

11-0460

MINNEAPOLIS POLICE RELIEF ASSOCIATION

SPECIAL FUND

*December 31, 2010
Actuarial Valuation*

MINNEAPOLIS POLICE RELIEF ASSOCIATION

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*December 31, 2010
Actuarial Valuation*

April 2011

MINNEAPOLIS POLICE RELIEF ASSOCIATION
December 31, 2010 Actuarial Valuation

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MINNEAPOLIS POLICE RELIEF ASSOCIATION

December 31, 2010 Actuarial Valuation

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Introduction and Actuarial Certification

Purposes of the valuation

This report presents the results of the December 31, 2010 actuarial valuation for the Minneapolis Police Relief Association. Its intended purposes are:

- to determine the funded status as of December 31, 2010
- to determine the normal cost and the required amortization payment to be used in computing the tax levy payable in 2012, and
- to present information required to be disclosed under Governmental Accounting Standards Board Statement No. 25 (GASB 25) as of December 31, 2010.

Sources of data

The Relief Association supplied December 31, 2010 data for all active and inactive members, including unit values and historical salary increase rates. The Relief Association has also provided asset information regarding the special fund including historical rates of return. We have relied on this data in preparing this report.

Changes from the prior year

The prior actuarial valuation of the plan as of December 31, 2009 was prepared May 2010. The actuarial assumptions and methods used to prepare this report are the same as those used in the 2009 report.

For purposes of this valuation, we have used the 88.48 unit value as of the valuation date, with a 1.5% increase on July 1, 2011. The resulting unit value is assumed to remain in effect as of January 1, 2012. All unit values after January 1, 2012 are assumed to increase 4% per year - the statutory salary increase assumption.

On May 17, 2010, the court ordered the Relief Association to collect benefit overpayments it ruled had been made to members. Due to the contingency of the appeal, and the undetermined amount of the overpayments collectable, no overpayment receivable has been included in the plan assets.

Summary of valuation results

As of December 31, 2010, the funded status of the plan (actuarial value of assets divided by actuarial accrued liabilities) is 62.8% (see page 7). This is a decrease from last year's funded ratio of 66.9%. On a market value basis, the funded status increased from 67.4% to 74.1%.

Despite the 13.7% return on the market value of assets during 2010, there was a \$23 million loss on the actuarial value of assets which is based on the book value of assets and unrealized gain/loss history (see pages 4 and 9).

Eliminating the 2008 unrealized losses from the three year average in the actuarial value of assets should result in a gain on the actuarial value of assets during 2011. This would result in a significant reduction in the required amortization payment.

Because the five-year average rate of return on investments as of the valuation date exceeds the five-year average salary increase rate by at least 2%, a "13th Check" is due in 2011.

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Introduction and Actuarial Certification (continued)

Actuarial certification

We certify that the actuarial valuation has been prepared in accordance with Minnesota Statutes §§356.20-.23, §423B, and §69.77 as they relate to police department relief association in cities of the first class in general and the Minneapolis Police Relief Association in particular.

We also certify that we have made a good faith effort to comply with the November 20, 2009 District Court Order in all respects and in a manner intended to conform to Minnesota State law and generally accepted actuarial principles. Therefore, if the District Court Order is overturned by the Court of Appeals, this report would be invalid and could not be used for any purpose because the plan liabilities would materially increase.

We are available to answer any questions on the material contained in this report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

We believe the results are reasonable and fairly represent the actuarial status of this plan.

