



**Municipal Employees' Retirement System
of Michigan**

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN
ANNUAL ACTUARIAL VALUATION REPORT
CITY OF PLEASANT RIDGE (6301)
DECEMBER 31, 2006



May 16, 2007

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, 2006. The report includes the determination of liabilities and contribution rates resulting from the participation of City of Pleasant Ridge 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, and is an instrumentality of the participating municipalities and courts. City of Pleasant Ridge 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.

There are no material changes in actuarial assumptions or methods reflected in this valuation.

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. 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 contact Laura Kramer at MERS if you would like to receive future annual valuations in electronic format, instead of a printed report (800-767-6377; LKramer@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 July 1, 2008 (2006 Valuation) and July 1, 2007 (2005 Valuation) are as follows:

Division	Minimum Required Monthly Employer Contributions @			
	Percentage of Payroll		\$ Based on Valuation Payroll	
	2006 Valuation	2005 Valuation	2006 Valuation	2005 Valuation
01 - Gnrl Oth #	-%	-%	\$1,603	\$1,386
02 - Police	20.80%	21.85%	5,750	5,432
10 - NonUnion	9.20%	13.54%	723	1,928
11 - City Mgr	21.40%	21.23%	1,296	1,199
Total Municipality			\$9,372	\$9,945

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

This division is closed to new hires. Invoices will be based on the dollar contribution amounts shown in this table.

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, the computed employer dollar contribution would increase 4%-8% annually, until full funding is reached. Prospective benefit changes as well as Retirement System gains and losses will also affect future contribution rates.

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).

There were no changes in actuarial assumptions or methods affecting the results of the 2006 valuation. For benefit provision changes see Table 1.

Executive Summary (continued)

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.

2006 Funded Position

The ratio of the Valuation Assets to the Actuarial Accrued Liability for City of Pleasant Ridge in aggregate is 70%; last year's ratio was 69%.

Table 1

Benefit Provisions Evaluated and/or Considered

Division	2006 Valuation	2005 Valuation
1 - Gnrl Oth #	B-1 Normal Ret Age: 60 V-6 F55(25) FAC-5 E-2 (2.5%) (07/01/1984) 0.00% Member Contrib. Act 88 Election (10/14/1969)	B-1 Normal Ret Age: 60 V-6 F55(25) FAC-5 E-2 (2.5%) (07/01/1984) 0.00% Member Contrib. Act 88 Election (10/14/1969)
2 - Police	B-4 - 80% Max Normal Ret Age: 60 V-8 F50(25) FAC-5 0.00% Member Contrib. Act 88 Election (10/14/1969)	B-4 - 80% Max Normal Ret Age: 60 V-8 F50(25) FAC-5 0.00% Member Contrib. Act 88 Election (10/14/1969)
10 - NonUnion	B-4 - 80% Max Normal Ret Age: 60 V-8 FAC-5 E-2 (2.5%) (07/01/1984) 0.00% Member Contrib. Act 88 Election (10/14/1969)	B-4 - 80% Max Normal Ret Age: 60 V-8 FAC-5 E-2 (2.5%) (07/01/1984) 0.00% Member Contrib. Act 88 Election (10/14/1969)
11 - City Mgr	B-4 - 80% Max Normal Ret Age: 60 V-8 F55(15) FAC-5 E-2 (2.5%) (07/01/2002) 0.00% Member Contrib. Act 88 Election (10/14/1969)	B-4 - 80% Max Normal Ret Age: 60 V-8 F55(15) FAC-5 E-2 (2.5%) (07/01/2002) 0.00% Member Contrib. Act 88 Election (10/14/1969)

This division is closed to new hires. Please refer to the Amortization of Unfunded Actuarial Accrued Liability on page 55.

Table 2

Membership Summary

Division	2006 Valuation		2005 Valuation	
	Number	Annual Payroll*	Number	Annual Payroll*
1 - Gnrl Oth				
Active Members	0	0	0	0
Vested Former Members	6	28,869	6	28,869
Retirees and Beneficiaries	5	66,190	5	65,198
2 - Police				
Active Members	6	\$331,763	5	\$298,329
Vested Former Members	3	20,083	3	20,460
Retirees and Beneficiaries	8	188,092	8	188,092
10 - NonUnion				
Active Members	2	\$94,291	4	\$170,851
Vested Former Members	3	14,810	3	14,772
Retirees and Beneficiaries	1	3,575	1	3,511
11 - City Mgr				
Active Members	1	\$72,659	1	\$67,816
Vested Former Members	0	0	0	0
Retirees and Beneficiaries	0	0	0	0
Total Municipality				
Active Members	9	\$498,713	10	\$536,996
Vested Former Members	12	63,762	12	64,101
Retirees and Beneficiaries	14	257,857	14	256,801
Total Participants	35		36	

