MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

SPECIAL FUND

December 31, 2010
Actuarial Valuation

VAN IWAARDEN

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December 31, 2010 Actuarial Valuation

Table of Contents

Introduction and Actuarial Certification

Purposes of the valuation

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

- to determine the funded status as of December 31, 2010
- to determine the normal cost and 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, and asset information, including the market and book value of investments as of December 31, 2010, and the amount of receivables and payables at year end. The Relief Association also provided historical salary increase rate and investment return values used in determining the actuarial value of assets. 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 in April 2010. The actuarial assumptions and methods used to prepare this report are the same as those used in the 2009 report.

Summary of valuation results

As of December 31, 2010, the funded status of the plan (actuarial accrued liabilities divided by the actuarial value of assets) is 77.4%, down from 79.1% on December 31, 2009. On a market value basis the funded status increased from 83.0% to 89.8%.

Despite the 11.85% return on the market value of assets during 2010, there was an $8 million loss on the actuarial value of assets, which is based on the book value of assets and unrealized gain loss history (see page 4 and page 10, item B).

Since the December 31, 2010 unit value is less than projected in the December 31, 2009 valuation, the plan liabilities experienced an actuarial gain of $10 million.

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 return on investments as of the valuation date exceeds the five year average unit value increase by more than 2%, a Post-Retirement Benefit is due in 2011 (see page 4).

Introduction and Actuarial Certification

Actuarial certification

We certify that the actuarial valuation has been prepared in accordance with Minnesota Statutes §356.20-.23, §69.77 and §423C as they relate to fire department relief associations in cities of the first class in general and the Minneapolis Firefighters' 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.

Mark D. Meyer, FSA, MAAA
Consulting Actuary

Peter J. Cullen, EA, MAAA
Consulting Actuary

April 2011

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

Summary of Results

A. Plan participant data	December 31, 2009	December 31, 2010	Change
1. Number of participants			
a. Active employees	24	23	(1)
b. Retirees	337	326	(11)
c. Disability	48	47	(1)
d. Survivng spouses	161	155	(6)
e. Total	570	551	(19)
2. Liability duration			
a. Average life expectancy	13.2	12.6	(0.6)
b. Average annuity factor	12.6	12.4	(0.2)
c. Benefit life expectancy	25.8	25.1	(0.7)
B. Normal costs	2009 Plan Year	2010 Plan Year	
1. Total normal cost			
a. Amount	$339,450	$353,487	$14,037
b. Percentage of active payroll	16.77%	19.45%	2.68%
2. Employer normal cost			
a. Amount	177,479	208,059	30,580
b. Percentage of active payroll	8.77%	11.45%	2.68%
C. Amortization payments			
1. Unfunded actuarial accrued liability	$53,230,770	$54,748,868	$1,518,098
2. Amortization payment	6,489,724	6,684,906	195,182
D. Value of plan assets	December 31, 2009	December 31, 2010	
1. Market value	$211,162,752	$217,162,646	$5,999,894
2. Actuarial value (for calculating contributions)	201,086,723	186,987,970	(14,098,753)
E. Benefit liabilities			
1. Present value of future benefits	254,865,028	242,282,865	(12,582,163)
2. Actuarial accrued liability	254,317,493	241,736,838	(12,580,655)
F. Funded status			
1. Actuarial value of assets as a percent of liabilities	79.1%	77.4%	-1.7%
2. Market value of assets as a percent of liabilities	83.0%	89.8%	6.8%
3. Pension payment index (months)	131	140	9

Actuarial Value of Assets

A. Average unrealized gain

Year Ending December 31:	Market Value	Book Value	Unrealized Gain/(loss) (Market - Book)
2007	274,954,486	239,806,540	35,147,946
2008	181,181,433	230,594,688	(49,413,255)
2009	211,162,752	206,330,081	4,832,671
2010	217,162,646	197,448,789	19,713,857