Respectfully submitted,



Mark D. Meyer, FSA, MAAA
Consulting Actuary



Peter J. Cullen, EA, MAAA
Consulting Actuary

L/D/C/R: 4/GG/PC/MM

April 2011

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Summary of Results

<u>A. Plan participant data</u>	<u>December 31, 2009</u>	<u>December 31, 2010</u>	<u>Change</u>
1. Number of participants			
a. Active employees	11	8	(3)
b. Terminated vested employees	0	0	0
c. Retirees	589	565	(24)
d. Disability	0	0	0
e. Surviving spouses	239	241	2
f. Surviving children	<u>0</u>	<u>0</u>	<u>0</u>
g. Total	839	814	(25)
<u>B. Normal costs</u>			
1. Total normal cost			
a. Amount	\$131,692	\$95,123	(\$36,569)
b. Percentage of active payroll	13.02%	14.16%	1.14%
2. Employer normal cost			
a. Amount	50,750	41,395	(\$9,355)
b. Percentage of active payroll	5.02%	6.16%	1.14%
<u>C. Amortization payments</u>			
1. Unfunded actuarial accrued liability	\$137,636,587	\$151,322,531	\$13,685,944
2. Amortization payment	17,636,212	20,652,446	3,016,234
<u>D. Value of plan assets</u>			
1. Market value	279,933,574	301,008,826	21,075,252
2. Actuarial value (for calculating contributions)	277,847,097	254,933,933	(22,913,164)
<u>E. Benefit liabilities</u>			
1. Present value of future benefits	415,615,376	406,351,587	(9,263,789)
2. Actuarial accrued liability	415,483,684	406,256,464	(9,227,220)
<u>F. Funded status</u>			
1. Market value of assets as a percent of liabilities	67.4%	74.1%	6.7%
2. Actuarial value of assets as a percent of liabilities	66.9%	62.8%	-4.1%

MINNEAPOLIS POLICE RELIEF ASSOCIATION

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Actuarial Value of Assets

A. Unrealized gain

<u>Year Ending December 31:</u>	<u>Market Value</u>	<u>Book Value</u>	<u>Unrealized Gain (Market - Book)</u>
2007	389,025,966	330,008,751	59,017,215
2008	249,250,215	307,540,360	(58,290,145)
2009	279,933,574	276,440,323	3,493,251
2010	301,008,826	261,552,500	39,456,326

B. Preliminary actuarial value of assets

	<u>December 31, 2009</u>	<u>December 31, 2010</u>
1. Book value of assets	276,440,323	261,552,500
2. Average unrealized gain for previous three years	<u>1,406,774</u>	<u>(5,113,523)</u>
3. Preliminary actuarial value	277,847,097	256,438,977

C. Excess investment income

1. Salary increases and time-weighted rate of return on assets

<u>Fiscal Year</u>	<u>Salary Increase</u>	<u>Asset Return</u>
2005	3.082%	5.9%
2006	1.932%	13.7%
2007	2.245%	7.2%
2008	7.635%	-29.8%
2009	-0.856%	26.5%
2010	-8.731%	13.7%

2. Determination of excess investment income

a. Arithmetic average of previous 5 years salary increases	2.808%	0.445%
b. Arithmetic average of previous 5 years of asset returns	<u>4.700%</u>	<u>6.260%</u>
c. Excess of asset return over salary increase	1.892%	5.815%
d. Excess minus 2%	0.000%	3.815%
e. Lesser of 0.5% or 2.d., times market value (not < 0)	\$0	\$1,505,044
f. December 2009/2010 monthly benefits paid	2,878,444	2,509,285
g. 13th check due for 2010/2011 (lesser of e. or f.)	<u>0</u>	<u>1,505,044</u>

D. Actuarial value of assets (B.3. - C.2.f.)

	\$277,847,097	\$254,933,933
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This asset valuation method is prescribed by Minn. Stat. §356.216(b)(1).

