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December 31, 1999 Actuarial Valuation

June, 2000



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December 31, 1999 Actuarial Valuation

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December 31, 1999 Actuarial Valuation

Introduction

<u>Purpose</u>

This report presents the results of the December 31, 1999 valuation and benefit study for the Fairmont Policemen's Relief Association. Its primary purposes are:

- to determine the funded status as of December 31, 1999,
- to determine the normal cost for 1999, and
- to present information required to be disclosed under General Accounting Standards Board Statement No. 25 (GASB 25) as of December 31, 1999.

Sources of Data

The Relief Association supplied December 31, 1999 data for all active and retired members and asset data for the special fund. We have relied on this data in preparing this report.

Changes from the Previous Valuation

The prior actuarial valuation of the plan was prepared as of December 31, 1998 by Gabriel, Roeder, Smith & Company. The actuarial assumptions and methods used to prepare this report are identical to those used in the 1998 report. This valuation also recognizes the new benefit provisions with regard to surviving spouses; benefits for spouses who had begun receiving payments before 1964 were raised to match current spouse benefits. This affected one individual and increased actuarial accrued liability by approximately \$278,000. These changes to the by-laws became effective on September 13, 1999.

Summary of Valuation Results

As of December 31, 1999, there are no active members, and the plan is closed to new members. Because of this, the normal cost for 1999 is zero. The funded status of the plan has risen from 93.0% on December 31, 1998 to 99.1% on December 31, 1999. Since the plan is not yet 100% funded, there is still an amortization payment requirement. The amount of the amortization payment has decreased from \$56,447 last year, to \$7,529 this year.

December 31, 1999 Actuarial Valuation

Introduction (continued)

Actuarial Certification

We certify that the actuarial valuation has been prepared in accordance with Minnesota Statutes §§356.20-.23 and §69.77 as they relate to local police department relief associations in general and the Fairmont Policemen's Relief Association in particular.

Respectfully submitted,

Mark Maye

Mark D. Meyer, FSA, MAAA Consulting Actuary

Paul D. Krueger, JD, EA Consulting Actuary

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December 31, 1999 Actuarial Valuation

Summary of Results

A. Plan participant data 1. Number of participants	December 31, 1998	December 31, 1999
 a. Active employees b. Terminated vested employees c. Retirees d. Spouses and children d. Total 	$\begin{array}{c} 2\\ 0\\ 10\\ \underline{4}\\ 16\end{array}$	0 0 12 <u>4</u> 16
<u>B. Normal costs</u> 1. Total normal cost	<u>1998 Plan Year</u>	1999 Plan Year
a. Amount b. Percentage of active payroll 2. Employer normal cost	\$43,849 37.21%	\$0 0.00%
a. Amount b. Percentage of active payroll	34,421 29.21%	0 0.00%
<i>C. Amortization payments</i> 1. Unfunded actuarial accrued liability 2. Amortization payment	480,501 56,447	61,045 7,529
 <u>D. Value of plan assets</u> 1. Market value 2. Actuarial value (for calculating contributions) 	<u>December 31, 1998</u> 6,947,227 6,354,701	<u>December 31, 1999</u> 7,081,591 7,113,030
<i>E. Benefit liabilities</i> 1. Present value of future benefits 2. Actuarial accrued liability	6,876,963 6,835,202	7,174,075 7,174,075
<i>F. Funded status</i> 1. Actuarial value of assets as a % of liabilities 2. Market value of assets as a % of liabilities	93.0% 101.6%	99.1% 98.7%

December 31, 1999 Actuarial Valuation

Funding Basis

Actuarial Value of Assets

A. Unrealized gain

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Year Ending	Market	Book	Unrealized Gain
December 31:	<u>Value</u>	Value	(Market - Book)
1998	6,947,227	6,058,438	888,789
1999	7,081,591	7,128,750	(47,159)

	December 31, 1998 Dec	ember 31, 1999
<u>B. Actuarial value of assets</u>		
1. Book value	6,058,438	7,128,750
2. One-third of unrealized gain	296,263	(15,720)
3. Actuarial value $(1. + 2.)$	\$6,354,701	\$7,113,030

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December 31, 1999 Actuarial Valuation