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

Table 3**Active Members in the Valuation - Comparative Schedule**

Valuation Date 12/31	Number	Annual Payroll	Average Pay		Average Age	Average Benefit Service	Average Vesting Service
			Annual \$	% Increase			
1996	16	\$ 524,684	\$ 32,792	(9.4)%	39.4	10.6	
1997	11	472,880	42,989	31.1	41.4	11.6	
1998	10	443,029	44,302	3.1	40.3	11.8	
1999	11	488,515	44,410	0.2	39.7	11.7	
2000	10	484,025	48,402	9.0	42.2	11.7	
2001	11	498,462	45,315	(6.4)	37.9	8.8	8.8
2002	11	523,352	47,577	5.0	38.9	9.9	9.9
2003	12	588,952	49,079	3.2	41.4	10.1	10.1
2004	13	677,849	52,142	6.2	41.5	10.3	10.3
2005	10	536,996	53,700	3.0	41.7	9.4	9.4
2006	9	498,713	55,413	3.2	38.5	10.6	10.6

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	(1)			(1)			3	11
2002								11
2003							1	12
2004							1	13
2005	(2)				(1)			10
2006					(2)		1	9

Table 5**Vested Former Members in the Valuation - Comparative Schedule**

Valuation Date 12/31	Number	Annual Deferred Benefits	Average Age	Average Benefit Service	Average Vesting Service
1996	1	\$			
1997	1				
1998	11				
1999	11				
2000	13				
2001	12	66,858	43.5	8.8	10.9
2002	12	67,285	44.5	8.8	11.1
2003	13	68,862	45.9	8.6	11.6
2004	12	64,167	46.9	8.7	12.4
2005	12	64,101	47.9	8.7	12.5
2006	12	63,762	48.9	8.7	12.7

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				(2)		1	12
2002							12
2003						1	13
2004				(1)			12
2005							12
2006							12

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		
1996		\$		\$	17	\$ 159,754	0.9	30.4%
1997					15	155,061	0.7	32.8
1998					14	150,264	0.7	33.9
1999					14	151,319	0.8	31.0
2000					13	147,552	0.8	30.5
2001	11	168,452	2	8,793	13	177,245	0.8	35.6
2002	11	169,508	2	8,793	13	178,301	0.8	34.1
2003	11	170,564	2	8,793	13	179,357	0.9	30.5
2004	11	171,616	2	8,793	13	180,409	1.0	26.6
2005	12	248,008	2	8,793	14	256,801	0.7	47.8
2006	12	249,064	2	8,793	14	257,857	0.6	51.7

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
1996	1	\$ 18,088	\$		\$	\$	17	\$ 159,754
1997		1,055		(2)	(5,748)		15	155,061
1998		1,055		(1)	(5,853)		14	150,264
1999		1,055					14	151,319
2000		1,055		(1)	(4,822)		13	147,552
2001	2	41,941	1,055	(2)	(13,303)		13	177,245
2002			1,056				13	178,301
2003			1,056				13	179,357
2004			1,052				13	180,409
2005	2	71,358	6,263	(1)	(1,229)		14	256,801

Table 9**Retirees and Beneficiaries on the Rolls as of December 31, 2006****Distribution by Type of Benefit Being Paid**

Benefits Being Paid to:	Annual Benefits	
	Number	Amount
Age and service retirants	11	\$239,762
Non-duty disability retirants	0	0
Duty disability retirants	1	9,302
Beneficiaries of deceased retirants	2	8,793
Beneficiaries of deceased members:		
Non-duty death	0	0
Duty death	<u>0</u>	<u>0</u>
Total Benefits Being Paid	14	\$257,857

Table 10

Reported Assets (Market Value)

Division	2006 Valuation		2005 Valuation	
	Employer And Retiree*	Employee#	Employer And Retiree*	Employee#
01 - Gnrl Oth	\$ 365,253	\$ 3,971	\$ 371,307	\$ 3,806
02 - Police	1,927,557	0	1,838,438	0
10 - NonUnion	176,493	0	143,826	0
11 - City Mgr	236,979	0	194,706	0
Total Municipality	\$ 2,706,282	\$ 3,971	\$ 2,548,277	\$ 3,806
Combined Reserves	\$2,710,253		\$2,552,083	

* Reserve for Employer Contributions and Benefit Payments

Reserve for Employee Contributions

The December 31, 2006 Valuation Assets are equal to 0.986204 times the reported Market Value of assets. The derivation of Valuation Assets is described on page 57.

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	\$ 45,491	\$ 0	\$ 170,226	\$ (172,528)	\$ (96,713)	\$ 0	\$ 2,549,981
2002	38,951	0	57,817	(177,246)	0	0	2,469,503
2003	60,484	0	166,145	(178,301)	0	0	2,517,831
2004	88,758	0	163,061	(177,870)	0	0	2,591,780
2005	101,920	0	159,963	(232,510)	0	0	2,621,153
2006	99,876	0	208,637	(256,804)	0	0	2,672,862

Table 12

Termination Liability and Present Value of Accrued Benefits as of December 31, 2006