MINNEAPOLIS POLICE RELIEF ASSOCIATION
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Summary of Member Data

	<u>December 31, 2009</u>	<u>December 31, 2010</u>
<u>A. Active members</u>		
1. Number		
a. Fully vested	11	8
b. Nonvested	<u>0</u>	<u>0</u>
c. Total	11	8
2. Average age	61.6	61.6
3. Average years of service	37.8	38.2
4. Average annualized unit value salary	\$91,980	\$83,950
<u>B. Vested terminated members</u>		
1. Number	0	0
2. Average age	0.0	0.0
3. Total annual deferred benefits	\$0	\$0
<u>C. Retirees</u>		
1. Retirees	589	565
2. Disability	<u>0</u>	<u>0</u>
3. Total	589	565
4. Average age	70.2	70.7
5. Total annual benefits	\$25,336,396	\$24,775,071
6. Average annual benefit	\$43,016	\$43,850
<u>D. Beneficiaries</u>		
1. Spouses	239	241
2. Children	<u>0</u>	<u>0</u>
3. Total	239	241
4. Average age	78.8	79.4
5. Total annual benefits	\$5,787,523	\$5,950,065
6. Average annual benefit	\$24,216	\$24,689
<u>E. Total number of members</u>	839	814

MINNEAPOLIS POLICE RELIEF ASSOCIATION
December 31, 2010 Actuarial Valuation

Summary of Changes in Membership

	<u>Actives</u>	<u>Vested Terminees</u>	<u>Retirees</u>	<u>Beneficiaries</u>	<u>Total</u>
<u>A. Number of members on January 1, 2010</u>	11	0	589	239	839
<u>B. Changes in membership</u>					
1. Retirements	(3)		3		0
2. Vested terminations					0
3. Active deaths					0
4. Retiree deaths			(27)	15	(12)
5. Beneficiary deaths				(13)	(13)
6. Expiration of surviving child benefits					0
7. Corrections					0
8. Total changes	(3)	0	(24)	2	(25)
<u>C. Number of members on December 31, 2010</u>	8	0	565	241	814

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Actuarial Values Used to Determine Contribution

	<u>December 31, 2009</u>	<u>December 31, 2010</u>
<u>A. Actuarial present value of projected benefits (the value of all future benefits to be paid to the current group of members)</u>		
1. Active members	\$8,472,550	\$6,368,513
2. Vested terminated members	0	0
3. Retired members	354,541,309	347,001,627
4. Spouses and children receiving benefits	52,601,517	52,981,447
5. Disabled members receiving benefits	0	0
6. Total present value of projected benefits	415,615,376	406,351,587
<u>B. Actuarial accrued liability (the cost allocated to all prior years)</u>		
1. Active members	\$8,340,858	\$6,273,390
2. Vested terminated members	0	0
3. Retired members	354,541,309	347,001,627
4. Spouses and children receiving benefits	52,601,517	52,981,447
5. Disabled members receiving benefits	0	0
6. Total actuarial accrued liability	415,483,684	406,256,464
<u>C. Amortization of unfunded actuarial accrued liability</u>		
1. Total actuarial accrued liability (B.6.)	\$415,483,684	\$406,256,464
2. Actuarial value of assets	277,847,097	254,933,933
3. Unfunded actuarial accrued liability (1. - 2.)	137,636,587	151,322,531
4. Funded status (2. / 1.)	66.9%	62.8%
5. Years left in amortization period	10	9
6. Amortization payment (see page 8)	17,636,212	20,652,446
<u>D. Normal cost (the cost allocated to the current year)</u>		
1. Present value of future normal costs (A.6. - B.6.)	\$131,692	\$95,123
2. Normal cost as a dollar amount		
a. Total normal cost	131,692	95,123
b. Statutory adjustment for member contributions	80,942	53,728
c. Employer normal cost (a. - b.)	50,750	41,395
3. Estimated payroll for year ending on valuation date	1,011,780	671,600
4. Normal cost as a percent of active payroll		
a. Total normal cost (2.a. / 3.)	13.02%	14.16%
b. Statutory adjustment for member contributions (2.b. / 3.)	8.00%	8.00%
c. Employer normal cost (a. - b.)	5.02%	6.16%