Summary of Member Data

A. Active members		
1. Number	2	0
a. Fully vested	2	0
b. Nonvested	$\frac{0}{2}$	<u>0</u>
c. Total		0
2. Average age	52.3	2
3. Average years of service	27.4	-
4. Total annual payroll for the year beginning on valuation date	\$117,841	-
5. Average annual salary	\$58,921	(T)
6. Present value of future salaries	\$0	()
<u>B. Vested terminated members</u>	<u>^</u>	<u>^</u>
1. Number	0	0
2. Total annual deferred benefits	\$0	\$0
C. Retirees		
1. Age & service	10	12
2. Disability	0	0
3. Total	10	12
4. Total annual benefits	\$286,579	\$373,108
5. Average annual benefit	\$28,658	\$31,092
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<u>D. Beneficiaries</u>		
1. Spouses	4	4
2. Children	4 0	4
3. Total	0 4	0 4
4. Total annual benefits	\$56,034	\$77,420
5. Average annual benefit	\$14,009	\$19,355
	1.6	1.6
<u>E. Total number of members (A.1. + B.1. + C.3. + D.3.)</u>	16	16



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December 31, 1999 Actuarial Valuation

Summary of Changes in Membership

	Actives	Vested Terminees	Retirees	Beneficiaries	Total
A. Number of members on December 31, 1998	2	0	10	4	16
<u>B. Changes in membership</u>					
1. Retirements	(2)		2		0
2. Vested terminations					0
3. Deaths					0
4. Expiration of surviving child benefits					0
5. Corrections					0
6. Total changes	(2)	0	2	0	0
C. Number of members on December 31, 1999	0	0	12	4	16

December 31, 1999 Actuarial Valuation

Funding Basis

Actuarial Values Used to Determine Contribution

	December 31, 1998	December 31, 1999
A. Actuarial present value of projected benefits (the value of all future be	nafite	
to be paid to the current group of members)	nejus	
1. Active members	\$1,458,639	\$0
2. Vested terminated members	\$1,458,059 0	0.
3. Retired members	4,864,380	6,334,148
4. Spouses and children receiving benefits	553,944	839,927
5. Disabled members receiving benefits	0	055,527
6. Total present value of projected benefits	6,876,963	7,174,075
o. Total present value of projected benefits	0,870,905	7,174,075
B. Actuarial accrued liability (the cost allocated to all prior years)		
1. Active members	\$1,416,878	\$0
2. Vested terminated members	0	0
3. Retired members	4,864,380	6,334,148
4. Spouses and children receiving benefits	553,944	839,927
5. Disabled members receiving benefits	0	0
6. Total actuarial accrued liability	6,835,202	7,174,075
C. Amortization of unfunded actuarial accrued liability		
1. Total actuarial accrued liability (A.7.)	\$6,835,202	\$7,174,075
2. Actuarial value of assets	6,354,701	7,113,030
3. Unfunded actuarial accrued liability (1 2.)	480,501	61,045
4. Funded status (2. / 3.)	93.0%	99.1%
5. Years left in amortization period	11	10
6. Amortization payment	56,447	7,529
D. Normal cost (the cost allocated to the current year)		
1. Present value of future normal costs	\$41,761	\$0
2. Normal cost as a dollar amount	ΨT1,701	φ0
a. Total normal cost	43,849	0
b. Expected member contributions	9,427	0
c. Employer normal cost (a b.)	34,421	0
3. Payroll for year ending on valuation date	117,841	0
4. Normal cost as a percent of active payroll	,	0
a. Total normal cost	37.21%	0.00%
b. Expected member contributions	8.00%	0.00%
c. Employer normal cost (a b.)	29.21%	0.00%

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December 31, 1999 Actuarial Valuation

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Accounting Basis

Statement of Plan Net Assets - Market Value

	December 31, 1998	December 31, 1999
<u>A. Assets</u>		
1. Cash	\$7,657	6,508
2. Short-term investments	0	0
3. Total	7,657	6,508
<u>B. Receivables</u>		
1. Accrued interest	\$13,709	\$9,017
2. Distributions	\$9,569	\$10,683
3. Accrued contributions	0	0
4. Total	23,278	19,700
<u>C. Accounts payable</u>	\$0	\$0
<u>D. Investments, at fair value</u>		
1. Daily passport trust	55,142	58,944
2. Mutual funds	2,623,726	3,055,450
3. Asset and mortgage backed securities	2,378,979	2,791,360
4. Unit trusts	809,026	502,262
5. Corporate bonds	389,232	200,235
6. Government securities	426,494	368,818
7. GNMA mortgage certificate	161,292	24,756
8. Limited partnerships	72,401	53,558
9. Total	6,916,292	7,055,383
E. Net assets held in trust for pension benefits	6,947,227	7,081,591