Termination Liability*	Term. Liability % Funded	Division	PVAB* Present Value of Accrued Benefits	Valuation Assets	PVAB Percent Funded	Unfunded (Overfunded) PVAB
\$ 0 132,333 499,424 <u>0</u> \$ 631,757	57.6%	01 - Gnrl Oth Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 0 132,333 499,424 <u>0</u> \$ 631,757	\$ 364,130	57.6%	\$ 267,627
\$ 270,114 88,570 1,899,145 <u>0</u> \$ 2,257,829	84.2%	02 - Police Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 325,816 88,570 1,899,145 <u>0</u> \$ 2,313,531	\$ 1,900,964	82.2%	\$ 412,567
\$ 28,474 68,579 19,043 <u>0</u> \$ 116,096	149.9%	10 - NonUnion Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 28,557 68,579 19,043 <u>0</u> \$ 116,179	\$ 174,058	149.8%	\$ (57,879)
\$ 398,957 0 0 <u>0</u> \$ 398,957	58.6%	11 - City Mgr Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 257,481 0 0 <u>0</u> \$ 257,481	\$ 233,710	90.8%	\$ 23,771
\$ 697,545 289,482 2,417,612 <u>0</u> \$ 3,404,639	78.5%	Total Municipality Active Members Vested Former Members Retirees and Beneficiaries Pending Refunds Total	\$ 611,854 289,482 2,417,612 <u>0</u> \$ 3,318,948	\$ 2,672,862	80.5%	\$ 646,086

* The Termination Liability represents the present value of benefits payable in the event that all active members terminate employment on December 31, 2006, based upon the valuation interest and mortality assumptions. The present value of accrued benefits (PVAB) includes vested and non-vested benefits accrued as of December 31, 2006. For a non-vested active member, the PVAB represents the present value of the non-vested accrued benefit, and the Termination Liability represents the present value of the non-vested accrued benefit (deferred to age 60). For some active members the Termination Liability may exceed the PVAB, because the Termination Liability assumes that members retire at the earliest possible age for commencement of unreduced deferred benefits, whereas the PVAB assumes continued employment based on actuarial assumptions for retirement, death, disability and withdrawal. Pending refunds represent expected refunds of accumulated member contributions to persons who have terminated membership before becoming eligible for pension benefits.

Table 13

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2006

Division	Actuarial Accrued Liabilities	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - Gnrl Oth				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Members	128,362	0	0.0	128,362
Retirees and Beneficiaries	<u>499,424</u>	<u>360,159</u>	72.1	<u>139,265</u>
Total	\$ 627,786	\$ 360,159	57.4%	\$ 267,627
Reserve for Employee Contributions				
Active Members	\$ 0	\$ 0		
Vested Former Members	3,971	3,971		
Pending Refunds	<u>0</u>	<u>0</u>		
Total	\$ 3,971	\$ 3,971	100.0%	\$ 0
Division Total	\$ 631,757	\$ 364,130	57.6%	\$ 267,627
02 - Police				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 668,147	\$ 0	0.0%	\$ 668,147
Vested Former Members	88,570	1,819	2.1	86,751
Retirees and Beneficiaries	<u>1,899,145</u>	<u>1,899,145</u>	100.0	<u>0</u>
Total	\$ 2,655,862	\$ 1,900,964	71.6%	\$ 754,898
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	\$ 2,655,862	\$ 1,900,964	71.6%	\$ 754,898
10 - NonUnion				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 111,291	\$ 86,436	77.7%	\$ 24,855
Vested Former Members	68,579	68,579	100.0	0
Retirees and Beneficiaries	<u>19,043</u>	<u>19,043</u>	100.0	<u>0</u>
Total	\$ 198,913	\$ 174,058	87.5%	\$ 24,855
Reserve for Employee Contributions				
Active Members	\$ 0	\$ 0		

Table 13 (continued)

Actuarial Accrued Liabilities and Valuation Assets as of December 31, 2006

Division	Actuarial Accrued Liabilities	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
11 - City Mgr				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 339,953	\$ 233,710	68.7%	\$ 106,243
Vested Former Members	0	0	0.0	0
Retirees and Beneficiaries	<u>0</u>	<u>0</u>	0.0	<u>0</u>
Total	\$ 339,953	\$ 233,710	68.7%	\$ 106,243
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	\$ 339,953	\$ 233,710	68.7%	\$ 106,243
Municipality Totals				
Reserve for Employer Contributions and Benefit Payments				
Active Members	\$ 1,119,391	\$ 320,146	28.6%	\$ 799,245
Vested Former Members	285,511	70,398	24.7	215,113
Retirees and Beneficiaries	<u>2,417,612</u>	<u>2,278,347</u>	94.2	<u>139,265</u>
Total	\$ 3,822,514	\$ 2,668,891	69.8%	\$ 1,153,623
Reserve for Employee Contributions				
Active Members	\$ 0	\$ 0		
Vested Former Members	3,971	3,971		
Pending Refunds	<u>0</u>	<u>0</u>		
Total	\$ 3,971	\$ 3,971	100.0%	\$ 0
Municipality Total	\$ 3,826,485	\$ 2,672,862	69.9%	\$ 1,153,623

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
1992	\$ 1,854,573	\$ 1,774,418	96%	\$ 80,155	13%
1993	2,178,546	1,817,009	83	361,537	62
1994	2,302,979	1,813,034	79	489,945	81
1995	2,202,291	1,888,222	86	314,069	54
1996	2,297,473	1,964,031	85	333,442	64
1997	2,259,605	2,066,573	91	193,032	41
1998	2,437,936	2,226,720	91	211,216	48
1999	2,592,649	2,458,093	95	134,556	28
2000	2,694,694	2,603,504	97	91,190	19
2001	2,926,263	2,549,981	87	376,282	75
2002	3,041,853	2,469,503	81	572,350	109
2003	3,259,096	2,517,831	77	741,265	126
2004	3,559,624	2,591,780	73	967,844	143
2005	3,779,317	2,621,153	69	1,158,164	216
2006	3,826,485	2,672,862	70	1,153,623	231

Notes: Actuarial assumptions were revised for the 1993, 1997, 2000, and 2004 actuarial valuations. The funding method was changed to entry age normal for the 1993 valuation.