B. Preliminary actuarial value of assets	December 31, 2009	December 31, 2010
1. Book value of assets	206,330,081	197,448,789
2. Average unrealized gain/(loss) for previous three years	(3,144,213)	(8,288,909)
3. Preliminary actuarial value	203,185,868	189,159,880

C. Excess investment income

1. Annualized unit value changes and time-weighted rate of return on assets

Fiscal Year	Change in Annualized Unit Value	Time-Weighted Return on Assets
2005	1.524%	5.890%
2006	2.623%	12.460%
2007	1.480%	11.500%
2008	2.765%	-28.600%
2009	1.866%	27.400%
2010	-6.310%	11.850%

2. Determination of excess investment income

a. Arithmetic average of previous 5 years unit value changes	2.052%	0.485%
b. Arithmetic average of previous 5 years of asset returns	5.730%	6.922%
c. Excess of asset return over unit value increase	3.678%	6.437%
d. Excess minus 2%	1.678%	4.437%
e. Market value of assets excluding assets accrued/payable	209,914,486	217,190,963
f. Excess investment income - min of 1.0% or 2.d., x 2.e.*	2,099,145	2,171,910
g. Monthly benefit "payroll"	1,604,839	1,550,660
h. Post-retirement benefit - min of 0.5%** or 2.d., x 2.e., limited to 2.g.	1,049,572	1,085,955

D. Actuarial value of assets (B.3. - C.2.f.)	**$201,086,723**	**$186,987,970**

This asset valuation method is prescribed by Minn. Stat. §356.216(b)(1).

*The portion of excess investment income not paid to members as a post-retirement benefit is used to reduce future state aid.

**The post-retirement benefit increases if the plan is at least 102% funded.

Summary of Member Data

	December 31, 2009	December 31, 2010
A. Active members		
1. Number		
a. Fully vested	24	23
b. Nonvested	0	0
c. Total	24	23
2. Average age	58.1	59.1
3. Average years of service	33.0	34.1
4. Average annualized unit value salary	$84,360	$79,037
5. Benefit life expectancy	49.8	47.2
B. Retirees		
1. Number	337	326
2. Total annual benefits	$13,689,736	$13,258,443
3. Average annual benefit	$40,622	$40,670
4. Average age	71.8	72.5
5. Benefit life expectancy	26.2	25.1
C. Disabilitants		
1. Number	48	47
2. Total annual benefits	$1,944,584	$1,903,799
3. Average annual benefit	$40,512	$40,506
4. Average age	68.9	69.8
5. Benefit life expectancy	28.7	29.2
D. Surviving spouses		
1. Number	161	155
2. Total annual benefits	$3,623,751	$3,445,678
3. Average annual benefit	$22,508	$22,230
4. Average age	78.2	77.7
5. Benefit life expectancy	16.1	16.4
E. Total number of members	570	551

Summary of Changes in Membership

	Actives	Retirees	Disabled	Spouses	Total
A. Number of members on January 1, 2010	24	337	48	161	570
B. Changes in membership					
1. Retirements	(1)	1			0
2. Vested terminations					0
3. Member deaths		(11)	(2)	6	(7)
4. Beneficiary deaths				(12)	(12)
5. Expiration of surviving child benefits					0
6. Separations due to disability					0
7. Change to disability payment status		(1)	1		0
8. Corrections					0
9. Total changes	(1)	(11)	(1)	(6)	(19)
C. Number of members on December 31, 2010	23	326	47	155	551