December 31, 1999 Actuarial Valuation

Accounting Basis

Statement of Changes in Plan Net Assets

December 31, 1998 December 31, 1999

A. Additions		
1. Contributions		
a. Employer	\$5,829	\$0
b. Plan members	8,011	1,467
c. Total	13,840	1,467
2. Investment income	708,163	509,128
a. Interest and dividends	519,150	556,309
b. Partnership income	5,807	6,782
c. Realized gain (loss)	2,184	96,275
d. Change in unrealized appreciation (depreciation)	181,022	(95,190)
e. Total	708,163	564,176
3. Total additions	722,003	565,643
B. Deductions		
1. Service pensions	260,812	331,027
2. Survivors pensions	43,129	60,730
3. Distributions to members	8,129	11,098
4. Professional services	17,545	22,277
5. Salaries	4,604	3,123
6. Other expenses	2,209	3,024
7. Total deductions	336,428	431,279
C. Net increase	385,575	134,364
D. Adjustments	52,002	0
<i>E. Net assets held in special fund</i> 1. Beginning of year	\$6,509,650	\$6,947,227
2. End of year	\$6,947,227	\$7,081,591



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Accounting Basis

Schedule of Funding Progress

(Dollar amounts in thousands)

As of December 31:	Actuarial Value of <u>Assets</u>	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded <u>Ratio</u>	Covered Payroll	UAAL as a % of Covered <u>Payroll</u>
1992	\$4,179	\$5,952	\$1,773	70.2%	\$218	813.3%
1993	4,570	5,781	1,211	79.1%	223	543.0%
1994	4,828	5,987	1,159	80.6%	243	477.0%
1995	5,274	6,066	792	86.9%	200	396.0%
1996	5,808	6,179	371	94.0%	210	176.7%
1997	6,516	6,164	(352)	105.7%	163	-216.0%
1998	6,355	6,835	480	93.0%	118	407.0%
1999	7,113	7,174	61	99.1%	- 1	-

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December 31, 1999 Actuarial Valuation

Accounting Basis

Schedule of Employer Contributions

Year Ended	Annual Employer
December 31:	<u>Contributions</u>
1992	\$286,563
1993	243,556
1994	243,726
1995	208,626
1996	163,177
1997	257,828
1998	5,829
1999	0

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Historical Tables

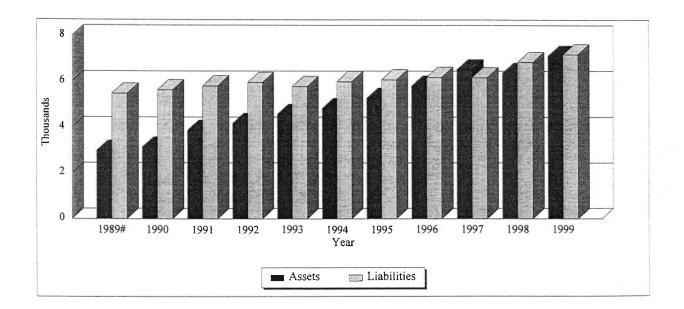
Historical Funding Ratio Schedule

(Dollar amounts in thousands)

As of December 31:	Actuarial Accrued <u>Liability</u>	Actuarial Value of <u>Assets</u>	Percent Funded
19 8 9#	\$5,474	\$2,981	54.5%
1990	5,627	3,137	55.7%
1991	5,803	3,874	66.8%
1992	5,952	4,179	70.2%
1993	5,781	4,570	79.1%
1994	5,987	4,828	80.6%
1995	6,066	5,274	86.9%
1996	6,179	5,808	94.0%
1997	6,164	6,516	105.7%
1998	6,835	6,355	93.0%
1 999	7,174	7,113	99.1%

#After court ruling on definition of prevailing pay.

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December 31, 1999 Actuarial Valuation

Historical Tables

History of Employer Contributions

Valuation December 31:	Normal Cost as a Percent <u>of Payroll</u>	Amortization of Unfunded Actuarial <u>Liability</u>
1989	36.55%	\$195,178
1990	36.40%	201,066
1991	36.26%	161,011
1992	35.13%	153,456
1993	35.13%	109,085
1994	35.24%	108,913
1995	35.51%	78,140
1996	35.54%	38,541
1997	36.49%	0
1 998	37.21%	56,447
1999	~	7,529

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December 31, 1999 Actuarial Valuation