Table 15

**Computed Employer Contributions to the Retirement System
For the Fiscal Year Beginning July 1, 2008**

Division	Employer Contributions @		
	Normal Cost	Unfunded Accrued Liability #	Total Required Employer Contribution
Percentage of Payroll			
01 - Gnrl Oth &	-%	-%	-%
02 - Police	9.16%	11.64%	20.80%
10 - NonUnion	8.17%	1.03%	9.20%
11 - City Mgr	13.97%	7.43%	21.40%
Estimated Monthly Contribution*			
01 - Gnrl Oth	\$ 0	\$ 1,603	\$ 1,603
02 - Police	2,532	3,218	5,750
10 - NonUnion	642	81	723
11 - City Mgr	846	450	1,296
Total Municipality	\$ 4,020	\$ 5,352	\$ 9,372
Estimated Annual Contribution*			
Total Municipality	\$ 48,240	\$ 64,224	\$ 112,464

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

* Based on Valuation Payroll. For divisions that are open to new hires, actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that are closed to new hires, invoices will be based on the above dollar amounts.

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

& This division is closed to new hires. Invoices will be based on the dollar contribution amounts shown in this table.

Division 01 - Gnrl Oth

Table 16A

**Computed Employer Contributions to the Retirement System
For the Fiscal Year Beginning July 1, 2008**

Contribution for	Employer Contribution @
	Estimated Monthly Dollar Contribution *
Normal Cost (in addition to member contributions)	\$0
Amortization of Unfunded Accrued Liability (20 years) ^	<u>1,603</u> ^
Total Long Term Contribution	1,603
Overfunding Credit #	<u>0</u>
Total Contribution	\$1,603 *

@ The above Employer contribution requirement is based on Member contributions of 0.00% of pay.

* Invoices will be based on this dollar amount.

Only applies if projected assets exceed projected liabilities as of the beginning of the July 1, 2008 fiscal year (see Table 24).

^ This division is closed to new hires. This line displays the amortization funding requirement, and is based on a 20 year amortization (payments increase 4.5% per year). However, for reporting and disclosure purposes under Statement Nos. 25 and 27 of the Governmental Accounting Standards Board, the annual required contribution (ARC) is based on a 30 year level dollar amortization (the annual amortization payment is \$23,556 and the ARC is \$23,556). Note that the 20 year amortization period will decrease by 2 years each valuation year, until a minimum 5 year amortization is attained. This will result in amortization payments that increase faster than 4.5% each year.

Division 01 - Gnrl Oth

Table 17A

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1992	6	\$ 181,228	9.50%	3.60%
1993	6	186,908	6.72%	3.36%
1994	6	196,933	7.75%	5.43%
1995	6	195,474	8.37%	7.53%
1996	5	95,528	14.72%	14.72%
1997	0	0	-	-
1998	0	0	-	-
1999	0	0	-	-
2000	0	0	-	-
2001	0	0	-	-
2002	0	0	-	-
2003	0	0	-	-
2004	0	0	\$ 1,159 #	\$ 1,159 #
2005	0	0	\$ 1,386	\$ 1,386
2006	0	0	\$ 1,603	\$ 1,603

Beginning in the 2004 valuation, a monthly dollar contribution is shown for divisions that are closed to new hires.

Notes: Actuarial assumptions were revised for the 1993 valuation.
Adoption of Benefits F55 (25 years) and V-6 reflected in 1996 valuation.
Actuarial assumptions were revised for the 1997 valuation.
Actuarial assumptions were revised for the 2000 valuation.
Actuarial assumptions were revised for the 2004 valuation.

Up to 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Division 01 - Gnrl Oth

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									0
2002									0
2003									0
2004									0
2005									0
2006									0

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								6
2002								6
2003							1	7
2004				(1)				6
2005								6
2006								6

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		\$	\$ 991	(1)	\$ (1,484)	\$	6	\$ 62,462
2002			992				6	63,454
2003			992				6	64,446

Division 01 - Gnrl Oth

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	\$ 4,440	\$ 0	\$ 36,971	\$ (62,336)	\$ 0	\$ 0	\$ 0	\$ 544,464
2002	3,011	0	4,831	(62,462)	0	0	0	489,844
2003	2,814	0	22,886	(63,453)	0	(447)	447	452,091
2004	5,610	0	24,590	(64,445)	0	0	0	417,846
2005	9,164	0	23,077	(64,822)	0	(48)	48	385,265
2006	12,186	0	31,878	(65,199)	0	0	0	364,130

* Transfers out and in are usually related to the transfer of participants between divisions or municipalities.

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	\$ 616,715	\$ 544,464	88%	\$ 72,251	%
2002	621,241	489,844	79	131,397	
2003	630,846	452,091	72	178,755	
2004	631,884	417,846	66	214,038	
2005	630,034	385,265	61	244,769	
2006	631,757	364,130	58	267,627	

Division 02 - Police

Table 16B

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning July 1, 2008

Contribution for	Employer Contribution @	
	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Normal Cost (in addition to member contributions)	9.16%	\$2,532
Amortization of Unfunded Accrued Liability (29 years)	<u>11.64</u>	<u>3,218</u>
Total Long Term Contribution	20.80	5,750
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Contribution	20.80%	\$5,750 *

@ 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 29 year amortization) will decrease/increase by 0.90% of pay.