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Amortization Schedule

<u>Assumed Payment Date</u>	<u>Amortization Payment</u>	<u>Present Value as of 12/31/2010</u>	<u>Amortization Based on Valuation December 31</u>
10/1/2011	\$17,636,212	\$16,879,346	2009
10/1/2012	20,652,446	18,647,300	2010
10/1/2013	20,652,446	17,591,792	2010
10/1/2014	20,652,446	16,596,030	2010
10/1/2015	20,652,446	15,656,632	2010
10/1/2016	20,652,446	14,770,408	2010
10/1/2017	20,652,446	13,934,347	2010
10/1/2018	20,652,446	13,145,610	2010
10/1/2019	20,652,446	12,401,519	2010
10/1/2020	20,652,446	11,699,546	2010
Total Present Value of Amortization Payments (at 6%)			151,322,531
Unfunded Actuarial Accrued Liability as of 12/31/2010			151,322,531

Minn. Stat. §356.216(a)(2) provides, in part, that the unfunded obligation is to be amortized on a level dollar basis by December 31, 2020.

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Changes in the Unfunded Actuarial Accrued Liability

A. Liability gain or loss for the year ending on December 31, 2010

1. Expected actuarial accrued liability (AAL)	
a. AAL as of December 31, 2009	\$415,483,684
b. Normal cost as of December 31, 2009 (excluding expenses)	131,692
c. Interest to December 31, 2010 on the AAL and normal cost	24,936,923
d. Benefit payments for the year	(30,749,300)
e. Interest on benefit payments (1/2 year)	(922,479)
f. Expected AAL on December 31, 2010 (sum of a. through e.)	408,880,520
2. Actual AAL on December 31, 2010	
a. Before any assumption or plan changes	406,074,174
b. After unit value changes	406,256,464
c. After assumption and unit value changes	406,256,464
d. After plan changes	406,256,464
3. Liability (gain) or loss	
a. Due to plan experience different from that expected (2a. - 1f.)	
i. Data corrections	1,705,490
ii. Mortality and other	(4,511,836)
b. Due to change in unit value different from expected (2.b. - 2.a.)	182,290
c. Due to changes in actuarial assumptions (2c. - 2b.)	0
d. Due to plan changes (2d. - 2c.)	0
e. Total (a. + b. + c. + d.)	(2,624,056)

B. Asset gain or loss for the year ending on December 31, 2010

1. Expected actuarial value of assets	
a. Actuarial value of assets on December 31, 2009	277,847,097
b. Actual benefit payments and expenses for the year	(31,516,874)
c. Actual contributions for the year	15,211,515
d. Expected return on assets	<u>16,181,665</u>
e. Expected actuarial value of assets on December 31, 2010 (sum of a. through d.)	277,723,403
2. Actual actuarial value of assets on December 31, 2010	254,933,933
3. Asset (gain) or loss (1e. - 2.)	22,789,470

C. Changes in the unfunded AAL

1. Expected unfunded AAL on December 31, 2010	131,157,117
2. Changes	
a. Actuarial (gain) or loss other than change in unit value	19,983,124
b. Change in unit value different from expected	182,290
c. Changes in actuarial methods and assumptions	0
d. Plan change	0
e. Total change	20,165,414
3. Unfunded AAL on December 31, 2010	151,322,531

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Statement of Plan Net Assets as of December 31, 2010

	<u>Market Value</u>	<u>Book Value</u>
<u>A. Investment assets</u>		
Fixed income	17,941,369	17,308,034
Corporate stock	29,576,558	25,408,868
State Board of Investments	153,834,942	124,362,819
Mutual funds	87,569,575	77,389,985
Other investments	8,340,096	13,336,508
Cash equivalents	<u>6,190,062</u>	<u>6,190,062</u>
Total	303,452,602	263,996,276
<u>B. Checking account</u>		
	13,093	13,093
<u>C. Accrued/payable</u>		
Accrued investment income	164,150	164,150
Investment sales receivable	41,269	41,269
Miscellaneous receivable	361,824	361,824
Investment purchases payable	(373,731)	(373,731)
Accounts payable	(2,394,828)	(2,394,828)
Benefits payable	<u>(255,553)</u>	<u>(255,553)</u>
Total	(2,456,870)	(2,456,870)
<u>D. Total pension assets (A. + B. + C.)</u>		
	301,008,826	261,552,500