Historical Unit Values

	Effective Date	Contract Unit Values	Months Paid	Historical Rates for PRB: Annualized Unit Values	Annualized Salary	Dollar Increase	Annualized Increase	5-Year Average
1999	01/01/99	$64.9037	9.5	$65.5256	$62,905			
	10/15/99	67.8887	2.5					
2000	01/01/00	67.9408	9.5	68.3398	65,606	2,702	4.295%	
	10/15/00	69.8559	2.5					
2001	01/01/01	70.4249	9.5	70.8372	68,004	2,398	3.654%	
	10/15/01	72.4039	2.5					
2002	01/01/02	73.0107	9.5	73.3100	70,378	2,374	3.491%	
	10/15/02	74.4474	2.5					
2003	01/01/03	74.4474	9.5	74.6934	71,706	1,328	1.887%	
	10/15/03	75.6284	2.5					
2004	01/01/04	79.3547	9.5	79.3958	76,220	4,514	6.296%	3.925%
	10/15/04	79.5518	2.5					
2005	01/01/05	79.5518	6.0	80.6054	77,381	1,161	1.524%	3.370%
	07/01/05	80.9824	3.5					
	10/15/05	82.6062	2.5					
2006	01/01/06	82.6062	9.5	82.7200	79,411	2,030	2.623%	3.164%
	10/15/06	83.1522	2.5					
2007	01/01/07	83.1522	8.1	83.9441	80,586	1,175	1.480%	2.762%
	09/09/07	85.5889	3.9					
2008	01/01/08	85.8168	9.9	86.2654	82,815	2,228	2.765%	2.938%
	10/26/08	88.3800	2.1					
2009	01/01/09	88.3800	11.0	87.8750	84,360	1,545	1.866%	2.052%
	12/01/09	82.3200	1.0					
2010	01/01/10	82.3300	12.0	82.3300	79,037	(5,323)	-6.310%	0.485%
	10/15/10	82.3300	0.0					
2011	01/01/11	82.3300	12.0	82.3300	79,037	0	0.000%	-0.040%

The unit values as of December 1, 2009 and January 1, 2010 were determined by Rice, Michels and Walther based on the most recent union contract (expired December 31, 2010) and the November 20, 2009 court order.

Funding Basis

Actuarial Values Used to Determine Contribution

	December 31, 2009	December 31, 2010
A. Actuarial present value of projected benefits (the value of all future benefits to be paid to the current group of members)		
1. Active members	$18,163,342	$17,035,514
2. Vested terminated members	0	0
3. Retired members	176,730,983	167,017,555
4. Spouses and children receiving benefits	33,189,245	32,104,314
5. Disabled members receiving benefits	26,781,458	26,125,482
6. Total present value of projected benefits	254,865,028	242,282,865
B. Actuarial accrued liability (the cost allocated to all prior years)		
1. Active members	$17,615,807	$16,489,487
2. Vested terminated members	0	0
3. Retired members	176,730,983	167,017,555
4. Spouses and children receiving benefits	33,189,245	32,104,314
5. Disabled members receiving benefits	26,781,458	26,125,482
6. Total actuarial accrued liability	254,317,493	241,736,838
C. Amortization of unfunded actuarial accrued liability		
1. Total actuarial accrued liability (B.6.)	$254,317,493	$241,736,838
2. Actuarial value of assets	201,086,723	186,987,970
3. Unfunded actuarial accrued liability (1. - 2.)	53,230,770	54,748,868
4. Funded status (2. / 3.)	79.1%	77.4%
5. Amortization payment (see page 9)	6,489,724	6,684,906

D. Normal cost (the cost allocated to the current year)	December 31, 2009	December 31, 2010
1. Present value of future normal costs	$547,535	$546,027
2. Normal cost as a dollar amount		
a. Total normal cost	339,450	353,487
b. Statutory adjustment for member contributions	161,971	145,428
c. Employer normal cost (a. - b.)	177,479	208,059
3. Payroll for year ending on valuation date	2,024,640	1,817,846
4. Normal cost as a percent of active payroll		
a. Total normal cost	16.77%	19.45%
b. Statutory adjustment for member contributions	8.00%	8.00%
c. Employer normal cost (a. - b.)	8.77%	11.45%

Funding Basis

Amortization Schedule for the Required Contribution

Date Established	Date Payments Assumed to Commence	Original / Remaining Amortization Period*	Present Value December 31, 2010	Amortization Payment
12/31/2003	10/1/2005	15 / 9	38,187,534	$5,533,223
12/31/2004	10/1/2006	15 / 10	(24,473,185)	(3,277,035)
12/31/2005	10/1/2007	15 / 11	13,298,065	1,661,717
12/31/2006	10/1/2008	15 / 12	2,359,694	277,387
12/31/2007	10/1/2009	15 / 13	(12,634,285)	(1,406,531)
12/31/2008	10/1/2010	15 / 14	6,140,883	651,112
12/31/2009	10/1/2011	15 / 15	30,055,565	3,049,851
12/31/2010	10/1/2012	15 / 15	1,814,597	195,182
Total			54,748,868	6,684,906