* 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 July 1, 2008 fiscal year (see Table 24).

Division 02 - Police

Table 17B

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1992	9	\$ 316,141	14.30%	5.40%
1993	7	270,045	8.42%	4.21%
1994	7	277,554	9.57%	6.70%
1995	7	285,512	7.74%	6.97%
1996	8	329,967	7.54%	7.54%
1997	8	365,057	6.71%	6.71%
1998	7	341,346	5.64%	5.64%
1999	7	338,538	5.21%	5.21%
2000	6	326,534	5.68%	5.68%
2001	7	340,885	11.43%	8.88%
2002	7	354,738	12.84%	11.56%
2003	7	369,875	13.87%	13.87%
2004	7	418,485	16.14%	16.14%
2005	5	298,329	21.85%	21.85%
2006	6	331,763	20.80%	20.80%

Notes: Adoption of Benefit B-3 reflected in 1992 valuation.
 Actuarial assumptions were revised for the 1993 valuation.
 Actuarial assumptions were revised for the 1997 valuation.
 Adoption of Benefit B-4 reflected in 1999 valuation.
 Actuarial assumptions were revised for the 2000 valuation.
 Actuarial assumptions were revised for the 2004 valuation.
 Adoption of Benefit V-8 reflected in 2005 valuation.

Up to 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Division 02 - Police

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)							2	7
2002									7
2003									7
2004									7
2005	(2)								5
2006								1	6

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				(1)				3
2002								3
2003								3
2004								3
2005								3
2006								3

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	2	\$ 41,941	\$	(1)	\$ (11,819)	\$	6	\$ 111,527
2002							6	111,527
2003							6	111,527

Division 02 - Police

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	\$ 22,523	\$ 0	\$ 130,113	\$ (107,000)	\$ 0	\$ 0	\$ 0	\$ 1,847,836
2002	19,320	0	43,822	(111,528)	0	0	0	1,799,450
2003	27,081	0	122,228	(111,528)	0	0	0	1,837,231
2004	42,608	0	119,015	(111,528)	0	0	0	1,887,326
2005	49,734	0	115,374	(164,241)	0	0	0	1,888,193
2006	53,978	0	146,887	(188,094)	0	0	0	1,900,964

* Transfers out and in are usually related to the transfer of participants between divisions or municipalities.

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	\$ 2,031,616	\$ 1,847,836	91%	\$ 183,780	54%
2002	2,094,562	1,799,450	86	295,112	83
2003	2,216,103	1,837,231	83	378,872	102
2004	2,461,629	1,887,326	77	574,303	137
2005	2,617,402	1,888,193	72	729,209	244
2006	2,655,862	1,900,964	72	754,898	228

Division 10 - NonUnion

Table 16C

**Computed Employer Contributions to the Retirement System
For the Fiscal Year Beginning July 1, 2008**

Contribution for	Employer Contribution @	
	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Normal Cost (in addition to member contributions)	8.17%	\$642
Amortization of Unfunded Accrued Liability (29 years)	<u>1.03</u>	<u>81</u>
Total Long Term Contribution	9.20	723
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Contribution	9.20%	\$723 *

@ 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 29 year amortization) will decrease/increase by 0.92% of pay.

* 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 July 1, 2008 fiscal year (see Table 24).

Division 10 - NonUnion

Table 17C

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution	
	Number	Annual Payroll	Regular Contribution	Minimum Required Contribution
1993	4	127,137	7.35%	3.68%
1994	4	129,482	7.83%	5.48%
1995	3	98,270	3.76%	3.38%
1996	3	99,189	3.73%	3.73%
1997	3	107,823	3.50%	3.50%
1998	3	101,683	7.48%	7.48%
1999	4	149,977	6.59%	6.59%
2000	4	157,491	8.82%	8.81%
2001	4	157,577	15.06%	14.00%
2002	4	168,614	15.67%	15.14%
2003	4	152,471	13.19%	13.19%
2004	5	191,513	12.88%	12.88%
2005	4	170,851	13.54%	13.54%
2006	2	94,291	9.20%	9.20%

Notes: Actuarial assumptions were revised for the 1993 valuation.
 Actuarial assumptions were revised for the 1997 valuation.
 Actuarial assumptions were revised for the 2000 valuation.
 Adoption of Benefit B-4 - 80% Maximum reflected in 2001 valuation.
 Actuarial assumptions were revised for the 2004 valuation.

Up to 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Division 10 - NonUnion

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)				1	4
2002									4
2003						(1)		1	4
2004								1	5
2005					(1)				4
2006					(2)				2

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)			1	3
2002								3
2003								3
2004								3
2005								3
2006								3

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		\$	\$ 64		\$	\$	1	\$ 3,256
2002			64				1	3,320
2003			64				1	3,384

Division 10 - NonUnion

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	\$ 18,528	\$ 0	\$ 3,142	\$ (3,192)	\$ (96,713)	\$ (77,955)	\$ 77,955	\$ 157,681
2002	16,620	0	9,164	(3,256)	0	0	0	180,209
2003	17,871	0	(17,488)	(3,320)	0	(95,692)	0	81,580
2004	26,569	0	7,874	(1,897)	0	0	0	114,126
2005	27,815	0	9,225	(3,447)	0	0	0	147,719
2006	17,077	0	12,773	(3,511)	0	0	0	174,058

* Transfers out and in are usually related to the transfer of participants between divisions or municipalities.