Historical Tables

Comparative Schedule of Active Members

Valuation	Number of Active	Valuation		Averages		
December 31:	Members	Payroll	Age	Service	<u>Pay</u>	% Increase
1989	6	\$238,546	44.5	18.8	\$39,758	36.6%
1990	6	246,839	45.5	19.8	41,140	3.5%
1991	6	254,243	46.5	20.8	42,374	3.0%
1992	5	217,830	46.8	21.9	43,566	2.8%
1993	5	223,316	47.8	22.9	44,663	2.5%
1994	5	243,049	48.8	23.9	48,610	8.8%
1995	4	199,651	49.5	24.5	49,913	2.7%
1996	4	209,607	50.5	25.5	52,402	5.0%
1997	3	163,423	51.0	25.5	54,474	4.0%
1998	2	117,841	52.5	27.4	58,921	8.2%
1999	0	-	-	3 1	-	-

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December 31, 1999 Actuarial Valuation

Historical Tables

Comparative Schedule of Inactive Members

	Number of Retirees and Beneficiaries				
As of	Added	Removed	On Valuation	Annual	Present Value
December 31:	<u>to Rolls</u>	from Rolls	Date	Benefits	of Benefits
1 989	0	0	14	\$245,520	\$3,553,860
1990	0	0	14	252,417	3,526,812
1991	0	0	14	261,491	3,521,472
1992	1	0	15	287,546	3,944,772
1993	0	2	13	250,879	3,611,904
1994	0	1	12	242,682	3,504,876
1995	2	1	13	264,009	3,954,504
1996	0	1	12	262,615	3,848,304
1997	2	1	13	286,633	4,302,888
1 998	1	0	14	342,613	5,418,324
1 999	2	0	16	444,729	7,174,075

December 31, 1999 Actuarial Valuation

Actuarial Methods and Assumptions

1. Mortality The UP-1984 Mortality Table set forward 2 years for males and set back 3 years for females. 2. Withdrawal, disability, As of December 31, 1999, there are no active members, retirement age and the plan is closed to new members. 3. Interest rate 5% compounded annually. 4. Cost-of-living adjustment 3.5% annually. Benefits for members retiring as lieutenants remain level until they equal the benefits of a first class patrolman. 5. Actuarial cost method The Entry Age Normal Cost Method. Under this method, the normal cost for an individual member is the level

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. There is no normal cost for a member or beneficiary in pay status. The actuarial accrued liability is the accumulated value of these annual normal costs on a given date. For members or beneficiaries receiving monthly benefits, the accrued liability is the present value of future benefit payments. The normal cost and accrued liability for the plan is the total of these values for all members.

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Summary of Plan Provisions

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1. Normal Retirement Benefit	Members with 20 years of service receive 50% of base pay. Service years in excess of 20 receive an additional 2% of base pay to a maximum of 60% at 25 years. Benefit is payable on retirement after attainment of age 50 and completion of 20 years of service. No credit for service beyond age 55. Base pay is the prevailing pay of a first class patrolman. For members retiring as lieutenants, the retirement is based on lieutenant pay, but not adjusted for base pay increases until it equals base pay of a first class patrolman.
2. Deferred Vested Benefit	Annual benefit equal to the accrued normal retirement benefit, deferred to age 50 for members with at least 20 years of service.
3. Disability Benefit	On termination due to disability to the extent of being unable to perform duties of a police officer before becoming eligible for age & service retirement. Benefit amount is 50% of base pay.
4. Surviving Spouse's Benefit	Annual benefit equal to 35% of base pay. If surviving spouse married member after retirement, marriage must have occurred at least five years before member's death.
5. Surviving Children's Benefit	Annual benefit equal to 6.25% of base pay per child, up to a maximum benefit of 25% of base pay if spouse is receiving benefits, or 50% if no spouse. Children are eligible until attainment of age 18.
6. Member Contributions	Members are required to contribute 8% of base pay per month until separation from service. Contributions are refundable, without interest, upon termination without benefit eligibility.



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Retirement planning for corporations

June 29, 2000

Office of the State Auditor 525 Park Street, Suite 400 St. Paul, MN 55103

Larry Martin Director, Legislative Pension Commission Room 55, State Office Building St. Paul, MN 55155

Commissioner Pamela Wheelock Minnesota Department of Finance 638 Cedar Street St. Paul, MN 55155

Legislative Reference Library **ATTN: Acquisitions Department** 645 State Office Building St. Paul, MN 55155-1050

Re: 12/31/99 Actuarial Valuation Report - Fairmont Policemen's Relief Association

We have enclosed for filing one copy of the December 31, 1999 actuarial valuation report for the Fairmont Policemen's Relief Association. Please inform us if you have any questions regarding the report or need additional copies.

Sincerely,

Paul D. Krueger, JD, EA **Consulting Actuary**

Harley Rosenberg - Fairmont Policemen's Relief Association c:

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