* The amortization period is the lesser of 15 years and the benefit life expectancy for the fund. See Minn. Stat. §423C.15

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	$254,317,493
b. Normal cost as of December 31, 2009 (excluding expenses)	339,450
c. Interest to December 31, 2010 on the AAL and normal cost	15,279,417
d. Benefit payments for the year (excluding post-retirement benefits)	(19,010,406)
e. Interest on benefit payments (1/2 year)	(570,312)
f. Expected AAL on December 31, 2010 (sum of a. through e.)	250,355,642
2. Actual AAL on December 31, 2010	
a. Before any assumption or plan changes	251,314,702
b. After unit value changes	241,736,838
c. After assumption and unit value changes	241,736,838
d. After plan changes	241,736,838
3. Liability (gain) or loss	
a. Due to plan experience different from that expected (2.a. - 1.f.)	959,060
b. Due to change in unit value different from expected (2.b. - 2.a.)	(9,577,864)
c. Due to changes in actuarial assumptions (2.c. - 2.b.)	0
d. Due to plan changes (2.d. - 2.c.)	0
e. Total (a. + b. + c. + d.)	(8,618,804)
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	201,086,723
b. Actual benefit payments and expenses for the year (including post-ret benefits)	(21,096,762)
c. Contributions for the year	3,671,755
d. Expected return on assets	11,542,453
e. Expected actuarial value of assets on December 31, 2010 (sum of a. through d.)	195,204,169
2. Actual actuarial value of assets on December 31, 2010	186,987,970
3. Asset (gain) or loss (1e. - 2.)	8,216,199
C. Changes in the unfunded AAL	
1. Expected unfunded AAL on December 31, 2010	55,151,473
2. Changes	
a. Actuarial (gain) or loss other than change in unit value	9,175,259
b. Change in unit value different from expected	(9,577,864)
c. Changes in actuarial methods and assumptions	0
d. Total change	(402,605)
3. Unfunded AAL on December 31, 2010	54,748,868

Statement of Plan Net Assets as of December 31, 2010

	Book Value	Market Value
A. Union Bank and Trust Assets M01552		
1. Cash	(9,474)	(9,474)
2. Due from brokers	259,139	259,139
3. Accrued income	448,224	448,224
4. Short term investments	8,014,034	8,014,034
5. Fixed Income		
U.S. Treasury obligations	4,834,985	4,794,170
U.S. Government agencies	4,524,866	4,462,191
GNMA	331,689	330,498
Mortgage/asset backed obligations	9,702,866	10,234,892
Municipal obligations	200,000	186,926
Corporate bonds	11,621,772	12,415,920
Corporate bond funds	14,093,353	15,408,042
Foreign bonds, notes & debenture	799,296	823,200
Total bonds	46,108,827	48,655,840
5. Equities		
Common stock	78,051,061	94,954,348
Equity funds	19,374,765	21,027,804
Foreign stock	6,344,333	7,601,846
International equity funds	39,357,496	36,710,503
Total equities	143,127,656	160,294,501
6. Limited partnerships	0	0
7. Due to brokers	(932,645)	(932,645)
Total	**197,015,762**	**216,729,619**
B. Checking accounts (from trial balance)		
1. Petty cash	50	50
2. Bank-checking - Wells Fargo	25,135	25,135
3. Payroll bank account - Union Bank and Trust	436,159	436,159
Total	**461,344**	**461,344**
C. Accrued/payable		
1. Accrued contributions	0	0
2. Accounts receivable	54,768	54,768
3. Accounts payable	(1,261,138)	(1,261,138)
4. January 2011 payroll transfer	1,178,053	1,178,053
Total	**(28,317)**	**(28,317)**
D. Net assets for pension benefits (A. + B. + C.)	***197,448,789***	***217,162,646***