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	\$ 277,932	\$ 157,681	57%	\$ 120,251	76%
2002	326,050	180,209	55	145,841	86
2003	144,902	81,580	56	63,322	42
2004	185,663	114,126	61	71,537	37
2005	231,962	147,719	64	84,243	49
2006	198,913	174,058	88	24,855	26

Division 11 - City Mgr

Table 16D

Computed Employer Contributions to the Retirement System For the Fiscal Year Beginning July 1, 2008

Contribution for	Employer Contribution @	
	As Percentage of Active Member Payroll	Estimated Monthly Dollar Contribution *
Normal Cost (in addition to member contributions)	13.97%	\$846
Amortization of Unfunded Accrued Liability (29 years)	<u>7.43</u>	<u>450</u>
Total Long Term Contribution	21.40	1,296
Overfunding Credit #	<u>0.00</u>	<u>0</u>
Total Contribution	21.40%	\$1,296 *

@ 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 29 year amortization) will decrease/increase by 0.86% of pay.

* 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 July 1, 2008 fiscal year (see Table 24).

Division 11 - City Mgr

Table 17D

Computed Employer Contributions - Comparative Statement

Valuation Date December 31,	Active Members		Employer Contribution
	Number	Annual Payroll	
2003	1	\$ 66,606	24.11%
2004	1	67,851	21.73%
2005	1	67,816	21.23%
2006	1	72,659	21.40%

Notes: Adoption of Benefit V-8, F55(15), FAC-5, B-4 - 80% Maximum, E-2 (2.5%), Normal Retirement: 60, 0.00%
Member Contributions reflected in 2003 valuation.
Actuarial assumptions were revised for the 2004 valuation.

Up to 15 years of benefit changes are reflected in this table. For a complete benefit history see Table 25.

Division 11 - City Mgr

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		
2003							1		1
2004									1
2005									1
2006									1

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		
2003								0
2004								0
2005								0
2006								0

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
2003		\$	\$		\$	\$	0	\$ 0
2004							0	0
2005							0	0
2006							0	0

@ 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.

Division 11 - City Mgr

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	
2003	\$ 12,718	\$ 0	\$ 38,519	\$ 0	\$ 0	\$ 0	\$ 95,692	\$ 146,929
2004	13,971	0	11,582	0	0	0	0	172,482
2005	15,207	0	12,287	0	0	0	0	199,976
2006	16,635	0	17,099	0	0	0	0	233,710

* Transfers out and in are usually related to the transfer of participants between divisions or municipalities.

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
2003	\$ 267,245	\$ 146,929	55%	\$ 120,316	181%
2004	280,448	172,482	62	107,966	159
2005	299,919	199,976	67	99,943	147
2006	339,953	233,710	69	106,243	146

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, 2006 actuarial valuation. The entry age normal actuarial method was used to determine the disclosure entries.

GASB 25 Information (as of 12/31/2006)

Actuarial Accrued Liability

Retirees and beneficiaries currently receiving benefits	\$2,417,612
Terminated employees (vested former members) not yet receiving benefits	289,482
Non-vested terminated employees (pending refunds of accumulated member contributions)	0
Current employees - Accumulated employee contributions including allocated investment income	0
Employer financed	<u>1,119,391</u>
Total Actuarial Accrued Liability	\$3,826,485
Net Assets Available for Benefits at Actuarial Value	<u>2,672,862</u>
(Market Value is \$2,710,253)	
Unfunded (Overfunded) Actuarial Accrued Liability	\$1,153,623

GASB 27 Information (as of 12/31/2006)

Fiscal Year Beginning	July 1, 2008
Annual Required Contribution (ARC)	\$ 116,784*
Amortization Factor Used - Underfunded Liabilities (29 years)	0.054719
Amortization Factor Used - Underfunded Liabilities (20 years)	0.069773
Amortization Factor Used - Underfunded Liabilities (30 year level \$)	0.085453

* Based on valuation payroll. For divisions that are open to new hires the actual required contribution will be based on current monthly payroll (during the fiscal year beginning July 1 2008) times the computed employer contribution rate(s) shown in Tables 15 and 16. The

Table 24

**Development of Projected Unfunded Accrued Liability
At Beginning of Fiscal Year (July 1, 2008)**

Division	Unfunded Accrued Liability 12/31/2006	Employer Normal Cost	Expected Employer Contrib.	Interest	Unfunded Accrued Liability 7/1/2008	Projected Fiscal Year Payroll
01 - Gnrl Oth #	\$ 267,627	\$ 0	\$ (23,586)	\$ 31,600	\$ 275,641	\$ -
02 - Police	754,898	48,350	(105,435)	89,975	787,788	370,445
10 - NonUnion	24,855	12,256	(19,988)	2,610	19,733	105,285
11 - City Mgr	106,243	16,150	(24,733)	12,565	110,225	81,132

This division is closed to new hires.