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December 31, 2010 Actuarial Valuation

Statement of Changes in Plan Net Assets

	<u>2009</u>	<u>2010</u>
<u>A. Additions</u>		
1. Contributions		
a. City of Minneapolis	2,081,211	11,635,632
b. State of Minnesota	3,424,326	3,575,883
c. Other	<u>0</u>	<u>0</u>
d. Total	5,505,537	15,211,515
2. Investment income net of direct investment fees	59,591,336	36,300,887
3. Proceeds from unclaimed property and other	<u>1,169,100</u>	<u>272,054</u>
4. Total additions	66,265,973	51,784,456
<u>B. Deductions</u>		
1. Benefits paid		
a. Regular benefit payments	34,747,136	30,749,300
b. Post-retirement payments	<u>0</u>	<u>0</u>
c. Total	34,747,136	30,749,300
2. Administrative expenses	<u>835,477</u>	<u>767,574</u>
3. Total deductions	35,582,613	31,516,874
<u>C. Net increase (A.5. - B.3.)</u>	30,683,359	20,267,582
<u>D. Net assets held in special fund</u>		
1. Beginning of year	249,250,215	279,933,574
2. Post closing audit adjustments	<u>0</u>	<u>807,670</u>
3. End of year	279,933,574	301,008,826

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Schedule of Funding Progress

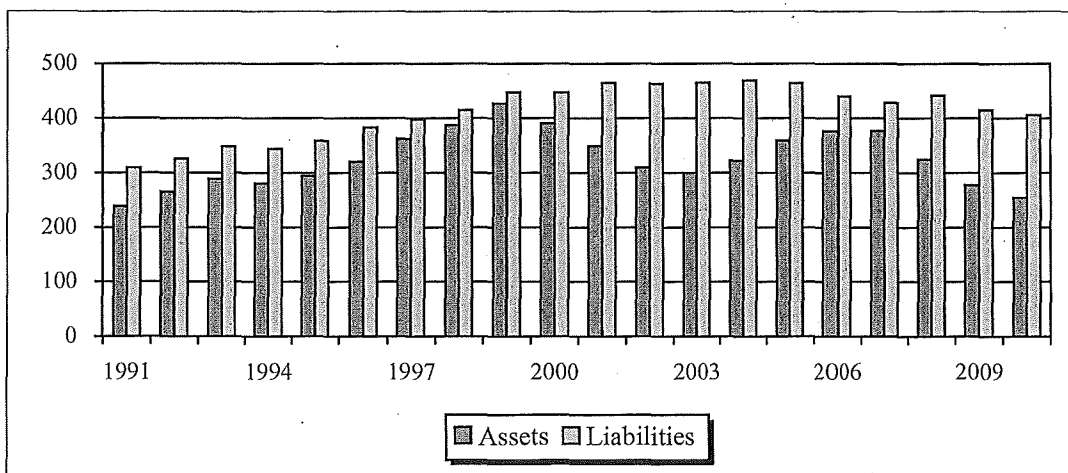
(Dollar amounts in thousands)

<u>As of December 31:</u>	<u>Actuarial Value of Assets</u>	<u>Actuarial Accrued Liability (AAL)</u>	<u>Unfunded AAL (UAAL)</u>	<u>Funded Ratio</u>
1989	\$211,081	\$290,537	\$79,456	72.7%
1990 ¹	223,919	299,151	75,232	74.9%
1991	238,975	309,429	70,454	77.2%
1992 ¹	265,307	325,891	60,584	81.4%
1993 ¹	288,942	347,879	58,937	83.1%
1994 ¹	280,772	344,087	63,315	81.6%
1995	294,692	358,657	63,965	82.2%
1996	320,686	382,957	62,271	83.7%
1997	362,683	398,728	36,045	91.0%
1998 ¹	387,530	414,694	27,164	93.4%
1999	427,122	447,596	20,474	95.4%
2000	391,083	447,086	56,003	87.5%
2001	349,170	464,649	115,479	75.1%
2002	309,667	463,487	153,820	66.8%
2003	300,154	465,276	165,122	64.5%
2004 ¹	322,278	469,557	147,279	68.6%
2005	359,032	464,222	105,190	77.3%
2006	377,013	439,992	62,979	85.7%
2007	376,466	428,281	51,815	87.9%
2008 ²	324,723	506,949	182,226	64.1%
2008 ³	324,723	441,799	117,076	73.5%
2009	277,847	415,484	137,637	66.9%
2010	254,934	406,256	151,323	62.8%

