5. Expected Income at Valuation Rate = 8% x (4)	301,402,014	321,246,590	330,534,487	355,545,016	378,531,218
6. Gain (Loss) = (3b) - (5)	(394,671,300)	(646,173,049)	461,605,472	222,017,735	(90,307,800)
7. Phased-In Recognition of Investment Return					
a) Current Year: 0.2 x (6)	(78,934,260)	(129,234,610)		44,403,547	(18,061,560)
b) First Prior Year	(79,670,266)	(78,934,260)			44,403,547
c) Second Prior Year	63,981,441	(79,670,266)			
d) Third Prior Year	40,228,410	63,981,441			
e) Fourth Prior Year	43,743,057	40,228,408			
f) 1999-2003 Years Combined	N/A	N/A	0	(96,873,710)	(96,873,710)
g) Total Recognized Investment Gain (Loss)	(10,651,618)	(183,629,287)	0	(52,470,163)	(70,531,723)
8. Change in Valuation Assets (3a) + (3c) + (5) + (7g)	242,954,080	100,027,226	325,087,375	272,716,209	306,863,480
9. End of Year Assets					
a) Market Value = (2)	3,647,820,869	3,285,304,333	4,071,997,180	4,619,201,287	4,906,288,690
b) Valuation Assets = (1b) + (8)	4,034,377,419	4,134,404,645	4,459,492,020	4,732,208,229	5,039,071,709
c) Difference Between Market & Valuation Assets	(386,556,550)	(849,100,312)	(387,494,840)	(113,006,942)	(132,783,019)
10. Recognized Rate of Return = [(5) + (7g)] / (4)	7.72%	3.43%	8.00%	6.82%	6.51%
11. Market Rate of Return	(2.48%)	(8.95%)	24.13%	14.24%	6.24%
12. Valuation Asset Adjustment Factor = (9b) / (9a)	1.105969	1.258454	1.095161	1.024465	1.027064

Municipal Employees' Retirement System of Michigan
Derivation of Actuarial Value of Assets (cont.)

Valuation Date December 31:	2006	2007	2008	2009	2010
1. Beginning of Year Assets					
a) Market Value	\$ 4,906,288,690	\$ 5,590,042,317	\$ 6,071,046,914	\$ 4,512,260,955	\$ 5,276,645,338
b) Valuation Assets	5,039,071,709	5,512,924,466	6,001,040,078	6,278,731,673	6,604,608,397
2. End of Year Market Value Assets	5,590,042,317	6,071,046,914	4,512,260,955	5,276,645,338	5,971,593,444
3. Net Additions to Market Value					
a) Net Contributions	371,505,157	386,942,952	374,214,134	413,354,720	423,489,032
b) Net Investment Income = (3d) - (3a) - (3c)	622,409,716	442,377,206	(1,553,001,917)	771,066,207	733,059,352
c) Benefit Payments	(310,161,246)	(348,315,561)	(379,998,176)	(420,036,544)	(461,600,278)
d) Total Additions to Market Value = (2) - (1a)	683,753,627	481,004,597	(1,558,785,959)	764,384,383	694,948,106
4. Average Valuation Assets = (1b) + .5x[(3a) + (3c)]	5,069,743,665	5,532,238,162	5,998,148,057	6,275,390,761	6,585,552,774
5. Expected Income at Valuation Rate = 8% x (4)	405,579,493	442,579,053	479,851,845	502,031,261	526,844,222
6. Gain (Loss) = (3b) - (5)	216,830,223	(201,847)	(2,032,853,762)	269,034,946	206,215,130
7. Phased-In Recognition of Investment Return					
a) Current Year: 0.1 x (6)	21,683,022	(20,185)	(203,285,376)	26,903,495	20,621,513
b) First Prior Year	(14,753,669)	21,683,022	(20,185)	(203,285,376)	26,903,495
c) Second Prior Year		(14,753,669)	21,683,022	(20,185)	(203,285,376)
d) Third Prior Year			(14,753,669)	21,683,022	(20,185)
e) Fourth Prior Year				(14,753,669)	21,683,022
f) Fifth Prior Year					(14,753,669)
g) Sixth Prior Year					
h) Seventh Prior Year					
i) Eighth Prior Year					
j) Ninth Prior Year					
k) Total Recognized Investment Gain (Loss)	6,929,353	6,909,168	(196,376,208)	(169,472,713)	(148,851,200)
8. Change in Valuation Assets (3a) + (3c) + (5) + (7k)	473,852,757	488,115,612	277,691,595	325,876,724	339,881,776
9. End of Year Assets					
a) Market Value = (2)	5,590,042,317	6,071,046,914	4,512,260,955	5,276,645,338	5,971,593,444
b) Valuation Assets = (1b) + (8)	5,512,924,466	6,001,040,078	6,278,731,673	6,604,608,397	6,944,490,173
c) Difference Between Market & Valuation Assets	77,117,851	70,006,836	(1,766,470,718)	(1,327,963,059)	(972,896,729)
10. Recognized Rate of Return = [(5) + (7k)] / (4)	8.14%	8.12%	4.73%	5.30%	5.74%
11. Market Rate of Return	12.61%	7.89%	(25.59%)	17.10%	13.94%
12. Valuation Asset Adjustment Factor = (9b) / (9a)	0.986204	0.988469	1.391482	1.251668	1.162921

Municipal Employees' Retirement System of Michigan
Derivation of Actuarial Value of Assets (cont.)

Valuation Date December 31:	2011	2012	2013	2014	2015
1. Beginning of Year Assets					
a) Market Value					
b) Valuation Assets					
2. End of Year Market Value Assets					
3. Net Additions to Market Value					
a) Net Contributions					
b) Net Investment Income = (3d) - (3a) - (3c)					
c) Benefit Payments					
d) Total Additions to Market Value = (2) - (1a)					
4. Average Valuation Assets = (1b) + .5x[(3a) + (3c)]					
5. Expected Income at Valuation Rate = 8% x (4)					
6. Gain (Loss) = (3b) - (5)					
7. Phased-In Recognition of Investment Return					
a) Current Year: 0.1 x (6)					
b) First Prior Year	20,621,513				
c) Second Prior Year	26,903,495	20,621,513			
d) Third Prior Year	(203,285,376)	26,903,495	20,621,513		
e) Fourth Prior Year	(20,185)	(203,285,376)	26,903,495	20,621,513	
f) Fifth Prior Year	21,683,022	(20,185)	(203,285,376)	26,903,495	20,621,513
g) Sixth Prior Year	(14,753,669)	21,683,022	(20,185)	(203,285,376)	26,903,495
h) Seventh Prior Year		(14,753,669)	21,683,022	(20,185)	(203,285,376)
i) Eighth Prior Year			(14,753,669)	21,683,022	(20,185)
j) Ninth Prior Year				(14,753,667)	21,683,025
k) Total Recognized Investment Gain (Loss)	(148,851,200)	(148,851,200)	(148,851,200)	(148,851,198)	(134,097,528)
8. Change in Valuation Assets (3a) + (3c) + (5) + (7k)					
9. End of Year Assets					
a) Market Value = (2)					
b) Valuation Assets = (1b) + (8)					
c) Difference Between Market & Valuation Assets					
10. Recognized Rate of Return = [(5) + (7k)] / (4)					
11. Market Rate of Return					
12. Valuation Asset Adjustment Factor = (9b) / (9a)					



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MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN

ANNUAL ACTUARIAL VALUATION REPORT

LAPEER COUNTY (4403)

DECEMBER 31, 2010