The unfunded accrued liability as of December 31, 2006 (see Table 13) is projected to the beginning of the fiscal year for which employer contributions are being calculated (July 1, 2008). This allows the 2006 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 are closed to 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.

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 MERS' Employer Services Division, to the attention of Laura Kramer (800-767-6377; LKramer@mersofmich.com).

Division 01 - Pleasant Rdg, City of-Gnrl Oth

Provisions by Date

7/3/1996	Benefit B-1
6/1/1996	Temporary Benefit B-2
6/1/1996	6 Year Vesting
1/1/1985	Benefit E-2 Annual Increases for future retirees (1984-07-01)
7/1/1984	Benefit B-1
7/1/1983	Benefit F55 (With 25 Years of Service)
7/1/1982	Member Contribution Rate 0%
12/1/1970	10 Year Vesting
10/14/1969	Covered by Act 88
10/1/1969	Benefit C-1 (Old)
5/1/1946	Benefit C (Old)
5/1/1946	No Benefit Maximum
5/1/1946	Benefit FAC-5 (5 Year Final Average Compensation)
5/1/1946	Member Contribution Rate 3.00% Under \$4,200 - Then 5.00%
5/1/1946	Fiscal Year - July

Division 02 - Pleasant Rdg, City of-Police

Provisions by Date

1/1/2005	8 Year Vesting
7/1/1998	Benefit B-4
7/1/1992	Benefit B-3
7/1/1992	Benefit Maximum 80% of FAC
7/1/1989	Benefit B-2
7/1/1989	Benefit F50 (With 25 Years of Service)
7/1/1989	No Benefit F55
7/1/1982	Member Contribution Rate 0%
7/1/1980	Benefit F55 (With 25 Years of Service)
12/1/1970	10 Year Vesting
10/14/1969	Covered by Act 88

Table 25 (continued)**Benefit Provision History****Division 10 - Pleasant Rdg, City of-NonUnion**

Provisions by Date

4/1/2001	Benefit B-4
4/1/2001	Benefit Maximum 80% of FAC
9/1/1990	Benefit B-1
9/1/1990	No Benefit Maximum
9/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
9/1/1990	8 Year Vesting
9/1/1990	Member Contribution Rate 0%
9/1/1990	Fiscal Year - July
1/1/1985	Benefit E-2 Annual Increases for future retirees (1984-07-01)
10/14/1969	Covered by Act 88

Division 11 - Pleasant Rdg, City of-City Mgr

Provisions by Date

1/1/2003	Benefit E-2 Annual Increases for future retirees (2002-07-01)
7/1/2002	Benefit B-4
7/1/2002	Benefit Maximum 80% of FAC
7/1/2002	Benefit F55 (With 15 Years of Service)
7/1/2002	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/2002	8 Year Vesting
7/1/2002	Member Contribution Rate 0%
7/1/2002	Fiscal Year - July
10/14/1969	Covered by Act 88

APPENDIX

**SUMMARY OF
PLAN PROVISIONS
AND
ACTUARIAL ASSUMPTIONS
AND
ACTUARIAL FUNDING METHOD**

AS OF DECEMBER 31, 2006

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 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, 2006 actuarial valuation are those adopted by the Retirement Board. The actuarial assumptions were last revised as of December 31, 2004 to reflect the results of the study of plan experience covering the period from December 31, 1998 through December 31, 2003.

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.

SUMMARY OF PLAN PROVISIONS

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 and satisfaction of the eligibility requirements for retirement. The deferred retirement allowance is commuted in the same manner as a service retirement allowance. based on the benefit

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 B - Contact MERS office for details. Benefit B 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 65 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 45). 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)

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 45). 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,

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 a 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 45). 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 1. The interest rate credited for the 12-month period ending on the valuation date was 4.32%.

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.

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

IRC Section 415(b)(1)(A) Benefit Dollar Limits - 2007

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, Fire & Emergency Medical#
35	\$ 31,863	\$ 180,000
36	33,689	180,000
37	35,633	180,000
38	37,704	180,000
39	39,910	180,000
40	42,265	180,000
41	44,778	180,000
42	47,464	180,000
43	50,336	180,000
44	53,412	180,000
45	56,708	180,000
46	60,244	180,000
47	64,043	180,000
48	68,129	180,000
49	72,530	180,000
50	77,276	180,000
51	82,402	180,000
52	87,947	180,000
53	93,955	180,000
54	100,477	180,000
55	107,569	180,000
56	115,297	180,000
57	123,734	180,000
58	132,964	180,000
59	143,085	180,000
60	154,209	180,000
61	166,464	180,000
62	180,000	180,000
63	180,000	180,000
64	180,000	180,000
65 & older	180,000	180,000

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, 2006 actuarial valuation are unchanged from the December 31, 2005 valuation assumptions. 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 2006 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.

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% 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% 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

Inflation

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

Payroll Growth

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 for members with less than 5 years of service, and based on age for members with 5 or more years of service.

Sample rates of withdrawal from active employment are shown below. These rates were first used for the December 31, 2000 actuarial valuations.