¹ After change in benefit and funding provisions, from restated report

² As stated in original December 31, 2008 report, after change in mortality assumption

³ After court-ordered change to unit value, from restated December 31, 2008 report



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Schedule of Employer Contributions

<u>Year Ended</u> <u>December 31:</u>	<u>City</u> <u>Contributions</u>	<u>State</u> <u>Contributions</u>	<u>Total</u> <u>Employer</u> <u>Contributions</u>
1992	\$5,926,443	\$2,975,695	\$8,902,138
1993	5,664,620	2,550,138	8,214,758
1994	4,437,124	2,354,380	6,791,504
1995	4,583,006	3,776,109	8,359,115
1996	4,144,998	4,317,908	8,462,906
1997	3,907,944	3,630,557	7,538,501
1998	2,698,561	3,431,684	6,130,245
1999	698,080	3,021,373	3,719,453
2000	1,295,071	3,268,063	4,563,134
2001	10,812	3,448,383	3,459,195
2002	2,912,060	5,413,835	8,325,895
2003	13,540,305	5,879,854	19,420,159
2004	20,800,530	7,089,022	27,889,552
2005	24,976,747	6,573,582	31,550,329
2006	5,366,224	5,200,521	10,566,745
2007	3,647,229	3,167,214	6,814,443
2008	3,535,999	2,275,349	5,811,348
2009	2,870,590	3,424,326	6,294,916
2010	11,635,632	3,575,883	15,211,515

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Historical Unit Values

	Effective Date	Contract Unit Values	Months Paid	Historical Salary Rates for PRB		
				Annualized Unit Values	Annualized Return	5-Year Average
2000	01/01/2000	68.36	9.5	68.7350		
	10/15/2000	70.16	2.5			
2001	01/01/2001	73.16	9.5	73.6850	7.202%	
	10/15/2001	75.68	2.5			
2002	01/01/2002	77.74	9.5	78.2275	6.165%	
	10/15/2002	80.08	2.5			
2003	01/01/2003	80.08	9.5	80.7279	3.196%	
	10/15/2003	83.19	2.5			
2004	01/01/2004	83.19	9.5	83.5733	3.525%	
	10/15/2004	85.03	2.5			
2005	01/01/2005	85.03	2.0	86.1488	3.082%	4.634%
	03/01/2005	86.02	7.5			
	10/15/2005	87.43	2.5			
2006	01/01/2006	87.43	9.5	87.8133	1.932%	3.580%
	10/15/2006	89.27	2.5			
2007	01/01/2007	89.27	9.5	89.7846	2.245%	2.796%
	10/15/2007	91.74	2.5			
2008	01/01/2008	96.64	9.5	96.6400	7.635%	3.684%
	10/15/2008	96.64	2.5			
2009	01/01/2009	96.64	11.0	95.8125	-0.856%	2.808%
	12/01/2009	86.71	1.0			
2010	01/01/2010	86.71	7.0	87.4475	-8.731%	0.445%
	08/01/2010	88.48	5.0			
2011	01/01/2011	88.48	6.0	89.1450	1.941%	0.447%
	07/01/2011	89.81	6.0			
2012	01/01/2012	89.81	12.0	89.8100	0.746%	0.147%

Contract Unit Values: MPRA has determined that the unit value under the November 20, 2009 order was 88.48 as of December 31, 2010. Based on the labor agreement effective through December 31, 2011, a 1.5% increase is expected July 1, 2011.