Statement of Changes in Plan Net Assets

	December 31, 2009	December 31, 2010
A. Additions		
1. Contributions		
a. State	2,285,077	2,293,859
b. City	1,837,448	1,377,896
c. Total	4,122,525	3,671,755
2. Investment income (net of expense)	46,260,784	23,349,855
3. Increase in accrual for January 2010 payroll transfer	1,324,572	0
4. Insurance proceeds for legal expense	474,655	271,495
5. Other	(149,747)	(196,449)
6. Total additions	52,032,789	27,096,656
B. Deductions		
1. Benefits paid		
a. Regular benefit payments	20,933,189	19,010,406
b. Post-retirement payments	0	1,049,605
c. Total	20,933,189	20,060,011
2. Administrative expenses*	1,118,281	1,036,751
3. Total deductions	22,051,470	21,096,762
C. Net increase	29,981,319	5,999,894
D. Net assets held in trust for pension benefits		
1. Beginning of year	181,181,433	211,162,752
2. End of year	211,162,752	217,162,646

*Does not include offset for insurance proceeds for legal expense (line A.4.)

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

December 31, 2010 Actuarial Valuation

Accounting Basis

Schedule of Funding Progress

(Dollar amounts in thousands)

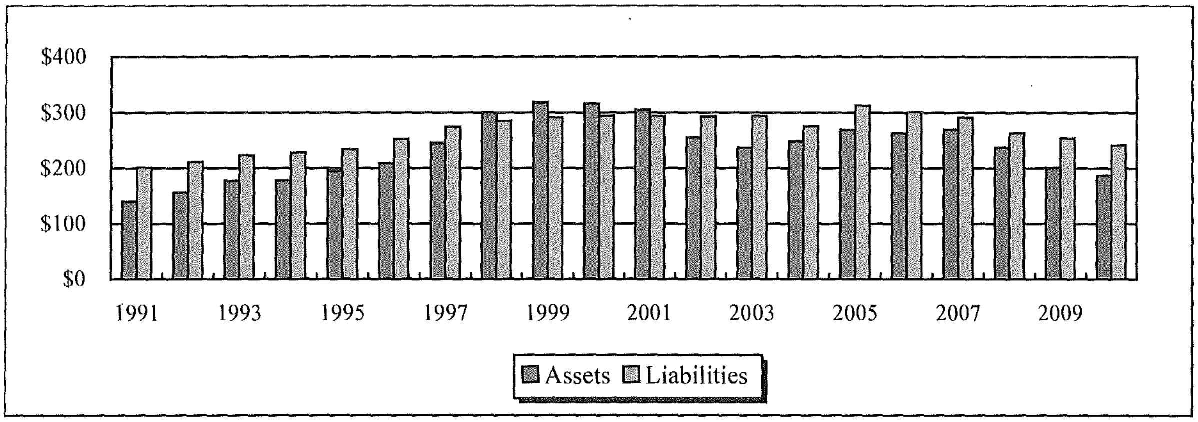
As of December 31:	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Projected Payroll**	UAAL as a % of Covered Payroll*
1988	$93,601	$188,014	$94,413	49.8%		
1989	110,092	192,264	82,172	57.3%		
1990	119,652	196,491	76,839	60.9%		
1991	139,891	201,461	61,570	69.4%	13,665	450.6%
1992	156,279	211,558	55,279	73.9%	13,614	406.0%
1993	177,529	223,357	45,828	79.5%	13,395	342.1%
1994	178,003	228,567	50,564	77.9%	13,073	386.8%
1995	194,611	234,386	39,775	83.0%	11,839	336.0%
1996	208,969	252,540	43,571	82.7%	12,298	354.3%
1997	245,306	274,030	28,724	89.5%	12,079	237.8%
1998	300,150	284,874	(15,276)	105.4%	11,357	-134.5%
1999	318,043	291,168	(26,875)	109.2%	10,039	-267.7%
2000	315,900	293,802	(22,098)	107.5%	7,054	-313.3%
2001	304,887	293,396	(11,491)	103.9%	5,888	-195.2%
2002	255,194	292,678	37,484	87.2%	5,540	676.6%
2003	236,991	293,955	56,964	80.6%	4,397	1295.5%
2004	248,546	275,513	26,967	90.2%	3,142	858.3%
2005	269,426	312,563	43,137	86.2%	2,933	1470.7%
2006	263,276	300,926	37,650	87.5%	2,489	1512.7%
2007	270,096	291,078	20,982	92.8%	2,236	938.4%
2008[1]	237,401	280,312	42,911	84.7%	2,325	1845.6%
2008[2]	237,401	263,389	25,988	90.1%	2,325	1117.8%
2009	201,087	254,317	53,231	79.1%	1,896	2807.5%
2010	186,988	241,737	54,749	77.4%	1,818	3011.5%