Sample Ages	Years of Service	% of Active Members Withdrawing Within the Next Year
	0	18.00%
	1	18.00
	2	16.00
	3	12.00
	4	10.00
20	5 and over	9.00
25		9.00
30		9.00
35		7.00
40		5.00
45		4.00
50		4.00
55		3.00
60		3.00
65		2.00
70		0.00

Retirement Rates

A schedule of retirement rates is used to measure the probability of eligible members retiring during the next year. To reflect the impact plan design may have on retirement experience, separate retirement rates apply to valuation divisions without Benefits F50, F55 or F(N), to those divisions that have adopted F55, to those that have adopted F50, and to those that have adopted F(N). The retirement rates in use for each category are shown below and on the next page. The Normal Retirement rates were first used for the December 31, 2000 actuarial valuations. The Early Retirement rates were first used for the December 31, 2004 actuarial valuations.

NORMAL RETIREMENT - AGE BASED BENEFIT PROVISIONS - F(N) NOT ADOPTED

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year		
	Without F50 or F55 or F(N)	With F55	With F50
50			22%
51			22
52			22
53			22
54			24
55		18%	18
56		15	14
57		10	16
58		15	18
59		20	18
60	20%	20	20
61	24	24	24
62	24	24	24
63	24	24	24
64	27	27	27
65	30	30	30
66	30	30	30

NORMAL RETIREMENT - SERVICE BASED BENEFIT PROVISION - F(N) ADOPTED

Age	Percent of Eligible Active Members Retiring Within Next Year	Age	Percent of Eligible Active Members Retiring Within Next Year	Age	Percent of Eligible Active Members Retiring Within Next Year
40	22%	51	22%	61	24%
41	22	52	22	62	24
42	22	53	22	63	24
43	22	54	24	64	27
44	22	55	18	65	30
45	22	56	14	66	30
46	22	57	16	67	30
47	22	58	18	68	30
48	22	59	18	69	30
49	22	60	20	70	100
50	22				

Municipalities that have adopted a non-standard benefit multiplier after December 31, 1996 that is in excess of the B-4, 2.5% multiplier, will have a retirement rate equal to 75% at the first age at which unreduced plan benefits are available.

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	1

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

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

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.
- Decrement Relativity - Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
- Decrement Operation - Disability and death-in-service decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.
- Normal Form of Benefit - Future retiring members are assumed to elect:
- | <u>Form of Payment</u> | <u>Percentage</u> |
|------------------------|-------------------|
| SL | 45% |
| II | 25 |
| 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.
- 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.

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;
- 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 meet this objective and 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

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, 2006, 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 34 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 29 years for positive unfunded liabilities in the 2006 valuation. This period will be reduced by one year in each of the next four annual valuations, reaching 25 years in the 2010 valuation. Beginning with the 2011 valuation the 25 year period will be reestablished with each annual valuation. The standard amortization period for negative unfunded liabilities is 10 years, with the 10 year period reestablished with each annual actuarial 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. For divisions that are closed to new hires, the amortization period for positive unfunded liabilities 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:

Present Value of Accrued Benefits

The present value of accrued benefits represents the actuarial value of benefits that have been earned as of the valuation date for all members of the valuation division. This benefit reflects the final average compensation and plan benefit service of each member, and plan features of the member's valuation division as of the valuation date. Included in this value is the current value of vested benefits for members who have met plan vesting requirements and the current value of non-vested benefits for members who have not yet met plan vesting requirements. Regardless of plan vesting service, all member contributions are vested. Active members are assumed to continue in employment until retirement, death, disability or termination, but benefit amounts are frozen, for valuation purposes only, on the valuation date.

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).

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 2006, 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 8.14%. The corresponding amounts for 2005, 2004, 2003, and 2002 were 6.51%, 6.82%, 8.00%, and 3.43%, respectively.

For the December 31, 2006 valuation, the actuarial value of assets is equal to 98.62% of market value (compared to 102.71%, 102.45%, 109.52%, and 125.85% in 2005, 2004, 2003, and 2002, 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 58 provides the details of the derivation of the actuarial value of assets for the retirement system in the aggregate.

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

Date December 31:	2006	2007	2008	2009	2010
Assets					
Market Value	\$ 4,906,288,690				
Income = (3d) - (3a) - (3c)	5,039,071,709				
Losses = (3d) - (3a) - (3c)	5,590,042,317				
Net Market Value = (2) - (1a)	371,505,157				
Assets =	622,409,716				
Investment Return = 8% x (4)	(310,161,246)				
Investment Return = 8% x (4)	683,753,627				
Investment Return = 8% x (4)	5,069,743,665				
Investment Return = 8% x (4)	405,579,493				
Investment Return = 8% x (4)	216,830,223				
Investment Return = 8% x (4)	21,683,022	21,683,022	21,683,022	21,683,022	21,683,022
Investment Return = 8% x (4)	(14,753,669)	(14,753,669)	(14,753,669)	(14,753,669)	(14,753,669)
Investment Return = 8% x (4)	6,929,353	6,929,353	6,929,353	6,929,353	6,929,353
Investment Return = 8% x (4)	473,852,757				
Investment Return = 8% x (4)	5,590,042,317				
Investment Return = 8% x (4)	5,512,924,466				
Investment Return = 8% x (4)	77,117,851				
Investment Return = 8% x (4)	8.14%				
Investment Return = 8% x (4)	12.61%				
Investment Return = 8% x (4)	0.986204				

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

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