MINNEAPOLIS POLICE RELIEF ASSOCIATION

December 31, 2010 Actuarial Valuation

History of Actuarially Determined Employer Contributions

<u>Valuation December 31:</u>	<u>Normal Cost as a Percent of Payroll</u>	<u>Amortization of Unfunded Actuarial Liability</u>
1989	24.53%	\$6,727,495
1990	25.61%	6,547,850
1991	25.58%	6,319,193
1992	25.62%	5,615,587
1993	25.57%	5,663,676
1994	25.43%	6,331,000
1995	24.91%	6,683,106
1996	24.83%	6,831,165
1997	24.66%	4,175,261
1998	26.53%	3,344,809
1999	26.50%	2,624,238
2000	24.03%	7,767,618
2001	23.10%	17,543,533
2002	21.56%	25,994,756
2003	19.78%	31,678,807
2004 ¹	18.96%	14,305,932
2005	17.93%	10,676,247
2006	16.87%	6,711,413
2007	15.81%	5,830,498
2008 ²	17.61%	21,797,105
2008 ³	15.30%	14,004,122
2009	13.02%	17,636,212
2010	14.16%	20,652,446

The required municipal normal cost contribution is the total normal cost shown less an 8% adjustment for member payroll contributions.

¹ *After change in benefit and funding provisions, from restated report*

² *As stated in original December 31, 2008 report*

³ *After court-ordered change to unit value, from restated December 31, 2008 report*

MINNEAPOLIS POLICE RELIEF ASSOCIATION

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*December 31, 2010 Actuarial Valuation***Comparative Schedule of Active Members**

<u>Valuation</u> <u>December 31:</u>	<u>Number of</u> <u>Active</u> <u>Members</u>	<u>Projected</u> <u>Payroll</u>	<u>Averages</u>		
			<u>Age</u>	<u>Service</u>	<u>Pay</u>
1989	460	\$18,421,160	46.6	21.0	\$40,046
1990	433	17,859,951	47.3	21.8	41,247
1991	410	17,658,290	48.0	22.5	43,069
1992	381	16,913,352	48.5	23.2	44,392
1993	349	16,576,802	49.2	24.0	47,498
1994	307	14,799,242	49.8	24.6	48,206
1995	278	13,937,530	50.3	25.3	50,135
1996	239	13,002,556	50.9	25.9	54,404
1997	188	10,817,520	51.1	26.3	57,540
1998	148	8,856,616	51.5	26.8	59,842
1999	123	7,503,881	51.3	26.6	61,007
2000	97	6,583,342	51.7	27.2	67,870
2001	73	5,238,480	52.6	28.4	71,760
2002	53	3,955,411	53.7	29.4	74,630
2003	24	1,860,356	55.0	30.4	77,515
2004	18	1,429,255	55.2	31.1	79,403
2005	17	1,403,846	57.4	33.3	82,579
2006	15	1,236,046	58.8	34.5	82,403
2007	14	1,185,563	59.7	35.8	84,683
2008	14	1,248,886	60.7	36.8	89,206
2009	11	923,269	61.6	37.8	83,934
2010	8	684,634	61.6	38.2	85,579