* This measure of funded status is meaningless for a closed group but is presented in order to meet the requirement of GASB No. 25.

**Projected payroll for the year following the valuation date (see page 5, line A.4.)

[1]As stated in original December 31, 2008 valuation report

[2]After court ordered change to unit values from restated December 31, 2008 report



Accounting Basis

Schedule of Employer Contributions

Year Ended December 31:	City Contributions	State Contributions	Total Employer Contributions
1995	-	-	$7,405,980
1996	-	-	6,328,580
1997	-	-	4,844,823
1998	-	-	3,541,518
1999	-	-	1,177,332
2000	-	-	1,938,365
2001	222,251	1,011,022	1,233,273
2002	3,920	1,024,112	1,028,032
2003	10,141	1,328,240	1,338,381
2004	859	2,146,934	2,147,792
2005	4,737,779	1,913,877	6,651,656
2006	1,348,855	1,221,161	2,570,016
2007	3,030,347	1,259,931	4,290,278
2008	3,336,852	1,413,297	4,750,149
2009	1,837,448	2,285,077	4,122,525
2010	1,377,896	2,293,859	3,671,755

Historical Tables

History of Actuarially Determined Employer Contributions

Valuation December 31:	Normal Cost as a Percent of Payroll	Amortization of Unfunded Actuarial Liability
1991	23.85%	$5,538,556
1992	23.90%	5,123,898
1993	23.98%	4,403,949
1994	23.99%	5,056,000
1995	23.94%	4,155,683
1996	23.91%	4,779,811
1997	23.88%	3,327,287
1998	23.66%	0
1999	24.07%	0
2000	22.71%	0
2001	22.11%	0
2002	21.74%	0*
2003	21.44%	5,533,223
2004	21.07%	2,256,188
2005	23.22%	3,917,905
2006	22.85%	4,195,292
2007	17.98%	2,788,761
2008[1]	20.21%	5,083,702
2008[2]	18.93%	3,439,873
2009	16.77%	6,489,724
2010	19.45%	6,684,906

*Minn. Stat. §423C.06(6) provides that the City is not required to fund a deficit until the funded ratio has been under 100% for two successive years.

[1]As stated in original December 31, 2008 valuation report
[2]After court ordered change to unit values from restated December 31, 2008 report

Historical Tables

Comparative Schedule of Active Members

Valuation December 31:	Number of Active Members	Projected Payroll	Averages Age	Averages Service	Averages Pay
1991	321	13,664,649	48.6	21.5	42,569
1992	309	13,614,231	49.2	22.2	44,059
1993	285	13,395,285	49.5	22.6	47,001
1994	267	13,073,121	50.2	23.2	48,963
1995	236	11,838,704	50.3	23.5	50,164
1996	220	12,297,560	50.8	24.1	55,898
1997	198	12,078,990	51.4	24.7	61,005
1998	179	11,356,611	51.2	24.5	63,445
1999	153	9,652,982	51.5	25.2	65,615
2000	104	6,782,803	52.0	25.8	67,828
2001	84	5,661,137	52.3	26.3	70,090
2002	76	5,326,859	53.2	27.1	72,894
2003	58	4,227,844	53.1	27.3	75,810
2004	42	3,020,755	53.7	28.1	74,800
2005	37	2,820,636	54.3	28.8	79,283
2006	31	2,393,623	54.8	29.2	80,302
2007	27	2,150,009	55.8	30.3	82,815
2008	27	2,235,940	57.8	32.3	86,125
2009	24	1,896,192	58.1	33.0	79,008
2010	23	1,817,846	59.1	34.1	79,037

Historical Tables

Comparative Schedule of Inactive Members

	Number of Retirees and Beneficiaries				
As of December 31:	Added to Rolls	Removed from Rolls	On Valuation Date	Annual Benefits	Present Value of Benefits
1990	24	22	557	$9,364,461	$115,174,188
1991	19	22	554	9,717,991	117,998,856
1992	34	24	564	10,418,854	125,708,460
1993	32	22	574	11,350,689	135,712,458
1994	32	31	575	12,845,678	143,862,253
1995	39	18	596	13,417,874	153,032,140
1996	27	27	596	14,091,016	166,750,488
1997	41	34	603	15,441,956	184,855,572
1998	20	12	611	16,759,837	200,745,351
1999	38	27	622	18,001,012	212,743,795
2000	62	34	653	19,610,997	240,364,062
2001	38	46	645	19,919,708	247,423,056
2002	16	27	634	20,451,109	248,173,771
2003	25	29	630	21,248,675	257,735,265
2004	32	41	621	20,598,079	250,231,783
2005	14	34	601	21,397,735	285,341,651
2006	32	41	592	21,263,032	277,685,171
2007	4	15	581	21,522,637	270,041,711
2008	0	18	563	21,181,491	243,265,606
2009	3	20	546	19,258,071	236,701,686
2010	1	19	528	18,607,920	225,247,351

Historical Tables

Pension Payment Index (PPI)

As of December 31:	Monthly Benefit "Payroll"	Actuarial Accrued Liability	Target PPI	Market Value of Assets	PPI Ratio
2006	$1,771,919	$300,925,513	169	$263,951,959	148
2007	1,793,553	291,077,981	162	274,954,486	153
2008	1,774,763	280,311,769	157	181,181,433	102
2009	1,604,839	254,317,493	158	211,162,752	131
2010	1,550,660	241,736,838	155	217,162,646	140

Actuarial Methods and Assumptions

1. Mortality	The 1983 GAM mortality table set forward 2 years for females.
2. Retirement Age	Active members are assumed to retire at the later of attaining age 57 or in one year.
3. Interest Rate	6% compounded annually.*
4. Unit value/Salary Scale	The annualized value of $82.33 as of December 31, 2010, with 4% annual increases.*
5. Actuarial Cost Method	The Entry Age Normal Cost Method. Under this method, the normal cost for an individual member is the level annual dollar amount 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. Actual spouse data is used for retirees. Where spouse birthdates are not on file, wives are assumed to be 3 years younger than husbands.

* 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 1.6/80 of base pay for each year of service up to 25 years. An additional 2 units are awarded for the 20th year of service, for a maximum of 42 units. Members may choose among alternative survivor payment forms (see 4. below) which modify the number of units payable to the member and their spouse. A member who is single at the time of retirement and who has at least 25 years of service may choose to receive 42.3 units on the condition of a reduced survivor payment to any future spouse. "Base pay" for this purpose means the maximum monthly salary of a first grade firefighter. Members must be at least age 50 with 5 years of service to receive this benefit.
2. Surviving Spouse's Benefit	Annual benefit of 22/80 of base pay for the surviving spouse of an active or retired member. Upon retirement, members may choose an alternate form of payment that provides 50%, 75% or 100% of their benefit to their spouse after their death. The 22 units are adjusted if one of these alternate forms is selected. Retiring members who are unmarried may elect an actuarial increase.
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 42/80 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.
5. Post-retirement Benefits	No liability was included for future post-retirement benefits 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.