MINNEAPOLIS POLICE RELIEF ASSOCIATION
December 31, 2010 Actuarial Valuation

Comparative Schedule of Inactive Members

As of December 31:	Number of Retirees and Beneficiaries			Actual Benefits	Annual Benefits	Present Value of Benefits
	Added to Rolls	Removed from Rolls	On Valuation Date			
1989	40	31	752	\$12,988,156	\$12,007,149	\$163,236,324
1990	33	33	752	13,179,656	12,579,039	169,649,676
1991	30	25	757	12,726,042	13,152,752	175,237,680
1992	55	28	784	14,764,375	14,352,332	192,504,840
1993	45	33	796	15,646,456	15,690,269	212,051,856
1994	56	40	812	18,040,942	17,238,698	226,104,506
1995	35	39	808	17,597,704	17,375,347	235,698,327
1996	51	28	831	20,240,597	19,435,342	263,685,600
1997	82	35	878	25,513,260	21,662,581	298,497,984
1998	65	23	920	24,511,366	24,020,183	330,745,536
1999	34	37	917	26,213,944	26,701,339	368,568,524
2000	34	37	924	30,697,541	28,043,660	385,062,755
2001	41	34	933	30,503,691	30,398,324	413,026,264
2002	35	40	928	30,724,261	31,446,287	423,583,483
2003	40	31	935	31,855,476	33,194,254	447,163,590
2004 ¹	40	31	921	32,797,952	34,479,242	455,208,169
2005	10	27	904	33,789,746	34,157,890	450,360,551
2006	19	39	884	34,121,401	34,216,563	428,105,651
2007	14	38	860	36,033,230	34,191,406	417,106,358
2008	16	30	846	37,607,090	34,920,495	430,300,320
2009	17	35	828	34,747,136	31,123,919	407,142,826
2010	18	40	806	30,749,300	30,725,136	399,983,074

¹ After change in benefit and funding provisions, from restated report

Actuarial Methods and Assumptions

- | | |
|----------------------------|--|
| 1. Mortality | The 1983 GAM mortality table set back 2 years for males and set forward 1 year for females. |
| 2. Retirement Age | Active members are assumed to retire in one year. |
| 3. Interest Rate | 6% compounded annually.* |
| 4. Unit value/Salary Scale | The unit value under the November 20, 2009 order is 88.48 as of December 31, 2010. The unit value is expected to increase 1.5% on July 1, 2011. That unit value is assumed to remain in effect as of January 1, 2012. All unit values after January 1, 2012 are assumed to increase 4% per year.* |
| 5. Actuarial Cost Method | The Entry Age Normal Cost Method. Under this method, the normal cost for an individual member is the level percentage of pay required, beginning on the date of joining the association, to accumulate the funds needed to pay the member's accrued benefits by their assumed retirement age. The actuarial accrued liability is the accumulated value of these annual normal costs on a given date. The normal cost and accrued liability for the plan is the total of these values for all members.* |
| 6. Beneficiary Data | 85% of active employees are assumed to be married with wives 3 years younger than husbands. Actual spouse data is available for retirees, so no assumption is needed. |

* The interest rate and unit value increase assumptions and the actuarial cost method are prescribed by Minnesota Statute §356.215. The remaining assumptions cannot be changed without approval by the Legislative Commission on Pensions and Retirement.

Minn. Stat. §69.77 subd. 4(c)(2) requires that there be no explicit recognition of expenses. This may need to be revised as the plan matures.

Summary of Plan Provisions

1. Normal Retirement Benefit
Annual benefit of 30.40/80 of base pay for first 19 years of service. An additional 4.60/80 units are awarded for the 20th year of service. For service years in excess of 20, an additional 1.60/80 is granted; to a maximum of 25 years of service and 43/80 of base pay. "Base pay" for this purpose means the maximum monthly salary of a first class patrolman. Members must be at least age 50 with 5 years of service to receive this benefit.

2. Surviving Spouse's Benefit
Annual benefit of 23/80 of base pay for the surviving spouse of an active or retired member.

3. Surviving Children's Benefit
Annual benefit of 8/80 of base pay for each surviving child of an active or retired member. Benefits continue to age 18 or if the child is a full-time student, to age 22. The total benefit for surviving children and spouse combined is limited to 41/80 of base pay.

4. Member Contributions
Members are required to contribute 8% of base pay. After 25 years of service, member contributions are paid to a separate health insurance account. In the event of death without survivorship, member contributions are refundable including 5% interest from the month the contribution is made.

5. Post-retirement Benefits
No liability was included for future 13th check or 110% bill payments because the amount, if any, is contingent upon future investment results and such amounts are generally not material.

Due to the advanced age and service of active members, the deferred vested and disability benefits are obsolete.